Resource International, Inc.

Ground Penetrating Radar

Roadway Pavement Joint

& Bridge Deck Evaluation

HUR-20-10.76 (SLM 10.76 to 16.20)

Prepared for:

Gannett & Fleming
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Prepared by:

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Rii Project: N-19-011

July 26, 2019

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RE: Ground Penetrating Radar
Roadway Pavement Joint & Bridge Deck Evaluation
HUR-20-10.76 (SLM 10.76 to 16.20)

Dear Mr. Rikk:

Resource International, Inc. (Rii) is pleased to submit for your review and consideration our report on pavement evaluation using nondestructive testing consisting of Ground Penetrating Radar (GPR), on a section of HUR-20 in Huron County, Ohio, in support of a major pavement rehabilitation design.

We sincerely appreciate the opportunity to provide GPR testing and analysis for this project. If you have any questions regarding the contents of this report, please call me at 614-823-4949 or e-mail cherifa@resourceinternational.com.

Sincerely,
RESOURCE INTERNATIONAL, INC.

Cherif Amer-Yahia, Ph.D., P.E.
Director – NDE & Technology Division

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1. PROJECT OBJECTIVES

Resource International, Inc. (Rii) performed Ground Penetrating Radar (GPR) to evaluate the condition of the transverse contraction joints for the mainline pavement and the conditions of the mainline bridge decks located on a 5.5 mile segment of the Norwalk Bypass, from SLM 10.76 to SLM 16.20, in Huron County, Ohio, to assist Gannett Fleming with a pavement rehabilitation design.

The field work involved using two different types of GPR setting to survey bridge decks and the pavement transverse contraction joints. Bridge decks were scanned at highway speed at intervals of 2-inch longitudinally and 3-foot transversally for the entire length and width of the deck between the curbs. A slower speed and a different setting were used to evaluate the condition of the pavement joints where two lines of data were collected from each lane at intervals of 2/3-inch. Visual inspections of the bridge deck surfaces and floors and the pavement joints were also conducted during the field work.

The objectives of this GPR survey, as provided in the scope of work, were to:

- Analyze the collected bridge deck GPR data for quantities and locations of concrete deterioration. The analysis shall include plan view plots for the bridge decks, depicting the intensity of the radar response, which is related to the extent of concrete deterioration. The analysis shall identify and summarize concrete deterioration as a percentage of the total area surveyed from the completed GPR investigation. It shall include scaled plan views of the decks showing the location and extent of the delamination and defective concrete, and provide estimated partial and full depth repair quantities.
- Evaluate the condition of the transverse contraction joints in the underlying concrete pavement based on GPR data and the visual inspection of the joints. The evaluation and reporting shall include the condition of the joints, their photographs, their locations in feet and mileposts, their GPS coordinates, and the type of repair needed.

2. GPR EQUIPMENT

GPR is a nondestructive testing tool that uses radio waves to acquire subsurface information. GPR has been used for over three decades as a tool for transportation system investigation, particularly to study pavement layer thicknesses, find voids under pavement, evaluate moisture or density variations, detect asphalt stripping zones, and assess the condition of bridge decks and pavements.

The type of GPR system used during this project utilizes the non-contact horn antenna with a center frequency of 1 GHz, which is suspended 19 inches over the surface of the pavement and which can perform surveys at highway speed. This system has the advantage of providing near-surface information, and under typical conditions, the depth of signal penetration reaches 24 inches. The GPR system used during data collection is shown in Figure 1. It is equipped with:

Figure 1. GPR system used during data collection

- GSSI SIR-30 radar system (Control Unit) and two 1 GHz air-launched antennas attached to the rear of the van on an adjustable mounting system
- Corrsys-Datron DMI wheel pulse encoder for accurate survey length measurements
- Trimble GPS system PROXH
- A three camera alignment system for accurate survey width measurements
- A workstation inside the van for the operator during data collection
- An Inverter Generator
- Several hazard lights that comply with state and federal standards for this type of survey
  - Rear facing arrow sticks lights
  - Top mounted strobe light
  - Safety light at end of mounting system

3. BRIDGE DECK CONDITION EVALUATION

3.1 Field work

The bridge deck GPR survey was conducted on June 11, 2019 to assess the conditions of the concrete. The driving lanes and shoulders of the bridge decks were scanned by the GPR at intervals of 2-inch longitudinally and 3-foot transversely for the entire length and width of the decks between the curbs. The work was completed in accordance with all applicable segments of ASTM Specification *D 6087-8 (2015) Standard Test Method for Evaluating Asphalt-Covered Concrete Bridge Decks Using Ground Penetrating Radar*. GPR equipment used in this project and the procedure to collect and analyze deck condition data are described in Appendix E.

The following setting was used during data collection for both 1 GHz antennas:

- Bits per sample: 32 bits
- Samples per scan: 512
- Scans per second: 710
- Scans per foot: 6
- Transmit rate: 500 KHz

The depth of viewing window is approximately 18 inches for the 1 GHz antenna, assuming a dielectric constant of 9. A vertical high pass filter of 245 MHz and a vertical low pass filter of 3140 MHz were applied to the data to decrease inappropriate interferences.

A single-polarization methodology utilizing two air-launched horn antennas (1 GHz), mounted on booms so that the antennas scan on two different paths, was used to collect the data (see photograph of the GPR van in Figure 1, for the single-polarization setting). It is probably the most common method of GPR bridge deck evaluation. It has been around the longest and provides good, overall results. The antennas were deployed at an orientation where they were sensitive to the reinforcing steel placed in the transverse direction within the deck. The single-polarization method using two antennas has the advantage of covering more deck surface in a single day. The method provides fairly accurate deterioration quantity assessments that can be used to help identify locations that can best confirm that corrosion is taking place in predicted areas.

Rii exercised due caution to insure the safety of the public during the testing procedures. The survey vehicle, equipped with flashing lights, was traveling at the posted speed, with no disruption to traffic or safety risk. All work was performed on dry pavement at temperatures above freezing.

3. 2. Data analysis procedure

3.2.1 Post-Processing Software

The collected raw data were processed to evaluate the conditions of the bridge deck concrete. The analysis was performed using GSSI software, RADAN 7, a Window based post-processing software, designed to allow users to select the processing functions that best fit their application needs (Figure 2).

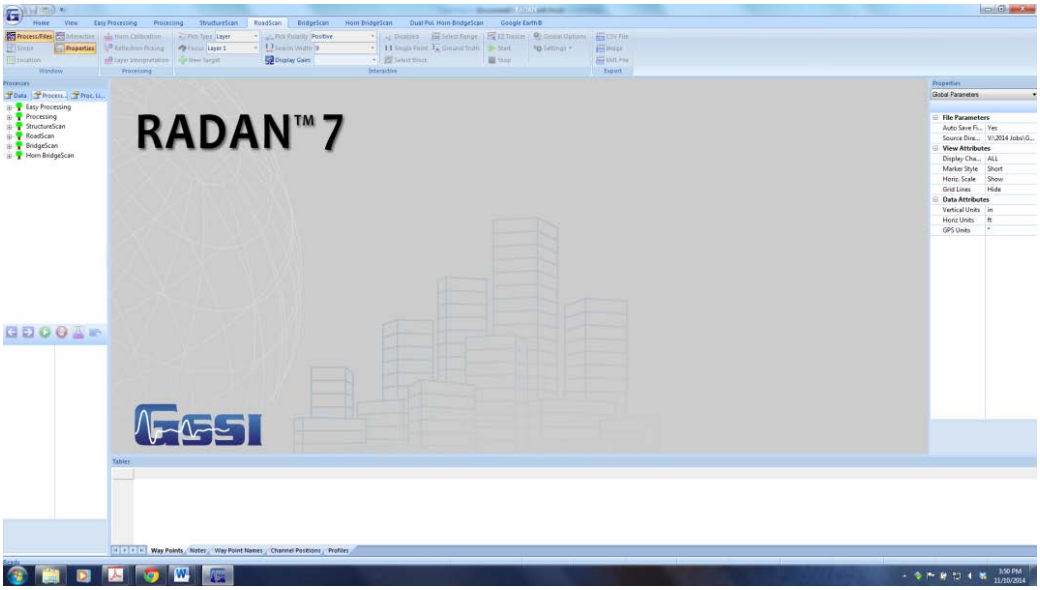


Figure 2. RADAN 7, a window based post-processing software

For evaluating bridge deck data, the software includes the Horn BridgeScan Ribbon (see Figure 3) designed to process data specifically collected to determine bridge deck deterioration using an air-launched horn antenna instead of a ground-coupled antenna.

Figure 3. BridgeScan Ribbon specifically designed for determining bridge deck deterioration

3.2.2 GPR data analysis

RADAN 7 was used to process the field data according to the procedure developed by GSSI and in compliance with ASTM D 6087-8 (2015) specifications. Several processing functions such as data horizontal and vertical filtering, surface normalization, distance normalization, velocity correction, migration and background removal were applied to the raw data to produce high quality data. The results of this analysis were used to determine the bridge deck deterioration conditions.

When the GPR electromagnetic signal is directed into the ground, a part of it is reflected from interfaces between materials of different dielectric values, and returns to the system receiver where it is displayed. This reflected energy brings a lot of information, including signal amplitude and velocity, but also a visual display of the pavement substructure using a color transform system. The GPR scan of Figure 4 below shows the different bridge components consisting of the top rebar mat, the bottom of the deck, the surface of the deck, and the bridge deck expansion joints.

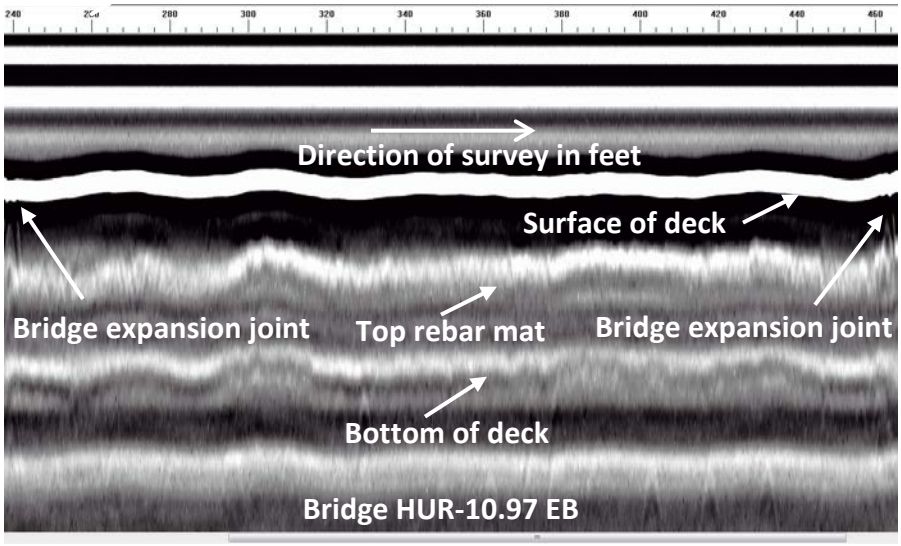


Figure 4. GPR scan from Bridge HUR-10.97 EB (raw data)

A 3D file was created for each bridge deck from all the collected input files (raw data files) using the RADAN 7 software program. The 3D files were processed to extract the rebar reflection amplitudes. The picked rebar reflection shows up as yellow dots representing the amplitude of the reflected signal from the deck reinforcement (Figure 5). A low amplitude reflected signal is interpreted to mean poor quality concrete, while low signal loss is considered to mean the concrete quality is good. Once all the rebar reflection picks were edited, the data were exported to an excel spreadsheet. Deterioration maps were generated by plotting the exported data on the plan sheets of the bridge decks.

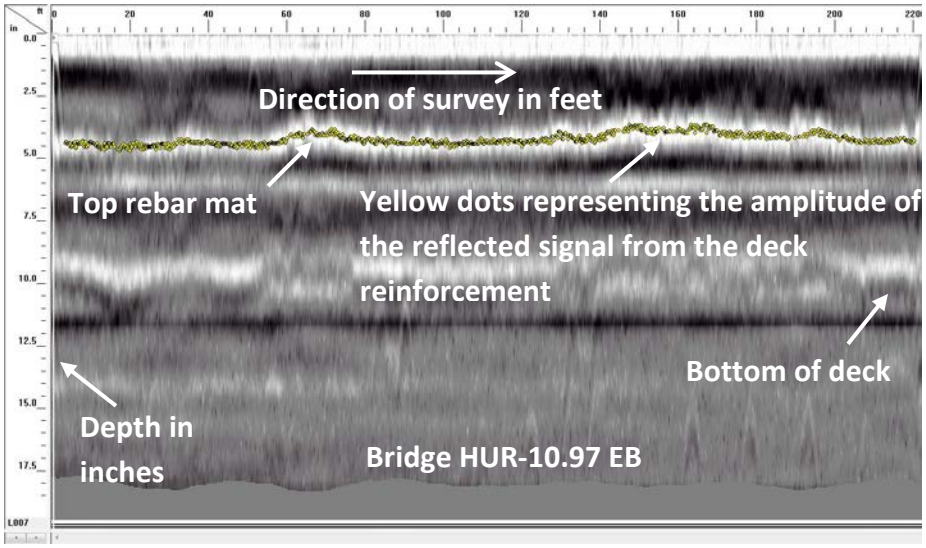


Figure 5. Yellow dots represent the amplitude values of the reflected signal for Bridge HUR 10.97 EB (processed data)

3.3. Deterioration maps

Probably the most serious cause of accelerated deterioration of the integrity of a reinforced concrete bridge deck is corrosion of the reinforcing steel. GPR is a tool that can identify quantities and locations of corrosion conditions that will cause reinforcement to corrode, concrete integrity and chemistry to change, and damage (such as cracking, delamination or spalling) to concrete. The sole variable considered in using GPR to assess the quality of the concrete is signal attenuation. A low amplitude reflected signal is interpreted to mean poor quality concrete. Conversely, relatively low signal loss is considered to mean the concrete quality is good. Appendix E gives more details on data collection and analysis. Figure 5 is a processed GPR scan from the

Bridge No. HUR-10.97 EB that shows the top rebar mat of the deck where the yellow dots are the amplitudes of the reflected signal, indicative of the extent of deterioration of the concrete.

The results of GPR data analysis were plotted on the plan sheets of the nine bridge decks, as shown in Appendix A. The Figures A_1 through A_5 in Appendix A show the deterioration maps of the bridge decks generated from the data collected using 1 GHz antenna. The maps indicate the deterioration conditions of the decks. Five colors were used to show the deterioration severity levels. Light blue and green regions represent areas where concrete is considered sound. Sound concrete is free from or has minor indications of chloride contents, moisture, delamination, or steel corrosion. Yellow indicates deterioration threshold with progressively increasing deterioration indications (yellow, orange, red). Yellow represents the areas where deterioration may have started but the process is in its early age. Orange and Red regions indicate those areas where deterioration may have reached its advanced stage; the damage being more severe in the red region.

A summary of these results, indicating the deterioration conditions of the decks are presented in Table 1. This table provides the percentage and area of concrete deterioration for each level of deterioration (see Figure 6), and for each bridge deck.

Figure 6. Concrete deterioration severity level indicator

Table 1. Percentage and area of concrete deterioration

Facility Carried	Direction	Deterioration Percentage (%)					Deterioration Area (SF)				
HUR-20-10.76	WB	1.1%	2.5%	12.0%	31.1%	53.3%	70.7	153.3	737.0	1,911.9	3,284.2
HUR-20-10.76	EB	1.1%	2.5%	9.4%	32.9%	54.1%	69.4	153.3	581.4	2,041.4	3,358.5
HUR-20-10.97	WB	1.4%	4.1%	14.3%	32.7%	47.5%	96.6	285.7	991.8	2,268.0	3,286.6
HUR-20-10.97	EB	1.1%	3.5%	13.1%	33.3%	49.0%	77.1	239.3	909.3	2,302.3	3,393.1
HUR-20-11.23	WB	1.4%	4.0%	11.4%	36.2%	47.0%	111.6	328.5	929.0	2,938.1	3,812.9
HUR-20-11.23	EB	2.6%	5.1%	13.4%	30.1%	48.8%	212.7	413.2	1,088.2	2,441.3	3,964.6
HUR-20-15.19	WB	0.3%	3.7%	11.4%	44.1%	40.5%	16.1	209.7	648.9	2,502.4	2,302.5
HUR-20-15.19	EB	1.1%	2.1%	8.7%	29.3%	58.8%	79.6	151.6	625.6	2,116.6	4,241.1
HUR-20-16.19	WB	0.3%	2.2%	9.4%	28.2%	59.9%	34.4	244.3	1,019.9	3,063.0	6,521.2

3.4 Bridge deck visual inspection

Visual inspection of each bridge deck floor and surface was performed. This information was used together with GPR results to determine full depth repair quantities that need to be removed. The visual inspection maps showing the location of the damaged floor areas, with corresponding photographs, are reported in Figures B_1 through B_5, included in Appendix B.

3.5 Repair quantities

The Figures C_1 through C_5 in Appendix C provide the partial and full depth repair details. Deteriorated/defective concrete locations, represented by orange and red areas on the deterioration maps, were squared off, and partial and full depth quantities to be removed were calculated. The determination of the full depth repair quantities is based on the condition of the deck floor and the extent of concrete delamination (red areas on the deterioration map). Table 2 on the next page reports the average bridge deck layer thicknesses and the estimated partial and full depth quantities that need to be removed.

Based on the GPR results and the bridge deck floor visual inspection, no full depth repair quantities were determined on any of the nine bridge decks surveyed.

Resource International, Inc.
Engineering Consultants
July 15, 2019

STATE OF OHIO DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS
BRIDGE DECK CONDITION SURVEY REPORT

COUNTIES: Huron
ROUTE: Norwalk Bypass (SR 20)
SECTION: SLM 10.76-16.20

BRIDGE	TYPE	DECK AREA	DECK AREA SURVEYED	TOP SURFACE OF DECK		CURRENT DEPTH TO REBAR	UNDER DECK CONDITION	TOP SURFACE OF DECK				PATCHING REPAIR					
				TYPE	SURFACE CONDITIONS			DATE	SURVEY METHOD	GPR UNSOUND AREA		INITIAL MEASURED AREA SQ. YDS	PERCENT OF TOTAL DECK AREA	AVERAGE DEPTH INCHES	EST. FACTOR		
										MEASURED AREA SQ. YDS	PERCENT OF TOTAL DECK AREA					SQ. YDS	CU. YDS
		SQ. YDS	SQ. YDS														
HUR-20-10.76 WB	Continuous Concrete Slab	777	684	Concrete Overlay	Spalling & Cracking	3.97	Good Condtion	6/11/2019	Ground penetrating radar	24.9	3.6%	Partial Depth					
												36.5	5.3%	4.72	1.15	42.0	5.5
												Full Depth					
												0.0	0.0%	8.75	1.15	0.0	0.0
HUR-20-10.76 EB	Continuous Concrete Slab	783	689	Concrete Overlay	Cracking & Patching	4.12	Cracking, Efflorescence, Spalling, & Exposed Rebar	6/11/2019	Ground penetrating radar	24.7	3.6%	Partial Depth					
												36.4	5.3%	4.87	1.15	41.8	5.7
												Full Depth					
												0.0	0.0%	8.75	1.15	0.0	0.0
HUR-20-10.97 WB	Continuous Concrete Slab	892	770	Concrete Overlay	Cracking	4.45	Cracking, Efflorescence, & Patching	6/11/2019	Ground penetrating radar	42.5	5.5%	Partial Depth					
												68.3	8.9%	5.2	1.15	78.5	11.3
												Full Depth					
												0.0	0.0%	8.75	1.15	0.0	0.0
HUR-20-10.97 EB	Continuous Concrete Slab	892	769	Concrete Overlay	Cracking	3.7	Cracking, Efflorescence, Moisture, & Light Spalling	6/11/2019	Ground penetrating radar	35.2	4.6%	Partial Depth					
												52.5	6.8%	4.45	1.15	60.3	7.5
												Full Depth					
												0.0	0.0%	8.75	1.15	0.0	0.0
HUR-20-11.23 WB	Continuous Concrete Slab	1058	902	Concrete Overlay	Cracking & Patching	3.75	Patching	6/11/2019	Ground penetrating radar	48.9	5.4%	Partial Depth					
												70.6	7.8%	4.5	1.15	81.2	10.1
												Full Depth					
												0.0	0.0%	8.75	1.15	0.0	0.0
HUR-20-11.23 EB	Continuous Concrete Slab	1058	902	Concrete Overlay	Patching	3.98	Good Condition	6/11/2019	Ground penetrating radar	69.5	7.7%	Partial Depth					
												104.2	11.5%	4.73	1.15	119.8	15.7
												Full Depth					
												0.0	0.0%	0	1.15	0.0	0.0
HUR-20-15.19 WB	Continuous Concrete Slab	716	631	Concrete Overlay	Cracking	3.61	Light Cracking, Efflorescence, & Light Spalling	6/11/2019	Ground penetrating radar	25.1	4.0%	Partial Depth					
												40.7	6.4%	4.36	1.15	46.8	5.7
												Full Depth					
												0.0	0.0%	8.75	1.15	0.0	0.0
HUR-20-15.19 EB	Continuous Concrete Slab	887	802	Concrete Overlay	Patching & Light Spalling	3.84	Light Cracking & Efflorescence	6/11/2019	Ground penetrating radar	25.7	3.2%	Partial Depth					
												38.1	4.8%	4.59	1.15	43.9	5.6
												Full Depth					
												0.0	0.0%	8.75	1.15	0.0	0.0
HUR-20-16.19 WB	Continuous Concrete Slab	1318	1209	Concrete Overlay	Cracking, Patching, & Scaling	3.72	Cracking, Efflorescence, Patching, Spalling, & Exposed Rebar	6/11/2019	Ground penetrating radar	31.0	2.6%	Partial Depth					
												48.0	4.0%	4.47	1.15	55.3	6.9
												Full Depth					
												0.0	0.0%	8	1.15	0.0	0.0

NOTES:

1. IT IS THE INTENT TO SURVEY THE ENTIRE DECK

2. CORE ALL DECKS A MINIMUM OF (2 CORES FOR <2,500 SQ. FT. :3 FOR 2,500 TO 5,000 SQ. FT.: 4 FOR 5,000 TO 10,000 SQ. FT.: 1 ADDITIONAL CORE FOR EACH 10,000 SQ. FT.)

3. USE CORES/ PACHOMETER TO DETERMINE DEPTH TO REBARS. USE CORES TO DETERMINE THICKNESS OF SEPARATE WEARING SURFACE.

4. FOR UNDERDECK CONDITION, DESCRIBE AND GIVE +. E.O. 5% WET, UNSOUND, CRACKED, LEACHING OR ANY COMBINATION.

5. SURVEY MAY BE ROD, CHAIN, DRAG, ELECTROMAGNETIC SOUNDING, NUCLEAR MAGNETIC RESONANCE, ACOUSTIC TECHNIQUE, HALF CELL OR PENETRATING RADAR.

6. ESTIMATED FACTOR: THE NUMBER BY WHICH THE CURRENT UNSOUND SURFACE IS MULTIPLIED TO OBTAIN THE UNSOUND SURFACE 6 TO 9 MONTHS LATER (INCLUDING ONE WINTER). IN LIEU OF A MORE RELIABLE FACTOR USE 1.15. IF 2 WINTERS PASS BEFORE OVERLAY IS TO BE PLACED, UPDATE SURVEY.

7. ESTIMATED QUANTITIES: UNSOUND SQ.YDS. X ESTIMATING FACTOR = PATCHING SQ.YDS

8. FOR MEASURED UNSOUND AREA > 40% OF TOTAL DECK AREA, A UNIFORM DEPTH OF CONCRETE OVER THE ENTIRE DECK AREA SHOULD BE SET UP TO BE REMOVED USING A HYDRODEMOLITON OPTION.

9. FOR DECKS 500 FT. OR LONGER, RESULTS OF CL- CONTENT AND REBAR ELECTRICAL POTENTIALS SHOULD BE ATTACHED TO THE DECK CONDITION SURVEY REPORT.

10. CORE DESCRIPTIONS FOR ALL BRIDGES SHOULD BE INCLUDED AS REMARKS WITH THIS REPORT FORM.

SUBMITTED BY: Resource International, Inc. DATE: 07/15/2019

4. EVALUATION OF THE TRANSVERSE CONTRACTION JOINTS

GPR data were continuously collected from the driving lanes at a rate of one reading every 2/3 of an inch. This high reading rate slowed the GPR van down to 20 miles/hour but increased significantly the subsurface GPR image resolution permitting a practical distinction between a good condition joint and a poor condition joint. During this low speed data collection performed on June 12, the survey vehicle, equipped with flashing lights, was followed by two crash trucks provided by Paul Peterson Company to guarantee a maximum safety. All work was performed on dry pavement at temperatures above freezing. Visual inspections of the joints were conducted on June 11, 12, and 13.

Figure 7 shows an example of a GPR scan where we clearly see that the pavement is a jointed plain concrete pavement with the transverse joints spaced at regular intervals of approximately 60 feet. However, GPR has shown no concrete pavement in the shoulder. The GPR scan below shows two joints, one in poor condition and the other one in good condition, the bottom of the asphalt layer, and the bottom of the concrete slab.

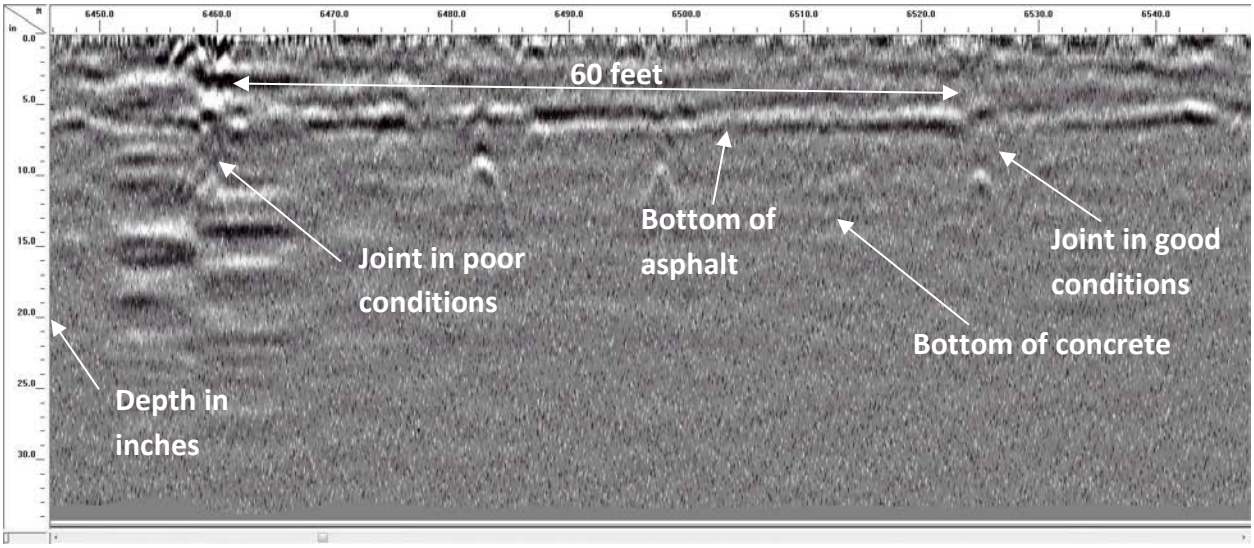


Figure 7. GPR image from HUR-20.76 pavement showing the conditions of two joints spaced 60 feet

The features of a deteriorated transverse contraction joint are well visible on the joint on the left of the GPR image of Figure 7. The asphalt concrete interface is discontinuous, indicative of a large joint opening, and a large void is visible under the joint. The joint on the right of the image shows

no major disturbances and the asphalt concrete interface is continuous, confirming that this joint is in good condition.

The excel spreadsheet tables, included in Appendix D in PDF format, list the conditions of the joints for the entire project. The tables include the conditions of the joints based on the GPR inspection (Good (G) or Poor (P)) and on the visual inspection, the joint photographs, their locations in feet and mileposts, their GPS coordinates, and the type of repair needed (Full depth (FD), partial depth (PD), or no repair (NR)). As shown in Table 3, both the conditions determined by GPR and the visual inspection were used to identify the type of repair needed.

Table 3. Type of repair needed based on GPR and visual inspection

Visual Survey	GPR	Type of Repair
G	G	NR
P	G	PD
G	P	FD
P	P	FD

Excel spreadsheets report the results of the condition of the transverse contraction joints. A click on the photograph number in the spreadsheet would show an image of the corresponding transverse contraction joint. Each slab was also visually inspected and all mid-slab cracks are reported on the Excel tables. Just like for the joints, type of repair recommendations based on visual observations and GPR are reported in the tables for all the mid-panel cracks. A shape file containing all the joints and mid-slab cracks, showing their conditions, and Excel tables are included with this submission in a USB Flash drive. The percentages of joints and mid-slab cracks that need no repair, partial depth repair, or full depth repair are shown in Table 4a for the EB lanes and Table 4b for the WB lanes.

Table 4a. Percentage of joints and mid-slab cracks that need repair (EB Lanes)

EB Travel Lanes											
Joint Recommendation						Mid-Slab Crack Recommendation					
Repair Type	DL # of joints	% of joints	PL # of joints	% of joints	Total	Repair Type	DL # of joints	% of joints	PL # of joints	% of joints	Total
NR	297	61%	346	75%	643	NR	315	65%	313	68%	628
PD	151	31%	38	8%	189	PD	100	21%	102	22%	202
FD	39	8%	79	17%	118	FD	69	14%	45	10%	114
Total	487	100%	463	100%	950	Total	484	100%	460	100%	944

DL: Driving Lane; PL: Passing Lane; NR: No Repair; PD: Partial-Depth Repair; FD: Full-Depth Repair

Table 4b. Percentage of joints and mid-slab cracks that need repair (WB Lanes)

WB Travel Lanes											
Joint Recommendation						Mid-Slab Crack Recommendation					
Repair Type	DL # of joints	% of joints	PL # of joints	% of joints	Total	Repair Type	DL # of joints	% of joints	PL # of joints	% of joints	Total
NR	362	75%	408	84%	770	NR	275	57%	276	58%	551
PD	101	21%	34	7%	135	PD	126	26%	146	30%	272
FD	21	4%	42	9%	63	FD	79	17%	58	12%	137
Total	484	100%	484	100%	968	Total	480	100%	480	100%	960

DL: Driving Lane; PL: Passing Lane; NR: No Repair; PD: Partial-Depth Repair; FD: Full-Depth Repair

Voids under concrete slabs, either air- or water-filled, are high contrast targets. However, they have to be at least 0.6 inch thick to produce a reflection. Voids show as strong reflections in a GPR scan with a white-black-white sequence of colors (reverse reflection polarity), indicating a concrete-air interface. Reflections at locations with no voids appear dim, revealing a low concrete-subgrade dielectric contrast. A careful examination of all the GPR scans did not show void under the concrete slabs.

5. CONCLUSION

Rii was assigned by Gannett Fleming to provide preliminary engineering services in support of a major pavement rehabilitation design. In this connection, Rii performed bridge deck and pavement transverse contraction joint evaluation using non-destructive testing consisting of GPR and visual inspection, analyzed the field data, and provided results that are meant to be used in the development of a bridge deck and pavement joint rehabilitation plan.

The details of the data collection, data analysis and other procedures are described in this report to document all the pertinent information as well as the procedures. The Appendices contain all the details of data and results of analysis. The relevant summaries of data and results of data analysis are contained in the text of the report.

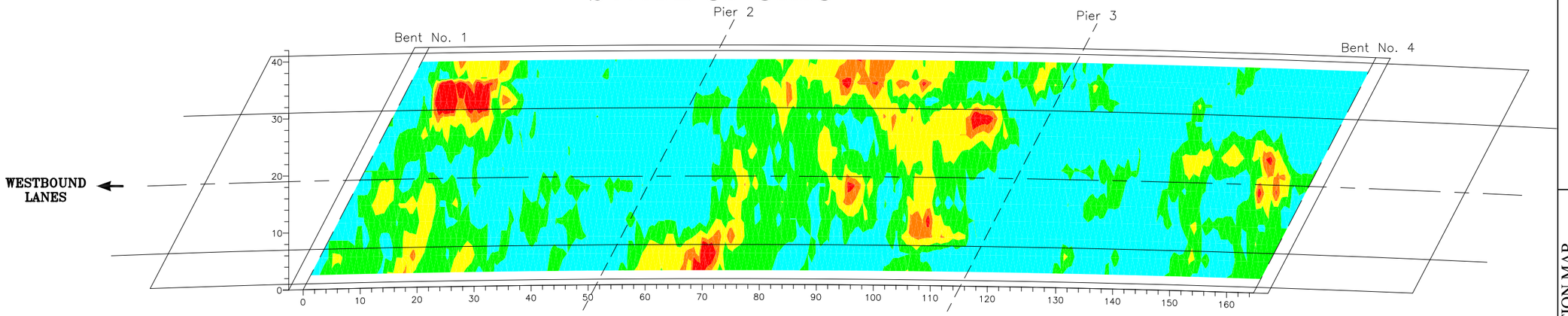
Appendices A and B alone report on the deck plan views relevant bridge deck evaluation results including the locations and extent of the concrete deterioration. Partial and full depth repair quantities can be found in Appendix C. The conditions of the transverse contraction joints are reported in tables (Excel spreadsheets and PDF format tables in Appendix D).

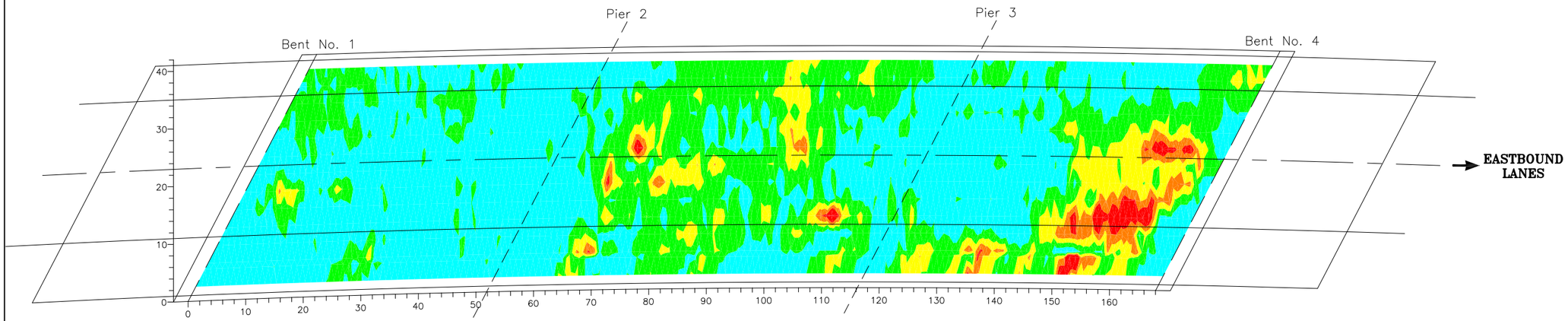
As with all geophysical methods, GPR results provide a level of confidence, but should not be considered absolute. Rii cannot be responsible for the misinterpretation of unverified GPR results by others. This report has been prepared in accordance with generally accepted engineering practices. No warranties, express or implied, are intended or made.

APPENDIX A

Deterioration Maps

DETERIORATION MAP
HUR-20-10.76
NORWALK BYPASS OVER RAMP TO SR 61
HURON COUNTY
STATE OF OHIO





INCREASING SEVERITY

NONE	LOW	MEDIUM	HIGH
SOUND CONCRETE	DETERIORATED CONCRETE		

DETERIORATION – WB BRIDGE DECK

Color	Percent	Area (S.F.)
	1.1	70.7
	2.5	153.3
	12.0	737.0
	31.1	1,911.9
	53.3	3,284.2

DETERIORATION – EB BRIDGE DECK

Color	Percent	Area (S.F.)
	1.1	69.4
	2.5	153.3
	9.4	581.4
	32.9	2,041.4
	54.1	3,358.5

Figure A-1

GRAPHIC SCALE
(IN FEET)
1 INCH = 20 FT.
30
20
10
0
10

DETERIORATION MAP
HUR-20-10.76
NORWALK BYPASS
OVER RAMP TO SR 61
HURON COUNTY
STATE OF OHIO

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

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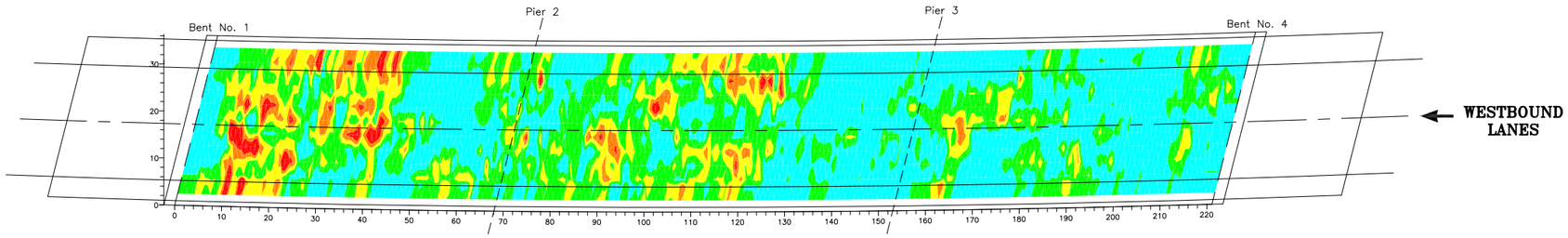
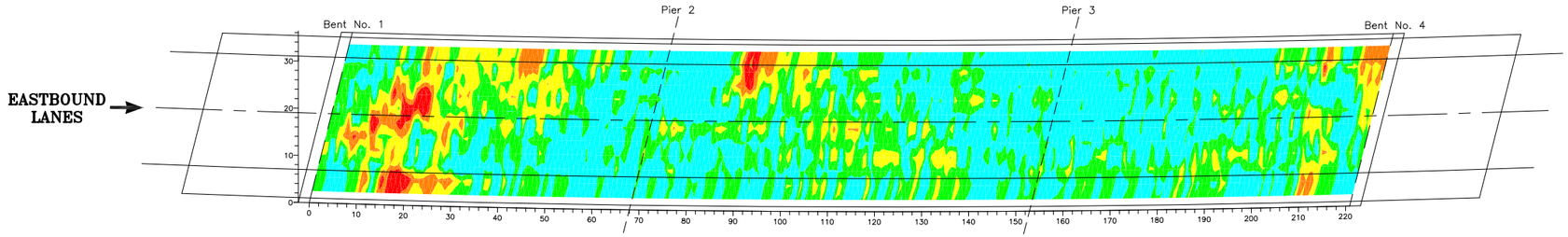
JOB NO.:	N-19-011	SHEET:	1 OF 1

DETERIORATION MAP
HUR-20-10.97
NORWALK BYPASS OVER HURON RIVER
HURON COUNTY
STATE OF OHIO





INCREASING SEVERITY

NONE SOUND CONCRETE	LOW DETERIORATED CONCRETE	MEDIUM DETERIORATED CONCRETE	HIGH DETERIORATED CONCRETE

DETERIORATION – WB BRIDGE DECK

Color	Percent	Area (S.F.)
	1.4	96.6
	4.1	285.7
	14.3	991.8
	32.7	2,268.0
	47.5	3,286.6

DETERIORATION – EB BRIDGE DECK

Color	Percent	Area (S.F.)
	1.1	77.1
	3.5	239.3
	13.1	909.3
	33.3	2,302.3
	49.0	3,393.1

Figure A-2

GRAPHIC SCALE
(IN FEET)
1 INCH = 30 FT.

DETERIORATION MAP
HUR-20-10.97
NORWALK BYPASS
OVER HURON RIVER
HURON COUNTY
STATE OF OHIO

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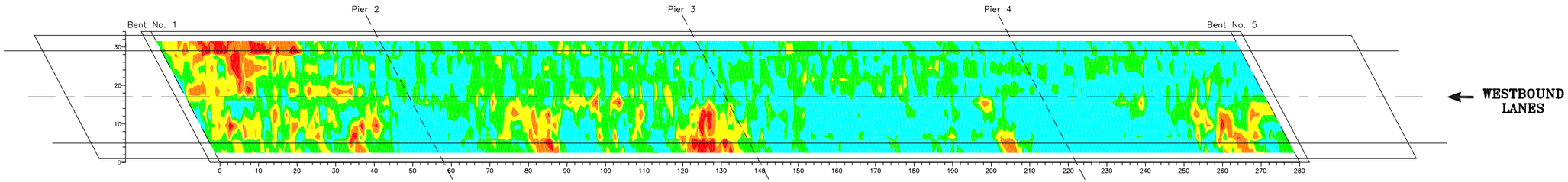
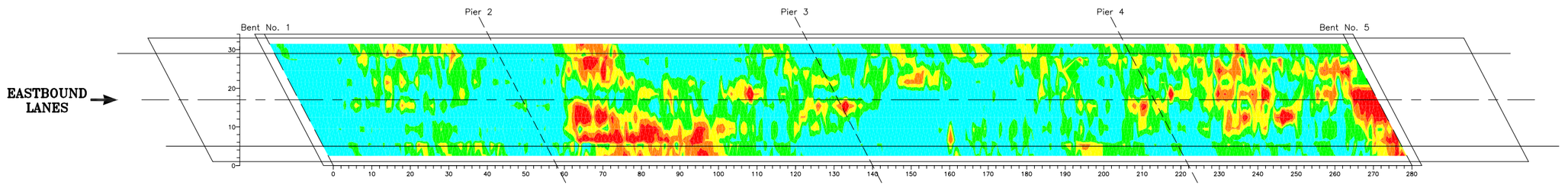
JOB NO.:	N-19-011	SHEET:	1 OF 1

DETERIORATION MAP
HUR-20-11.23
NORWALK BYPASS OVER SR 61 AND COLE CREEK
HURON COUNTY
STATE OF OHIO





DETERIORATION – WB BRIDGE DECK

Color	Percent	Area (S.F.)
	1.4	111.6
	4.0	328.5
	11.4	929.0
	36.2	2,938.1
	47.0	3,812.9

DETERIORATION – EB BRIDGE DECK

Color	Percent	Area (S.F.)
	2.6	212.7
	5.1	413.2
	13.4	1,088.2
	30.1	2,441.3
	48.8	3,964.6

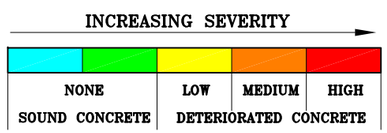


Figure A-3

GRAPHIC SCALE
(IN FEET)
1 INCH = 30 FT.

DETERIORATION MAP
HUR-20-11.23
NORWALK BYPASS
OVER SR 61 AND COLE CREEK
HURON COUNTY
STATE OF OHIO

RESOURCE INTERNATIONAL INC.
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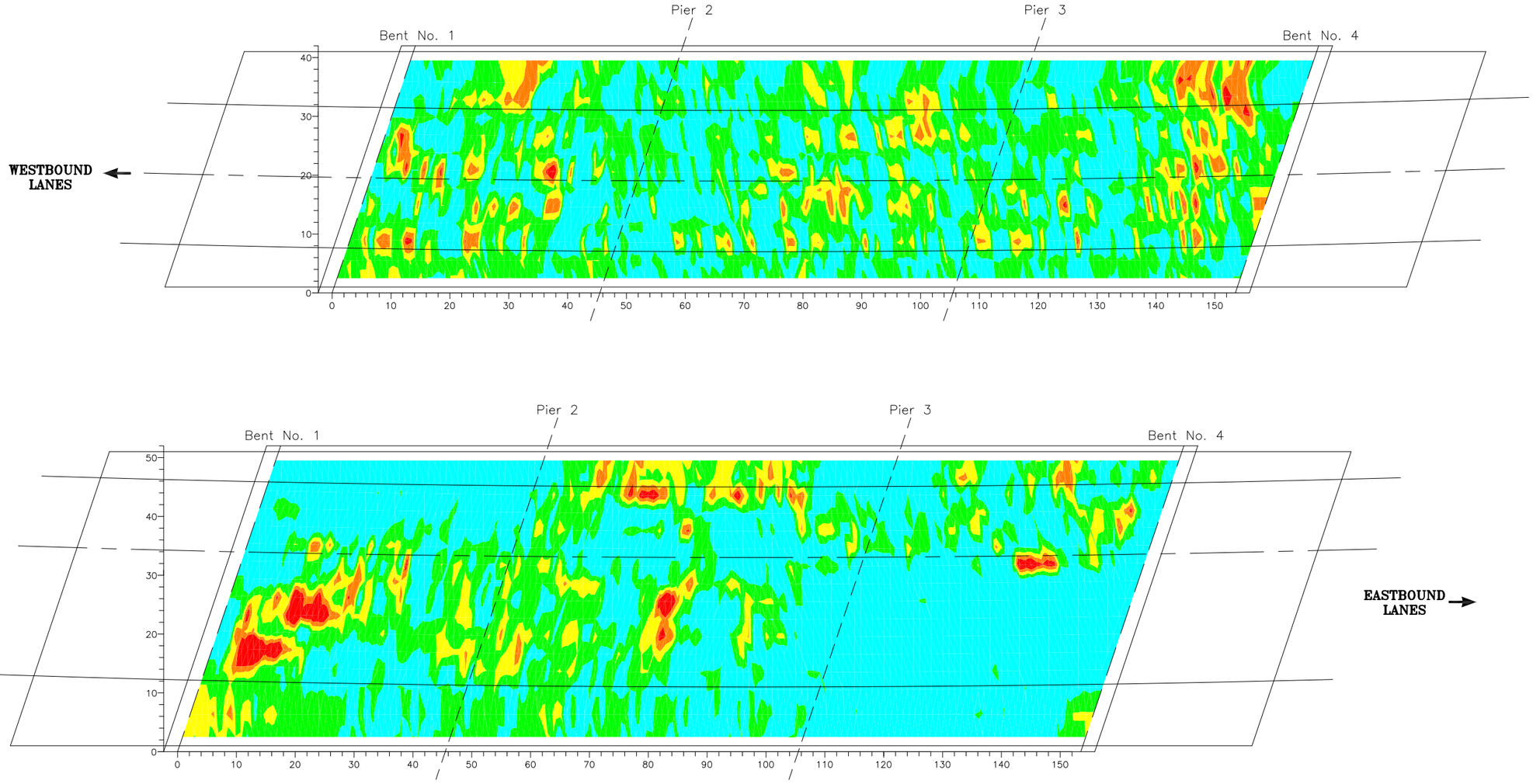
DETERIORATION MAP
HUR-20-15.19
NORWALK BYPASS OVER NORFOLK & WESTERN RAILWAY
HURON COUNTY
STATE OF OHIO



INCREASING SEVERITY

NONE SOUND CONCRETE	LOW DETERIORATED CONCRETE	MEDIUM DETERIORATED CONCRETE	HIGH DETERIORATED CONCRETE

DETERIORATION – WB BRIDGE DECK

Color	Percent	Area (S.F.)
	0.3	16.1
	3.7	209.7
	11.4	648.9
	44.1	2,502.4
	40.5	2,302.5

DETERIORATION – EB BRIDGE DECK

Color	Percent	Area (S.F.)
	1.1	79.6
	2.1	151.6
	8.7	625.6
	29.3	2,116.6
	58.8	4,241.1

Figure A-4

GRAPHIC SCALE
(IN FEET)
1 INCH = 20 FT.
30
20
10
0
10

DETERIORATION MAP
HUR-20-15.19
NORWALK BYPASS OVER
NORFOLK & WESTERN RAILWAY
HURON COUNTY
STATE OF OHIO

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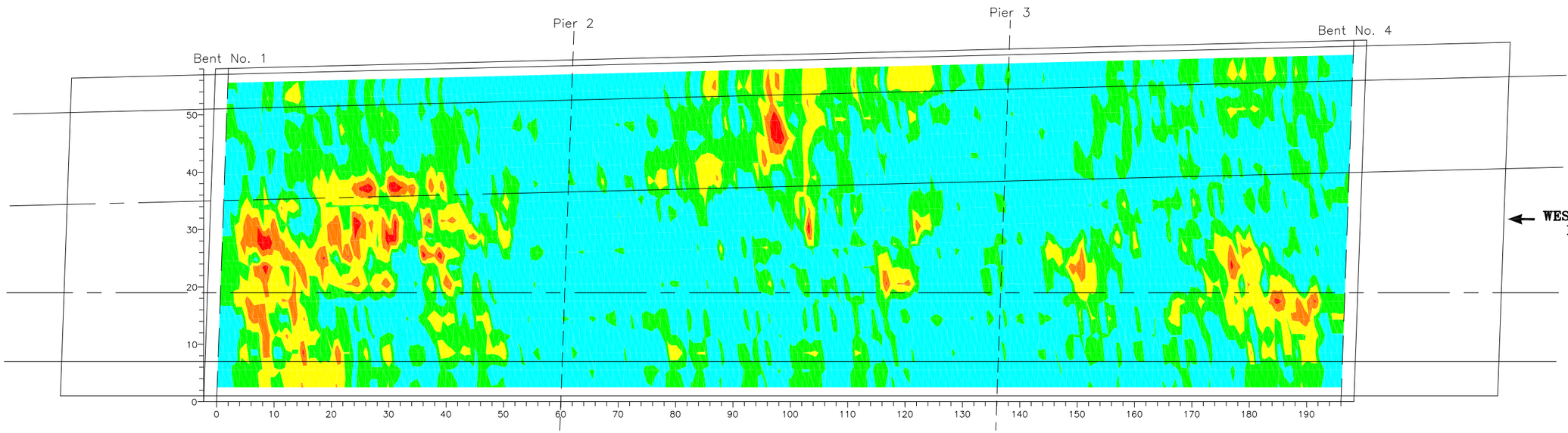
JOB NO.: N-19-011	SHEET: 1 OF 1	

DETERIORATION MAP
HUR-20-16.19
NORWALK BYPASS OVER US 20
HURON COUNTY
STATE OF OHIO



DETERIORATION – WB BRIDGE DECK

Color	Percent	Area (S.F.)
	0.3	34.4
	2.2	244.3
	9.4	1,019.9
	28.2	3,063.0
	59.9	6,521.2

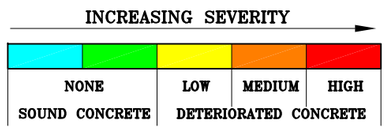


Figure A-5

GRAPHIC SCALE
(IN FEET)
1 INCH = 20 FT.
30
20
10
0
10

DETERIORATION MAP
HUR-20-16.19
NORWALK BYPASS OVER US 20
HURON COUNTY
STATE OF OHIO

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
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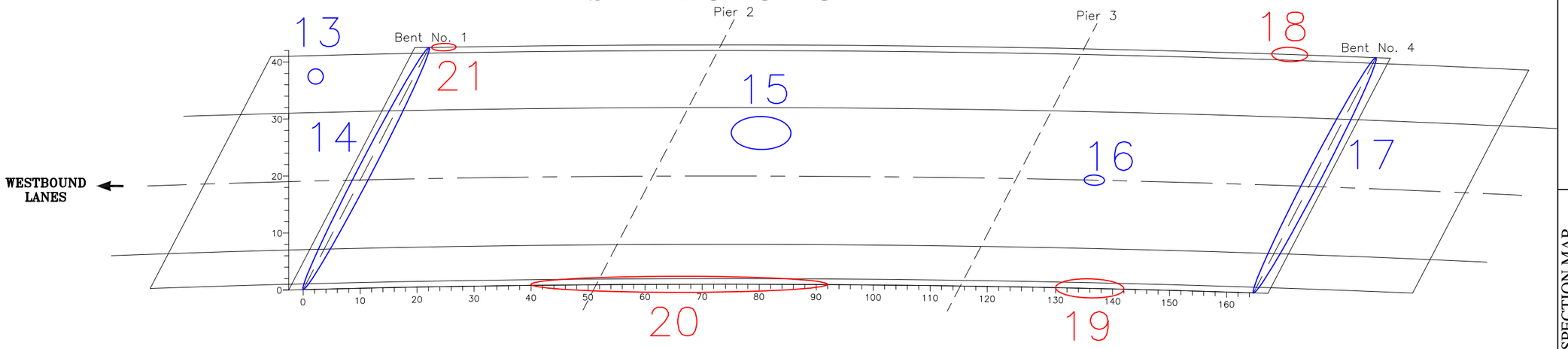
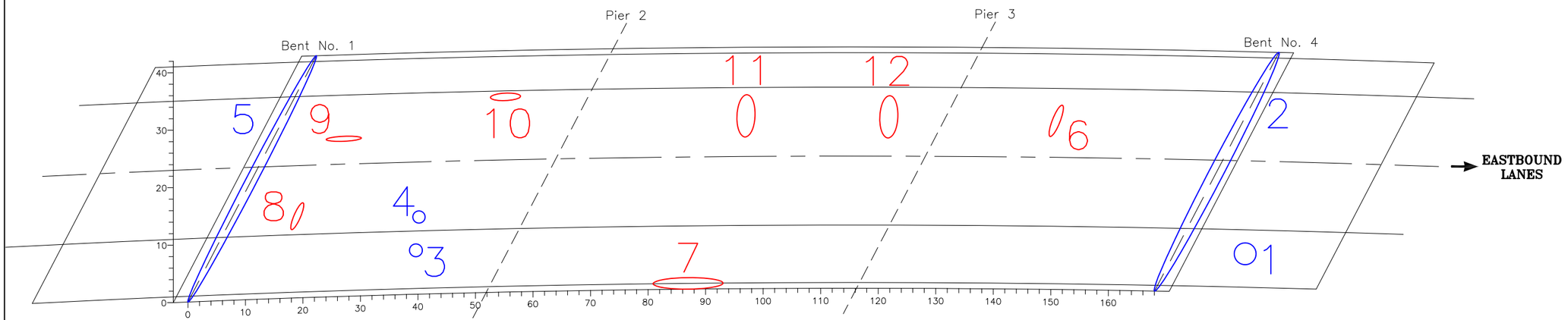
JOB NO.:	N-19-011	SHEET:	1 OF 1

APPENDIX B

Visual Inspection of Bridges

VISUAL INSPECTION MAP
HUR-20-10.76
NORWALK BYPASS OVER RAMP TO SR 61
HURON COUNTY
STATE OF OHIO





BRIDGE SURFACE PICTURE LEGEND

Pictures: EB
1: Overall
2: Spalling and patching at joint
3–4: Spalling
5: Joint

Pictures: WB
13: Overall
14: Cracking and patching at joint
15: Small patches
16: Asphalt patch at reflector
17: Cracking at joint

BRIDGE FLOOR PICTURE LEGEND

Pictures: EB
6: Cracking and efflorescence
7: Spalling and exposed rebar
8–9: Spalling
10–11: Spalling and cracking
12: Spalling, cracking and efflorescence

Pictures: WB
18: Efflorescence
19–20: Typical spalling and exposed rebar on deck edge
21: Cracking

Figure B-1

GRAPHIC SCALE
(IN FEET)
1 INCH = 20 FT.

VISUAL INSPECTION MAP
HUR-20-10.76
NORWALK BYPASS
OVER RAMP TO SR 61
HURON COUNTY
STATE OF OHIO

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
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JOB NO.: N-19-011	SHEET: 1 OF 1	

HUR-20-10.76

Norwalk Bypass EB over Ramp to SR 61

Picture 1

Picture 2

Picture 3

Picture 4

Picture 5

Picture 6

Picture 7

Picture 8

Picture 9

Picture 10

Picture 11

Picture 12

HUR-20-10.76

Norwalk Bypass WB over Ramp to SR 61

Picture 13

Picture 14

Picture 15

Picture 16

Picture 17

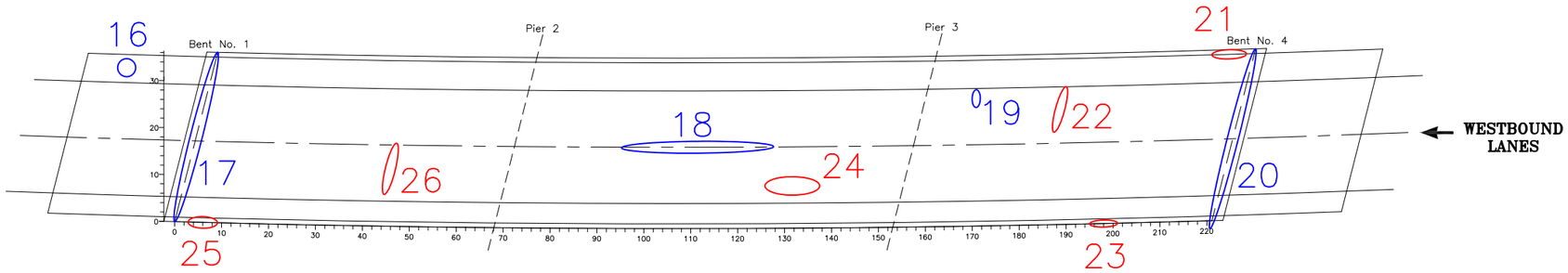
Picture 18

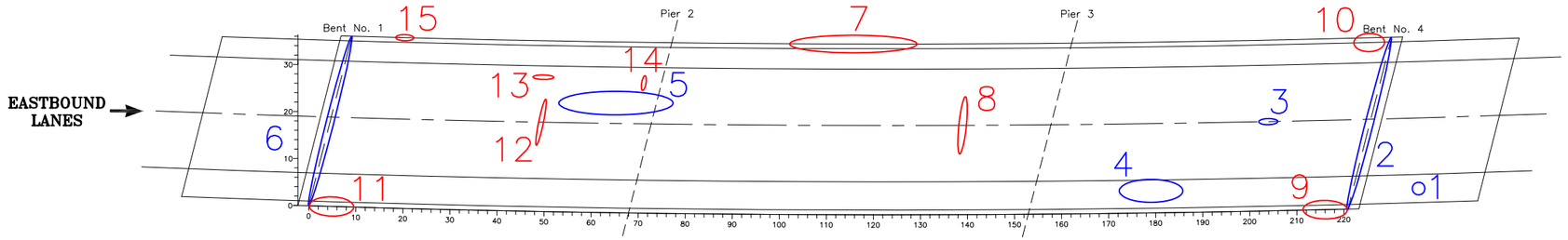
Picture 19

Picture 20

Picture 21

VISUAL INSPECTION MAP
HUR-20-10.97
NORWALK BYPASS OVER HURON RIVER
HURON COUNTY
STATE OF OHIO





BRIDGE SURFACE PICTURE LEGEND

Pictures: EB
1: Overall
2: Joint
3: Asphalt patch at reflector
4: Typical transverse cracking
5: Longitudinal cracking
6: Joint

Pictures: WB
16: Overall
17: Joint
18: Longitudinal cracking
19: Cracking
20: Joint

BRIDGE FLOOR PICTURE LEGEND

Pictures: EB
7: Spalling on deck edge
8: Typical cracking and efflorescence
9–10: Deterioration and exposed rebar
11: Deterioration
12: Typical cracking and efflorescence
13: Spalling
14: Moisture
15: Spalling and exposed rebar

Pictures: WB
21: Deterioration and exposed rebar
22: Cracking and efflorescence
23: Spalling and exposed rebar
24: Patch
25: Deterioration and exposed rebar
26: Cracking and efflorescence

Figure B-2

GRAPHIC SCALE
(IN FEET)
1 INCH = 30 FT.

VISUAL INSPECTION MAP
HUR-20-10.97
NORWALK BYPASS
OVER HURON RIVER
HURON COUNTY
STATE OF OHIO

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
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JOB NO.: N-19-011	SHEET: 1 OF 1	

HUR-20-10.97

Norwalk Bypass EB over Huron River

Picture 1

Picture 2

Picture 3

Picture 4

Picture 5

Picture 6

Picture 7

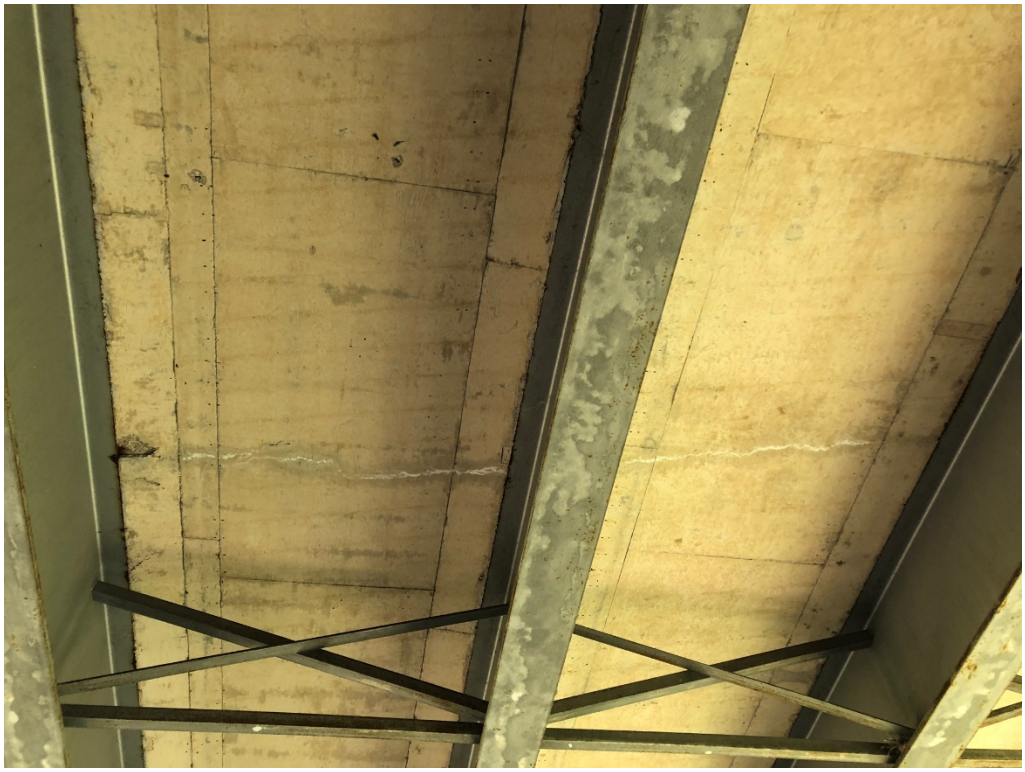
Picture 8

Picture 9

Picture 10

Picture 11

Picture 12



Picture 13

Picture 14

Picture 15

HUR-20-10.97

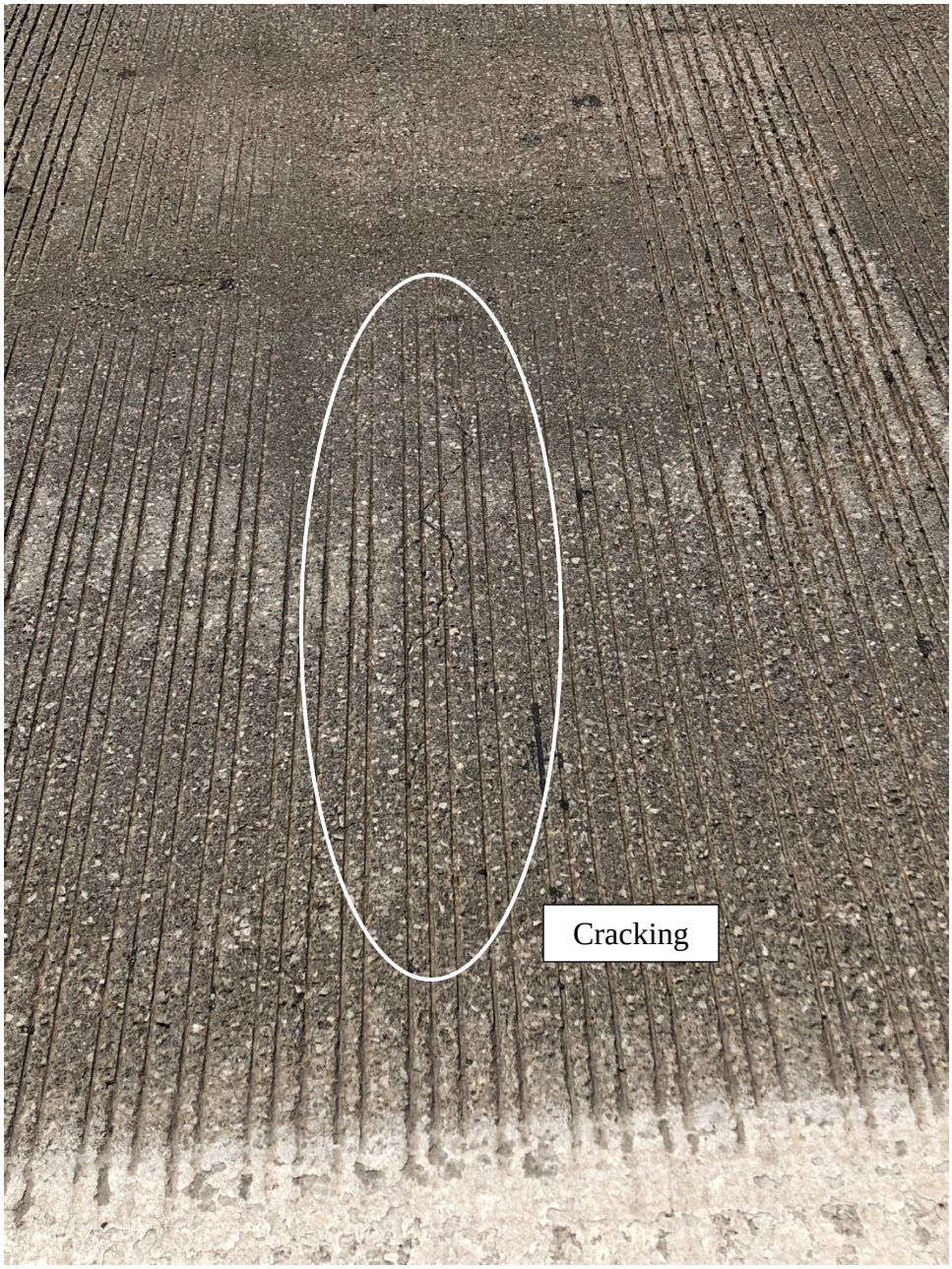
Norwalk Bypass WB over Huron River

Picture 16

Picture 17

Picture 18

Picture 19



Picture 20

Picture 21

Picture 22

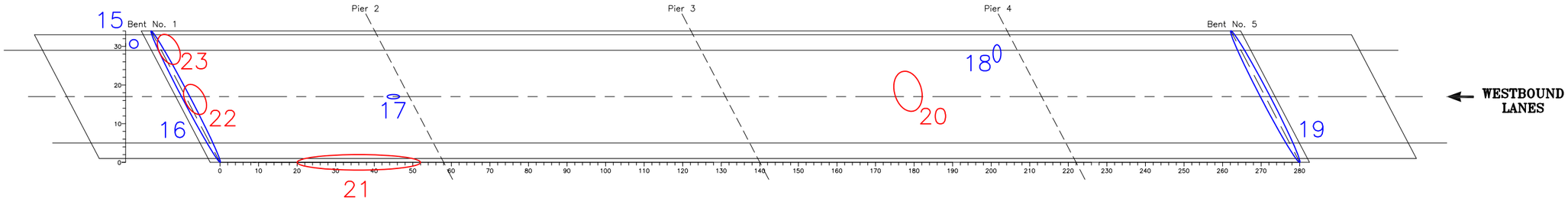
Picture 23

Picture 24

Picture 25

Picture 26

VISUAL INSPECTION MAP
HUR-20-11.23
NORWALK BYPASS OVER SR 61 AND COLE CREEK
HURON COUNTY
STATE OF OHIO



BRIDGE SURFACE PICTURE LEGEND

Pictures: EB
1: Overall
2: Joint
3–8: Small concrete patches (note deteriorated concrete barriers with exposed rebar)
9: Small asphalt patch at reflector
10: Deteriorated concrete barrier
11: Small concrete patches
12: Joint

Pictures: WB
15: Overall
16: Joint
17: Small asphalt patch at reflector
18: Cracking
19: Joint

BRIDGE FLOOR PICTURE LEGEND

Pictures: EB
13: Spalling on deck edge
14: Spalling and exposed rebar

Pictures: WB
20: Patch
21: Typical spalling and exposed rebar on inside deck edge
22–23: Deterioration and exposed rebar at abutment

Figure B-3

GRAPHIC SCALE
(IN FEET)
1 INCH = 30 FT.

VISUAL INSPECTION MAP
HUR-20-11.23
NORWALK BYPASS
OVER SR 61 AND COLE CREEK
HURON COUNTY
STATE OF OHIO

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
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JOB NO.: N-19-011	SHEET: 1 OF 1	

HUR-20-11.23

Norwalk Bypass EB over SR 61 and Cole Creek

Picture 1

Picture 2

Picture 3

Picture 4

Picture 5

Picture 6

Picture 7

Picture 8

Picture 9

Picture 10

Picture 11

Picture 12

Picture 13

Picture 14

HUR-20-11.23

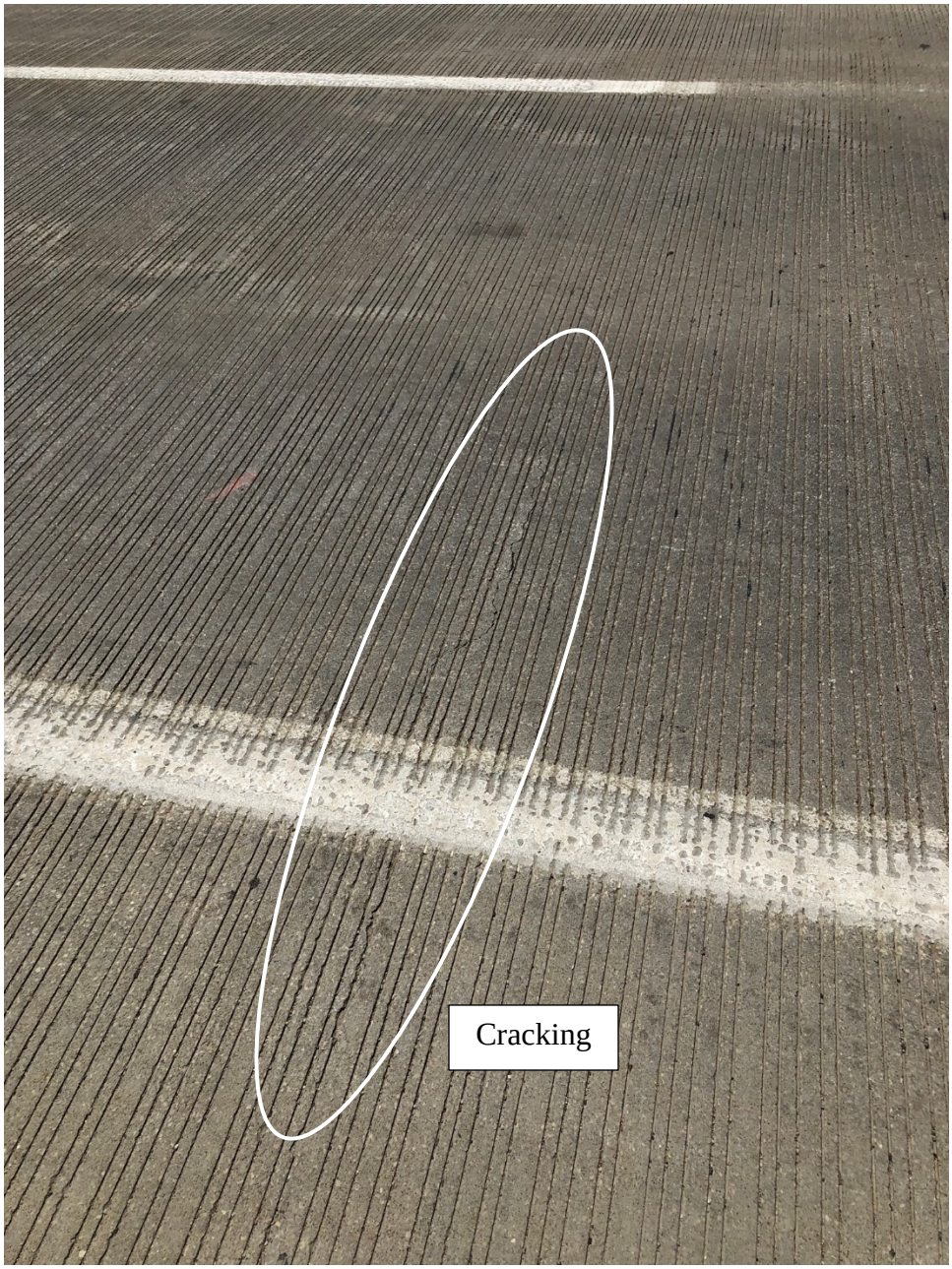
Norwalk Bypass WB over SR 61 and Cole Creek

Picture 15

Picture 16

Picture 17

Picture 18



Picture 19

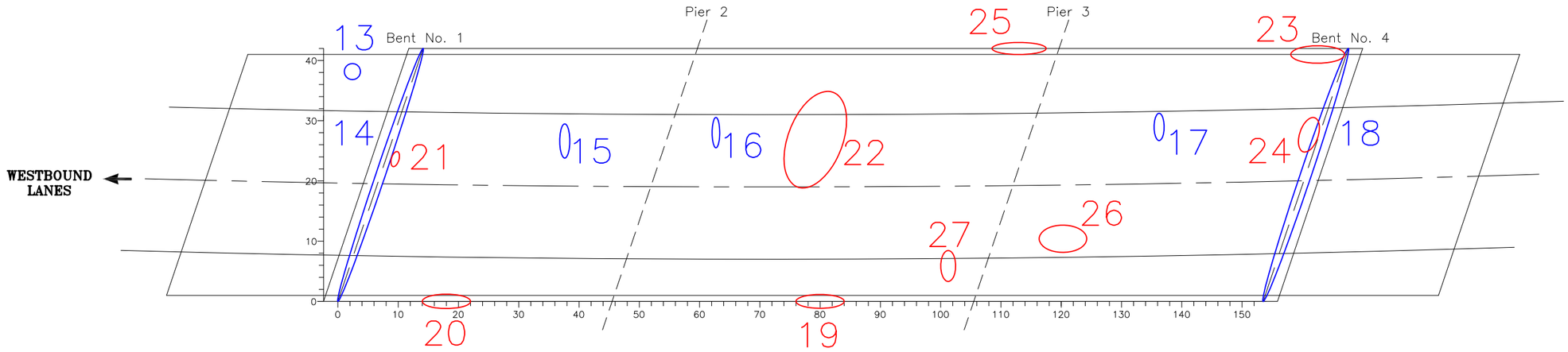
Picture 20

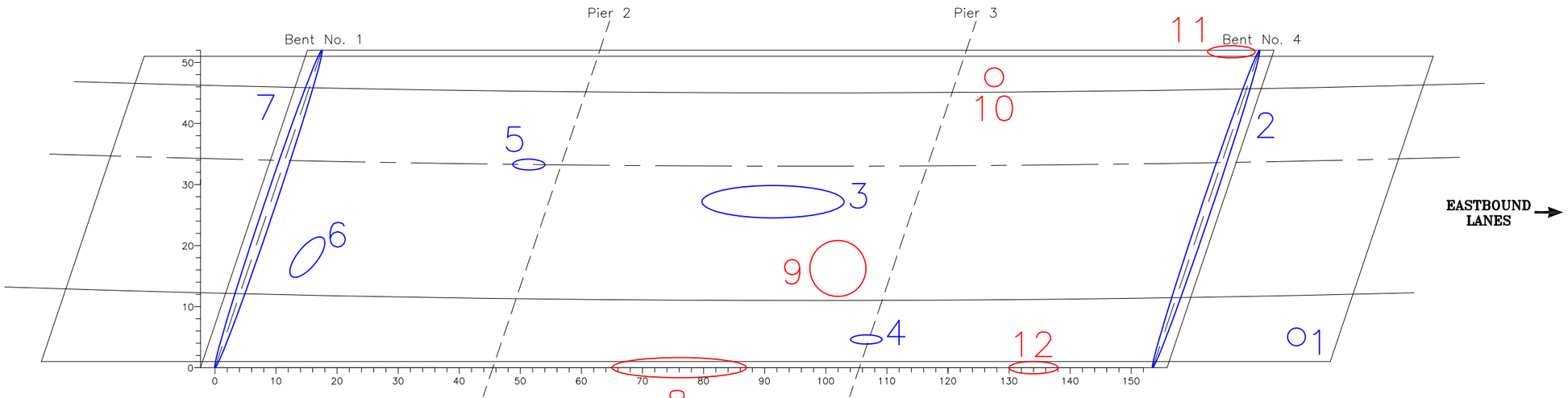
Picture 21

Picture 22

Picture 23

VISUAL INSPECTION MAP
HUR-20-15.19
NORWALK BYPASS OVER NORFOLK & WESTERN RAILWAY
HURON COUNTY
STATE OF OHIO





BRIDGE SURFACE PICTURE LEGEND

Pictures: EB
1: Overall
2: Joint
3; 6: Small patches
4: Spalling
5: Asphalt patch from reflector
7: Joint

Pictures: WB
13: Overall
14: Joint
15–16: Cracking
17: Gouges
18: Joint

BRIDGE FLOOR PICTURE LEGEND

Pictures: EB
8: Spalling on deck edge
9: Typical underside
10: Cracking and efflorescence
11: Deterioration and exposed rebar
12: Spalling

Pictures: WB
19–20: Spalling
21: Abutment deterioration
22: Efflorescence
23–24: Deterioration and exposed rebar
25–26: Spalling
27: Cracking and efflorescence

Figure B-4

GRAPHIC SCALE
(IN FEET)
1 INCH = 20 FT.

VISUAL INSPECTION MAP
HUR-20-15.19
NORWALK BYPASS OVER
NORFOLK & WESTERN RAILWAY
HURON COUNTY
STATE OF OHIO

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
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HUR-20-15.19

Norwalk Bypass EB over Norfolk & Western Railway

Picture 1

Picture 2

Picture 3

Picture 4

Picture 5

Picture 6

Picture 7

Picture 8

Picture 9

Picture 10

Picture 11

Picture 12

HUR-20-15.19

Norwalk Bypass WB over Norfolk & Western Railway

Picture 13

Picture 14

Picture 15

Picture 16

Picture 17

Picture 18

Picture 19

Picture 20

Picture 21

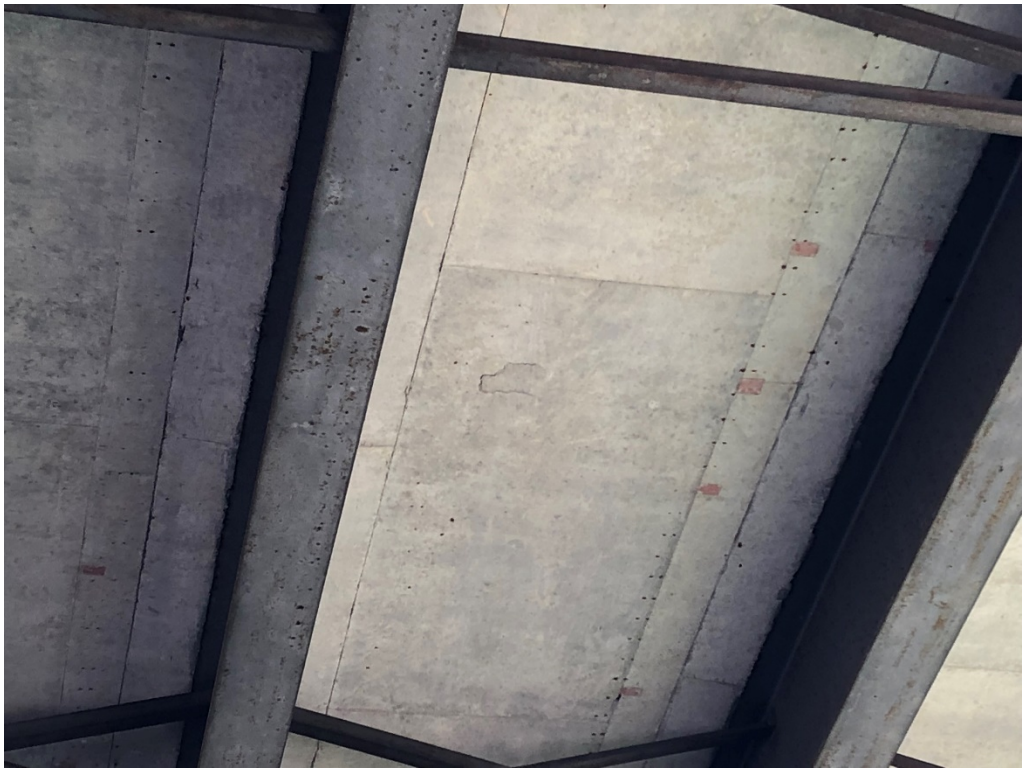
Picture 22

Picture 23

Picture 24

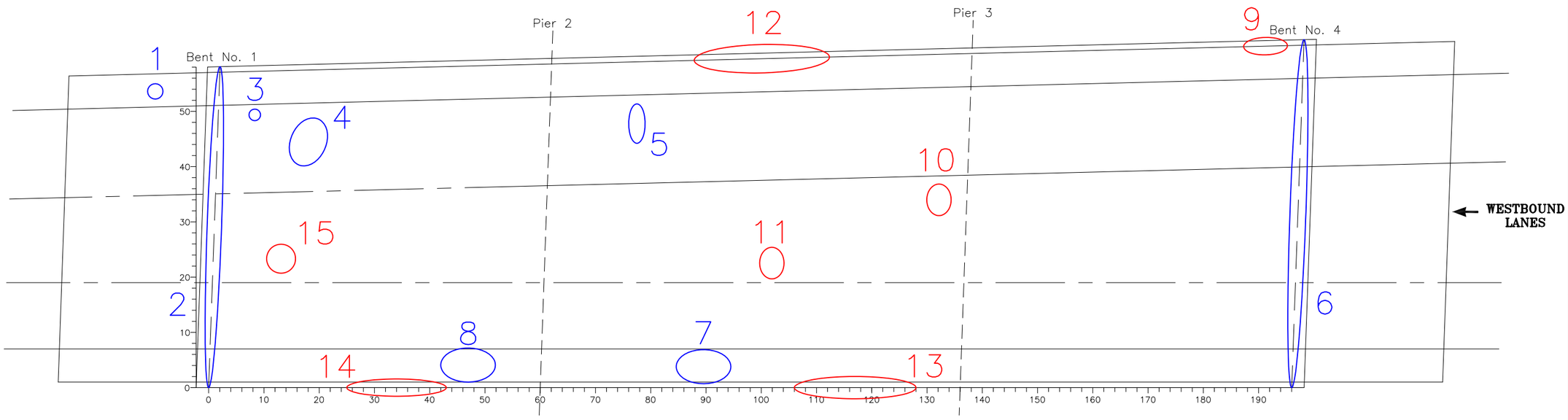
Picture 25

Picture 26



Picture 27

VISUAL INSPECTION MAP
HUR-20-16.19
NORWALK BYPASS OVER US 20
HURON COUNTY
STATE OF OHIO



BRIDGE SURFACE PICTURE LEGEND

Pictures

1: Overall
2: Joint
3: Delamination
4: Cracking and small patches
5: Cracking
6: Joint
7–8: Scaling

BRIDGE FLOOR PICTURE LEGEND

Pictures

9: Cracking
10: Patching
11–14: Spalling and exposed rebar
15: Cracking and efflorescence

Figure B-5

GRAPHIC SCALE
(IN FEET)
1 INCH = 20 FT.

VISUAL INSPECTION MAP
HUR-20-16.19
NORWALK BYPASS OVER US 20
HURON COUNTY
STATE OF OHIO

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JOB NO.: N-19-011		

HUR-20-16.19

Norwalk Bypass EB over US 20

Picture 1

Picture 2

Picture 3

Picture 4

Picture 5

Picture 6

Picture 7

Picture 8

Picture 9

Picture 10

Picture 11

Picture 12

Picture 13

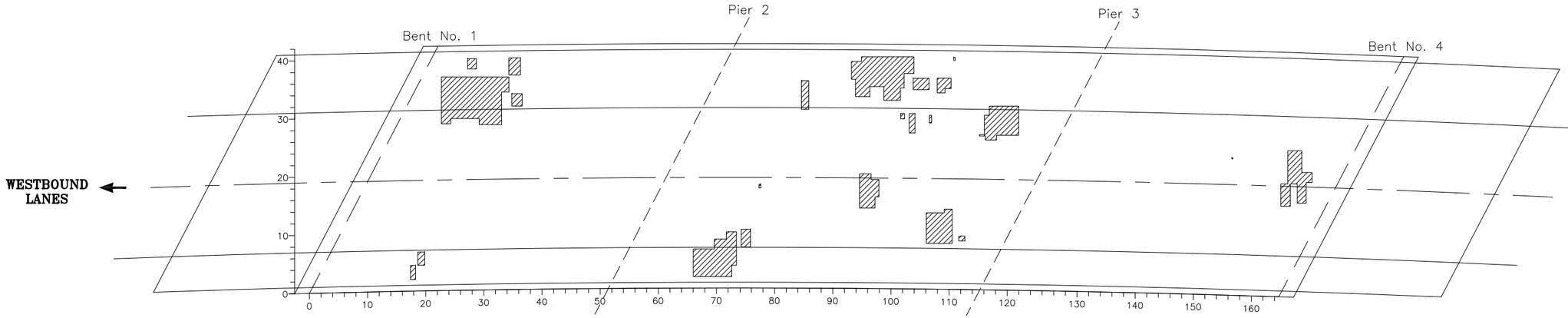
Picture 14

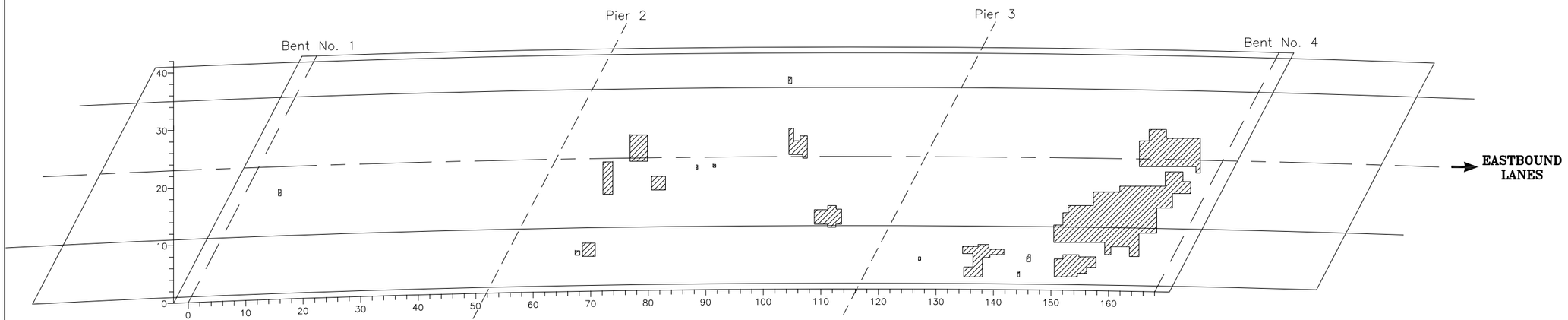
Picture 15

APPENDIX C

Repair Quantity Maps

REPAIR QUANTITIES MAP
HUR-20-10.76
NORWALK BYPASS OVER RAMP TO SR 61
HURON COUNTY
STATE OF OHIO





REPAIR QUANTITIES – WB BRIDGE DECK

	Percent	Area (S.F.)
PATCHING	5.3	328.7
FULL DEPTH PATCHING	0.0	0.0

REPAIR QUANTITIES – EB BRIDGE DECK

	Percent	Area (S.F.)
PATCHING	5.3	327.3
FULL DEPTH PATCHING	0.0	0.0

Figure C-1

GRAPHIC SCALE
(IN FEET)
1 INCH = 20 FT.

REPAIR QUANTITIES MAP
HUR-20-10.76
NORWALK BYPASS
OVER RAMP TO SR 61
HURON COUNTY
STATE OF OHIO

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

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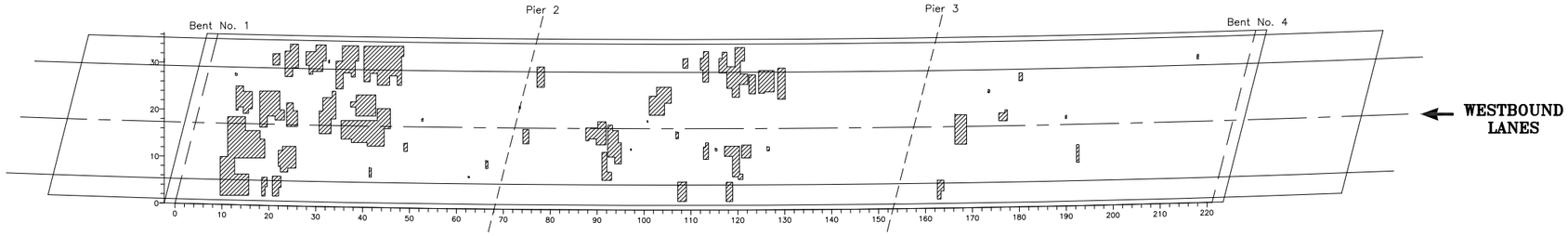
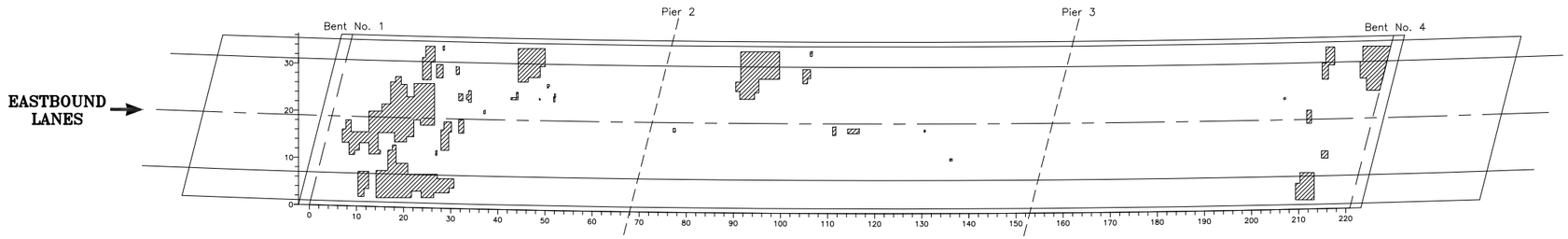
CHECKED BY:	CAY	DRAWING NO.:	00-0
JOB NO.:	N-19-011	SHEET:	1 OF 1

REPAIR QUANTITIES MAP
HUR-20-10.97
NORWALK BYPASS OVER HURON RIVER
HURON COUNTY
STATE OF OHIO





REPAIR QUANTITIES – WB BRIDGE DECK

	Percent	Area (S.F.)
PATCHING	8.9	614.3
FULL DEPTH PATCHING	0.0	0.0

REPAIR QUANTITIES – EB BRIDGE DECK

	Percent	Area (S.F.)
PATCHING	6.8	472.2
FULL DEPTH PATCHING	0.0	0.0

Figure C-2

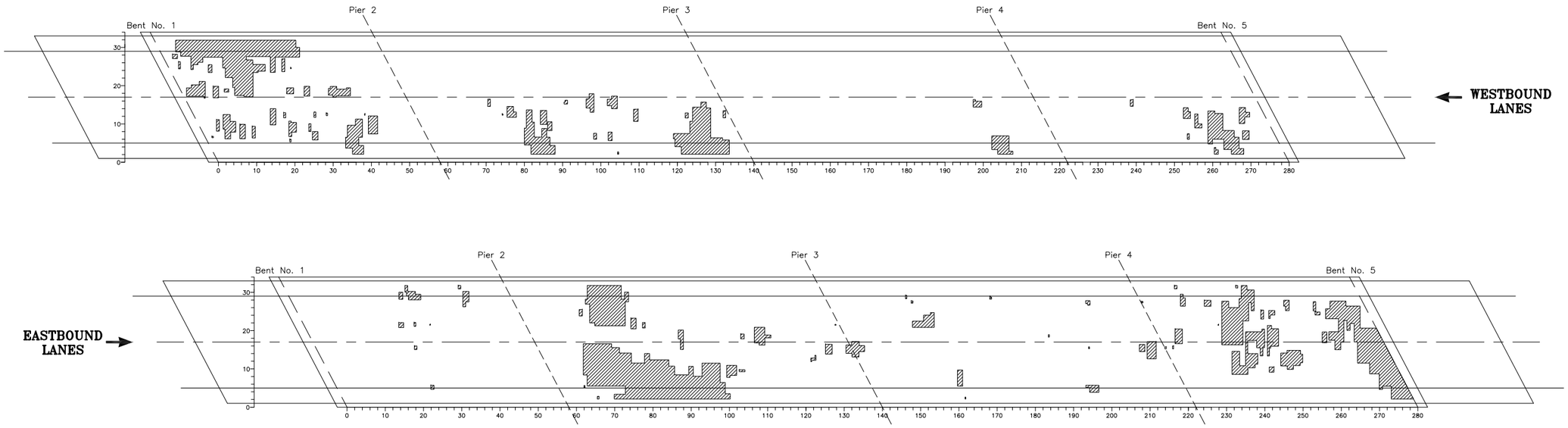
GRAPHIC SCALE
(IN FEET)
1 INCH = 30 FT.

REPAIR QUANTITIES MAP
HUR-20-10.97
NORWALK BYPASS
OVER HURON RIVER
HURON COUNTY
STATE OF OHIO

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DRAWN BY: DTF	DATE: 7-3-2019		
CHECKED BY: CAY	DRAWING NO.: 00-0	SHEET: 1 OF 1	
JOB NO.: N-19-011			

REPAIR QUANTITIES MAP
HUR-20-11.23
NORWALK BYPASS OVER SR 61 AND COLE CREEK
HURON COUNTY
STATE OF OHIO



REPAIR QUANTITIES – WB BRIDGE DECK

	Percent	Area (S.F.)
PATCHING	7.8	635.2
FULL DEPTH PATCHING	0.0	0.0

REPAIR QUANTITIES – EB BRIDGE DECK

	Percent	Area (S.F.)
PATCHING	11.5	937.7
FULL DEPTH PATCHING	0.0	0.0

Figure C-3

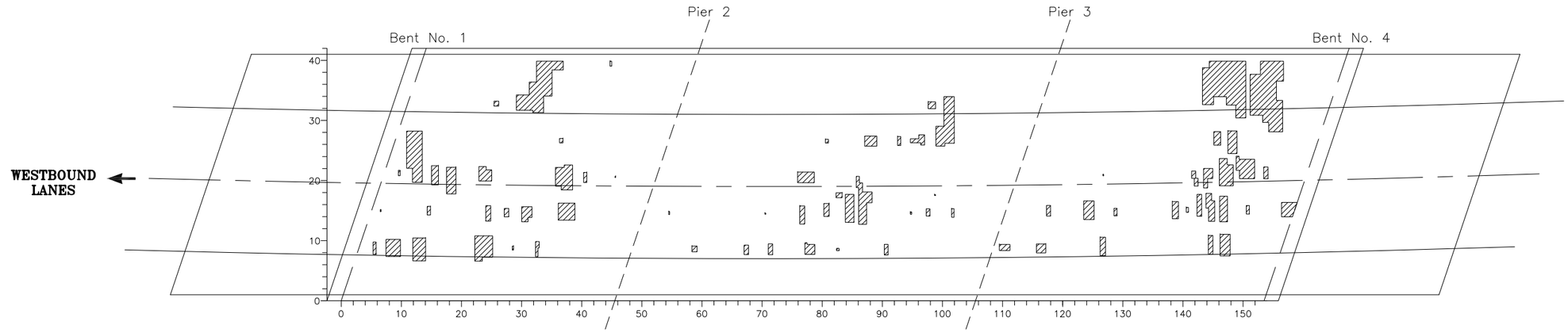
GRAPHIC SCALE
45 30 15 0 15
(IN FEET)
1 INCH = 30 FT.

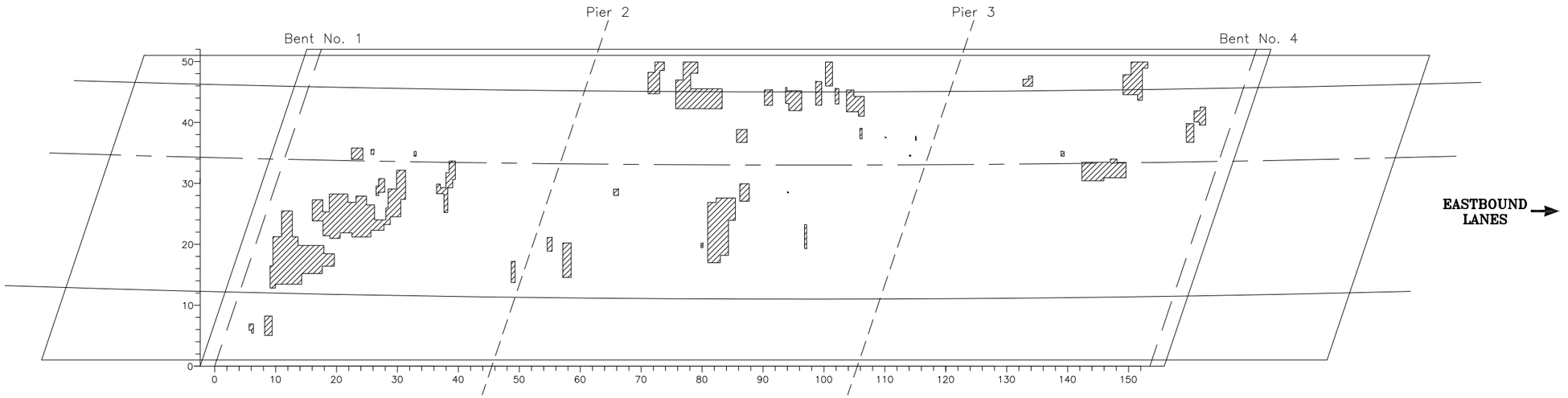
REPAIR QUANTITIES MAP
HUR-20-11.23
NORWALK BYPASS
OVER SR 61 AND COLE CREEK
HURON COUNTY
STATE OF OHIO

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DRAWN BY: DTF	DATE: 7-3-2019		
CHECKED BY: CAY	DRAWING NO.: 00-0	SHEET: 1 OF 1	
JOB NO.: N-19-011			

REPAIR QUANTITIES MAP
HUR-20-15.19
NORWALK BYPASS OVER NORFOLK & WESTERN RAILWAY
HURON COUNTY
STATE OF OHIO





REPAIR QUANTITIES – WB BRIDGE DECK

	Percent	Area (S.F.)
PATCHING	6.4	366.1
FULL DEPTH PATCHING	0.0	0.0

REPAIR QUANTITIES – EB BRIDGE DECK

	Percent	Area (S.F.)
PATCHING	4.8	343.3
FULL DEPTH PATCHING	0.0	0.0

Figure C-4

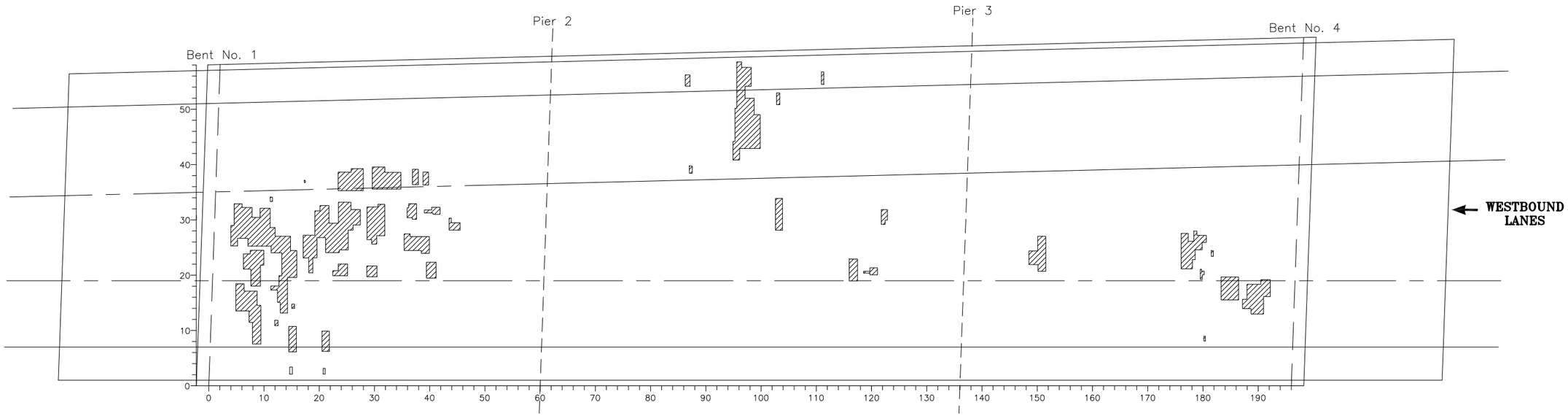
GRAPHIC SCALE
(IN FEET)
1 INCH = 20 FT.
10 0 10 20 30

REPAIR QUANTITIES MAP
HUR-20-15.19
NORWALK BYPASS OVER
NORFOLK & WESTERN RAILWAY
HURON COUNTY
STATE OF OHIO

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DRAWN BY: DTF	DATE: 7-5-2019		
CHECKED BY: CAY	DRAWING NO.: 00-0		
JOB NO.: N-19-011	SHEET: 1	OF	1

REPAIR QUANTITIES MAP
HUR-20-16.19
NORWALK BYPASS OVER US 20
HURON COUNTY
STATE OF OHIO



GRAPHIC SCALE
(IN FEET)
1 INCH = 20 FT.
10 0 10 20 30

REPAIR QUANTITIES - WB BRIDGE DECK

	Percent	Area (S.F.)
PATCHING	4.0	432.4
FULL DEPTH PATCHING	0.0	0.0

RESOURCE INTERNATIONAL INC.
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

REPAIR QUANTITIES MAP
HUR-20-16.19
NORWALK BYPASS OVER US 20
HURON COUNTY
STATE OF OHIO

DRAWN BY:	DTF	DATE:	7-5-2019
CHECKED BY:	CAY	DRAWNG NO.:	00-0
JOB NO.:	N-19-011	SHEET:	1 OF 1

Figure C-5

APPENDIX D

Joint Condition Tables

Location: Eastbound Travel Lanes
File # 73&75 Start: 10.7
Direction: EB End: 16.17

G=Good	NR No Repair
P=Poor	PD Partial Depth Repair
	FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
0.00	Start of Project	41° 13' 43.07" N	82° 38' 59.33" W	10.70	Start of Project	-	-	-	-	-	-	-	-	-	
168.59	Bridge Joint	41° 13' 42.34" N	82° 38' 57.34" W	10.73	Bridge Joint	-	-	-	-	-	-	-	-	-	
195.88	Joint 1	41° 13' 42.22" N	82° 38' 57.02" W	10.74	Joint 1	P	P	G	G	PD	PD	Bridge Joint - Joint 1: No	Bridge Joint - Joint 1: No	NR	NR
256.36	Joint 2	41° 13' 41.94" N	82° 38' 56.32" W	10.75	Joint 2	P	P	G	G	PD	PD	Joint 1 - Joint 2: No	Joint 1 - Joint 2: No	NR	NR
323.51	Joint 3	41° 13' 41.63" N	82° 38' 55.54" W	10.76	Joint 3	P	P	P	P	FD	FD	Joint 2 - Joint 3: Yes	Joint 2 - Joint 3: Yes	FD	FD
386.11	Joint 4	41° 13' 41.31" N	82° 38' 54.84" W	10.77	Joint 4	G	G	G	G	NR	NR	Joint 3 - Joint 4: No	Joint 3 - Joint 4: No	NR	NR
442.23	Joint 5	41° 13' 41.03" N	82° 38' 54.21" W	10.78	Joint 5	P	G	G	G	PD	NR	Joint 4 - Joint 5: Yes	Joint 4 - Joint 5: No	PD	NR
501.34	Joint 6	41° 13' 40.72" N	82° 38' 53.55" W	10.79	Joint 6	G	G	G	G	NR	NR	Joint 5 - Joint 6: No	Joint 5 - Joint 6: No	NR	NR
561.25	Joint 7	41° 13' 40.41" N	82° 38' 52.88" W	10.81	Joint 7	P	G	G	G	PD	NR	Joint 6 - Joint 7: Yes	Joint 6 - Joint 7: No	PD	NR
620.99	Joint 8	41° 13' 40.09" N	82° 38' 52.22" W	10.82	Joint 8	P	G	G	G	PD	NR	Joint 7 - Joint 8: Yes	Joint 7 - Joint 8: No	PD	NR
681.53	Joint 9	41° 13' 39.77" N	82° 38' 51.55" W	10.83	Joint 9	P	G	G	G	PD	NR	Joint 8 - Joint 9: Yes	Joint 8 - Joint 9: Yes	PD	PD
740.37	Joint 10	41° 13' 39.46" N	82° 38' 50.90" W	10.84	Joint 10	G	G	G	G	NR	NR	Joint 9 - Joint 10: Yes	Joint 9 - Joint 10: Yes	PD	PD
801.89	Joint 11	41° 13' 39.13" N	82° 38' 50.22" W	10.85	Joint 11	G	G	G	G	NR	NR	Joint 10 - Joint 11: Yes	Joint 10 - Joint 11: Yes	PD	PD
860.98	Joint 12	41° 13' 38.82" N	82° 38' 49.56" W	10.86	Joint 12	P	G	G	G	PD	NR	Joint 11 - Joint 12: Yes	Joint 11 - Joint 12: No	PD	NR
920.98	Joint 13	41° 13' 38.50" N	82° 38' 48.90" W	10.87	Joint 13	P	G	G	G	PD	NR	Joint 12 - Joint 13: Yes	Joint 12 - Joint 13: Yes	PD	PD
964.94	Joint 14	41° 13' 38.27" N	82° 38' 48.25" W	10.88	Joint 14	G	G	G	G	NR	NR	Joint 13 - Joint 14: No	Joint 13 - Joint 14: No	NR	NR
1011.76	Joint 15	41° 13' 38.02" N	82° 38' 47.89" W	10.89	Joint 15	G	G	G	G	NR	NR	Joint 14 - Joint 15: Yes	Joint 14 - Joint 15: Yes	PD	PD
1076.68	Joint 16	41° 13' 37.69" N	82° 38' 47.16" W	10.90	Joint 16	G	G	P	P	FD	FD	Joint 15 - Joint 16: Yes	Joint 15 - Joint 16: Yes	FD	PD
1096.60	Joint 17	41° 13' 37.59" N	82° 38' 46.94" W	10.91	Joint 17	P	P	P	P	FD	FD	Joint 16 - Joint 17: No	Joint 16 - Joint 17: No	NR	NR
1110.98	Approach Slab	41° 13' 37.52" N	82° 38' 46.77" W	10.91	Approach Slab	G	G	G	G	NR	NR	Joint 17 - Approach Slab: No	Joint 17 - Approach Slab: No	NR	NR
1139.69	Bridge Joint	41° 13' 37.38" N	82° 38' 46.44" W	10.92	Bridge Joint	-	-	-	-	-	-	-	-	-	-
1361.30	Bridge Joint	41° 13' 36.28" N	82° 38' 43.93" W	10.96	Bridge Joint	-	-	-	-	-	-	-	-	-	-
1387.93	Approach Slab	41° 13' 36.15" N	82° 38' 43.63" W	10.96	Approach Slab	G	G	G	G	NR	NR	-	-	-	-
1407.93	Joint 18	41° 13' 36.05" N	82° 38' 43.40" W	10.97	Joint 18	P	P	P	P	FD	FD	Approach Slab - Joint 18: No	Approach Slab - Joint 18: No	NR	NR
1456.95	Joint 19	41° 13' 35.82" N	82° 38' 42.84" W	10.98	Joint 19	P	G	P	G	FD	NR	Joint 18 - Joint 19: No	Joint 18 - Joint 19: No	NR	NR
1515.62	Joint 20	41° 13' 35.56" N	82° 38' 42.15" W	10.99	Joint 20	G	G	G	G	NR	NR	Joint 19 - Joint 20: No	Joint 19 - Joint 20: No	NR	NR
1573.48	Joint 21	41° 13' 35.31" N	82° 38' 41.47" W	11.00	Joint 21	G	G	G	G	NR	NR	Joint 20 - Joint 21: No	Joint 20 - Joint 21: No	NR	NR
1634.16	Joint 22	41° 13' 35.06" N	82° 38' 40.74" W	11.01	Joint 22	G	G	G	G	NR	NR	Joint 21 - Joint 22: No	Joint 21 - Joint 22: No	NR	NR
1695.63	Joint 23	41° 13' 34.81" N	82° 38' 40.01" W	11.02	Joint 23	G	G	G	G	NR	NR	Joint 22 - Joint 23: No	Joint 22 - Joint 23: No	NR	NR
1754.15	Joint 24	41° 13' 34.57" N	82° 38' 39.31" W	11.03	Joint 24	G	G	P	P	FD	FD	Joint 23 - Joint 24: No	Joint 23 - Joint 24: No	NR	NR
1814.82	Joint 25	41° 13' 34.33" N	82° 38' 38.58" W	11.04	Joint 25	G	G	G	G	NR	NR	Joint 24 - Joint 25: Yes	Joint 24 - Joint 25: Yes	PD	PD
1871.95	Joint 26	41° 13' 34.12" N	82° 38' 37.89" W	11.05	Joint 26	G	G	G	G	NR	NR	Joint 25 - Joint 26: No	Joint 25 - Joint 26: No	NR	NR
1934.28	Joint 27	41° 13' 33.93" N	82° 38' 37.11" W	11.07	Joint 27	G	G	G	G	NR	NR	Joint 26 - Joint 27: No	Joint 26 - Joint 27: No	NR	NR
1993.69	Joint 28	41° 13' 33.71" N	82° 38' 36.39" W	11.08	Joint 28	P	G	G	G	PD	NR	Joint 27 - Joint 28: No	Joint 27 - Joint 28: No	NR	NR
2055.35	Joint 29	41° 13' 33.51" N	82° 38' 35.62" W	11.09	Joint 29	G	G	G	G	NR	NR	Joint 28 - Joint 29: No	Joint 28 - Joint 29: No	NR	NR
2113.56	Joint 30	41° 13' 33.33" N	82° 38' 34.90" W	11.10	Joint 30	G	G	G	G	NR	NR	Joint 29 - Joint 30: No	Joint 29 - Joint 30: No	NR	NR
2174.09	Joint 31	41° 13' 33.16" N	82° 38' 34.13" W	11.11	Joint 31	P	G	G	G	PD	NR	Joint 30 - Joint 31: No	Joint 30 - Joint 31: No	NR	NR
2232.96	Joint 32	41° 13' 32.99" N	82° 38' 33.40" W	11.12	Joint 32	G	G	G	G	NR	NR	Joint 31 - Joint 32: No	Joint 31 - Joint 32: No	NR	NR

Location: Eastbound Travel Lanes
File # 73&75 Start: 10.7
Direction: EB End: 16.17

G=Good P=Poor	NR No Repair PD Partial Depth Repair FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
2293.22	Joint 33	41° 13' 32.85" N	82° 38' 32.63" W	11.13	Joint 33	G	G	G	G	NR	NR	Joint 32 - Joint 33: No	Joint 32 - Joint 33: No	NR	NR
2355.19	Joint 34	41° 13' 32.70" N	82° 38' 31.84" W	11.15	Joint 34	G	G	G	G	NR	NR	Joint 33 - Joint 34: No	Joint 33 - Joint 34: No	NR	NR
2385.98	Joint 35	41° 13' 32.63" N	82° 38' 31.45" W	11.15	Joint 35	G	G	G	G	NR	NR	Joint 34 - Joint 35: Yes	Joint 34 - Joint 35: Yes	PD	PD
2434.05	Joint 36	41° 13' 32.52" N	82° 38' 30.83" W	11.16	Joint 36	P	P	G	G	PD	PD	Joint 35 - Joint 36: Yes	Joint 35 - Joint 36: Yes	PD	PD
2451.46	Joint 37	41° 13' 32.49" N	82° 38' 30.61" W	11.16	Joint 37	P	P	P	G	FD	PD	Joint 36 - Joint 37: No	Joint 36 - Joint 37: No	NR	NR
2495.09	Approach Slab	41° 13' 32.32" N	82° 38' 30.09" W	11.17	Approach Slab	G	G	G	G	NR	NR	Joint 37 - Approach Slab: No	Joint 37 - Approach Slab: No	NR	NR
2520.91	Bridge Joint	41° 13' 32.32" N	82° 38' 29.75" W	11.18	Bridge Joint	-	-	-	-	-	-	-	-	-	-
2804.61	Bridge Joint	41° 13' 31.66" N	82° 38' 26.13" W	11.23	Bridge Joint	-	-	-	-	-	-	-	-	-	-
2829.85	Approach Slab	41° 13' 31.56" N	82° 38' 25.82" W	11.24	Approach Slab	P	P	P	P	FD	FD	-	-	-	-
2880.65	Joint 38	41° 13' 31.41" N	82° 38' 25.19" W	11.25	Joint 38	G	G	P	P	FD	FD	Approach Slab - Joint 38: No	Approach Slab - Joint 38: No	NR	NR
2926.88	Joint 39	41° 13' 31.31" N	82° 38' 24.60" W	11.25	Joint 39	P	P	G	G	PD	PD	Joint 38 - Joint 39: Yes	Joint 38 - Joint 39: Yes	PD	PD
2956.91	Joint 40	41° 13' 31.23" N	82° 38' 24.22" W	11.26	Joint 40	P	G	G	G	PD	NR	Joint 39 - Joint 40: No	Joint 39 - Joint 40: Yes	NR	PD
3017.96	Joint 41	41° 13' 31.07" N	82° 38' 23.45" W	11.27	Joint 41	G	G	G	G	NR	NR	Joint 40 - Joint 41: No	Joint 40 - Joint 41: No	NR	NR
3078.53	Joint 42	41° 13' 30.93" N	82° 38' 22.68" W	11.28	Joint 42	G	G	P	P	FD	FD	Joint 41 - Joint 42: No	Joint 41 - Joint 42: No	NR	NR
3138.03	Joint 43	41° 13' 30.77" N	82° 38' 21.93" W	11.29	Joint 43	G	G	G	G	NR	NR	Joint 42 - Joint 43: Yes	Joint 42 - Joint 43: Yes	PD	PD
3196.83	Joint 44	41° 13' 30.61" N	82° 38' 21.19" W	11.31	Joint 44	G	G	G	G	NR	NR	Joint 43 - Joint 44: No	Joint 43 - Joint 44: No	NR	NR
3258.63	Joint 45	41° 13' 30.48" N	82° 38' 20.39" W	11.32	Joint 45	P	G	G	G	PD	NR	Joint 44 - Joint 45: No	Joint 44 - Joint 45: No	NR	NR
3317.11	Joint 46	41° 13' 30.32" N	82° 38' 19.66" W	11.33	Joint 46	P	G	G	G	PD	NR	Joint 45 - Joint 46: No	Joint 45 - Joint 46: No	NR	NR
3379.61	Joint 47	41° 13' 30.17" N	82° 38' 18.86" W	11.34	Joint 47	G	G	G	G	NR	NR	Joint 46 - Joint 47: No	Joint 46 - Joint 47: No	NR	NR
3439.07	Joint 48	41° 13' 30.03" N	82° 38' 18.10" W	11.35	Joint 48	G	G	G	G	NR	NR	Joint 47 - Joint 48: No	Joint 47 - Joint 48: No	NR	NR
3498.38	Joint 49	41° 13' 29.88" N	82° 38' 17.35" W	11.36	Joint 49	G	G	G	G	NR	NR	Joint 48 - Joint 49: No	Joint 48 - Joint 49: No	NR	NR
3556.97	Joint 50	41° 13' 29.73" N	82° 38' 16.61" W	11.37	Joint 50	G	G	P	P	FD	FD	Joint 49 - Joint 50: No	Joint 49 - Joint 50: No	NR	NR
3616.57	Joint 51	41° 13' 29.58" N	82° 38' 15.85" W	11.38	Joint 51	G	G	G	G	NR	NR	Joint 50 - Joint 51: No	Joint 50 - Joint 51: No	NR	NR
3678.37	Joint 52	41° 13' 29.46" N	82° 38' 15.06" W	11.40	Joint 52	G	G	G	G	NR	NR	Joint 51 - Joint 52: No	Joint 51 - Joint 52: No	NR	NR
3737.65	Joint 53	41° 13' 29.28" N	82° 38' 14.32" W	11.41	Joint 53	G	G	G	G	NR	NR	Joint 52 - Joint 53: No	Joint 52 - Joint 53: No	NR	NR
3798.30	Joint 54	41° 13' 29.15" N	82° 38' 13.54" W	11.42	Joint 54	G	G	G	G	NR	NR	Joint 53 - Joint 54: No	Joint 53 - Joint 54: No	NR	NR
3856.43	Joint 55	41° 13' 29.02" N	82° 38' 12.80" W	11.43	Joint 55	G	G	G	G	NR	NR	Joint 54 - Joint 55: No	Joint 54 - Joint 55: No	NR	NR
3917.19	Joint 56	41° 13' 28.88" N	82° 38' 12.02" W	11.44	Joint 56	G	G	G	G	NR	NR	Joint 55 - Joint 56: No	Joint 55 - Joint 56: No	NR	NR
3975.37	Joint 57	41° 13' 28.71" N	82° 38' 11.29" W	11.45	Joint 57	P	P	G	G	PD	PD	Joint 56 - Joint 57: Yes	Joint 56 - Joint 57: Yes	PD	PD
4035.25	Joint 58	41° 13' 28.57" N	82° 38' 10.53" W	11.46	Joint 58	P	G	P	G	FD	NR	Joint 57 - Joint 58: No	Joint 57 - Joint 58: No	NR	NR
4093.89	Joint 59	41° 13' 28.44" N	82° 38' 09.78" W	11.48	Joint 59	P	P	G	G	PD	PD	Joint 58 - Joint 59: Yes	Joint 58 - Joint 59: Yes	PD	PD
4152.93	Joint 60	41° 13' 28.29" N	82° 38' 09.03" W	11.49	Joint 60	P	G	G	G	PD	NR	Joint 59 - Joint 60: Yes	Joint 59 - Joint 60: Yes	PD	PD
4213.14	Joint 61	41° 13' 28.17" N	82° 38' 08.26" W	11.50	Joint 61	P	G	G	G	PD	NR	Joint 60 - Joint 61: Yes	Joint 60 - Joint 61: Yes	PD	PD
4276.83	Joint 62	41° 13' 28.00" N	82° 38' 07.45" W	11.51	Joint 62	P	G	G	G	PD	NR	Joint 61 - Joint 62: Yes	Joint 61 - Joint 62: No	PD	NR
4336.85	Joint 63	41° 13' 27.85" N	82° 38' 06.69" W	11.52	Joint 63	G	P	G	P	NR	FD	Joint 62 - Joint 63: No	Joint 62 - Joint 63: No	NR	NR
4396.97	Joint 64	41° 13' 27.71" N	82° 38' 05.93" W	11.53	Joint 64	P	G	G	G	PD	NR	Joint 63 - Joint 64: Yes	Joint 63 - Joint 64: Yes	PD	PD
4454.68	Joint 65	41° 13' 27.56" N	82° 38' 05.20" W	11.54	Joint 65	G	G	P	G	FD	NR	Joint 64 - Joint 65: No	Joint 64 - Joint 65: No	NR	NR
4516.54	Joint 66	41° 13' 27.38" N	82° 38' 04.42" W	11.56	Joint 66	G	P	G	G	NR	PD	Joint 65 - Joint 66: Yes	Joint 65 - Joint 66: Yes	PD	PD
4573.33	Joint 67	41° 13' 27.22" N	82° 38' 03.70" W	11.57	Joint 67	G	G	G	G	NR	NR	Joint 66 - Joint 67: No	Joint 66 - Joint 67: No	NR	NR

Location: Eastbound Travel Lanes

File # 73&75 Start: 10.7

Direction: EB End: 16.17

G=Good P=Poor	NR No Repair PD Partial Depth Repair FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
4634.46	Joint 68	41° 13' 27.08" N	82° 38' 02.92" W	11.58	Joint 68	P	G	G	G	PD	NR	Joint 67 - Joint 68: No	Joint 67 - Joint 68: No	NR	NR
4691.63	Joint 69	41° 13' 26.93" N	82° 38' 02.20" W	11.59	Joint 69	P	G	P	G	FD	NR	Joint 68 - Joint 69: No	Joint 68 - Joint 69: No	NR	NR
4755.76	Joint 70	41° 13' 26.81" N	82° 38' 01.38" W	11.60	Joint 70	P	G	G	G	PD	NR	Joint 69 - Joint 70: No	Joint 69 - Joint 70: No	NR	NR
4814.15	Joint 71	41° 13' 26.71" N	82° 38' 00.62" W	11.61	Joint 71	P	P	P	P	FD	FD	Joint 70 - Joint 71: No	Joint 70 - Joint 71: No	NR	NR
4874.44	Joint 72	41° 13' 26.58" N	82° 37' 59.85" W	11.62	Joint 72	G	G	P	G	FD	NR	Joint 71 - Joint 72: No	Joint 71 - Joint 72: No	NR	NR
4937.77	Joint 73	41° 13' 26.45" N	82° 37' 59.04" W	11.64	Joint 73	G	G	G	G	NR	NR	Joint 72 - Joint 73: No	Joint 72 - Joint 73: No	NR	NR
4987.65	Joint 74	41° 13' 26.27" N	82° 37' 58.43" W	11.64	Joint 74	G	G	G	G	NR	NR	Joint 73 - Joint 74: No	Joint 73 - Joint 74: No	NR	NR
5053.85	Joint 75	41° 13' 26.16" N	82° 37' 57.57" W	11.66	Joint 75	G	P	P	P	FD	FD	Joint 74 - Joint 75: No	Joint 74 - Joint 75: No	NR	NR
5118.54	Joint 76	41° 13' 25.94" N	82° 37' 56.78" W	11.67	Joint 76	G	G	P	G	FD	NR	Joint 75 - Joint 76: Yes	Joint 75 - Joint 76: Yes	PD	PD
5173.85	Joint 77	41° 13' 25.83" N	82° 37' 56.07" W	11.68	Joint 77	G	G	G	G	NR	NR	Joint 76 - Joint 77: No	Joint 76 - Joint 77: No	NR	NR
5234.75	Joint 78	41° 13' 25.70" N	82° 37' 55.29" W	11.69	Joint 78	G	G	G	G	NR	NR	Joint 77 - Joint 78: No	Joint 77 - Joint 78: No	NR	NR
5296.17	Joint 79	41° 13' 25.58" N	82° 37' 54.50" W	11.70	Joint 79	G	G	G	P	NR	FD	Joint 78 - Joint 79: No	Joint 78 - Joint 79: No	NR	NR
5354.81	Joint 80	41° 13' 25.45" N	82° 37' 53.75" W	11.71	Joint 80	G	G	G	G	NR	NR	Joint 79 - Joint 80: No	Joint 79 - Joint 80: No	NR	NR
5413.09	Joint 81	41° 13' 25.37" N	82° 37' 52.99" W	11.73	Joint 81	G	P	G	P	NR	FD	Joint 80 - Joint 81: No	Joint 80 - Joint 81: No	NR	NR
5473.45	Joint 82	41° 13' 25.21" N	82° 37' 52.23" W	11.74	Joint 82	P	P	G	P	PD	FD	Joint 81 - Joint 82: No	Joint 81 - Joint 82: No	NR	NR
5537.94	Joint 83	41° 13' 25.09" N	82° 37' 51.40" W	11.75	Joint 83	G	G	G	G	NR	NR	Joint 82 - Joint 83: No	Joint 82 - Joint 83: No	NR	NR
5592.50	Joint 84	41° 13' 24.99" N	82° 37' 50.69" W	11.76	Joint 84	P	P	G	G	PD	PD	Joint 83 - Joint 84: Yes	Joint 83 - Joint 84: Yes	PD	PD
5652.78	Joint 85	41° 13' 24.83" N	82° 37' 49.93" W	11.77	Joint 85	G	G	G	G	NR	NR	Joint 84 - Joint 85: Yes	Joint 84 - Joint 85: Yes	PD	PD
5712.19	Joint 86	41° 13' 24.79" N	82° 37' 49.15" W	11.78	Joint 86	G	G	G	G	NR	NR	Joint 85 - Joint 86: Yes	Joint 85 - Joint 86: No	PD	NR
5773.61	Joint 87	41° 13' 24.70" N	82° 37' 48.36" W	11.79	Joint 87	P	G	G	G	PD	NR	Joint 86 - Joint 87: No	Joint 86 - Joint 87: No	NR	NR
5836.09	Joint 88	41° 13' 24.59" N	82° 37' 47.55" W	11.81	Joint 88	P	G	G	G	PD	NR	Joint 87 - Joint 88: No	Joint 87 - Joint 88: No	NR	NR
5894.30	Joint 89	41° 13' 24.49" N	82° 37' 46.80" W	11.82	Joint 89	G	G	G	G	NR	NR	Joint 88 - Joint 89: Yes	Joint 88 - Joint 89: Yes	PD	PD
5955.05	Joint 90	41° 13' 24.39" N	82° 37' 46.01" W	11.83	Joint 90	P	G	G	G	PD	NR	Joint 89 - Joint 90: No	Joint 89 - Joint 90: No	NR	NR
6013.49	Joint 91	41° 13' 24.32" N	82° 37' 45.25" W	11.84	Joint 91	P	G	G	P	PD	FD	Joint 90 - Joint 91: No	Joint 90 - Joint 91: No	NR	NR
6074.84	Joint 92	41° 13' 24.21" N	82° 37' 44.46" W	11.85	Joint 92	G	G	G	G	NR	NR	Joint 91 - Joint 92: Yes	Joint 91 - Joint 92: Yes	PD	PD
6136.08	Joint 93	41° 13' 24.11" N	82° 37' 43.67" W	11.86	Joint 93	G	G	G	P	NR	FD	Joint 92 - Joint 93: Yes	Joint 92 - Joint 93: Yes	PD	PD
6195.13	Joint 94	41° 13' 24.01" N	82° 37' 42.91" W	11.87	Joint 94	G	G	G	G	NR	NR	Joint 93 - Joint 94: No	Joint 93 - Joint 94: No	NR	NR
6252.56	Joint 95	41° 13' 23.93" N	82° 37' 42.16" W	11.88	Joint 95	P	G	G	G	PD	NR	Joint 94 - Joint 95: No	Joint 94 - Joint 95: No	NR	NR
6314.19	Joint 96	41° 13' 23.82" N	82° 37' 41.36" W	11.90	Joint 96	G	G	G	G	NR	NR	Joint 95 - Joint 96: Yes	Joint 95 - Joint 96: Yes	PD	PD
6373.72	Joint 97	41° 13' 23.73" N	82° 37' 40.59" W	11.91	Joint 97	P	G	G	G	PD	NR	Joint 96 - Joint 97: No	Joint 96 - Joint 97: No	NR	NR
6432.57	Joint 98	41° 13' 23.68" N	82° 37' 39.82" W	11.92	Joint 98	P	G	G	G	PD	NR	Joint 97 - Joint 98: No	Joint 97 - Joint 98: No	NR	NR
6492.88	Joint 99	41° 13' 23.58" N	82° 37' 39.04" W	11.93	Joint 99	P	G	G	P	PD	FD	Joint 98 - Joint 99: No	Joint 98 - Joint 99: No	NR	NR
6553.66	Joint 100	41° 13' 23.49" N	82° 37' 38.26" W	11.94	Joint 100	P	G	G	G	PD	NR	Joint 99 - Joint 100: No	Joint 99 - Joint 100: No	NR	NR
6613.27	Joint 101	41° 13' 23.40" N	82° 37' 37.48" W	11.95	Joint 101	P	G	G	G	PD	NR	Joint 100 - Joint 101: No	Joint 100 - Joint 101: No	NR	NR
6672.06	Joint 102	41° 13' 23.31" N	82° 37' 36.72" W	11.96	Joint 102	P	G	G	G	PD	NR	Joint 101 - Joint 102: No	Joint 101 - Joint 102: No	NR	NR
6731.60	Joint 103	41° 13' 23.19" N	82° 37' 35.96" W	11.97	Joint 103	G	G	G	G	NR	NR	Joint 102 - Joint 103: No	Joint 102 - Joint 103: No	NR	NR
6789.63	Joint 104	41° 13' 23.11" N	82° 37' 35.20" W	11.99	Joint 104	P	G	G	G	PD	NR	Joint 103 - Joint 104: No	Joint 103 - Joint 104: No	NR	NR
6848.93	Joint 105	41° 13' 23.03" N	82° 37' 34.43" W	12.00	Joint 105	G	G	G	G	NR	NR	Joint 104 - Joint 105: Yes	Joint 104 - Joint 105: Yes	PD	PD

Location: Eastbound Travel Lanes
File # 73&75 Start: 10.7
Direction: EB End: 16.17

G=Good P=Poor	NR No Repair PD Partial Depth Repair FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
6908.65	Joint 106	41° 13' 22.92" N	82° 37' 33.66" W	12.01	Joint 106	G	G	G	G	NR	NR	Joint 105 - Joint 106: No	Joint 105 - Joint 106: No	NR	NR
6964.02	Joint 107	41° 13' 22.88" N	82° 37' 32.94" W	12.02	Joint 107	P	P	P	P	FD	FD	Joint 106 - Joint 107: Yes	Joint 106 - Joint 107: Yes	FD	FD
7029.90	Joint 108	41° 13' 22.75" N	82° 37' 32.09" W	12.03	Joint 108	G	G	G	G	NR	NR	Joint 107 - Joint 108: Yes	Joint 107 - Joint 108: Yes	PD	PD
7089.52	Joint 109	41° 13' 22.67" N	82° 37' 31.31" W	12.04	Joint 109	G	G	G	G	NR	NR	Joint 108 - Joint 109: No	Joint 108 - Joint 109: No	NR	NR
7115.53	Joint 110	41° 13' 22.62" N	82° 37' 30.98" W	12.05	Joint 110	G	G	G	G	NR	NR	Joint 109 - Joint 110: No	Joint 109 - Joint 110: No	NR	NR
7171.69	Joint 111	41° 13' 22.53" N	82° 37' 30.25" W	12.06	Joint 111	G	G	G	G	NR	NR	Joint 110 - Joint 111: No	Joint 110 - Joint 111: No	NR	NR
7211.69	Joint 112	41° 13' 22.45" N	82° 37' 29.74" W	12.07	Joint 112	G	G	G	G	NR	NR	Joint 111 - Joint 112: Yes	Joint 111 - Joint 112: Yes	PD	PD
7254.74	Joint 113	41° 13' 22.37" N	82° 37' 29.18" W	12.07	Joint 113	G	G	G	P	NR	FD	Joint 112 - Joint 113: No	Joint 112 - Joint 113: No	NR	NR
7300.42	Joint 114	41° 13' 22.31" N	82° 37' 28.59" W	12.08	Joint 114	P	P	P	G	FD	PD	Joint 113 - Joint 114: No	Joint 113 - Joint 114: No	NR	NR
7360.30	Joint 115	41° 13' 22.21" N	82° 37' 27.82" W	12.09	Joint 115	G	G	G	G	NR	NR	Joint 114 - Joint 115: No	Joint 114 - Joint 115: No	NR	NR
7390.65	Joint 116	41° 13' 22.17" N	82° 37' 27.42" W	12.10	Joint 116	G	G	G	G	NR	NR	Joint 115 - Joint 116: No	Joint 115 - Joint 116: No	NR	NR
7452.47	Joint 117	41° 13' 22.07" N	82° 37' 26.62" W	12.11	Joint 117	G	G	G	G	NR	NR	Joint 116 - Joint 117: Yes	Joint 116 - Joint 117: Yes	FD	FD
7512.72	Joint 118	41° 13' 21.98" N	82° 37' 25.84" W	12.12	Joint 118	G	G	G	G	NR	NR	Joint 117 - Joint 118: Yes	Joint 117 - Joint 118: Yes	PD	PD
7571.40	Joint 119	41° 13' 21.90" N	82° 37' 25.08" W	12.13	Joint 119	G	G	G	G	NR	NR	Joint 118 - Joint 119: No	Joint 118 - Joint 119: No	NR	NR
7642.97	Joint 120	41° 13' 21.78" N	82° 37' 24.15" W	12.15	Joint 120	G	G	G	G	NR	NR	Joint 119 - Joint 120: Yes	Joint 119 - Joint 120: Yes	PD	PD
7668.26	Joint 121	41° 13' 21.74" N	82° 37' 23.82" W	12.15	Joint 121	P	P	G	P	PD	FD	Joint 120 - Joint 121: No	Joint 120 - Joint 121: No	NR	NR
7746.33	Joint 122	41° 13' 21.62" N	82° 37' 22.81" W	12.17	Joint 122	P	G	G	G	PD	NR	Joint 121 - Joint 122: Yes	Joint 121 - Joint 122: Yes	PD	PD
7810.11	Joint 123	41° 13' 21.51" N	82° 37' 21.99" W	12.18	Joint 123	P	G	P	G	FD	NR	Joint 122 - Joint 123: Yes	Joint 122 - Joint 123: Yes	PD	PD
7865.35	Joint 124	41° 13' 21.43" N	82° 37' 21.27" W	12.19	Joint 124	P	G	G	G	PD	NR	Joint 123 - Joint 124: No	Joint 123 - Joint 124: No	NR	NR
7928.08	Joint 125	41° 13' 21.33" N	82° 37' 20.46" W	12.20	Joint 125	G	G	G	G	NR	NR	Joint 124 - Joint 125: No	Joint 124 - Joint 125: No	NR	NR
7990.41	Joint 126	41° 13' 21.24" N	82° 37' 19.65" W	12.21	Joint 126	P	G	G	G	PD	NR	Joint 125 - Joint 126: No	Joint 125 - Joint 126: No	NR	NR
8050.14	Joint 127	41° 13' 21.16" N	82° 37' 18.87" W	12.22	Joint 127	G	G	G	G	NR	NR	Joint 126 - Joint 127: No	Joint 126 - Joint 127: No	NR	NR
8107.92	Joint 128	41° 13' 21.05" N	82° 37' 18.13" W	12.24	Joint 128	P	P	G	P	PD	FD	Joint 127 - Joint 128: No	Joint 127 - Joint 128: No	NR	NR
8169.54	Joint 129	41° 13' 20.97" N	82° 37' 17.33" W	12.25	Joint 129	P	G	G	G	PD	NR	Joint 128 - Joint 129: No	Joint 128 - Joint 129: No	NR	NR
8231.30	Joint 130	41° 13' 20.87" N	82° 37' 16.53" W	12.26	Joint 130	G	G	G	G	NR	NR	Joint 129 - Joint 130: Yes	Joint 129 - Joint 130: Yes	FD	FD
8290.14	Joint 131	41° 13' 20.77" N	82° 37' 15.77" W	12.27	Joint 131	G	G	G	G	NR	NR	Joint 130 - Joint 131: No	Joint 130 - Joint 131: No	NR	NR
8348.26	Joint 132	41° 13' 20.69" N	82° 37' 15.01" W	12.28	Joint 132	G	G	G	P	NR	FD	Joint 131 - Joint 132: Yes	Joint 131 - Joint 132: Yes	FD	FD
8408.12	Joint 133	41° 13' 20.61" N	82° 37' 14.23" W	12.29	Joint 133	P	P	P	P	FD	FD	Joint 132 - Joint 133: Yes	Joint 132 - Joint 133: Yes	PD	PD
8467.84	Joint 134	41° 13' 20.53" N	82° 37' 13.46" W	12.30	Joint 134	G	G	G	G	NR	NR	Joint 133 - Joint 134: Yes	Joint 133 - Joint 134: Yes	FD	FD
8525.81	Joint 135	41° 13' 20.44" N	82° 37' 12.71" W	12.31	Joint 135	G	G	G	G	NR	NR	Joint 134 - Joint 135: No	Joint 134 - Joint 135: No	NR	NR
8586.86	Joint 136	41° 13' 20.32" N	82° 37' 11.92" W	12.33	Joint 136	G	P	G	P	NR	FD	Joint 135 - Joint 136: No	Joint 135 - Joint 136: No	NR	NR
8644.75	Joint 137	41° 13' 20.24" N	82° 37' 11.17" W	12.34	Joint 137	G	G	G	G	NR	NR	Joint 136 - Joint 137: Yes	Joint 136 - Joint 137: No	FD	NR
8708.16	Joint 138	41° 13' 20.13" N	82° 37' 10.35" W	12.35	Joint 138	P	G	G	G	PD	NR	Joint 137 - Joint 138: Yes	Joint 137 - Joint 138: Yes	PD	PD
8763.00	Joint 139	41° 13' 20.04" N	82° 37' 09.64" W	12.36	Joint 139	P	P	G	G	PD	PD	Joint 138 - Joint 139: No	Joint 138 - Joint 139: No	NR	NR
8823.57	Joint 140	41° 13' 19.96" N	82° 37' 08.86" W	12.37	Joint 140	P	G	G	G	PD	NR	Joint 139 - Joint 140: No	Joint 139 - Joint 140: No	NR	NR
8883.53	Joint 141	41° 13' 19.87" N	82° 37' 08.08" W	12.38	Joint 141	P	G	G	G	PD	NR	Joint 140 - Joint 141: No	Joint 140 - Joint 141: No	NR	NR
8948.02	Joint 142	41° 13' 19.78" N	82° 37' 07.24" W	12.39	Joint 142	P	G	G	G	PD	NR	Joint 141 - Joint 142: No	Joint 141 - Joint 142: No	NR	NR
9008.12	Joint 143	41° 13' 19.68" N	82° 37' 06.46" W	12.41	Joint 143	P	G	G	G	PD	NR	Joint 142 - Joint 143: No	Joint 142 - Joint 143: No	NR	NR

Location: Eastbound Travel Lanes
File # 73&75 Start: 10.7
Direction: EB End: 16.17

G=Good P=Poor	NR No Repair PD Partial Depth Repair FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
9066.72	Joint 144	41° 13' 19.58" N	82° 37' 05.70" W	12.42	Joint 144	G	G	G	G	NR	NR	Joint 143 - Joint 144: No	Joint 143 - Joint 144: No	NR	NR
9125.35	Joint 145	41° 13' 19.49" N	82° 37' 04.95" W	12.43	Joint 145	G	G	G	G	NR	NR	Joint 144 - Joint 145: No	Joint 144 - Joint 145: No	NR	NR
9182.82	Joint 146	41° 13' 19.41" N	82° 37' 04.20" W	12.44	Joint 146	G	G	G	G	NR	NR	Joint 145 - Joint 146: No	Joint 145 - Joint 146: No	NR	NR
9243.20	Joint 147	41° 13' 19.32" N	82° 37' 03.42" W	12.45	Joint 147	P	G	G	G	PD	NR	Joint 146 - Joint 147: No	Joint 146 - Joint 147: No	NR	NR
9304.65	Joint 148	41° 13' 19.23" N	82° 37' 02.62" W	12.46	Joint 148	G	P	P	P	FD	FD	Joint 147 - Joint 148: Yes	Joint 147 - Joint 148: Yes	FD	FD
9368.98	Joint 149	41° 13' 19.09" N	82° 37' 01.79" W	12.47	Joint 149	G	G	G	G	NR	NR	Joint 148 - Joint 149: No	Joint 148 - Joint 149: No	NR	NR
9423.78	Joint 150	41° 13' 19.02" N	82° 37' 01.08" W	12.48	Joint 150	G	G	G	G	NR	NR	Joint 149 - Joint 150: No	Joint 149 - Joint 150: No	NR	NR
9486.75	Joint 151	41° 13' 18.96" N	82° 37' 00.26" W	12.50	Joint 151	P	G	G	G	PD	NR	Joint 150 - Joint 151: No	Joint 150 - Joint 151: No	NR	NR
9544.83	Joint 152	41° 13' 18.90" N	82° 36' 59.50" W	12.51	Joint 152	G	G	G	G	NR	NR	Joint 151 - Joint 152: No	Joint 151 - Joint 152: No	NR	NR
9607.51	Joint 153	41° 13' 18.79" N	82° 36' 58.69" W	12.52	Joint 153	G	G	G	G	NR	NR	Joint 152 - Joint 153: No	Joint 152 - Joint 153: No	NR	NR
9662.55	Joint 154	41° 13' 18.72" N	82° 36' 57.98" W	12.53	Joint 154	G	G	G	G	NR	NR	Joint 153 - Joint 154: No	Joint 153 - Joint 154: No	NR	NR
9725.63	Joint 155	41° 13' 18.62" N	82° 36' 57.16" W	12.54	Joint 155	G	G	G	G	NR	NR	Joint 154 - Joint 155: Yes	Joint 154 - Joint 155: Yes	PD	PD
9786.89	Joint 156	41° 13' 18.52" N	82° 36' 56.37" W	12.55	Joint 156	P	G	G	G	PD	NR	Joint 155 - Joint 156: No	Joint 155 - Joint 156: No	NR	NR
9844.40	Joint 157	41° 13' 18.44" N	82° 36' 55.62" W	12.56	Joint 157	G	G	G	G	NR	NR	Joint 156 - Joint 157: No	Joint 156 - Joint 157: No	NR	NR
9908.46	Joint 158	41° 13' 18.30" N	82° 36' 54.80" W	12.58	Joint 158	G	G	G	G	NR	NR	Joint 157 - Joint 158: Yes	Joint 157 - Joint 158: Yes	FD	FD
9967.95	Joint 159	41° 13' 18.24" N	82° 36' 54.02" W	12.59	Joint 159	G	G	P	G	FD	NR	Joint 158 - Joint 159: No	Joint 158 - Joint 159: No	NR	NR
10023.36	Joint 160	41° 13' 18.13" N	82° 36' 53.31" W	12.60	Joint 160	P	G	G	G	PD	NR	Joint 159 - Joint 160: Yes	Joint 159 - Joint 160: Yes	FD	FD
10087.03	Joint 161	41° 13' 18.05" N	82° 36' 52.48" W	12.61	Joint 161	G	G	G	G	NR	NR	Joint 160 - Joint 161: No	Joint 160 - Joint 161: No	NR	NR
10141.68	Joint 162	41° 13' 17.96" N	82° 36' 51.78" W	12.62	Joint 162	G	G	G	G	NR	NR	Joint 161 - Joint 162: No	Joint 161 - Joint 162: No	NR	NR
10205.40	Joint 163	41° 13' 17.88" N	82° 36' 50.95" W	12.63	Joint 163	G	G	G	G	NR	NR	Joint 162 - Joint 163: Yes	Joint 162 - Joint 163: Yes	PD	PD
10262.05	Joint 164	41° 13' 17.81" N	82° 36' 50.21" W	12.64	Joint 164	G	G	G	G	NR	NR	Joint 163 - Joint 164: No	Joint 163 - Joint 164: No	NR	NR
10324.13	Joint 165	41° 13' 17.70" N	82° 36' 49.41" W	12.66	Joint 165	G	G	G	G	NR	NR	Joint 164 - Joint 165: No	Joint 164 - Joint 165: No	NR	NR
10384.64	Joint 166	41° 13' 17.61" N	82° 36' 48.62" W	12.67	Joint 166	G	G	G	G	NR	NR	Joint 165 - Joint 166: No	Joint 165 - Joint 166: No	NR	NR
10440.22	Joint 167	41° 13' 17.53" N	82° 36' 47.90" W	12.68	Joint 167	G	G	G	G	NR	NR	Joint 166 - Joint 167: No	Joint 166 - Joint 167: No	NR	NR
10500.84	Joint 168	41° 13' 17.43" N	82° 36' 47.12" W	12.69	Joint 168	G	G	G	G	NR	NR	Joint 167 - Joint 168: No	Joint 167 - Joint 168: No	NR	NR
10561.18	Joint 169	41° 13' 17.33" N	82° 36' 46.34" W	12.70	Joint 169	G	G	G	G	NR	NR	Joint 168 - Joint 169: No	Joint 168 - Joint 169: No	NR	NR
10622.02	Joint 170	41° 13' 17.23" N	82° 36' 45.55" W	12.71	Joint 170	P	G	G	G	PD	NR	Joint 169 - Joint 170: No	Joint 169 - Joint 170: No	NR	NR
10679.43	Joint 171	41° 13' 17.16" N	82° 36' 44.80" W	12.72	Joint 171	G	G	G	G	NR	NR	Joint 170 - Joint 171: No	Joint 170 - Joint 171: No	NR	NR
10740.63	Joint 172	41° 13' 17.05" N	82° 36' 44.01" W	12.73	Joint 172	P	G	G	G	PD	NR	Joint 171 - Joint 172: No	Joint 171 - Joint 172: No	NR	NR
10802.10	Joint 173	41° 13' 16.96" N	82° 36' 43.22" W	12.75	Joint 173	G	G	G	G	NR	NR	Joint 172 - Joint 173: No	Joint 172 - Joint 173: No	NR	NR
10865.48	Joint 174	41° 13' 16.90" N	82° 36' 42.39" W	12.76	Joint 174	G	G	G	G	NR	NR	Joint 173 - Joint 174: Yes	Joint 173 - Joint 174: Yes	PD	PD
10925.59	Joint 175	41° 13' 16.80" N	82° 36' 41.61" W	12.77	Joint 175	G	G	G	G	NR	NR	Joint 174 - Joint 175: Yes	Joint 174 - Joint 175: Yes	PD	PD
10984.88	Joint 176	41° 13' 16.69" N	82° 36' 40.85" W	12.78	Joint 176	P	G	G	G	PD	NR	Joint 175 - Joint 176: No	Joint 175 - Joint 176: No	NR	NR
11041.42	Joint 177	41° 13' 16.62" N	82° 36' 40.11" W	12.79	Joint 177	P	G	G	G	PD	NR	Joint 176 - Joint 177: No	Joint 176 - Joint 177: No	NR	NR
11102.77	Joint 178	41° 13' 16.56" N	82° 36' 39.31" W	12.80	Joint 178	P	G	G	G	PD	NR	Joint 177 - Joint 178: No	Joint 177 - Joint 178: No	NR	NR
11164.54	Joint 179	41° 13' 16.49" N	82° 36' 38.50" W	12.81	Joint 179	P	P	G	G	PD	PD	Joint 178 - Joint 179: No	Joint 178 - Joint 179: No	NR	NR
11221.49	Joint 180	41° 13' 16.45" N	82° 36' 37.76" W	12.83	Joint 180	P	G	G	G	PD	NR	Joint 179 - Joint 180: Yes	Joint 179 - Joint 180: Yes	FD	FD
11285.25	Joint 181	41° 13' 16.38" N	82° 36' 36.93" W	12.84	Joint 181	G	G	G	P	NR	FD	Joint 180 - Joint 181: Yes	Joint 180 - Joint 181: Yes	PD	PD

Location: Eastbound Travel Lanes
File # 73&75 Start: 10.7
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G=Good	NR No Repair
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		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
11340.93	Joint 182	41° 13' 16.34" N	82° 36' 36.20" W	12.85	Joint 182	G	G	G	P	NR	FD	Joint 181 - Joint 182: Yes	Joint 181 - Joint 182: Yes	FD	FD
11399.14	Joint 183	41° 13' 16.30" N	82° 36' 35.44" W	12.86	Joint 183	P	G	G	G	PD	NR	Joint 182 - Joint 183: No	Joint 182 - Joint 183: No	NR	NR
11463.93	Joint 184	41° 13' 16.27" N	82° 36' 34.59" W	12.87	Joint 184	G	G	G	G	NR	NR	Joint 183 - Joint 184: Yes	Joint 183 - Joint 184: Yes	PD	PD
11520.04	Joint 185	41° 13' 16.25" N	82° 36' 33.85" W	12.88	Joint 185	G	G	G	G	NR	NR	Joint 184 - Joint 185: No	Joint 184 - Joint 185: No	NR	NR
11583.30	Joint 186	41° 13' 16.24" N	82° 36' 33.02" W	12.89	Joint 186	P	G	G	G	PD	NR	Joint 185 - Joint 186: Yes	Joint 185 - Joint 186: Yes	PD	PD
11654.63	Joint 187	41° 13' 16.21" N	82° 36' 32.09" W	12.91	Joint 187	G	G	G	G	NR	NR	Joint 186 - Joint 187: No	Joint 186 - Joint 187: No	NR	NR
11703.04	Joint 188	41° 13' 16.22" N	82° 36' 31.45" W	12.92	Joint 188	P	G	G	G	PD	NR	Joint 187 - Joint 188: No	Joint 187 - Joint 188: No	NR	NR
11762.22	Joint 189	41° 13' 16.24" N	82° 36' 30.68" W	12.93	Joint 189	G	G	G	G	NR	NR	Joint 188 - Joint 189: No	Joint 188 - Joint 189: No	NR	NR
11820.59	Joint 190	41° 13' 16.22" N	82° 36' 29.91" W	12.94	Joint 190	G	P	G	P	NR	FD	Joint 189 - Joint 190: No	Joint 189 - Joint 190: No	NR	NR
11881.36	Joint 191	41° 13' 16.24" N	82° 36' 29.11" W	12.95	Joint 191	G	G	G	G	NR	NR	Joint 190 - Joint 191: No	Joint 190 - Joint 191: No	NR	NR
11945.12	Joint 192	41° 13' 16.24" N	82° 36' 28.28" W	12.96	Joint 192	G	G	G	P	NR	FD	Joint 191 - Joint 192: Yes	Joint 191 - Joint 192: Yes	PD	PD
12004.42	Joint 193	41° 13' 16.28" N	82° 36' 27.50" W	12.97	Joint 193	G	G	G	G	NR	NR	Joint 192 - Joint 193: No	Joint 192 - Joint 193: No	NR	NR
12062.67	Joint 194	41° 13' 16.33" N	82° 36' 26.74" W	12.98	Joint 194	G	G	G	G	NR	NR	Joint 193 - Joint 194: No	Joint 193 - Joint 194: No	NR	NR
12120.06	Joint 195	41° 13' 16.37" N	82° 36' 25.99" W	13.00	Joint 195	P	G	G	G	PD	NR	Joint 194 - Joint 195: No	Joint 194 - Joint 195: No	NR	NR
12181.95	Joint 196	41° 13' 16.42" N	82° 36' 25.18" W	13.01	Joint 196	G	P	G	G	NR	PD	Joint 195 - Joint 196: No	Joint 195 - Joint 196: No	NR	NR
12242.68	Joint 197	41° 13' 16.46" N	82° 36' 24.39" W	13.02	Joint 197	P	G	G	P	PD	FD	Joint 196 - Joint 197: Yes	Joint 196 - Joint 197: Yes	FD	FD
12301.48	Joint 198	41° 13' 16.52" N	82° 36' 23.62" W	13.03	Joint 198	G	G	G	P	NR	FD	Joint 197 - Joint 198: No	Joint 197 - Joint 198: No	NR	NR
12357.15	Joint 199	41° 13' 16.57" N	82° 36' 22.89" W	13.04	Joint 199	G	G	G	P	NR	FD	Joint 198 - Joint 199: No	Joint 198 - Joint 199: No	NR	NR
12421.60	Joint 200	41° 13' 16.65" N	82° 36' 22.05" W	13.05	Joint 200	P	G	G	G	PD	NR	Joint 199 - Joint 200: Yes	Joint 199 - Joint 200: Yes	FD	FD
12480.96	Joint 201	41° 13' 16.74" N	82° 36' 21.28" W	13.06	Joint 201	G	G	G	G	NR	NR	Joint 200 - Joint 201: No	Joint 200 - Joint 201: No	NR	NR
12541.40	Joint 202	41° 13' 16.82" N	82° 36' 20.50" W	13.08	Joint 202	P	G	G	P	PD	FD	Joint 201 - Joint 202: No	Joint 201 - Joint 202: No	NR	NR
12595.27	Joint 203	41° 13' 16.88" N	82° 36' 19.79" W	13.09	Joint 203	G	G	G	G	NR	NR	Joint 202 - Joint 203: No	Joint 202 - Joint 203: No	NR	NR
12667.08	Joint 204	41° 13' 16.97" N	82° 36' 18.86" W	13.10	Joint 204	G	G	G	G	NR	NR	Joint 203 - Joint 204: Yes	Joint 203 - Joint 204: Yes	PD	PD
12720.60	Joint 205	41° 13' 17.08" N	82° 36' 18.17" W	13.11	Joint 205	G	G	G	G	NR	NR	Joint 204 - Joint 205: No	Joint 204 - Joint 205: No	NR	NR
12779.04	Joint 206	41° 13' 17.19" N	82° 36' 17.42" W	13.12	Joint 206	G	G	G	G	NR	NR	Joint 205 - Joint 206: No	Joint 205 - Joint 206: No	NR	NR
12838.83	Joint 207	41° 13' 17.30" N	82° 36' 16.65" W	13.13	Joint 207	G	P	G	P	NR	FD	Joint 206 - Joint 207: Yes	Joint 206 - Joint 207: Yes	PD	PD
12899.56	Joint 208	41° 13' 17.42" N	82° 36' 15.87" W	13.14	Joint 208	P	G	G	G	PD	NR	Joint 207 - Joint 208: No	Joint 207 - Joint 208: No	NR	NR
12958.90	Joint 209	41° 13' 17.51" N	82° 36' 15.10" W	13.15	Joint 209	P	G	G	G	PD	NR	Joint 208 - Joint 209: No	Joint 208 - Joint 209: No	NR	NR
13017.91	Joint 210	41° 13' 17.57" N	82° 36' 14.33" W	13.17	Joint 210	G	G	G	G	NR	NR	Joint 209 - Joint 210: No	Joint 209 - Joint 210: No	NR	NR
13074.77	Joint 211	41° 13' 17.68" N	82° 36' 13.60" W	13.18	Joint 211	G	P	G	G	NR	PD	Joint 210 - Joint 211: Yes	Joint 210 - Joint 211: Yes	FD	FD
13133.54	Joint 212	41° 13' 17.82" N	82° 36' 12.85" W	13.19	Joint 212	G	G	G	G	NR	NR	Joint 211 - Joint 212: Yes	Joint 211 - Joint 212: Yes	PD	PD
13191.14	Joint 213	41° 13' 17.96" N	82° 36' 12.12" W	13.20	Joint 213	P	P	G	P	PD	FD	Joint 212 - Joint 213: No	Joint 212 - Joint 213: No	NR	NR
13251.11	Joint 214	41° 13' 18.10" N	82° 36' 11.35" W	13.21	Joint 214	G	G	G	G	NR	NR	Joint 213 - Joint 214: Yes	Joint 213 - Joint 214: Yes	PD	PD
13310.79	Joint 215	41° 13' 18.28" N	82° 36' 10.61" W	13.22	Joint 215	G	G	G	G	NR	NR	Joint 214 - Joint 215: Yes	Joint 214 - Joint 215: Yes	FD	PD
13368.96	Joint 216	41° 13' 18.42" N	82° 36' 09.87" W	13.23	Joint 216	G	G	G	G	NR	NR	Joint 215 - Joint 216: Yes	Joint 215 - Joint 216: Yes	PD	PD
13425.10	Joint 217	41° 13' 18.55" N	82° 36' 09.15" W	13.24	Joint 217	G	G	G	G	NR	NR	Joint 216 - Joint 217: No	Joint 216 - Joint 217: No	NR	NR
13476.38	Joint 218	41° 13' 18.68" N	82° 36' 08.50" W	13.25	Joint 218	G	G	G	G	NR	NR	Joint 217 - Joint 218: No	Joint 217 - Joint 218: No	NR	NR
13526.80	Joint 219	41° 13' 18.80" N	82° 36' 07.86" W	13.26	Joint 219	G	G	G	P	NR	FD	Joint 218 - Joint 219: No	Joint 218 - Joint 219: No	NR	NR

Location: Eastbound Travel Lanes
File # 73&75 Start: 10.7
Direction: EB End: 16.17

G=Good	NR No Repair
P=Poor	PD Partial Depth Repair
	FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
13587.03	Joint 220	41° 13' 18.95" N	82° 36' 07.09" W	13.27	Joint 220	G	G	G	G	NR	NR	Joint 219 - Joint 220: Yes	Joint 219 - Joint 220: Yes	PD	PD
13645.37	Joint 221	41° 13' 19.06" N	82° 36' 06.34" W	13.28	Joint 221	G	G	G	G	NR	NR	Joint 220 - Joint 221: Yes	Joint 220 - Joint 221: Yes	FD	PD
13706.87	Joint 222	41° 13' 19.17" N	82° 36' 05.55" W	13.30	Joint 222	G	G	G	P	NR	FD	Joint 221 - Joint 222: Yes	Joint 221 - Joint 222: Yes	FD	FD
13784.96	Joint 223	41° 13' 19.65" N	82° 36' 04.74" W	13.31	Joint 223	G	G	G	G	NR	NR	Joint 222 - Joint 223: No	Joint 222 - Joint 223: No	NR	NR
13837.67	Joint 224	41° 13' 19.79" N	82° 36' 04.08" W	13.32	Joint 224	G	G	G	G	NR	NR	Joint 223 - Joint 224: No	Joint 223 - Joint 224: No	NR	NR
13897.99	Joint 225	41° 13' 19.99" N	82° 36' 03.33" W	13.33	Joint 225	G	G	G	G	NR	NR	Joint 224 - Joint 225: No	Joint 224 - Joint 225: No	NR	NR
13940.63	Joint 226	41° 13' 20.08" N	82° 36' 02.78" W	13.34	Joint 226	P	P	P	P	FD	FD	Joint 225 - Joint 226: No	Joint 225 - Joint 226: No	NR	NR
14004.35	Joint 227	41° 13' 20.23" N	82° 36' 01.97" W	13.35	Joint 227	G	G	G	G	NR	NR	Joint 226 - Joint 227: Yes	Joint 226 - Joint 227: Yes	PD	PD
14065.34	Joint 228	41° 13' 20.39" N	82° 36' 01.20" W	13.36	Joint 228	G	G	G	G	NR	NR	Joint 227 - Joint 228: Yes	Joint 227 - Joint 228: Yes	PD	PD
14123.94	Joint 229	41° 13' 20.52" N	82° 36' 00.45" W	13.37	Joint 229	G	G	G	G	NR	NR	Joint 228 - Joint 229: Yes	Joint 228 - Joint 229: Yes	PD	PD
14183.63	Joint 230	41° 13' 20.72" N	82° 35' 59.71" W	13.39	Joint 230	G	G	P	P	FD	FD	Joint 229 - Joint 230: Yes	Joint 229 - Joint 230: Yes	PD	PD
14241.39	Joint 231	41° 13' 20.87" N	82° 35' 58.98" W	13.40	Joint 231	G	G	G	G	NR	NR	Joint 230 - Joint 231: Yes	Joint 230 - Joint 231: Yes	FD	FD
14300.92	Joint 232	41° 13' 21.05" N	82° 35' 58.24" W	13.41	Joint 232	G	G	G	P	NR	FD	Joint 231 - Joint 232: Yes	Joint 231 - Joint 232: Yes	FD	FD
14362.21	Joint 233	41° 13' 21.21" N	82° 35' 57.46" W	13.42	Joint 233	G	G	G	G	NR	NR	Joint 232 - Joint 233: Yes	Joint 232 - Joint 233: Yes	PD	PD
14408.15	Joint 234	41° 13' 21.35" N	82° 35' 56.89" W	13.43	Joint 234	G	G	P	G	FD	NR	Joint 233 - Joint 234: Yes	Joint 233 - Joint 234: Yes	FD	FD
14479.46	Joint 235	41° 13' 21.51" N	82° 35' 55.98" W	13.44	Joint 235	P	P	G	G	PD	PD	Joint 234 - Joint 235: Yes	Joint 234 - Joint 235: Yes	PD	PD
14540.64	Joint 236	41° 13' 21.67" N	82° 35' 55.21" W	13.45	Joint 236	G	G	G	G	NR	NR	Joint 235 - Joint 236: Yes	Joint 235 - Joint 236: Yes	PD	PD
14602.84	Joint 237	41° 13' 21.84" N	82° 35' 54.42" W	13.47	Joint 237	G	G	G	G	NR	NR	Joint 236 - Joint 237: Yes	Joint 236 - Joint 237: Yes	FD	FD
14663.28	Joint 238	41° 13' 21.99" N	82° 35' 53.65" W	13.48	Joint 238	G	G	G	G	NR	NR	Joint 237 - Joint 238: No	Joint 237 - Joint 238: No	NR	NR
14718.39	Joint 239	41° 13' 22.13" N	82° 35' 52.96" W	13.49	Joint 239	G	G	G	G	NR	NR	Joint 238 - Joint 239: Yes	Joint 238 - Joint 239: Yes	FD	FD
14781.70	Joint 240	41° 13' 22.31" N	82° 35' 52.16" W	13.50	Joint 240	G	G	G	G	NR	NR	Joint 239 - Joint 240: No	Joint 239 - Joint 240: No	NR	NR
14840.48	Joint 241	41° 13' 22.47" N	82° 35' 51.42" W	13.51	Joint 241	G	G	G	G	NR	NR	Joint 240 - Joint 241: No	Joint 240 - Joint 241: No	NR	NR
14902.92	Joint 242	41° 13' 22.64" N	82° 35' 50.63" W	13.52	Joint 242	G	G	G	G	NR	NR	Joint 241 - Joint 242: No	Joint 241 - Joint 242: No	NR	NR
14959.81	Joint 243	41° 13' 22.79" N	82° 35' 49.91" W	13.53	Joint 243	G	G	G	G	NR	NR	Joint 242 - Joint 243: No	Joint 242 - Joint 243: No	NR	NR
15028.99	Joint 244	41° 13' 22.98" N	82° 35' 49.04" W	13.55	Joint 244	G	G	G	G	NR	NR	Joint 243 - Joint 244: No	Joint 243 - Joint 244: No	NR	NR
15078.57	Joint 245	41° 13' 23.11" N	82° 35' 48.41" W	13.56	Joint 245	G	G	G	P	NR	FD	Joint 244 - Joint 245: No	Joint 244 - Joint 245: No	NR	NR
15139.20	Joint 246	41° 13' 23.28" N	82° 35' 47.65" W	13.57	Joint 246	G	G	G	G	NR	NR	Joint 245 - Joint 246: No	Joint 245 - Joint 246: No	NR	NR
15201.37	Joint 247	41° 13' 23.45" N	82° 35' 46.87" W	13.58	Joint 247	G	G	G	G	NR	NR	Joint 246 - Joint 247: No	Joint 246 - Joint 247: No	NR	NR
15260.98	Joint 248	41° 13' 23.63" N	82° 35' 46.12" W	13.59	Joint 248	G	G	G	G	NR	NR	Joint 247 - Joint 248: No	Joint 247 - Joint 248: No	NR	NR
15314.71	Joint 249	41° 13' 23.77" N	82° 35' 45.44" W	13.60	Joint 249	G	G	G	G	NR	NR	Joint 248 - Joint 249: Yes	Joint 248 - Joint 249: Yes	FD	FD
15384.56	Joint 250	41° 13' 23.70" N	82° 35' 44.53" W	13.61	Joint 250	G	G	G	G	NR	NR	Joint 249 - Joint 250: Yes	Joint 249 - Joint 250: Yes	FD	FD
15445.61	Joint 251	41° 13' 23.90" N	82° 35' 43.77" W	13.63	Joint 251	G	G	G	P	NR	FD	Joint 250 - Joint 251: No	Joint 250 - Joint 251: No	NR	NR
15499.39	Joint 252	41° 13' 24.04" N	82° 35' 43.09" W	13.64	Joint 252	P	P	P	P	FD	FD	Joint 251 - Joint 252: Yes	Joint 251 - Joint 252: Yes	FD	PD
15552.35	Joint 253	41° 13' 24.19" N	82° 35' 42.43" W	13.65	Joint 253	G	G	G	G	NR	NR	Joint 252 - Joint 253: Yes	Joint 252 - Joint 253: Yes	PD	PD
15608.12	Joint 254	41° 13' 24.36" N	82° 35' 41.73" W	13.66	Joint 254	G	G	G	G	NR	NR	Joint 253 - Joint 254: No	Joint 253 - Joint 254: No	NR	NR
15663.98	Joint 255	41° 13' 24.50" N	82° 35' 41.02" W	13.67	Joint 255	G	G	G	G	NR	NR	Joint 254 - Joint 255: No	Joint 254 - Joint 255: No	NR	NR
15718.70	Joint 256	41° 13' 24.67" N	82° 35' 40.34" W	13.68	Joint 256	G	G	G	G	NR	NR	Joint 255 - Joint 256: No	Joint 255 - Joint 256: No	NR	NR
15774.00	Joint 257	41° 13' 24.84" N	82° 35' 39.65" W	13.69	Joint 257	G	G	G	G	NR	NR	Joint 256 - Joint 257: No	Joint 256 - Joint 257: No	NR	NR

Location: Eastbound Travel Lanes
File # 73&75 Start: 10.7
Direction: EB End: 16.17

G=Good P=Poor	NR No Repair PD Partial Depth Repair FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
15831.78	Joint 258	41° 13' 25.01" N	82° 35' 38.93" W	13.70	Joint 258	G	G	G	G	NR	NR	Joint 257 - Joint 258: No	Joint 257 - Joint 258: No	NR	NR
15886.04	Joint 259	41° 13' 25.18" N	82° 35' 38.25" W	13.71	Joint 259	G	G	G	P	NR	FD	Joint 258 - Joint 259: No	Joint 258 - Joint 259: No	NR	NR
15954.78	Joint 260	41° 13' 25.43" N	82° 35' 37.41" W	13.72	Joint 260	G	G	G	P	NR	FD	Joint 259 - Joint 260: Yes	Joint 259 - Joint 260: Yes	PD	PD
16012.71	Joint 261	41° 13' 25.54" N	82° 35' 36.67" W	13.73	Joint 261	G	G	G	P	NR	FD	Joint 260 - Joint 261: No	Joint 260 - Joint 261: No	NR	NR
16071.15	Joint 262	41° 13' 25.73" N	82° 35' 35.94" W	13.74	Joint 262	G	G	G	P	NR	FD	Joint 261 - Joint 262: Yes	Joint 261 - Joint 262: Yes	PD	FD
16130.02	Joint 263	41° 13' 25.89" N	82° 35' 35.20" W	13.75	Joint 263	G	G	G	G	NR	NR	Joint 262 - Joint 263: Yes	Joint 262 - Joint 263: Yes	FD	PD
16194.84	Joint 264	41° 13' 26.10" N	82° 35' 34.40" W	13.77	Joint 264	G	G	G	G	NR	NR	Joint 263 - Joint 264: No	Joint 263 - Joint 264: No	NR	NR
16250.06	Joint 265	41° 13' 26.22" N	82° 35' 33.69" W	13.78	Joint 265	G	G	G	G	NR	NR	Joint 264 - Joint 265: No	Joint 264 - Joint 265: No	NR	NR
16312.56	Joint 266	41° 13' 26.39" N	82° 35' 32.90" W	13.79	Joint 266	G	G	G	P	NR	FD	Joint 265 - Joint 266: Yes	Joint 265 - Joint 266: Yes	PD	PD
16386.12	Joint 267	41° 13' 26.60" N	82° 35' 31.98" W	13.80	Joint 267	P	G	G	G	PD	NR	Joint 266 - Joint 267: Yes	Joint 266 - Joint 267: Yes	PD	PD
16448.27	Joint 268	41° 13' 26.76" N	82° 35' 31.19" W	13.82	Joint 268	G	G	G	G	NR	NR	Joint 267 - Joint 268: No	Joint 267 - Joint 268: No	NR	NR
16467.00	Joint 269	41° 13' 26.81" N	82° 35' 30.96" W	13.82	Joint 269	P	G	G	G	PD	NR	Joint 268 - Joint 269: No	Joint 268 - Joint 269: No	NR	NR
16529.97	Joint 270	41° 13' 26.99" N	82° 35' 30.17" W	13.83	Joint 270	G	G	G	G	NR	NR	Joint 269 - Joint 270: Yes	Joint 269 - Joint 270: Yes	PD	PD
16586.91	Joint 271	41° 13' 27.15" N	82° 35' 29.45" W	13.84	Joint 271	G	P	G	G	NR	PD	Joint 270 - Joint 271: Yes	Joint 270 - Joint 271: Yes	PD	PD
16648.62	Joint 272	41° 13' 27.33" N	82° 35' 28.67" W	13.85	Joint 272	P	P	G	P	PD	FD	Joint 271 - Joint 272: Yes	Joint 271 - Joint 272: Yes	FD	FD
16706.35	Joint 273	41° 13' 27.51" N	82° 35' 27.96" W	13.86	Joint 273	P	G	G	G	PD	NR	Joint 272 - Joint 273: No	Joint 272 - Joint 273: No	NR	NR
16766.03	Joint 274	41° 13' 27.63" N	82° 35' 27.19" W	13.88	Joint 274	P	G	G	G	PD	NR	Joint 273 - Joint 274: No	Joint 273 - Joint 274: No	NR	NR
16826.88	Joint 275	41° 13' 27.79" N	82° 35' 26.42" W	13.89	Joint 275	G	G	G	G	NR	NR	Joint 274 - Joint 275: No	Joint 274 - Joint 275: No	NR	NR
16888.95	Joint 276	41° 13' 27.94" N	82° 35' 25.63" W	13.90	Joint 276	G	G	G	G	NR	NR	Joint 275 - Joint 276: No	Joint 275 - Joint 276: No	NR	NR
16950.85	Joint 277	41° 13' 28.09" N	82° 35' 24.85" W	13.91	Joint 277	G	G	G	G	NR	NR	Joint 276 - Joint 277: Yes	Joint 276 - Joint 277: Yes	PD	PD
17006.64	Joint 278	41° 13' 28.25" N	82° 35' 24.15" W	13.92	Joint 278	G	G	G	G	NR	NR	Joint 277 - Joint 278: Yes	Joint 277 - Joint 278: Yes	PD	PD
17069.13	Joint 279	41° 13' 28.42" N	82° 35' 23.36" W	13.93	Joint 279	G	G	G	G	NR	NR	Joint 278 - Joint 279: Yes	Joint 278 - Joint 279: Yes	PD	PD
17130.32	Joint 280	41° 13' 28.58" N	82° 35' 22.58" W	13.94	Joint 280	G	G	G	P	NR	FD	Joint 279 - Joint 280: Yes	Joint 279 - Joint 280: Yes	FD	FD
17189.64	Joint 281	41° 13' 28.73" N	82° 35' 21.83" W	13.96	Joint 281	P	P	G	G	PD	PD	Joint 280 - Joint 281: Yes	Joint 280 - Joint 281: Yes	PD	PD
17247.51	Joint 282	41° 13' 28.90" N	82° 35' 21.11" W	13.97	Joint 282	G	P	G	P	NR	FD	Joint 281 - Joint 282: No	Joint 281 - Joint 282: No	NR	NR
17308.63	Joint 283	41° 13' 29.06" N	82° 35' 20.33" W	13.98	Joint 283	G	G	G	P	NR	FD	Joint 282 - Joint 283: Yes	Joint 282 - Joint 283: Yes	FD	FD
17368.13	Joint 284	41° 13' 29.23" N	82° 35' 19.59" W	13.99	Joint 284	G	G	G	G	NR	NR	Joint 283 - Joint 284: No	Joint 283 - Joint 284: No	NR	NR
17424.77	Joint 285	41° 13' 29.36" N	82° 35' 18.86" W	14.00	Joint 285	G	G	G	P	NR	FD	Joint 284 - Joint 285: Yes	Joint 284 - Joint 285: Yes	FD	FD
17484.74	Joint 286	41° 13' 29.52" N	82° 35' 18.11" W	14.01	Joint 286	G	G	G	G	NR	NR	Joint 285 - Joint 286: No	Joint 285 - Joint 286: No	NR	NR
17547.67	Joint 287	41° 13' 29.71" N	82° 35' 17.32" W	14.02	Joint 287	G	G	G	G	NR	NR	Joint 286 - Joint 287: Yes	Joint 286 - Joint 287: Yes	FD	PD
17603.48	Joint 288	41° 13' 29.82" N	82° 35' 16.60" W	14.03	Joint 288	G	G	G	G	NR	NR	Joint 287 - Joint 288: Yes	Joint 287 - Joint 288: Yes	FD	PD
17666.71	Joint 289	41° 13' 30.05" N	82° 35' 15.83" W	14.05	Joint 289	G	P	G	G	NR	PD	Joint 288 - Joint 289: Yes	Joint 288 - Joint 289: Yes	FD	FD
17726.66	Joint 290	41° 13' 30.20" N	82° 35' 15.07" W	14.06	Joint 290	G	G	G	G	NR	NR	Joint 289 - Joint 290: Yes	Joint 289 - Joint 290: Yes	FD	FD
17785.13	Joint 291	41° 13' 30.39" N	82° 35' 14.35" W	14.07	Joint 291	G	G	G	G	NR	NR	Joint 290 - Joint 291: No	Joint 290 - Joint 291: No	NR	NR
17847.36	Joint 292	41° 13' 30.53" N	82° 35' 13.55" W	14.08	Joint 292	G	G	G	G	NR	NR	Joint 291 - Joint 292: Yes	Joint 291 - Joint 292: Yes	FD	PD
17909.20	Joint 293	41° 13' 30.68" N	82° 35' 12.77" W	14.09	Joint 293	G	G	G	P	NR	FD	Joint 292 - Joint 293: Yes	Joint 292 - Joint 293: Yes	FD	FD
17960.43	Joint 294	41° 13' 30.88" N	82° 35' 12.14" W	14.10	Joint 294	G	G	G	G	NR	NR	Joint 293 - Joint 294: No	Joint 293 - Joint 294: No	NR	NR
18024.86	Joint 295	41° 13' 31.01" N	82° 35' 11.32" W	14.11	Joint 295	G	G	G	G	NR	NR	Joint 294 - Joint 295: No	Joint 294 - Joint 295: No	NR	NR

Location: Eastbound Travel Lanes
File # 73&75 Start: 10.7
Direction: EB End: 16.17

G=Good	NR No Repair
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		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
18082.28	Joint 296	41° 13' 31.21" N	82° 35' 10.61" W	14.12	Joint 296	G	G	G	G	NR	NR	Joint 295 - Joint 296: No	Joint 295 - Joint 296: No	NR	NR
18139.88	Joint 297	41° 13' 31.31" N	82° 35' 09.87" W	14.14	Joint 297	G	G	G	G	NR	NR	Joint 296 - Joint 297: Yes	Joint 296 - Joint 297: Yes	FD	FD
18202.14	Joint 298	41° 13' 31.43" N	82° 35' 09.07" W	14.15	Joint 298	G	G	G	G	NR	NR	Joint 297 - Joint 298: No	Joint 297 - Joint 298: No	NR	NR
18263.77	Joint 299	41° 13' 31.62" N	82° 35' 08.30" W	14.16	Joint 299	G	G	G	G	NR	NR	Joint 298 - Joint 299: No	Joint 298 - Joint 299: No	NR	NR
18325.91	Joint 300	41° 13' 31.78" N	82° 35' 07.51" W	14.17	Joint 300	G	G	G	P	NR	FD	Joint 299 - Joint 300: Yes	Joint 299 - Joint 300: Yes	PD	PD
18389.91	Joint 301	41° 13' 31.93" N	82° 35' 06.70" W	14.18	Joint 301	G	G	G	G	NR	NR	Joint 300 - Joint 301: No	Joint 300 - Joint 301: No	NR	NR
18444.60	Joint 302	41° 13' 32.10" N	82° 35' 06.01" W	14.19	Joint 302	G	P	G	G	NR	PD	Joint 301 - Joint 302: No	Joint 301 - Joint 302: No	NR	NR
18505.97	Joint 303	41° 13' 32.27" N	82° 35' 05.24" W	14.20	Joint 303	G	G	G	G	NR	NR	Joint 302 - Joint 303: No	Joint 302 - Joint 303: No	NR	NR
18568.16	Joint 304	41° 13' 32.44" N	82° 35' 04.46" W	14.22	Joint 304	G	G	G	P	NR	FD	Joint 303 - Joint 304: No	Joint 303 - Joint 304: No	NR	NR
18626.04	Joint 305	41° 13' 32.61" N	82° 35' 03.73" W	14.23	Joint 305	G	G	G	G	NR	NR	Joint 304 - Joint 305: Yes	Joint 304 - Joint 305: Yes	FD	FD
18684.73	Joint 306	41° 13' 32.76" N	82° 35' 02.99" W	14.24	Joint 306	G	G	G	G	NR	NR	Joint 305 - Joint 306: Yes	Joint 305 - Joint 306: Yes	PD	PD
18741.89	Joint 307	41° 13' 32.86" N	82° 35' 02.25" W	14.25	Joint 307	G	G	G	G	NR	NR	Joint 306 - Joint 307: No	Joint 306 - Joint 307: No	NR	NR
18805.24	Joint 308	41° 13' 33.07" N	82° 35' 01.47" W	14.26	Joint 308	P	G	G	G	PD	NR	Joint 307 - Joint 308: Yes	Joint 307 - Joint 308: Yes	PD	PD
18860.40	Joint 309	41° 13' 33.22" N	82° 35' 00.77" W	14.27	Joint 309	G	G	G	G	NR	NR	Joint 308 - Joint 309: Yes	Joint 308 - Joint 309: Yes	FD	PD
18924.04	Joint 310	41° 13' 33.39" N	82° 34' 59.97" W	14.28	Joint 310	G	G	G	G	NR	NR	Joint 309 - Joint 310: Yes	Joint 309 - Joint 310: Yes	PD	PD
18984.39	Joint 311	41° 13' 33.55" N	82° 34' 59.21" W	14.30	Joint 311	G	G	G	G	NR	NR	Joint 310 - Joint 311: No	Joint 310 - Joint 311: No	NR	NR
19046.34	Joint 312	41° 13' 33.75" N	82° 34' 58.44" W	14.31	Joint 312	P	G	G	G	PD	NR	Joint 311 - Joint 312: No	Joint 311 - Joint 312: No	NR	NR
19103.94	Joint 313	41° 13' 33.93" N	82° 34' 57.72" W	14.32	Joint 313	P	P	G	G	PD	PD	Joint 312 - Joint 313: No	Joint 312 - Joint 313: No	NR	NR
19164.69	Joint 314	41° 13' 34.18" N	82° 34' 57.00" W	14.33	Joint 314	P	G	P	G	FD	NR	Joint 313 - Joint 314: Yes	Joint 313 - Joint 314: Yes	PD	PD
19224.41	Joint 315	41° 13' 34.33" N	82° 34' 56.24" W	14.34	Joint 315	G	G	G	G	NR	NR	Joint 314 - Joint 315: No	Joint 314 - Joint 315: No	NR	NR
19274.82	Joint 316	41° 13' 34.50" N	82° 34' 55.62" W	14.35	Joint 316	P	G	G	G	PD	NR	Joint 315 - Joint 316: No	Joint 315 - Joint 316: No	NR	NR
19345.47	Joint 317	41° 13' 34.74" N	82° 34' 54.75" W	14.36	Joint 317	G	G	G	P	NR	FD	Joint 316 - Joint 317: Yes	Joint 316 - Joint 317: Yes	PD	PD
19403.83	Joint 318	41° 13' 34.98" N	82° 34' 54.05" W	14.37	Joint 318	P	G	G	G	PD	NR	Joint 317 - Joint 318: No	Joint 317 - Joint 318: No	NR	NR
19463.99	Joint 319	41° 13' 35.21" N	82° 34' 53.32" W	14.39	Joint 319	P	P	G	P	PD	FD	Joint 318 - Joint 319: No	Joint 318 - Joint 319: No	NR	NR
19527.53	Joint 320	41° 13' 35.48" N	82° 34' 52.57" W	14.40	Joint 320	P	G	G	G	PD	NR	Joint 319 - Joint 320: No	Joint 319 - Joint 320: No	NR	NR
19583.41	Joint 321	41° 13' 35.71" N	82° 34' 51.90" W	14.41	Joint 321	P	P	G	G	PD	PD	Joint 320 - Joint 321: No	Joint 320 - Joint 321: No	NR	NR
19643.06	Joint 322	41° 13' 35.97" N	82° 34' 51.20" W	14.42	Joint 322	P	P	P	G	FD	PD	Joint 321 - Joint 322: No	Joint 321 - Joint 322: No	NR	NR
19703.95	Joint 323	41° 13' 36.26" N	82° 34' 50.50" W	14.43	Joint 323	P	G	G	G	PD	NR	Joint 322 - Joint 323: No	Joint 322 - Joint 323: No	NR	NR
19764.44	Joint 324	41° 13' 36.52" N	82° 34' 49.79" W	14.44	Joint 324	P	G	G	G	PD	NR	Joint 323 - Joint 324: No	Joint 323 - Joint 324: No	NR	NR
19824.95	Joint 325	41° 13' 36.80" N	82° 34' 49.09" W	14.45	Joint 325	P	G	G	G	PD	NR	Joint 324 - Joint 325: No	Joint 324 - Joint 325: No	NR	NR
19884.15	Joint 326	41° 13' 37.07" N	82° 34' 48.40" W	14.47	Joint 326	G	G	G	G	NR	NR	Joint 325 - Joint 326: No	Joint 325 - Joint 326: No	NR	NR
19943.86	Joint 327	41° 13' 37.39" N	82° 34' 47.74" W	14.48	Joint 327	G	G	G	G	NR	NR	Joint 326 - Joint 327: No	Joint 326 - Joint 327: No	NR	NR
20004.10	Joint 328	41° 13' 37.67" N	82° 34' 47.04" W	14.49	Joint 328	P	G	G	G	PD	NR	Joint 327 - Joint 328: Yes	Joint 327 - Joint 328: Yes	PD	PD
20061.80	Joint 329	41° 13' 37.99" N	82° 34' 46.42" W	14.50	Joint 329	P	G	G	G	PD	NR	Joint 328 - Joint 329: No	Joint 328 - Joint 329: No	NR	NR
20124.15	Joint 330	41° 13' 38.31" N	82° 34' 45.72" W	14.51	Joint 330	P	P	G	P	PD	FD	Joint 329 - Joint 330: No	Joint 329 - Joint 330: No	NR	NR
20183.72	Joint 331	41° 13' 38.64" N	82° 34' 45.07" W	14.52	Joint 331	P	G	G	G	PD	NR	Joint 330 - Joint 331: No	Joint 330 - Joint 331: No	NR	NR
20244.05	Joint 332	41° 13' 38.99" N	82° 34' 44.43" W	14.53	Joint 332	G	G	G	G	NR	NR	Joint 331 - Joint 332: Yes	Joint 331 - Joint 332: Yes	PD	PD
20305.02	Joint 333	41° 13' 39.31" N	82° 34' 43.75" W	14.55	Joint 333	P	G	G	G	PD	NR	Joint 332 - Joint 333: Yes	Joint 332 - Joint 333: Yes	PD	PD

Location: Eastbound Travel Lanes
File # 73&75 Start: 10.7
Direction: EB End: 16.17

G=Good P=Poor	NR No Repair PD Partial Depth Repair FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
20364.68	Joint 334	41° 13' 39.68" N	82° 34' 43.15" W	14.56	Joint 334	G	G	G	G	NR	NR	Joint 333 - Joint 334: Yes	Joint 333 - Joint 334: Yes	FD	PD
20427.76	Joint 335	41° 13' 40.07" N	82° 34' 42.50" W	14.57	Joint 335	G	G	G	G	NR	NR	Joint 334 - Joint 335: No	Joint 334 - Joint 335: No	NR	NR
20486.42	Joint 336	41° 13' 40.44" N	82° 34' 41.91" W	14.58	Joint 336	G	G	G	G	NR	NR	Joint 335 - Joint 336: No	Joint 335 - Joint 336: No	NR	NR
20544.69	Joint 337	41° 13' 40.78" N	82° 34' 41.29" W	14.59	Joint 337	G	G	G	G	NR	NR	Joint 336 - Joint 337: Yes	Joint 336 - Joint 337: Yes	FD	PD
20604.06	Joint 338	41° 13' 41.15" N	82° 34' 40.69" W	14.60	Joint 338	G	G	G	G	NR	NR	Joint 337 - Joint 338: Yes	Joint 337 - Joint 338: Yes	FD	PD
20661.74	Joint 339	41° 13' 41.55" N	82° 34' 40.15" W	14.61	Joint 339	P	G	G	G	PD	NR	Joint 338 - Joint 339: No	Joint 338 - Joint 339: No	NR	NR
20721.99	Joint 340	41° 13' 41.94" N	82° 34' 39.55" W	14.62	Joint 340	P	G	G	G	PD	NR	Joint 339 - Joint 340: No	Joint 339 - Joint 340: No	NR	NR
20785.12	Joint 341	41° 13' 42.39" N	82° 34' 38.98" W	14.64	Joint 341	P	P	G	G	PD	PD	Joint 340 - Joint 341: No	Joint 340 - Joint 341: No	NR	NR
20841.58	Joint 342	41° 13' 42.74" N	82° 34' 38.40" W	14.65	Joint 342	P	G	G	G	PD	NR	Joint 341 - Joint 342: No	Joint 341 - Joint 342: No	NR	NR
20902.61	Joint 343	41° 13' 43.15" N	82° 34' 37.81" W	14.66	Joint 343	G	G	G	G	NR	NR	Joint 342 - Joint 343: No	Joint 342 - Joint 343: No	NR	NR
20962.53	Joint 344	41° 13' 43.58" N	82° 34' 37.27" W	14.67	Joint 344	G	G	G	G	NR	NR	Joint 343 - Joint 344: No	Joint 343 - Joint 344: No	NR	NR
21023.40	Joint 345	41° 13' 44.00" N	82° 34' 36.71" W	14.68	Joint 345	G	G	G	G	NR	NR	Joint 344 - Joint 345: No	Joint 344 - Joint 345: No	NR	NR
21085.52	Joint 346	41° 13' 44.42" N	82° 34' 36.11" W	14.69	Joint 346	P	G	G	G	PD	NR	Joint 345 - Joint 346: Yes	Joint 345 - Joint 346: Yes	PD	PD
21147.33	Joint 347	41° 13' 44.88" N	82° 34' 35.58" W	14.71	Joint 347	P	P	G	G	PD	PD	Joint 346 - Joint 347: No	Joint 346 - Joint 347: No	NR	NR
21206.30	Joint 348	41° 13' 45.30" N	82° 34' 35.04" W	14.72	Joint 348	P	G	G	G	PD	NR	Joint 347 - Joint 348: No	Joint 347 - Joint 348: No	NR	NR
21265.51	Joint 349	41° 13' 45.70" N	82° 34' 34.48" W	14.73	Joint 349	P	G	G	G	PD	NR	Joint 348 - Joint 349: Yes	Joint 348 - Joint 349: Yes	FD	FD
21330.08	Joint 350	41° 13' 46.23" N	82° 34' 34.03" W	14.74	Joint 350	G	G	G	G	NR	NR	Joint 349 - Joint 350: No	Joint 349 - Joint 350: No	NR	NR
21388.24	Joint 351	41° 13' 46.66" N	82° 34' 33.52" W	14.75	Joint 351	G	G	G	G	NR	NR	Joint 350 - Joint 351: Yes	Joint 350 - Joint 351: Yes	FD	PD
21448.66	Joint 352	41° 13' 47.12" N	82° 34' 33.02" W	14.76	Joint 352	P	G	G	G	PD	NR	Joint 351 - Joint 352: No	Joint 351 - Joint 352: No	NR	NR
21508.19	Joint 353	41° 13' 47.60" N	82° 34' 32.56" W	14.77	Joint 353	P	G	G	G	PD	NR	Joint 352 - Joint 353: No	Joint 352 - Joint 353: No	NR	NR
21567.47	Joint 354	41° 13' 48.10" N	82° 34' 32.16" W	14.78	Joint 354	P	P	G	P	PD	FD	Joint 353 - Joint 354: Yes	Joint 353 - Joint 354: Yes	FD	FD
21628.55	Joint 355	41° 13' 48.57" N	82° 34' 31.66" W	14.80	Joint 355	P	G	G	G	PD	NR	Joint 354 - Joint 355: Yes	Joint 354 - Joint 355: Yes	FD	PD
21686.42	Joint 356	41° 13' 49.05" N	82° 34' 31.26" W	14.81	Joint 356	P	G	G	G	PD	NR	Joint 355 - Joint 356: No	Joint 355 - Joint 356: No	NR	NR
21748.88	Joint 357	41° 13' 49.55" N	82° 34' 30.78" W	14.82	Joint 357	G	G	G	G	NR	NR	Joint 356 - Joint 357: Yes	Joint 356 - Joint 357: Yes	PD	PD
21808.76	Joint 358	41° 13' 50.05" N	82° 34' 30.35" W	14.83	Joint 358	G	G	G	G	NR	NR	Joint 357 - Joint 358: No	Joint 357 - Joint 358: No	NR	NR
21870.15	Joint 359	41° 13' 50.58" N	82° 34' 29.96" W	14.84	Joint 359	G	G	G	G	NR	NR	Joint 358 - Joint 359: Yes	Joint 358 - Joint 359: Yes	FD	FD
21929.62	Joint 360	41° 13' 51.07" N	82° 34' 29.54" W	14.85	Joint 360	P	P	G	G	PD	PD	Joint 359 - Joint 360: Yes	Joint 359 - Joint 360: Yes	PD	PD
21992.56	Joint 361	41° 13' 51.63" N	82° 34' 29.18" W	14.87	Joint 361	G	P	G	G	NR	PD	Joint 360 - Joint 361: No	Joint 360 - Joint 361: No	NR	NR
22049.89	Joint 362	41° 13' 52.10" N	82° 34' 28.77" W	14.88	Joint 362	P	P	G	G	PD	PD	Joint 361 - Joint 362: No	Joint 361 - Joint 362: No	NR	NR
22111.13	Joint 363	41° 13' 52.64" N	82° 34' 28.40" W	14.89	Joint 363	G	G	G	G	NR	NR	Joint 362 - Joint 363: No	Joint 362 - Joint 363: No	NR	NR
22172.07	Joint 364	41° 13' 53.17" N	82° 34' 28.02" W	14.90	Joint 364	G	G	G	G	NR	NR	Joint 363 - Joint 364: No	Joint 363 - Joint 364: No	NR	NR
22233.01	Joint 365	41° 13' 53.70" N	82° 34' 27.65" W	14.91	Joint 365	G	G	G	G	NR	NR	Joint 364 - Joint 365: Yes	Joint 364 - Joint 365: Yes	PD	PD
22292.48	Joint 366	41° 13' 54.23" N	82° 34' 27.31" W	14.92	Joint 366	G	G	G	P	NR	FD	Joint 365 - Joint 366: No	Joint 365 - Joint 366: No	NR	NR
22353.18	Joint 367	41° 13' 54.77" N	82° 34' 26.97" W	14.93	Joint 367	G	G	G	G	NR	NR	Joint 366 - Joint 367: Yes	Joint 366 - Joint 367: Yes	FD	FD
22408.09	Joint 368	41° 13' 55.27" N	82° 34' 26.68" W	14.94	Joint 368	G	P	G	P	NR	FD	Joint 367 - Joint 368: No	Joint 367 - Joint 368: No	NR	NR
22472.53	Joint 369	41° 13' 55.86" N	82° 34' 26.35" W	14.96	Joint 369	G	G	G	G	NR	NR	Joint 368 - Joint 369: No	Joint 368 - Joint 369: No	NR	NR
22531.06	Joint 370	41° 13' 56.39" N	82° 34' 26.07" W	14.97	Joint 370	G	G	G	G	NR	NR	Joint 369 - Joint 370: Yes	Joint 369 - Joint 370: Yes	FD	FD
22591.50	Joint 371	41° 13' 56.95" N	82° 34' 25.78" W	14.98	Joint 371	G	P	G	G	NR	PD	Joint 370 - Joint 371: No	Joint 370 - Joint 371: No	NR	NR

Location: Eastbound Travel Lanes

File # 73&75 Start: 10.7

Direction: EB End: 16.17

G=Good	NR No Repair
P=Poor	PD Partial Depth Repair
	FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
22652.66	Joint 372	41° 13' 57.51" N	82° 34' 25.49" W	14.99	Joint 372	G	G	G	G	NR	NR	Joint 371 - Joint 372: No	Joint 371 - Joint 372: No	NR	NR
22711.95	Joint 373	41° 13' 58.06" N	82° 34' 25.23" W	15.00	Joint 373	G	G	G	G	NR	NR	Joint 372 - Joint 373: Yes	Joint 372 - Joint 373: Yes	FD	FD
22769.12	Joint 374	41° 13' 58.60" N	82° 34' 24.98" W	15.01	Joint 374	P	G	G	G	PD	NR	Joint 373 - Joint 374: No	Joint 373 - Joint 374: No	NR	NR
22832.03	Joint 375	41° 13' 59.18" N	82° 34' 24.72" W	15.02	Joint 375	G	G	G	G	NR	NR	Joint 374 - Joint 375: No	Joint 374 - Joint 375: No	NR	NR
22893.03	Joint 376	41° 13' 59.76" N	82° 34' 24.49" W	15.04	Joint 376	G	G	G	G	NR	NR	Joint 375 - Joint 376: No	Joint 375 - Joint 376: No	NR	NR
22953.01	Joint 377	41° 14' 00.33" N	82° 34' 24.27" W	15.05	Joint 377	G	G	G	G	NR	NR	Joint 376 - Joint 377: No	Joint 376 - Joint 377: No	NR	NR
23010.46	Joint 378	41° 14' 00.88" N	82° 34' 24.08" W	15.06	Joint 378	P	P	G	G	PD	PD	Joint 377 - Joint 378: No	Joint 377 - Joint 378: No	NR	NR
23067.55	Joint 379	41° 14' 01.42" N	82° 34' 23.87" W	15.07	Joint 379	G	G	G	G	NR	NR	Joint 378 - Joint 379: No	Joint 378 - Joint 379: No	NR	NR
23129.22	Joint 380	41° 14' 02.01" N	82° 34' 23.68" W	15.08	Joint 380	G	G	G	G	NR	NR	Joint 379 - Joint 380: No	Joint 379 - Joint 380: No	NR	NR
23190.13	Joint 381	41° 14' 02.60" N	82° 34' 23.50" W	15.09	Joint 381	P	G	G	G	PD	NR	Joint 380 - Joint 381: No	Joint 380 - Joint 381: No	NR	NR
23253.21	Joint 382	41° 14' 03.21" N	82° 34' 23.34" W	15.10	Joint 382	G	G	G	G	NR	NR	Joint 381 - Joint 382: No	Joint 381 - Joint 382: No	NR	NR
23310.63	Joint 383	41° 14' 03.76" N	82° 34' 23.19" W	15.11	Joint 383	P	P	G	G	PD	PD	Joint 382 - Joint 383: No	Joint 382 - Joint 383: No	NR	NR
23344.39	Joint 384	41° 14' 04.09" N	82° 34' 23.09" W	15.12	Joint 384	P	P	G	G	PD	PD	Joint 383 - Joint 384: No	Joint 383 - Joint 384: No	NR	NR
23407.30	Joint 385	41° 14' 04.69" N	82° 34' 22.90" W	15.13	Joint 385	P	P	G	P	PD	FD	Joint 384 - Joint 385: No	Joint 384 - Joint 385: No	NR	NR
23423.89	Approach Slab	41° 14' 04.85" N	82° 34' 22.84" W	15.14	Approach Slab	G	G	G	G	NR	NR	Joint 385 - Approach Slab: No	Joint 385 - Approach Slab: No	NR	NR
23449.94	Bridge Joint	41° 14' 05.10" N	82° 34' 22.78" W	15.14	Bridge Joint	-	-	-	-	-	-	-	-	-	-
23606.66	Bridge Joint	41° 14' 06.64" N	82° 34' 22.52" W	15.17	Bridge Joint	-	-	-	-	-	-	-	-	-	-
23631.26	Approach Slab	41° 14' 06.87" N	82° 34' 22.43" W	15.18	Approach Slab	G	G	G	G	NR	NR	-	-	-	-
23696.16	Joint 386	41° 14' 07.51" N	82° 34' 22.43" W	15.19	Joint 386	G	G	G	G	NR	NR	Approach Slab - Joint 386: Yes	Approach Slab - Joint 386: Yes	FD	FD
23765.28	Joint 387	41° 14' 08.17" N	82° 34' 22.23" W	15.20	Joint 387	P	G	G	G	PD	NR	Joint 386 - Joint 387: Yes	Joint 386 - Joint 387: Yes	FD	PD
23826.76	Joint 388	41° 14' 08.77" N	82° 34' 22.30" W	15.21	Joint 388	G	G	G	G	NR	NR	Joint 387 - Joint 388: No	Joint 387 - Joint 388: No	NR	NR
23875.50	Joint 389	41° 14' 09.25" N	82° 34' 22.25" W	15.22	Joint 389	P	P	G	G	PD	PD	Joint 388 - Joint 389: No	Joint 388 - Joint 389: No	NR	NR
23939.27	Joint 390	41° 14' 09.88" N	82° 34' 22.19" W	15.23	Joint 390	P	P	G	G	PD	PD	Joint 389 - Joint 390: Yes	Joint 389 - Joint 390: Yes	PD	PD
24000.02	Joint 391	41° 14' 10.47" N	82° 34' 22.10" W	15.25	Joint 391	P	G	G	G	PD	NR	Joint 390 - Joint 391: No	Joint 390 - Joint 391: No	NR	NR
24057.79	Joint 392	41° 14' 11.04" N	82° 34' 22.03" W	15.26	Joint 392	G	G	G	G	NR	NR	Joint 391 - Joint 392: No	Joint 391 - Joint 392: No	NR	NR
24133.77	Joint 393	41° 14' 11.76" N	82° 34' 22.28" W	15.27	Joint 393	G	G	G	G	NR	NR	Joint 392 - Joint 393: No	Joint 392 - Joint 393: No	NR	NR
24186.74	Joint 394	41° 14' 12.29" N	82° 34' 22.26" W	15.28	Joint 394	G	G	G	G	NR	NR	Joint 393 - Joint 394: No	Joint 393 - Joint 394: No	NR	NR
24227.16	Joint 395	41° 14' 12.69" N	82° 34' 22.25" W	15.29	Joint 395	G	G	G	G	NR	NR	Joint 394 - Joint 395: No	Joint 394 - Joint 395: No	NR	NR
24290.02	Joint 396	41° 14' 13.30" N	82° 34' 22.35" W	15.30	Joint 396	P	P	G	G	PD	PD	Joint 395 - Joint 396: Yes	Joint 395 - Joint 396: Yes	PD	PD
24350.55	Joint 397	41° 14' 13.90" N	82° 34' 22.38" W	15.31	Joint 397	P	P	P	G	FD	PD	Joint 396 - Joint 397: No	Joint 396 - Joint 397: No	NR	NR
24410.80	Joint 398	41° 14' 14.49" N	82° 34' 22.40" W	15.32	Joint 398	P	G	P	G	FD	NR	Joint 397 - Joint 398: No	Joint 397 - Joint 398: No	NR	NR
24469.33	Joint 399	41° 14' 15.07" N	82° 34' 22.41" W	15.33	Joint 399	P	P	G	P	PD	FD	Joint 398 - Joint 399: No	Joint 398 - Joint 399: No	NR	NR
24530.76	Joint 400	41° 14' 15.68" N	82° 34' 22.41" W	15.35	Joint 400	P	P	G	P	PD	FD	Joint 399 - Joint 400: No	Joint 399 - Joint 400: No	NR	NR
24592.20	Joint 401	41° 14' 16.28" N	82° 34' 22.39" W	15.36	Joint 401	G	G	P	G	FD	NR	Joint 400 - Joint 401: No	Joint 400 - Joint 401: No	NR	NR
24656.18	Joint 402	41° 14' 16.91" N	82° 34' 22.43" W	15.37	Joint 402	G	G	G	G	NR	NR	Joint 401 - Joint 402: No	Joint 401 - Joint 402: No	NR	NR
24715.14	Joint 403	41° 14' 17.50" N	82° 34' 22.44" W	15.38	Joint 403	P	P	G	P	PD	FD	Joint 402 - Joint 403: No	Joint 402 - Joint 403: No	NR	NR
24772.71	Joint 404	41° 14' 18.06" N	82° 34' 22.50" W	15.39	Joint 404	P	P	G	G	PD	PD	Joint 403 - Joint 404: Yes	Joint 403 - Joint 404: Yes	FD	PD
24833.19	Joint 405	41° 14' 18.66" N	82° 34' 22.52" W	15.40	Joint 405	P	G	P	G	FD	NR	Joint 404 - Joint 405: No	Joint 404 - Joint 405: No	NR	NR

Location: Eastbound Travel Lanes

File # 73&75 Start: 10.7

Direction: EB End: 16.17

G=Good	NR No Repair
P=Poor	PD Partial Depth Repair
	FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
24894.38	Joint 406	41° 14' 19.21" N	82° 34' 22.84" W	15.41	Joint 406	G	G	G	G	NR	NR	Joint 405 - Joint 406: No	Joint 405 - Joint 406: No	NR	NR
24959.22	Joint 407	41° 14' 19.79" N	82° 34' 22.48" W	15.43	Joint 407	G	G	G	G	NR	NR	Joint 406 - Joint 407: No	Joint 406 - Joint 407: No	NR	NR
25024.39	Joint 408	41° 14' 20.43" N	82° 34' 22.48" W	15.44	Joint 408	G	G	G	G	NR	NR	Joint 407 - Joint 408: No	Joint 407 - Joint 408: No	NR	NR
25072.44	Joint 409	41° 14' 20.91" N	82° 34' 22.48" W	15.45	Joint 409	G	G	G	G	NR	NR	Joint 408 - Joint 409: Yes	Joint 408 - Joint 409: Yes	PD	PD
25125.06	Joint 410	41° 14' 21.43" N	82° 34' 22.50" W	15.46	Joint 410	G	G	G	G	NR	NR	Joint 409 - Joint 410: No	Joint 409 - Joint 410: No	NR	NR
25188.52	Joint 411	41° 14' 22.05" N	82° 34' 22.50" W	15.47	Joint 411	G	G	G	G	NR	NR	Joint 410 - Joint 411: No	Joint 410 - Joint 411: No	NR	NR
25252.85	Joint 412	41° 14' 22.69" N	82° 34' 22.55" W	15.48	Joint 412	G	G	G	G	NR	NR	Joint 411 - Joint 412: No	Joint 411 - Joint 412: No	NR	NR
25308.90	Joint 413	41° 14' 23.24" N	82° 34' 22.57" W	15.49	Joint 413	G	G	G	G	NR	NR	Joint 412 - Joint 413: No	Joint 412 - Joint 413: No	NR	NR
25375.71	Joint 414	41° 14' 23.90" N	82° 34' 22.56" W	15.51	Joint 414	G	G	G	G	NR	NR	Joint 413 - Joint 414: No	Joint 413 - Joint 414: No	NR	NR
25431.73	Joint 415	41° 14' 24.45" N	82° 34' 22.60" W	15.52	Joint 415	P	G	G	G	PD	NR	Joint 414 - Joint 415: Yes	Joint 414 - Joint 415: Yes	FD	FD
25486.97	Joint 416	41° 14' 25.00" N	82° 34' 22.59" W	15.53	Joint 416	P	G	G	G	PD	NR	Joint 415 - Joint 416: No	Joint 415 - Joint 416: No	NR	NR
25553.05	Joint 417	41° 14' 25.65" N	82° 34' 22.60" W	15.54	Joint 417	P	P	G	P	PD	FD	Joint 416 - Joint 417: Yes	Joint 416 - Joint 417: Yes	FD	FD
25610.83	Joint 418	41° 14' 26.22" N	82° 34' 22.58" W	15.55	Joint 418	G	G	G	G	NR	NR	Joint 417 - Joint 418: No	Joint 417 - Joint 418: No	NR	NR
25671.95	Joint 419	41° 14' 26.82" N	82° 34' 22.62" W	15.56	Joint 419	G	G	G	G	NR	NR	Joint 418 - Joint 419: Yes	Joint 418 - Joint 419: Yes	FD	FD
25718.86	Joint 420	41° 14' 27.28" N	82° 34' 22.64" W	15.57	Joint 420	G	G	G	G	NR	NR	Joint 419 - Joint 420: No	Joint 419 - Joint 420: No	NR	NR
25786.42	Joint 421	41° 14' 27.92" N	82° 34' 22.39" W	15.58	Joint 421	P	G	G	P	PD	FD	Joint 420 - Joint 421: Yes	Joint 420 - Joint 421: Yes	FD	FD
25845.22	Joint 422	41° 14' 28.50" N	82° 34' 22.44" W	15.59	Joint 422	G	G	G	G	NR	NR	Joint 421 - Joint 422: No	Joint 421 - Joint 422: No	NR	NR
25899.52	Joint 423	41° 14' 29.04" N	82° 34' 22.44" W	15.61	Joint 423	P	G	G	P	PD	FD	Joint 422 - Joint 423: Yes	Joint 422 - Joint 423: Yes	PD	PD
25939.39	Joint 424	41° 14' 29.43" N	82° 34' 22.44" W	15.61	Joint 424	G	G	G	P	NR	FD	Joint 423 - Joint 424: No	Joint 423 - Joint 424: No	NR	NR
25997.92	Joint 425	41° 14' 30.01" N	82° 34' 22.50" W	15.62	Joint 425	P	G	G	P	PD	FD	Joint 424 - Joint 425: No	Joint 424 - Joint 425: No	NR	NR
26056.16	Joint 426	41° 14' 30.58" N	82° 34' 22.50" W	15.63	Joint 426	G	G	G	P	NR	FD	Joint 425 - Joint 426: No	Joint 425 - Joint 426: No	NR	NR
26119.09	Joint 427	41° 14' 31.20" N	82° 34' 22.56" W	15.65	Joint 427	G	G	G	G	NR	NR	Joint 426 - Joint 427: No	Joint 426 - Joint 427: No	NR	NR
26177.10	Joint 428	41° 14' 31.78" N	82° 34' 22.56" W	15.66	Joint 428	G	G	G	G	NR	NR	Joint 427 - Joint 428: No	Joint 427 - Joint 428: No	NR	NR
26235.45	Joint 429	41° 14' 32.35" N	82° 34' 22.62" W	15.67	Joint 429	P	G	G	P	PD	FD	Joint 428 - Joint 429: No	Joint 428 - Joint 429: No	NR	NR
26297.99	Joint 430	41° 14' 32.97" N	82° 34' 22.67" W	15.68	Joint 430	G	G	G	G	NR	NR	Joint 429 - Joint 430: No	Joint 429 - Joint 430: No	NR	NR
26358.40	Joint 431	41° 14' 33.56" N	82° 34' 22.69" W	15.69	Joint 431	G	G	G	G	NR	NR	Joint 430 - Joint 431: No	Joint 430 - Joint 431: No	NR	NR
26420.56	Joint 432	41° 14' 34.17" N	82° 34' 22.72" W	15.70	Joint 432	G	G	G	P	NR	FD	Joint 431 - Joint 432: No	Joint 431 - Joint 432: No	NR	NR
26498.76	Joint 433	41° 14' 34.94" N	82° 34' 22.76" W	15.72	Joint 433	P	G	G	P	PD	FD	Joint 432 - Joint 433: Yes	Joint 432 - Joint 433: Yes	PD	PD
26542.76	Joint 434	41° 14' 35.38" N	82° 34' 22.78" W	15.73	Joint 434	G	G	G	P	NR	FD	Joint 433 - Joint 434: No	Joint 433 - Joint 434: No	NR	NR
26603.90	Joint 435	41° 14' 35.98" N	82° 34' 22.83" W	15.74	Joint 435	P	G	G	P	PD	FD	Joint 434 - Joint 435: No	Joint 434 - Joint 435: No	NR	NR
26663.40	Joint 436	41° 14' 36.56" N	82° 34' 22.92" W	15.75	Joint 436	G	G	G	G	NR	NR	Joint 435 - Joint 436: No	Joint 435 - Joint 436: No	NR	NR
26732.24	Joint 437	41° 14' 37.24" N	82° 34' 22.91" W	15.76	Joint 437	P	G	G	G	PD	NR	Joint 436 - Joint 437: Yes	Joint 436 - Joint 437: Yes	PD	PD
26777.75	Joint 438	41° 14' 37.69" N	82° 34' 22.90" W	15.77	Joint 438	G	G	G	G	NR	NR	Joint 437 - Joint 438: Yes	Joint 437 - Joint 438: Yes	PD	PD
26819.72	Joint 439	41° 14' 38.11" N	82° 34' 22.91" W	15.78	Joint 439	G	G	G	G	NR	NR	Joint 438 - Joint 439: Yes	Joint 438 - Joint 439: Yes	PD	PD
26879.67	Joint 440	41° 14' 38.70" N	82° 34' 22.92" W	15.79	Joint 440	P	G	G	G	PD	NR	Joint 439 - Joint 440: No	Joint 439 - Joint 440: No	NR	NR
26937.95	Joint 441	41° 14' 39.27" N	82° 34' 22.92" W	15.80	Joint 441	G	G	G	G	NR	NR	Joint 440 - Joint 441: No	Joint 440 - Joint 441: No	NR	NR
26998.84	Joint 442	41° 14' 39.87" N	82° 34' 22.94" W	15.81	Joint 442	G	G	G	G	NR	NR	Joint 441 - Joint 442: No	Joint 441 - Joint 442: No	NR	NR
27059.42	Joint 443	41° 14' 40.47" N	82° 34' 22.96" W	15.82	Joint 443	G	G	G	G	NR	NR	Joint 442 - Joint 443: Yes	Joint 442 - Joint 443: Yes	PD	PD

Location: Eastbound Travel Lanes
File # 73&75 Start: 10.7
Direction: EB End: 16.17

G=Good P=Poor	NR No Repair PD Partial Depth Repair FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
27121.20	Joint 444	41° 14' 41.08" N	82° 34' 22.96" W	15.84	Joint 444	G	G	G	G	NR	NR	Joint 443 - Joint 444: No	Joint 443 - Joint 444: No	NR	NR
27159.87	Joint 445	41° 14' 41.46" N	82° 34' 22.93" W	15.84	Joint 445	G	G	G	G	NR	NR	Joint 444 - Joint 445: No	Joint 444 - Joint 445: No	NR	NR
27216.19	Joint 446	41° 14' 42.02" N	82° 34' 22.93" W	15.85	Joint 446	G	G	G	G	NR	NR	Joint 445 - Joint 446: No	Joint 445 - Joint 446: No	NR	NR
27275.98	Joint 447	41° 14' 42.61" N	82° 34' 22.98" W	15.87	Joint 447	G	G	G	P	NR	FD	Joint 446 - Joint 447: No	Joint 446 - Joint 447: No	NR	NR
27301.41	Joint 448	41° 14' 42.86" N	82° 34' 22.97" W	15.87	Joint 448	G	G	G	G	NR	NR	Joint 447 - Joint 448: No	Joint 447 - Joint 448: No	NR	NR
27358.41	Joint 449	41° 14' 43.42" N	82° 34' 22.97" W	15.88	Joint 449	P	G	G	G	PD	NR	Joint 448 - Joint 449: No	Joint 448 - Joint 449: No	NR	NR
27417.48	Joint 450	41° 14' 44.00" N	82° 34' 23.00" W	15.89	Joint 450	P	G	G	G	PD	NR	Joint 449 - Joint 450: No	Joint 449 - Joint 450: No	NR	NR
27476.33	Joint 451	41° 14' 44.58" N	82° 34' 22.99" W	15.90	Joint 451	G	G	G	G	NR	NR	Joint 450 - Joint 451: No	Joint 450 - Joint 451: No	NR	NR
27535.16	Joint 452	41° 14' 45.16" N	82° 34' 22.98" W	15.91	Joint 452	P	G	G	G	PD	NR	Joint 451 - Joint 452: No	Joint 451 - Joint 452: No	NR	NR
27599.15	Joint 453	41° 14' 45.79" N	82° 34' 22.98" W	15.93	Joint 453	P	G	G	G	PD	NR	Joint 452 - Joint 453: No	Joint 452 - Joint 453: No	NR	NR
27654.98	Joint 454	41° 14' 46.34" N	82° 34' 22.97" W	15.94	Joint 454	P	P	G	G	PD	PD	Joint 453 - Joint 454: No	Joint 453 - Joint 454: No	NR	NR
27706.01	Joint 455	41° 14' 46.85" N	82° 34' 22.99" W	15.95	Joint 455	P	G	G	G	PD	NR	Joint 454 - Joint 455: Yes	Joint 454 - Joint 455: Yes	FD	FD
27756.80	Joint 456	41° 14' 47.35" N	82° 34' 22.97" W	15.96	Joint 456	G	G	G	G	NR	NR	Joint 455 - Joint 456: No	Joint 455 - Joint 456: No	NR	NR
27805.36	Joint 457	41° 14' 47.83" N	82° 34' 22.94" W	15.97	Joint 457	P	P	G	G	PD	PD	Joint 456 - Joint 457: Yes	Joint 456 - Joint 457: Yes	FD	FD
27858.35	Joint 458	41° 14' 48.33" N	82° 34' 22.88" W	15.98	Joint 458	G	-	G	-	NR	-	Joint 457 - Joint 458: Yes	-	PD	-
27902.73	Joint 459	41° 14' 48.77" N	82° 34' 22.86" W	15.98	Joint 459	G	-	G	-	NR	-	Joint 458 - Joint 459: No	-	NR	-
27935.76	Joint 460	41° 14' 49.10" N	82° 34' 22.86" W	15.99	Joint 460	G	-	G	-	NR	-	Joint 459 - Joint 460: No	-	NR	-
27985.57	Joint 461	41° 14' 49.58" N	82° 34' 22.77" W	16.00	Joint 461	P	-	G	-	PD	-	Joint 460 - Joint 461: No	-	NR	-
28040.12	Joint 462	41° 14' 50.12" N	82° 34' 22.69" W	16.01	Joint 462	P	-	G	-	PD	-	Joint 461 - Joint 462: Yes	-	FD	-
28106.34	Joint 463	41° 14' 50.76" N	82° 34' 22.53" W	16.02	Joint 463	P	-	G	-	PD	-	Joint 462 - Joint 463: Yes	-	FD	-
28167.48	Joint 464	41° 14' 51.36" N	82° 34' 22.42" W	16.03	Joint 464	P	-	G	-	PD	-	Joint 463 - Joint 464: Yes	-	PD	-
28222.02	Joint 465	41° 14' 51.89" N	82° 34' 22.31" W	16.05	Joint 465	P	-	G	-	PD	-	Joint 464 - Joint 465: Yes	-	PD	-
28286.03	Joint 466	41° 14' 52.51" N	82° 34' 22.15" W	16.06	Joint 466	P	-	G	-	PD	-	Joint 465 - Joint 466: Yes	-	FD	-
28343.33	Joint 467	41° 14' 53.07" N	82° 34' 22.01" W	16.07	Joint 467	G	-	G	-	NR	-	Joint 466 - Joint 467: Yes	-	FD	-
28407.65	Joint 468	41° 14' 53.68" N	82° 34' 21.81" W	16.08	Joint 468	G	-	G	-	NR	-	Joint 467 - Joint 468: Yes	-	PD	-
28467.33	Joint 469	41° 14' 54.25" N	82° 34' 21.58" W	16.09	Joint 469	P	-	G	-	PD	-	Joint 468 - Joint 469: Yes	-	FD	-
28508.96	Joint 470	41° 14' 54.64" N	82° 34' 21.42" W	16.10	Joint 470	P	-	G	-	PD	-	Joint 469 - Joint 470: Yes	-	PD	-
28546.01	Joint 471	41° 14' 54.99" N	82° 34' 21.27" W	16.11	Joint 471	P	-	G	-	PD	-	Joint 470 - Joint 471: Yes	-	FD	-
28582.86	Joint 472	41° 14' 55.33" N	82° 34' 21.11" W	16.11	Joint 472	P	-	G	-	PD	-	Joint 471 - Joint 472: Yes	-	PD	-
28617.65	Joint 473	41° 14' 55.66" N	82° 34' 20.97" W	16.12	Joint 473	G	-	G	-	NR	-	Joint 472 - Joint 473: No	-	NR	-
28646.04	Joint 474	41° 14' 55.92" N	82° 34' 20.84" W	16.13	Joint 474	G	-	P	-	FD	-	Joint 473 - Joint 474: Yes	-	FD	-
28682.87	Joint 475	41° 14' 56.26" N	82° 34' 20.66" W	16.13	Joint 475	G	-	G	-	NR	-	Joint 474 - Joint 475: No	-	NR	-
28721.49	Joint 476	41° 14' 56.61" N	82° 34' 20.48" W	16.14	Joint 476	P	-	P	-	FD	-	Joint 475 - Joint 476: Yes	-	FD	-
28738.01	Joint 477	41° 14' 56.76" N	82° 34' 20.39" W	16.14	Joint 477	G	-	P	-	FD	-	Joint 476 - Joint 477: No	-	NR	-
28760.79	Joint 478	41° 14' 56.96" N	82° 34' 20.27" W	16.15	Joint 478	G	-	G	-	NR	-	Joint 477 - Joint 478: No	-	NR	-
28804.86	Joint 479	41° 14' 57.33" N	82° 34' 19.95" W	16.16	Joint 479	G	-	G	-	NR	-	Joint 478 - Joint 479: Yes	-	PD	-
28844.74	Joint 480	41° 14' 57.72" N	82° 34' 19.97" W	16.16	Joint 480	G	-	P	-	FD	-	Joint 479 - Joint 480: No	-	NR	-
28877.64	Joint 481	41° 14' 58.04" N	82° 34' 19.89" W	16.17	Joint 481	P	-	P	-	FD	-	Joint 480 - Joint 481: Yes	-	PD	-
28882.89	End of Project	41° 14' 58.03" N	82° 34' 19.82" W	16.17	End of Project	-	-	-	-	-	-	-	-	-	-

Location: Westbound Travel Lanes

File # 74 & 76 Start: 16.18

Direction: WB End: 10.73

G=Good	NR No Repair
P=Poor	PD Partial Depth Repair
	FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
0.00	Start of Project	41° 14' 59.61" N	82° 34' 25.00" W	16.18	Start of Project	-	-	-	-	-	-	-	-	-	-
196.95	Bridge Joint	41° 14' 57.66" N	82° 34' 24.90" W	16.14	Bridge Joint	-	-	-	-	-	-	-	-	-	-
222.87	Approach Joint	41° 14' 57.41" N	82° 34' 24.88" W	16.14	Approach Joint	P	G	G	G	PD	NR	-	-	-	-
239.23	Joint 1	41° 14' 57.25" N	82° 34' 24.87" W	16.13	Joint 1	P	G	P	G	FD	NR	Approach Joint - Joint 1: No	Approach Joint - Joint 1: No	NR	NR
287.60	Joint 2	41° 14' 56.77" N	82° 34' 24.84" W	16.13	Joint 2	G	G	G	G	NR	NR	Joint 1 - Joint 2: No	Joint 1 - Joint 2: No	NR	NR
325.80	Joint 3	41° 14' 56.39" N	82° 34' 24.82" W	16.12	Joint 3	G	G	G	G	NR	NR	Joint 2 - Joint 3: No	Joint 2 - Joint 3: No	NR	NR
368.44	Joint 4	41° 14' 55.97" N	82° 34' 24.81" W	16.11	Joint 4	G	G	G	G	NR	NR	Joint 3 - Joint 4: No	Joint 3 - Joint 4: No	NR	NR
400.24	Joint 5	41° 14' 55.66" N	82° 34' 24.80" W	16.10	Joint 5	G	G	G	G	NR	NR	Joint 4 - Joint 5: No	Joint 4 - Joint 5: No	NR	NR
458.95	Joint 6	41° 14' 55.08" N	82° 34' 24.75" W	16.09	Joint 6	G	G	G	G	NR	NR	Joint 5 - Joint 6: Yes	Joint 5 - Joint 6: Yes	PD	PD
489.56	Joint 7	41° 14' 54.78" N	82° 34' 24.73" W	16.09	Joint 7	G	G	G	G	NR	NR	Joint 6 - Joint 7: No	Joint 6 - Joint 7: No	NR	NR
529.47	Joint 8	41° 14' 54.39" N	82° 34' 24.72" W	16.08	Joint 8	G	G	G	G	NR	NR	Joint 7 - Joint 8: Yes	Joint 7 - Joint 8: Yes	PD	PD
584.75	Joint 9	41° 14' 53.84" N	82° 34' 24.67" W	16.07	Joint 9	G	G	G	G	NR	NR	Joint 8 - Joint 9: No	Joint 8 - Joint 9: No	NR	NR
623.76	Joint 10	41° 14' 53.46" N	82° 34' 24.66" W	16.06	Joint 10	G	G	G	G	NR	NR	Joint 9 - Joint 10: No	Joint 9 - Joint 10: No	NR	NR
680.48	Joint 11	41° 14' 52.90" N	82° 34' 24.63" W	16.05	Joint 11	G	G	G	G	NR	NR	Joint 10 - Joint 11: Yes	Joint 10 - Joint 11: Yes	PD	PD
734.40	Joint 12	41° 14' 52.37" N	82° 34' 24.63" W	16.04	Joint 12	G	G	G	G	NR	NR	Joint 11 - Joint 12: No	Joint 11 - Joint 12: No	NR	NR
796.28	Joint 13	41° 14' 51.76" N	82° 34' 24.54" W	16.03	Joint 13	G	G	G	G	NR	NR	Joint 12 - Joint 13: No	Joint 12 - Joint 13: No	NR	NR
853.89	Joint 14	41° 14' 51.19" N	82° 34' 24.48" W	16.02	Joint 14	G	G	G	G	NR	NR	Joint 13 - Joint 14: Yes	Joint 13 - Joint 14: Yes	PD	PD
906.73	Joint 15	41° 14' 50.67" N	82° 34' 24.52" W	16.01	Joint 15	P	G	G	G	PD	NR	Joint 14 - Joint 15: No	Joint 14 - Joint 15: No	NR	NR
977.52	Joint 16	41° 14' 49.97" N	82° 34' 24.47" W	15.99	Joint 16	G	G	G	G	NR	NR	Joint 15 - Joint 16: Yes	Joint 15 - Joint 16: Yes	PD	PD
1036.63	Joint 17	41° 14' 49.39" N	82° 34' 24.42" W	15.98	Joint 17	G	G	G	G	NR	NR	Joint 16 - Joint 17: Yes	Joint 16 - Joint 17: Yes	PD	PD
1096.83	Joint 18	41° 14' 48.80" N	82° 34' 24.44" W	15.97	Joint 18	G	G	G	G	NR	NR	Joint 17 - Joint 18: Yes	Joint 17 - Joint 18: Yes	PD	PD
1156.55	Joint 19	41° 14' 48.21" N	82° 34' 24.45" W	15.96	Joint 19	G	G	G	G	NR	NR	Joint 18 - Joint 19: Yes	Joint 18 - Joint 19: Yes	FD	PD
1217.41	Joint 20	41° 14' 47.61" N	82° 34' 24.46" W	15.95	Joint 20	P	P	P	P	FD	FD	Joint 19 - Joint 20: Yes	Joint 19 - Joint 20: Yes	PD	PD
1276.41	Joint 21	41° 14' 47.03" N	82° 34' 24.45" W	15.94	Joint 21	P	G	G	G	PD	NR	Joint 20 - Joint 21: No	Joint 20 - Joint 21: No	NR	NR
1338.45	Joint 22	41° 14' 46.42" N	82° 34' 24.44" W	15.93	Joint 22	G	G	G	G	NR	NR	Joint 21 - Joint 22: Yes	Joint 21 - Joint 22: Yes	FD	PD
1399.05	Joint 23	41° 14' 45.82" N	82° 34' 24.42" W	15.92	Joint 23	G	G	G	G	NR	NR	Joint 22 - Joint 23: Yes	Joint 22 - Joint 23: Yes	PD	PD
1459.49	Joint 24	41° 14' 45.22" N	82° 34' 24.41" W	15.90	Joint 24	G	G	G	G	NR	NR	Joint 23 - Joint 24: No	Joint 23 - Joint 24: No	NR	NR
1501.90	Joint 25	41° 14' 44.80" N	82° 34' 24.40" W	15.90	Joint 25	G	G	G	G	NR	NR	Joint 24 - Joint 25: Yes	Joint 24 - Joint 25: Yes	PD	PD
1577.79	Joint 26	41° 14' 44.05" N	82° 34' 24.38" W	15.88	Joint 26	G	G	G	G	NR	NR	Joint 25 - Joint 26: Yes	Joint 25 - Joint 26: Yes	PD	PD
1638.13	Joint 27	41° 14' 43.46" N	82° 34' 24.35" W	15.87	Joint 27	G	G	G	G	NR	NR	Joint 26 - Joint 27: No	Joint 26 - Joint 27: No	NR	NR
1698.07	Joint 28	41° 14' 42.87" N	82° 34' 24.35" W	15.86	Joint 28	G	G	G	G	NR	NR	Joint 27 - Joint 28: Yes	Joint 27 - Joint 28: Yes	PD	PD
1756.96	Joint 29	41° 14' 42.29" N	82° 34' 24.32" W	15.85	Joint 29	G	G	G	G	NR	NR	Joint 28 - Joint 29: No	Joint 28 - Joint 29: No	NR	NR
1807.91	Joint 30	41° 14' 41.78" N	82° 34' 24.31" W	15.84	Joint 30	P	G	G	G	PD	NR	Joint 29 - Joint 30: No	Joint 29 - Joint 30: No	NR	NR
1876.00	Joint 31	41° 14' 41.11" N	82° 34' 24.26" W	15.82	Joint 31	G	G	G	G	NR	NR	Joint 30 - Joint 31: Yes	Joint 30 - Joint 31: Yes	PD	PD
1931.10	Joint 32	41° 14' 40.57" N	82° 34' 24.26" W	15.81	Joint 32	P	G	G	G	PD	NR	Joint 31 - Joint 32: No	Joint 31 - Joint 32: No	NR	NR
1991.51	Joint 33	41° 14' 39.97" N	82° 34' 24.25" W	15.80	Joint 33	G	G	G	G	NR	NR	Joint 32 - Joint 33: Yes	Joint 32 - Joint 33: Yes	FD	PD
2051.02	Joint 34	41° 14' 39.39" N	82° 34' 24.28" W	15.79	Joint 34	G	G	G	G	NR	NR	Joint 33 - Joint 34: Yes	Joint 33 - Joint 34: Yes	PD	PD
2083.20	Joint 35	41° 14' 39.07" N	82° 34' 24.27" W	15.79	Joint 35	P	P	G	P	PD	FD	Joint 34 - Joint 35: No	Joint 34 - Joint 35: No	NR	NR
2151.04	Joint 36	41° 14' 38.40" N	82° 34' 24.31" W	15.77	Joint 36	G	G	P	G	FD	NR	Joint 35 - Joint 36: No	Joint 35 - Joint 36: No	NR	NR

Location: Westbound Travel Lanes

File # 74 & 76 Start: 16.18

Direction: WB End: 10.73

G=Good	NR No Repair
P=Poor	PD Partial Depth Repair
	FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
2189.89	Joint 37	41° 14' 38.02" N	82° 34' 24.35" W	15.77	Joint 37	G	G	G	G	NR	NR	Joint 36 - Joint 37: No	Joint 36 - Joint 37: No	NR	NR
2248.20	Joint 38	41° 14' 37.44" N	82° 34' 24.33" W	15.75	Joint 38	P	P	P	P	FD	FD	Joint 37 - Joint 38: Yes	Joint 37 - Joint 38: Yes	PD	PD
2310.72	Joint 39	41° 14' 36.83" N	82° 34' 24.32" W	15.74	Joint 39	P	G	G	G	PD	NR	Joint 38 - Joint 39: Yes	Joint 38 - Joint 39: Yes	PD	PD
2371.69	Joint 40	41° 14' 36.23" N	82° 34' 24.31" W	15.73	Joint 40	G	G	G	G	NR	NR	Joint 39 - Joint 40: No	Joint 39 - Joint 40: No	NR	NR
2429.97	Joint 41	41° 14' 35.65" N	82° 34' 24.32" W	15.72	Joint 41	G	G	G	G	NR	NR	Joint 40 - Joint 41: No	Joint 40 - Joint 41: No	NR	NR
2491.47	Joint 42	41° 14' 35.04" N	82° 34' 24.30" W	15.71	Joint 42	G	G	G	G	NR	NR	Joint 41 - Joint 42: No	Joint 41 - Joint 42: No	NR	NR
2551.59	Joint 43	41° 14' 34.45" N	82° 34' 24.27" W	15.70	Joint 43	P	P	P	P	FD	FD	Joint 42 - Joint 43: Yes	Joint 42 - Joint 43: Yes	PD	PD
2611.88	Joint 44	41° 14' 33.86" N	82° 34' 24.26" W	15.69	Joint 44	G	G	G	G	NR	NR	Joint 43 - Joint 44: Yes	Joint 43 - Joint 44: Yes	PD	PD
2672.38	Joint 45	41° 14' 33.26" N	82° 34' 24.26" W	15.67	Joint 45	G	G	G	G	NR	NR	Joint 44 - Joint 45: Yes	Joint 44 - Joint 45: Yes	PD	PD
2728.41	Joint 46	41° 14' 32.71" N	82° 34' 24.30" W	15.66	Joint 46	G	G	G	G	NR	NR	Joint 45 - Joint 46: Yes	Joint 45 - Joint 46: Yes	PD	PD
2799.76	Joint 47	41° 14' 32.03" N	82° 34' 24.03" W	15.65	Joint 47	G	G	G	G	NR	NR	Joint 46 - Joint 47: Yes	Joint 46 - Joint 47: Yes	PD	PD
2856.95	Joint 48	41° 14' 31.47" N	82° 34' 24.06" W	15.64	Joint 48	G	G	G	G	NR	NR	Joint 47 - Joint 48: No	Joint 47 - Joint 48: No	NR	NR
2921.54	Joint 49	41° 14' 30.83" N	82° 34' 24.01" W	15.63	Joint 49	G	G	G	G	NR	NR	Joint 48 - Joint 49: Yes	Joint 48 - Joint 49: Yes	PD	PD
2982.39	Joint 50	41° 14' 30.23" N	82° 34' 24.00" W	15.62	Joint 50	G	G	G	G	NR	NR	Joint 49 - Joint 50: Yes	Joint 49 - Joint 50: Yes	FD	FD
3034.99	Joint 51	41° 14' 29.71" N	82° 34' 23.98" W	15.61	Joint 51	G	G	G	G	NR	NR	Joint 50 - Joint 51: Yes	Joint 50 - Joint 51: Yes	PD	PD
3100.94	Joint 52	41° 14' 29.06" N	82° 34' 23.99" W	15.59	Joint 52	G	G	P	G	FD	NR	Joint 51 - Joint 52: Yes	Joint 51 - Joint 52: Yes	PD	PD
3164.19	Joint 53	41° 14' 28.44" N	82° 34' 23.97" W	15.58	Joint 53	G	G	G	G	NR	NR	Joint 52 - Joint 53: Yes	Joint 52 - Joint 53: Yes	PD	PD
3225.66	Joint 54	41° 14' 27.83" N	82° 34' 23.94" W	15.57	Joint 54	G	G	G	G	NR	NR	Joint 53 - Joint 54: No	Joint 53 - Joint 54: No	NR	NR
3284.68	Joint 55	41° 14' 27.25" N	82° 34' 23.90" W	15.56	Joint 55	P	P	G	G	PD	PD	Joint 54 - Joint 55: Yes	Joint 54 - Joint 55: Yes	FD	FD
3310.52	Joint 56	41° 14' 27.00" N	82° 34' 23.90" W	15.55	Joint 56	G	G	G	G	NR	NR	Joint 55 - Joint 56: No	Joint 55 - Joint 56: No	NR	NR
3367.63	Joint 57	41° 14' 26.43" N	82° 34' 23.92" W	15.54	Joint 57	G	G	G	G	NR	NR	Joint 56 - Joint 57: No	Joint 56 - Joint 57: No	NR	NR
3425.11	Joint 58	41° 14' 25.87" N	82° 34' 23.88" W	15.53	Joint 58	G	G	G	G	NR	NR	Joint 57 - Joint 58: Yes	Joint 57 - Joint 58: Yes	FD	FD
3483.57	Joint 59	41° 14' 25.29" N	82° 34' 23.86" W	15.52	Joint 59	G	G	G	G	NR	NR	Joint 58 - Joint 59: Yes	Joint 58 - Joint 59: Yes	PD	PD
3548.64	Joint 60	41° 14' 24.65" N	82° 34' 23.84" W	15.51	Joint 60	G	G	G	G	NR	NR	Joint 59 - Joint 60: No	Joint 59 - Joint 60: No	NR	NR
3609.74	Joint 61	41° 14' 24.04" N	82° 34' 23.83" W	15.50	Joint 61	G	G	G	G	NR	NR	Joint 60 - Joint 61: Yes	Joint 60 - Joint 61: Yes	PD	PD
3668.70	Joint 62	41° 14' 23.46" N	82° 34' 23.80" W	15.49	Joint 62	G	G	G	G	NR	NR	Joint 61 - Joint 62: No	Joint 61 - Joint 62: No	NR	NR
3721.56	Joint 63	41° 14' 22.94" N	82° 34' 23.78" W	15.48	Joint 63	G	G	G	G	NR	NR	Joint 62 - Joint 63: Yes	Joint 62 - Joint 63: Yes	PD	PD
3781.19	Joint 64	41° 14' 22.36" N	82° 34' 23.75" W	15.46	Joint 64	G	P	G	G	NR	PD	Joint 63 - Joint 64: Yes	Joint 63 - Joint 64: Yes	FD	PD
3848.79	Joint 65	41° 14' 21.75" N	82° 34' 24.11" W	15.45	Joint 65	G	G	G	G	NR	NR	Joint 64 - Joint 65: No	Joint 64 - Joint 65: No	NR	NR
3911.01	Joint 66	41° 14' 21.13" N	82° 34' 24.07" W	15.44	Joint 66	G	P	G	G	NR	PD	Joint 65 - Joint 66: No	Joint 65 - Joint 66: No	NR	NR
3966.27	Joint 67	41° 14' 20.59" N	82° 34' 24.01" W	15.43	Joint 67	G	G	G	G	NR	NR	Joint 66 - Joint 67: No	Joint 66 - Joint 67: No	NR	NR
4030.07	Joint 68	41° 14' 19.96" N	82° 34' 23.95" W	15.42	Joint 68	P	P	G	G	PD	PD	Joint 67 - Joint 68: Yes	Joint 67 - Joint 68: Yes	FD	FD
4095.67	Joint 69	41° 14' 19.31" N	82° 34' 23.96" W	15.40	Joint 69	G	G	G	G	NR	NR	Joint 68 - Joint 69: No	Joint 68 - Joint 69: No	NR	NR
4156.72	Joint 70	41° 14' 18.71" N	82° 34' 23.89" W	15.39	Joint 70	G	G	G	G	NR	NR	Joint 69 - Joint 70: No	Joint 69 - Joint 70: No	NR	NR
4218.21	Joint 71	41° 14' 18.11" N	82° 34' 23.82" W	15.38	Joint 71	G	G	G	G	NR	NR	Joint 70 - Joint 71: No	Joint 70 - Joint 71: No	NR	NR
4258.10	Joint 72	41° 14' 17.72" N	82° 34' 23.82" W	15.37	Joint 72	G	G	G	G	NR	NR	Joint 71 - Joint 72: Yes	Joint 71 - Joint 72: Yes	PD	PD
4316.13	Joint 73	41° 14' 17.15" N	82° 34' 23.75" W	15.36	Joint 73	G	G	G	G	NR	NR	Joint 72 - Joint 73: Yes	Joint 72 - Joint 73: Yes	PD	PD
4375.04	Joint 74	41° 14' 16.57" N	82° 34' 23.71" W	15.35	Joint 74	G	G	G	G	NR	NR	Joint 73 - Joint 74: No	Joint 73 - Joint 74: No	NR	NR
4438.20	Joint 75	41° 14' 15.94" N	82° 34' 23.69" W	15.34	Joint 75	P	P	G	G	PD	PD	Joint 74 - Joint 75: No	Joint 74 - Joint 75: No	NR	NR

Location: Westbound Travel Lanes

File # 74 & 76 Start: 16.18

Direction: WB End: 10.73

G=Good	NR No Repair
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	FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
4496.65	Joint 76	41° 14' 15.37" N	82° 34' 23.65" W	15.33	Joint 76	G	G	G	G	NR	NR	Joint 75 - Joint 76: Yes	Joint 75 - Joint 76: Yes	PD	PD
4553.21	Joint 77	41° 14' 14.81" N	82° 34' 23.64" W	15.32	Joint 77	G	G	G	G	NR	NR	Joint 76 - Joint 77: Yes	Joint 76 - Joint 77: Yes	FD	FD
4616.15	Joint 78	41° 14' 14.19" N	82° 34' 23.59" W	15.31	Joint 78	G	G	G	G	NR	NR	Joint 77 - Joint 78: Yes	Joint 77 - Joint 78: Yes	PD	PD
4673.60	Joint 79	41° 14' 13.62" N	82° 34' 23.58" W	15.29	Joint 79	P	P	G	G	PD	PD	Joint 78 - Joint 79: No	Joint 78 - Joint 79: No	NR	NR
4740.20	Joint 80	41° 14' 12.97" N	82° 34' 23.53" W	15.28	Joint 80	G	G	G	G	NR	NR	Joint 79 - Joint 80: No	Joint 79 - Joint 80: No	NR	NR
4796.34	Joint 81	41° 14' 12.41" N	82° 34' 23.52" W	15.27	Joint 81	G	G	G	G	NR	NR	Joint 80 - Joint 81: No	Joint 80 - Joint 81: No	NR	NR
4859.72	Joint 82	41° 14' 11.79" N	82° 34' 23.50" W	15.26	Joint 82	G	G	G	G	NR	NR	Joint 81 - Joint 82: No	Joint 81 - Joint 82: No	NR	NR
4915.76	Joint 83	41° 14' 11.23" N	82° 34' 23.49" W	15.25	Joint 83	G	G	G	G	NR	NR	Joint 82 - Joint 83: Yes	Joint 82 - Joint 83: Yes	PD	PD
4935.54	Joint 84	41° 14' 11.04" N	82° 34' 23.51" W	15.25	Joint 84	G	G	G	G	NR	NR	Joint 83 - Joint 84: No	Joint 83 - Joint 84: No	NR	NR
4993.63	Joint 85	41° 14' 10.47" N	82° 34' 23.50" W	15.23	Joint 85	G	G	G	G	NR	NR	Joint 84 - Joint 85: No	Joint 84 - Joint 85: No	NR	NR
5034.04	Joint 86	41° 14' 10.07" N	82° 34' 23.51" W	15.23	Joint 86	G	G	G	G	NR	NR	Joint 85 - Joint 86: No	Joint 85 - Joint 86: No	NR	NR
5085.34	Joint 87	41° 14' 09.56" N	82° 34' 23.53" W	15.22	Joint 87	G	G	G	G	NR	NR	Joint 86 - Joint 87: No	Joint 86 - Joint 87: No	NR	NR
5147.46	Joint 88	41° 14' 08.95" N	82° 34' 23.57" W	15.21	Joint 88	G	P	G	P	NR	FD	Joint 87 - Joint 88: Yes	Joint 87 - Joint 88: Yes	PD	PD
5188.50	Joint 89	41° 14' 08.55" N	82° 34' 23.59" W	15.20	Joint 89	G	P	G	G	NR	PD	Joint 88 - Joint 89: No	Joint 88 - Joint 89: No	NR	NR
5236.24	Joint 90	41° 14' 08.07" N	82° 34' 23.63" W	15.19	Joint 90	G	G	G	G	NR	NR	Joint 89 - Joint 90: Yes	Joint 89 - Joint 90: Yes	PD	PD
5266.13	Joint 91	41° 14' 07.78" N	82° 34' 23.66" W	15.18	Joint 91	G	P	G	G	NR	PD	Joint 90 - Joint 91: Yes	Joint 90 - Joint 91: Yes	PD	PD
5297.38	Joint 92	41° 14' 07.47" N	82° 34' 23.69" W	15.18	Joint 92	P	P	G	P	PD	FD	Joint 91 - Joint 92: No	Joint 91 - Joint 92: No	NR	NR
5315.35	Approach Joint	41° 14' 07.30" N	82° 34' 23.71" W	15.17	Approach Joint	G	G	G	P	NR	FD	Joint 92 - Approach Joint: Yes	Joint 92 - Approach Joint: Yes	FD	FD
5339.36	Bridge Joint	41° 14' 07.06" N	82° 34' 23.75" W	15.17	Bridge Joint	-	-	-	-	-	-	-	-	-	-
5494.08	Bridge Joint	41° 14' 05.55" N	82° 34' 24.01" W	15.14	Bridge Joint	-	-	-	-	-	-	-	-	-	-
5520.40	Approach Joint	41° 14' 05.29" N	82° 34' 24.04" W	15.13	Approach Joint	G	G	G	G	NR	NR	-	-	-	-
5541.82	Joint 93	41° 14' 05.08" N	82° 34' 24.11" W	15.13	Joint 93	P	P	P	G	FD	PD	Approach Joint - Joint 93: No	Approach Joint - Joint 93: No	NR	NR
5600.52	Joint 94	41° 14' 04.51" N	82° 34' 24.23" W	15.12	Joint 94	G	G	G	G	NR	NR	Joint 93 - Joint 94: No	Joint 93 - Joint 94: No	NR	NR
5650.86	Joint 95	41° 14' 04.02" N	82° 34' 24.35" W	15.11	Joint 95	G	G	G	G	NR	NR	Joint 94 - Joint 95: Yes	Joint 94 - Joint 95: Yes	PD	PD
5711.13	Joint 96	41° 14' 03.44" N	82° 34' 24.51" W	15.10	Joint 96	G	G	G	G	NR	NR	Joint 95 - Joint 96: No	Joint 95 - Joint 96: No	NR	NR
5771.05	Joint 97	41° 14' 02.86" N	82° 34' 24.66" W	15.09	Joint 97	G	G	G	G	NR	NR	Joint 96 - Joint 97: Yes	Joint 96 - Joint 97: Yes	PD	PD
5830.09	Joint 98	41° 14' 02.29" N	82° 34' 24.83" W	15.08	Joint 98	P	G	G	G	PD	NR	Joint 97 - Joint 98: Yes	Joint 97 - Joint 98: Yes	FD	FD
5891.11	Joint 99	41° 14' 01.71" N	82° 34' 25.03" W	15.06	Joint 99	P	G	G	G	PD	NR	Joint 98 - Joint 99: Yes	Joint 98 - Joint 99: Yes	PD	PD
5949.53	Joint 100	41° 14' 01.15" N	82° 34' 25.22" W	15.05	Joint 100	G	G	G	G	NR	NR	Joint 99 - Joint 100: No	Joint 99 - Joint 100: No	NR	NR
6009.47	Joint 101	41° 14' 00.58" N	82° 34' 25.43" W	15.04	Joint 101	P	G	G	G	PD	NR	Joint 100 - Joint 101: Yes	Joint 100 - Joint 101: Yes	FD	PD
6071.07	Joint 102	41° 13' 59.99" N	82° 34' 25.65" W	15.03	Joint 102	G	G	G	G	NR	NR	Joint 101 - Joint 102: No	Joint 101 - Joint 102: No	NR	NR
6128.74	Joint 103	41° 13' 59.45" N	82° 34' 25.88" W	15.02	Joint 103	P	G	G	G	PD	NR	Joint 102 - Joint 103: No	Joint 102 - Joint 103: No	NR	NR
6188.94	Joint 104	41° 13' 58.89" N	82° 34' 26.13" W	15.01	Joint 104	G	G	G	G	NR	NR	Joint 103 - Joint 104: Yes	Joint 103 - Joint 104: Yes	PD	PD
6222.70	Joint 105	41° 13' 58.57" N	82° 34' 26.26" W	15.00	Joint 105	G	G	G	G	NR	NR	Joint 104 - Joint 105: No	Joint 104 - Joint 105: No	NR	NR
6287.08	Joint 106	41° 13' 57.97" N	82° 34' 26.54" W	14.99	Joint 106	G	G	G	G	NR	NR	Joint 105 - Joint 106: Yes	Joint 105 - Joint 106: No	FD	NR
6345.03	Joint 107	41° 13' 57.43" N	82° 34' 26.80" W	14.98	Joint 107	G	G	G	G	NR	NR	Joint 106 - Joint 107: Yes	Joint 106 - Joint 107: Yes	PD	PD
6386.61	Joint 108	41° 13' 57.04" N	82° 34' 26.97" W	14.97	Joint 108	G	G	P	G	FD	NR	Joint 107 - Joint 108: Yes	Joint 107 - Joint 108: Yes	PD	PD
6427.42	Joint 109	41° 13' 56.68" N	82° 34' 27.20" W	14.96	Joint 109	G	G	G	G	NR	NR	Joint 108 - Joint 109: Yes	Joint 108 - Joint 109: Yes	PD	PD
6487.21	Joint 110	41° 13' 56.14" N	82° 34' 27.50" W	14.95	Joint 110	P	G	G	G	PD	NR	Joint 109 - Joint 110: No	Joint 109 - Joint 110: No	NR	NR

Location: Westbound Travel Lanes

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G=Good	NR No Repair
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		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
6550.23	Joint 111	41° 13' 55.57" N	82° 34' 27.84" W	14.94	Joint 111	G	G	G	G	NR	NR	Joint 110 - Joint 111: No	Joint 110 - Joint 111: No	NR	NR
6606.09	Joint 112	41° 13' 55.06" N	82° 34' 28.13" W	14.93	Joint 112	P	G	G	G	PD	NR	Joint 111 - Joint 112: Yes	Joint 111 - Joint 112: Yes	FD	FD
6666.25	Joint 113	41° 13' 54.52" N	82° 34' 28.47" W	14.92	Joint 113	G	G	G	G	NR	NR	Joint 112 - Joint 113: Yes	Joint 112 - Joint 113: Yes	FD	FD
6702.82	Joint 114	41° 13' 54.20" N	82° 34' 28.68" W	14.91	Joint 114	G	G	G	G	NR	NR	Joint 113 - Joint 114: No	Joint 113 - Joint 114: No	NR	NR
6724.79	Joint 115	41° 13' 54.00" N	82° 34' 28.78" W	14.91	Joint 115	G	G	G	G	NR	NR	Joint 114 - Joint 115: No	Joint 114 - Joint 115: No	NR	NR
6783.79	Joint 116	41° 13' 53.48" N	82° 34' 29.13" W	14.90	Joint 116	P	P	G	G	PD	PD	Joint 115 - Joint 116: Yes	Joint 115 - Joint 116: Yes	PD	PD
6841.86	Joint 117	41° 13' 52.96" N	82° 34' 29.46" W	14.88	Joint 117	P	P	G	G	PD	PD	Joint 116 - Joint 117: No	Joint 116 - Joint 117: No	NR	NR
6899.57	Joint 118	41° 13' 52.47" N	82° 34' 29.83" W	14.87	Joint 118	G	G	G	G	NR	NR	Joint 117 - Joint 118: Yes	Joint 117 - Joint 118: Yes	PD	PD
6964.13	Joint 119	41° 13' 51.93" N	82° 34' 30.30" W	14.86	Joint 119	P	G	G	G	PD	NR	Joint 118 - Joint 119: Yes	Joint 118 - Joint 119: Yes	FD	FD
7023.37	Joint 120	41° 13' 51.43" N	82° 34' 30.70" W	14.85	Joint 120	P	G	G	G	PD	NR	Joint 119 - Joint 120: No	Joint 119 - Joint 120: No	NR	NR
7084.13	Joint 121	41° 13' 50.92" N	82° 34' 31.11" W	14.84	Joint 121	G	G	G	G	NR	NR	Joint 120 - Joint 121: Yes	Joint 120 - Joint 121: Yes	PD	PD
7145.49	Joint 122	41° 13' 50.43" N	82° 34' 31.59" W	14.83	Joint 122	G	G	G	G	NR	NR	Joint 121 - Joint 122: Yes	Joint 121 - Joint 122: Yes	PD	PD
7205.34	Joint 123	41° 13' 49.95" N	82° 34' 32.05" W	14.82	Joint 123	P	G	G	G	PD	NR	Joint 122 - Joint 123: No	Joint 122 - Joint 123: No	NR	NR
7264.41	Joint 124	41° 13' 49.47" N	82° 34' 32.47" W	14.80	Joint 124	P	G	G	G	PD	NR	Joint 123 - Joint 124: No	Joint 123 - Joint 124: No	NR	NR
7325.23	Joint 125	41° 13' 48.96" N	82° 34' 32.91" W	14.79	Joint 125	G	P	G	G	NR	PD	Joint 124 - Joint 125: No	Joint 124 - Joint 125: No	NR	NR
7382.77	Joint 126	41° 13' 48.50" N	82° 34' 33.35" W	14.78	Joint 126	P	G	G	G	PD	NR	Joint 125 - Joint 126: No	Joint 125 - Joint 126: No	NR	NR
7444.63	Joint 127	41° 13' 48.02" N	82° 34' 33.85" W	14.77	Joint 127	G	G	G	G	NR	NR	Joint 126 - Joint 127: No	Joint 126 - Joint 127: No	NR	NR
7503.45	Joint 128	41° 13' 47.56" N	82° 34' 34.31" W	14.76	Joint 128	G	G	G	G	NR	NR	Joint 127 - Joint 128: No	Joint 127 - Joint 128: No	NR	NR
7563.29	Joint 129	41° 13' 47.10" N	82° 34' 34.81" W	14.75	Joint 129	G	G	G	G	NR	NR	Joint 128 - Joint 129: No	Joint 128 - Joint 129: No	NR	NR
7615.92	Joint 130	41° 13' 46.70" N	82° 34' 35.25" W	14.74	Joint 130	P	G	G	G	PD	NR	Joint 129 - Joint 130: No	Joint 129 - Joint 130: No	NR	NR
7682.29	Joint 131	41° 13' 46.20" N	82° 34' 35.82" W	14.73	Joint 131	G	G	G	G	NR	NR	Joint 130 - Joint 131: No	Joint 130 - Joint 131: No	NR	NR
7739.57	Joint 132	41° 13' 45.77" N	82° 34' 36.31" W	14.71	Joint 132	G	G	G	G	NR	NR	Joint 131 - Joint 132: Yes	Joint 131 - Joint 132: Yes	PD	PD
7797.39	Joint 133	41° 13' 45.33" N	82° 34' 36.79" W	14.70	Joint 133	P	G	G	G	PD	NR	Joint 132 - Joint 133: No	Joint 132 - Joint 133: No	NR	NR
7856.96	Joint 134	41° 13' 44.90" N	82° 34' 37.31" W	14.69	Joint 134	G	G	G	G	NR	NR	Joint 133 - Joint 134: No	Joint 133 - Joint 134: No	NR	NR
7912.74	Joint 135	41° 13' 44.48" N	82° 34' 37.79" W	14.68	Joint 135	G	G	G	G	NR	NR	Joint 134 - Joint 135: Yes	Joint 134 - Joint 135: Yes	PD	PD
7974.27	Joint 136	41° 13' 44.05" N	82° 34' 38.36" W	14.67	Joint 136	P	G	G	G	PD	NR	Joint 135 - Joint 136: No	Joint 135 - Joint 136: No	NR	NR
8034.66	Joint 137	41° 13' 43.64" N	82° 34' 38.94" W	14.66	Joint 137	G	G	G	G	NR	NR	Joint 136 - Joint 137: No	Joint 136 - Joint 137: No	NR	NR
8092.72	Joint 138	41° 13' 43.25" N	82° 34' 39.49" W	14.65	Joint 138	G	G	G	G	NR	NR	Joint 137 - Joint 138: Yes	Joint 137 - Joint 138: Yes	PD	PD
8155.02	Joint 139	41° 13' 42.84" N	82° 34' 40.10" W	14.64	Joint 139	G	G	G	G	NR	NR	Joint 138 - Joint 139: Yes	Joint 138 - Joint 139: Yes	PD	PD
8215.79	Joint 140	41° 13' 42.44" N	82° 34' 40.69" W	14.62	Joint 140	G	G	G	G	NR	NR	Joint 139 - Joint 140: Yes	Joint 139 - Joint 140: Yes	PD	PD
8272.37	Joint 141	41° 13' 42.07" N	82° 34' 41.25" W	14.61	Joint 141	G	G	G	G	NR	NR	Joint 140 - Joint 141: Yes	Joint 140 - Joint 141: Yes	PD	PD
8330.86	Joint 142	41° 13' 41.70" N	82° 34' 41.84" W	14.60	Joint 142	G	G	G	G	NR	NR	Joint 141 - Joint 142: No	Joint 141 - Joint 142: No	NR	NR
8392.39	Joint 143	41° 13' 41.32" N	82° 34' 42.47" W	14.59	Joint 143	G	G	G	G	NR	NR	Joint 142 - Joint 143: Yes	Joint 142 - Joint 143: Yes	FD	PD
8452.06	Joint 144	41° 13' 40.95" N	82° 34' 43.08" W	14.58	Joint 144	P	G	G	G	PD	NR	Joint 143 - Joint 144: No	Joint 143 - Joint 144: No	NR	NR
8511.54	Joint 145	41° 13' 40.59" N	82° 34' 43.70" W	14.57	Joint 145	G	G	G	G	NR	NR	Joint 144 - Joint 145: No	Joint 144 - Joint 145: No	NR	NR
8570.70	Joint 146	41° 13' 40.25" N	82° 34' 44.32" W	14.56	Joint 146	G	G	G	G	NR	NR	Joint 145 - Joint 146: No	Joint 145 - Joint 146: No	NR	NR
8629.65	Joint 147	41° 13' 39.90" N	82° 34' 44.95" W	14.55	Joint 147	G	G	G	G	NR	NR	Joint 146 - Joint 147: Yes	Joint 146 - Joint 147: Yes	FD	PD
8688.90	Joint 148	41° 13' 39.57" N	82° 34' 45.59" W	14.53	Joint 148	G	G	G	G	NR	NR	Joint 147 - Joint 148: Yes	Joint 147 - Joint 148: Yes	PD	PD
8749.31	Joint 149	41° 13' 39.24" N	82° 34' 46.24" W	14.52	Joint 149	G	G	G	G	NR	NR	Joint 148 - Joint 149: No	Joint 148 - Joint 149: No	NR	NR

Location: Westbound Travel Lanes

File # 74 & 76 Start: 16.18

Direction: WB End: 10.73

G=Good	NR No Repair
P=Poor	PD Partial Depth Repair
	FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
8808.83	Joint 150	41° 13' 38.92" N	82° 34' 46.90" W	14.51	Joint 150	G	G	G	G	NR	NR	Joint 149 - Joint 150: No	Joint 149 - Joint 150: No	NR	NR
8868.12	Joint 151	41° 13' 38.60" N	82° 34' 47.55" W	14.50	Joint 151	P	G	G	G	PD	NR	Joint 150 - Joint 151: No	Joint 150 - Joint 151: No	NR	NR
8926.65	Joint 152	41° 13' 38.30" N	82° 34' 48.21" W	14.49	Joint 152	G	G	G	G	NR	NR	Joint 151 - Joint 152: No	Joint 151 - Joint 152: No	NR	NR
8986.45	Joint 153	41° 13' 38.01" N	82° 34' 48.89" W	14.48	Joint 153	G	G	G	G	NR	NR	Joint 152 - Joint 153: No	Joint 152 - Joint 153: No	NR	NR
9047.22	Joint 154	41° 13' 37.71" N	82° 34' 49.58" W	14.47	Joint 154	G	G	G	G	NR	NR	Joint 153 - Joint 154: Yes	Joint 153 - Joint 154: Yes	FD	PD
9106.43	Joint 155	41° 13' 37.43" N	82° 34' 50.26" W	14.46	Joint 155	G	G	G	G	NR	NR	Joint 154 - Joint 155: Yes	Joint 154 - Joint 155: Yes	PD	PD
9165.49	Joint 156	41° 13' 37.15" N	82° 34' 50.94" W	14.44	Joint 156	P	P	P	P	FD	FD	Joint 155 - Joint 156: No	Joint 155 - Joint 156: No	NR	NR
9227.78	Joint 157	41° 13' 36.87" N	82° 34' 51.67" W	14.43	Joint 157	G	G	G	G	NR	NR	Joint 156 - Joint 157: No	Joint 156 - Joint 157: No	NR	NR
9282.78	Joint 158	41° 13' 36.64" N	82° 34' 52.32" W	14.42	Joint 158	G	G	G	G	NR	NR	Joint 157 - Joint 158: No	Joint 157 - Joint 158: No	NR	NR
9342.78	Joint 159	41° 13' 36.39" N	82° 34' 53.04" W	14.41	Joint 159	P	G	G	G	PD	NR	Joint 158 - Joint 159: No	Joint 158 - Joint 159: No	NR	NR
9402.26	Joint 160	41° 13' 36.14" N	82° 34' 53.75" W	14.40	Joint 160	G	G	G	G	NR	NR	Joint 159 - Joint 160: No	Joint 159 - Joint 160: No	NR	NR
9462.34	Joint 161	41° 13' 35.91" N	82° 34' 54.47" W	14.39	Joint 161	P	P	G	P	PD	FD	Joint 160 - Joint 161: Yes	Joint 160 - Joint 161: Yes	PD	PD
9520.76	Joint 162	41° 13' 35.69" N	82° 34' 55.18" W	14.38	Joint 162	G	G	G	G	NR	NR	Joint 161 - Joint 162: No	Joint 161 - Joint 162: No	NR	NR
9583.91	Joint 163	41° 13' 35.46" N	82° 34' 55.95" W	14.36	Joint 163	G	G	G	G	NR	NR	Joint 162 - Joint 163: No	Joint 162 - Joint 163: No	NR	NR
9641.96	Joint 164	41° 13' 35.26" N	82° 34' 56.66" W	14.35	Joint 164	G	G	G	G	NR	NR	Joint 163 - Joint 164: No	Joint 163 - Joint 164: No	NR	NR
9700.55	Joint 165	41° 13' 35.07" N	82° 34' 57.39" W	14.34	Joint 165	G	G	G	G	NR	NR	Joint 164 - Joint 165: No	Joint 164 - Joint 165: No	NR	NR
9760.57	Joint 166	41° 13' 34.87" N	82° 34' 58.13" W	14.33	Joint 166	G	G	G	G	NR	NR	Joint 165 - Joint 166: No	Joint 165 - Joint 166: No	NR	NR
9819.75	Joint 167	41° 13' 34.69" N	82° 34' 58.87" W	14.32	Joint 167	G	G	G	G	NR	NR	Joint 166 - Joint 167: Yes	Joint 166 - Joint 167: Yes	PD	PD
9878.07	Joint 168	41° 13' 34.52" N	82° 34' 59.60" W	14.31	Joint 168	G	G	G	G	NR	NR	Joint 167 - Joint 168: Yes	Joint 167 - Joint 168: Yes	PD	PD
9938.97	Joint 169	41° 13' 34.35" N	82° 35' 00.37" W	14.30	Joint 169	G	G	G	G	NR	NR	Joint 168 - Joint 169: Yes	Joint 168 - Joint 169: Yes	PD	PD
9996.63	Joint 170	41° 13' 34.19" N	82° 35' 01.09" W	14.29	Joint 170	P	P	P	P	FD	FD	Joint 169 - Joint 170: No	Joint 169 - Joint 170: No	NR	NR
10056.75	Joint 171	41° 13' 34.02" N	82° 35' 01.85" W	14.28	Joint 171	G	G	G	G	NR	NR	Joint 170 - Joint 171: Yes	Joint 170 - Joint 171: Yes	PD	PD
10120.36	Joint 172	41° 13' 33.85" N	82° 35' 02.65" W	14.26	Joint 172	G	G	G	G	NR	NR	Joint 171 - Joint 172: Yes	Joint 171 - Joint 172: Yes	FD	FD
10179.67	Joint 173	41° 13' 33.70" N	82° 35' 03.41" W	14.25	Joint 173	G	G	G	G	NR	NR	Joint 172 - Joint 173: No	Joint 172 - Joint 173: No	NR	NR
10240.41	Joint 174	41° 13' 33.55" N	82° 35' 04.18" W	14.24	Joint 174	G	G	G	G	NR	NR	Joint 173 - Joint 174: No	Joint 173 - Joint 174: No	NR	NR
10299.60	Joint 175	41° 13' 33.40" N	82° 35' 04.93" W	14.23	Joint 175	G	G	G	G	NR	NR	Joint 174 - Joint 175: No	Joint 174 - Joint 175: No	NR	NR
10360.47	Joint 176	41° 13' 33.23" N	82° 35' 05.69" W	14.22	Joint 176	G	G	G	G	NR	NR	Joint 175 - Joint 176: No	Joint 175 - Joint 176: No	NR	NR
10420.02	Joint 177	41° 13' 33.07" N	82° 35' 06.44" W	14.21	Joint 177	G	G	G	G	NR	NR	Joint 176 - Joint 177: Yes	Joint 176 - Joint 177: Yes	FD	FD
10479.23	Joint 178	41° 13' 32.92" N	82° 35' 07.20" W	14.20	Joint 178	G	G	G	G	NR	NR	Joint 177 - Joint 178: Yes	Joint 177 - Joint 178: Yes	PD	PD
10537.21	Joint 179	41° 13' 32.75" N	82° 35' 07.92" W	14.18	Joint 179	G	G	G	G	NR	NR	Joint 178 - Joint 179: No	Joint 178 - Joint 179: No	NR	NR
10596.35	Joint 180	41° 13' 32.58" N	82° 35' 08.66" W	14.17	Joint 180	G	G	G	G	NR	NR	Joint 179 - Joint 180: No	Joint 179 - Joint 180: No	NR	NR
10660.23	Joint 181	41° 13' 32.42" N	82° 35' 09.47" W	14.16	Joint 181	P	G	G	G	PD	NR	Joint 180 - Joint 181: No	Joint 180 - Joint 181: No	NR	NR
10718.66	Joint 182	41° 13' 32.26" N	82° 35' 10.21" W	14.15	Joint 182	G	G	G	P	NR	FD	Joint 181 - Joint 182: No	Joint 181 - Joint 182: No	NR	NR
10777.28	Joint 183	41° 13' 32.10" N	82° 35' 10.95" W	14.14	Joint 183	G	G	G	G	NR	NR	Joint 182 - Joint 183: No	Joint 182 - Joint 183: No	NR	NR
10838.40	Joint 184	41° 13' 31.93" N	82° 35' 11.72" W	14.13	Joint 184	G	G	G	G	NR	NR	Joint 183 - Joint 184: Yes	Joint 183 - Joint 184: Yes	FD	FD
10899.16	Joint 185	41° 13' 31.78" N	82° 35' 12.49" W	14.12	Joint 185	G	G	G	G	NR	NR	Joint 184 - Joint 185: Yes	Joint 184 - Joint 185: Yes	PD	PD
10958.17	Joint 186	41° 13' 31.61" N	82° 35' 13.23" W	14.10	Joint 186	G	G	G	G	NR	NR	Joint 185 - Joint 186: Yes	Joint 185 - Joint 186: Yes	PD	PD
11013.76	Joint 187	41° 13' 31.46" N	82° 35' 13.93" W	14.09	Joint 187	G	G	G	G	NR	NR	Joint 186 - Joint 187: Yes	Joint 186 - Joint 187: Yes	FD	FD
11078.90	Joint 188	41° 13' 31.31" N	82° 35' 14.76" W	14.08	Joint 188	G	G	G	G	NR	NR	Joint 187 - Joint 188: Yes	Joint 187 - Joint 188: Yes	PD	PD

Location: Westbound Travel Lanes
File # 74 & 76 Start: 16.18
Direction: WB End: 10.73

G=Good	NR No Repair
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	FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
11136.82	Joint 189	41° 13' 31.11" N	82° 35' 15.48" W	14.07	Joint 189	P	G	G	G	PD	NR	Joint 188 - Joint 189: No	Joint 188 - Joint 189: No	NR	NR
11197.15	Joint 190	41° 13' 30.95" N	82° 35' 15.48" W	14.06	Joint 190	P	P	P	P	FD	FD	Joint 189 - Joint 190: No	Joint 189 - Joint 190: No	NR	NR
11254.27	Joint 191	41° 13' 30.80" N	82° 35' 16.96" W	14.05	Joint 191	G	G	G	G	NR	NR	Joint 190 - Joint 191: No	Joint 190 - Joint 191: No	NR	NR
11317.00	Joint 192	41° 13' 30.66" N	82° 35' 17.76" W	14.04	Joint 192	G	G	G	G	NR	NR	Joint 191 - Joint 192: No	Joint 191 - Joint 192: No	NR	NR
11374.86	Joint 193	41° 13' 30.49" N	82° 35' 18.49" W	14.03	Joint 193	G	G	G	G	NR	NR	Joint 192 - Joint 193: No	Joint 192 - Joint 193: No	NR	NR
11436.16	Joint 194	41° 13' 30.34" N	82° 35' 19.27" W	14.01	Joint 194	G	G	G	G	NR	NR	Joint 193 - Joint 194: Yes	Joint 193 - Joint 194: Yes	FD	FD
11497.92	Joint 195	41° 13' 30.14" N	82° 35' 20.04" W	14.00	Joint 195	G	G	G	G	NR	NR	Joint 194 - Joint 195: No	Joint 194 - Joint 195: No	NR	NR
11556.29	Joint 196	41° 13' 30.01" N	82° 35' 20.78" W	13.99	Joint 196	G	G	G	G	NR	NR	Joint 195 - Joint 196: Yes	Joint 195 - Joint 196: Yes	PD	PD
11615.23	Joint 197	41° 13' 29.87" N	82° 35' 21.53" W	13.98	Joint 197	G	G	G	G	NR	NR	Joint 196 - Joint 197: Yes	Joint 196 - Joint 197: Yes	PD	PD
11675.91	Joint 198	41° 13' 29.69" N	82° 35' 22.29" W	13.97	Joint 198	G	G	G	G	NR	NR	Joint 197 - Joint 198: No	Joint 197 - Joint 198: No	NR	NR
11732.98	Joint 199	41° 13' 29.53" N	82° 35' 23.01" W	13.96	Joint 199	P	P	G	G	PD	PD	Joint 198 - Joint 199: No	Joint 198 - Joint 199: No	NR	NR
11793.94	Joint 200	41° 13' 29.37" N	82° 35' 23.78" W	13.95	Joint 200	G	G	G	G	NR	NR	Joint 199 - Joint 200: Yes	Joint 199 - Joint 200: Yes	FD	FD
11851.35	Joint 201	41° 13' 29.20" N	82° 35' 24.50" W	13.94	Joint 201	G	G	G	G	NR	NR	Joint 200 - Joint 201: Yes	Joint 200 - Joint 201: Yes	FD	PD
11914.22	Joint 202	41° 13' 29.04" N	82° 35' 25.30" W	13.92	Joint 202	G	G	G	G	NR	NR	Joint 201 - Joint 202: No	Joint 201 - Joint 202: No	NR	NR
11973.22	Joint 203	41° 13' 28.85" N	82° 35' 26.03" W	13.91	Joint 203	P	P	G	G	PD	PD	Joint 202 - Joint 203: Yes	Joint 202 - Joint 203: Yes	PD	PD
12031.17	Joint 204	41° 13' 28.89" N	82° 35' 26.79" W	13.90	Joint 204	G	G	G	G	NR	NR	Joint 203 - Joint 204: No	Joint 203 - Joint 204: No	PD	PD
12101.57	Joint 205	41° 13' 28.53" N	82° 35' 27.58" W	13.89	Joint 205	G	G	G	G	NR	NR	Joint 204 - Joint 205: No	Joint 204 - Joint 205: No	NR	NR
12162.64	Joint 206	41° 13' 28.37" N	82° 35' 28.35" W	13.88	Joint 206	G	G	G	G	NR	NR	Joint 205 - Joint 206: No	Joint 205 - Joint 206: No	NR	NR
12221.38	Joint 207	41° 13' 28.29" N	82° 35' 29.11" W	13.87	Joint 207	P	P	P	P	FD	FD	Joint 206 - Joint 207: Yes	Joint 206 - Joint 207: Yes	PD	PD
12285.85	Joint 208	41° 13' 28.03" N	82° 35' 29.89" W	13.85	Joint 208	G	G	G	G	NR	NR	Joint 207 - Joint 208: Yes	Joint 207 - Joint 208: Yes	FD	PD
12342.48	Joint 209	41° 13' 27.89" N	82° 35' 30.60" W	13.84	Joint 209	G	P	G	G	NR	PD	Joint 208 - Joint 209: No	Joint 208 - Joint 209: No	NR	NR
12401.94	Joint 210	41° 13' 27.75" N	82° 35' 31.36" W	13.83	Joint 210	G	P	G	G	NR	PD	Joint 209 - Joint 210: No	Joint 209 - Joint 210: No	NR	NR
12461.23	Joint 211	41° 13' 27.59" N	82° 35' 32.11" W	13.82	Joint 211	G	G	G	G	NR	NR	Joint 210 - Joint 211: Yes	Joint 210 - Joint 211: Yes	FD	PD
12524.41	Joint 212	41° 13' 27.42" N	82° 35' 32.90" W	13.81	Joint 212	G	G	G	G	NR	NR	Joint 211 - Joint 212: Yes	Joint 211 - Joint 212: Yes	PD	PD
12580.83	Joint 213	41° 13' 27.26" N	82° 35' 33.61" W	13.80	Joint 213	P	P	P	P	FD	FD	Joint 212 - Joint 213: No	Joint 212 - Joint 213: No	NR	NR
12638.00	Joint 214	41° 13' 27.09" N	82° 35' 34.33" W	13.79	Joint 214	G	G	G	G	NR	NR	Joint 213 - Joint 214: No	Joint 213 - Joint 214: No	NR	NR
12699.23	Joint 215	41° 13' 26.94" N	82° 35' 35.11" W	13.77	Joint 215	G	G	G	G	NR	NR	Joint 214 - Joint 215: No	Joint 214 - Joint 215: No	NR	NR
12759.87	Joint 216	41° 13' 26.78" N	82° 35' 35.88" W	13.76	Joint 216	G	G	G	G	NR	NR	Joint 215 - Joint 216: No	Joint 215 - Joint 216: No	NR	NR
12820.48	Joint 217	41° 13' 26.62" N	82° 35' 36.64" W	13.75	Joint 217	G	G	G	G	NR	NR	Joint 216 - Joint 217: Yes	Joint 216 - Joint 217: Yes	FD	FD
12876.95	Joint 218	41° 13' 26.47" N	82° 35' 37.36" W	13.74	Joint 218	P	G	G	G	PD	NR	Joint 217 - Joint 218: No	Joint 217 - Joint 218: No	NR	NR
12938.43	Joint 219	41° 13' 26.31" N	82° 35' 38.13" W	13.73	Joint 219	G	G	G	G	NR	NR	Joint 218 - Joint 219: Yes	Joint 218 - Joint 219: Yes	PD	PD
13001.42	Joint 220	41° 13' 26.21" N	82° 35' 38.95" W	13.72	Joint 220	G	G	G	G	NR	NR	Joint 219 - Joint 220: Yes	Joint 219 - Joint 220: Yes	PD	PD
13057.03	Joint 221	41° 13' 26.09" N	82° 35' 39.66" W	13.71	Joint 221	G	G	G	G	NR	NR	Joint 220 - Joint 221: No	Joint 220 - Joint 221: No	NR	NR
13117.74	Joint 222	41° 13' 25.92" N	82° 35' 40.43" W	13.70	Joint 222	G	G	G	G	NR	NR	Joint 221 - Joint 222: Yes	Joint 221 - Joint 222: Yes	FD	FD
13174.69	Joint 223	41° 13' 25.78" N	82° 35' 41.15" W	13.68	Joint 223	P	P	G	G	PD	PD	Joint 222 - Joint 223: No	Joint 222 - Joint 223: No	NR	NR
13231.89	Joint 224	41° 13' 25.63" N	82° 35' 41.87" W	13.67	Joint 224	G	G	G	G	NR	NR	Joint 223 - Joint 224: Yes	Joint 223 - Joint 224: Yes	PD	PD
13291.11	Joint 225	41° 13' 25.47" N	82° 35' 42.62" W	13.66	Joint 225	G	G	G	G	NR	NR	Joint 224 - Joint 225: No	Joint 224 - Joint 225: No	NR	NR
13350.61	Joint 226	41° 13' 25.31" N	82° 35' 43.37" W	13.65	Joint 226	G	G	G	G	NR	NR	Joint 225 - Joint 226: No	Joint 225 - Joint 226: No	NR	NR
13409.26	Joint 227	41° 13' 25.15" N	82° 35' 44.11" W	13.64	Joint 227	G	G	G	G	NR	NR	Joint 226 - Joint 227: Yes	Joint 226 - Joint 227: Yes	FD	FD

Location: Westbound Travel Lanes
File # 74 & 76 Start: 16.18
Direction: WB End: 10.73

G=Good	NR No Repair
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	FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
13462.93	Joint 228	41° 13' 25.01" N	82° 35' 44.79" W	13.63	Joint 228	G	G	G	G	NR	NR	Joint 227 - Joint 228: No	Joint 227 - Joint 228: No	NR	NR
13528.47	Joint 229	41° 13' 24.86" N	82° 35' 45.63" W	13.62	Joint 229	G	G	G	G	NR	NR	Joint 228 - Joint 229: No	Joint 228 - Joint 229: No	NR	NR
13553.51	Joint 230	41° 13' 24.81" N	82° 35' 45.95" W	13.61	Joint 230	G	G	P	G	FD	NR	Joint 229 - Joint 230: No	Joint 229 - Joint 230: No	NR	NR
13612.35	Joint 231	41° 13' 24.69" N	82° 35' 46.70" W	13.60	Joint 231	G	G	G	G	NR	NR	Joint 230 - Joint 231: No	Joint 230 - Joint 231: No	NR	NR
13656.69	Joint 232	41° 13' 24.61" N	82° 35' 47.28" W	13.59	Joint 232	G	G	G	G	NR	NR	Joint 231 - Joint 232: No	Joint 231 - Joint 232: No	NR	NR
13700.46	Joint 233	41° 13' 24.54" N	82° 35' 47.84" W	13.59	Joint 233	G	G	G	G	NR	NR	Joint 232 - Joint 233: No	Joint 232 - Joint 233: No	NR	NR
13736.85	Joint 234	41° 13' 24.48" N	82° 35' 48.31" W	13.58	Joint 234	G	G	G	G	NR	NR	Joint 233 - Joint 234: Yes	Joint 233 - Joint 234: Yes	FD	FD
13798.80	Joint 235	41° 13' 24.02" N	82° 35' 48.85" W	13.57	Joint 235	G	P	G	P	NR	FD	Joint 234 - Joint 235: No	Joint 234 - Joint 235: No	NR	NR
13815.10	Joint 236	41° 13' 23.97" N	82° 35' 49.05" W	13.56	Joint 236	P	G	G	G	PD	NR	Joint 235 - Joint 236: No	Joint 235 - Joint 236: No	NR	NR
13880.13	Joint 237	41° 13' 23.80" N	82° 35' 49.87" W	13.55	Joint 237	G	G	G	G	NR	NR	Joint 236 - Joint 237: No	Joint 236 - Joint 237: No	NR	NR
13940.87	Joint 238	41° 13' 23.63" N	82° 35' 50.64" W	13.54	Joint 238	G	G	G	G	NR	NR	Joint 237 - Joint 238: No	Joint 237 - Joint 238: No	NR	NR
14001.85	Joint 239	41° 13' 23.47" N	82° 35' 51.41" W	13.53	Joint 239	G	G	G	G	NR	NR	Joint 238 - Joint 239: No	Joint 238 - Joint 239: No	NR	NR
14061.53	Joint 240	41° 13' 23.31" N	82° 35' 52.16" W	13.52	Joint 240	G	G	G	G	NR	NR	Joint 239 - Joint 240: No	Joint 239 - Joint 240: No	NR	NR
14116.83	Joint 241	41° 13' 23.16" N	82° 35' 52.86" W	13.51	Joint 241	P	P	P	P	FD	FD	Joint 240 - Joint 241: Yes	Joint 240 - Joint 241: Yes	FD	PD
14179.99	Joint 242	41° 13' 23.00" N	82° 35' 53.66" W	13.49	Joint 242	P	G	G	P	PD	FD	Joint 241 - Joint 242: No	Joint 241 - Joint 242: No	NR	NR
14240.25	Joint 243	41° 13' 22.84" N	82° 35' 54.42" W	13.48	Joint 243	G	G	G	G	NR	NR	Joint 242 - Joint 243: No	Joint 242 - Joint 243: No	NR	NR
14300.39	Joint 244	41° 13' 22.67" N	82° 35' 55.18" W	13.47	Joint 244	G	G	G	G	NR	NR	Joint 243 - Joint 244: Yes	Joint 243 - Joint 244: Yes	PD	PD
14360.84	Joint 245	41° 13' 22.49" N	82° 35' 55.93" W	13.46	Joint 245	G	G	G	G	NR	NR	Joint 244 - Joint 245: Yes	Joint 244 - Joint 245: Yes	FD	PD
14416.70	Joint 246	41° 13' 22.39" N	82° 35' 56.64" W	13.45	Joint 246	G	G	G	G	NR	NR	Joint 245 - Joint 246: Yes	Joint 245 - Joint 246: Yes	PD	PD
14489.80	Joint 247	41° 13' 22.21" N	82° 35' 57.57" W	13.44	Joint 247	P	P	G	G	PD	PD	Joint 246 - Joint 247: Yes	Joint 246 - Joint 247: Yes	FD	FD
14543.55	Joint 248	41° 13' 22.02" N	82° 35' 58.23" W	13.43	Joint 248	G	G	G	G	NR	NR	Joint 247 - Joint 248: Yes	Joint 247 - Joint 248: Yes	FD	PD
14600.30	Joint 249	41° 13' 21.88" N	82° 35' 58.95" W	13.41	Joint 249	G	G	G	G	NR	NR	Joint 248 - Joint 249: Yes	Joint 248 - Joint 249: Yes	PD	PD
14662.64	Joint 250	41° 13' 21.71" N	82° 35' 59.73" W	13.40	Joint 250	G	G	G	G	NR	NR	Joint 249 - Joint 250: Yes	Joint 249 - Joint 250: Yes	PD	PD
14720.30	Joint 251	41° 13' 21.55" N	82° 36' 00.46" W	13.39	Joint 251	G	G	G	G	NR	NR	Joint 250 - Joint 251: Yes	Joint 250 - Joint 251: Yes	FD	FD
14782.50	Joint 252	41° 13' 21.38" N	82° 36' 01.24" W	13.38	Joint 252	G	G	G	G	NR	NR	Joint 251 - Joint 252: Yes	Joint 251 - Joint 252: Yes	PD	PD
14839.37	Joint 253	41° 13' 21.23" N	82° 36' 01.96" W	13.37	Joint 253	G	G	G	G	NR	NR	Joint 252 - Joint 253: No	Joint 252 - Joint 253: No	NR	NR
14898.69	Joint 254	41° 13' 21.08" N	82° 36' 02.71" W	13.36	Joint 254	G	G	G	G	NR	NR	Joint 253 - Joint 254: No	Joint 253 - Joint 254: No	NR	NR
14960.16	Joint 255	41° 13' 20.91" N	82° 36' 03.49" W	13.35	Joint 255	G	G	G	G	NR	NR	Joint 254 - Joint 255: Yes	Joint 254 - Joint 255: Yes	PD	PD
15020.54	Joint 256	41° 13' 20.74" N	82° 36' 04.25" W	13.34	Joint 256	G	G	G	G	NR	NR	Joint 255 - Joint 256: No	Joint 255 - Joint 256: No	NR	NR
15080.51	Joint 257	41° 13' 20.58" N	82° 36' 05.00" W	13.32	Joint 257	G	G	G	G	NR	NR	Joint 256 - Joint 257: No	Joint 256 - Joint 257: No	NR	NR
15141.10	Joint 258	41° 13' 20.41" N	82° 36' 05.77" W	13.31	Joint 258	G	G	G	G	NR	NR	Joint 257 - Joint 258: Yes	Joint 257 - Joint 258: Yes	FD	FD
15198.05	Joint 259	41° 13' 20.26" N	82° 36' 06.49" W	13.30	Joint 259	P	P	G	P	PD	FD	Joint 258 - Joint 259: Yes	Joint 258 - Joint 259: Yes	PD	PD
15259.26	Joint 260	41° 13' 20.09" N	82° 36' 07.26" W	13.29	Joint 260	G	G	G	G	NR	NR	Joint 259 - Joint 260: Yes	Joint 259 - Joint 260: Yes	PD	PD
15315.69	Joint 261	41° 13' 19.94" N	82° 36' 07.97" W	13.28	Joint 261	G	G	G	P	NR	FD	Joint 260 - Joint 261: No	Joint 260 - Joint 261: No	NR	NR
15372.43	Joint 262	41° 13' 19.79" N	82° 36' 08.69" W	13.27	Joint 262	G	G	G	G	NR	NR	Joint 261 - Joint 262: No	Joint 261 - Joint 262: No	NR	NR
15435.83	Joint 263	41° 13' 19.62" N	82° 36' 09.49" W	13.26	Joint 263	P	G	G	G	PD	NR	Joint 262 - Joint 263: No	Joint 262 - Joint 263: No	NR	NR
15501.42	Joint 264	41° 13' 19.72" N	82° 36' 10.34" W	13.24	Joint 264	P	G	G	G	PD	NR	Joint 263 - Joint 264: Yes	Joint 263 - Joint 264: Yes	PD	PD
15560.46	Joint 265	41° 13' 19.54" N	82° 36' 11.08" W	13.23	Joint 265	G	G	G	P	NR	FD	Joint 264 - Joint 265: Yes	Joint 264 - Joint 265: Yes	PD	PD
15613.84	Joint 266	41° 13' 19.39" N	82° 36' 11.75" W	13.22	Joint 266	G	G	G	G	NR	NR	Joint 265 - Joint 266: Yes	Joint 265 - Joint 266: Yes	FD	FD

Location: Westbound Travel Lanes

File # 74 & 76 Start: 16.18

Direction: WB End: 10.73

G=Good	NR No Repair
P=Poor	PD Partial Depth Repair
	FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
15667.61	Joint 267	41° 13' 19.24" N	82° 36' 12.42" W	13.21	Joint 267	G	G	G	G	NR	NR	Joint 266 - Joint 267: No	Joint 266 - Joint 267: No	NR	NR
15724.90	Joint 268	41° 13' 19.08" N	82° 36' 13.14" W	13.20	Joint 268	G	G	G	G	NR	NR	Joint 267 - Joint 268: No	Joint 267 - Joint 268: No	NR	NR
15780.25	Joint 269	41° 13' 18.93" N	82° 36' 13.84" W	13.19	Joint 269	G	G	G	G	NR	NR	Joint 268 - Joint 269: No	Joint 268 - Joint 269: No	NR	NR
15834.58	Joint 270	41° 13' 18.80" N	82° 36' 14.53" W	13.18	Joint 270	G	G	G	G	NR	NR	Joint 269 - Joint 270: No	Joint 269 - Joint 270: No	NR	NR
15888.40	Joint 271	41° 13' 18.67" N	82° 36' 15.22" W	13.17	Joint 271	G	G	G	G	NR	NR	Joint 270 - Joint 271: No	Joint 270 - Joint 271: No	NR	NR
15940.01	Joint 272	41° 13' 18.54" N	82° 36' 15.87" W	13.16	Joint 272	G	G	G	G	NR	NR	Joint 271 - Joint 272: No	Joint 271 - Joint 272: No	NR	NR
15998.00	Joint 273	41° 13' 18.42" N	82° 36' 16.62" W	13.15	Joint 273	G	G	G	G	NR	NR	Joint 272 - Joint 273: Yes	Joint 272 - Joint 273: Yes	FD	FD
16052.93	Joint 274	41° 13' 18.29" N	82° 36' 17.32" W	13.14	Joint 274	G	G	G	G	NR	NR	Joint 273 - Joint 274: No	Joint 273 - Joint 274: No	NR	NR
16107.35	Joint 275	41° 13' 18.19" N	82° 36' 18.02" W	13.13	Joint 275	G	G	G	G	NR	NR	Joint 274 - Joint 275: Yes	Joint 274 - Joint 275: Yes	FD	FD
16164.30	Joint 276	41° 13' 18.08" N	82° 36' 18.75" W	13.12	Joint 276	G	G	G	G	NR	NR	Joint 275 - Joint 276: No	Joint 275 - Joint 276: No	NR	NR
16219.57	Joint 277	41° 13' 17.98" N	82° 36' 19.46" W	13.11	Joint 277	G	G	G	G	NR	NR	Joint 276 - Joint 277: No	Joint 276 - Joint 277: No	NR	NR
16273.90	Joint 278	41° 13' 17.88" N	82° 36' 20.16" W	13.10	Joint 278	G	G	G	G	NR	NR	Joint 277 - Joint 278: No	Joint 277 - Joint 278: No	NR	NR
16330.03	Joint 279	41° 13' 17.78" N	82° 36' 20.89" W	13.09	Joint 279	G	G	G	G	NR	NR	Joint 278 - Joint 279: No	Joint 278 - Joint 279: No	NR	NR
16382.62	Joint 280	41° 13' 17.70" N	82° 36' 21.57" W	13.08	Joint 280	G	G	G	G	NR	NR	Joint 279 - Joint 280: No	Joint 279 - Joint 280: No	NR	NR
16437.32	Joint 281	41° 13' 17.62" N	82° 36' 22.28" W	13.07	Joint 281	G	G	G	G	NR	NR	Joint 280 - Joint 281: No	Joint 280 - Joint 281: No	NR	NR
16491.51	Joint 282	41° 13' 17.54" N	82° 36' 22.98" W	13.06	Joint 282	G	G	G	G	NR	NR	Joint 281 - Joint 282: Yes	Joint 281 - Joint 282: Yes	PD	PD
16549.38	Joint 283	41° 13' 17.48" N	82° 36' 23.74" W	13.05	Joint 283	G	G	G	G	NR	NR	Joint 282 - Joint 283: No	Joint 282 - Joint 283: No	NR	NR
16616.39	Joint 284	41° 13' 17.41" N	82° 36' 24.61" W	13.03	Joint 284	P	P	G	G	PD	PD	Joint 283 - Joint 284: No	Joint 283 - Joint 284: No	NR	NR
16675.90	Joint 285	41° 13' 17.36" N	82° 36' 25.39" W	13.02	Joint 285	P	P	P	P	FD	FD	Joint 284 - Joint 285: No	Joint 284 - Joint 285: No	NR	NR
16733.54	Joint 286	41° 13' 17.31" N	82° 36' 26.14" W	13.01	Joint 286	P	P	G	G	PD	PD	Joint 285 - Joint 286: No	Joint 285 - Joint 286: No	NR	NR
16796.05	Joint 287	41° 13' 17.30" N	82° 36' 26.96" W	13.00	Joint 287	P	P	G	G	PD	PD	Joint 286 - Joint 287: No	Joint 286 - Joint 287: No	NR	NR
16852.69	Joint 288	41° 13' 17.29" N	82° 36' 27.71" W	12.99	Joint 288	G	G	G	G	NR	NR	Joint 287 - Joint 288: No	Joint 287 - Joint 288: No	NR	NR
16910.53	Joint 289	41° 13' 17.28" N	82° 36' 28.46" W	12.98	Joint 289	P	G	P	G	FD	NR	Joint 288 - Joint 289: No	Joint 288 - Joint 289: No	NR	NR
16970.90	Joint 290	41° 13' 17.24" N	82° 36' 29.25" W	12.97	Joint 290	G	G	G	G	NR	NR	Joint 289 - Joint 290: No	Joint 289 - Joint 290: No	NR	NR
17030.20	Joint 291	41° 13' 17.23" N	82° 36' 30.03" W	12.95	Joint 291	G	P	G	G	NR	PD	Joint 290 - Joint 291: No	Joint 290 - Joint 291: No	NR	NR
17092.43	Joint 292	41° 13' 17.24" N	82° 36' 30.85" W	12.94	Joint 292	P	P	G	G	PD	PD	Joint 291 - Joint 292: No	Joint 291 - Joint 292: No	NR	NR
17153.66	Joint 293	41° 13' 17.19" N	82° 36' 31.65" W	12.93	Joint 293	P	G	G	G	PD	NR	Joint 292 - Joint 293: Yes	Joint 292 - Joint 293: Yes	FD	PD
17215.73	Joint 294	41° 13' 17.19" N	82° 36' 32.46" W	12.92	Joint 294	P	G	G	G	PD	NR	Joint 293 - Joint 294: Yes	Joint 293 - Joint 294: Yes	PD	PD
17272.68	Joint 295	41° 13' 17.21" N	82° 36' 33.21" W	12.91	Joint 295	P	P	G	G	PD	PD	Joint 294 - Joint 295: No	Joint 294 - Joint 295: No	NR	NR
17330.42	Joint 296	41° 13' 17.24" N	82° 36' 33.97" W	12.90	Joint 296	G	G	G	G	NR	NR	Joint 295 - Joint 296: Yes	Joint 295 - Joint 296: Yes	FD	FD
17393.97	Joint 297	41° 13' 17.26" N	82° 36' 34.80" W	12.89	Joint 297	G	G	G	G	NR	NR	Joint 296 - Joint 297: Yes	Joint 296 - Joint 297: Yes	PD	PD
17453.36	Joint 298	41° 13' 17.28" N	82° 36' 35.58" W	12.87	Joint 298	G	G	G	G	NR	NR	Joint 297 - Joint 298: No	Joint 297 - Joint 298: No	NR	NR
17512.63	Joint 299	41° 13' 17.32" N	82° 36' 36.35" W	12.86	Joint 299	P	G	G	G	PD	NR	Joint 298 - Joint 299: Yes	Joint 298 - Joint 299: Yes	FD	FD
17570.86	Joint 300	41° 13' 17.37" N	82° 36' 37.12" W	12.85	Joint 300	G	G	G	G	NR	NR	Joint 299 - Joint 300: No	Joint 299 - Joint 300: No	NR	NR
17631.66	Joint 301	41° 13' 17.41" N	82° 36' 37.91" W	12.84	Joint 301	G	G	G	G	NR	NR	Joint 300 - Joint 301: Yes	Joint 300 - Joint 301: Yes	PD	PD
17688.53	Joint 302	41° 13' 17.46" N	82° 36' 38.66" W	12.83	Joint 302	G	P	P	P	FD	FD	Joint 301 - Joint 302: No	Joint 301 - Joint 302: No	NR	NR
17751.31	Joint 303	41° 13' 17.50" N	82° 36' 39.48" W	12.82	Joint 303	G	G	G	G	NR	NR	Joint 302 - Joint 303: No	Joint 302 - Joint 303: No	NR	NR
17810.93	Joint 304	41° 13' 17.56" N	82° 36' 40.26" W	12.81	Joint 304	G	G	G	G	NR	NR	Joint 303 - Joint 304: Yes	Joint 303 - Joint 304: Yes	FD	FD
17871.43	Joint 305	41° 13' 17.64" N	82° 36' 41.04" W	12.80	Joint 305	G	G	G	G	NR	NR	Joint 304 - Joint 305: No	Joint 304 - Joint 305: No	NR	NR

Location: Westbound Travel Lanes

File # 74 & 76 Start: 16.18

Direction: WB End: 10.73

G=Good	NR No Repair
P=Poor	PD Partial Depth Repair
	FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
17931.67	Joint 306	41° 13' 17.72" N	82° 36' 41.83" W	12.78	Joint 306	G	G	G	G	NR	NR	Joint 305 - Joint 306: No	Joint 305 - Joint 306: No	NR	NR
17991.38	Joint 307	41° 13' 17.80" N	82° 36' 42.60" W	12.77	Joint 307	G	G	G	G	NR	NR	Joint 306 - Joint 307: Yes	Joint 306 - Joint 307: Yes	FD	FD
18049.19	Joint 308	41° 13' 17.90" N	82° 36' 43.35" W	12.76	Joint 308	P	G	G	G	PD	NR	Joint 307 - Joint 308: Yes	Joint 307 - Joint 308: Yes	PD	FD
18104.91	Joint 309	41° 13' 17.98" N	82° 36' 44.07" W	12.75	Joint 309	G	G	G	G	NR	NR	Joint 308 - Joint 309: Yes	Joint 308 - Joint 309: Yes	PD	PD
18163.84	Joint 310	41° 13' 18.07" N	82° 36' 44.84" W	12.74	Joint 310	G	G	G	G	NR	NR	Joint 309 - Joint 310: Yes	Joint 309 - Joint 310: Yes	FD	PD
18227.24	Joint 311	41° 13' 18.17" N	82° 36' 45.66" W	12.73	Joint 311	G	G	G	G	NR	NR	Joint 310 - Joint 311: Yes	Joint 310 - Joint 311: Yes	PD	PD
18286.19	Joint 312	41° 13' 18.25" N	82° 36' 46.42" W	12.72	Joint 312	G	G	G	G	NR	NR	Joint 311 - Joint 312: No	Joint 311 - Joint 312: No	NR	NR
18349.41	Joint 313	41° 13' 18.34" N	82° 36' 47.24" W	12.70	Joint 313	G	G	G	G	NR	NR	Joint 312 - Joint 313: Yes	Joint 312 - Joint 313: Yes	PD	PD
18408.59	Joint 314	41° 13' 18.44" N	82° 36' 48.01" W	12.69	Joint 314	P	G	G	G	PD	NR	Joint 313 - Joint 314: Yes	Joint 313 - Joint 314: Yes	PD	PD
18466.41	Joint 315	41° 13' 18.53" N	82° 36' 48.76" W	12.68	Joint 315	G	G	G	G	NR	NR	Joint 314 - Joint 315: No	Joint 314 - Joint 315: No	NR	NR
18527.90	Joint 316	41° 13' 18.61" N	82° 36' 49.56" W	12.67	Joint 316	P	G	G	G	PD	NR	Joint 315 - Joint 316: No	Joint 315 - Joint 316: No	NR	NR
18587.35	Joint 317	41° 13' 18.70" N	82° 36' 50.33" W	12.66	Joint 317	G	G	G	G	NR	NR	Joint 316 - Joint 317: Yes	Joint 316 - Joint 317: Yes	FD	FD
18648.08	Joint 318	41° 13' 18.80" N	82° 36' 51.11" W	12.65	Joint 318	G	G	G	G	NR	NR	Joint 317 - Joint 318: Yes	Joint 317 - Joint 318: Yes	FD	FD
18708.77	Joint 319	41° 13' 18.89" N	82° 36' 51.90" W	12.64	Joint 319	G	G	G	G	NR	NR	Joint 318 - Joint 319: Yes	Joint 318 - Joint 319: Yes	PD	PD
18767.95	Joint 320	41° 13' 18.96" N	82° 36' 52.67" W	12.63	Joint 320	G	G	G	G	NR	NR	Joint 319 - Joint 320: No	Joint 319 - Joint 320: No	NR	NR
18826.05	Joint 321	41° 13' 19.09" N	82° 36' 53.41" W	12.61	Joint 321	G	G	G	G	NR	NR	Joint 320 - Joint 321: No	Joint 320 - Joint 321: No	NR	NR
18889.21	Joint 322	41° 13' 19.19" N	82° 36' 54.23" W	12.60	Joint 322	G	G	G	G	NR	NR	Joint 321 - Joint 322: Yes	Joint 321 - Joint 322: Yes	FD	FD
18946.23	Joint 323	41° 13' 19.28" N	82° 36' 54.97" W	12.59	Joint 323	G	P	G	G	NR	PD	Joint 322 - Joint 323: No	Joint 322 - Joint 323: No	NR	NR
19005.84	Joint 324	41° 13' 19.37" N	82° 36' 55.74" W	12.58	Joint 324	P	P	G	P	PD	FD	Joint 323 - Joint 324: No	Joint 323 - Joint 324: No	NR	NR
19066.61	Joint 325	41° 13' 19.47" N	82° 36' 56.53" W	12.57	Joint 325	G	G	G	G	NR	NR	Joint 324 - Joint 325: No	Joint 324 - Joint 325: No	NR	NR
19123.12	Joint 326	41° 13' 19.55" N	82° 36' 57.26" W	12.56	Joint 326	G	G	G	G	NR	NR	Joint 325 - Joint 326: No	Joint 325 - Joint 326: No	NR	NR
19185.24	Joint 327	41° 13' 19.65" N	82° 36' 58.07" W	12.55	Joint 327	P	G	G	G	PD	NR	Joint 326 - Joint 327: No	Joint 326 - Joint 327: No	NR	NR
19247.28	Joint 328	41° 13' 19.74" N	82° 36' 58.87" W	12.53	Joint 328	G	G	G	G	NR	NR	Joint 327 - Joint 328: No	Joint 327 - Joint 328: No	NR	NR
19307.01	Joint 329	41° 13' 19.83" N	82° 36' 59.65" W	12.52	Joint 329	G	G	G	G	NR	NR	Joint 328 - Joint 329: Yes	Joint 328 - Joint 329: Yes	FD	FD
19367.36	Joint 330	41° 13' 19.92" N	82° 37' 00.43" W	12.51	Joint 330	P	G	G	G	PD	NR	Joint 329 - Joint 330: No	Joint 329 - Joint 330: No	NR	NR
19428.52	Joint 331	41° 13' 20.03" N	82° 37' 01.22" W	12.50	Joint 331	G	G	G	G	NR	NR	Joint 330 - Joint 331: No	Joint 330 - Joint 331: No	NR	NR
19484.08	Joint 332	41° 13' 20.11" N	82° 37' 01.94" W	12.49	Joint 332	G	G	G	G	NR	NR	Joint 331 - Joint 332: No	Joint 331 - Joint 332: No	NR	NR
19546.81	Joint 333	41° 13' 20.22" N	82° 37' 02.75" W	12.48	Joint 333	G	G	G	G	NR	NR	Joint 332 - Joint 333: No	Joint 332 - Joint 333: No	NR	NR
19606.45	Joint 334	41° 13' 20.31" N	82° 37' 03.52" W	12.47	Joint 334	G	G	G	G	NR	NR	Joint 333 - Joint 334: No	Joint 333 - Joint 334: No	NR	NR
19685.38	Joint 335	41° 13' 20.43" N	82° 37' 04.55" W	12.45	Joint 335	G	G	G	G	NR	NR	Joint 334 - Joint 335: No	Joint 334 - Joint 335: No	NR	NR
19723.06	Joint 336	41° 13' 20.47" N	82° 37' 05.04" W	12.44	Joint 336	G	G	G	G	NR	NR	Joint 335 - Joint 336: No	Joint 335 - Joint 336: No	NR	NR
19785.13	Joint 337	41° 13' 20.55" N	82° 37' 05.85" W	12.43	Joint 337	G	G	G	G	NR	NR	Joint 336 - Joint 337: No	Joint 336 - Joint 337: No	NR	NR
19849.13	Joint 338	41° 13' 20.67" N	82° 37' 06.67" W	12.42	Joint 338	G	G	G	G	NR	NR	Joint 337 - Joint 338: No	Joint 337 - Joint 338: No	NR	NR
19864.33	Joint 339	41° 13' 20.67" N	82° 37' 06.87" W	12.42	Joint 339	G	G	G	G	NR	NR	Joint 338 - Joint 339: No	Joint 338 - Joint 339: No	NR	NR
19925.43	Joint 340	41° 13' 20.77" N	82° 37' 07.66" W	12.41	Joint 340	G	G	G	G	NR	NR	Joint 339 - Joint 340: No	Joint 339 - Joint 340: No	NR	NR
19967.58	Joint 341	41° 13' 20.85" N	82° 37' 08.20" W	12.40	Joint 341	G	G	G	G	NR	NR	Joint 340 - Joint 341: No	Joint 340 - Joint 341: No	NR	NR
20026.65	Joint 342	41° 13' 20.93" N	82° 37' 08.97" W	12.39	Joint 342	G	G	G	G	NR	NR	Joint 341 - Joint 342: No	Joint 341 - Joint 342: No	NR	NR
20083.24	Joint 343	41° 13' 21.02" N	82° 37' 09.70" W	12.38	Joint 343	G	G	G	G	NR	NR	Joint 342 - Joint 343: No	Joint 342 - Joint 343: No	NR	NR
20145.55	Joint 344	41° 13' 21.10" N	82° 37' 10.51" W	12.36	Joint 344	G	G	G	G	NR	NR	Joint 343 - Joint 344: No	Joint 343 - Joint 344: No	NR	NR

Location: Westbound Travel Lanes

File # 74 & 76 Start: 16.18

Direction: WB End: 10.73

G=Good	NR No Repair
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	FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
20201.89	Joint 345	41° 13' 21.21" N	82° 37' 11.23" W	12.35	Joint 345	P	P	G	G	PD	PD	Joint 344 - Joint 345: No	Joint 344 - Joint 345: No	NR	NR
20263.71	Joint 346	41° 13' 21.28" N	82° 37' 12.04" W	12.34	Joint 346	P	P	P	G	FD	PD	Joint 345 - Joint 346: No	Joint 345 - Joint 346: No	NR	NR
20320.16	Joint 347	41° 13' 21.34" N	82° 37' 12.77" W	12.33	Joint 347	G	G	G	G	NR	NR	Joint 346 - Joint 347: No	Joint 346 - Joint 347: No	NR	NR
20380.07	Joint 348	41° 13' 21.46" N	82° 37' 13.54" W	12.32	Joint 348	G	G	G	G	NR	NR	Joint 347 - Joint 348: Yes	Joint 347 - Joint 348: Yes	PD	PD
20442.76	Joint 349	41° 13' 21.53" N	82° 37' 14.36" W	12.31	Joint 349	G	G	G	G	NR	NR	Joint 348 - Joint 349: Yes	Joint 348 - Joint 349: Yes	FD	FD
20505.53	Joint 350	41° 13' 21.66" N	82° 37' 15.16" W	12.30	Joint 350	G	G	G	G	NR	NR	Joint 349 - Joint 350: No	Joint 349 - Joint 350: No	NR	NR
20566.89	Joint 351	41° 13' 21.78" N	82° 37' 15.95" W	12.28	Joint 351	G	G	G	G	NR	NR	Joint 350 - Joint 351: Yes	Joint 350 - Joint 351: Yes	FD	FD
20626.73	Joint 352	41° 13' 21.88" N	82° 37' 16.72" W	12.27	Joint 352	G	G	G	G	NR	NR	Joint 351 - Joint 352: Yes	Joint 351 - Joint 352: Yes	PD	PD
20685.73	Joint 353	41° 13' 21.97" N	82° 37' 17.49" W	12.26	Joint 353	G	G	G	G	NR	NR	Joint 352 - Joint 353: No	Joint 352 - Joint 353: No	NR	NR
20742.36	Joint 354	41° 13' 22.05" N	82° 37' 18.22" W	12.25	Joint 354	G	G	G	G	NR	NR	Joint 353 - Joint 354: No	Joint 353 - Joint 354: No	NR	NR
20806.97	Joint 355	41° 13' 22.15" N	82° 37' 19.06" W	12.24	Joint 355	G	G	G	G	NR	NR	Joint 354 - Joint 355: No	Joint 354 - Joint 355: No	NR	NR
20860.96	Joint 356	41° 13' 22.23" N	82° 37' 19.76" W	12.23	Joint 356	G	G	G	G	NR	NR	Joint 355 - Joint 356: No	Joint 355 - Joint 356: No	NR	NR
20925.34	Joint 357	41° 13' 22.36" N	82° 37' 20.59" W	12.22	Joint 357	G	G	G	G	NR	NR	Joint 356 - Joint 357: Yes	Joint 356 - Joint 357: Yes	PD	PD
20982.05	Joint 358	41° 13' 22.46" N	82° 37' 21.32" W	12.21	Joint 358	G	G	G	G	NR	NR	Joint 357 - Joint 358: No	Joint 357 - Joint 358: No	NR	NR
21047.05	Joint 359	41° 13' 22.53" N	82° 37' 22.17" W	12.19	Joint 359	P	G	G	G	PD	NR	Joint 358 - Joint 359: No	Joint 358 - Joint 359: No	NR	NR
21103.87	Joint 360	41° 13' 22.62" N	82° 37' 22.91" W	12.18	Joint 360	G	G	G	G	NR	NR	Joint 359 - Joint 360: No	Joint 359 - Joint 360: No	NR	NR
21165.78	Joint 361	41° 13' 22.70" N	82° 37' 23.71" W	12.17	Joint 361	G	G	G	G	NR	NR	Joint 360 - Joint 361: Yes	Joint 360 - Joint 361: Yes	FD	FD
21220.95	Joint 362	41° 13' 22.78" N	82° 37' 24.43" W	12.16	Joint 362	P	G	G	G	PD	NR	Joint 361 - Joint 362: No	Joint 361 - Joint 362: No	NR	NR
21284.48	Joint 363	41° 13' 22.89" N	82° 37' 25.25" W	12.15	Joint 363	G	G	G	G	NR	NR	Joint 362 - Joint 363: No	Joint 362 - Joint 363: No	NR	NR
21340.07	Joint 364	41° 13' 22.98" N	82° 37' 25.97" W	12.14	Joint 364	G	G	G	G	NR	NR	Joint 363 - Joint 364: Yes	Joint 363 - Joint 364: Yes	PD	PD
21403.08	Joint 365	41° 13' 23.07" N	82° 37' 26.78" W	12.13	Joint 365	G	G	G	G	NR	NR	Joint 364 - Joint 365: No	Joint 364 - Joint 365: No	NR	NR
21457.87	Joint 366	41° 13' 23.16" N	82° 37' 27.49" W	12.12	Joint 366	G	G	G	G	NR	NR	Joint 365 - Joint 366: No	Joint 365 - Joint 366: No	NR	NR
21518.23	Joint 367	41° 13' 23.23" N	82° 37' 28.28" W	12.10	Joint 367	P	G	G	G	PD	NR	Joint 366 - Joint 367: No	Joint 366 - Joint 367: No	NR	NR
21582.40	Joint 368	41° 13' 23.32" N	82° 37' 29.11" W	12.09	Joint 368	G	G	G	P	NR	FD	Joint 367 - Joint 368: Yes	Joint 367 - Joint 368: Yes	FD	FD
21639.21	Joint 369	41° 13' 23.41" N	82° 37' 29.85" W	12.08	Joint 369	G	G	G	G	NR	NR	Joint 368 - Joint 369: No	Joint 368 - Joint 369: No	NR	NR
21699.20	Joint 370	41° 13' 23.49" N	82° 37' 30.63" W	12.07	Joint 370	P	G	G	G	PD	NR	Joint 369 - Joint 370: No	Joint 369 - Joint 370: No	NR	NR
21761.44	Joint 371	41° 13' 23.59" N	82° 37' 31.43" W	12.06	Joint 371	P	G	G	G	PD	NR	Joint 370 - Joint 371: Yes	Joint 370 - Joint 371: Yes	FD	FD
21818.42	Joint 372	41° 13' 23.67" N	82° 37' 32.17" W	12.05	Joint 372	P	G	G	G	PD	NR	Joint 371 - Joint 372: Yes	Joint 371 - Joint 372: Yes	PD	PD
21878.75	Joint 373	41° 13' 23.77" N	82° 37' 32.96" W	12.04	Joint 373	G	G	G	P	NR	FD	Joint 372 - Joint 373: Yes	Joint 372 - Joint 373: Yes	FD	FD
21939.35	Joint 374	41° 13' 23.90" N	82° 37' 33.73" W	12.02	Joint 374	G	G	G	G	NR	NR	Joint 373 - Joint 374: No	Joint 373 - Joint 374: No	NR	NR
22000.68	Joint 375	41° 13' 23.95" N	82° 37' 34.53" W	12.01	Joint 375	P	G	G	G	PD	NR	Joint 374 - Joint 375: Yes	Joint 374 - Joint 375: Yes	PD	PD
22059.45	Joint 376	41° 13' 24.05" N	82° 37' 35.29" W	12.00	Joint 376	G	G	G	P	NR	FD	Joint 375 - Joint 376: Yes	Joint 375 - Joint 376: Yes	PD	PD
22118.35	Joint 377	41° 13' 24.16" N	82° 37' 36.05" W	11.99	Joint 377	G	G	G	G	NR	NR	Joint 376 - Joint 377: No	Joint 376 - Joint 377: No	NR	NR
22180.76	Joint 378	41° 13' 24.27" N	82° 37' 36.86" W	11.98	Joint 378	G	G	G	G	NR	NR	Joint 377 - Joint 378: No	Joint 377 - Joint 378: No	NR	NR
22239.31	Joint 379	41° 13' 24.34" N	82° 37' 37.62" W	11.97	Joint 379	G	G	G	G	NR	NR	Joint 378 - Joint 379: No	Joint 378 - Joint 379: No	NR	NR
22296.49	Joint 380	41° 13' 24.40" N	82° 37' 38.37" W	11.96	Joint 380	P	G	G	P	PD	FD	Joint 379 - Joint 380: Yes	Joint 379 - Joint 380: Yes	FD	FD
22356.70	Joint 381	41° 13' 24.50" N	82° 37' 39.14" W	11.95	Joint 381	G	G	G	G	NR	NR	Joint 380 - Joint 381: Yes	Joint 380 - Joint 381: Yes	PD	PD
22416.54	Joint 382	41° 13' 24.60" N	82° 37' 39.92" W	11.93	Joint 382	P	G	G	G	PD	NR	Joint 381 - Joint 382: Yes	Joint 381 - Joint 382: Yes	PD	PD
22477.71	Joint 383	41° 13' 24.70" N	82° 37' 40.71" W	11.92	Joint 383	P	G	G	G	PD	NR	Joint 382 - Joint 383: Yes	Joint 382 - Joint 383: Yes	PD	PD

Location: Westbound Travel Lanes
File # 74 & 76 Start: 16.18
Direction: WB End: 10.73

G=Good	NR No Repair
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	FD Full Depth Repair

		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
22536.86	Joint 384	41° 13' 24.81" N	82° 37' 41.47" W	11.91	Joint 384	P	G	G	G	PD	NR	Joint 383 - Joint 384: No	Joint 383 - Joint 384: No	NR	NR
22595.54	Joint 385	41° 13' 24.87" N	82° 37' 42.24" W	11.90	Joint 385	G	G	G	P	NR	FD	Joint 384 - Joint 385: Yes	Joint 384 - Joint 385: Yes	FD	FD
22657.01	Joint 386	41° 13' 24.98" N	82° 37' 43.03" W	11.89	Joint 386	P	G	G	P	PD	FD	Joint 385 - Joint 386: No	Joint 385 - Joint 386: No	NR	NR
22718.47	Joint 387	41° 13' 25.07" N	82° 37' 43.83" W	11.88	Joint 387	G	G	G	P	NR	FD	Joint 386 - Joint 387: Yes	Joint 386 - Joint 387: Yes	PD	PD
22778.04	Joint 388	41° 13' 25.15" N	82° 37' 44.60" W	11.87	Joint 388	P	G	G	G	PD	NR	Joint 387 - Joint 388: Yes	Joint 387 - Joint 388: Yes	PD	PD
22834.04	Joint 389	41° 13' 25.25" N	82° 37' 45.32" W	11.86	Joint 389	G	G	G	G	NR	NR	Joint 388 - Joint 389: No	Joint 388 - Joint 389: No	NR	NR
22893.68	Joint 390	41° 13' 25.34" N	82° 37' 46.10" W	11.84	Joint 390	G	G	G	P	NR	FD	Joint 389 - Joint 390: Yes	Joint 389 - Joint 390: Yes	FD	FD
22957.48	Joint 391	41° 13' 25.42" N	82° 37' 46.93" W	11.83	Joint 391	G	G	G	G	NR	NR	Joint 390 - Joint 391: No	Joint 390 - Joint 391: No	NR	NR
23015.29	Joint 392	41° 13' 25.52" N	82° 37' 47.67" W	11.82	Joint 392	G	G	G	G	NR	NR	Joint 391 - Joint 392: Yes	Joint 391 - Joint 392: Yes	PD	PD
23076.71	Joint 393	41° 13' 25.64" N	82° 37' 48.46" W	11.81	Joint 393	P	G	G	G	PD	NR	Joint 392 - Joint 393: Yes	Joint 392 - Joint 393: Yes	PD	PD
23135.12	Joint 394	41° 13' 25.75" N	82° 37' 49.22" W	11.80	Joint 394	G	G	G	G	NR	NR	Joint 393 - Joint 394: Yes	Joint 393 - Joint 394: Yes	FD	FD
23196.63	Joint 395	41° 13' 25.84" N	82° 37' 50.01" W	11.79	Joint 395	G	G	G	G	NR	NR	Joint 394 - Joint 395: Yes	Joint 394 - Joint 395: Yes	PD	PD
23255.83	Joint 396	41° 13' 25.95" N	82° 37' 50.78" W	11.78	Joint 396	P	G	G	G	PD	NR	Joint 395 - Joint 396: Yes	Joint 395 - Joint 396: Yes	FD	FD
23313.45	Joint 397	41° 13' 26.10" N	82° 37' 51.51" W	11.76	Joint 397	P	P	G	G	PD	PD	Joint 396 - Joint 397: Yes	Joint 396 - Joint 397: Yes	PD	PD
23371.19	Joint 398	41° 13' 26.19" N	82° 37' 52.25" W	11.75	Joint 398	P	G	G	G	PD	NR	Joint 397 - Joint 398: No	Joint 397 - Joint 398: No	NR	NR
23430.77	Joint 399	41° 13' 26.29" N	82° 37' 53.02" W	11.74	Joint 399	P	G	G	G	PD	NR	Joint 398 - Joint 399: Yes	Joint 398 - Joint 399: Yes	FD	FD
23490.47	Joint 400	41° 13' 26.41" N	82° 37' 53.79" W	11.73	Joint 400	P	G	G	G	PD	NR	Joint 399 - Joint 400: Yes	Joint 399 - Joint 400: Yes	FD	FD
23545.68	Joint 401	41° 13' 26.52" N	82° 37' 54.50" W	11.72	Joint 401	P	P	G	G	PD	PD	Joint 400 - Joint 401: No	Joint 400 - Joint 401: No	NR	NR
23610.21	Joint 402	41° 13' 26.68" N	82° 37' 55.32" W	11.71	Joint 402	G	G	G	G	NR	NR	Joint 401 - Joint 402: No	Joint 401 - Joint 402: No	NR	NR
23670.39	Joint 403	41° 13' 26.81" N	82° 37' 56.09" W	11.70	Joint 403	P	G	G	G	PD	NR	Joint 402 - Joint 403: No	Joint 402 - Joint 403: No	NR	NR
23729.69	Joint 404	41° 13' 26.94" N	82° 37' 56.85" W	11.69	Joint 404	P	G	G	G	PD	NR	Joint 403 - Joint 404: No	Joint 403 - Joint 404: No	NR	NR
23797.79	Joint 405	41° 13' 27.14" N	82° 37' 57.70" W	11.67	Joint 405	P	G	G	G	PD	NR	Joint 404 - Joint 405: No	Joint 404 - Joint 405: No	NR	NR
23857.85	Joint 406	41° 13' 27.25" N	82° 37' 58.48" W	11.66	Joint 406	G	G	G	G	NR	NR	Joint 405 - Joint 406: No	Joint 405 - Joint 406: No	NR	NR
23914.94	Joint 407	41° 13' 27.35" N	82° 37' 59.22" W	11.65	Joint 407	G	G	G	G	NR	NR	Joint 406 - Joint 407: No	Joint 406 - Joint 407: No	PD	PD
23979.65	Joint 408	41° 13' 27.54" N	82° 38' 00.02" W	11.64	Joint 408	G	G	G	G	NR	NR	Joint 407 - Joint 408: Yes	Joint 407 - Joint 408: Yes	PD	PD
24037.45	Joint 409	41° 13' 27.67" N	82° 38' 00.75" W	11.63	Joint 409	P	G	G	G	PD	NR	Joint 408 - Joint 409: Yes	Joint 408 - Joint 409: Yes	FD	FD
24098.88	Joint 410	41° 13' 27.81" N	82° 38' 01.54" W	11.62	Joint 410	G	G	G	G	NR	NR	Joint 409 - Joint 410: No	Joint 409 - Joint 410: No	NR	NR
24153.99	Joint 411	41° 13' 27.99" N	82° 38' 02.22" W	11.61	Joint 411	G	G	G	P	NR	FD	Joint 410 - Joint 411: No	Joint 410 - Joint 411: No	NR	NR
24212.35	Joint 412	41° 13' 28.11" N	82° 38' 02.97" W	11.59	Joint 412	G	G	G	G	NR	NR	Joint 411 - Joint 412: Yes	Joint 411 - Joint 412: Yes	PD	PD
24270.57	Joint 413	41° 13' 28.23" N	82° 38' 03.72" W	11.58	Joint 413	G	G	G	G	NR	NR	Joint 412 - Joint 413: Yes	Joint 412 - Joint 413: Yes	PD	PD
24331.31	Joint 414	41° 13' 28.37" N	82° 38' 04.49" W	11.57	Joint 414	G	G	G	G	NR	NR	Joint 413 - Joint 414: Yes	Joint 413 - Joint 414: Yes	FD	FD
24391.12	Joint 415	41° 13' 28.52" N	82° 38' 05.25" W	11.56	Joint 415	G	G	G	G	NR	NR	Joint 414 - Joint 415: No	Joint 414 - Joint 415: No	NR	NR
24451.84	Joint 416	41° 13' 28.67" N	82° 38' 06.02" W	11.55	Joint 416	G	G	G	G	NR	NR	Joint 415 - Joint 416: Yes	Joint 415 - Joint 416: Yes	FD	PD
24513.90	Joint 417	41° 13' 28.83" N	82° 38' 06.81" W	11.54	Joint 417	G	G	G	G	NR	NR	Joint 416 - Joint 417: No	Joint 416 - Joint 417: No	NR	NR
24573.19	Joint 418	41° 13' 28.95" N	82° 38' 07.57" W	11.53	Joint 418	G	G	G	G	NR	NR	Joint 417 - Joint 418: Yes	Joint 417 - Joint 418: Yes	FD	FD
24633.04	Joint 419	41° 13' 29.12" N	82° 38' 08.32" W	11.51	Joint 419	G	G	G	G	NR	NR	Joint 418 - Joint 419: No	Joint 418 - Joint 419: No	NR	NR
24693.28	Joint 420	41° 13' 29.27" N	82° 38' 09.08" W	11.50	Joint 420	P	G	G	G	PD	NR	Joint 419 - Joint 420: No	Joint 419 - Joint 420: No	NR	NR
24756.50	Joint 421	41° 13' 29.42" N	82° 38' 09.89" W	11.49	Joint 421	G	G	G	G	NR	NR	Joint 420 - Joint 421: Yes	Joint 420 - Joint 421: Yes	FD	PD
24812.05	Joint 422	41° 13' 29.55" N	82° 38' 10.60" W	11.48	Joint 422	G	G	G	G	NR	NR	Joint 421 - Joint 422: No	Joint 421 - Joint 422: No	NR	NR

Location: Westbound Travel Lanes

File # 74 & 76 Start: 16.18

Direction: WB End: 10.73

G=Good	NR No Repair
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		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
24869.89	Joint 423	41° 13' 29.70" N	82° 38' 11.33" W	11.47	Joint 423	P	G	G	G	PD	NR	Joint 422 - Joint 423: No	Joint 422 - Joint 423: No	NR	NR
24934.53	Joint 424	41° 13' 29.86" N	82° 38' 12.15" W	11.46	Joint 424	G	G	G	P	NR	FD	Joint 423 - Joint 424: Yes	Joint 423 - Joint 424: Yes	FD	FD
24994.27	Joint 425	41° 13' 29.99" N	82° 38' 12.92" W	11.45	Joint 425	G	G	G	G	NR	NR	Joint 424 - Joint 425: No	Joint 424 - Joint 425: No	NR	NR
25055.07	Joint 426	41° 13' 30.15" N	82° 38' 13.69" W	11.43	Joint 426	G	G	G	G	NR	NR	Joint 425 - Joint 426: Yes	Joint 425 - Joint 426: Yes	PD	PD
25114.87	Joint 427	41° 13' 30.30" N	82° 38' 14.45" W	11.42	Joint 427	G	G	G	G	NR	NR	Joint 426 - Joint 427: No	Joint 426 - Joint 427: No	NR	NR
25174.73	Joint 428	41° 13' 30.44" N	82° 38' 15.21" W	11.41	Joint 428	G	G	G	G	NR	NR	Joint 427 - Joint 428: No	Joint 427 - Joint 428: No	NR	NR
25237.81	Joint 429	41° 13' 30.60" N	82° 38' 16.01" W	11.40	Joint 429	G	G	G	G	NR	NR	Joint 428 - Joint 429: No	Joint 428 - Joint 429: No	NR	NR
25293.89	Joint 430	41° 13' 30.75" N	82° 38' 16.72" W	11.39	Joint 430	P	G	G	G	PD	NR	Joint 429 - Joint 430: Yes	Joint 429 - Joint 430: Yes	FD	FD
25356.42	Joint 431	41° 13' 30.90" N	82° 38' 17.51" W	11.38	Joint 431	G	G	G	G	NR	NR	Joint 430 - Joint 431: No	Joint 430 - Joint 431: No	NR	NR
25416.69	Joint 432	41° 13' 31.05" N	82° 38' 18.28" W	11.37	Joint 432	G	G	G	G	NR	NR	Joint 431 - Joint 432: No	Joint 431 - Joint 432: No	NR	NR
25471.22	Joint 433	41° 13' 31.18" N	82° 38' 18.97" W	11.36	Joint 433	P	G	G	G	PD	NR	Joint 432 - Joint 433: No	Joint 432 - Joint 433: No	NR	NR
25529.32	Joint 434	41° 13' 31.30" N	82° 38' 19.72" W	11.34	Joint 434	G	G	G	G	NR	NR	Joint 433 - Joint 434: No	Joint 433 - Joint 434: No	NR	NR
25590.84	Joint 435	41° 13' 31.47" N	82° 38' 20.49" W	11.33	Joint 435	G	G	G	G	NR	NR	Joint 434 - Joint 435: Yes	Joint 434 - Joint 435: Yes	FD	PD
25648.34	Joint 436	41° 13' 31.59" N	82° 38' 21.23" W	11.32	Joint 436	P	G	G	P	PD	FD	Joint 435 - Joint 436: Yes	Joint 435 - Joint 436: Yes	FD	FD
25709.34	Joint 437	41° 13' 31.75" N	82° 38' 22.00" W	11.31	Joint 437	G	G	G	G	NR	NR	Joint 436 - Joint 437: Yes	Joint 436 - Joint 437: Yes	FD	PD
25769.36	Joint 438	41° 13' 31.89" N	82° 38' 22.77" W	11.30	Joint 438	G	G	G	G	NR	NR	Joint 437 - Joint 438: Yes	Joint 437 - Joint 438: Yes	PD	PD
25833.90	Joint 439	41° 13' 32.03" N	82° 38' 23.59" W	11.29	Joint 439	P	G	G	G	PD	NR	Joint 438 - Joint 439: Yes	Joint 438 - Joint 439: Yes	PD	PD
25895.05	Joint 440	41° 13' 32.19" N	82° 38' 24.37" W	11.28	Joint 440	P	P	G	G	PD	PD	Joint 439 - Joint 440: No	Joint 439 - Joint 440: No	NR	NR
25952.66	Joint 441	41° 13' 32.33" N	82° 38' 25.10" W	11.26	Joint 441	P	G	G	P	PD	FD	Joint 440 - Joint 441: Yes	Joint 440 - Joint 441: Yes	FD	FD
25995.83	Joint 442	41° 13' 32.42" N	82° 38' 25.65" W	11.26	Joint 442	P	P	G	G	PD	PD	Joint 441 - Joint 442: Yes	Joint 441 - Joint 442: Yes	FD	PD
26051.92	Bridge Joint	41° 13' 32.51" N	82° 38' 26.38" W	11.25	Bridge Joint	-	-	-	-	-	-	-	-	-	-
26334.12	Bridge Joint	41° 13' 33.21" N	82° 38' 29.96" W	11.19	Bridge Joint	-	-	-	-	-	-	-	-	-	-
26356.87	Approach Joint	41° 13' 33.25" N	82° 38' 30.26" W	11.19	Approach Joint	P	P	G	G	PD	PD	-	-	-	-
26377.61	Joint 443	41° 13' 33.31" N	82° 38' 30.51" W	11.18	Joint 443	P	P	P	P	FD	FD	Approach Joint - Joint 443: No	Approach Joint - Joint 443: No	NR	NR
26437.44	Joint 444	41° 13' 33.55" N	82° 38' 31.23" W	11.17	Joint 444	G	G	G	G	NR	NR	Joint 443 - Joint 444: Yes	Joint 443 - Joint 444: Yes	PD	PD
26484.44	Joint 445	41° 13' 33.68" N	82° 38' 31.82" W	11.16	Joint 445	G	G	G	G	NR	NR	Joint 444 - Joint 445: Yes	Joint 444 - Joint 445: Yes	PD	PD
26538.65	Joint 446	41° 13' 33.82" N	82° 38' 32.51" W	11.15	Joint 446	G	G	G	G	NR	NR	Joint 445 - Joint 446: No	Joint 445 - Joint 446: No	NR	NR
26597.34	Joint 447	41° 13' 33.96" N	82° 38' 33.25" W	11.14	Joint 447	G	G	G	G	NR	NR	Joint 446 - Joint 447: Yes	Joint 446 - Joint 447: Yes	PD	PD
26661.63	Joint 448	41° 13' 34.16" N	82° 38' 34.06" W	11.13	Joint 448	G	G	G	G	NR	NR	Joint 447 - Joint 448: No	Joint 447 - Joint 448: No	NR	NR
26721.51	Joint 449	41° 13' 34.32" N	82° 38' 34.81" W	11.12	Joint 449	G	G	G	G	NR	NR	Joint 448 - Joint 449: No	Joint 448 - Joint 449: No	NR	NR
26778.70	Joint 450	41° 13' 34.48" N	82° 38' 35.53" W	11.11	Joint 450	G	G	G	G	NR	NR	Joint 449 - Joint 450: Yes	Joint 449 - Joint 450: Yes	PD	PD
26842.21	Joint 451	41° 13' 34.70" N	82° 38' 36.31" W	11.10	Joint 451	G	G	G	G	NR	NR	Joint 450 - Joint 451: No	Joint 450 - Joint 451: No	NR	NR
26901.39	Joint 452	41° 13' 34.86" N	82° 38' 37.06" W	11.09	Joint 452	G	G	G	G	NR	NR	Joint 451 - Joint 452: Yes	Joint 451 - Joint 452: Yes	PD	PD
26958.30	Joint 453	41° 13' 35.06" N	82° 38' 37.76" W	11.07	Joint 453	G	G	G	G	NR	NR	Joint 452 - Joint 453: No	Joint 452 - Joint 453: No	NR	NR
27021.06	Joint 454	41° 13' 35.26" N	82° 38' 38.53" W	11.06	Joint 454	G	G	G	G	NR	NR	Joint 453 - Joint 454: No	Joint 453 - Joint 454: No	NR	NR
27081.84	Joint 455	41° 13' 35.51" N	82° 38' 39.26" W	11.05	Joint 455	G	G	G	G	NR	NR	Joint 454 - Joint 455: No	Joint 454 - Joint 455: No	NR	NR
27140.95	Joint 456	41° 13' 35.76" N	82° 38' 39.96" W	11.04	Joint 456	G	G	G	G	NR	NR	Joint 455 - Joint 456: Yes	Joint 455 - Joint 456: Yes	PD	PD
27196.93	Joint 457	41° 13' 35.99" N	82° 38' 40.63" W	11.03	Joint 457	P	G	G	P	PD	FD	Joint 456 - Joint 457: No	Joint 456 - Joint 457: No	NR	NR
27257.90	Joint 458	41° 13' 36.24" N	82° 38' 41.36" W	11.02	Joint 458	G	G	G	P	NR	FD	Joint 457 - Joint 458: Yes	Joint 457 - Joint 458: Yes	PD	PD

Location: Westbound Travel Lanes

File # 74 & 76 Start: 16.18

Direction: WB End: 10.73

G=Good	NR No Repair
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		Latitude	Longitude			Visual Condition		GPR Condition		Joint Repair Recommendation		Mid Slab Cracks?		Mid Slab Cracks Repair Recommendation	
Distance (ft)	Joint Number	Degrees/ Minutes/ Seconds	Degrees/ Minutes/ Seconds	Milepost +/-	Photo	Driving Lane	Passing Lane	Driving Lane	Passing Lane	Driving lane	Passing lane	Driving Lane	Passing Lane	Driving Lane	Passing Lane
27316.14	Joint 459	41° 13' 36.50" N	82° 38' 42.04" W	11.01	Joint 459	G	G	G	P	NR	FD	Joint 458 - Joint 459: Yes	Joint 458 - Joint 459: Yes	PD	PD
27365.09	Joint 460	41° 13' 36.71" N	82° 38' 42.62" W	11.00	Joint 460	G	G	G	P	NR	FD	Joint 459 - Joint 460: Yes	Joint 459 - Joint 460: Yes	FD	FD
27381.45	Approach Joint	41° 13' 36.79" N	82° 38' 42.80" W	10.99	Approach Joint	G	G	G	G	NR	NR	Joint 460 - Approach Joint: No	Joint 460 - Approach Joint: No	NR	NR
27409.89	Bridge Joint	41° 13' 36.92" N	82° 38' 43.13" W	10.99	Bridge Joint	-	-	-	-	-	-	-	-	-	-
27631.05	Bridge Joint	41° 13' 38.00" N	82° 38' 45.66" W	10.95	Bridge Joint	-	-	-	-	-	-	-	-	-	-
27659.33	Approach Joint	41° 13' 38.13" N	82° 38' 45.99" W	10.94	Approach Joint	P	P	G	G	PD	PD	-	-	-	-
27723.92	Joint 461	41° 13' 38.49" N	82° 38' 46.68" W	10.93	Joint 461	G	G	G	G	NR	NR	Approach Joint - Joint 461: Yes	Approach Joint - Joint 461: Yes	FD	FD
27798.70	Joint 462	41° 13' 38.94" N	82° 38' 47.46" W	10.92	Joint 462	G	G	G	G	NR	NR	Joint 461 - Joint 462: Yes	Joint 461 - Joint 462: Yes	FD	FD
27836.41	Joint 463	41° 13' 39.11" N	82° 38' 47.89" W	10.91	Joint 463	G	G	G	G	NR	NR	Joint 462 - Joint 463: Yes	Joint 462 - Joint 463: Yes	PD	PD
27876.09	Joint 464	41° 13' 39.31" N	82° 38' 48.34" W	10.90	Joint 464	G	G	G	G	NR	NR	Joint 463 - Joint 464: No	Joint 463 - Joint 464: No	NR	NR
27935.45	Joint 465	41° 13' 39.62" N	82° 38' 49.00" W	10.89	Joint 465	G	G	G	G	NR	NR	Joint 464 - Joint 465: No	Joint 464 - Joint 465: No	NR	NR
27998.50	Joint 466	41° 13' 39.96" N	82° 38' 49.69" W	10.88	Joint 466	G	G	G	G	NR	NR	Joint 465 - Joint 466: No	Joint 465 - Joint 466: No	NR	NR
28061.30	Joint 467	41° 13' 40.29" N	82° 38' 50.39" W	10.87	Joint 467	P	G	G	G	PD	NR	Joint 466 - Joint 467: No	Joint 466 - Joint 467: No	NR	NR
28124.44	Joint 468	41° 13' 40.64" N	82° 38' 51.07" W	10.85	Joint 468	P	G	G	P	PD	FD	Joint 467 - Joint 468: No	Joint 467 - Joint 468: No	NR	NR
28178.76	Joint 469	41° 13' 40.97" N	82° 38' 51.64" W	10.84	Joint 469	G	G	G	G	NR	NR	Joint 468 - Joint 469: No	Joint 468 - Joint 469: No	NR	NR
28237.44	Joint 470	41° 13' 41.25" N	82° 38' 52.31" W	10.83	Joint 470	G	G	G	G	NR	NR	Joint 469 - Joint 470: Yes	Joint 469 - Joint 470: Yes	PD	PD
28270.71	Joint 471	41° 13' 41.43" N	82° 38' 52.68" W	10.83	Joint 471	G	G	G	G	NR	NR	Joint 470 - Joint 471: No	Joint 470 - Joint 471: No	NR	NR
28314.74	Joint 472	41° 13' 41.67" N	82° 38' 53.15" W	10.82	Joint 472	P	G	G	G	PD	NR	Joint 471 - Joint 472: No	Joint 471 - Joint 472: No	NR	NR
28377.97	Joint 473	41° 13' 41.96" N	82° 38' 53.89" W	10.81	Joint 473	G	G	G	G	NR	NR	Joint 472 - Joint 473: No	Joint 472 - Joint 473: No	NR	NR
28421.95	Joint 474	41° 13' 42.18" N	82° 38' 54.39" W	10.80	Joint 474	P	G	G	G	PD	NR	Joint 473 - Joint 474: No	Joint 473 - Joint 474: No	NR	NR
28471.04	Joint 475	41° 13' 42.44" N	82° 38' 54.93" W	10.79	Joint 475	G	G	G	G	NR	NR	Joint 474 - Joint 475: No	Joint 474 - Joint 475: No	NR	NR
28525.85	Joint 476	41° 13' 42.68" N	82° 38' 55.58" W	10.78	Joint 476	P	G	G	G	PD	NR	Joint 475 - Joint 476: No	Joint 475 - Joint 476: No	NR	NR
28547.38	Joint 477	41° 13' 42.76" N	82° 38' 55.84" W	10.77	Joint 477	G	G	P	P	FD	FD	Joint 476 - Joint 477: No	Joint 476 - Joint 477: No	NR	NR
28562.05	Approach Joint	41° 13' 42.84" N	82° 38' 56.00" W	10.77	Approach Joint	P	P	G	G	PD	PD	Joint 477 - Approach Joint: No	Joint 477 - Approach Joint: No	NR	NR
28587.73	Bridge Joint	41° 13' 42.96" N	82° 38' 56.29" W	10.77	Bridge Joint	-	-	-	-	-	-	-	-	-	-
28755.32	End of Job	41° 13' 43.67" N	82° 38' 58.28" W	10.73	End of Job	-	-	-	-	-	-	-	-	-	-

APPENDIX E
DESCRIPTION OF TOOLS AND EQUIPMENT TO PERFORM GROUND PENETRATING RADAR (GPR) AND METHODS OF SURVEY AND ANALYSIS

I. TOOLS AND EQUIPMENT TO PERFORM GPR

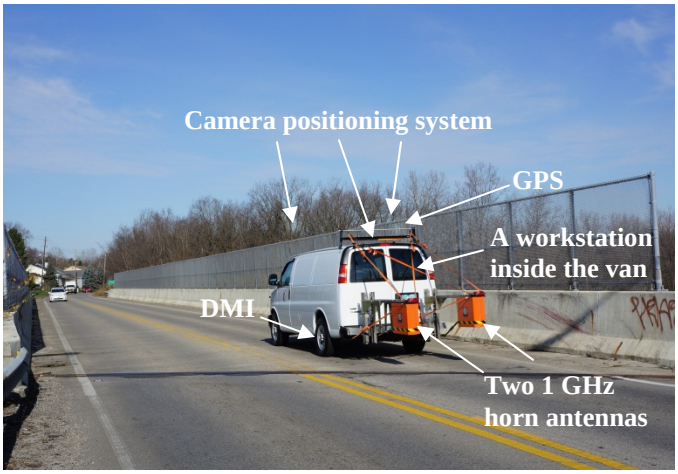
1. Background

Ground Penetrating Radar (GPR) manufactured by Geophysical Survey Systems, Inc. (GSSI) is used to conduct non-destructive testing of pavements and bridge decks at travel speeds up to 50 miles per hour for bridge decks survey and up to 65 miles per hour for pavement data collection. This method includes two air-launched Model 4108 horn antennas (Central frequency of 1000 MHz), the SIR-30 with high performance computer, a distance-measuring instrument (DMI), and a three-camera alignment system. GPR is the state of the art method to evaluate pavement conditions, measure pavement thicknesses, detect bridge deck delaminations, and estimate quantities of concrete rehab or repair within bridge decks.

The radar transmits a radio pulse with a frequency of 1 GHz into the subsurface. The GPR system uses electromagnetic wave propagation to image, locate, and quantitatively identify changes in electrical and magnetic properties in the surveyed area. The ability to detect a subsurface feature depends upon contrast in electrical and magnetic properties. These electric field data have to be processed to correct for distortions, artifacts of data acquisition, removal of interferences, and to provide accurate calibrated positions in time and distance. GPR is capable of locating various materials since the radar signal reflection from these objects depends on contrasting dielectric properties of the material, not just high electrical conductivity.

2. Survey Vehicle

Resource International survey vehicle is equipped with



1 GHz antennas mounted behind a moving vehicle

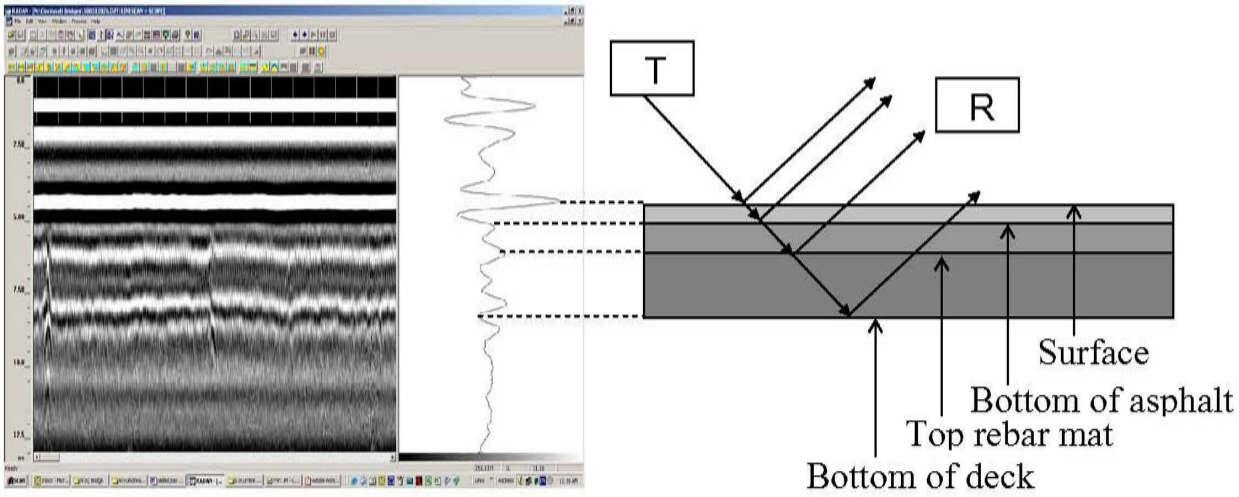
- GSSI SIR-30 radar system (Control Unit) and two 1 GHz air-launched antennas attached to the rear of the van on an adjustable mounting system.
- Corrsys-Datron DMI wheel pulse encoder for accurate survey length measurements.
- Trimble GPS system PROXH
- A three camera alignment system for accurate survey width measurements.
- A workstation inside the van for the operator during data collection.
- An Inverter Generator
- Several hazard lights that comply with state and federal standards for this type of survey.
    - Rear facing arrow sticks lights
    - Top mounted strobe light
    - Safety light at end of mounting system.

3. Camera Positioning

The camera positioning system allows the driving lanes of the pavement to be surveyed along desired positions. The survey vehicle is equipped with a three camera positioning system located on either side and in the rear of the vehicle. This system allows the driver to maintain a specified distance from a reference line throughout the survey. The reference lines used are the painted edge lines of each lane surveyed.

4. SIR-30 Radar System Control Unit

A trigger pulse is generated in the control unit at a normal repetition rate. The trigger pulse is then sent through the control cable to the transmitter electronics in the transducer (antenna). The transmit pulse then propagates along the antenna and is radiated into the subsurface. In the subsurface, reflections occur at boundaries where there is a dielectric contrast. The reflected portion of the signal travels back to the antenna. The receiver in the antenna detects the returning signal and sends it back to the control unit. In the control unit the signal is processed and displayed (see the GPR signal graph below).



GPR Scan/Raw data

The SIR-30 Radar System includes:

- Digital system data recording to hard drive, CD, and flash drive.
- 4 antenna channels.
- Advanced gain and filter functions to clarify the data.
- Fast scan rates (500 scans/sec) allow faster survey speeds.
- Size of objects detectable (wire mesh (millimeters) to large geological features).

5. Distance Measuring Instrument (DMI)

The DMI, manufactured by Corrsys-Datron, allows to correlate radar transmitted pulses to the longitudinal location of the surveyed area. The DMI also allows the vehicle to fluctuate speed from 0 to 122 mph and still accurately record the longitudinal location of the received radar pulses.

6. Metal plate

For calibration purposes, a 4' x 4' metal plate is placed beneath the antennas at a known height (19") to collect a "bumper jump" calibration file. This calibration file is processed and then used in the process of the raw data to correct for distortions, artifacts of data acquisition, removal of interferences, and to provide accurate calibrated positions in time and distance.

7. Data Collection Limitations

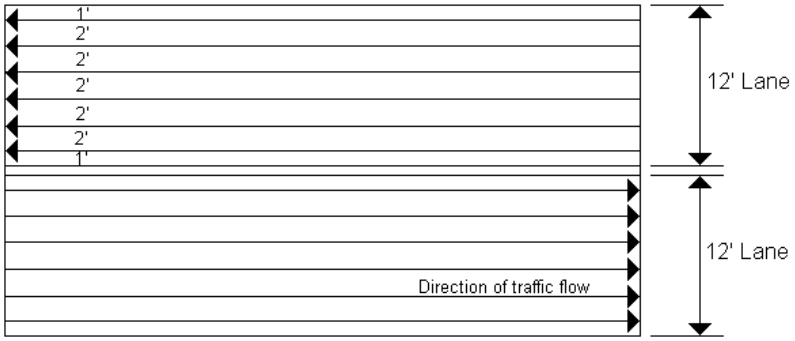
GPR data collection is performed on dry pavement due to the high dielectric constant of water. The settings are optimized for resolution clarity and include only the following limitations:

- For the survey of bridges, the maximum scanning rate limits the GPR van's velocity for high detail data collection (2-inch increments).
- The air-launched antennas must be mounted on the van and therefore survey areas are limited to areas accessible by the van.

II. METHOD OF SURVEY AND ANALYSIS

1. Bridge deck Survey

The GPR bridge deck survey is performed by making a series of passes over the bridge deck in a continuous loop. Survey scan lines are spaced in 2.0 ft increments over the entire driving surface of the bridge deck (see image on right) and achieved at intervals of 2-inch longitudinally. In order to accomplish this, six passes will be made in each lane (assuming a 12 foot lane). Additional passes, when required, will be conducted to include the shoulders so the entire bridge deck area will be covered.



GPR Survey Scan Lines of a 2-Lane Bridge Deck

GPR is extensively used today to assess the conditions of bridge decks, in search of concrete deterioration, moisture or even debonding of the deck overlay. Consultants use van-mounted antennas moving at a speed such that a lane closure is not necessary. Depending on the number of antennas used and the output resolution desired, the speed varies from 25 miles per hour to 50 miles per hour. The speed can be augmented but at a risk of decreasing the data output resolution. The work is completed in accordance with all applicable segments of ASTM Specification D6087-08 Standard Test Method for Evaluating Asphalt-Covered Concrete Bridge Decks Using Ground Penetrating radar.

Two van-mounted antenna data collection methodologies are generally used. The single-polarization methodology utilizes two air-launched horn antennas (1000 MHz) mounted on booms so that the antennas scan on two different paths. It is probably the most common method of GPR bridge deck evaluation. It has been around the longest and provides good, overall results. The antennas are deployed at an orientation where they are sensitive to the reinforcing steel placed in the transverse directions within the deck. The single-polarization method using two antennas has the advantage of covering more deck surface in a single day. The method provides fairly accurate deterioration quantity assessments that can be used to help decide identify locations that can best confirm that corrosion is taking place in predicted areas. The dual-polarization method uses two 1 GHz antennas mounted-in-line, so that one antenna is more sensitive to the transverse steel and the other to the longitudinal steel of the top mat

rebar. The subtraction of the two signals generates a higher resolution data output. Planar effects caused by thin overlays, undesirable artifacts which cannot be removed by the single-polarization technique are removed using this method. The dual-polarization method is the most practical method for all purposes GPR work, which accurately predicts degree, extent, and location of deteriorated regions within the deck.

Dual-Polarization Methodology

Single-Polarization Methodology

A ground-coupled method uses a higher resolution antenna with a center frequency of 1.5 GHz or greater. It provides highly accurate GPR survey results. However its slower data collection speed necessitates lane closures making it less attractive in congested areas and on Network-level projects where several bridges have to be surveyed in a short period of time and at low cost. This method is economical as a project-level evaluation tool on short bridges and in rural areas with limited traffic so that lane closures are not necessary.

Ground-Coupled Methodology

2. Bridge deck Analysis

GPR data collected from the field is used to evaluate the condition of the bridge deck. The software developed by the manufacturer of the GPR equipment *Geophysical Survey Systems Incorporated* (GSSI), called RADAN (Radar Data Analyzer for Windows NT), is used to process the field data according to the procedure developed by GSSI and in compliance with ASTM D 6087-08 specifications. Several processing functions such as data horizontal and vertical filtering, surface normalization, distance normalization, velocity correction, migration and background removal are applied to the raw data to produce high quality data. The results of this analysis are used to determine the bridge deck deterioration conditions.

Three different methodologies are generally used to assess the condition of the concrete of a bridge deck. The attenuation technique calculates deterioration based on the reflection from the bottom of the deck relative to the surface of the deck. If the radar signal is strongly attenuated as a result of moisture and chloride contents within the deck, the amplitude of the signal is highly reduced. Another method, used for asphalt-covered decks, is to measure the dielectric values of the concrete. If the concrete has high moisture and chloride contents, it produces a large reflection at the asphalt/concrete interface. The third method, known as the top reinforcing technique, measures the amplitude of the reflection at the top mat reinforcing. If the reflected signal is highly attenuated as a result of moisture, high chloride content, concrete delamination, rebar corrosion or a combination of some or all of these factors within the concrete, the amplitude of the signal is greatly reduced (see GPR scan below). This scan illustrates typical examples of various bridge deck concrete conditions. It shows the areas of “no deterioration”, “impending deterioration” and “deterioration”.

The GPR scan of Figures 1 and 2 are the field data collected by Rii from a Stay-in-Place Metal Form (SIMPF) bridge using the air-launched 1 GHz antenna (Figure 1) and the ground-coupled 1.5 GHz antenna (Figure 2). This work was a part of a research study conducted by the University of Toledo to determine the potential for using GPR to inspect the bridge deck concrete quality immediately above the SIMPF [5].

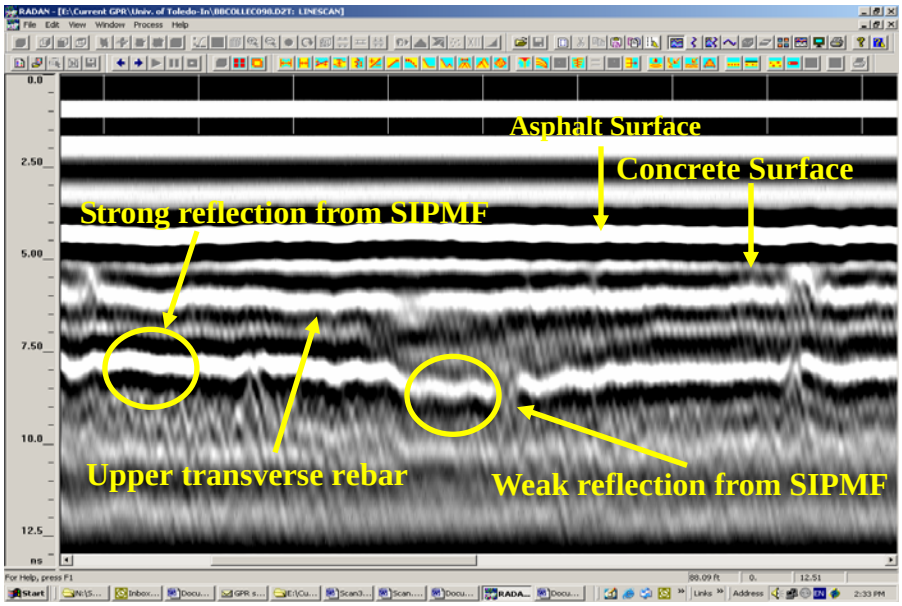
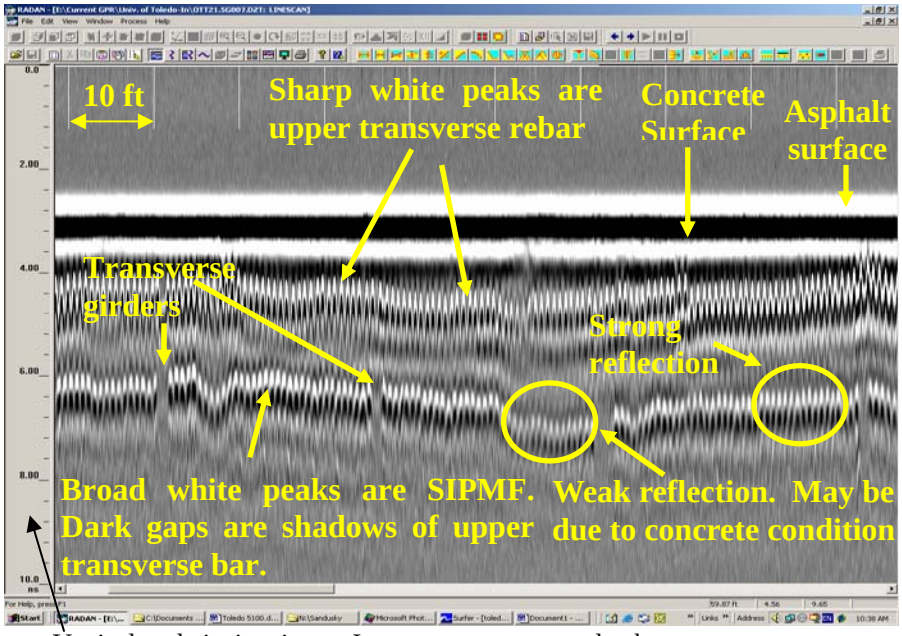


Figure 1. Typical GPR scan showing strong and weak signal returns from the SIPMF (1 GHz Air Launched Antenna)



Vertical scale is time in ns. It represents apparent depth.

Figure 2. Typical GPR scan showing strong and weak signal returns from the SIPMF (1.5 GHz Ground-Coupled Antenna)

III. PUBLICATIONS

Resource International, Inc. (Rii) has extensive experience conducting GPR surveys in general, and bridge deck GPR surveys in particular. Since 2002, Rii has surveyed over 14 million square feet in bridge decks including bridges such as the Santa Monica Viaduct, the San Francisco-Oakland Bay Bridge, the Richmond-San Rafael Bridge, the Vincent Thomas Bridge, the Harry Nice bridge and the Brent Spence bridge, to name a few. The following are some publications related to bridge deck surveys involving Resource International Engineers.

1. Todd Majidzadeh, Cherif Amer-Yahia, Bridge and Road Inspection Using GPR, ASNT Fall Conference & Quality Testing Show 2005, Columbus, OH, 17-21 October, 2005.
2. Todd Majidzadeh, Cherif Amer-Yahia, Evaluation of the conditions of the San Francisco-Oakland Bay Bridge and the Richmond-San Rafael Bridge using GPR, ASNT Fall Conference & Quality Testing Show 2006, Houston, TX, 23-27 October, 2006.
3. Nikhil Khedekar, Cherif Amer-Yahia, Todd Majidzadeh, Ground Penetrating Radar: A Modern Day Tool in Bridge program Management, ASNT Fall Conference & Quality Testing Show 2007, Las Vegas, NV, 12-16 November, 2007.
4. Robert Parrillo, Roger Roberts, Todd Majidzadeh, Cherif Amer-Yahia, Bridge Deck Condition Assessment Using GPR: Comparison of 1GHz and 2GHz Air-Launched Horn Antennas, ASNT Fall Conference & Quality Testing Show 2007, Las Vegas, NV, 12-16 November, 2007.
5. *Douglas Nims, Nabil Grace, Evaluation of Stay-in-Place Metal Forms, Report FHWA/OH-2006/13 prepared for the Ohio Department of Transportation, May 2006.

*The GPR study was conducted by Resource International, Inc for this research project.