Florida Department of TRANSPORTATION

PAVEMENT SURVEY AND EVALUATION REPORT

FINANCIAL PROJECT NUMBER: 432453-1

STATE ROAD 400 (I-4)

SR 400 (I-4) From SR 528 (Beachline Expressway) to West of SR 435 (Kirkman Road)

Section #: 75280; MP 6.018 – 9.249 (Eastbound)
Section #: 75280; MP 6.018 – 8.282 (Westbound)

Orange County

May 30, 2014

PREPARED BY:

William A. Wall
Pavement Rehabilitation Specialist

APPROVED BY:

5/30/14
Rafael M. Rodriguez, P.E.
District 5 Materials & Research Office
PE Number 68482

EXECUTIVE SUMMARY

FPN 432453-1; SR 400 (I-4)
Section # 75280; MP 6.018 – 9.249 (Eastbound)
Section # 75280; MP 6.018 – 8.282 (Westbound)

REHABILITATION RECOMMENDATIONS

Eastbound Mainline Lanes (R1 and R2):
MP 6.018-MP 9.249
We recommend that 2.75 inches of milling be performed to provide long-term pavement preservation of the existing pavement. This will remove the majority of all cracks and friction course raveling.

Eastbound Mainline Lane (R3, R4 and R5):
MP 6.018-MP 9.249
We recommend that 3.75 inches of milling be performed to provide long-term pavement preservation of the existing pavement. This will remove all cracks and friction course raveling.

Westbound Mainline Lanes (L1 and L2):
MP 6.018-MP 8.282
We recommend that 2.75 inches of milling be performed to provide long-term pavement preservation of the existing pavement. This will remove the majority of all cracks and friction course raveling.

Westbound Mainline Lane (L3 and L4):
MP 6.018-MP 8.282
We recommend that 3.75 inches of milling be performed to provide long-term pavement preservation of the existing pavement. This will remove most of the cracks and all of the friction course raveling.

Inside and Outside Paved Shoulders (IL, IR, OL and OR):
MP 6.018-MP 9.249 (Eastbound)
MP 6.018-MP 8.282 (Westbound)
We recommend that 2.00 inches of milling be performed to replace degraded structural course and provide long-term pavement preservation of the existing shoulders.

Ramps at the Interchange of SR 528 (Beachline Expressway) with SR 400: (75471-114, 75471-200, and 75471-201)
We recommend a minimal milling scheme of 2.25 inches for the ramps and 1.5 inches of milling for the paved shoulders at each ramp. This will remove deteriorated and oxidized pavement.

There is a project (FPN 406090-5) scheduled to be let by the Florida Turnpike on SR 528 (Beachline Expressway) in Section 75471 from MP 0.000 to MP 4.300 in July 2015. It is to widen SR 528 from 4 lanes to 6 lanes. This project may overlap with this project on the ramps. The FDOT Project Manager is Mr. Dan Kelly.

Ramps at the Interchange of SR 482 (Sand Lake Road) with SR 400: (75280-086, and 75280-088)
We recommend a milling scheme of 2.75 inches for the ramps and 2.0 inches of milling for the paved shoulders at each ramp. This will remove most of the cracking and all deteriorated surface pavement.

Base exposure may occur at the following core locations:

Core Number	Milepost	Lane	Core Number	Milepost	Lane
2	7.993	IL	40	8.443	OR
18	9.393	IR	42	8.692	OR
20	8.943	IL	48	Ramp 201	Shoulder
32	7.593	OL	38	7.230	R3

It is recommended that the Designer make provisions for Maintenance of Traffic and protection of base due to thin pavement and paved shoulders. The following plans note should be added to the typical sections as appropriate:

"During milling operations, base exposure will occur at certain locations. The contractor is responsible for protection of the base and Maintenance of Traffic."

PAVEMENT SURVEY AND EVALUATION REPORT

STATE ROAD 400 (I-4)
From SR 528 (Beachline Expressway) to West of SR 435 (Kirkman Road)

INTRODUCTION

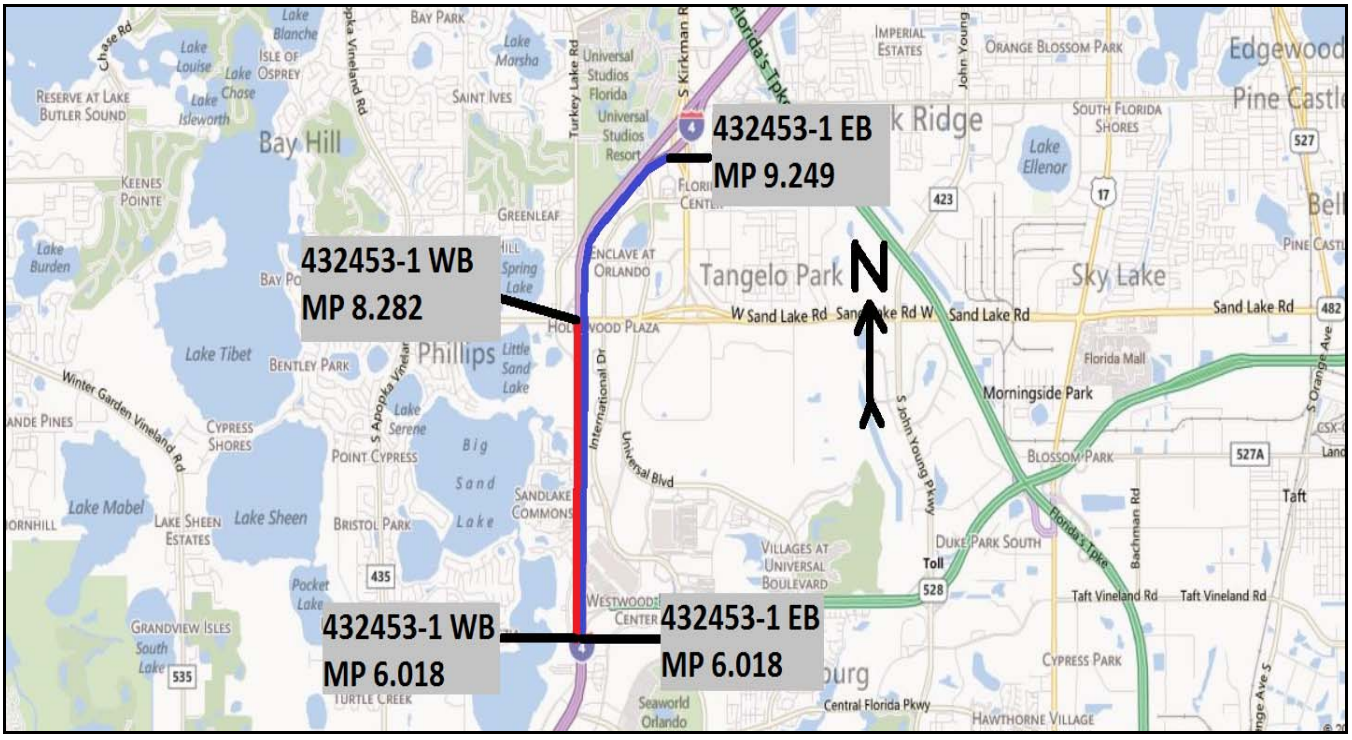
This report presents an analysis of information collected during the above-referenced Pavement Survey and Evaluation (PSE) report. The proposed resurfacing project starts at the interchange of SR 400 (I-4) with SR 528/Beachline Expressway (MP 6.018) in Orlando, Florida in Orange County going eastwards to the interchange with SR 482/Sand Lake Road in the westbound lane and west of the interchange with SR 435/Kirkman Road in the eastbound lanes. This project involves resurfacing of the mainline lanes and paved shoulders of I-4 along with selected access ramps.

Financial Project Number 405515-1-52-01: This design/build project was from MP 2.655 to MP 6.197 and consisted of resurfacing the existing 6 mainline lanes and paved shoulders. New lane widening was done in certain locations to provide continuous auxiliary lanes in both directions. The project was accepted on April 8, 2003.

Financial Project Numbers 410732-1-52-01 and 242444-2-52-01: These design/build projects were from MP 6.382 to MP 8.065 and consisted of resurfacing the existing 6 mainline lanes and paved shoulders. New lane widening was done in certain locations to provide continuous auxiliary lanes in both directions. The project was accepted on October 11, 2003.

State Project Number 75280-3462 (Financial Project Number 242427-1-52-01): This project involved the reconstruction of the interchange at Sand Lake Road (SR 482) from MP 7.455 to MP 9.087. The project was accepted on December 31, 1992.

LOCATION MAP



CORING INFORMATION

Elipsis Engineering & Consulting, LLC performed coring at an interval of approximately two per lane mile on each travel lane, and two per lane mile for the inside and outside shoulders. Cores were not taken in the L2/R2 middle lanes due to safety and traffic concerns. The ramps selected for resurfacing each had one core taken from the ramp pavement and one from its shoulder. Additional cores were taken where conditions warranted. The signed and sealed pavement core sheets (dated March 27, 2014) are included in the Appendix. A total of 54 core samples (23 mainline lanes, 21 from inside/outside paved shoulders, 5 from ramps and 5 from ramp shoulders) were collected from the subject roadway. In addition, approaches for bridges 759335 and 759336 at the interchange of SR 400 (I-4) and SR 482 (Sand Lake Road) had a total of 8 locations drilled to determine asphalt thicknesses at the approaches. The average depth was 3.2 inches with a range from 2.5 to 4.5 inches.

Two other approaches on Ramp 200 and Ramp 201 on bridge overpasses to SR 528 over I-4 were also drilled for depth. They had an average depth of 2.5 inches with a range from 2.2 to 2.8 inches

The core photo directory is included in the Appendix for further review. The following tables show the types of material, average material thickness, layer thickness ranges, and total average pavement thickness along with a min-max range for the different sections of the subject roadway. A chart has been placed in the Appendix to reference the location of each segment within the project limits.

- Of the 23 cores taken from the mainline lanes, 4 (18%) were cracked full depth to the base.
- Of the 21 cores taken from inside/outside paved shoulders, 3 (14%) were cracked. 2 cores (67%) were cracked full depth to the base. The other core (33%) was cracked to a depth of 0.6 inches.
- Of the 5 cores taken from the ramps, none were cracked.
- Of the 5 cores taken from the ramp shoulders, one core (20%) was cracked to a depth of 1.8 inches.

SECTION 75280: SR400 (I-4) **Original Pavement**
MP 6.018-MP 7.862 (L2, L1, R1, R2)
MP 8.600-MP 8.850 (R1 and R2)
MP 8.850-MP 9.249 (R2 and R3)

SEGMENT 1

Type of Material (by layer)	Avg. Layer Thickness (in.)	Layer Thickness Range (in.)
FC-5	0.8	0.6 to 0.9
Type SP	1.3	1.0 to 1.8
Type S	2.0	1.5 to 2.8
Type I	3.2	1.7 to 4.5
Binder Course	2.1	1.8 to 2.3
Limerock Base	9.7	9.2 to 10.2
Pavement Thickness:	9.4	7.8 to 11.3

SECTION 75280: SR400 (I-4) Reconstructed Pavement at the Sand Lake Road Interchange
MP 7.862-MP 8.282 (L3, L2, L1, R1, R2, R3)

SEGMENT 2

Type of Material (by layer)	Avg. Layer Thickness (in.)	Layer Thickness Range (in.)
FC-5	0.8	0.3 to 1.3
Type SP	1.1	0.7 to 1.5
Type S	3.1	2.4 to 4.1
Limerock Base	13.6	12.5 to 15.6
Pavement Thickness:	5.1	3.9 to 6.3

SECTION 75280: SR400 (I-4) Lane Widening Pavement
MP 6.018-MP 7.682 (L3, R3, Aux. L4, Aux. R4)
MP 8.600-MP 8.850 (R3, Aux. R4)
MP 8.850-MP 9.249 (R1)

SEGMENT 3

Type of Material (by layer)	Avg. Layer Thickness (in.)	Layer Thickness Range (in.)
FC-5	0.8	0.4 to 1.1
Type SP/Type S	4.3	3.1 to 6.1
Limerock Base	10.6	9.5 to 13.8
Pavement Thickness:	5.1	4.0 to 7.1

Exceptions:
1) Core #43 (MP 9.142/R4) has 2.4 inches of structural and friction course asphalt and 15.1 inches of Asphalt Base Course. It is an outlier.
2) Core #35 (MP 6.119/L3) has a 7.1 inch thick layer of Type S. It is an outlier.
Notes:
3) Core #19 (MP 8.943/R1) has FC-2 as a friction course instead of FC-5.
4) Core #21 (MP 6.269/R3) has a Limerock depth of only 7.9 inches. It was not used for calculating the base average or range.

SECTION 75280: SR400 (I-4) Inside and Outside Paved Shoulders
(IL, IR, OL and OR)
MP 6.018-MP 8.282 (OL)
MP 6.018-MP 6.726 (IL and IR)
MP 7.862-MP 8.282 (IL)
MP 6.018-MP 9.249 (OR)
MP 7.862-MP 9.249 (IR)

SEGMENT 4

Type of Material (by layer)	Avg. Layer Thickness (in.)	Layer Thickness Range (in.)
Type SP/Type S	2.5	0.8 to 4.8
Limerock Base	6.7	3.7 to 12.2
Pavement Thickness:	2.5	0.8 to 4.8

Exceptions:
5) Core #32 (MP 7.593/OL) has only 1.2 inches of Limerock Base. It is an outlier.
Notes:
6) Cores # 24 (MP 6.667/OR), #44 (MP 9.142/OR) and #28 (MP 8.118/OR) have Asphalt Base Course instead of Limerock Base. They were not used for calculating the base average or range.

SECTION 75280: SR400 (I-4) Inside Paved Shoulders with Overlaid FC-2
MP 6.726-7.862 (IL and IR)

SEGMENT 5

Type of Material (by layer)	Avg. Layer Thickness (in.)	Layer Thickness Range (in.)
Type SP	1.1	1.0 to 1.2
Newer Type S	1.0	0.5 to 1.3
Overlaid FC-2	0.5	0.3 to 0.7
Older Type S	1.3	1.0 to 1.5
Limerock Base	7.1	6.4 to 7.8
Pavement Thickness:	3.7	2.9 to 4.4

Notes:

7) Cores # 16 (MP 7.794/IR) does not have a layer of newer Type S in its composition.

SECTION 75280: SR400 (I-4) Ramp Pavement
75280-086: I-4 Eastbound to SR 482 Eastbound
75280-088: SR 482 Westbound to I-4 Eastbound
75471-114: SR 528 Westbound to I-4 Eastbound
75471-200: I-4 Westbound to SR 528 Eastbound
75471-201: SR 528 Westbound to I-4 Westbound

Type of Material (by layer)	Avg. Layer Thickness (in.)	Layer Thickness Range (in.)
FC-5	0.9	0.8 to 1.5
Type SP	1.1	0.9 to 1.2
Type S	2.4	1.3 to 3.5
Limerock Base	11.9	10.2 to 13.5
Pavement Thickness:	4.2	3.0 to 5.2

Notes:

8) Core #51 (Ramp 86) does not have Type SP in its composition.

9) Core #49 (Ramp 114) has only a 4.0 inch thick limerock base. This was not used for base calculations.

SECTION 75280: SR400 (I-4) Ramp Outside Paved Shoulders
75471-114: SR 528 Westbound to I-4 Eastbound
75471-200: I-4 Westbound to SR 528 Eastbound
75471-201: SR 528 Westbound to I-4 Westbound

Type of Material (by layer)	Avg. Layer Thickness (in.)	Layer Thickness Range (in.)
Type SP	1.3	0.9 to 1.8
Limerock Base	4.0	3.5 to 4.6
Pavement Thickness:	1.6	0.9 to 2.1

Notes:

10) Core #50 (Ramp 114) has both Type SP and Type S in its composition.

SECTION 75280: SR400 (I-4) Ramp Outside Paved Shoulders 75280-086: I-4 Eastbound to SR 482 Eastbound 75280-088: SR 482 Westbound to I-4 Eastbound		
Type of Material (by layer)	Avg. Layer Thickness (in.)	Layer Thickness Range (in.)
Type S	3.0	3.0 to 3.0
Limerock Base	6.3	6.0 to 6.5
Pavement Thickness:	3.0	3.0 to 3.0

ROADWAY SURFACE CONDITION

A roadway surface condition survey was performed initially on January 10, 2014. The follow-up survey was done on February 21, 2014.

SEGMENT: Eastbound Lanes

From MP 6.018 to MP 8.264, the inside R1 passing and R2 middle lanes are in fair condition with shallow open-graded friction course cracking, minor asphalt flushing and minor raveling. The R3 travel lane is in poor condition. There is moderate raveling of the friction course in the wheelpaths. MPSV data shows the R3 lane in this area is thinner than the R1 and R2 lanes with an average thickness of 6.6 inches with a range of 5.0 to 7.7 inches from MP 6.850 to MP 7.486. In this location there are a series of severe alligator cracks and moderate raveling in the outside wheelpath. There are also two moderate to severe longitudinal Class II/III cracks at the pavement joints between the R2 to R3 lane, and from the R3 lane to the R4 lane. The R4 auxiliary lane is in fair condition, with pavement distresses similar to the R1 and R2 lanes.

From MP 8.282 (Sand Lake Interchange) to MP 8.844 the eastbound R1, R2, and R3 lanes were resurfaced with a granite-based FC-5 friction course at some point in 2006-2007. The condition of the friction course is fair; however, there is reflective cracking from older asphalt layers coming to the surface of the roadway.

From MP 8.540 to MP 8.844 there are two auxiliary lanes in fair condition coming from the Sand Lake Interchange with I-4. The R4 and R5 lanes have a different aggregate type and content than the rest of the other travel lanes.

From MP 8.844 to MP 9.249, the roadway has not been resurfaced since 1992. This much older pavement has moderate to severe raveling, and branch cracking in all lanes.

SEGMENT: Westbound Lanes

The westbound mainline lanes from MP 6.018 to MP 8.264 are in fair to poor condition. The inside L1 passing and L2 middle lanes are in fair condition with minor asphalt flushing and minor raveling. The L3 and L4 travel lanes are in poor condition. In the L3 and L4 lanes there is moderate raveling of the friction course and in the wheelpaths. There are also continuous moderate to severe longitudinal Class II/III cracks with moderate raveling at the pavement joints between the L3 and L4 lanes. Some of these longitudinal cracks are in the L3 lane, with others in the L4 lane.

SEGMENT: Inside and Outside Paved Shoulders

The inside paved shoulders from MP 6.018 to MP 8.264 eastbound/westbound and from MP 8.282 to MP 9.249 eastbound are in fair condition with few distresses. The inside shoulders have a negative cross-slope draining inward towards the center grass median.

The outside paved shoulders from MP 6.482 to MP 8.264 eastbound/westbound and from MP 8.282 to MP 9.249 eastbound are in fair condition with isolated branch cracking, minor rippling, burn marks from automobile fires, and deteriorated structural asphalt.

SEGMENT: Approaches to Bridge Numbers 759335 and 759336:

The approaches to bridges 759335 and 759336 are in fair condition with light to moderate branch cracking across all lanes. The lanes are only patched on the R3/L3 lanes. The conditions of these approaches do not require deep rehabilitation.
The approaches to the bridges over SR 482 (Sand Lake Road) were drilled to determine their asphalt thickness. The average asphalt overlay on the approaches was 3.2 inches in depth with a range from 2.5 to 4.5 inches.

SEGMENT: Ramps at 528 (Beachline Expressway) and SR 482 (Sand Lake Road)

Ramps at the Interchange of SR 528 (Beachline Expressway) with SR 400 (I-4)
75471-114: SR 528 Westbound to I-4 Eastbound
75471-200: I-4 Westbound to SR 528 Eastbound
75471-201: SR 528 Westbound to I-4 Westbound

Ramps at the Interchange of SR 482 (Sand Lake Road) with SR 400 (I-4)
75280-086: I-4 Eastbound to SR 482 Eastbound
75280-088: SR 482 Eastbound to I-4 Eastbound

These ramps are all in fair condition. There is minor Class I surface cracking of the open-graded friction course along with minor rippling in the center of the ramp lanes. There are locations of isolated pop-out raveling of the friction course that has begun to occur. This is expected to worsen over time between now and the time of resurfacing. The paved shoulders on these ramps are in fair condition with minimal cracking or other pavement distress.

Two ramps are on bridge overpasses (75471-200 and 75471-201) that cross I-4. The approaches on those overpasses were drilled for depth. They had an average asphalt overlay of 2.5 inches with a range from 2.2 to 2.8 inches

There is a project (FPN 406090-5) scheduled to be let by the Florida Turnpike on SR 528 (Beachline Expressway) in Section 75471 from MP 0.000 to MP 4.300 in July 2015. It is to widen SR 528 from 4 lanes to 6 lanes. This project may overlap with this project on Ramps 75741-114, 75741-200, and 75741-201. Please contact Turnpike Enterprise Project Management (FDOT Manager, Mr. Dan Kelly) for details.

CROSS SLOPE AND RUT DEPTH DATA

Cross slope and rut depth data were collected on the mainline lanes with the use of State Materials Office's Multi-Purpose Survey Vehicle (MPSV). This vehicle uses laser sensors, which are specifically positioned across the width of the test vehicle to measure the cross-slope and rutting. Rut depths and tangent cross slope information for the subject roadway are summarized as follows:

RUTTING:

MP 6.018 to MP 8.282								
Rut	L4	L3	L2	L1	R1	R2	R3	R4
Average (inches)	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
Std. Deviation	0.06	0.06	0.05	0.03	0.04	0.03	0.07	0.05
Range (inches)	0.1 to 0.3	0.0 to 0.3	0.0 to 0.3	0.0 to 0.3	0.0 to 0.2	0.0 to 0.2	0.0 to 0.5	0.0 to 0.3

Note: L4 westbound is between MP 6.558 to MP 8.282. R4 eastbound is between MP 6.539 to MP 7.960.

MP 8.282 to MP 9.249				
Rut	R1	R2	R3	R4
Average (inches)	0.1	0.1	0.1	0.1
Std. Deviation	0.04	0.07	0.04	0.05
Range (inches)	0.0 to 0.2	0.0 to 0.2	0.1 to 0.2	0.0 to 0.3

. R4 eastbound is between MP 8.623 to MP 9.249.

The pavement does not exhibit severe rutting greater than 0.5 inches.

CROSS-SLOPE

The pavement along this project is a six lane standard profile and auxiliary lanes, with the crown in the median. MPSV data was used for the mainline travel lanes.

Westbound:

MP 6.018 to MP 6.549				
Tangent	**L4**	**L3**	**L2**	**L1**
Average		3.0	2.5	1.9
Std. Deviation		0.49	0.43	0.45
Range		1.8 to 3.8	1.8 to 3.6	1.1 to 3.2

Transition: None

MP 6.549 to MP 8.225				
Tangent	**L4**	**L2**	**L1**	**R1**
Average	3.0	3.3	2.3	2.1
Std. Deviation	0.41	0.22	0.22	0.32
Range	1.2 to 4.9	2.0 to 3.9	1.9 to 3.0	1.2 to 3.5

Transition: None

MP 8.225 to MP 8.282				
Tangent	**L4**	**L3**	**L2**	**L1**
Average	2.5	1.8	1.7	2.1
Std. Deviation	0.52	0.64	0.18	0.40
Range	1.9 to 3.9	1.8 to 3.9	2.0 to 2.7	1.8 to 3.4

Transition: End of Project

Eastbound:

MP 6.018 to MP 6.530				
Tangent	**R1**	**R2**	**R3**	**R4**
Average	1.9	2.3	2.8	
Std. Deviation	0.35	0.33	0.62	
Range	1.1 to 2.9	1.7 to 2.9	1.2 to 3.6	

Transition: None

MP 6.530 to MP 7.960				
Tangent	**R1**	**R2**	**R3**	**R4**
Average	2.0	2.0	3.2	3.3
Std. Deviation	0.24	0.20	0.37	0.30
Range	1.2 to 2.6	1.5 to 2.5	2.5 to 4.4	2.6 to 4.9

Transition: None

MP 7.960 to MP 8.547				
Tangent	**R1**	**R2**	**R3**	**R4**
Average	1.9	2.3	2.6	
Std. Deviation	0.30	0.24	0.58	
Range	1.2 to 2.5	1.6 to 3.0	1.4 to 3.5	

Transition: MP 8.547 to MP 8.613

MP 8.613 to MP 9.001				
Curves Right	**R1**	**R2**	**R3**	**R4**
Average	5.6	5.6	5.9	5.6
Std. Deviation	0.60	0.57	0.50	0.60
Range	3.8 to 6.7	4.8 to 7.0	4.4 to 6.8	4.5 to 6.6

Transition: MP 9.001 to MP 9.058

MP 9.058 to MP 9.249				
Tangent	**R1**	**R2**	**R3**	**R4**
Average	0.5	2.0	2.2	2.7
Std. Deviation	0.24	0.20	0.26	0.23
Range	-0.1 to 0.9	1.7 to 2.5	1.7 to 2.7	2.2 to 3.0

Transition: End of Project

Rut and cross-slope data for each ramp to be resurfaced can be found in the Pavement Evaluation Core Data (PECD) sheets found in the Appendix.

The Designer should plan for additional survey in areas of suspected cross slope irregularities, especially in areas with extreme low or high cross-slope values, to verify the data provided by the MPSV. Rut depth and cross slope information for all individual core locations are provided in the "Pavement Evaluation and Condition Data" sheets in the Appendix. In addition, the MPSV data is available in the Appendix for review

RESILIENT MODULUS

The State Materials Office performed Falling Weight Deflection (FWD) testing for the entire length of the project. A copy of the report, dated January 8, 2014, along with the plot graphs are included in the Appendix.

MP 5.971 - 7.850 Eastbound & Westbound: Recommended Resilient Modulus of 17,000 psi (117 MPa)
MP 7.850 - 8.800 Eastbound & Westbound: Recommended Resilient Modulus of 21,000 psi (145 MPa)
MP 8.800 - 9.235 Eastbound: Recommended Resilient Modulus of 26,000 psi (179 MPa)

We recommend for the purposes of simplicity that the lower resilient modulus of 17,000 psi (117 MPa) be used for all pavement designs for this project.

PAVEMENT CONDITION SURVEY

Currently, the 2013 Pavement Condition Survey (PCS) notes a crack rating of 7.5 in the eastbound lanes and a rating of 9.0 in the westbound lanes. Graphs of the 2013 the PCS ratings are in the Appendix for review.

Eastbound:

RDWYID / SR US / INTERSECT AT (MP|SIDE) / ITMSEG-P / CONTRACTOR (AGE ONE YEAR) / ITMSEG-F	BMP / G_BMP / W_BMP	EMP / G_EMP / W_EMP	RW / LN / RW	SYS / %T / FY-P / FY-F	TYP SPD / AADT / SURFTYPE / ASTYPE / WKMX-P / WKMX-F	DISTRESS RATINGS	SURVEYED YEAR 1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
75280000	6.018	6.482	R	4	1 60	CRACKING	7.0	7.0	5.1*		10.0	10.0	10.0	10.0	10.0	9.0	9.0	7.0	7.0
400 I4	71.1	71.6	3	5.4	164367	RIDE	8.4	8.5	8.4		8.2	8.8	8.5	8.4	7.9	9.0	8.1	8.8	8.6
					FC5	RUTTING	8.0	8.0	7.0		9.0	10.0	9.0	10.0	9.0	10.0	9.0	9.0	9.0
4055151	2.400	6.400	C	2002	0218	CRACKING	7.0	6.5		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.0
JONES BROS INC				(2004)	SPRIDE		8.5	8.5		7.5	7.7	7.5	7.6	7.6	7.5	7.5	7.4	7.5	7.5
4324531	6.018	8.337	C	2016	0012	RUTTING	9.0	9.0		10.0	9.0	9.0	10.0	9.0	9.0	10.0	9.0	9.0	9.0
75280000	6.482	8.264	R	4	1 60	CRACKING	7.0	7.0	5.1*		10.0	10.0	10.0	10.0	10.0	9.0	9.0	7.0	7.0
400 I4	71.6	73.3	4	5.4	164367	RIDE	8.4	8.5	8.4		8.2	8.8	8.5	8.4	7.9	9.0	8.1	8.8	8.6
					FC5	RUTTING	8.0	8.0	7.0		9.0	10.0	9.0	10.0	9.0	10.0	9.0	9.0	9.0
4107321	6.482	8.065	C	2002	0218	CRACKING	7.0	6.5		10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.5	9.0	7.5
APAC-FLORIDA, INC				(2004)	SPRIDE		8.5	8.5		7.5	7.7	7.3	7.4	7.4	7.3	7.2	7.2	7.0	6.9
4324531	6.018	8.337	C	2016	0012	RUTTING	9.0	9.0		10.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
75280000	8.264	8.844	R	4	1 55	CRACKING	7.0	7.0	5.1*		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.0
400 I4	73.3	73.9	3	4.6	132000	RIDE	8.4	8.5	8.4		7.7	8.6	8.5	8.2	7.7	8.7	8.4	8.7	8.6
					FC2	RUTTING	8.0	8.0	7.0		9.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
						CRACKING	9.0	8.5	9.0	8.0	8.0	6.5	10.0	10.0	10.0	10.0	10.0	9.0	9.0
				(2007)		RIDE	8.5	8.3	8.3	7.5	7.5	7.1	8.5	8.6	8.5	8.5	8.5	8.5	8.4
						RUTTING	9.0	10.0	9.0	9.0	8.0	9.0	10.0	9.0	9.0	9.0	9.0	9.0	9.0
75280000	8.844	9.277	R	4	1 55	CRACKING	7.0	7.0	5.1*		10.0	10.0	10.0	10.0	10.0	9.0	9.0	7.5	7.5
400 I4	73.9	74.3	4	4.6	132000	RIDE	8.4	8.5	8.4		8.0	8.7	8.7	8.1	7.9	9.0	8.1	8.6	8.7
					FC2	RUTTING	8.0	8.0	7.0		10.0	10.0	9.0	10.0	10.0	10.0	10.0	10.0	10.0
						CRACKING	7.5	7.5	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.5	9.5	9.5
				(2003)		RIDE	8.6	8.8	8.7	8.4	8.4	7.3	8.5	8.4	8.4	8.3	8.3	8.2	8.2
						RUTTING	10.0	10.0	10.0	10.0	9.0	10.0	10.0	10.0	10.0	10.0	9.0	9.0	9.0

Westbound:

RDWYID / SR US / INTERSECT AT (MP|SIDE) / ITMSEG-P / CONTRACTOR (AGE ONE YEAR) / ITMSEG-F	BMP / G_BMP / W_BMP	EMP / G_EMP / W_EMP	RW / LN / RW	SYS / %T / FY-P / FY-F	TYP SPD / AADT / SURFTYPE / ASTYPE / WKMX-P / WKMX-F	DISTRESS RATINGS	SURVEYED YEAR 1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
75280000	8.278	10.445	L	4	8 55	CRACKING	6.2*	6.2*	6.2*		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
400 I4	73.4	75.5	3	4.6	132000	RIDE	8.4	8.5	8.5		8.9	8.9	8.9	8.9	8.6	8.9	8.7	8.8	8.9
					FC2	RUTTING	7.0	7.0	7.0		9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	10.0
2424421	1.658	14.637	C	1990	0012	CRACKING	10.0	9.0	10.0	10.0	10.0	10.0	7.0	7.0	6.5	6.5	6.5	6.5	
HUBBARD CONSTRUCTION COMPA				(1992)	S	RIDE	8.8	8.8	8.7	8.3	8.4	8.4	8.3	8.3	8.2	8.1	7.9	7.9	
4251741	8.282	12.732	L	2012	0012	RUTTING	9.0	9.0	10.0	10.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	
75280000	6.482	8.278	L	4	1 60	CRACKING	6.2*	6.2*	5.1*		10.0	10.0	10.0	9.0	9.0	8.0	8.0	7.5	6.5
400 I4	71.6	73.4	4	5.4	164367	RIDE	8.4	8.5	8.3		9.0	8.9	8.8	8.8	8.4	8.9	8.4	8.7	8.6
					FC5	RUTTING	7.0	7.0	7.0		9.0	10.0	9.0	9.0	9.0	9.0	9.0	9.0	10.0
4107321	6.482	8.065	C	2002	0218	CRACKING	6.5	4.5*		10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	9.0	9.0
APAC-FLORIDA, INC				(2004)	SPRIDE		8.5	8.3		7.9	8.0	8.0	8.0	7.8	7.9	7.8	7.8	7.7	7.8
4324531	6.018	8.337	C	2016	0012	RUTTING	9.0	9.0		10.0	9.0	9.0	9.0	9.0	9.0	10.0	9.0	9.0	9.0
75280000	5.971	6.482	L	4	1 60	CRACKING	6.2*	6.2*	5.1*		10.0	10.0	10.0	9.0	9.0	8.0	8.0	7.5	6.5
400 I4	71.0	71.6	3	5.4	164367	RIDE	8.4	8.5	8.3		9.0	8.9	8.8	8.8	8.4	8.9	8.4	8.7	8.6
					FC5	RUTTING	7.0	7.0	7.0		9.0	10.0	9.0	9.0	9.0	9.0	9.0	9.0	10.0
4055151	2.400	6.400	C	2002	0218	CRACKING	6.5	4.5*		10.0	10.0	10.0	10.0	10.0	9.5	9.5	9.5	9.5	9.5
JONES BROS INC				(2004)	SPRIDE		8.5	8.3		7.9	8.0	8.1	8.2	8.2	8.2	8.1	8.2	8.1	8.1
4324531	6.018	8.337	C	2016	0012	RUTTING	9.0	9.0		10.0	9.0	10.0	10.0	9.0	9.0	9.0	9.0	9.0	9.0

REHABILITATION RECOMMENDATIONS

Eastbound Mainline Lanes (R1 and R2):
MP 6.018-MP 9.249
We recommend that 2.75 inches of milling be performed to provide long-term pavement preservation of the existing pavement. This will remove the majority of all cracks and friction course raveling.

Eastbound Mainline Lane (R3, R4 and R5):
MP 6.018-MP 9.249
We recommend that 3.75 inches of milling be performed to provide long-term pavement preservation of the existing pavement. This will remove most of the cracks and all of the friction course raveling.

Westbound Mainline Lanes (L1 and L2):
MP 6.018-MP 8.282
We recommend that 2.75 inches of milling be performed to provide long-term pavement preservation of the existing pavement. This will remove the majority of all cracks and friction course raveling.

Westbound Mainline Lane (L3 and L4):
MP 6.018-MP 8.282
We recommend that 3.75 inches of milling be performed to provide long-term pavement preservation of the existing pavement. This will remove all cracks and friction course raveling.

Inside and Outside Paved Shoulders (IL, IR, OL and OR):
MP 6.018-MP 9.249 (Eastbound)
MP 6.018-MP 8.282 (Westbound)
We recommend that 2.00 inches of milling be performed to replace degraded structural course and provide long-term pavement preservation of the existing shoulders.

Ramps at the Interchange of SR 528 (Beachline Expressway) with SR 400: (75471-114, 75471-200, and 75471-201)
We recommend a minimal milling scheme of 2.25 inches for the ramps and 1.5 inches of milling for the paved shoulders at each ramp. This will remove deteriorated and oxidized pavement.

There is a project (FPN 406090-5) scheduled to be let by the Florida Turnpike on SR 528 (Beachline Expressway) in Section 75471 from MP 0.000 to MP 4.300 in July 2015. It is to widen SR 528 from 4 lanes to 6 lanes. This project may overlap with this project on the ramps. The FDOT Project Manager is Mr. Dan Kelly.

Ramps at the Interchange of SR 482 (Sand Lake Road) with SR 400: (75280-086, and 75280-088)
We recommend a milling scheme of 2.75 inches for the ramps and 2.0 inches of milling for the paved shoulders at each ramp. This will remove most of the cracking and all deteriorated surface pavement.

Base exposure may occur at the following core locations:

Core Number	Milepost	Lane	Core Number	Milepost	Lane
2	7.993	IL	40	8.443	OR
18	9.393	IR	42	8.692	OR
20	8.943	IL	48	Ramp 201	Shoulder
32	7.593	OL	38	7.230	R3

It is recommended that the Designer make provisions for Maintenance of Traffic and protection of base due to thin pavement and paved shoulders. The following plans note should be added to the typical sections as appropriate:

"During milling operations, base exposure will occur at certain locations. The contractor is responsible for protection of the base and Maintenance of Traffic."

APPENDIX

i) Notations for Identifying Lane Types

ii) Pavement Evaluation & Condition Data (PECD) Sheets
(dated March 27, 2014) coring by Elipsis Engineering & Consulting, LLC

iii) Falling Weight Deflection Test Results
(Resilient Modulus Recommendation) dated January 8, 2014

iv) Ground Penetrating Radar (GPR) and Multi-Purpose Survey Vehicle (MPSV) Thickness, Cross-Slope, and Rut Data (Including Cross-Slope Graphs)

v) Pavement Condition Survey Charts

vi) Core Photo Directory

vii) Typical Roadway Survey Photographs

viii) Chart showing locations of Pavement Composition Segments

Notations for Identifying Lane Types

6-Lane Sections with Grass Median and Auxiliary Lanes

OL	Westbound Outside Paved Shoulder
L4	Westbound Auxiliary Lane
L3	Westbound Outside Lane
L2	Westbound Middle Lane
L1	Westbound Inside Lane
IL	Westbound Inside Paved Shoulder
Grass Median	
IR	Eastbound Inside Paved Shoulder
R1	Eastbound Inside Lane
R2	Eastbound Middle Lane
R3	Eastbound Outside Lane
R4	Eastbound Auxiliary Lane
R5	Eastbound Auxiliary Lane
OR	Eastbound Outside Paved Shoulder

Ramps To Be Resurfaced
75471-114: SR 528 Westbound to I-4 Eastbound
75471-200: I-4 Westbound to SR 528 Eastbound
75471-201: SR 528 Westbound to I-4 Westbound
75280-086: I-4 Eastbound to SR 482 Eastbound
75280-088: SR 482 Westbound to I-4 Eastbound

ELIPSIS ENGINEERING & CONSULTING, LLC

March 27, 2014

Florida Department of Transportation
1650 N. Kepler Road
DeLand, Florida 32724

Attention: Mr. Tim Keefe

Reference: Final Pavement Evaluation and Condition Data Report
SR 400 (I-4) from SR 528 to W of SR 435
Orange County, Florida
FPN 432453-1
Section No: 75280
Contract No.: C-9570
EEC Project No.: 12009-6.11

Dear Mr. Keefe:

Per your request, Elipsis Engineering & Consulting (EEC) has obtained pavement core and other relative information for the above referenced project. Our scope of services was conducted in accordance with your request for proposal dated January 14, 2014.

The pavement core data is presented on the attached Pavement Evaluation and Condition Data (PECD) Sheets 1 through 4 and Bridge Approach Slab Data Sheet 1. We have also included supplemental data sheets for the GPS locations and Cross-slope data for each core and drill depth location, and core photographs for each core obtained. We have additionally included the roadway condition photo at each core and drill depth location.

To the best of our knowledge, the information presented in the attachments to this letter is accurate and represents the existing pavement conditions at the locations cored. The pavement cores have been retained in storage pending further instructions from FDOT regarding their disposal.

Please feel free to contact us with any concerns or requests for further information.

Sincerely,
Elipsis Engineering & Consulting, LLC
Certificate of Authorization No. 28455

THOMAS E. WHITNEY LICENSE No 58811 STATE OF FLORIDA PROFESSIONAL ENGINEER

Thomas E. Whitney, PE
Principal Engineer
Signature Date: 3/27/14
STATE OF FLORIDA
Registered Professional Engineer No. 58811

State of Florida Department of Transportation
PAVEMENT EVALUATION AND CONDITION DATA SHEET

Project No.: 432453-1	**Cored By:** Elipsis Engineering and Consulting	**Date:** 3/10/14-3/11/14	**Page No.:** 1 of 4
County: Orange	**Highway Sect. No:** 75280	**From:** SR 528	**To:** West of SR 435
Road No.: SR 400	**Begin MP:** 6.018	**End MP:** 9.235	**Length:** 3.217

Core No.	MP	Distance from left edge of lane (ft)	Lane	Wheel Path	Pavement Layer (in.)								Base		Crack				Pavt Cond.	Rut Depth (in)	Cross Slope (%)	Comments
					FC-5	Type SP	Type S	FC-2	Type S	Type I	Binder Course	Core Length (in)	Type	Thick-ness (in)	Depth (in)	Type	Class	Extent				
1	7.993	2.0	L1	X	0.8	1.5			2.5			4.8	LR	12.7	—	—	—	—	F	0.2	2.1	
2	7.993	6.0	IL			1.5						1.5	LR	—	—	—	—	—	F	0.0	-4.2	
3	7.394	9.0	L1	X	0.9	1.8			1.8	4.5	2.3	11.3	LR	—	—	—	—	—	F	0.3	1.9	
4	7.394	7.5	IL			1.1	0.8	0.6	1.4			3.9	LR	6.4	—	—	—	—	F	0.0	-4.1	Core Fractured During Extraction Overlaid FC-2
5	7.069	2.5	L1	X	0.8	1.1			2.8	2.9	2.1	9.7	LR	10.2	—	—	—	—	F	0.2	2.6	
6	7.069	7.0	IL			1.0	0.5	0.6	1.0			3.1	LR	—	—	—	—	—	F	0.0	-4.3	Overlaid FC-2
7	6.501	3.0	L1	X	0.6	1.4			2.2	1.7	1.9	7.8	LR	—	B	ST	I	L	F	0.1	2.7	Core Fractured During Extraction
8	6.501	3.5	IL			1.0			1.1			2.1	LR	4.9	B	SL	I	S	F	0.0	-4.2	
9	6.392	3.0	R1	X	0.8	1.0			1.5	3.8	2.2	9.3	LR	9.7	B	ST	II	M	F	0.2	1.9	Core Fractured During Extraction
10	6.392	5.0	IR			1.2			1.5			2.7	LR	—	—	—	—	—	F	0.0	-3.8	
11	6.943	9.0	R1	X	0.8	1.2			2.0	3.2	1.9	9.1	LR	—	—	—	—	—	F	0.1	1.5	
12	6.943	5.0	IR			1.0	1.3	0.4	1.3			4.0	LR	7.8	—	—	—	—	F	0.0	-3.4	Overlaid FC-2
13	7.394	2.0	R1	X	0.8	1.2			2.0	3.1	2.2	9.3	LR	9.2	—	—	—	—	F	0.3	2.0	High voids in Type SP layer
14	7.394	4.5	IR			1.0	1.2	0.7	1.5			4.4	LR	—	—	—	—	—	F	0.0	-2.7	Overlaid FC-2
15	7.794	9.0	R1	X	0.7	1.3			2.0	3.4	1.8	9.2	LR	—	—	—	—	—	F	0.2	1.9	
16	7.794	5.0	IR			1.2		0.3	1.4			2.9	LR	7.0	—	—	—	—	F	0.0	-3.4	Overlaid FC-2

State of Florida Department of Transportation
PAVEMENT EVALUATION AND CONDITION DATA SHEET

Project No.: 432453-1	**Cored By:** Elipsis Engineering and Consulting	**Date:** 3/10/14-3/11/14	**Page No.:** 2 of 4
County: Orange	**Highway Sect. No:** 75280	**From:** SR 528	**To:** West of SR 435
Road No.: SR 400	**Begin MP:** 6.018	**End MP:** 9.235	**Length:** 3.217

Core No.	MP	Distance from left edge of lane (ft)	Lane	Wheel Path	Pavement Layer (in.)								Base		Crack				Pavt Cond.	Rut Depth (in)	Cross Slope (%)	Comments
					FC-5	Type SP	Type S	FC-2	Type S	Type I	Binder Course	Core Length (in)	Type	Thick-ness (in)	Depth (in)	Type	Class	Extent				
17	8.393	2.0	R1	X	0.3	1.2			2.4			3.9	LR	15.6	—	—	—	—	G	0.2	2.1	Repair/Patch Area
18	8.393	7.0	IR			0.8						0.8	LR	—	—	—	—	—	F	0.0	-5.5	
19	8.943	3.0	R1	X				0.4	5.6			6.0	LR	—	—	—	—	—	F	0.1	4.9	Old FC-2 Location
20	8.943	3.0	IR			1.5						1.5	LR	7.5	B	SL	II	S	F	0.0	-2.3	
21	6.269	10.0	R3	X	1.0	2.0			4.1			7.1	LR	7.9	—	—	—	—	F	0.3	3.2	
22	6.269	6.0	OR			2.5			1.2			3.7	LR	—	—	—	—	—	F	0.0	2.9	
23	6.667	2.5	R4	X	0.8	4.5						5.3	LR	9.7	—	—	—	—	F	0.1	2.8	Odd Core. Highly segregated towards fine. High air voids.
24	6.667	4.0	OR			1.3			2.4			3.7	ABC	10.5	—	—	—	—	F	0.0	6.4	ABC in 3 inch lifts
25	7.230	10.0	R4	X	0.7	4.4						5.1	LR	9.9	—	—	—	—	F	0.2	2.8	Odd Core. Highly segregated towards fine.
26	7.230	5.0	OR			3.0						3.0	LR	—	0.6	SL	II	M	F	0.0	5.8	
27	8.118	2.0	R3	X	0.9	1.3			4.1			6.3	LR	—	—	—	—	—	F	0.3	2.8	
28	8.118	5.0	OR			1.2			2.3			3.5	ABC	11.8	—	—	—	—	F	0.0	8.6	ABC in 3 inch lifts
29	8.142	10.5	L4		1.3	0.7			4.0			6.0	LR	12.5	—	—	—	—	F	0.1	2.5	
30	8.142	6.0	OL			1.3			3.0			4.3	LR	12.2	—	—	—	—	F	0.0	3.8	
31	7.593	2.0	L4	X	1.1	1.4			1.8			4.3	LR	—	—	—	—	—	F	0.3	2.6	
32	7.593	4.0	OL			1.3						1.3	LR	1.2	—	—	—	—	F	0.0	5.7	

State of Florida Department of Transportation
PAVEMENT EVALUATION AND CONDITION DATA SHEET

Project No.: 432453-1	**Cored By:** Elipsis Engineering and Consulting	**Date:** 3/10/14-3/11/14	**Page No.:** 3 of 4
County: Orange	**Highway Sect. No:** 75280	**From:** SR 528	**To:** West of SR 435
Road No.: SR 400	**Begin MP:** 6.018	**End MP:** 9.235	**Length:** 3.217

Core No.	MP	Distance from left edge of lane (ft)	Lane	Wheel Path	Pavement Layer (in.)								Base		Crack				Pavt Cond.	Rut Depth (in)	Cross Slope (%)	Comments
					FC-5	Type SP	Type S	FC-2	Type S	Type I	Binder Course	Core Length (in)	Type	Thick-ness (in)	Depth (in)	Type	Class	Extent				
33	6.750	9.5	L4	X	0.8	1.4			2.0			4.2	LR	10.3	—	—	—	—	F	0.4	3.4	
34	6.750	5.0	OL			3.3						3.3	LR	3.7	—	—	—	—	F	0.0	5.4	Pavement Rippling
35	6.119	2.5	L3	X	0.9	1.5			7.1			9.5	LR	9.5	—	—	—	—	F	0.2	2.6	
36	6.119	4.0	OL			1.2			3.6			4.8	LR	—	—	—	—	—	F	0.0	5.4	
37	7.064	8.0	R3	X	1.0	1.3			2.8			5.1	LR	—	B	Br	III	S	P	0.2	3.6	Severe Cracking in the Immediate Area
38	7.230	8.0	R3	X	0.9	1.3			1.8			4.0	LR	—	B	A	III	S	P	0.4	3.6	Severe Cracking in the Immediate Area
39	8.443	9.0	R3	X	0.8	1.0			2.7			4.5	LR	13.6	—	—	—	—	F	0.2	2.3	
40	8.443	3.0	OR			0.8						0.8	LR	—	—	—	—	—	F	0.0	4.4	
41	8.692	2.5	R4	X	0.7	1.3			2.7			4.7	LR	13.8	—	—	—	—	G	0.0	5.6	Core Location moved out R4/R5 Merge
42	8.692	4.0	OR			1.1						1.1	LR	5.4	—	—	—	—	F	0.0	4.7	Core Location moved out R4/R5 Merge
43	9.142	10.0	R4	X	0.7	1.7						2.4	ABC	15.1	—	—	—	—	F	0.3	2.6	ABC in 3 inch lifts
44	9.142	3.0	OR			1.4						1.4	ABC	11.1	—	—	—	—	F	0.0	5.7	ABC in 3 inch lifts
45	528' from Gore	12.0	Ramp	X	0.8	1.2			2.3			4.3	LR	10.2	—	—	—	—	F	0.2	-1.0	Ramp 200 I-4 WB to SR 528 EB
46	528' from Gore	4.0	Shoulder			1.8						1.8	LR	3.5	—	—	—	—	F	0.0	0.2	Ramp 200 I-4 WB to SR 528 EB
47	264' from Gore	10.0	Ramp	X	0.8	1.0			3.4			5.2	LR	10.8	—	—	—	—	G	0.1	-2.1	Ramp 201 SR 528 WB to I-4 WB
48	264' from Gore	4.0	Shoulder			0.9						0.9	LR	4.6	—	—	—	—	G	0.0	2.8	Ramp 201 SR 528 WB to I-4 WB

State of Florida Department of Transportation
PAVEMENT EVALUATION AND CONDITION DATA SHEET

Project No.: 432453-1	**Cored By:** Elipsis Engineering and Consulting	**Date:** 3/10/14-3/11/14	**Page No.:** 4 of 4
County: Orange	**Highway Sect. No:** 75280	**From:** SR 528	**To:** West of SR 435
Road No.: SR 400	**Begin MP:** 6.018	**End MP:** 9.235	**Length:** 3.217

Core No.	MP	Distance from left edge of lane (ft)	Lane	Wheel Path	Pavement Layer (in.)								Base		Crack				Pavt Cond.	Rut Depth (in)	Cross Slope (%)	Comments
					FC-5	Type SP	Type S	FC-2	Type S	Type 1	Binder Course	Core Length (in)	Type	Thick-ness (in)	Depth (in)	Type	Class	Extent				
49	528' from Gore	15.0	Ramp	X	0.8	0.9			1.3			3.0	LR	4.0	—	—	—	—	G	0.1	8.3	Ramp 114 SR 528 WB to I-4 EB
50	528' from Gore	2.5	Shoulder			1.1			1.0			2.1	LR	3.9	—	—	—	—	G	0.0	8.1	Ramp 114 SR 528 WB to I-4 EB
51	300' from Gore	13.0	Ramp	X	1.5				3.5			5.0	LR	13.5	—	—	—	—	F	0.2	5.4	Ramp 86 I-4 EB to SR 482
52	300' from Gore	2.5	Shoulder						3.0			3.0	LR	6.0	—	—	—	—	F	0.0	11.4	Ramp 86 I-4 EB to SR 483
53	528' from Gore	10.5	Ramp	X	0.8	1.2			1.5			3.5	LR	13.0	—	—	—	—	G	0.1	3.6	Ramp 88 SR 482 EB to I-4 EB
54	528' from Gore	2.5	Shoulder						3.0			3.0	LR	6.5	1.8	ST	II	M	F	0.0	2.7	Ramp 88 SR 482 EB to I-4 EB

State of Florida Department of Transportation
BRIDGE APPROACH & LEAVE SLAB DATA SHEET

Project No.: 432453-1	**Cored By:** Elipsis Engineering and Consulting	**Date:** 3/10/14-3/11/14	**Page No.:** 1 of 1
County: Orange	**Highway Sect. No:** 75280	**From:** SR 528	**To:** West of SR 435
Road No.: SR 400	**Begin MP:** 6.018	**End MP:** 9.235	**Length:** 3.217

Core No.	MP	Distance from left edge of lane (ft)	Lane	Wheel Path	Pavement Layer (in.)								Base		Crack				Pavt Cond.	Rut Depth (in)	Cross Slope (%)	Comments
					FC-5	Type SP	Type S	FC-2	Type S	Type I	Binder Course	Core Length (in)	Type	Thick-ness (in)	Depth (in)	Type	Class	Extent				
D-1	8.250	5.5	L1										PCC	–	–	–	–	–	F	0.3	2.4	Asphalt Thickness = 3.4"
D-2	8.250	5.0	IL										PCC	–	–	–	–	–	F	0.0	1.6	Asphalt Thickness = 4.5"
D-3	8.250	5.5	R1										PCC	–	–	–	–	–	F	0.2	2.8	Asphalt Thickness = 3.0"
D-4	8.250	5.5	IR										PCC	–	–	–	–	–	F	0.0	2.6	Asphalt Thickness = 3.0"
D-5	8.250	6.0	R3										PCC	–	–	–	–	–	F	0.3	1.1	Asphalt Thickness = 3.0"
D-6	8.250	4.0	OR										PCC	–	–	–	–	–	F	0.0	0.7	Asphalt Thickness = 3.3"
D-7	8.250	5.5	L5										PCC	–	–	–	–	–	F	0.1	2.9	Asphalt Thickness = 3.0"
D-8	8.250	5.0	OL										PCC	–	–	–	–	–	F	0.0	3.8	Asphalt Thickness = 2.5"
D-9	N/A	11.0	Ramp	X									PCC	–	–	–	–	–	F	0.3	-9.9	Ramp 200: I-4 WB to SR 528 EB Asphalt Thickness = 2.8"
D-10	N/A	5.0	Ramp										PCC	–	–	–	–	–	G	0.1	-11.0	Ramp 201: SR 528 WB to I-4 WB Asphalt Thickness = 2.2"

Supplemental Data to PECD

(GPS Coordinates for Each Locations Cored)

SR 400 FIN: 432453-1 County: Orange

Core #	GPS Coordinates
1	28.446021 ° -81.474435 °
2	28.446021 ° -81.474433 °
3	28.437321 ° -81.474405 °
4	28.437321 ° -81.474405 °
5	28.432579 ° -81.47439 °
6	28.432579 ° -81.47439 °
7	28.424316 ° -81.47437 °
8	28.424316 ° -81.47437 °
9	28.422684 ° -81.474139 °
10	28.422684 ° -81.474142 °
11	28.430698 ° -81.474161 °
12	28.430698 ° -81.474161 °
13	28.437241 ° -81.47419 °
14	28.437242 ° -81.47419 °
15	28.443062 ° -81.474217 °
16	28.443078 ° -81.474221 °
17	28.451814 ° -81.474235 °
18	28.451816 ° -81.474236 °
19	28.459404 ° -81.472192 °
20	28.459406 ° -81.472192 °

Core #	GPS Coordinates
21	28.420922 ° -81.474041 °
22	28.420923 ° -81.474041 °
23	28.426722 ° -81.474018 °
24	28.426723 ° -81.474018 °
25	28.43489 ° -81.474027 °
26	28.43489 ° -81.474027 °
27	28.447777 ° -81.474103 °
28	28.447779 ° -81.474107 °
29	28.448176 ° -81.474564 °
30	28.448177 ° -81.474565 °
31	28.44048 ° -81.474562 °
32	28.44048 ° -81.474562 °
33	28.42824 ° -81.474533 °
34	28.42824 ° -81.474534 °
35	28.418929 ° -81.474458 °
36	28.418929 ° -81.474458 °
37	28.432457 ° -81.474072 °
38	28.43487 ° -81.474089 °
39	28.452542 ° -81.474145 °
40	28.452546 ° -81.474148 °

Supplemental Data to PECD

(GPS Coordinates for Each Locations Cored)

SR 400 FIN: 432453-1 County: Orange

Core #	GPS Coordinates
41	28.456141 ° -81.473881 °
42	28.456145 ° -81.473879 °
43	28.461374 ° -81.46971 °
44	28.461369 ° -81.469709 °
45	28.422264 ° -81.474989 °
46	28.422264 ° -81.474989 °
47	28.421847 ° -81.472438 °
48	28.421848 ° -81.472442 °
49	28.422468 ° -81.472989 °
50	28.422469 ° -81.472988 °
51	28.447766 ° -81.473884 °
52	28.447768 ° -81.473886 °
53	28.451593 ° -81.47381 °
54	28.451593 ° -81.473813 °
D-1	28.449744 ° -81.474453 °
D-2	28.449744 ° -81.474453 °
D-3	28.449723 ° -81.474236 °
D-4	28.449723 ° -81.474236 °
D-5	28.449721 ° -81.474116 °
D-6	28.449721 ° -81.474116 °

Core #	GPS Coordinates
D-7	28.449734 ° -81.474611 °
D-8	28.449734 ° -81.474611 °
D-9	28.420457 ° -81.474684 °
D-10	28.422055 ° -81.473832 °

Supplemental Data to PECD

(Cross-Slope Data for Each Locations Cored)

SR 400 FIN: 432453-1 County: Orange

Core #	MP	Lane	0 to 6 feet	6 to 12 feet
1	7.993	L1	2.3	1.9
2	7.993	IL	-4.2	
3	7.394	L1	2.2	1.6
4	7.394	IL	-4.1	
5	7.069	L1	2.6	1.4
6	7.069	IL	-4.3	
7	6.501	L1	2.8	2.5
8	6.501	IL	-4.2	
9	6.392	R1	1.9	1.3
10	6.392	IR	-3.8	
11	6.943	R1	1.5	1.8
12	6.943	IR	-3.4	
13	7.394	R1	2.0	1.6
14	7.394	IR	-2.7	
15	7.794	R1	1.9	1.5
16	7.794	IR	-3.4	
17	8.393	R1	2.1	1.1
18	8.393	IR	-5.5	
19	8.943	R1	4.9	4.8
20	8.943	IR	-2.3	

Core #	MP	Lane	0 to 6 feet	6 to 12 feet
21	6.269	R3	3.4	2.9
22	6.269	OR	2.9	
23	6.667	R4	2.8	2.7
24	6.667	OR	6.4	
25	7.230	R4	2.3	3.2
26	7.230	OR	5.8	
27	8.118	R3	2.8	2.8
28	8.118	OR	8.6	
29	8.142	L4	2.9	2.1
30	8.142	OL	3.8	
31	7.593	L4	2.4	2.7
32	7.593	OL	5.7	
33	6.750	L4	3.5	3.3
34	6.750	OL	5.4	
35	6.119	L3	2.7	2.5
36	6.119	OL	5.4	
37	7.064	R3	3.8	3.3
38	7.230	R3	3.3	3.8
39	8.443	R3	2.3	2.3
40	8.443	OR	4.4	

Supplemental Data to PECD

(Cross-Slope Data for Each Locations Cored)

SR 400 FIN: 432453-1 County: Orange

Core #	MP	Lane	0 to 6 feet	6 to 12 feet
41	8.692	R4	5.1	6.1
42	8.692	OR	4.7	
43	9.142	R4	2.5	2.7
44	9.142	OR	5.7	
45	528' from Gore	Ramp	-1.0	-1.9
46	528' from Gore	Shoulder	0.2	
47	264' from Gore	Ramp	-2.2	-1.9
48	264' from Gore	Shoulder	2.8	
49	528' from Gore	Ramp	8.3	8.5
50	528' from Gore	Shoulder	8.1	
51	300' from Gore	Ramp	5.4	4.9
52	300' from Gore	Shoulder	11.4	
53	528' from Gore	Ramp	3.6	4.1
54	528' from Gore	Shoulder	2.7	
D-1	8.250	L1	2.4	1.8
D-2	8.250	IL	1.6	
D-3	8.250	R1	2.8	1.3
D-4	8.250	IR	2.6	
D-5	8.250	R3	1.0	1.2
D-6	8.250	OR	0.7	

Core #	MP	Lane	0 to 6 feet	6 to 12 feet
D-7	8.250	L5	3.0	2.8
D-8	8.250	OL	3.8	
D-9	N/A	Ramp	-10.4	-9.4
D-10	N/A	Ramp	-11.2	-10.7

Florida Department of Transportation

RICK SCOTT
GOVERNOR

STATE MATERIALS OFFICE
5007 Northeast 39th Avenue, Gainesville, Florida 32609
Telephone: (352) 955-6341, Fax: (352) 955-6345

ANANTH PRASAD, P.E.
SECRETARY

TO: Tim Keefe, District V Project Manager

FROM: Patrick Upshaw, P.E., State Pavement Performance Engineer

DATE: January 8, 2014

COPIES: Hyung S. Lee, P.E., State Nondestructive Testing Engineer

SUBJECT: Resilient Modulus Recommendation

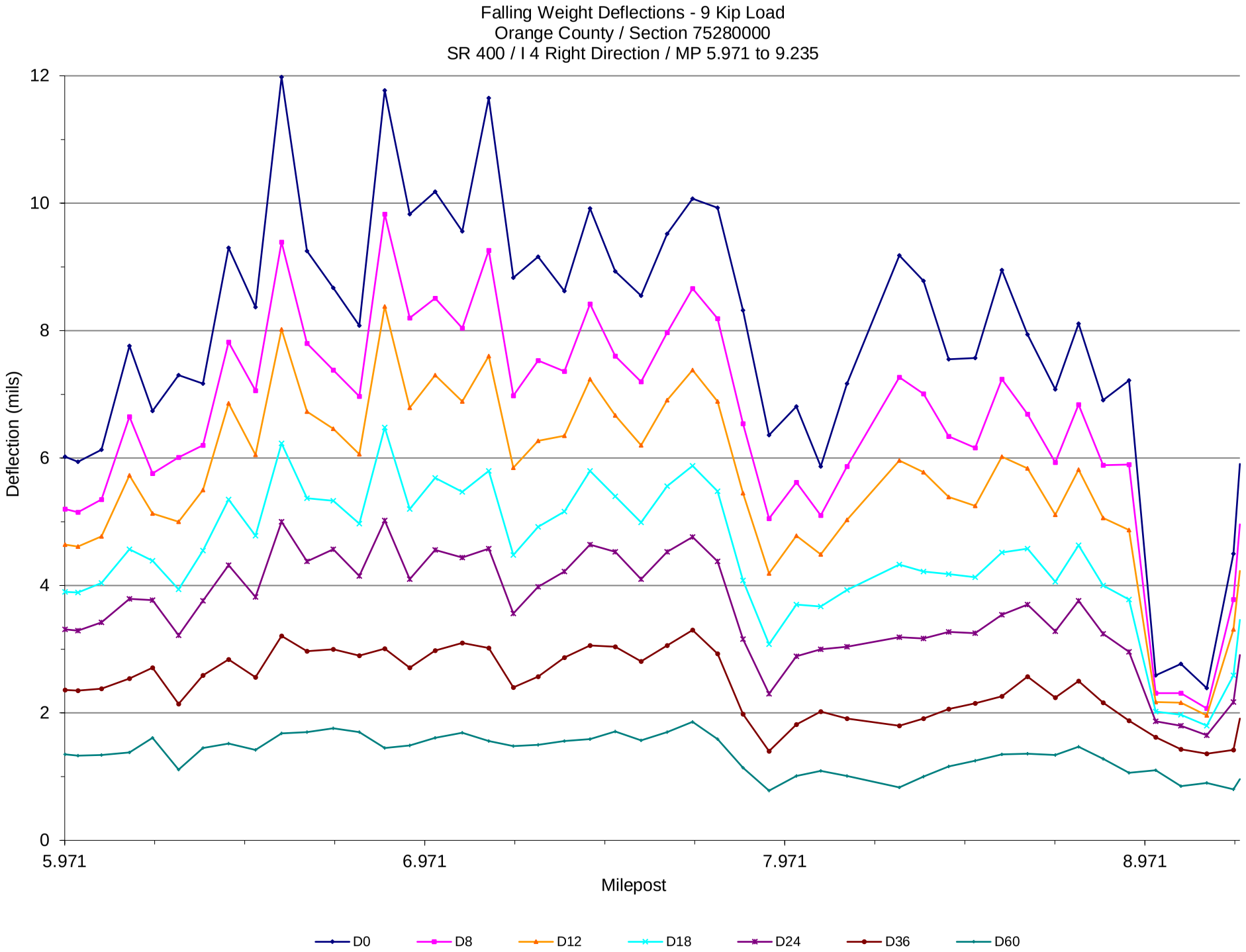
Project Description:	SR 400 / I 4 MP 5.971 to 9.235
Project Number:	75280000
FIN No.:	432453-1
County:	Orange

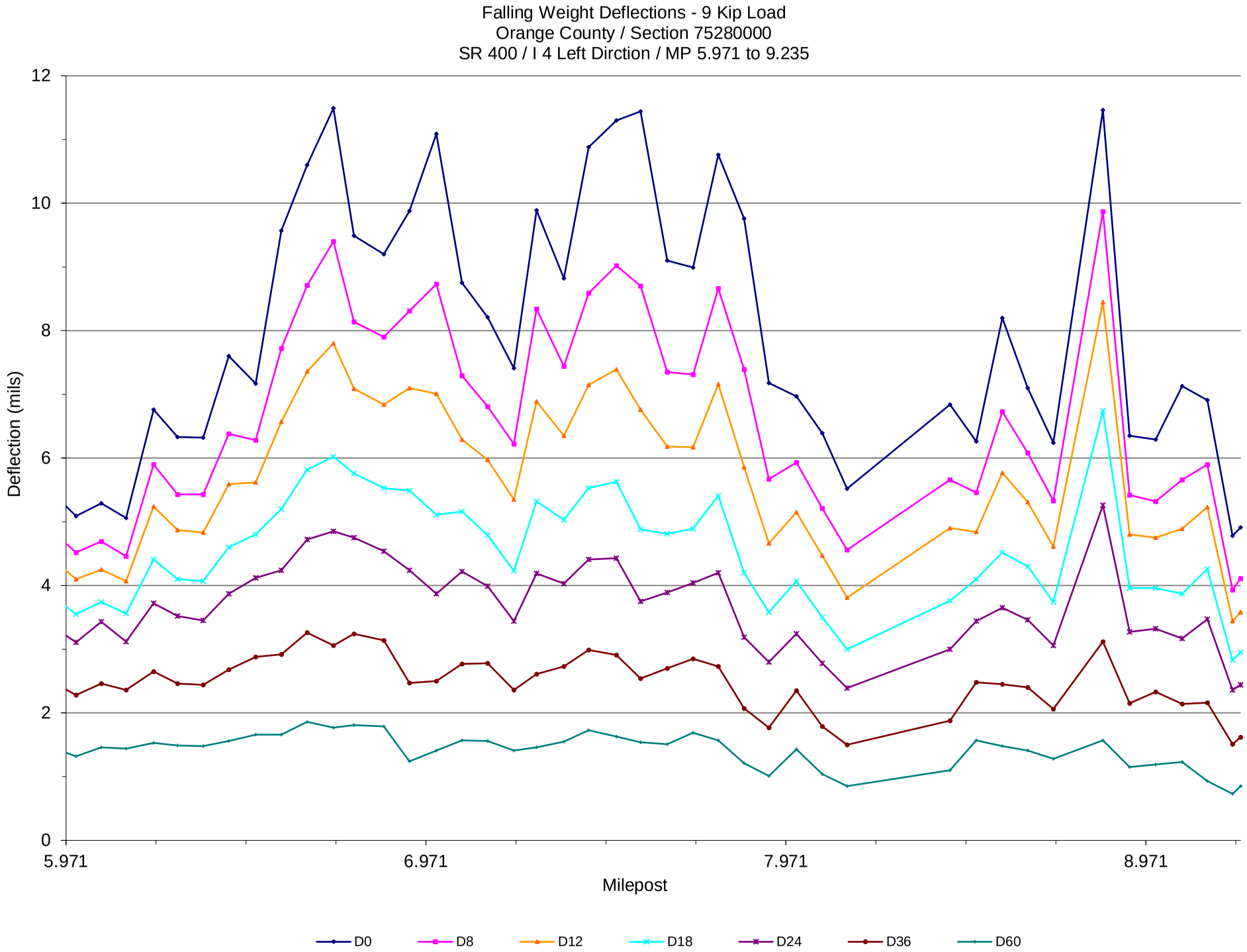
On December 18, 2013 deflection tests were conducted in the right and left traffic lanes of SR 400 / I 4. Evaluation of the data and resulting deflection plots indicate the following Resilient Modulus values are representative of the existing pavement system and are hereby recommended for this project.

Travel Direction	Beginning Milepost	Ending Milepost	Modulus (psi)	Modulus (MPa)
Right/Left	5.971	7.850	17,000	117
Right/Left	7.850	8.800	21,000	145
Right	8.800	9.235	26,000	179
Left	8.800	9.235	18,000	124

Please let me know if you need further assistance.

PU/jr
Attachment: Deflection Plots


Falling Weight Deflections - 9 Kip Load
Orange County / Section 75280000
SR 400 / I 4 Right Direction / MP 5.971 to 9.235
Deflection (mils)
0
2
4
6
8
10
12
5.971
6.971
7.971
8.971
Milepost
D0
D8
D12
D18
D24
D36
D60


Falling Weight Deflections - 9 Kip Load
Orange County / Section 75280000
SR 400 / I 4 Left Dirction / MP 5.971 to 9.235
Deflection (mils)
0
2
4
6
8
10
12
5.971
6.971
7.971
8.971
Milepost
D0
D8
D12
D18
D24
D36
D60

GPR & MPSV Data I-4 Eastbound MP 6.018 to MP 9.249 for FPN 432453-1

	R1			R2			R3			R4		
Milepost	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)
5.971	10.3	1.9		9.9	2.5		9.0	3.5				
5.980	10.8	1.5	0.1	10.0	2.7	0.2	9.0	4.0	0.1			
5.990	10.7	1.4	0.0	10.8	2.7	0.2	8.8	3.9	0.1			
5.999	11.3	1.1	0.1	10.8	2.5	0.1	9.2	3.3	0.1			
6.009	10.7	1.3	0.1	10.3	2.5	0.1	9.5	2.7	0.1			
6.018	10.9	1.7	0.1	10.0	2.7	0.1	9.5	2.3	0.1			
6.028	9.7	1.5	0.1	10.6	2.6	0.1	8.8	2.4	0.1			
6.037	10.4	1.8	0.1		2.5	0.1	8.2	2.8	0.1			
6.047	10.5	1.4	0.1	10.5	2.7	0.1	8.4	3.1	0.1			
6.056	10.6	2.1	0.1	10.3	2.8	0.1	8.6	2.9	0.0			
6.066	10.1	2.0	0.1	10.7	2.5	0.1	8.5	2.8	0.1			
6.075	10.5	2.0	0.1	10.0	2.7	0.2	9.0	2.8	0.1			
6.085	10.4	1.5	0.0	10.2	2.8	0.2	9.0	2.3	0.1			
6.094	10.0	1.1	0.1	11.2	2.6	0.2	8.5	2.1	0.1			
6.104	10.4	1.1	0.0	11.5	2.6	0.1	8.9	2.5	0.1			
6.113	11.1	1.5	0.1	10.0	2.7	0.1	7.6	2.8	0.0			
6.123	11.2	1.5	0.0	10.6	2.7	0.1	7.9	2.9	0.1			
6.132	11.5	1.3	0.1	10.7	2.6	0.1	8.1	2.4	0.1			
6.141	10.8	1.4	0.1	10.8	2.3	0.1	8.8	2.2	0.1			
6.151	10.8	1.4	0.1	10.5	2.6	0.1	8.8	1.8	0.1			
6.160	12.2	2.0	0.1	11.0	2.7	0.1	9.1	1.6	0.1			
6.170	11.8	2.3	0.0	10.2	2.7	0.0	9.2	1.8	0.1			
6.179	10.6	2.4	0.1	10.3	2.9	0.1	8.9	1.3	0.1			
6.189	10.3	2.3	0.1	10.4	2.8	0.2	8.4	1.3	0.1			
6.198	10.1	2.5	0.1	10.3	2.3	0.1	9.2	1.2	0.0			
6.208	10.8	2.6	0.0	11.5	2.3	0.1	8.4	1.8	0.1			
6.217	11.1	2.9	0.1	11.9	2.3	0.2	8.9	2.9	0.1			
6.227	12.4	2.2	0.1	9.7	2.2	0.1	6.9	2.8	0.2			
6.236	10.5	1.9	0.1	10.2	2.4	0.2	8.6	2.6	0.1			
6.246	10.9	1.9	0.1	11.7	1.9	0.1	9.1	2.4	0.1			
6.255	10.0	2.1	0.1	10.1	2.3	0.1	8.5	3.0	0.1			
6.265	10.2	2.1	0.1	9.5	2.6	0.1	8.8	3.4	0.1			
6.274	9.5	2.2	0.1	10.1	2.1	0.0	9.0	3.3	0.1			
6.284	9.5	1.9	0.0	9.8	2.0	0.1	7.7	3.2	0.1			
6.293	10.9	1.9	0.1	9.8	2.1	0.1	6.9	3.3	0.1			
6.302	10.3	2.0	0.1	9.6	2.4	0.1	6.9	3.4	0.2			
6.312	11.3	1.7	0.1	9.9	1.9	0.1	8.2	3.5	0.2			
6.321	10.7	1.8	0.1	11.4	2.3	0.1	7.4	3.1	0.2			
6.331	11.4	1.9	0.1	10.3	2.2	0.1	7.5	3.2	0.2			
6.340	10.3	1.7	0.1	10.9	2.0	0.1	7.2	3.4	0.2			
6.350	10.9	1.9	0.0	9.8	2.0	0.1		3.3	0.2			
6.359	11.0	2.2	0.0	10.7	2.1	0.1	7.6	3.3	0.2			
6.369	10.6	2.1	0.1	10.5	1.8	0.1	8.0	2.9	0.1			
6.378	10.5	2.0	0.0	10.3	1.7	0.1	8.5	3.2	0.1			
6.388	9.4	2.0	0.0	10.7	2.1	0.1	7.9	3.5	0.1			
6.397	10.6	1.7	0.1	10.5	2.1	0.1	8.6	3.3	0.1			
6.407	10.6	1.7	0.1	10.4	2.1	0.1	7.6	3.6	0.1			
6.416	10.4	1.5	0.1	10.7	2.2	0.1	8.0	3.3	0.1			
6.426	9.8	1.8	0.1	10.3	2.0	0.1	7.9	3.4	0.1			
6.435	10.0	2.0	0.1	10.8	2.3	0.1	7.3	3.6	0.2			
6.445	10.3	1.9	0.1	9.5	2.2	0.1	7.0	3.2	0.1			
6.454	10.5	2.3	0.1	10.0	2.1	0.1	6.2	3.4	0.1			
6.463	9.9	1.7	0.1	9.7	2.0	0.1	5.6	3.6	0.1			
6.473	10.0	1.8	0.1	10.0	2.1	0.1	6.2	3.5	0.1			
6.482	11.0	1.9	0.1	9.6	1.9	0.1	7.0	2.8	0.2			
6.492	11.4	1.9	0.1	8.7	2.1	0.1	6.8	2.7	0.2			
6.501	10.7	1.9	0.1	8.8	1.7	0.1	6.9	2.7	0.2			
6.511	10.9	2.2	0.1	9.5	1.8	0.0	6.6	3.1	0.1			

GPR & MPSV Data I-4 Eastbound MP 6.018 to MP 9.249 for FPN 432453-1

	R1			R2			R3			R4		
Milepost	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)
6.520	10.0	2.3	0.1	9.5	1.8	0.1	6.3	3.3	0.1			
6.530	9.5	2.3	0.1	9.7	2.1	0.0	7.1	2.5	0.1			
6.539	9.2	2.2	0.1	9.5	2.2	0.1	7.2	2.1	0.0		2.9	0.0
6.549	8.6	2.1	0.1	10.5	1.7	0.1	6.6	3.1	0.2		2.9	0.2
6.558	9.1	2.1	0.0	10.3	1.7	0.2	7.8	2.7	0.1		3.4	0.2
6.568	10.3	2.0	0.1	10.6	1.5	0.2	8.5	2.5	0.0		3.7	0.2
6.577	10.0	2.0	0.1	11.7	1.6	0.1	9.2	2.5	0.1		4.1	0.0
6.587	10.3	1.9	0.1	10.7	1.9	0.1	9.0	2.6	0.1		4.1	0.1
6.596	10.3	2.0	0.0	10.3	1.6	0.1	8.4	2.7	0.1		3.8	0.0
6.605	9.9	1.9	0.1	11.1	2.2	0.2	8.4	3.3	0.1		4.9	0.0
6.615	11.4	1.9	0.1	10.9	2.0	0.1	8.7	3.1	0.1		3.4	0.0
6.624	11.4	2.0	0.1	10.7	1.9	0.1	7.9	3.4	0.1		4.1	0.2
6.634	11.6	2.1	0.1	10.0	2.2	0.1	8.3	3.3	0.1		3.7	0.1
6.643	10.9	2.1	0.1	11.1	2.2	0.1	8.2	3.3	0.1		3.9	0.1
6.653	11.2	2.2	0.1	10.2	2.0	0.1	8.2	3.4	0.1		3.5	0.1
6.662	10.8	2.1	0.1	9.9	2.0	0.1	7.8	3.5	0.1		3.2	0.1
6.672	9.9	1.9	0.1	11.0	2.0	0.1	8.2	3.7	0.1		3.2	0.1
6.681	10.0	2.3	0.1	10.1	1.7	0.1	8.2	3.5	0.1		3.0	0.1
6.691	10.0	2.2	0.1	10.3	1.9	0.1	8.3	3.8	0.1		3.1	0.1
6.700	10.1	1.8	0.1	10.9	1.7	0.1	8.4	3.8	0.1		2.9	0.1
6.710	9.5	2.0	0.1	10.2	1.7	0.1	8.1	3.7	0.1		2.7	0.1
6.719	10.6	2.2	0.1	11.1	1.7	0.1	8.6	3.5	0.1		2.7	0.1
6.729	10.8	2.1	0.1	9.8	1.8	0.1	7.5	3.8	0.2		2.6	0.1
6.738	10.6	2.1	0.1	11.0	2.3	0.1	7.9	3.8	0.1		2.9	0.1
6.748	9.8	1.9	0.1	11.5	1.9	0.1	8.6	3.7	0.1		3.0	0.1
6.757	10.5	2.0	0.1	10.3	1.9	0.1	7.2	3.5	0.1		2.9	0.1
6.766	9.5	2.0	0.1	8.9	2.0	0.1	6.9	3.1	0.2		2.8	0.1
6.776	8.7	2.1	0.1	9.7	2.2	0.2	6.2	3.4	0.3		2.8	0.1
6.785	9.6	2.0	0.1	9.5	2.4	0.1	7.1	3.2	0.2		3.0	0.2
6.795	10.1	1.9	0.1	8.6	2.2	0.1	6.4	3.3	0.2		3.1	0.2
6.804	9.6	1.8	0.1	9.7	2.0	0.1	6.8	3.6	0.2		3.1	0.1
6.814	9.6	2.2	0.1	10.1	2.1	0.2	6.3	3.3	0.2		3.2	0.2
6.823	10.0	2.1	0.1	10.1	2.2	0.2	6.3	3.3	0.1		3.1	0.1
6.833	11.4	2.0	0.1	11.1	2.1	0.1	6.1	3.4	0.2		3.2	0.1
6.842	10.3	2.0	0.1	10.5	2.2	0.1	6.8	3.3	0.1		3.3	0.0
6.852	11.0	2.1	0.1	10.7	2.0	0.1	6.9	3.3	0.2		3.2	0.1
6.861	10.7	2.0	0.1	10.1	1.5	0.1	7.1	3.5	0.2		3.3	0.1
6.871	11.5	2.0	0.1	9.6	2.2	0.1	5.8	3.5	0.4		3.2	0.1
6.880	12.4	2.0	0.1	10.6	2.1	0.1	6.3	3.1	0.2		3.1	0.1
6.890	12.2	1.9	0.1	9.9	2.1	0.1	6.0	3.3	0.2		3.2	0.1
6.899	10.1	2.0	0.1	9.4	2.1	0.1	5.3	3.3	0.1		3.2	0.1
6.909	10.1	2.1	0.1	9.3	2.1	0.1	5.3	3.1	0.1		3.1	0.1
6.918	8.5	2.0	0.0	9.9	2.1	0.1	6.4	3.2	0.2		3.1	0.1
6.927	8.0	2.1	0.1	10.5	1.9	0.1	6.7	3.2	0.2		3.3	0.1
6.937	9.0	2.2	0.1	10.7	1.7	0.1	7.5	3.1	0.1		3.1	0.1
6.946	10.4	1.9	0.1	11.4	1.9	0.1	8.1	3.0	0.1		3.3	0.2
6.956	9.0	1.9	0.1	11.8	1.9	0.1	6.9	3.3	0.3		3.5	0.1
6.965	10.2	1.9	0.1	8.6	2.1	0.1	7.3	3.1	0.1		3.2	0.1
6.975	10.2	2.2	0.1	12.9	2.4	0.1	7.3	3.0	0.2		3.2	0.1
6.984	10.8	1.8	0.1	11.7	2.1	0.1		3.1	0.2		3.1	0.1
6.994	11.0	1.9	0.1	10.4	2.1	0.2	7.4	3.4	0.1		3.3	0.1
7.003	11.3	2.0	0.1	10.6	2.3	0.1	7.0	3.1	0.2		3.1	0.1
7.013	10.7	1.8	0.1	10.3	1.9	0.1	7.8	3.4	0.2		2.9	0.1
7.022	10.1	2.0	0.1	11.5	2.1	0.1	7.6	3.1	0.1		3.0	0.1
7.032	10.1	1.7	0.1	9.9	2.1	0.1	7.7	3.4	0.1		3.0	0.1
7.041	10.4	1.6	0.1	12.1	2.1	0.1	6.2	3.3	0.1		3.2	0.1
7.051	10.4	1.8	0.0	11.1	1.9	0.1	6.6	3.3	0.2		3.2	0.2
7.060	11.0	1.7	0.1	10.5	2.0	0.2	6.4	3.6	0.2		3.1	0.1

GPR & MPSV Data I-4 Eastbound MP 6.018 to MP 9.249 for FPN 432453-1

	R1			R2			R3			R4		
Milepost	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)
7.070	10.4	1.6	0.1	11.4	1.9	0.1	6.5	3.5	0.1		3.2	0.1
7.079	11.8	1.9	0.1	10.8	1.8	0.1	7.0	3.6	0.2		3.3	0.2
7.088	11.5	1.9	0.1	10.7	1.9	0.1	7.7	3.3	0.2		3.4	0.1
7.098	10.3	2.1	0.1	9.4	2.1	0.1	6.5	4.2	0.5		3.5	0.2
7.107	11.0	1.9	0.1	10.2	2.4	0.2	6.6	3.9	0.3		3.4	0.2
7.117	10.1	1.8	0.1	10.2	1.9	0.2	5.7	3.8	0.4		3.4	0.2
7.126	9.7	1.7	0.1	9.6	1.5	0.1	5.9	3.5	0.1		3.4	0.2
7.136	11.0	1.7	0.1	10.7	1.5	0.1	7.8	4.0	0.1		3.2	0.1
7.145	12.0	1.7	0.1	11.4	1.8	0.1	7.5	3.7	0.2		3.4	0.2
7.155	13.4	1.3	0.1	10.2	1.8	0.1	6.8	3.6	0.1		3.5	0.1
7.164	12.4	1.4	0.2	11.0	2.2	0.1	6.5	4.3	0.2		3.5	0.2
7.174	11.7	1.7	0.1	10.0	1.9	0.1	6.5	3.8	0.1		3.4	0.2
7.183	10.0	2.0	0.1	9.6	2.3	0.1	7.1	3.8	0.2		3.3	0.2
7.193	10.3	2.1	0.1	9.2	2.1	0.2	6.4	3.8	0.2		3.3	0.2
7.202	10.8	1.8	0.1	9.1	1.9	0.1	5.6	3.9	0.2		3.2	0.2
7.212	10.1	1.8	0.1	10.5	1.9	0.1	5.1	3.9	0.3		3.4	0.3
7.221	9.9	1.7	0.1	10.0	1.9	0.1	5.9	3.6	0.1		3.1	0.2
7.230	11.1	1.8	0.1	9.4	1.9	0.1	5.0	3.7	0.3		3.4	0.1
7.240	11.4	2.2	0.0	10.5	2.1	0.1	6.3	3.4	0.1		3.4	0.2
7.249	11.6	2.0	0.0	10.2	2.1	0.2	7.3	3.4	0.1		3.0	0.2
7.259	11.2	2.0	0.0	10.3	1.9	0.1	7.3	4.1	0.2		3.6	0.1
7.268	10.1	2.1	0.0	9.7	1.8	0.1	8.3	4.4	0.1		3.4	0.2
7.278	9.7	2.2	0.0	10.9	2.1	0.1	9.7	3.9	0.2		3.2	0.1
7.287	8.1	2.1	0.0	10.5	2.2	0.1	8.6	3.5	0.1		3.4	0.1
7.297	8.9	2.2	0.0	9.8	2.3	0.1	8.5	3.1	0.1		3.9	0.2
7.306	8.2	2.1	0.1	11.5	2.1	0.1	8.0	3.6	0.1		3.7	0.1
7.316	9.8	2.0	0.0	10.2	2.2	0.1	7.1	3.4	0.2		3.4	0.1
7.325	9.8	2.1	0.1	10.2	2.0	0.1	7.7	3.4	0.2		3.1	0.1
7.335	10.7	2.1	0.1	9.7	1.9	0.1	7.0	3.1	0.1		3.5	0.1
7.344	9.5	2.1	0.1	9.7	1.6	0.1	7.3	3.1	0.1		3.1	0.1
7.354	8.8	1.9	0.1	9.6	1.7	0.1	6.2	3.4	0.1		3.1	0.1
7.363	9.4	1.8	0.1	10.0	1.8	0.1	6.4	3.3	0.1		3.7	0.1
7.373	10.2	1.6	0.1	9.1	2.1	0.1	6.4	3.3	0.2		3.4	0.2
7.382	10.1	2.0	0.0	9.0	1.9	0.1	5.3	3.4	0.2		3.5	0.1
7.391	9.3	2.3	0.0	10.2	2.1	0.1	5.2	3.3	0.2		3.3	0.2
7.401	10.1	2.0	0.1	10.3	2.1	0.1	7.2	3.5	0.3		3.1	0.2
7.410	12.0	2.0	0.2	10.1	2.3	0.1	5.0	3.6	0.3		3.3	0.2
7.420	10.3	1.6	0.2	10.7	1.7	0.1	6.2	2.9	0.2		2.9	0.2
7.429	10.8	1.9	0.1	10.5	2.2	0.2	6.0	2.8	0.2		3.1	0.2
7.439	10.7	1.7	0.0	10.4	2.1	0.1	5.1	3.3	0.3		3.4	0.2
7.448	10.5	1.2	0.1	11.7	2.2	0.2	5.1	3.2	0.3		3.4	0.2
7.458	11.8	1.5	0.1	10.9	1.9	0.2	5.2	3.1	0.2		3.4	0.2
7.467	11.6	1.7	0.0	10.0	2.2	0.2	5.3	3.1	0.2		3.4	0.2
7.477	11.3	1.9	0.1	9.6	1.6	0.2	6.3	3.3	0.2		3.5	0.1
7.486	10.2	1.8	0.2	10.8	1.8	0.1	6.3	3.0	0.1		3.4	0.2
7.496	10.6	2.3	0.1	11.7	1.9	0.1	8.3	2.9	0.2		3.3	0.2
7.505	11.8	1.8	0.1	13.6	2.0	0.2	8.6	3.2	0.2		3.4	0.2
7.515	11.3	1.8	0.1	12.5	2.0	0.1	8.8	3.0	0.1		3.2	0.2
7.524	10.4	2.0	0.1	12.5	2.0	0.2	8.9	3.0	0.1		3.3	0.2
7.534	10.7	1.9	0.0	10.8	2.2	0.2	8.1	3.1	0.0		3.1	0.2
7.543	9.9	2.0	0.0	11.1	2.1	0.2	8.1	3.1	0.1		3.4	0.2
7.552	8.6	2.0	0.0	11.8	1.9	0.2	9.2	2.8	0.1		3.2	0.2
7.562	10.1	1.9	0.1	10.6	2.1	0.1	7.5	2.9	0.1		3.4	0.1
7.571	10.2	2.2	0.0	10.2	2.0	0.1	7.9	2.8	0.1		3.5	0.2
7.581	9.7	2.0	0.1	10.9	2.0	0.1	8.4	3.1	0.2		3.5	0.2
7.590	9.3	1.9	0.0	10.1	2.0	0.1	8.6	3.0	0.1		3.5	0.2
7.600	9.8	2.0	0.0	8.9	1.8	0.1	8.5	3.2	0.1		3.4	0.2
7.609	8.4	2.0	0.0	9.6	1.8	0.1	8.5	3.1	0.1		3.3	0.3

GPR & MPSV Data I-4 Eastbound MP 6.018 to MP 9.249 for FPN 432453-1

	R1			R2			R3			R4		
Milepost	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)
7.619	7.6	2.0	0.0	9.5	2.0	0.1	9.0	2.9	0.1		3.3	0.2
7.628	8.3	2.2	0.0	9.6	1.8	0.1	8.1	3.0	0.1		3.2	0.1
7.638	8.3	1.9	0.1	9.8	2.0	0.1	7.7	3.0	0.1		3.4	0.1
7.647	8.5	2.1	0.1	9.7	1.8	0.1	8.2	2.9	0.1		3.4	0.2
7.657	9.0	1.9	0.0	9.5	1.9	0.1	7.3	3.2	0.1		3.2	0.1
7.666	8.9	1.9	0.1	9.3	1.9	0.1	7.7	2.9	0.1		3.4	0.1
7.676	8.7	2.2	0.1	9.3	1.8	0.1	7.8	3.3	0.1		3.4	0.2
7.685	9.3	2.3	0.1	9.5	2.1	0.2	7.9	2.9	0.2		3.5	0.2
7.695	8.4	2.6	0.0	9.4	1.9	0.1	8.0	3.2	0.1		3.3	0.1
7.704	8.4	2.4	0.0	9.2	1.9	0.2	7.5	2.9	0.2		3.3	0.1
7.713	7.4	1.9	0.1	9.5	2.0	0.2	7.4	3.2	0.2		2.9	0.1
7.723	8.0	2.2	0.0	9.7	1.8	0.2	7.3	3.1	0.2		3.5	0.1
7.732	8.3	2.3	0.0	8.3	1.8	0.2	7.1	3.3	0.2		3.2	0.1
7.742	7.4	2.2	0.0	8.3	1.9	0.1	6.7	3.0	0.2		3.3	0.1
7.751	7.5	2.2	0.0	9.7	2.0	0.2	6.7	3.1	0.2		3.6	0.1
7.761	9.6	2.3	0.0	9.3	1.6	0.2	6.6	2.9	0.2		3.5	0.1
7.770	9.4	2.4	0.0	10.2	2.0	0.1	6.6	2.9	0.2		3.3	0.2
7.780	9.7	2.1	0.0	9.9	1.8	0.1	7.1	3.1	0.2		3.3	0.2
7.789	9.3	2.2	0.0	10.9	2.1	0.2	7.6	2.7	0.1		3.3	0.2
7.799	10.7	2.1	0.0	9.8	2.0	0.2	7.7	2.9	0.3		3.3	0.2
7.808	9.8	2.1	0.0	9.8	1.7	0.2	8.1	3.1	0.3		3.4	0.2
7.818	10.1	2.0	0.1	10.1	1.9	0.2	8.4	3.1	0.3		3.4	0.2
7.827	9.5	1.3	0.1	10.3	1.5	0.2	8.0	2.8	0.3		3.3	0.2
7.837	9.6	1.5	0.0	10.4	1.8	0.2	8.0	2.7	0.3		3.5	0.2
7.846	8.8	1.6	0.1	10.5	1.9	0.2	8.0	2.9	0.3		3.4	0.2
7.855	8.7	1.6	0.1	5.6	2.1	0.1	6.9	2.9	0.3		3.2	0.2
7.865	5.3	1.3	0.1	5.1	2.0	0.2	6.2	3.1	0.2		3.0	0.2
7.874	4.1	1.4	0.0	6.0	1.9	0.1	6.1	2.8	0.1		3.1	0.2
7.884	4.9	1.9	0.0	6.1	1.5	0.1	6.8	2.5	0.1		3.4	0.3
7.893	5.5	2.1	0.0	6.0	2.2	0.1	6.5	2.7	0.1		3.4	0.2
7.903	6.0	2.1	0.1	5.8	2.1	0.1	6.6	2.8	0.2		3.3	0.2
7.912	5.4	2.2	0.1	6.0	2.0	0.1	6.4	2.8	0.2		3.1	0.2
7.922	5.2	2.2	0.1	5.3	2.2	0.2	6.3	2.9	0.1		3.5	0.1
7.931	5.5	2.2	0.1	5.4	2.3	0.2	6.2	2.9	0.2		3.4	0.1
7.941	5.4	2.4	0.1	6.4	2.1	0.2	7.0	2.9	0.2		3.7	0.1
7.950	6.1	2.4	0.1	5.5	2.5	0.2	6.2	2.5	0.2		3.7	0.1
7.960	6.2	2.2	0.1	5.9	2.1	0.2	5.9	2.6	0.1		4.3	0.0
7.969	5.4	2.1	0.1	6.2	1.9	0.2	6.0	2.7	0.1			
7.979	6.1	2.2	0.1	6.0	2.3	0.1	5.7	2.9	0.1			
7.988	5.9	2.1	0.1	5.8	2.3	0.2	6.4	2.0	0.1			
7.998	5.2	2.1	0.1	5.8	2.6	0.1	6.0	2.5	0.1			
8.007	6.0	2.1	0.1	6.4	2.2	0.1	5.7	2.8	0.2			
8.016	6.3	2.1	0.1	6.3	2.3	0.2	5.7	2.7	0.1			
8.026	6.2	2.2	0.1	6.3	1.9	0.1	5.9	3.0	0.1			
8.035	6.8	2.3	0.1	6.4	2.1	0.1	5.2	2.9	0.2			
8.045	6.3	2.1	0.1	6.3	1.6	0.1	6.2	2.8	0.1			
8.054	6.0	2.1	0.1	6.1	1.9	0.1	5.1	2.7	0.1			
8.064	6.3	2.2	0.1	5.9	2.3	0.2	6.1	3.4	0.1			
8.073	5.6	2.1	0.1	7.1	2.0	0.1	6.3	2.6	0.2			
8.083	6.9	2.0	0.1	7.3	2.1	0.1	6.7	2.8	0.2			
8.092	6.7	1.9	0.1	6.5	2.2	0.2	5.8	2.6	0.2			
8.102	6.7	1.9	0.1	7.2	2.3	0.2	6.6	2.8	0.2			
8.111	7.0	1.9	0.1	6.9	2.0	0.2	7.0	2.8	0.2			
8.121	6.2	1.5	0.0	7.2	2.0	0.2	6.3	3.2	0.2			
8.130	6.5	1.9	0.2	7.1	2.1	0.2	6.8	2.7	0.2			
8.140	6.8	1.8	0.1	6.8	2.2	0.2	6.5	3.3	0.2			
8.149	6.6	2.2	0.1	6.7	2.2	0.2	6.6	3.1	0.2			
8.159	6.3	1.8	0.0	7.0	2.3	0.2	6.6	3.2	0.2			

GPR & MPSV Data I-4 Eastbound MP 6.018 to MP 9.249 for FPN 432453-1

	R1			R2			R3			R4		
Milepost	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)
8.168	6.0	1.6	0.0	6.8	2.0	0.1	6.8	3.2	0.2			
8.177	5.8	1.8	0.0	6.6	2.1	0.1	7.1	3.1	0.2			
8.187	6.4	1.7	0.0	6.6	2.3	0.2	7.1	3.4	0.2			
8.196	6.8	1.8	0.0	6.7	2.2	0.2	6.5	3.1	0.2			
8.206	6.3	2.0	0.1	6.4	2.5	0.2	6.4	3.1	0.2			
8.215	6.6	2.1	0.1	6.8	2.2	0.2	6.2	3.0	0.2			
8.225	7.1	2.0	0.1	7.7	2.5	0.2	6.4	3.4	0.2			
8.234	7.3	2.1	0.1	7.6	2.2	0.2	6.9	3.0	0.2			
8.244	7.2	2.0	0.1	6.4	1.9	0.1	6.5	2.3	0.2			
8.253	6.7	2.4	0.1	0.0	1.8	0.1	0.0	2.0	0.2			
8.263	0.0	2.3	0.1	0.0	2.2	0.1	0.0	2.1	0.2			
8.272	0.0	2.4	0.1	0.0	2.3	0.1	0.0	2.0	0.2			
8.282	0.0	2.5	0.1	0.0	2.2	0.1	0.0	2.2	0.2			
8.291	0.0	1.3	0.2	4.8	2.2	0.2	4.0	2.1	0.2			
8.301	5.4	1.8	0.1	5.1	2.5	0.2	4.7	2.2	0.2			
8.310	4.7	1.5	0.1	5.1	2.3	0.2	4.4	2.3	0.2			
8.320	4.8	1.6	0.1	5.6	2.4	0.2	4.7	2.2	0.2			
8.329	5.4	1.5	0.1	5.3	2.3	0.2	4.6	2.8	0.2			
8.338	5.0	1.2	0.1	5.7	2.5	0.2	5.0	3.4	0.2			
8.348	5.5	1.6	0.1	5.2	2.8	0.2	4.8	2.9	0.2			
8.357	4.7	1.4	0.1	5.3	2.5	0.2	4.9	3.1	0.2			
8.367	5.0	1.7	0.1	5.6	2.5	0.2	4.9	3.5	0.1			
8.376	5.1	1.5	0.1	5.1	2.3	0.1	5.1	3.5	0.1			
8.386	4.3	1.5	0.1	5.3	2.4	0.2	4.7	3.1	0.1			
8.395	4.5	1.5	0.1	5.4	2.1	0.2	5.0	2.5	0.1			
8.405	4.3	1.4	0.1	4.9	2.5	0.2	5.0	2.6	0.2			
8.414	4.4	1.5	0.1	5.1	2.5	0.2	5.0	2.9	0.2			
8.424	4.5	1.6	0.1	5.3	2.4	0.2	4.9	2.7	0.1			
8.433	4.8	1.9	0.1	5.3	2.3	0.2	4.8	3.0	0.2			
8.443	4.7	1.7	0.1	5.2	2.3	0.2	5.1	2.5	0.1			
8.452	5.0	1.9	0.1	6.7	2.4	0.2	5.1	2.9	0.1			
8.462	6.1	1.8	0.1	5.8	3.0	0.2	6.3	2.7	0.2			
8.471	4.9	1.8	0.1	5.9	2.2	0.2	5.1	1.7	0.2			
8.480	5.2	1.5	0.1	5.5	2.3	0.2	6.2	1.7	0.2			
8.490	5.1	1.6	0.1	5.7	2.3	0.2	5.7	1.4	0.2			
8.499	4.8	1.9	0.0	5.5	1.9	0.1	5.7	1.5	0.2			
8.509	4.7	1.6	0.1	5.7	2.3	0.1	5.3	1.5	0.2			
8.518	4.5	1.7	0.1	5.1	2.4	0.2	5.6	1.7	0.2			
8.528	4.8	1.7	0.1	5.9	2.2	0.2	5.6	1.5	0.1			
8.537	4.9	1.7	0.1	5.8	1.9	0.2	6.3	1.5	0.2			
8.547	4.8	2.2	0.1	5.2	2.4	0.2	5.5	1.8	0.1			
8.556	5.6	2.6	0.1	5.8	2.8	0.1	5.5	2.6	0.1			
8.566	5.3	3.2	0.1	5.8	3.6	0.1	5.3	3.7	0.1			
8.575	5.1	4.1	0.1	6.4	3.7	0.1	5.5	3.9	0.1			
8.585	5.6	5.2	0.1	5.9	5.3	0.1	4.8	4.3	0.1			
8.594	5.2	5.2	0.1	10.1	5.7	0.2	6.4	4.6	0.1			
8.604	9.3	5.3	0.1	10.2	5.8	0.2	5.5	4.2	0.1			
8.613	9.8	5.5	0.1	10.2	5.8	0.2	5.6	5.0	0.1			
8.623	9.7	6.1	0.1	9.8	5.9	0.2	6.3	5.4	0.1		4.7	0.1
8.632	10.3	6.4	0.1	10.2	6.7	0.2	6.2	6.4	0.1		5.0	0.1
8.641	10.1	6.4	0.1	9.6	7.0	0.2	6.2	6.7	0.2		5.2	0.0
8.651	10.6	6.3	0.1	9.8	6.7	0.2	7.3	6.0	0.2		6.2	0.1
8.660	10.5	6.4	0.1	10.5	6.7	0.2	6.8	6.1	0.2		5.9	0.1
8.670	10.8	6.7	0.1	10.1	6.4	0.2	7.3	5.8	0.2		5.5	0.1
8.679	10.7	5.7	0.1	10.6	5.8	0.2	8.6	5.5	0.2		6.6	0.3
8.689	10.9	5.2	0.1	12.2	5.9	0.2	8.0	5.8	0.2		6.4	0.1
8.698	10.4	6.1	0.1	9.3	6.0	0.2	8.0	6.7	0.2		5.7	0.1
8.708	9.6	6.3	0.1	9.5	6.0	0.1	8.3	6.3	0.1		4.7	0.1

GPR & MPSV Data I-4 Eastbound MP 6.018 to MP 9.249 for FPN 432453-1

	R1			R2			R3			R4		
Milepost	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)
8.717	8.9	6.2	0.1	9.3	6.0	0.1	7.9	5.9	0.1		5.4	0.1
8.727	9.0	5.7	0.1	9.6	5.4	0.2	7.8	5.6	0.1		5.9	0.1
8.736	8.3	5.5	0.1	9.3	4.9	0.1	7.4	4.9	0.1		6.6	0.1
8.746	8.4	5.6	0.1	9.6	4.9	0.1	8.8	4.4	0.1		6.5	0.1
8.755	8.9	5.4	0.1	9.4	4.9	0.2	8.3	5.0	0.1		6.2	0.1
8.765	8.7	5.8	0.1	9.5	5.0	0.1	8.5	5.4	0.1		6.5	0.1
8.774	8.0	5.5	0.1	10.0	5.3	0.2	8.8	5.6	0.1		6.0	0.1
8.784	8.6	5.7	0.1	10.6	5.3	0.2	8.6	5.7	0.2		6.0	0.1
8.793	7.6	5.8	0.1	10.3	5.2	0.1	9.5	5.9	0.1		5.9	0.1
8.802	9.4	6.7	0.1	11.4	5.3	0.1	9.1	5.9	0.1		5.3	0.1
8.812	9.8	5.9	0.1	10.8	5.4	0.2	8.8	5.7	0.1		4.5	0.1
8.821	9.9	5.5	0.1	11.3	5.5	0.2	9.6	6.0	0.2		4.7	0.1
8.831	9.2	5.6	0.1	11.2	5.4	0.1	9.5	6.3	0.1		4.5	0.1
8.840	8.7	5.2	0.1	10.2	4.8	0.2	9.0	6.5	0.1		4.7	0.1
8.850	8.7	5.1	0.0	10.0	4.8	0.2	8.6	6.0	0.2		5.4	0.1
8.859	4.0	5.0	0.1	10.3	5.1	0.2	11.8	5.8	0.1		6.1	0.0
8.869	7.1	4.9	0.1	10.4	5.1	0.2	11.5	5.7	0.2		5.6	0.1
8.878	6.7	5.7	0.1	9.9	5.2	0.2	10.0	6.1	0.2		5.7	0.1
8.888	7.3	5.9	0.1	9.5	5.3	0.1	9.4	6.1	0.1		5.4	0.1
8.897	6.5	6.3	0.1	8.9	5.8	0.1	10.3	6.1	0.1		6.0	0.1
8.907	7.1	5.6	0.1	9.6	6.2	0.1	10.4	6.5	0.1		6.4	0.1
8.916	6.0	5.5	0.1	9.7	5.9	0.1	9.7	6.8	0.1		6.1	0.1
8.926	6.4	5.2	0.1	8.8	5.8	0.1	9.9	6.6	0.1		5.7	0.1
8.935	6.0	5.2	0.1	9.1	5.3	0.0	10.3	5.9	0.1		5.8	0.1
8.945	6.3	4.8	0.1	9.1	5.1	0.0	9.4	6.0	0.1		5.8	0.2
8.954	6.6	4.8	0.1	9.0	5.0	0.0	9.8	6.1	0.2		5.1	0.2
8.963	6.0	5.1	0.2	9.7	5.1	0.0	9.8	6.0	0.1		5.3	0.2
8.973	6.8	4.9	0.1	9.8	5.5	0.0	10.1	6.0	0.1		5.7	0.2
8.982	6.5	4.8	0.1	10.4	5.6	0.0	10.0	5.7	0.1		5.3	0.1
8.992	6.6	5.1	0.1	11.0	5.9	0.0	10.5	5.5	0.1		5.0	0.1
9.001	6.2	3.8	0.2	10.1	5.7	0.0	9.7	5.1	0.1		5.6	0.2
9.011	6.4	2.3	0.2	8.8	4.7	0.0	10.6	3.9	0.1		5.0	0.2
9.020	6.0	1.4	0.1	10.5	3.5	0.0	10.8	3.2	0.1		3.5	0.1
9.030	6.7	0.3	0.2	8.8	3.1	0.0	9.2	3.6	0.1		4.1	0.3
9.039	6.6	0.3	0.2	9.7	2.5	0.1	9.2	3.1	0.1		3.0	0.1
9.049	6.4	-0.2	0.2	7.9	1.9	0.0	8.4	2.9	0.2		2.9	0.1
9.058	6.0	0.2	0.2	8.6	1.9	0.0	8.2	2.8	0.2		2.0	0.2
9.068	6.5	0.1	0.1	8.8	1.7	0.1	9.6	1.7	0.1		2.2	0.2
9.077	7.2	0.7	0.1	9.9	2.0	0.1	8.9	2.0	0.1		2.4	0.1
9.087	6.6	0.5	0.1	8.9	1.9	0.0	9.1	2.3	0.1		2.5	0.2
9.096	6.6	0.6	0.0	9.7	1.9	0.0	9.2	2.2	0.1		2.5	0.1
9.105	7.0	0.9	0.1	9.2	1.8	0.1	9.2	2.3	0.1		2.8	0.2
9.115	7.4	0.4	0.0	10.6	1.8	0.1	9.2	2.3	0.1		2.4	0.2
9.124	7.2	0.6	0.1	9.8	1.9	0.1	10.4	2.6	0.1		2.7	0.2
9.134	7.3	0.5	0.1	9.8	1.8	0.1	9.2	2.6	0.1		3.0	0.1
9.143	6.9	0.4	0.1	10.1	2.2	0.0	9.9	2.7	0.1		2.6	0.1
9.153	7.0	0.7	0.1	9.7	1.9	0.0	9.5	2.5	0.1		2.7	0.2
9.162	6.8	0.5	0.1	9.5	2.2	0.1	9.7	2.0	0.1		2.8	0.2
9.172	7.2	0.6	0.1	10.2	2.1	0.0	9.3	2.0	0.1		2.6	0.1
9.181	7.4	0.6	0.2	9.7	2.2	0.1	9.2	2.0	0.1		3.0	0.1
9.191	6.7	0.5	0.1	9.5	2.0	0.1	9.1	2.1	0.1		2.6	0.1
9.200	6.7	0.7	0.1	9.3	2.2	0.1	8.4	2.3	0.1		3.0	0.1
9.210	6.7	0.4	0.1	8.8	2.5	0.1	9.4	2.1	0.1		2.9	0.1
9.219	6.8	0.7	0.1	8.3	2.0	0.1	8.7	2.2	0.1		2.8	0.1
9.229	7.0	-0.1	0.1	9.5	1.9	0.1	8.9	2.2	0.1		2.5	0.1

GPR & MPSV Data I-4 Westbound MP 6.018 to MP 8.282 for FPN 432453-1

	L4			L3			L2			L1		
Milepost	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)
6.018				9.0	2.2	0.1	11.4	2.9	0.1	10.0	2.3	0.0
6.028				8.9	2.3	0.1	10.8	2.8	0.1	9.8	2.5	0.0
6.037				9.3	2.3	0.1	10.8	3.1	0.1	9.3	2.5	0.0
6.047				9.8	2.5	0.1	11.0	3.6	0.1	10.8	2.5	0.0
6.056				9.2	2.8	0.1	10.7	3.3	0.1	11.2	2.4	0.0
6.066				9.2	2.3	0.1	10.9	2.7	0.1	10.6	2.2	0.0
6.075				9.7	2.4	0.1	11.4	2.6	0.1	10.6	1.5	0.0
6.085				9.5	2.5	0.1	10.9	2.7	0.1	10.2	2.2	0.0
6.094				9.7	2.6	0.1	10.2	2.6	0.1	10.7	2.5	0.0
6.104				9.5	2.5	0.1	11.1	2.7	0.1	10.2	2.3	0.0
6.113				9.5	2.5	0.0	11.7	2.9	0.1	10.5	2.7	0.0
6.123				9.6	2.7	0.1	11.5	2.9	0.1	10.7	3.2	0.0
6.132				9.3	2.5	0.1	11.4	3.4	0.1	10.4	2.9	0.1
6.141				9.3	2.6	0.1	11.1	3.3	0.1	10.6	2.4	0.0
6.151				9.8	2.4	0.1	11.5	3.1	0.0	11.9	2.0	0.0
6.160				8.1	2.6	0.1	11.3	2.8	0.1	11.6	1.5	0.1
6.170				8.8	2.7	0.1	11.1	3.1	0.1	11.6	1.4	0.0
6.179				8.4	1.9	0.1	10.9	3.4	0.1	10.9	1.8	0.0
6.189				8.6	1.8	0.2	9.8	3.3	0.1	10.6	1.4	0.1
6.198				9.2	2.2	0.0	10.6	3.1	0.0	10.4	1.1	0.0
6.208				8.8	3.1	0.1	11.1	2.1	0.0	10.9	2.0	0.0
6.217				9.6	3.3	0.1	10.7	2.0	0.0	10.5	2.0	0.0
6.227				8.7	3.3	0.1	11.0	2.1	0.1	9.7	1.8	0.1
6.236				7.9	3.3	0.1	10.8	2.0	0.1	9.3	1.5	0.1
6.246				8.0	3.4	0.2	10.5	2.1	0.1	10.4	1.5	0.1
6.255				8.8	3.3	0.2	11.0	1.8	0.1	9.7	1.8	0.0
6.265				8.5	3.5	0.2	10.7	2.1	0.0	9.9	1.5	0.1
6.274				8.1	3.4	0.1	11.1	2.1	0.0	9.4	2.0	0.1
6.284				8.1	3.4	0.1	11.7	2.0	0.0	8.8	1.8	0.0
6.293				8.6	3.5	0.1	11.2	2.0	0.0	8.8	1.5	0.1
6.302				9.2	3.3	0.1	11.5	2.1	0.0	9.9	1.9	0.1
6.312				8.1	3.4	0.1	10.8	2.3	0.1	11.2	1.8	0.1
6.321				8.6	3.2	0.1	10.4	2.3	0.1	10.9	1.4	0.1
6.331				8.5	3.1	0.1	10.3	2.5	0.1	9.9	1.4	0.0
6.340				8.4	3.2	0.1	10.6	2.4	0.1	10.2	1.6	0.1
6.350				8.2	3.2	0.1	10.9	2.3	0.1	10.9	2.1	0.1
6.359				8.8	3.4	0.1	11.0	2.5	0.1	10.8	1.6	0.0
6.369				8.7	3.4	0.1	10.5	2.1	0.1	9.6	1.8	0.0
6.378				8.5	3.2	0.1	11.0	2.4	0.1	9.6	1.8	0.0
6.388				8.4	3.3	0.1	10.4	2.4	0.1	9.5	1.8	0.0
6.397				8.6	3.2	0.1	9.7	2.3	0.1	10.2	1.8	0.0
6.407				8.2	3.4	0.3	9.9	2.2	0.1	10.1	1.7	0.0
6.416				8.1	3.8	0.2	10.5	2.2	0.2	9.8	1.7	0.0
6.426				8.1	3.5	0.3	10.7	2.2	0.1	10.2	1.9	0.0
6.435				9.1	3.7	0.2	9.8	2.2	0.1	10.3	2.3	0.0
6.445				9.6	3.5	0.3	10.3	2.3	0.1	9.0	1.6	0.1
6.454				8.5	3.6	0.3	9.7	2.3	0.1	9.0	1.4	0.0
6.463				8.9	3.5	0.3	9.9	2.1	0.1	9.4	1.2	0.0
6.473				7.6	3.2	0.1	9.5	2.2	0.1	9.5	1.4	0.0
6.482				7.9	3.1	0.1	9.3	2.4	0.2	9.2	2.0	0.0
6.492				8.7	2.8	0.1	9.7	2.3	0.2	8.5	3.0	0.1
6.501				10.3	2.7	0.1	11.8	2.4	0.1	7.8	1.7	0.0
6.511				9.2	3.1	0.1	12.7	2.3	0.2	8.1	1.9	0.0
6.520				7.3	3.3	0.1	10.9	2.4	0.2	9.0	1.6	0.0
6.530				5.9	3.2	0.1	10.2	2.2	0.2	9.9	1.7	0.1
6.539				9.0	3.0	0.1	10.1	2.3	0.2	10.4	1.9	0.0
6.549				8.1	3.0	0.1	10.8	2.3	0.1	11.7	1.9	0.0
6.558		4.7	0.0	9.8	3.3	0.1	11.2	2.3	0.1	11.8	2.1	0.0

GPR & MPSV Data I-4 Westbound MP 6.018 to MP 8.282 for FPN 432453-1

	L4			L3			L2			L1		
Milepost	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)
6.568		4.9	0.0	9.7	3.7	0.1	12.0	2.3	0.1	10.7	1.9	0.0
6.577		3.6	0.2	10.1	3.4	0.1	11.9	2.2	0.1	10.9	1.9	0.0
6.587		3.0	0.1	9.0	3.3	0.1	12.0	2.1	0.2	10.8	2.1	0.0
6.596		3.2	0.1	8.9	3.4	0.2	12.0	2.3	0.1	10.8	2.0	0.0
6.605		3.2	0.1	9.5	3.2	0.2	11.2	2.4	0.2	11.4	1.9	0.0
6.615		3.3	0.1	10.4	3.0	0.1	12.1	2.5	0.2	11.6	1.9	0.0
6.624		3.3	0.1	11.2	3.2	0.1	12.8	2.5	0.1	10.8	1.9	0.0
6.634		3.1	0.1	8.7	3.2	0.1	11.7	2.3	0.1	11.1	1.9	0.0
6.643		3.2	0.1	9.2	3.3	0.1	11.6	2.4	0.1	11.8	1.9	0.1
6.653		3.3	0.1	9.2	3.2	0.1	11.5	2.4	0.2	11.3	2.2	0.0
6.662		3.2	0.2	8.4	3.2	0.1	12.4	2.4	0.2	12.3	2.1	0.0
6.672		3.2	0.1	9.9	3.1	0.1	12.8	2.5	0.2	12.2	2.0	0.0
6.681		3.5	0.2	9.6	3.0	0.1	13.0	2.3	0.2	10.8	1.9	0.0
6.691		3.3	0.2	10.8	3.4	0.1	12.8	2.5	0.1	11.2	2.0	0.0
6.700		3.3	0.1	12.3	3.3	0.0	12.1	2.5	0.2	10.7	1.8	0.0
6.710		3.3	0.2	11.4	3.2	0.1	12.9	2.6	0.2	11.5	1.9	0.0
6.719		3.2	0.1	10.6	3.3	0.1	12.5	2.6	0.2	11.7	2.0	0.0
6.729		3.3	0.1	9.7	3.2	0.0	12.9	2.8	0.2	13.0	1.9	0.0
6.738		3.3	0.0	10.2	3.2	0.0	13.1	2.6	0.2	12.1	2.0	0.0
6.748		3.2	0.0	11.0	3.3	0.1	12.1	2.4	0.2	11.9	2.1	0.0
6.757		3.3	0.1	11.0	3.2	0.1	14.2	2.4	0.2	13.2	1.9	0.0
6.766		3.1	0.1	11.2	3.0	0.1	13.2	2.9	0.2	13.2	1.8	0.0
6.776		3.2	0.1	11.0	3.4	0.2	13.8	2.6	0.2	13.1	2.1	0.0
6.785		3.1	0.1	10.5	3.5	0.2	13.7	2.7	0.2	12.8	1.9	0.0
6.795		3.1	0.2	11.2	3.2	0.1	13.1	2.6	0.2	12.8	1.8	0.0
6.804		3.1	0.2	11.4	3.0	0.1	13.1	2.5	0.2	13.1	1.9	0.1
6.814		3.1	0.1	9.0	3.2	0.1	14.1	2.4	0.2	12.3	1.8	0.1
6.823		3.0	0.2	10.9	3.2	0.2	12.7	2.7	0.1	12.5	1.8	0.0
6.833		2.9	0.1	10.3	3.2	0.1	12.1	2.5	0.3	12.6	2.1	0.0
6.842		3.3	0.1	11.6	3.1	0.2	13.9	2.6	0.2	13.3	1.7	0.0
6.852		3.2	0.1	10.5	3.2	0.2	13.4	2.7	0.2	12.8	2.0	0.0
6.861		3.2	0.1	10.1	3.3	0.2	13.8	2.7	0.2	13.6	1.8	0.0
6.871		3.1	0.1	9.1	3.3	0.2	11.1	2.7	0.2	13.5	2.1	0.0
6.880		3.2	0.1	6.6	3.2	0.2	10.0	2.6	0.2	13.3	2.4	0.0
6.890		3.1	0.2	4.9	3.2	0.2	10.3	2.3	0.1	12.0	2.1	0.0
6.899		3.1	0.2	4.8	3.1	0.2	10.6	2.2	0.1	13.2	2.3	0.0
6.909		3.1	0.1	6.5	3.1	0.1	9.3	2.3	0.1	12.2	2.1	0.0
6.918		3.2	0.1	4.8	3.2	0.2	12.5	2.4	0.1	11.3	2.1	0.1
6.927		3.1	0.1	3.6	3.1	0.2	10.7	2.5	0.1	10.4	2.1	0.0
6.937		3.2	0.2	6.0	3.2	0.2	10.1	2.3	0.1	9.2	2.3	0.0
6.946		3.1	0.2	5.4	3.2	0.2	10.0	2.7	0.1	10.3	2.2	0.0
6.956		3.2	0.2	8.2	3.3	0.2	9.9	2.4	0.1	11.3	2.2	0.0
6.965		3.0	0.2	7.1	3.8	0.3	12.1	2.4	0.1	9.4	2.3	0.0
6.975		3.1	0.1	7.6	3.1	0.2	10.4	2.4	0.1	11.1	2.1	0.0
6.984		3.1	0.1	7.3	3.4	0.2	11.8	2.6	0.1	10.6	2.2	0.0
6.994		3.1	0.1	9.9	3.6	0.2	11.3	2.3	0.1	10.7	2.2	0.0
7.003		2.9	0.2	8.7	3.4	0.2	11.4	2.4	0.1	11.3	2.2	0.0
7.013		3.1	0.2	8.9	3.4	0.2	10.7	2.2	0.1	10.1	2.0	0.0
7.022		3.0	0.1	8.6	3.4	0.1	12.7	2.2	0.1	10.5	2.2	0.0
7.032		3.1	0.2	9.4	3.4	0.2	12.2	2.3	0.1	10.5	2.2	0.0
7.041		3.0	0.2	8.9	3.3	0.2	13.3	2.2	0.1	12.0	2.1	0.0
7.051		3.0	0.2	10.0	3.3	0.1	12.1	2.3	0.1	9.6	1.9	0.0
7.060		3.1	0.1	9.2	3.0	0.1	7.3	2.4	0.1	10.9	2.0	0.0
7.070		2.6	0.3	10.6	3.3	0.2	14.1	2.3	0.1	10.0	1.2	0.3
7.079		2.7	0.1	11.5	3.2	0.2	12.5	2.5	0.2	10.5	1.7	0.2
7.088		3.1	0.1	11.4	3.2	0.2	13.6	2.6	0.0	12.8	2.1	0.0
7.098		3.0	0.2	11.5	3.3	0.2	15.7	2.9	0.2	11.7	2.0	0.0
7.107		2.9	0.2	9.3	3.4	0.1	15.6	2.8	0.2	13.6	2.1	0.0

GPR & MPSV Data I-4 Westbound MP 6.018 to MP 8.282 for FPN 432453-1

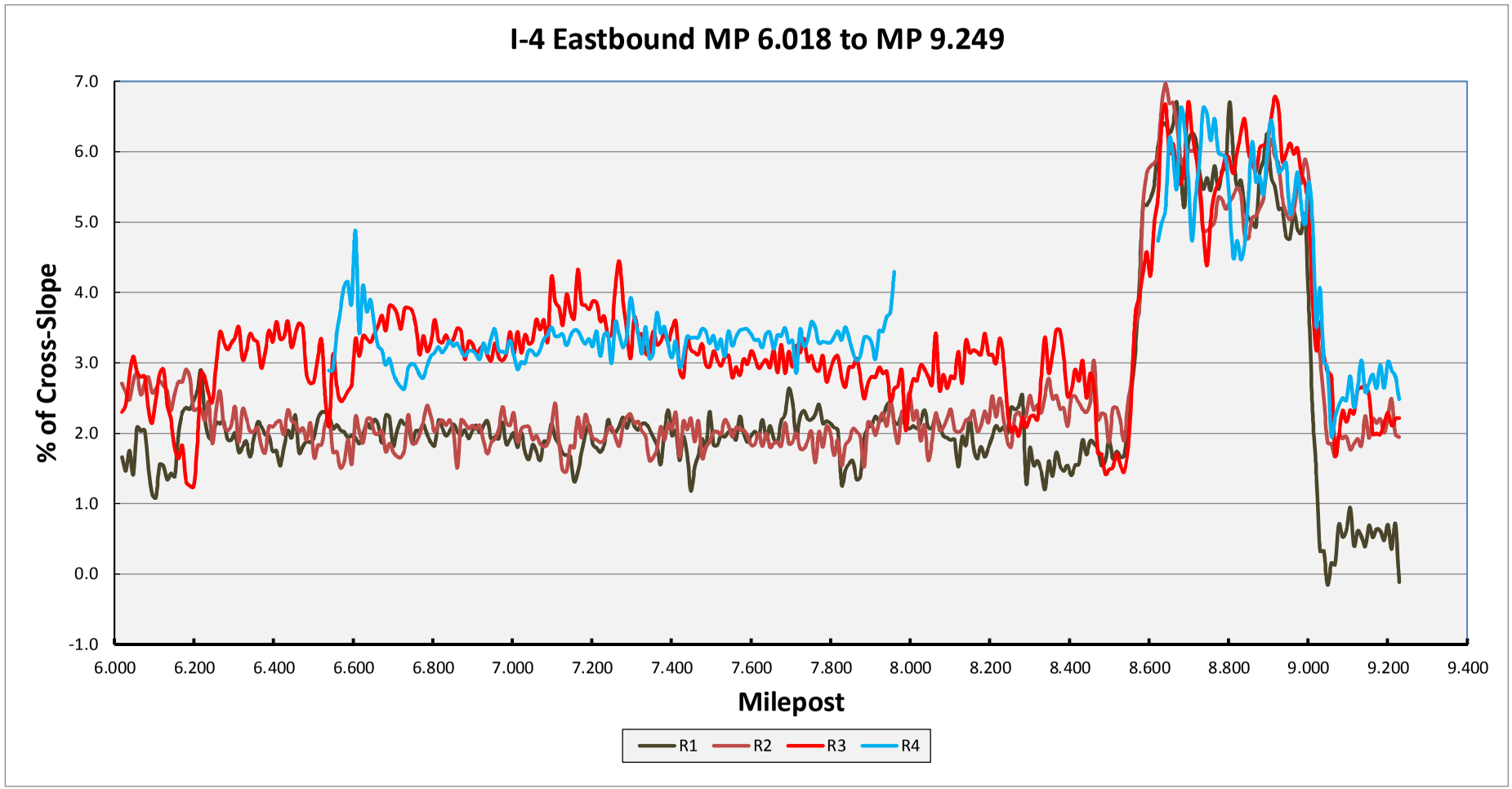
	L4			L3			L2			L1		
Milepost	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)
7.117		2.7	0.2	12.7	3.5	0.1	13.1	2.9	0.1	14.5	2.4	0.0
7.126		2.8	0.1	11.0	3.5	0.1	14.8	2.8	0.2	13.3	2.5	0.0
7.136		2.9	0.1	10.7	3.5	0.2	13.2	2.6	0.2	12.4	2.6	0.0
7.145		2.6	0.1	11.2	3.5	0.2	12.9	3.0	0.2	12.0	2.7	0.0
7.155		2.9	0.2	10.4	3.3	0.2	12.9	2.9	0.3	12.1	2.5	0.0
7.164		3.0	0.2	8.9	3.3	0.2	13.4	2.7	0.2	13.2	2.3	0.0
7.174		2.8	0.3	7.7	3.3	0.2	12.2	2.3	0.2	13.2	2.3	0.0
7.183		3.1	0.2	7.3	3.4	0.1	12.2	2.3	0.2	12.6	2.3	0.0
7.193		3.0	0.3	6.4	3.4	0.2	11.1	2.2	0.2	12.9	2.2	0.0
7.202		3.0	0.2	7.1	3.3	0.1	10.3	2.2	0.2	12.9	2.5	0.0
7.212		3.1	0.2	7.5	3.5	0.1	9.8	2.3	0.1	11.6	2.1	0.0
7.221		3.2	0.2	6.9	3.3	0.2	10.7	2.3	0.1	11.1	2.2	0.0
7.230		3.2	0.2	5.1	3.3	0.1	8.9	2.3	0.1	9.2	2.0	0.0
7.240		3.1	0.2	5.9	3.4	0.2	10.2	2.3	0.1	11.1	2.1	0.0
7.249		3.2	0.2	5.8	3.2	0.1	11.5	2.5	0.1	10.4	2.1	0.0
7.259		3.1	0.1	5.6	3.3	0.2	10.6	2.2	0.1	10.6	2.1	0.0
7.268		3.0	0.1	6.0	3.2	0.1	11.1	2.2	0.1	10.5	1.8	0.0
7.278		3.0	0.1	8.0	3.3	0.1	9.9	2.1	0.1	9.4	1.7	0.0
7.287		3.1	0.1	8.6	3.6	0.2	11.7	2.2	0.1	10.1	2.2	0.0
7.297		3.2	0.1	8.5	3.3	0.1	11.0	2.1	0.1	11.4	1.9	0.0
7.306		3.0	0.2	8.7	3.2	0.1	12.0	2.3	0.1	10.6	2.2	0.0
7.316		3.2	0.2	8.3	3.4	0.1	12.3	2.5	0.1	10.9	2.1	0.0
7.325		3.1	0.1	7.8	3.4	0.1	11.3	2.4	0.1	11.3	2.0	0.0
7.335		3.2	0.1	8.2	3.5	0.1	11.1	2.3	0.1	11.2	2.3	0.0
7.344		3.2	0.2	8.7	3.4	0.1	12.4	2.4	0.1	11.3	2.2	0.0
7.354		3.1	0.1	9.9	3.6	0.1	12.3	2.3	0.1	11.7	2.2	0.0
7.363		3.2	0.1	11.0	3.4	0.1	14.0	2.3	0.1	12.1	1.9	0.0
7.373		3.3	0.1	10.6	3.4	0.1	13.2	2.2	0.1	11.8	2.1	0.0
7.382		3.1	0.2	9.5	3.4	0.1	12.7	2.5	0.2	11.8	2.0	0.1
7.391		3.1	0.1	9.4	3.7	0.2	13.3	2.8	0.1	12.9	1.9	0.1
7.401		3.0	0.1	8.7	3.6	0.1	13.5	2.6	0.1	12.6	2.2	0.0
7.410		3.1	0.1	9.4	3.3	0.1	12.6	2.4	0.1	12.4	2.0	0.0
7.420		3.0	0.2	7.7	3.6	0.1	11.7	2.6	0.2	12.1	1.9	0.0
7.429		3.2	0.3	7.6	3.4	0.0	12.5	2.3	0.1	11.2	2.1	0.0
7.439		3.1	0.2	7.6	3.2	0.0	11.3	2.4	0.1	12.2	2.0	0.0
7.448		3.2	0.3	7.1	3.5	0.1	10.9	2.4	0.1	12.1	2.3	0.0
7.458		3.4	0.3	6.7	3.2	0.0	9.6	2.3	0.1	11.8	1.9	0.0
7.467		3.3	0.2	6.2	2.9	0.1	10.3	2.1	0.1	11.0	2.4	0.0
7.477		3.0	0.1	7.2	3.2	0.1	9.5	2.6	0.1	11.4	2.1	0.0
7.486		2.9	0.1	5.6	3.4	0.1	9.6	2.1	0.1	11.0	1.8	0.0
7.496		3.4	0.2	6.1	3.4	0.1	9.1	2.2	0.1	10.5	2.0	0.1
7.505		2.9	0.1	6.4	3.0	0.1	9.0	2.0	0.1	9.5	2.2	0.0
7.515		2.7	0.1	6.2	2.9	0.1	10.3	2.2	0.1	8.7	2.0	0.0
7.524		3.0	0.1	5.6	2.9	0.1	9.4	2.2	0.1	8.8	1.6	0.0
7.534		2.8	0.0	6.4	3.1	0.1	9.9	2.2	0.1	9.9	1.9	0.0
7.543		2.9	0.1	5.5	3.1	0.1	8.7	2.2	0.1	9.4	1.8	0.0
7.552		2.8	0.1	5.9	3.2	0.2	8.6	2.1	0.1	9.0	1.7	0.0
7.562		2.8	0.2	5.6	3.3	0.2	8.9	2.1	0.1	9.1	2.0	0.0
7.571		2.6	0.1	6.0	3.2	0.1	8.9	2.3	0.1	10.5	2.0	0.0
7.581		2.6	0.2	6.0	3.4	0.1	9.2	2.2	0.0	8.5	1.8	0.0
7.590		2.8	0.1	5.6	3.0	0.1	9.2	2.2	0.0	8.6	1.9	0.0
7.600		2.9	0.1	6.4	3.2	0.1	9.3	2.3	0.0	7.7	1.9	0.0
7.609		2.9	0.0	7.4	3.1	0.1	10.2	2.2	0.1	8.2	2.0	0.0
7.619		2.8	0.1	6.6	3.2	0.1	10.7	2.2	0.0	7.5	1.8	0.0
7.628		2.7	0.0	6.6	2.9	0.1	10.3	2.1	0.0	7.9	2.1	0.0
7.638		2.6	0.0	6.0	3.2	0.1	10.8	2.2	0.1	9.3	1.9	0.0
7.647		2.7	0.0	7.2	2.9	0.1	10.2	2.2	0.1	8.3	2.1	0.0
7.657		3.0	0.1	6.8	3.4	0.1	9.7	2.1	0.1	8.8	1.9	0.0

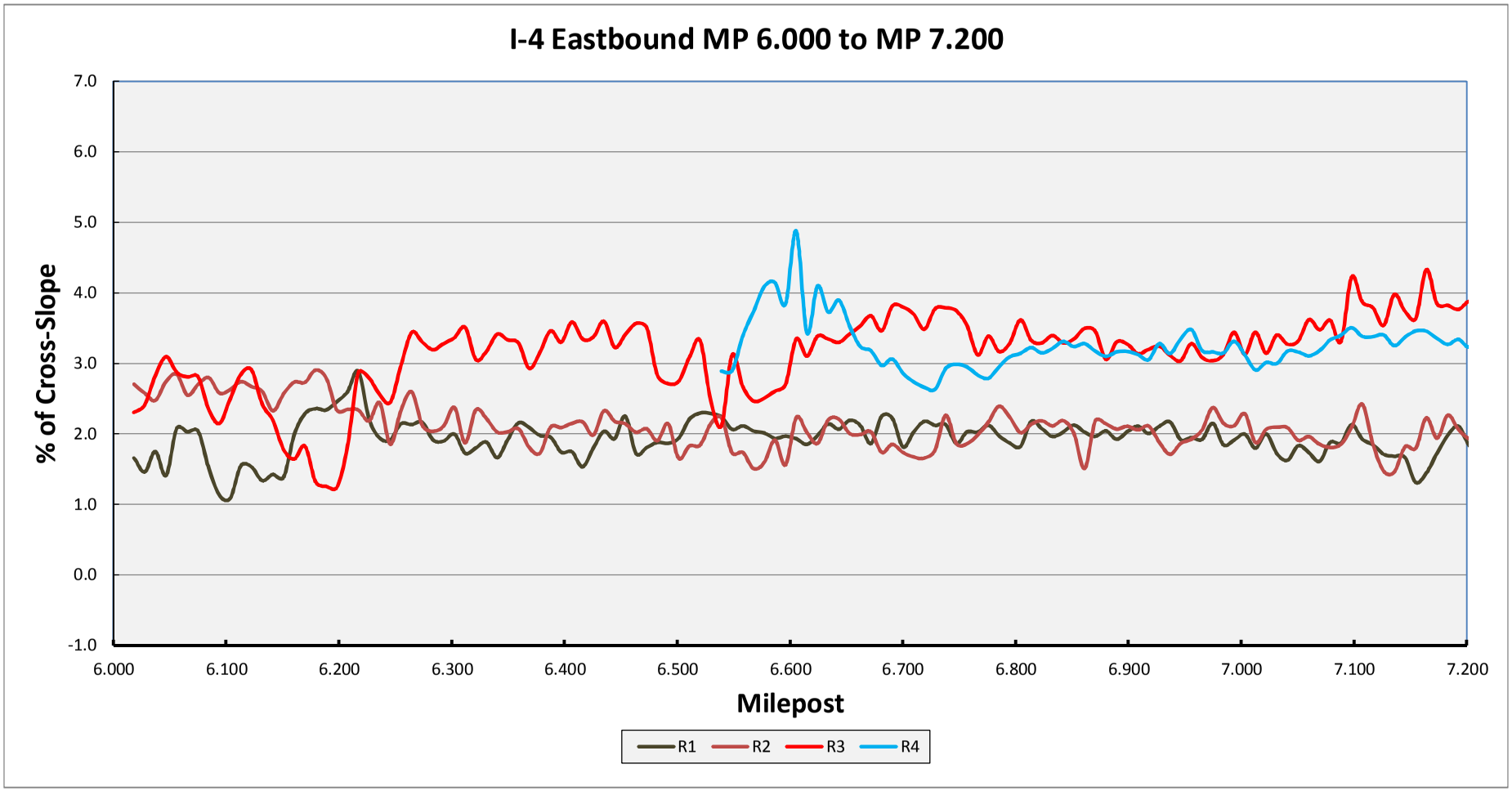
GPR & MPSV Data I-4 Westbound MP 6.018 to MP 8.282 for FPN 432453-1

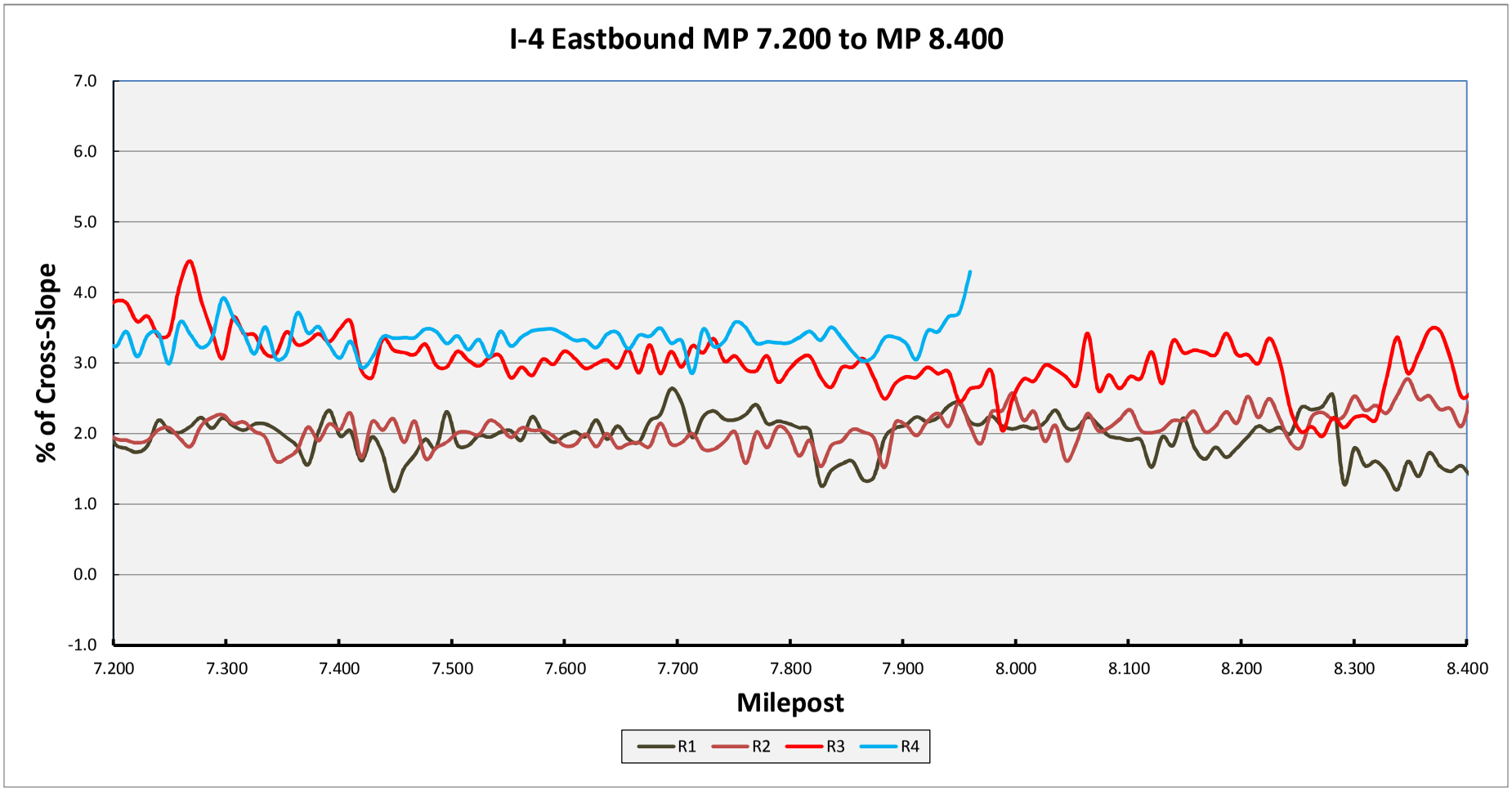
	L4			L3			L2			L1		
Milepost	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)
7.666		2.9	0.1	6.2	3.2	0.1	9.6	2.1	0.0	8.3	1.9	0.0
7.676		2.9	0.1	6.0	3.2	0.1	10.4	2.0	0.0	9.5	2.0	0.0
7.685		3.0	0.1	6.8	3.3	0.1	9.4	2.1	0.0	9.8	1.9	0.1
7.695		3.0	0.1	7.3	3.3	0.0	10.1	2.1	0.0	9.1	1.9	0.1
7.704		2.9	0.1	7.1	3.1	0.1	10.0	2.1	0.0	8.1	2.0	0.1
7.713		2.9	0.1	6.5	3.2	0.1	9.6	2.3	0.0	8.9	2.0	0.1
7.723		2.9	0.0	7.0	3.2	0.1	9.8	2.2	0.1	10.2	1.8	0.1
7.732		2.9	0.1	7.7	3.3	0.1	9.4	2.1	0.1	9.2	1.9	0.1
7.742		3.0	0.1	7.7	3.3	0.1	9.2	2.2	0.1	8.9	2.0	0.0
7.751		3.1	0.0	7.1	3.4	0.1	10.3	1.9	0.1	8.3	1.7	0.0
7.761		2.9	0.1	6.2	3.3	0.1	10.3	2.1	0.1	8.9	1.8	0.0
7.770		2.9	0.1	7.6	3.3	0.1	10.1	2.0	0.1	9.3	1.9	0.0
7.780		3.0	0.1	6.7	3.4	0.1	10.5	2.1	0.1	8.8	1.9	0.0
7.789		2.9	0.1	6.6	3.3	0.1	10.5	2.2	0.1	9.1	1.8	0.0
7.799		3.1	0.1	6.7	3.1	0.1	10.5	1.9	0.1	9.7	1.7	0.0
7.808		3.0	0.1	5.4	3.2	0.2	9.6	2.2	0.1	9.2	2.1	0.0
7.818		3.3	0.1	5.4	3.2	0.2	6.4	2.3	0.1	10.1	1.9	0.0
7.827		3.3	0.1	4.6	3.7	0.2	5.4	2.2	0.1	9.9	1.8	0.0
7.837		3.1	0.1	4.7	3.4	0.2	5.6	2.0	0.1	9.8	2.0	0.0
7.846		3.0	0.0	4.9	3.2	0.1	5.5	2.3	0.1	9.2	1.8	0.0
7.855		2.9	0.0	4.3	3.2	0.1	4.9	2.1	0.1	8.2	1.8	0.1
7.865		3.2	0.0	5.1	3.3	0.1	4.9	2.3	0.1	4.4	1.8	0.1
7.874		3.0	0.0	4.8	3.4	0.1	4.6	2.0	0.1	6.0	1.8	0.1
7.884		2.8	0.1	4.6	3.1	0.1	4.4	2.3	0.1	5.7	1.9	0.1
7.893		2.9	0.1	4.5	3.0	0.1	4.5	1.9	0.1	5.7	1.6	0.1
7.903		3.1	0.1	4.5	3.4	0.1	4.0	2.0	0.1	4.7	1.8	0.1
7.912		3.2	0.1	5.5	3.3	0.1	4.7	2.2	0.1	4.5	1.5	0.1
7.922		3.0	0.1	5.5	3.2	0.1	5.3	2.1	0.1	4.0	1.6	0.1
7.931		2.6	0.1	5.1	3.4	0.1	5.5	2.0	0.1	3.6	1.8	0.0
7.941		2.7	0.2	4.9	3.4	0.1	5.7	2.1	0.1	4.0	1.9	0.0
7.950		2.8	0.0	5.4	3.5	0.2	6.1	2.0	0.0	3.0	2.2	0.0
7.960		2.4	0.1	5.1	3.5	0.1	5.7	2.0	0.1	4.5	2.4	0.1
7.969		2.6	0.1	4.3	3.5	0.2	6.0	2.2	0.1	5.7	2.2	0.1
7.979		2.6	0.1	4.7	3.5	0.0	6.3	2.2	0.1	5.5	2.0	0.0
7.988		2.3	0.1	4.6	3.6	0.0	5.6	2.2	0.1	5.8	2.1	0.0
7.998		1.9	0.1	4.8	3.5	0.1	5.5	2.3	0.1	6.3	2.1	0.0
8.007		1.6	0.1	4.9	3.5	0.1	5.7	2.5	0.1	5.4	1.8	0.0
8.016		1.8	0.1	4.8	3.4	0.1	5.6	2.3	0.1	6.5	2.2	0.0
8.026		2.4	0.1	4.6	3.0	0.1	6.0	2.3	0.1	6.1	2.2	0.0
8.035		2.0	0.1	5.6	3.4	0.0	5.2	2.3	0.1	5.5	2.2	0.0
8.045		1.2	0.1	5.6	3.4	0.0	5.6	2.5	0.1	5.6	2.3	0.1
8.054		2.2	0.1	6.2	3.2	0.0	5.0	2.2	0.1	5.8	2.1	0.0
8.064		3.0	0.1	5.9	3.4	0.0	5.7	2.5	0.1	5.4	2.6	0.1
8.073		2.3	0.1	6.0	3.3	0.0	7.2	2.5	0.1	6.1	2.4	0.1
8.083		2.0	0.0	6.0	3.5	0.0	7.0	2.6	0.1	5.1	3.5	0.1
8.092		2.4	0.1	6.2	3.5	0.1	6.2	2.5	0.1	6.1	2.9	0.0
8.102		2.6	0.0	5.9	3.9	0.1	7.0	2.7	0.1	5.1	2.5	0.0
8.111		2.8	0.0	6.3	3.7	0.0	6.7	2.2	0.1	6.4	2.5	0.0
8.121		2.5	0.0	5.7	3.9	0.0	7.0	2.4	0.1	6.7	2.4	0.1
8.130		2.8	0.0	6.0	3.9	0.1	7.1	2.4	0.1	7.0	1.8	0.0
8.140		2.7	0.0	5.9	3.5	0.0	6.6	2.4	0.1	6.9	2.4	0.1
8.149		2.3	0.0	6.4	3.5	0.0	6.6	2.5	0.1	7.4	2.3	0.0
8.159		1.9	0.0	7.2	3.8	0.1	7.2	2.4	0.1	7.0	2.8	0.0
8.168		2.4	0.0	7.3	3.1	0.0	6.3	2.6	0.1	6.8	2.9	0.0
8.177		2.4	0.0	7.5	3.5	0.0	6.7	2.5	0.1	7.2	2.8	0.0
8.187		2.5	0.1	7.2	3.6	0.0	7.1	2.3	0.1	7.0	3.3	0.0
8.196		3.5	0.0	7.0	2.9	0.0	6.9	2.6	0.1	7.4	3.4	0.0
8.206		3.9	0.1	6.1	3.0	0.1	7.3	2.4	0.1	7.2	3.0	0.0

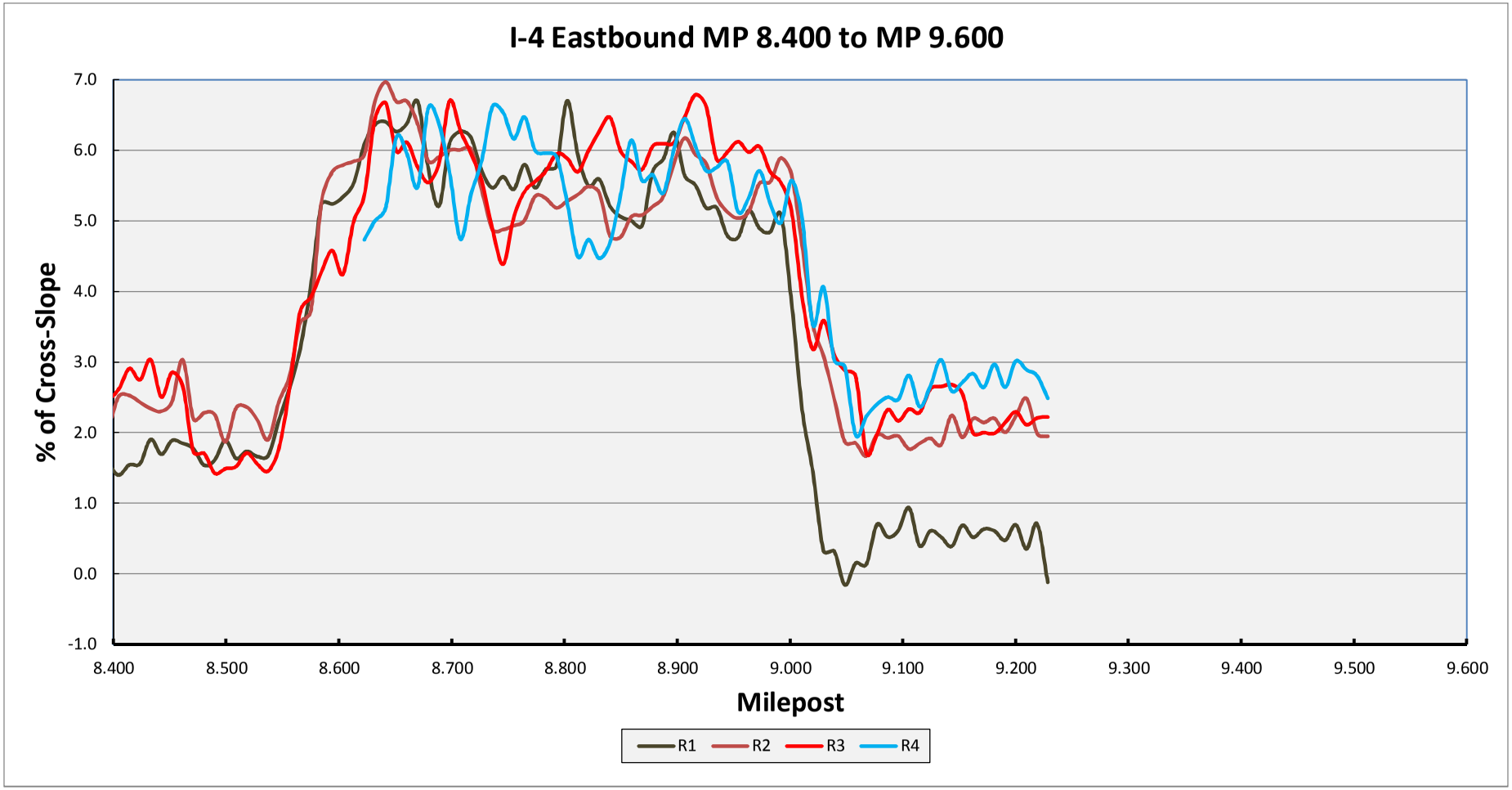
GPR & MPSV Data I-4 Westbound MP 6.018 to MP 8.282 for FPN 432453-1

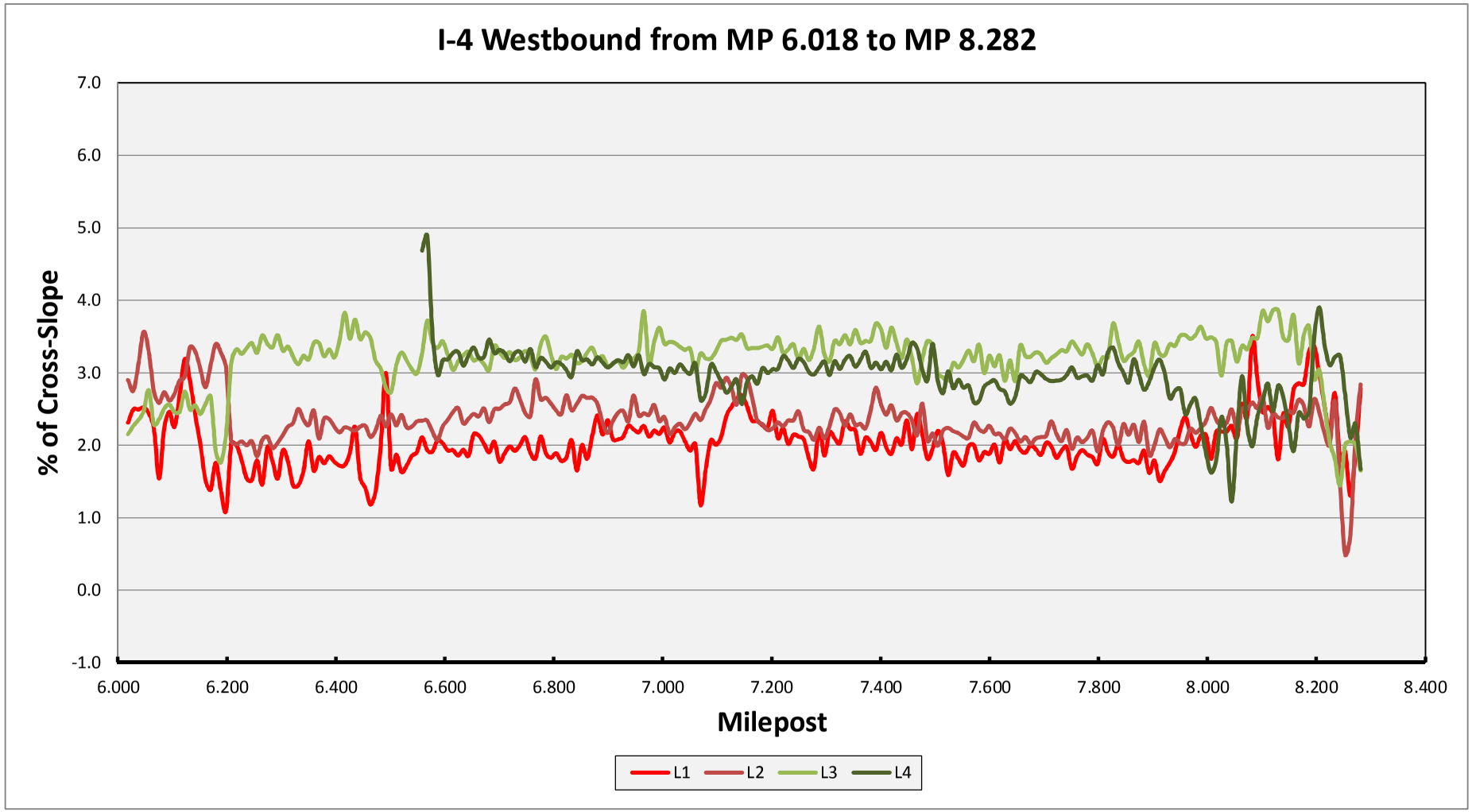
	L4			L3			L2			L1		
Milepost	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)	HMA Thickness (in.)	Cross Slope (%)	Rut Depth (in.)
8.215		3.4	0.0	0.0	2.5	0.1	2.7	2.2	0.1	7.3	2.5	0.0
8.225		3.1	0.0	0.0	2.0	0.0	0.0	2.0	0.1	7.3	2.2	0.0
8.234		3.2	0.0	0.0	1.8	0.0	0.0	2.6	0.1	7.6	2.7	0.1
8.244		3.2	0.0	0.0	1.4	0.1	0.0	1.5	0.1	6.5	1.8	0.1
8.253		2.7	0.0	4.4	2.0	0.1	0.0	0.5	0.1	7.0	1.9	0.1
8.263		2.1	0.0	7.1	2.0	0.1	5.9	0.8	0.1	0.0	1.3	0.1
8.272		2.3	0.0	7.0	2.0	0.1	6.7	2.1	0.1	0.0	1.9	0.1
8.282		1.7	0.0	6.5	1.6	0.1	6.8	2.8	0.0	0.0	2.8	0.1

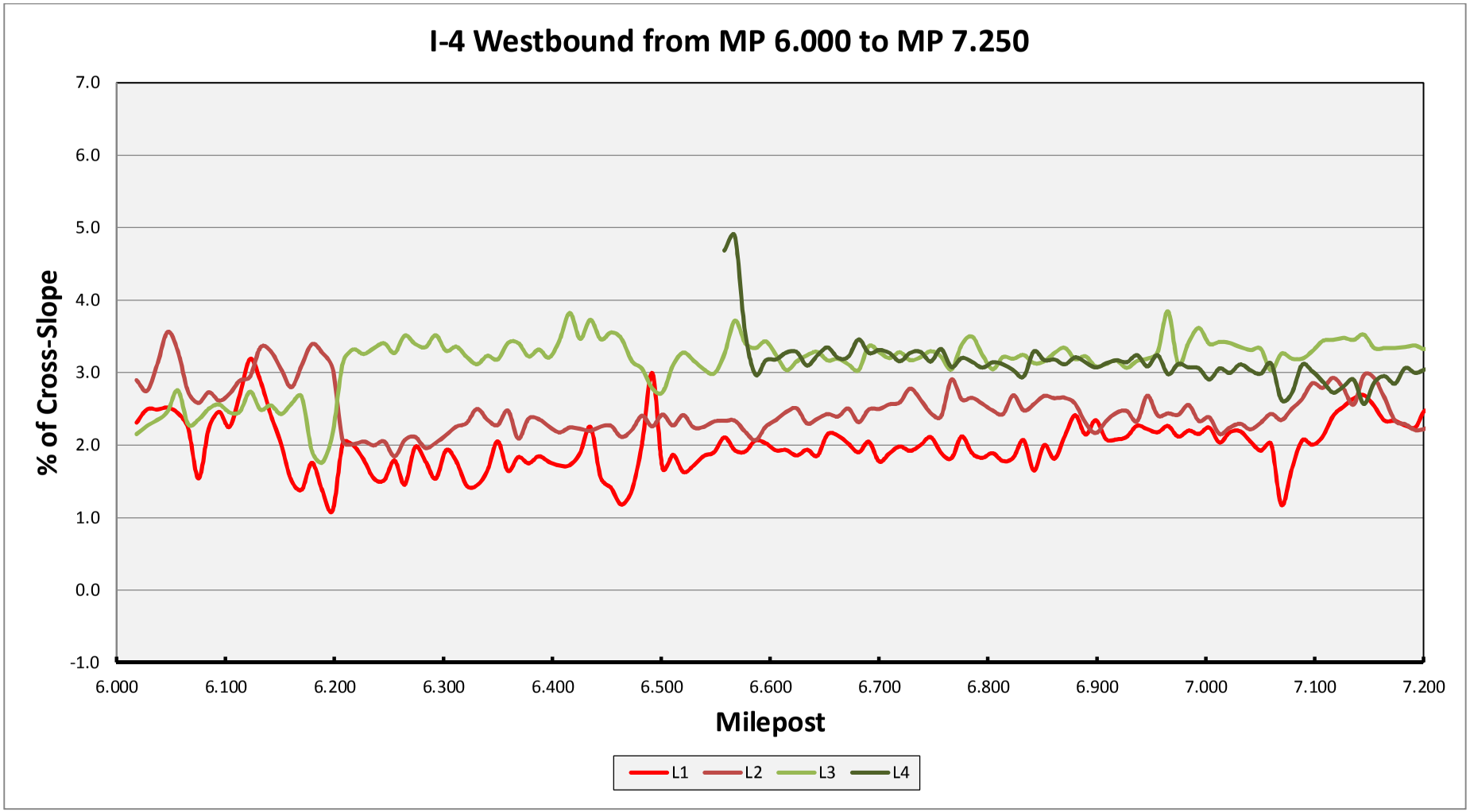

I-4 Eastbound MP 6.018 to MP 9.249
% of Cross-Slope
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
6.000
6.200
6.400
6.600
6.800
7.000
7.200
7.400
7.600
7.800
8.000
8.200
8.400
8.600
8.800
9.000
9.200
9.400
Milepost
R1
R2
R3
R4

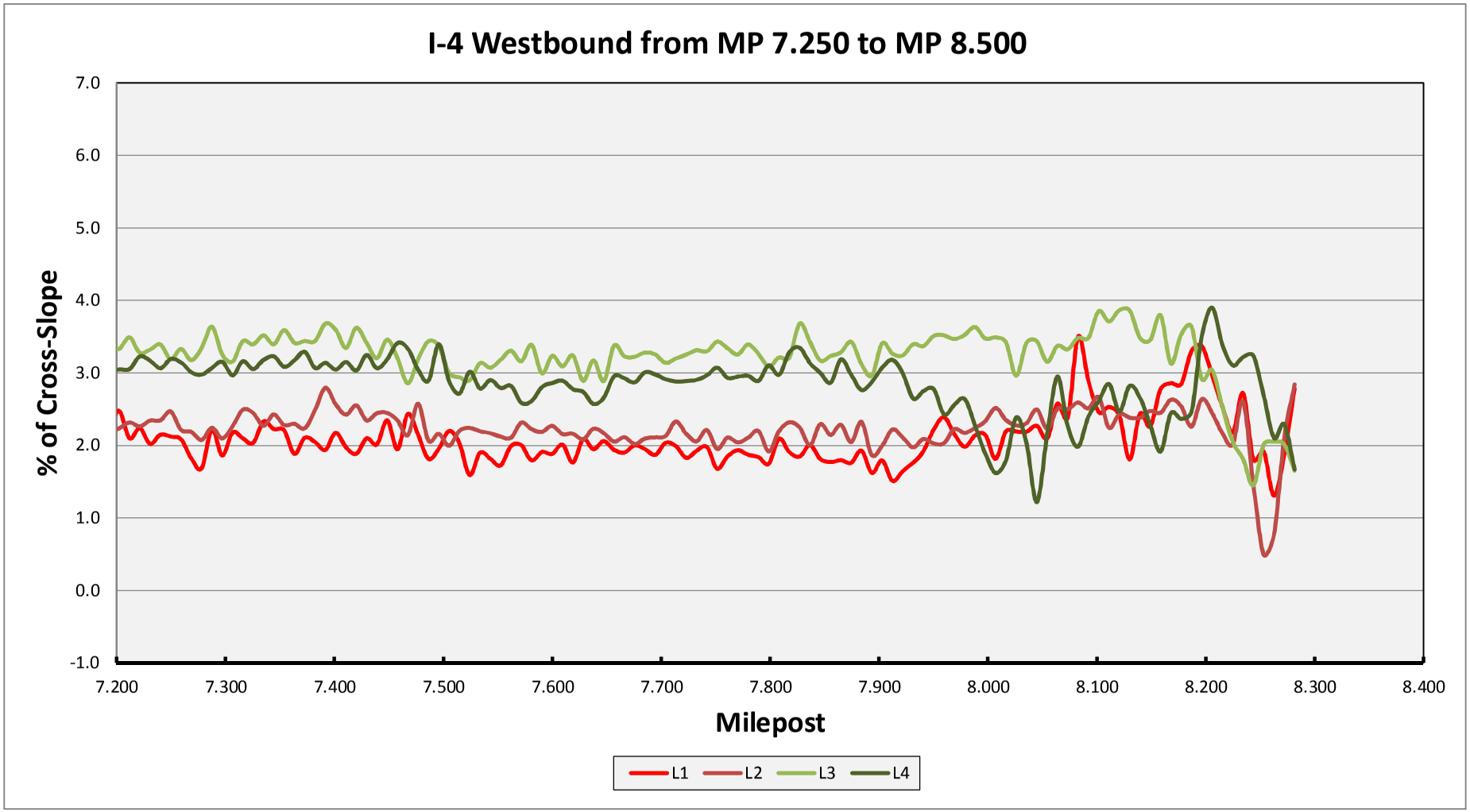

I-4 Eastbound MP 6.000 to MP 7.200
% of Cross-Slope
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
6.000
6.100
6.200
6.300
6.400
6.500
6.600
6.700
6.800
6.900
7.000
7.100
7.200
Milepost
R1
R2
R3
R4


I-4 Eastbound MP 7.200 to MP 8.400
% of Cross-Slope
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
7.200
7.300
7.400
7.500
7.600
7.700
7.800
7.900
8.000
8.100
8.200
8.300
8.400
Milepost
R1
R2
R3
R4


I-4 Eastbound MP 8.400 to MP 9.600
% of Cross-Slope
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
8.400
8.500
8.600
8.700
8.800
8.900
9.000
9.100
9.200
9.300
9.400
9.500
9.600
Milepost
R1
R2
R3
R4

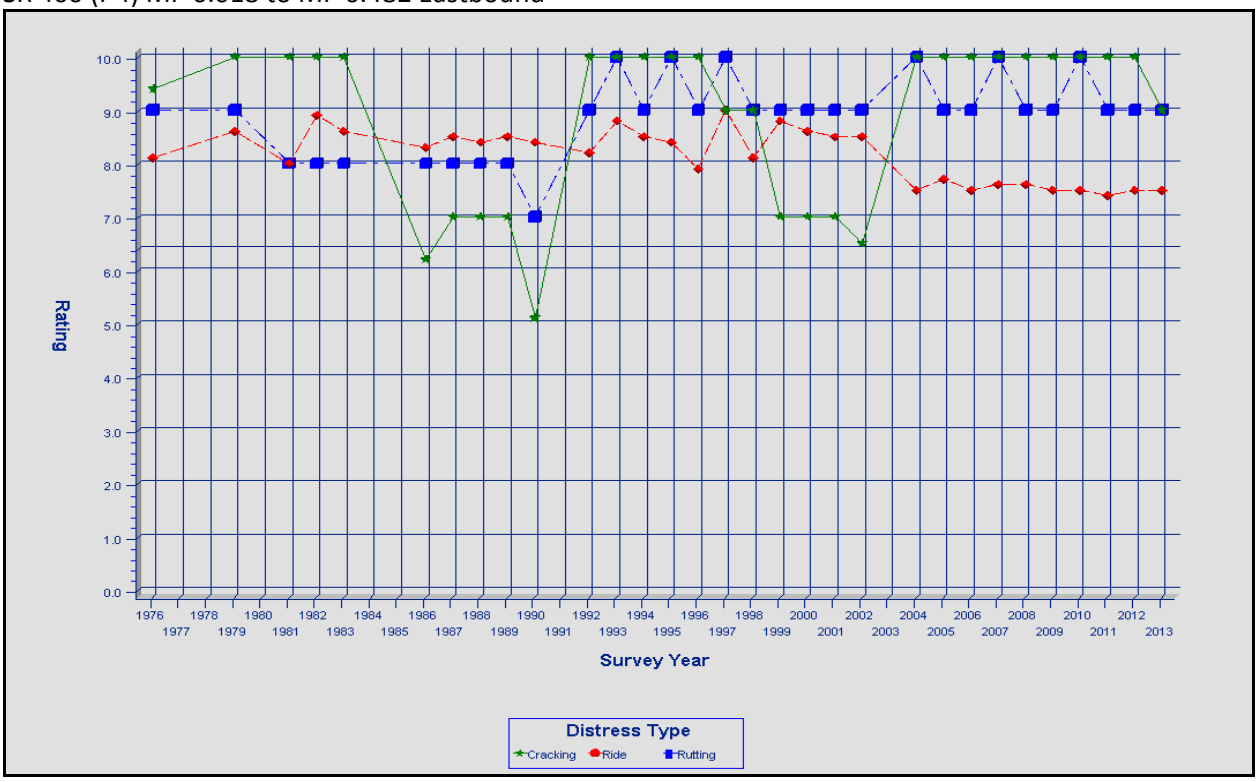

I-4 Westbound from MP 6.018 to MP 8.282
% of Cross-Slope
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
6.000
6.200
6.400
6.600
6.800
7.000
7.200
7.400
7.600
7.800
8.000
8.200
8.400
Milepost
L1
L2
L3
L4


I-4 Westbound from MP 6.000 to MP 7.250
% of Cross-Slope
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
6.000
6.100
6.200
6.300
6.400
6.500
6.600
6.700
6.800
6.900
7.000
7.100
7.200
Milepost
L1
L2
L3
L4

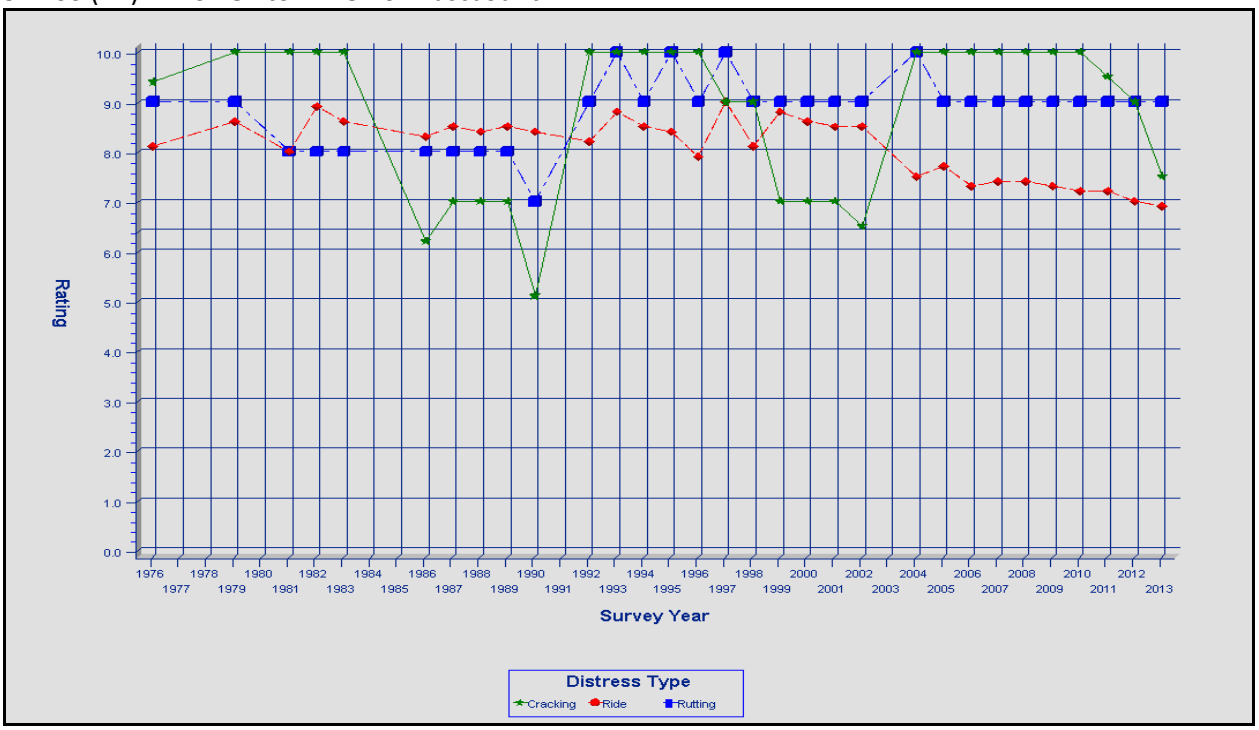

I-4 Westbound from MP 7.250 to MP 8.500
% of Cross-Slope
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
-1.0
7.200
7.300
7.400
7.500
7.600
7.700
7.800
7.900
8.000
8.100
8.200
8.300
8.400
Milepost
L1
L2
L3
L4

Pavement Condition Survey (PCS) Charts for 432453-1

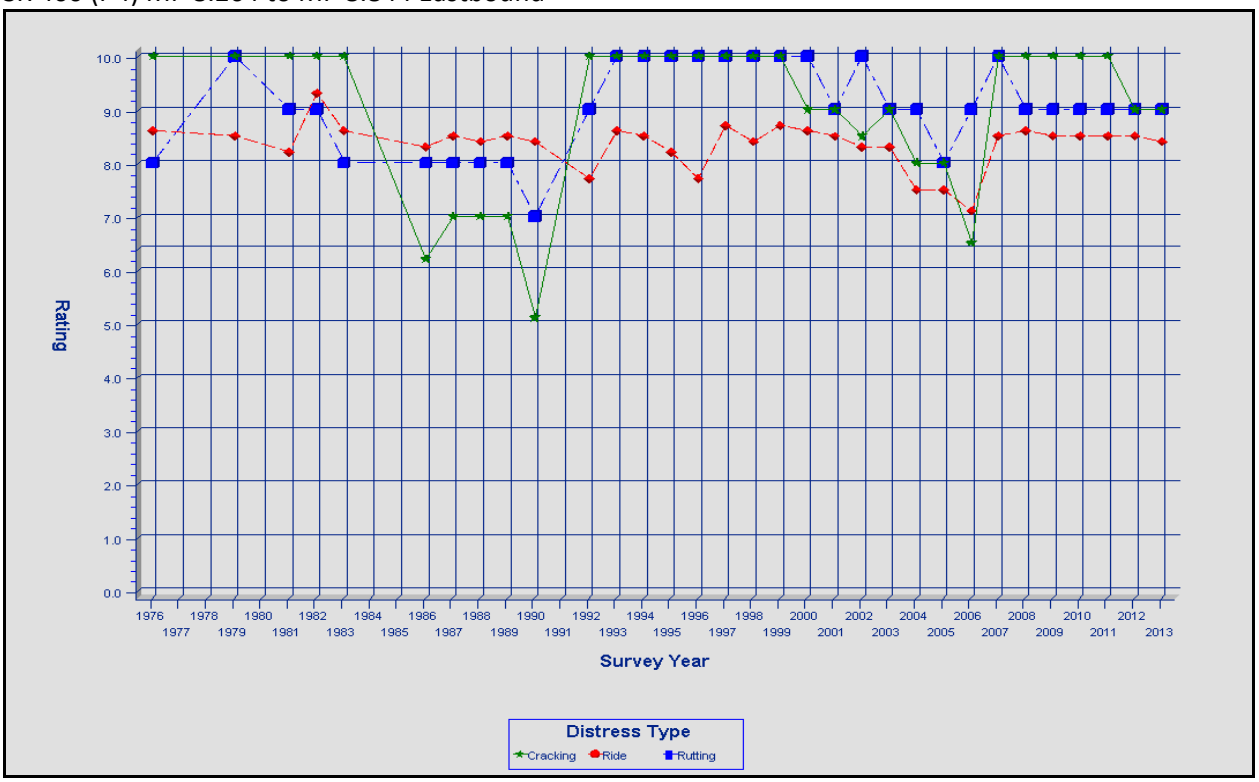
SR 400 (I-4) MP 6.018 to MP 6.482 Eastbound



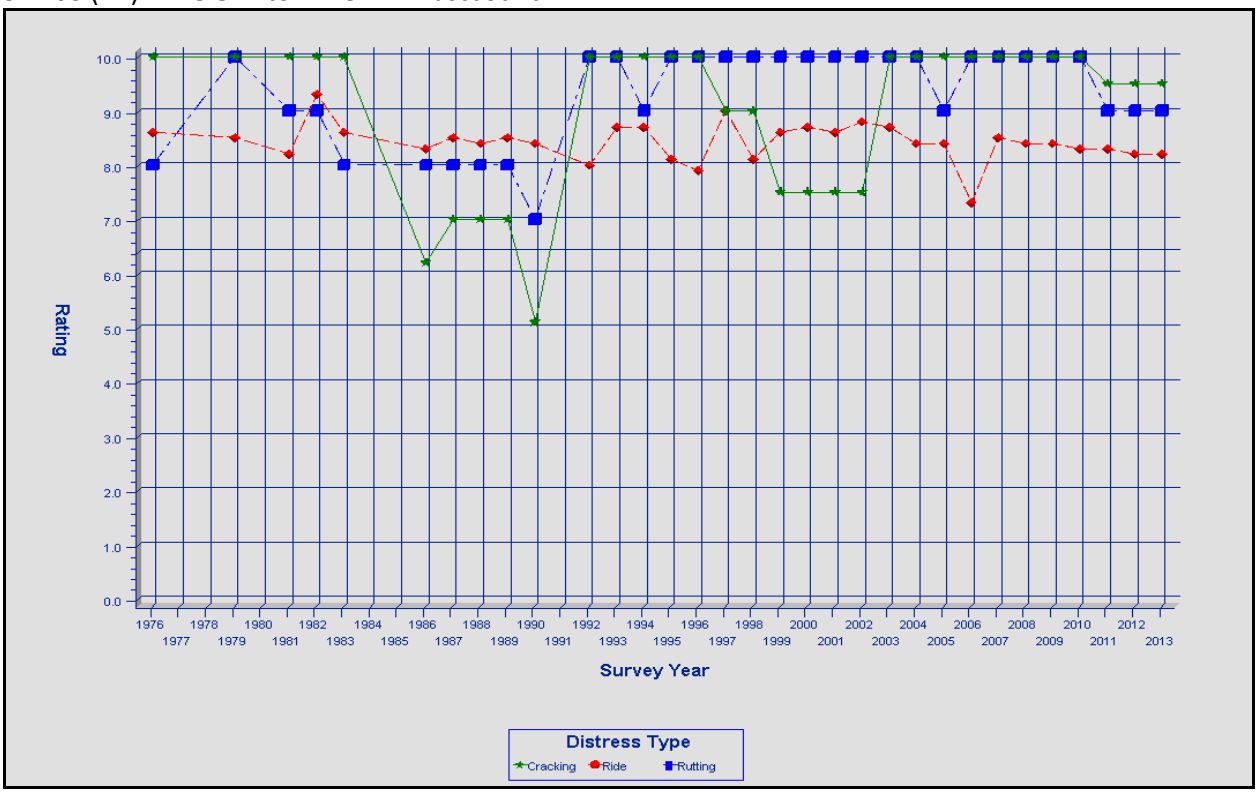
SR 400 (I-4) MP 6.482 to MP 8.264 Eastbound



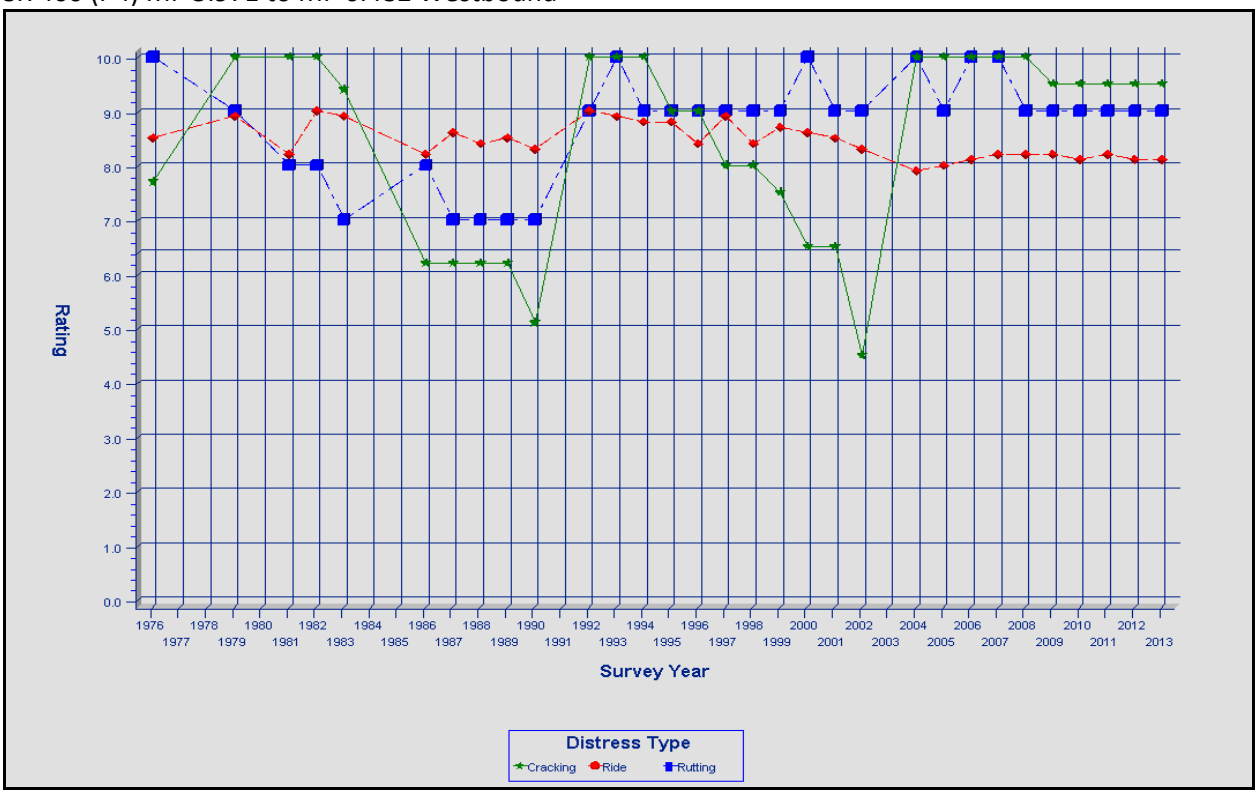
SR 400 (I-4) MP 8.264 to MP 8.844 Eastbound



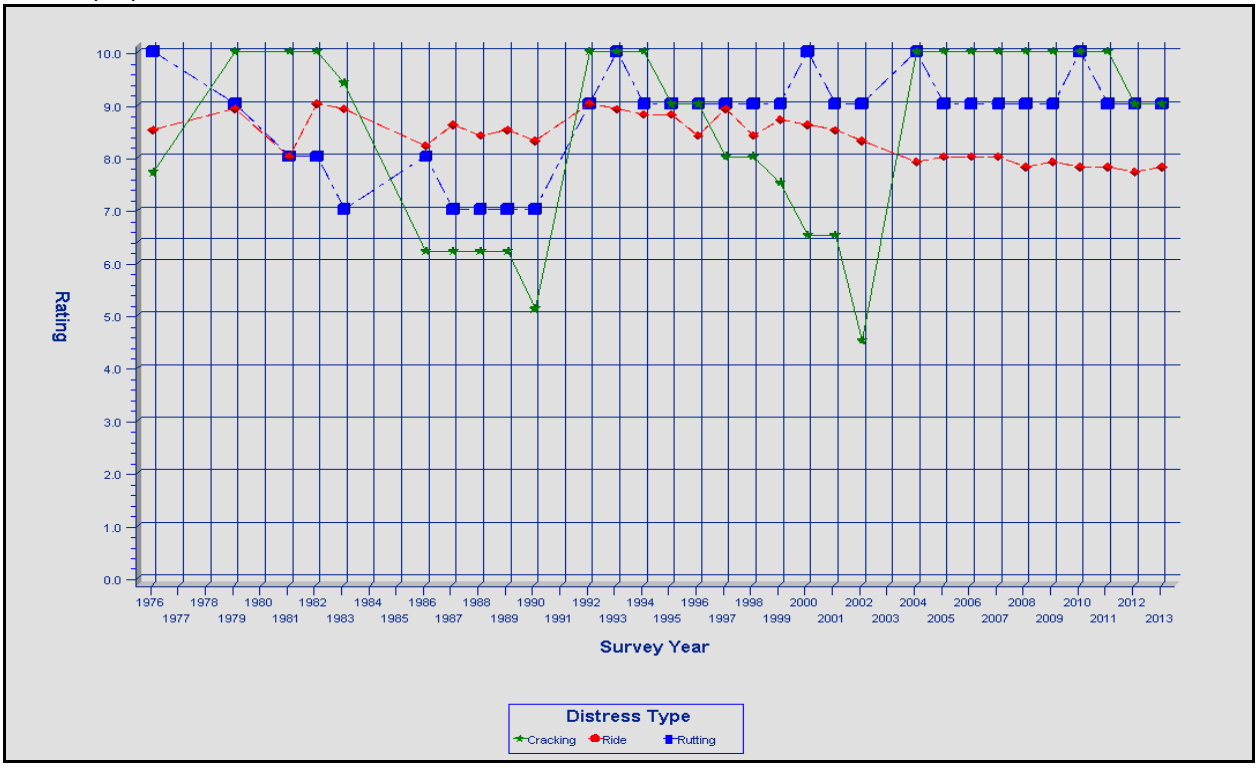
SR 400 (I-4) MP 8.844 to MP 9.277 Eastbound



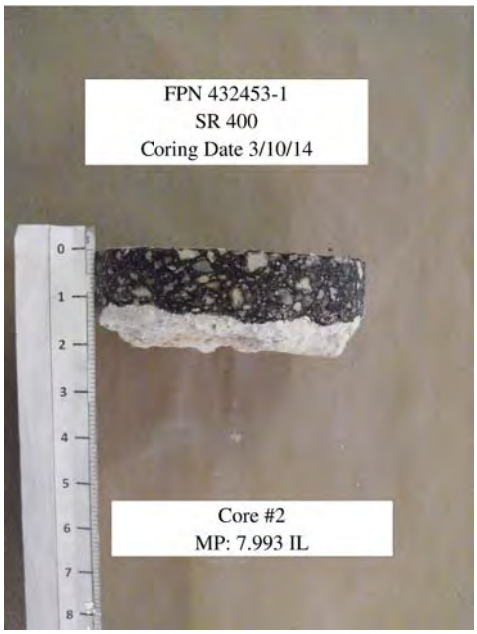
SR 400 (I-4) MP 5.971 to MP 6.482 Westbound



SR 400 (I-4) MP 6.482 to MP 8.264 Westbound




FPN 432453-1
SR 400
Coring Date 3/10/14
Core #1
MP: 7.993 L1


FPN 432453-1
SR 400
Coring Date 3/10/14
Core #2
MP: 7.993 IL


FPN 432453-1
SR 400
Coring Date 3/10/14
Core #3
MP: 7.394 L1


FPN 432453-1
SR 400
Coring Date 3/10/14
Core #4
MP: 7.394 IL


FPN 432453-1
SR 400
Coring Date 3/10/14
Core #5
MP: 7.069 L1


FPN 432453-1
SR 400
Coring Date 3/10/14
Core #6
MP: 7.069 IL


FPN 432453-1
SR 400
Coring Date 3/10/14
Core #7
MP: 6.501 L1

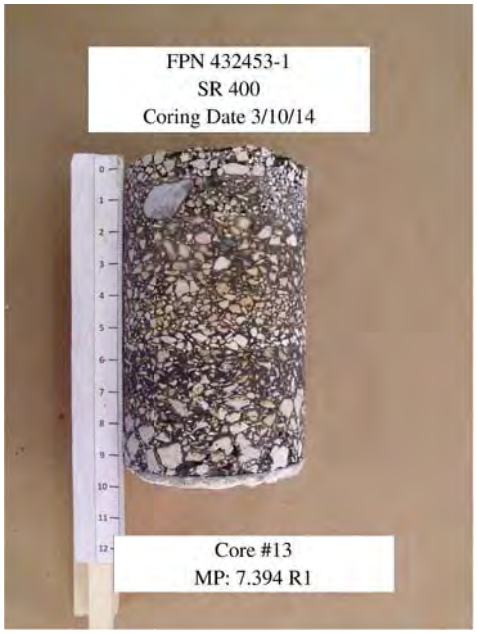

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #8
MP: 6.501 IL


FPN 432453-1
SR 400
Coring Date 3/10/14
Core #9
MP: 6.392 R1


FPN 432453-1
SR 400
Coring Date 3/10/14
Core #10
MP: 6.392 IR


FPN 432453-1
SR 400
Coring Date 3/10/14
Core #11
MP: 6.943 R1

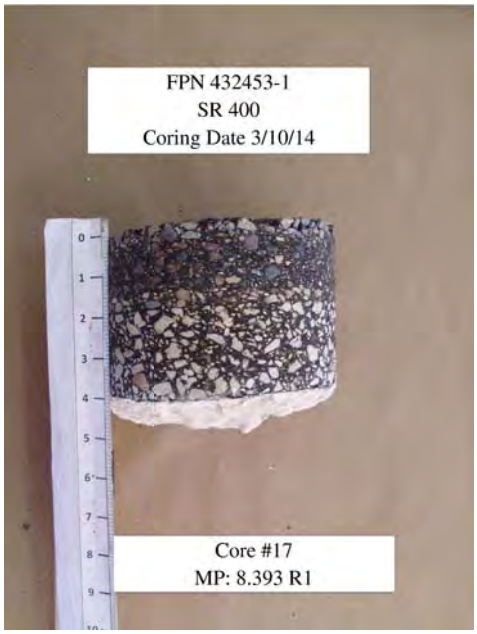

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #12
MP: 6.943 IR


FPN 432453-1
SR 400
Coring Date 3/10/14
Core #13
MP: 7.394 R1

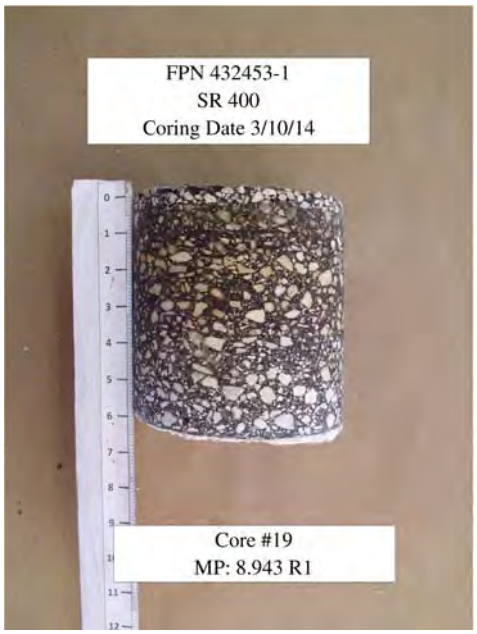

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #14
MP: 7.394 IR


FPN 432453-1
SR 400
Coring Date 3/10/14
Core #15
MP: 7.794 R1

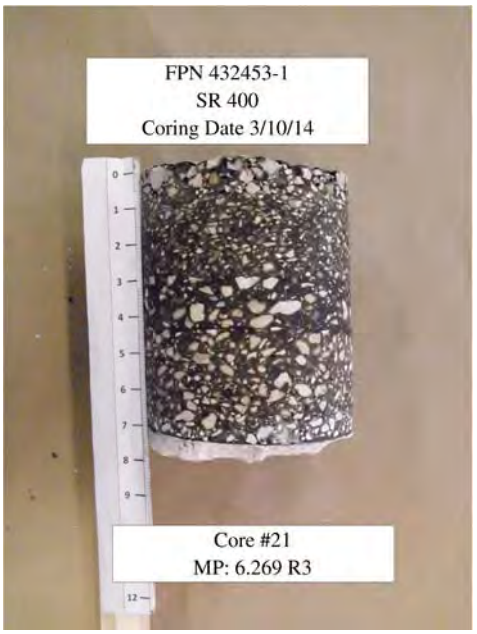

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #16
MP: 7.794 IR

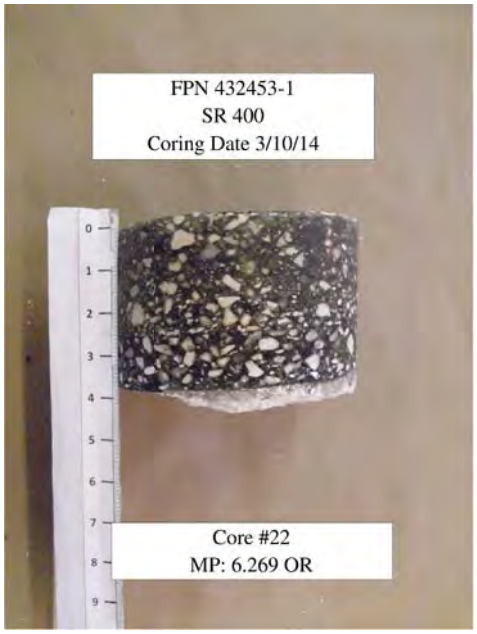

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #17
MP: 8.393 R1

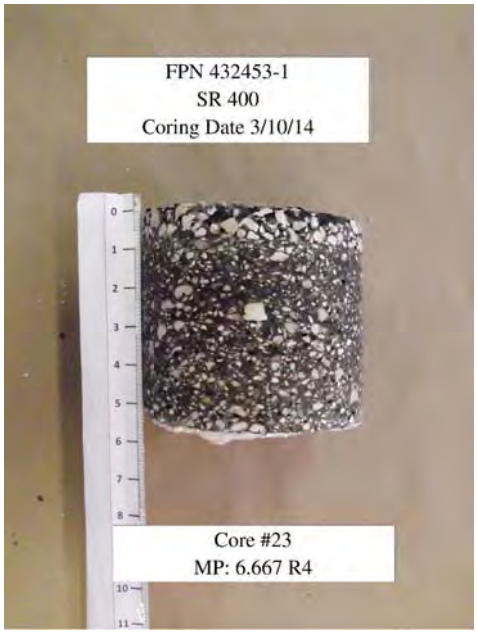

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #18
MP: 8.393 IR

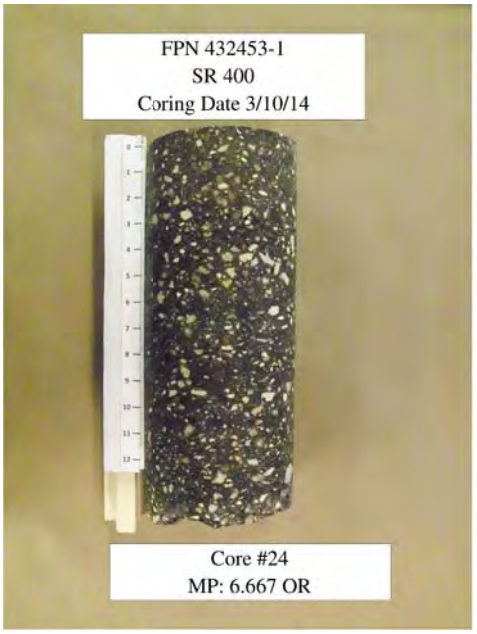

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #19
MP: 8.943 R1

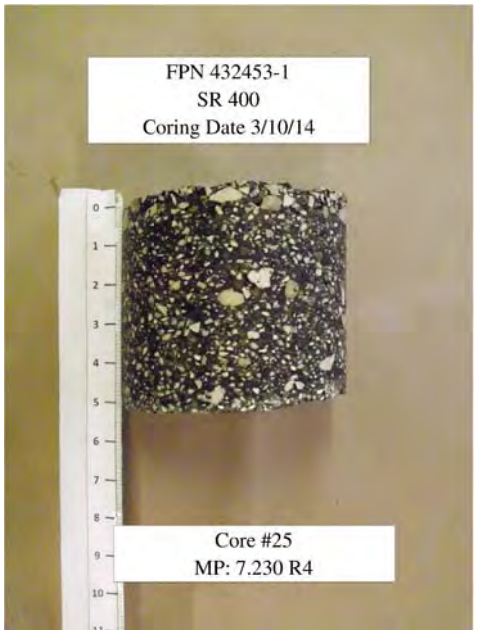

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #20
MP: 8.943 IR

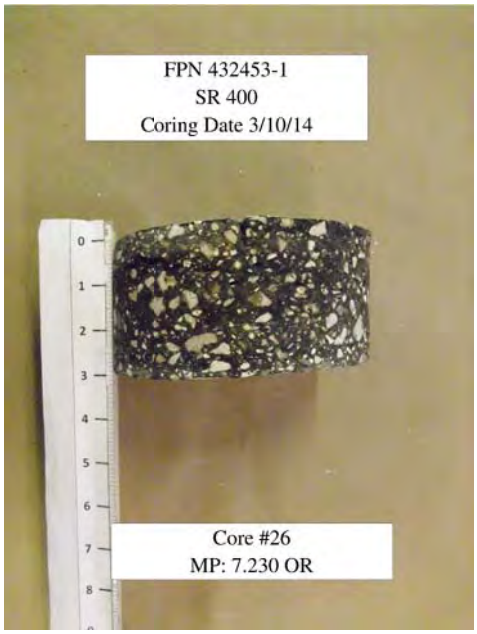

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #21
MP: 6.269 R3

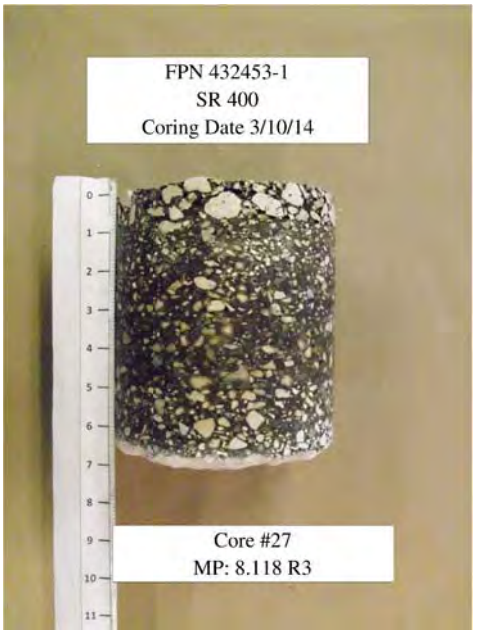

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #22
MP: 6.269 OR


FPN 432453-1
SR 400
Coring Date 3/10/14
Core #23
MP: 6.667 R4

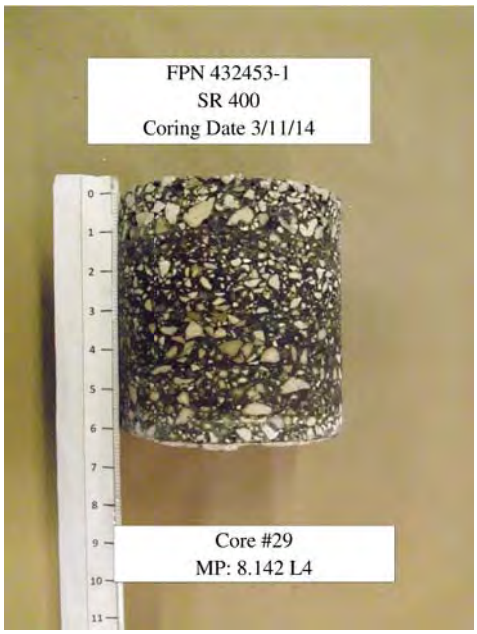

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #24
MP: 6.667 OR

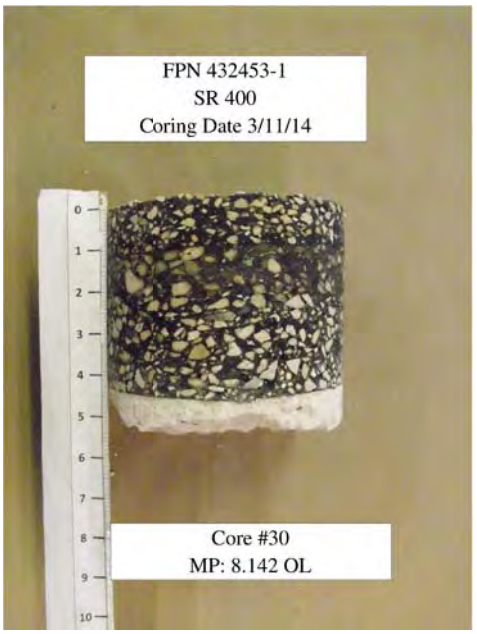

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #25
MP: 7.230 R4

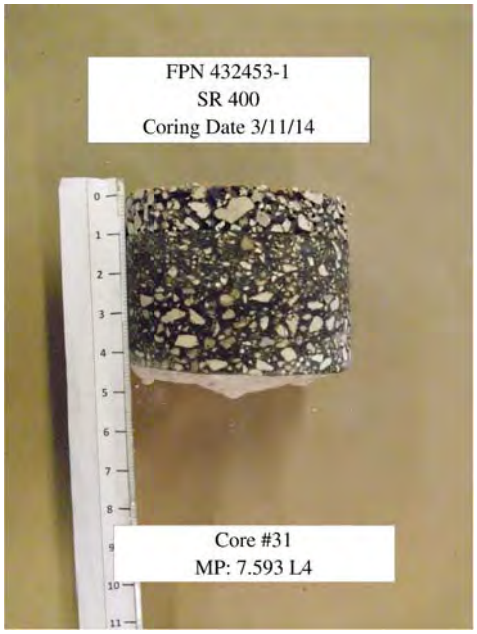

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #26
MP: 7.230 OR

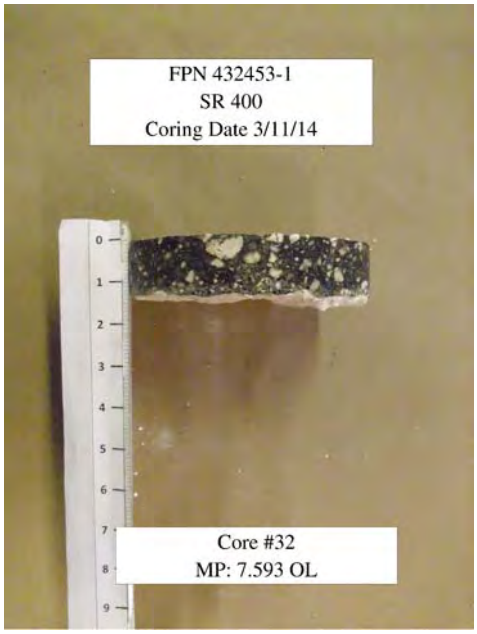

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #27
MP: 8.118 R3

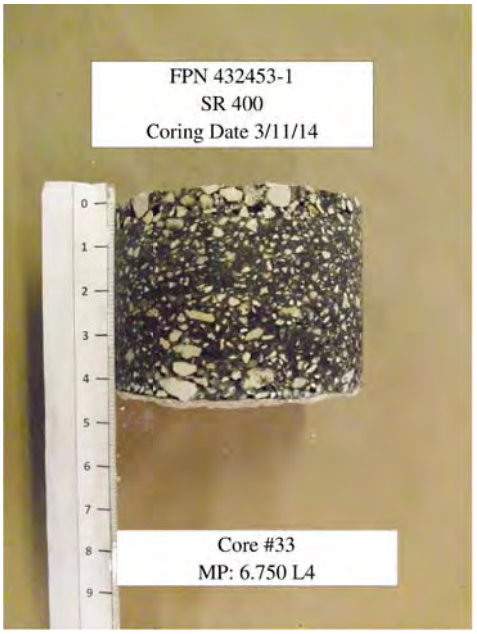

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #28
MP: 8.118 OR

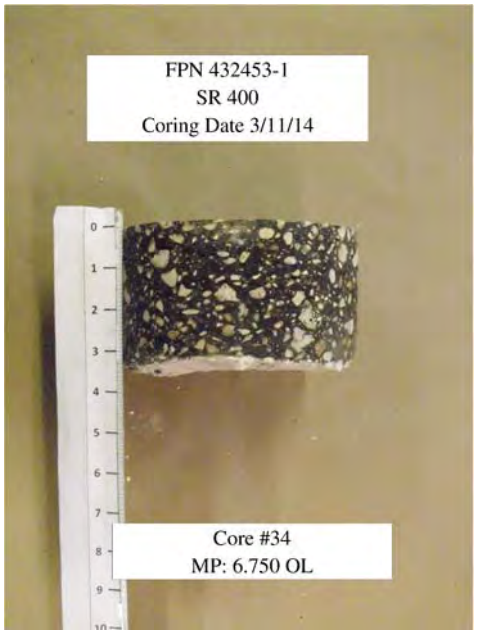

FPN 432453-1
SR 400
Coring Date 3/11/14
Core #29
MP: 8.142 L4


FPN 432453-1
SR 400
Coring Date 3/11/14
Core #30
MP: 8.142 OL

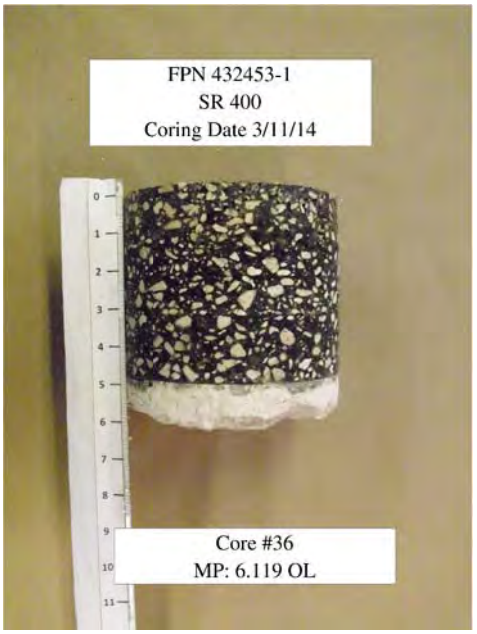

FPN 432453-1
SR 400
Coring Date 3/11/14
Core #31
MP: 7.593 L4

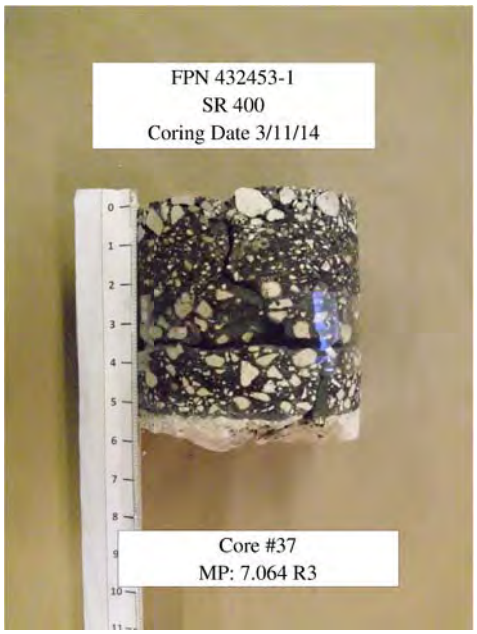

FPN 432453-1
SR 400
Coring Date 3/11/14
Core #32
MP: 7.593 OL

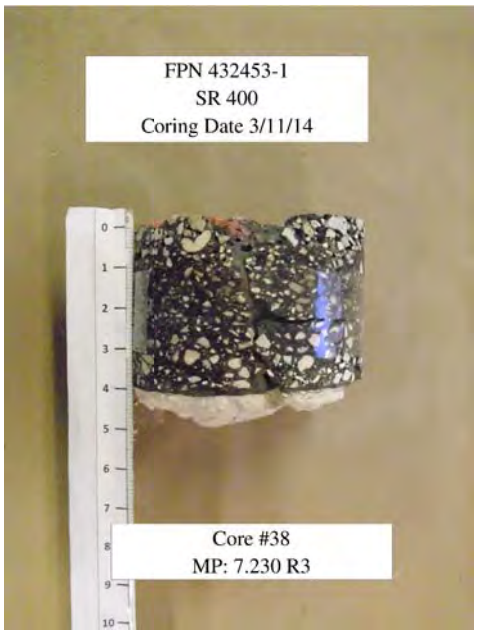

FPN 432453-1
SR 400
Coring Date 3/11/14
Core #33
MP: 6.750 L4

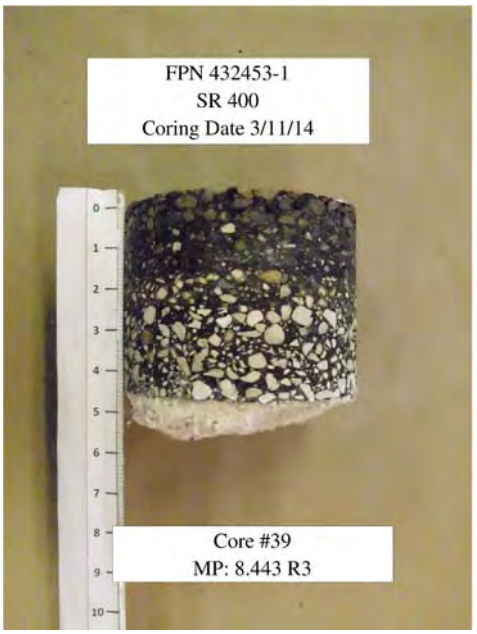

FPN 432453-1
SR 400
Coring Date 3/11/14
Core #34
MP: 6.750 OL

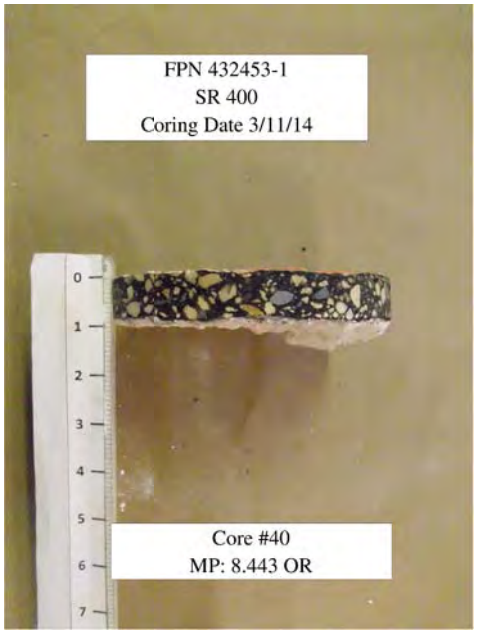

FPN 432453-1
SR 400
Coring Date 3/11/14
Core #35
MP: 6.119 L3

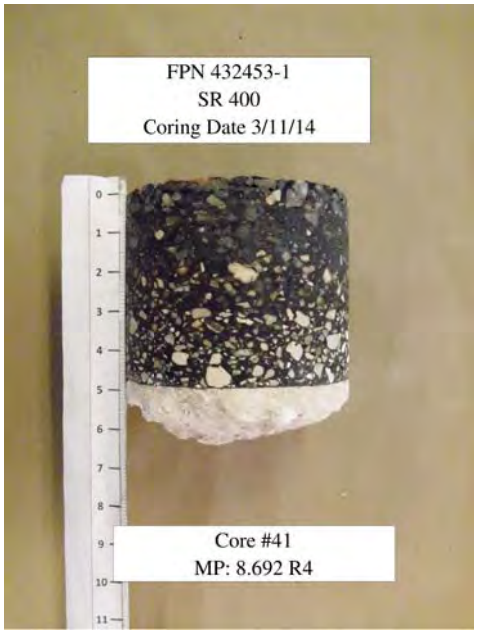

FPN 432453-1
SR 400
Coring Date 3/11/14
Core #36
MP: 6.119 OL

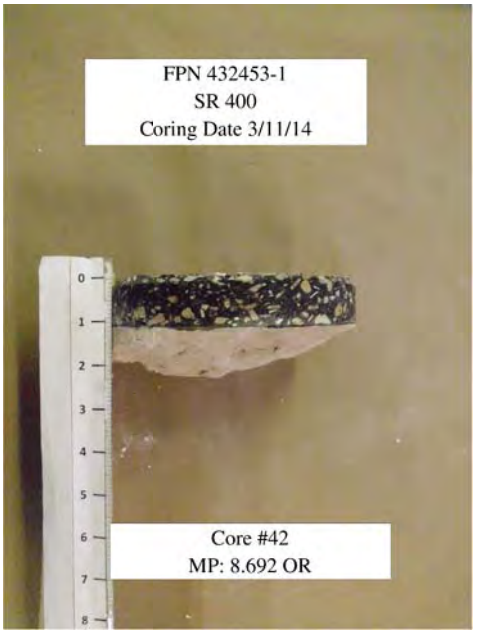

FPN 432453-1
SR 400
Coring Date 3/11/14
Core #37
MP: 7.064 R3


FPN 432453-1
SR 400
Coring Date 3/11/14
Core #38
MP: 7.230 R3

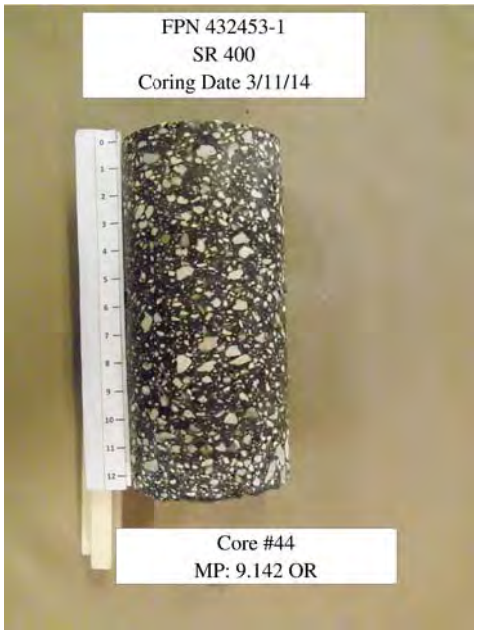

FPN 432453-1
SR 400
Coring Date 3/11/14
Core #39
MP: 8.443 R3

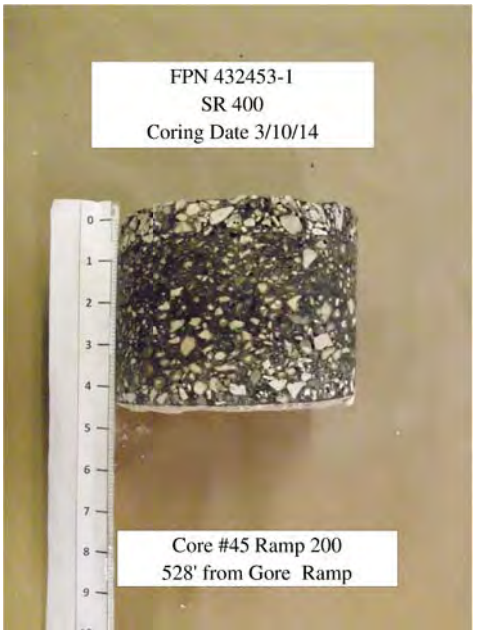

FPN 432453-1
SR 400
Coring Date 3/11/14
Core #40
MP: 8.443 OR

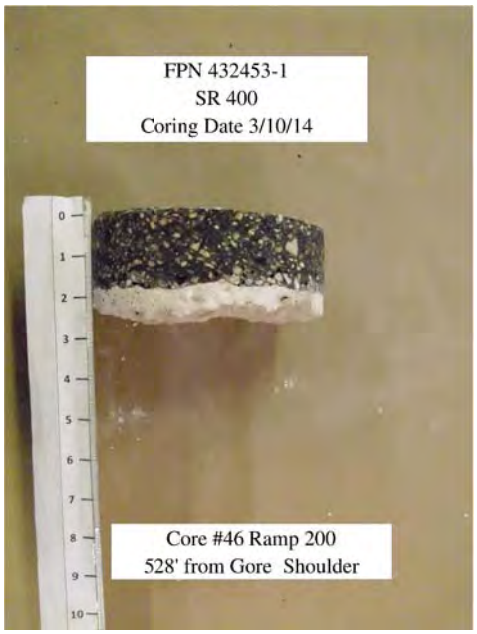

FPN 432453-1
SR 400
Coring Date 3/11/14
Core #41
MP: 8.692 R4

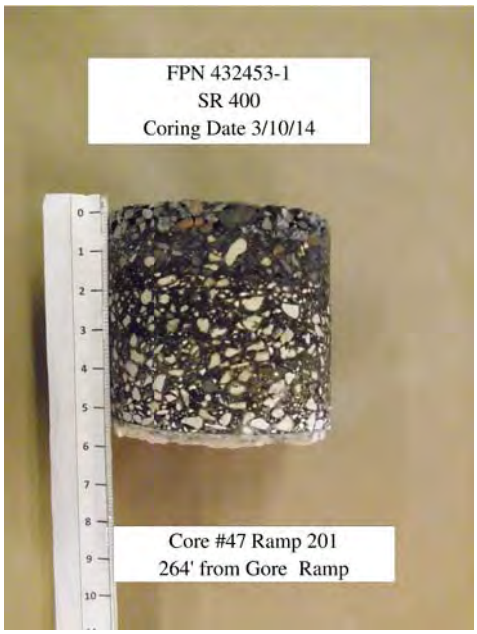

FPN 432453-1
SR 400
Coring Date 3/11/14
Core #42
MP: 8.692 OR


FPN 432453-1
SR 400
Coring Date 3/11/14
Core #43
MP: 9.142 R4

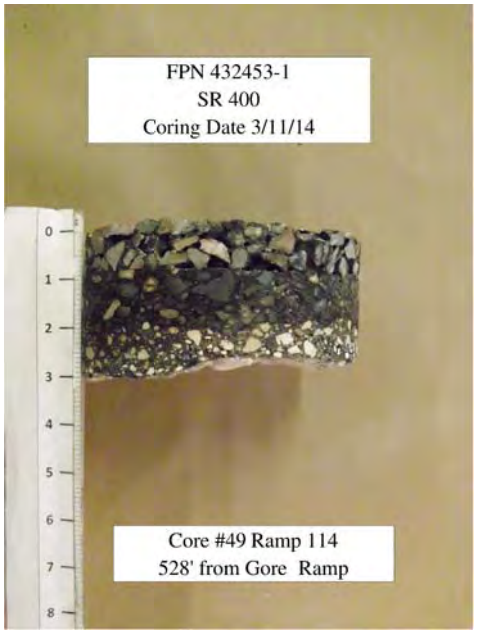

FPN 432453-1
SR 400
Coring Date 3/11/14
Core #44
MP: 9.142 OR

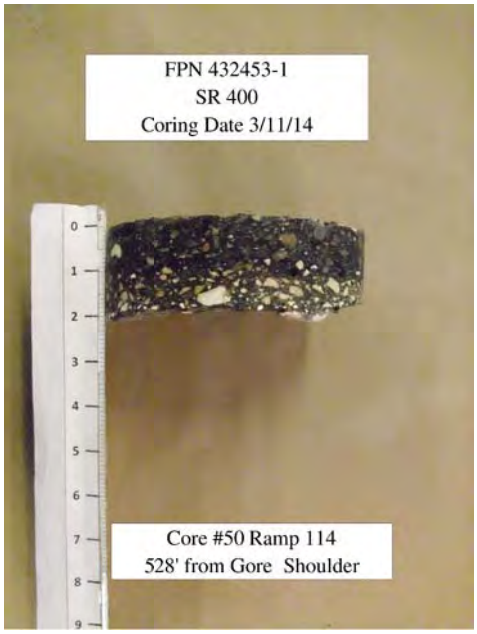

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #45 Ramp 200
528' from Gore Ramp

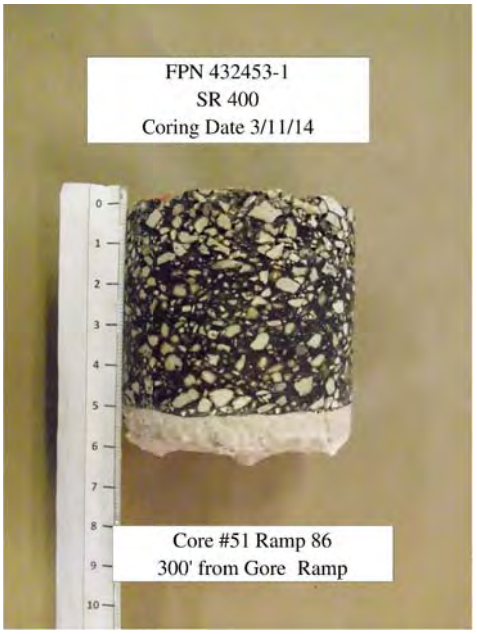

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #46 Ramp 200
528' from Gore Shoulder

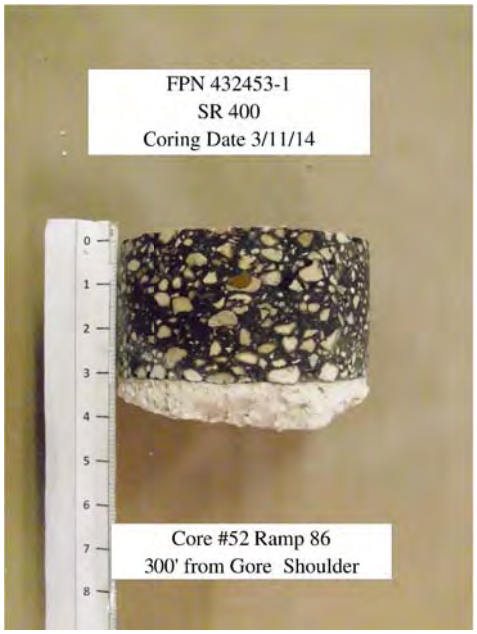

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #47 Ramp 201
264' from Gore Ramp

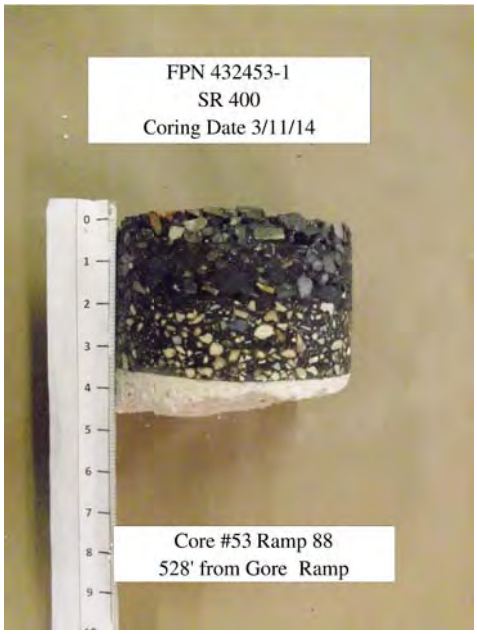

FPN 432453-1
SR 400
Coring Date 3/10/14
Core #48 Ramp 201
264' from Gore Shoulder


FPN 432453-1
SR 400
Coring Date 3/11/14
Core #49 Ramp 114
528' from Gore Ramp


FPN 432453-1
SR 400
Coring Date 3/11/14
Core #50 Ramp 114
528' from Gore Shoulder


FPN 432453-1
SR 400
Coring Date 3/11/14
Core #51 Ramp 86
300' from Gore Ramp


FPN 432453-1
SR 400
Coring Date 3/11/14
Core #52 Ramp 86
300' from Gore Shoulder


FPN 432453-1
SR 400
Coring Date 3/11/14
Core #53 Ramp 88
528' from Gore Ramp

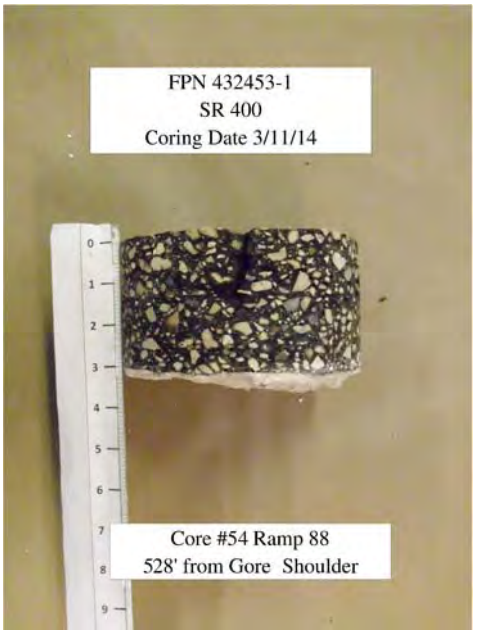

FPN 432453-1
SR 400
Coring Date 3/11/14
Core #54 Ramp 88
528' from Gore Shoulder

Photo 1: I-4 eastbound near MP 6.305. Typical condition of the mainline lanes between MP 6.018 to MP 6.482.

Photo 2: I-4 westbound near MP 6.430. The westbound outside shoulder from MP 6.200 to MP 6.430 was repaired with what appear to be chip seal that has raveled with time.

Photo 3: I-4 eastbound near MP 6.885. This is an example of the poor condition of the R3 lane with the cracking in the outside wheelpath.

Photo 4: I-4 eastbound near MP 7.235. This is another example of the severe cracking in the outside wheelpath. This is also an area where the Ground Penetrating Radar indicates thinner pavement averaging 6.6 inches.

Photo 5: I-4 westbound near MP 7.593. This photo shows that the westbound mainline lanes have less severe pavement distress than the eastbound lanes.

Photo 6: I-4 eastbound near MP 7.805. This photo shows the relatively fair condition of the inside R1, R2, and inside paved shoulders within the project limits.

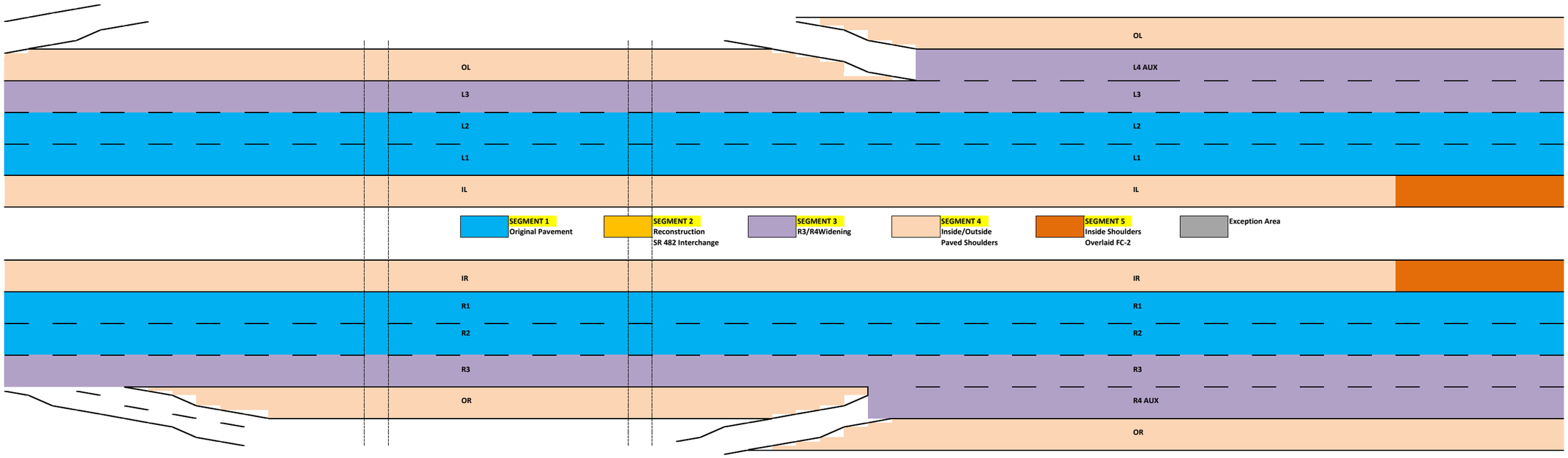
Photo 7: I-4 westbound near MP 8.198. The westbound mainline lanes have less cracking distress than the eastbound roadway.

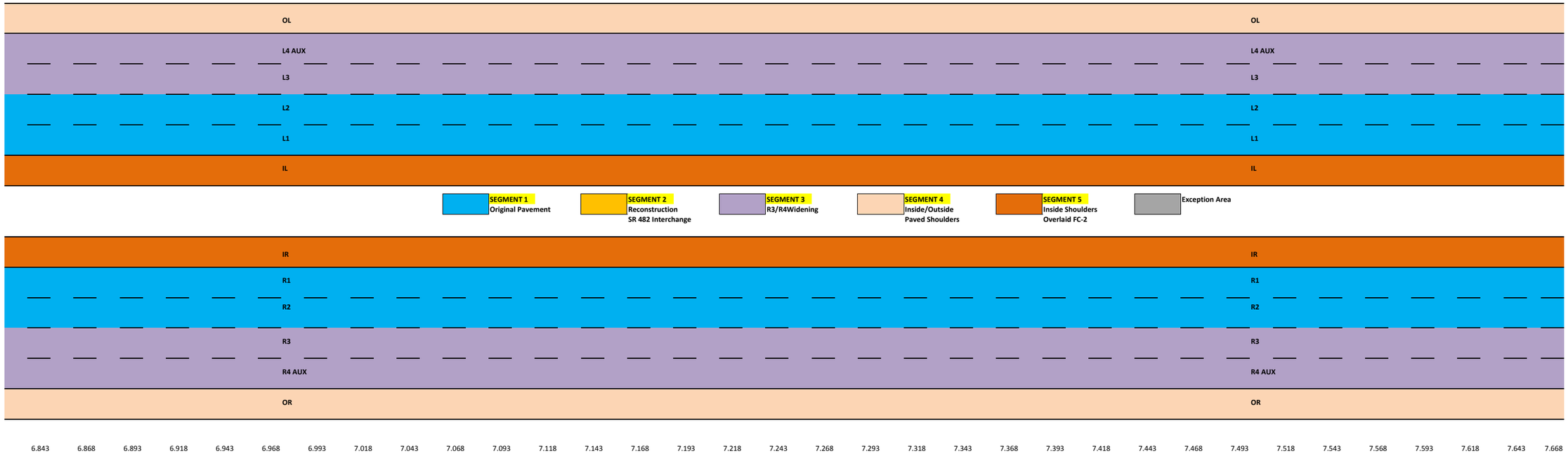
Photo 8: I-4 eastbound near MP 8.250. The approaches to the bridges within the project limits are in fair condition. Corrective actions will not be needed.

Photo 9: I-4 eastbound near MP 8.400. This location between MP 8.264 and MP 8.844 was resurfaced in 2007. Note the granite open-graded friction course.

Photo 10: I-4 eastbound near MP 9.155. The eastbound roadway from MP 8.844 to the end of the project at MP 9.249 was last resurfaced in 1993 and is in very worn condition.

Roadway Diagram for SR 400/I-4 for FPN 432453-1 from MP 6.018 to MP 7.668





Roadway Diagram for SR 400/I-4 for FPN 432453-1 from MP 7.668 to MP 9.249