

ITR CONCESSION COMPANY, LLC



indiana
TOLL ROAD

ANNUAL STATE OF THE ITR REPORT
JULY 1, 2014—JUNE 30, 2015

FINAL DRAFT



ANNUAL STATE OF THE ITR REPORT
JULY 1, 2014 – JUNE 30, 2015



PREFACE

This 2014-2015 Indiana Toll Road *Annual State of the ITR Report* has been prepared in accordance with the *Concession and Lease Agreement for the Indiana Toll Road*.

The intention and goal of the annual report is to provide the ITRCC with a logical and systemic approach to infrastructure maintenance as well as developing its future capital expense projects. Further, with data contained herein, the ITRCC can properly establish maintenance goals and standards to maximize the safety and protection of the public through the identification of hazardous conditions thereby allowing the ITRCC to eliminate and correct the observed deficiencies.

In summary and as a professional message from URS Corporation, it is important to note that the development of this project was only possible with the assistance and cooperation of personnel in several departments at the ITRCC. A few of the people directly aiding in completion of this annual report include:

- Mr. Ken Daley, Chief Executive Officer
- Mr. Rick Fedder, Chief Operating Officer
- Mr. Robert Ladson, PE, Director - Infrastructure
- Mr. Patrick Condon, Roadway Manager
- Mr. Ed Eiseman, Environmental Manager
- Mr. Nathan Edwards, EI, Infrastructure Engineer
- Mr. Dave Sergent, Infrastructure Field Technician

For their direct and indirect assistance, the URS Corporation team is truly thankful.

Project:

Annual State of the ITR and
Capital Improvement Programs Report
July 1, 2014 – June 30, 2015

July, 2015

The following individuals have developed and/or reviewed the attached report

Jeffrey P. Bucholc, PE, SE
Indiana Registration #11400232

All inquiries of the findings within may be directed to Mr. Jeffrey Bucholc at:

URS Corporation
100 South Wacker Drive, Suite 500
Chicago, Illinois 60606

Office: (312) 939-5000
Email: jeffrey.bucholc@urs.com

Listing of Project Personnel

URS Corporation

Jeffrey P. Bucholc, PE, SE

Project Manager
QA/QC Review

Dallas Montgomery, PE

Senior Bridge Engineer
Bridge Inspection Team Leader
Fracture Critical Inspections
Underwater Conditions Inspection

Russell A. Coate, EIT

Bridge Engineer
Roadway Condition Report
Maintenance Items Report

Melita Ristovska/Jonas Packer, RA

Facilities Inspection Report

Jennifer Tobergte, PE

Accurate Engineering, LLC
Facilities Inspection Report

George A. Braam, PE

Senior Manager, Water Resources
Environmental Audit Report

Scott Beckmeyer, EIT

Environmental Consultant



TABLE OF CONTENTS



Table of Contents

Listing of Project Personnel	3
Table of Contents	4
List of Tables	7
List of Figures	10
List of References, Abbreviations, and Acronyms	12
Part A: Detailed Review	14
SECTION 1. Background.....	14
1.1 Lease Agreement.....	14
1.2 ITR Location Map.....	15
PART B: General Condition & Rating Summary	17
SECTION 1. Background.....	17
SECTION 2. General Condition & Rating Summary.....	19
2.1 Bridge and Structure Condition Report Summary.....	19
2.1.1 Overview of Bridge OPI Measures.....	19
2.1.2 Summary of NBI Ratings & Asset Sufficiency Rating.....	19
2.2 Summary of Mainline Pavement.....	28
2.3 Summary of Toll Plaza Ramp Pavement.....	29
2.4 Summary of Travel Plaza Parking Lot Pavement.....	30
2.5 Facility Condition Report Summary.....	31
SECTION 3. Bridge and Structure Condition Report.....	34
3.1 General.....	34
3.1.1 Routine Bridge Inspections.....	34
3.1.2 Fracture Critical Inspections.....	34
3.1.3 Underwater Inspections.....	34
3.1.4 Special Inspections.....	35
3.2 Bridge Organizational Performance Index (BOPI).....	36
3.3 Bridge Condition Summary.....	40
3.4 Fracture Critical Member Report (Summary).....	42
3.4.1 Bridge 1A-1 over US 12/20 & US41.....	42
3.4.2 Bridge 1-3.....	42
3.4.3 Bridges 28-1 EBL & WBL over St. Joseph River.....	43
3.5 Underwater Condition Report (Summary).....	43
3.6 Pin & Hanger Inspection.....	44
3.7 Post Tension Inspection.....	45
3.7.1 Bridge 35-1.6 carrying County Road 17 Ramp over the Mainline.....	45
3.7.2 Bridges 32-6 EBL & WBL over County Road 7.....	46
3.8 Steel Pier Cap Inspection.....	46
3.9 Vertical Clearance.....	47
3.10 Bridge Structures Maintained and Inspected by Others.....	48
3.11 Bridge Structures Maintained by Others but Inspected by Toll Road.....	48
3.12 New Bridge Structures.....	49

- 3.13 Demolished Structures49
- 3.14 Transferred and Decommissioned Structures49
- SECTION 4. Roadway Condition Report..... 50
 - 4.1 Pavement History.....50
 - 4.2 Pavement Organizational Performance Index (POPI).....51
 - 4.3 Mainline Pavement52
 - 4.3.1 Mainline Pavement – Pavement Quality Index (PQI) – Overall Condition Rating52
 - 4.3.2 Mainline Pavement – International Roughness Index (IRI).....56
 - 4.3.3 Mainline Pavement – Rutting (RUT)58
 - 4.3.4 Mainline Pavement – Pavement Condition Rating (PCR).....60
 - 4.3.5 (a) Surface Friction (FNS) – Mainline Pavement.....62
 - 4.3.6 (b) Surface Friction (FNS) – Bridge Decks.....64
 - 4.4 Toll Plaza Ramp and Travel Plaza Lot Pavement.....65
 - 4.4.1 Toll Plaza Ramp Pavement66
 - 4.4.2 Travel Plaza Lot Pavement.....68
- SECTION 5. Maintenance Items Report..... 70
 - 5.1 General70
 - 5.2 Maintenance Items - Organizational Performance Index (OPI).....71
 - 5.2.1 Mainline Maintenance Items73
 - 5.2.2 Toll Plaza Ramp Maintenance Items.....77
 - 5.2.3 Travel Plaza Parking Lot Maintenance Items81
 - 5.3 Recommended Improvements85
 - 5.3.1 Guardrail Deficiencies.....85
 - 5.3.2 Pavement Deficiencies85
 - 5.3.3 Litter Deficiencies85
 - 5.3.4 Drainage Obstruction Deficiencies.....85
 - 5.3.5 Sign Deficiencies85
 - 5.3.6 Pavement Marking Deficiencies.....85
 - 5.3.7 Fencing Deficiencies.....85
 - 5.3.8 Lighting Deficiencies.....86
 - 5.4 Areas of Achieved Improvement.....86
- SECTION 6. Facilities Condition Report – Group A 87
 - 6.1 General87
 - 6.2 Preventative Maintenance Program.....88
 - 6.3 Facility Responsibility Statement89
 - 6.4 Major Buildings Overview with Elements in Poor Condition:.....90
 - 6.5 Current Facilities Capital Expense Projects93
 - 6.6 Facility Assessment Priority Findings Database93
- SECTION 7. Treatment Plants and Other Environmental Issues Report..... 125
 - 7.1 General125
 - 7.2 Environmental Records.....125
 - 7.3 Wastewater Treatment.....126
 - 7.3.1 Treatment Plants126
 - 7.3.2 Land Application129
 - 7.3.3 Septic Systems.....129

7.3.4	Lift Stations.....	131
7.4	Water Treatment.....	131
7.4.1	Public Water Supply	131
7.4.2	Backflow Preventers	133
7.4.3	Wells.....	134
7.4.4	Water Supply	135
7.5	Hazardous Material Management/Response to Hazardous Substance Emergencies.....	136
7.5.1	Response to Patron Related Released Substance Emergencies.....	136
7.5.2	Hazardous Waste	138
7.5.3	Universal Waste Such as Lamps and Lead Acid Batteries.....	140
7.5.4	Used Oil.....	141
7.5.5	Waste Tires	141
7.5.6	Spill Prevention Control and Countermeasures Plan	141
7.5.7	Training and Education.....	142
7.6	Underground Storage Tanks.....	142
7.7	Air	143
7.8	Herbicides and Pesticides.....	145
7.9	Storm Water Management.....	145
7.9.1	Other Point Source Discharges.....	145
7.10	Community Right-to-Know.....	147
7.11	Materials Management	147
7.12	Regulatory Compliance	149
7.13	Additional Initiatives	149

List of Tables

Table 1.1: Maintenance Districts and Corresponding Mile Points and Plazas..... 18

Table 2.1: NBI and Bridge Sufficiency Ratings for all Bridges on ITR28

Table 2.2 – Mainline Pavement Conditions28

Table 2.3 – Toll Plaza Ramp Conditions29

Table 2.4 - Travel Plaza Ramp Conditions..... 30

Table 2.5 – Facility Condition States33

Table 2.6: Special Detail Bridges 36

Table 2.7: Average Bridge Sufficiency Rating and Percent Deficiencies of Elements from 1998-2014.....41

Table 2.8: Bridges with Min. Vertical Clearance less than 16'-0". Future rehabilitation of these bridges will include increasing the vertical clearance as required to meet the minimum clearance requirement.47

Table 2.9: Bridge Structures Maintained and Inspected by Others 48

Table 2.10: Bridge Structures Maintained by Others but Inspected by Toll Road48

Table 3.1: Pavement Quality Index (PQI) Rating Percentages and Averages from 1999 to 201555

Table 3.2: International Roughness Index (IRI) Summary..... 56

Table 3.3: Rutting (RUT) Summary58

Table 3.4: Pavement Condition Rating (PCR) Summary.....60

Table 3.5: Friction Number (FNS) Summary 62

Table 3.6: Pavement Condition Survey Qualitative Rating System65

Table 3.7: Pavement Condition Survey of Toll Plaza Ramps66

Table 3.8: Pavement Condition Survey of Travel Plaza Lots	68
Table 4.1: Summary of Toll Road System Quantities.....	70
Table 4.2: Mainline Maintenance Items for Toll Road	73
Table 4.3: Mainline Maintenance Items for M-1	74
Table 4.4: Mainline Maintenance Items for M-2	74
Table 4.5: Mainline Maintenance Items for M-3	75
Table 4.6: Mainline Maintenance Items for M-4	75
Table 4.7: Mainline Maintenance Items for M-5	76
Table 4.8: Toll Plaza Maintenance Items for Toll Road.....	77
Table 4.9: Toll Plaza Maintenance Items for M-1	78
Table 4.10: Toll Plaza Maintenance Items for M-2	78
Table 4.11: Toll Plaza Maintenance Items for M-3	79
Table 4.12: Toll Plaza Maintenance Items for M-4	79
Table 4.13: : Toll Plaza Maintenance Items for M-5	80
Table 4.14: Travel Plaza Maintenance Items for Toll Road.....	81
Table 4.15: Travel Plaza Maintenance Items for M-1	82
Table 4.16: Travel Plaza Maintenance Items for M-2.....	82
Table 4.17: Travel Plaza Maintenance Items for M-3.....	83
Table 4.18: Travel Plaza Maintenance Items for M-4	83
Table 4.19: Travel Plaza Maintenance Items for M-5.....	84

Table 7.1: NPDES Permits.....	126
Table 7.2: Wastewater Operators.....	127
Table 7.3: Land Application Permits.....	129
Table 7.4: Pumping Frequency for Certain Wastewater Treatment Units	130
Table 7.5: ITRCC Septic Systems and Lift Stations Stand-Alone or Connected to a System other than an ITRCC Wastewater Treatment Plant	131
Table 7.6: Public Water Supply Permits.....	132
Table 7.7: Water Operator Certifications	133
Table 7.8: Licensed Backflow Technicians.....	133
Table 7.9: Backflow Preventers to be relocated	134
Table 7.10: Drinking Water Wells Recommended for Replacement.....	134
Table 7.11: Status of IFA Remediation Activities.....	135
Table 7.12: Air Permit Details.....	143
Table 7.13: Community Right-to-Know Hazardous Chemical Inventory Forms.....	147

List of Figures

Figure 2.1: Bridge Condition Ratings..... 40

Figure 3.1: Pavement Quality Index (PQI) for east bound mainline at one mile intervals..... 53

Figure 3.2: Pavement Quality Index (PQI) for west bound mainline at one mile intervals 53

Figure 3.3: Pavement Quality Index (PQI) rating percentages for the entire mainline from 2005 to 2015..... 54

Figure 3.4: *Pavement Quality Index (PQI) for east bound and west bound mainline from 2005 to 2015..... 54

Figure 3.5: International Roughness Index (IRI) for east bound mainline at one mile intervals 57

Figure 3.6: International Roughness Index (IRI) for west bound mainline at one mile intervals 57

Figure 3.7: Rutting (RUT) for east bound mainline at one mile intervals 59

Figure 3.8: Rutting (RUT) for west bound mainline at one mile intervals..... 59

Figure 3.9: Pavement Condition Rating (PCR) for east bound mainline at approximate one mile intervals 61

Figure 3.10: Pavement Condition Rating (PCR) for west bound mainline at approximate one mile intervals..... 61

Figure 3.11: Friction Number (FNS) 2015 for east bound mainline at approximate one mile intervals 63

Figure 3.12: Friction Number (FNS) 2015 for west bound mainline at approximate one mile intervals 63

Figure 3.13: Average Friction Number (FNS) for east bound and west bound mainline from 2005 to 2015..... 64

Figure 3.14: Pavement rating percentages for the toll plaza ramps from 2005 to 2015 67

Figure 3.15: Pavement rating percentages for the travel plaza lots from 2005 to 2015..... 69

Figure 7.1: Sodium Hypochlorite in Adequate Containment..... 127

Figure 7.2: Travel Plaza 3 WWTP (a) UV Treatment Unit (b) Aeromod Selector Tank 128

Figure 7.3: Condition of Aging..... 134

Figure 7.4: Spill Response Flow Chart..... 137

Figure 7.5: Visible Signage at All Travel Plazas..... 141

Figure 7.6: Veeder-Root Control Panel 142

Figure 7.7: Example of Fueling Station 144

Figure 7.8: Permanently capped dump station at Travel Plaza 3 146

LIST OF REFERENCES, ABBREVIATIONS, AND ACRONYMS

Annual Report : *Annual State of the ITR and Capital Improvement Programs Report*

Avg. : average

BMP : best management practice

Bridge Coding Guide : US DOT and FHWA *Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges*

Def. : deficiency

CFR : Code of Federal Regulations

CIP : capital improvement program

Concession Lease Agreement : *Concession and Lease Agreement for the Indiana Toll Road*

DMR : Discharge Monitoring Report

DOT : Department of Transportation

EBL : east bound lane(s)

EN : entrance

EPA : Environmental Protection Agency

EX : exit

FHWA : Federal Highway Administration

FIFRA : Federal Insecticide, Fungicide and Rodenticide Act

FNS : friction number of smooth tire (unitless)

GDF : gasoline dispensing facility

IDEM : Indiana Department of Environmental Management

IDNR : Indiana Department of Natural Resources

IFA : Indiana Finance Authority

IRI : international roughness index (unit less)

ISP : Indiana State Police

ITR : Indiana Toll Road

ITRCC : Indiana Toll Road Concession Company

LDR : land disposal restrictions

LEPC : Local Emergency Planning Committee

LQG : large quantity generator

MACOG : Michiana Area Council of Government

Max. : maximum

MEW : mandatory expansion works

Min. : minimum

MP : mile point / milepost
MQS : maintenance quality survey
MRO : monthly report of operation
NBI : National Bridge Inventory
NBIS : National Bridge Inspection Standards
NBL : north bound lane(s)
NESHAP : National Emission Standards for Hazardous Pollutants
NPDES : National Pollutant Discharge Elimination System
OPI : organizational performance index
OPI Manual : *Maintenance Quality Survey Manual and OPI Measures*
OSHA : Occupational Safety and Health Administration
PCR : pavement condition rating (unitless)
P-H : pin and hanger
P-T : post-tension
PQI : pavement quality index (unitless)
PWS : public water supply
RUT : rutting depth (inches)
SARA : Superfund Amendments and Reauthorization Act
SBL : south bound lane(s)
SCADA : Supervisory Control and Data Acquisition
SC : low-water scour
SPC : steel pier cap
SPCC : spill prevention, control, and countermeasures
Suff. : Sufficiency
TRI : toxic release inventory
URS : URS Corporation
USS : United States Steel Corporation
WBL : west bound lane(s)
WN : west entrance
WTP : water treatment plant
WWTP : wastewater treatment plant
WX : west exit

PART A: DETAILED REVIEW

SECTION 1. Background

1.1 Lease Agreement

On January 23, 2006, the Governor of Indiana, Mitchell E. Daniels, Jr., introduced and recommended the “Major Moves” initiative to the Indiana General Assembly. The Major Moves Initiative was a sweeping legislative package that leased the operation and management of the Indiana Toll Road to a private joint venture between The Macquarie Infrastructure Group (Macquarie) of Australia and the Cintra Concesiones de Infraestructuras de Transporte, S. A. (Cintra) of Spain. In exchange for \$3.85 billion, Cintra and Macquarie received the right to operate the Indiana Toll Road for a period of 75 years.

The *Concession and Lease Agreement for the Indiana Toll Road* (referred to as the Concession Lease Agreement hereafter) is a three-volume document written and agreed upon by the Indiana Finance Authority (referred to as IFA hereafter) and the ITRCC as the basis for the ITRCC’s operation of the toll road.

On April 12, 2006, the IFA and the ITR Concession Company, LLC (referred to hereafter as the ITRCC), the joint venture formed by Cintra and Macquarie, executed the lease agreement.

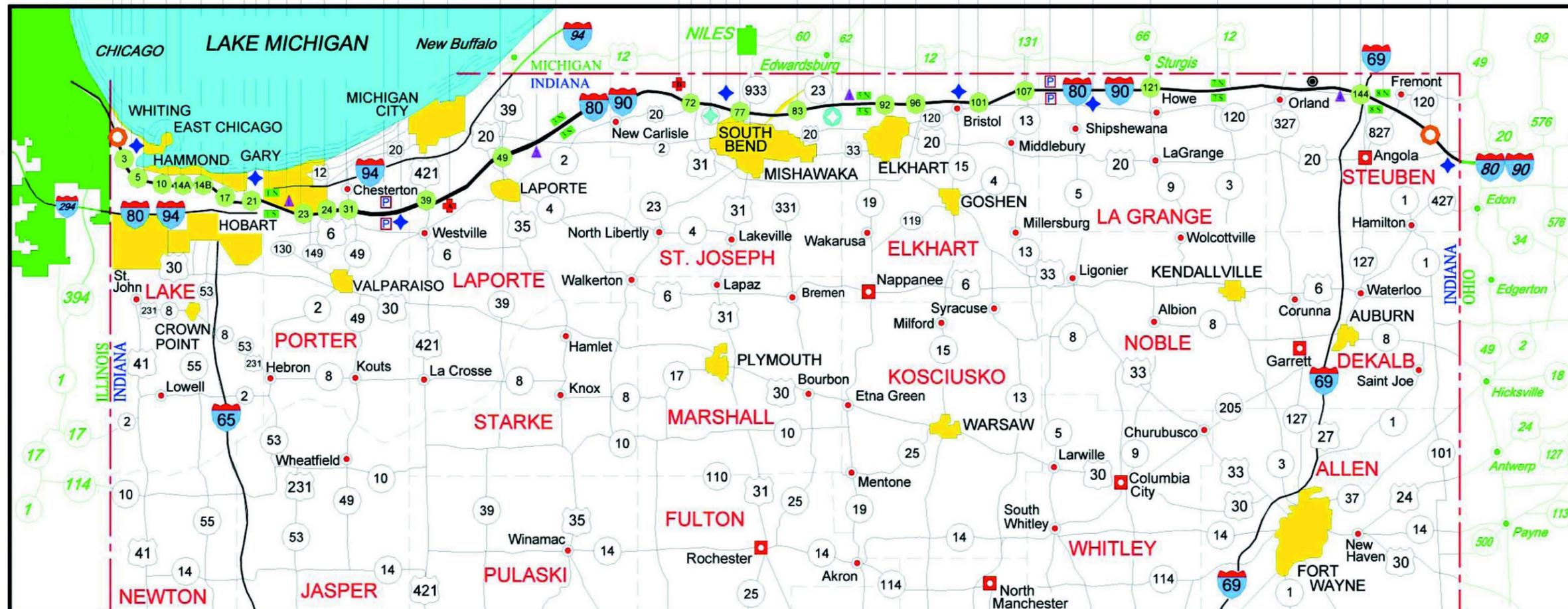
In preparation of the transfer of the Indiana Toll Road operation, Governor Daniels issued Executive Order 06-10 to establish a seven-member citizens’ board on June 7, 2006 to assure that the ITR Concession Company complied with the lease agreement. Upon the receipt of \$3.85 billion, the Indiana Finance Authority transferred the operation and management of the Indiana Toll Road to the ITR Concession Company (ITRCC) on June 29, 2006.

On May 27, 2015, ownership of the ITR Concession Company transferred from Cintra/Macquarie to IFM Investors.

1.2 ITR Location Map

The map on the following page illustrates points of interest along the Indiana Toll Road, including all toll and travel plazas, as well as maintenance buildings, auxiliary storage areas, fuel supply locations, and truck-only parking.

COUNTIES	LAKE COUNTY										PORTER COUNTY					LAPORTE COUNTY					ST. JOSEPH COUNTY					ELKHART COUNTY					LAGRANGE COUNTY					STEBUBEN COUNTY					COUNTIES							
MILE POSTS	0.0										21.4					37.2					61.8					87.1					108.4					133.2					156.9					MILE POSTS		
MILE POSTS	1.1	3.3	4.7	4.7	10.1	13.5	14.5	16.7	20.6	21.6	21.7	23.5	23.8	24.1	30.9	37.5	37.5	38.9	41.6	49.2	51.9	55.9	61.8	71.5	72.4	72.9	72.9	76.6	82.9	87.0	87.1	90.0	91.8	96.0	99.0	101.2	107.1	108.0	114.4	120.5	125.8	136.5	137.5	143.9	145.7	153.0	156.7	MILE POSTS
FACILITIES	TP-1	TP-3	ASA	TP-5	TP-10	TP-14A	TP-14B	TP-17	TP-21	ASA	TRP-1	MB-1	TP-23	TP-24	TP-31	TOP	ASA	TP-39	RS-A	TP-49	MB-2	TRP-3	RS-B	TP-72	ISP-11	ASA	TP-77	TP-83	ADM	MB-3	TRP-5	TP-92	TP-96	ASA	TP-101	TP-107	TOP	ASA	TP-121	TRP-7	FARM	MB-4	TP-144	TRP-8	TP-153	ASA	FACILITIES	



TOLL PLAZAS

TP - 1 WESTPOINT BARRIER, Chicago Skyway & U.S. 41
TP - 3 S.R. 912 N., S.R. 912 North
TP - 5 CALUMET AVE., Chicago Skyway & U.S. 41
TP - 10 CLINE AVE., S.R. 912 South
TP - 14A GARY WEST, Grant & Buchanan Streets
TP - 14B BROADWAY, U.S. 12 & 20
TP - 17 GARY EAST, I-65 & U.S. 12 & 20
TP - 21 LAKE STATION, I-80/94
TP - 23 WILLOW CREEK, Willow Creek Road
TP - 24 PORTAGE BARRIER, I-80/90
TP - 31 VALPARAISO - CHESTERTON, S.R. 49
TP - 39 MICHIGAN CITY, U.S. 421
TP - 49 LAPORTE, S.R. 39
TP - 72 SOUTH BEND WEST, U.S. 31 Bypass
TP - 77 SOUTH BEND - NOTRE DAME, S.R. 933
TP - 83 MISHAWAKA, S.R. 23
TP - 92 ELKHART, S.R. 19
TP - 96 ELKHART EAST, Co. Rd. 17
TP - 101 BRISTOL, S.R. 15
TP - 107 MIDDLEBURY, S.R. 13 & U.S. 131
TP - 121 HOWE - LAGRANGE, S.R. 9
TP - 144 ANGOLA, U.S. 27, S.R. 127 & I-69
TP - 153 EASTPOINT, Ohio Turnpike

MAINTENANCE BUILDINGS

MB - 1 PORTER MAINTENANCE BLDG., Willow Creek Road
MB - 2 LAPORTE MAINTENANCE BLDG., Fail Road
MB - 3 ELKHART MAINTENANCE BLDG., Ash Road, Co. Line Road
MB - 4 LAGRANGE MAINTENANCE BLDG., Co. Road 600 West
MB - 5 STEUBEN MAINTENANCE BLDG., Co. Road 650 West

AUXILIARY STORAGE AREAS

ASA - 4.7 Lake Maintenance
ASA - 21.6 Travel Plaza 1 North (Westbound)
ASA - 37.5 Travel Plaza 2 South (Eastbound)
ASA - 72.9 Travel Plaza 4 North (Westbound)
ASA - 99.0 Toll Road Westbound
ASA - 156.7 County Road 935 E at Toll Rd. - South Side

TRUCK ONLY PARKING

TOP - 37.5 Travel Plaza 2 North & South (Eastbound & Westbound)
TOP - 108.0 Travel Plaza 6 North & South (Eastbound & Westbound)

TRAVEL PLAZAS

TRP - 1	WB - JOHN T. McCUTCHEON	Fuel & Restaurants	Dombey Road
TRP - 3	WB - WILBER SHAW	Fuel & Restaurants	County Road 425 E
TRP - 5	WB - HENRY F. SCHRICKLER	Fuel & Restaurants	County Road 4
TRP - 7	WB - ERNIE PYLE	Fuel & Restaurants	County Road 750 N
TRP - 8	WB - BOOTH TARKINGTON	Fuel & Restaurants	State Route 120

LEGEND

- ADM - Administration Building
- ISP - Indiana State Police
- ASA - Auxiliary Storage Area
- RS - Radio Relay Station
- TRP - Travel Plaza
- TOP - Truck Only Parking
- MB - Maintenance Building
- TP - Terminal Toll Plaza
- TP - Interchange Toll Plaza

FUEL SUPPLY

GAS	DIESEL	LOCATION
X	X	Lake Maint.
X	X	MB - 1
X	X	ASA - 37.5
X	X	MB - 2
X	X	ASA - 72.9
X	X	ADM. BLDG.
X	X	MB - 3
X	X	ASA - 99.0
X	X	ASA - 114.4
X	X	MB - 4
X	X	ASA - 156.7

ITR CONCESSION COMPANY LLC
INFRASTRUCTURE MANAGEMENT
DRAWN: Jan. 2000 - Jim Laskowski
REVISED: February 2007 - Jim Laskowski

PART B: GENERAL CONDITION & RATING SUMMARY

SECTION 1. Background

In accordance with the *Concession and Lease Agreement for the Indiana Toll Road* (referred to as the Concession Lease Agreement hereafter), the ITRCC has completed and submitted the following *Annual State of the ITR Report– July 1, 2014 to June 30, 2015* to the Indiana Finance Authority (referred to as the IFA hereafter). Primarily, the report outlines five major areas that comprise the Indiana Toll Road System and are included as required reports by the Concession Lease Agreement (Volume II, Section J.2.3., Page 96). The five areas required are:

1. Bridge and Structure Condition Report.
2. Roadway Condition Report.
3. Maintenance Items Report.
4. Facilities Condition Report.
5. Treatment Plants and Other Environmental Issues Report.

The ITRCC divides the Toll Road System into five maintenance districts. The following table indicates the boundaries for each of the five Maintenance Districts:

				Toll Plazas			Travel Plazas		
Maintenance District	From (miles)	To (miles)	Total miles	Exit Number	Exit Name	Number of Ramps	Travel Plaza	Travel Plaza MP	Number of Lots
M-1	0	30	30	0	Indianapolis Boulevard	1	1N	21.7	1
				1	Westpoint Barrier	1	1S	21.7	1
				3	SR 912 / Cline Avenue	1			
				5	Calumet Avenue	2			
				10	Cline Avenue	2			
				14A	Gary West	2			
				14B	Broadway	2			
				17	Gary East	2			
				21	Lake Station	2			
				23	Willow Creek	2			
				24	Portage Barrier	1			
						18			2
M-2	30	62	32	31	Valparaiso / Chesterton	2	2N	37.5	1
				39	Michigan City	2	2S	37.5	1
				49	LaPorte	2	3N	55.9	1
							3S	55.9	1
						6			4
M-3	62	92	30	72	South Bend West	2	5N	90	1
				77	South Bend - Norte Dame	2	5S	90	1
				83	Mishawaka	2			
				92	Elkhart	2			
						8			2
M-4	92	124	32	96	Elkhart - East	2	6N	108	1
				101	Bristol	2	6S	108	1
				107	Middlebury	2			
				121	Howe - LaGrange	2			
						8			2
M-5	124	156.9	32.9	144	Angola	2	7S	125.8	1
				153	Eastpoint	1	7N	125.8	1
							8S	145.7	1
							8N	145.7	1
						3			4
Total						43			14

1 Ramp = Exit Ramp & Entrance Ramp. Therefore, most exits will have 2 ramps.

Table 1.1: Maintenance Districts and Corresponding Mile Points and Plazas



2: GENERAL CONDITION AND RATING SUMMARY



SECTION 2. General Condition & Rating Summary

2.1 Bridge and Structure Condition Report Summary

2.1.1 Overview of Bridge OPI Measures

The Indiana Toll Road is responsible for 333 bridges. Each bridge is inspected every 2 years. Volume II, Section J.3.10.2 of the Concession Lease Agreement states that the bridge summary shall include the following items:

1. Deck
2. Superstructure
3. Substructure

2.1.2 Summary of NBI Ratings & Asset Sufficiency Rating

For each bridge category, the ratings from the National Bridge Inspection Standard (NBIS) will be used. Ratings are on a numeric scale from 0 – 9, with 9 meaning the bridge component is in excellent condition and 0 meaning the component is in failure. The Bridge Sufficiency Rating is a means to assess the overall condition of a bridge. A sufficiency rating of 100% would represent an entirely sufficient bridge while a sufficiency rating of 0% would represent an entirely insufficient or deficient bridge. The Sufficiency Rating is calculated based upon the formula and guidelines provided by the FHWA. A detailed technical explanation is outlined in Part B.

Bridge Number	Change in Rating: Deck		Change in Rating: Superstructure		Change in Rating: Substructure		Change in Rating: Sufficiency	
	2011	2013	2011	2013	2011	2013	2011	2013
(13)I90-20-038-2	7	6	6	6	5	6	61.1	63.1
(15)I90-20-037-1	6	5	7	5	6	5	74.3	76.3
(421)I90-46-018-5	6	6	7	6	6	6	75.7	77.7
(912)90-45-03-02 RR	7	7	7	7	7	7	92.2	91.5
(912)90-45-03-03 WN	7	7	6	7	6	7	88.1	89.5
(912)90-45-03-04 ML	7	7	7	7	7	7	87.1	89.2
(I65)I90-45-010-5 .5	8	8	8	8	8	8	94.0	92.9
(I90)I69-156-04820 A	5	5	6	5	6	5	64.6	64.8
(I90)I80-15-05262 BEBL	4	4	4	4	5	4	53.2	52.1
(I90)I80-15-05263 B	4	4	7	4	6	4	76.2	76.2
031-71-06792	6	6	7	6	7	6	95.6	93.6
912-45-06603 EBL	6	6	7	6	4	6	73.2	71.2
912-45-06603 JWBL	6	6	7	6	5	6	86.0	86
I90-20-0101R	8	8	5	8	7	8	80.7	79.4
I90-20-032-1	9	8	7	8	7	8	75.9	77.9
I90-20-032-3	8	8	8	8	8	8	75.8	77.8

Bridge Number	Change in Rating: Deck		Change in Rating: Superstructure		Change in Rating: Substructure		Change in Rating: Sufficiency	
	2011	2013	2011	2013	2011	2013	2011	2013
I90-20-032-4	8	8	8	8	8	8	82.5	85.1
I90-20-032-5	8	8	8	8	8	8	74.6	76.6
I90-20-032-6 EBL	8	8	8	8	8	8	95.6	95.6
I90-20-032-6 WBL	8	8	8	8	8	8	95.6	95.6
I90-20-033-1 EBL	5	5	5	5	5	5	76.2	75.1
I90-20-033-1 WBL	5	5	5	5	7	5	76.2	75.1
I90-20-034-2	6	7	5	7	5	7	80.0	79
I90-20-034-3	8	8	8	8	8	8	75.1	77.1
I90-20-034-5 EBL	8	8	8	8	8	8	92.5	92.3
I90-20-034-5 WBL	8	8	8	8	8	8	92.5	92.3
I90-20-034-6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I90-20-034-8	8	8	8	8	8	8	76.7	78.7
I90-20-034-9	8	8	8	8	8	8	87.9	77.7
I90-20-035-1 .3	8	8	8	8	8	8	96.1	97.1
I90-20-035-1 .6	8	8	8	8	8	8	90.5	91.5
I90-20-035-1 EBL	8	8	7	8	8	8	92.5	92.5
I90-20-035-1 WBL	8	8	8	8	8	8	92.5	92.5
I90-20-035-2	8	8	8	8	8	8	76.5	78.6
I90-20-035-3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I90-20-035-4 EBL	4	4	4	4	5	4	55.6	52.4
I90-20-035-4 WBL	5	5	4	5	5	5	58.7	56.7
I90-20-035-5	8	8	8	8	8	8	76.8	78.8
I90-20-036-1 EBL	9	6	9	6	8	6	86.6	87.6
I90-20-036-1 WBL	9	8	9	8	8	8	86.6	87.6
I90-20-037-2 EBL	8	8	9	8	8	8	94.8	94.8
I90-20-037-2 WBL	8	8	9	8	8	8	94.8	94.8
I90-20-037-3 EBL	8	8	8	8	8	8	96.8	96.8
I90-20-037-3 WBL	8	8	8	8	7	8	96.8	96.8
I90-20-037-4	7	7	8	7	8	7	87.8	89.3
I90-20-037-6 EBL	6	6	6	6	6	6	84.6	83.3
I90-20-037-6 WBL	6	5	7	5	6	5	84.6	83.3
I90-20-038-1	7	7	6	7	6	7	94.6	95.4
I90-44-038-3	8	8	8	8	8	8	84.6	87.3
I90-44-039-1	8	8	8	8	8	8	78.3	80.3
I90-44-039-2	8	8	8	8	8	8	84.5	87.3
I90-44-039-3	7	7	8	7	7	7	87.9	89.9
I90-44-039-4	8	8	7	8	7	8	90.9	92.9
I90-44-040/41-1 EBL	8	8	8	8	8	8	96.8	96.8

Bridge Number	Change in Rating: Deck		Change in Rating: Superstructure		Change in Rating: Substructure		Change in Rating: Sufficiency	
	2011	2013	2011	2013	2011	2013	2011	2013
I90-44-040/41-1 WBL	7	8	8	8	8	8	96.8	96.8
I90-44-040/41-2	7	7	8	7	7	7	91.7	93.7
I90-44-040/41-3	8	8	8	8	7	8	80.5	82.5
I90-44-040/41-4	7	7	7	7	7	7	87.9	89.9
I90-44-040/41-5	8	7	8	7	7	7	89.9	93
I90-44-040/41-6	8	7	8	7	7	7	87.8	89.8
I90-44-042-1 EBL	9	8	9	8	9	8	92.8	96.8
I90-44-042-1 WBL	9	8	9	8	9	8	92.8	96.8
I90-44-043-2	7	7	8	7	7	7	96.0	96
I90-44-043-3 EBL	7	7	8	7	8	7	94.8	94.8
I90-44-043-3 WBL	8	7	8	7	8	7	94.8	94.8
I90-44-043-5 EBL	8	7	7	7	8	7	95.8	95.8
I90-44-043-5 WBL	8	7	7	7	7	7	95.8	95.8
I90-44-043-6	8	7	7	7	8	7	86.7	89.7
I90-44-044-1 EBL	7	5	7	5	7	5	85.7	74.7
I90-44-044-1 WBL	7	5	7	5	7	5	86.7	86.7
I90-44-045-1	8	7	7	7	8	7	87.8	89.8
I90-44-045-5	7	7	7	7	7	7	87.5	89.5
I90-44-045-6	8	7	7	7	7	7	89.6	92.2
I90-44-046-1	7	7	7	7	8	7	90.9	92.9
I90-44-046-2 EBL	7	5	7	5	7	5	84.7	84.7
I90-44-046-2 WBL	7	5	7	5	7	5	84.7	84.7
I90-44-046-3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I90-44-046-4	8	8	8	8	7	8	90.9	92.9
I90-44-047-1 EBL	7	6	7	6	7	6	86.7	86.1
I90-44-047-1 WBL	7	6	7	6	7	6	86.7	86.1
I90-44-048-1	7	7	8	7	7	7	91.0	93
I90-44-48-1A	8	7	8	7	8	7	90.9	93
I90-45-001-2 EBL	6	6	5	6	6	6	80.0	80
I90-45-001-2 WBL	6	7	5	7	7	7	80.0	80
I90-45-001-3 EBL	4	5	5	5	3	5	42.9	39.5
I90-45-001-3 WBL	4	5	5	5	3	5	42.9	39.5
I90-45-001-4 EBL	5	5	5	5	6	5	74.8	74.8
I90-45-001-4 WBL	5	5	5	5	6	5	74.8	74.8
I90-45-002-1 EBL	5	5	5	5	5	5	73.8	69.8
I90-45-002-1 WBL	5	5	5	5	5	5	73.8	69.8
I90-45-002-2 EBL	6	6	7	6	6	6	87.2	85.1
I90-45-002-2 WBL	7	7	6	7	6	7	87.2	85.1

Bridge Number	Change in Rating: Deck		Change in Rating: Superstructure		Change in Rating: Substructure		Change in Rating: Sufficiency	
	2011	2013	2011	2013	2011	2013	2011	2013
I90-45-002-3 EBL	4	4	5	4	5	4	70.2	70.2
I90-45-002-3 WBL	4	4	5	4	5	4	70.2	70.2
I90-45-002-4 EBL	5	5	4	5	6	5	57.7	56.6
I90-45-002-4 WBL	5	5	4	5	6	5	56.7	55.6
I90-45-002-5	5	5	5	5	5	5	83.2	85.2
I90-45-004-1 EBL	5	5	6	5	6	5	85.0	85.1
I90-45-004-1 WBL	5	5	6	5	6	5	84.0	85.1
I90-45-004-2 EBL	5	5	4	5	5	5	60.1	58
I90-45-004-2 WBL	5	5	3	5	5	5	43.9	39.3
I90-45-004-3 EBL	5	5	4	5	6	5	56.9	55.9
I90-45-004-3 WBL	5	5	5	5	6	5	72.7	72.7
I90-45-004-5 EBL	5	5	5	5	5	5	77.8	76.8
I90-45-004-5 WBL	6	6	5	6	5	6	78.9	77.8
I90-45-004-6 EBL	6	6	6	6	6	6	86.1	87.1
I90-45-004-6 WBL	5	5	6	5	5	5	74.7	74.7
I90-45-004-7 EBL	5	5	6	5	6	5	80.9	82
I90-45-004-7 WBL	5	5	6	5	6	5	80.9	82
I90-45-005-1 EBL	5	5	7	5	7	5	83.0	84
I90-45-005-1 WBL	5	5	7	5	7	5	83.0	84
I90-45-005-2 EBL	6	6	5	6	5	6	72.7	68.7
I90-45-005-2 WBL	6	6	5	6	4	6	57.0	49.1
I90-45-006-1 EBL	6	6	7	6	6	6	85.0	85.1
I90-45-006-1 WBL	6	6	7	6	6	6	85.0	89.2
I90-45-006-2 EBL	5	5	7	5	7	5	80.9	82
I90-45-006-2 WBL	5	5	7	5	7	5	80.9	82
I90-45-006-3 EBL	6	6	5	6	5	6	75.8	75.8
I90-45-006-3 WBL	6	6	5	6	5	6	76.8	75.8
I90-45-007-5 EBL	6	6	5	6	6	6	79.9	78.9
I90-45-007-5 WBL	6	6	5	6	6	6	78.9	77.8
I90-45-008-3 EBL	9	8	6	8	9	8	59.3	88.3
I90-45-008-3 WBL	9	8	6	8	9	8	59.3	88.3
I90-45-008-5 EBL	9	9	9	9	9	9	N/A	91.4
I90-45-008-5 WBL	9	9	9	9	9	9	N/A	91.4
I90-45-008-7 EBL	9	8	7	8	8	8	85.2	87.3
I90-45-008-7 WBL	9	8	7	8	8	8	85.2	92.4
I90-45-009-1 EBL	9	8	5	8	8	8	56.9	79.9
I90-45-009-1 WBL	9	8	5	8	8	8	56.9	85
I90-45-009-3 EBL	9	8	9	8	9	8	N/A	96.7

Bridge Number	Change in Rating: Deck		Change in Rating: Superstructure		Change in Rating		Change in Rating: Sufficiency	
	2011	2013	2011	2013	2011	2013	2011	2013
I90-45-009-3 WBL	9	8	9	8	9	8	N/A	91.6
I90-45-009-4 EBL	9	8	7	8	7	8	71.1	87.5
I90-45-009-4 WBL	9	9	7	9	7	9	87.5	87.5
I90-45-009-6A	9	8	9	8	8	8	96.8	95.8
I90-45-009-8	6	6	7	6	7	6	27.3	22.7
I90-45-010-2 EBL	7	7	8	7	8	7	95.3	95.1
I90-45-010-2 WBL	7	7	8	7	8	7	95.3	95.3
I90-45-010-3	8	8	8	8	8	8	97.7	97.7
I90-45-010-4	7	7	8	7	7	7	97.6	97.6
I90-45-010-5 EBL	7	7	8	7	8	7	96.3	96.3
I90-45-010-5 WBL	7	7	8	7	8	7	96.3	96.3
I90-45-010-6	7	7	8	7	8	7	97.4	96.4
I90-45-010-7 EBL	9	9	6	9	7	9	87.1	89.1
I90-45-010-7 WBL	9	9	6	9	7	9	87.1	89.1
I90-45-011-1	8	8	8	8	7	8	96.0	98
I90-45-011-2 EBL	9	8	9	8	9	8	91.6	91.6
I90-45-011-2 WBL	8	8	9	8	9	8	91.6	91.6
I90-45-011-3	5	5	6	5	5	5	64.3	67.3
I90-45-011-4 EBL	8	8	8	8	8	8	86.5	86.5
I90-45-011-4 WBL	8	8	8	8	8	8	85.4	86.5
I90-45-011-5 EBL	4	7	4	7	4	7	58.8	58.1
I90-45-011-5 WBL	4	7	4	7	4	7	56.7	55.9
I90-45-012-1 EBL	6	6	5	6	6	6	85.6	84.6
I90-45-012-1 WBL	6	5	5	5	6	5	81.5	80.5
I90-45-01A-1	5	5	6	5	5	5	76.9	76.9
I90-45-07-1A	5	5	5	5	6	5	N/A	N/A
I90-45-10-01RR EBL	7	7	5	7	6	7	82.3	81.3
I90-45-10-01RR WBL	6	6	5	6	7	6	82.3	81.3
I90-45-10-02WX	7	7	6	7	6	7	94.3	91.2
I90-45-10-03EX	7	7	7	7	6	7	93.4	95.5
I90-45-10-04EN	7	7	5	7	7	7	83.8	82.7
I90-45-10-05WN	7	7	6	7	7	7	91.4	91.4
I90-45-10-06ML EBL	5	5	5	5	7	5	80.1	79.1
I90-45-10-06ML WBL	6	6	5	6	7	6	81.1	80.1
I90-45-10-07RR EBL	6	6	5	6	6	6	82.3	81.3
I90-45-10-07RR WBL	6	6	5	6	6	6	82.3	81.3
I90-45-10-1T	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
I90-45-10A-1	8	8	8	8	8	8	94.7	96.7

Bridge Number	Change in Rating: Deck		Change in Rating: Superstructure		Change in Rating: Substructure		Change in Rating: Sufficiency	
	2011	2013	2011	2013	2011	2013	2011	2013
I90-45-1A3-1	6	6	6	6	6	6	86.9	87
I90-45-1A3-2 EBL	7	7	6	7	6	7	83.1	84.1
I90-45-1A3-2 WBL	6	6	5	6	4	6	55.0	55
I90-45-BHX-A	4	4	5	4	4	4	55.0	53.9
I90-45-BHX-B	5	4	5	4	4	4	23.9	50.2
I90-46-018-3	7	7	8	7	8	7	94.2	97
I90-46-018-4	6	6	7	6	7	6	84.6	86.9
I90-46-018-6	7	7	6	7	8	7	95.2	98
I90-46-018-7 EBL	8	8	8	8	8	8	90.7	90.7
I90-46-018-7 WBL	7	7	8	7	7	7	90.7	90.7
I90-46-018-8	7	7	6	7	8	7	95.1	97.8
I90-46-019-1 EBL	7	7	8	7	7	7	89.7	89.7
I90-46-019-1 WBL	7	7	8	7	7	7	89.7	89.7
I90-46-019-2	7	7	7	7	8	7	90.6	94.4
I90-46-019-3	7	7	7	7	8	7	90.2	92.9
I90-46-019-4 EBL	8	8	8	8	8	8	89.7	89.1
I90-46-019-4 WBL	8	8	8	8	7	8	89.7	87
I90-46-019-5	6	6	6	6	8	6	74.0	76
I90-46-020-1 EBL	6	6	6	6	7	6	85.4	85.7
I90-46-020-1 WBL	5	6	5	6	7	6	74.1	71.3
I90-46-020-2 EBL	6	6	6	6	8	6	88.7	88.7
I90-46-020-2 WBL	6	5	6	5	5	5	78.5	76.2
I90-46-020-3 EBL	4	6	6	6	7	6	81.8	84.6
I90-46-020-3 WBL	4	6	6	6	7	6	81.8	82.6
I90-46-020-4	4	4	5	4	6	4	78.8	77.7
I90-46-021-1 EBL	4	6	6	6	7	6	82.6	82.6
I90-46-021-1 WBL	4	6	6	6	7	6	82.6	80.6
I90-46-021-2 EBL	5	5	6	5	7	5	84.6	84.6
I90-46-021-2 WBL	5	5	6	5	7	5	84.6	84.6
I90-46-021-3	5	5	5	5	7	5	64.5	65.5
I90-46-022-1	6	6	6	6	8	6	87.2	89.9
I90-46-022-2	7	7	5	7	8	7	75.6	77.4
I90-46-022-3	7	6	7	6	8	6	80.6	83.3
I90-46-022-4 EBL	6	6	7	6	8	6	88.7	88.7
I90-46-022-4 WBL	5	5	7	5	7	5	87.7	87.7
I90-46-023-1	6	7	6	7	8	7	84.5	88.3
I90-46-023-2 EBL	4	4	5	4	7	4	72.4	71.1
I90-46-023-2 WBL	4	4	6	4	7	4	82.6	80.4

Bridge Number	Change in Rating: Deck		Change in Rating: Superstructure		Change in Rating: Substructure		Change in Rating: Sufficiency	
	2011	2013	2011	2013	2011	2013	2011	2013
I90-46-023-3	7	7	6	7	8	7	85.6	88.3
I90-46-023-4	7	7	7	7	7	7	85.6	88.4
I90-46-024-A EBL	4	6	4	6	7	6	56.8	52.6
I90-46-024-A WBL	4	6	4	6	7	6	56.8	52.6
I90-64-013-2	7	7	5	7	5	7	75.3	76.3
I90-64-013-3 EBL	7	7	5	7	5	7	79.5	78.5
I90-64-013-3 WBL	7	7	6	7	5	7	79.5	78.5
I90-64-013-4	N/A	N/A	N/A	N/A	N/A	N/A	69.6	68.5
I90-64-013-5 EBL	7	7	6	7	5	7	75.4	74.4
I90-64-013-5 WBL	7	7	5	7	5	7	75.4	74.4
I90-64-013-6	7	7	5	7	4	7	53.6	53.5
I90-64-014-1 EBL	7	7	7	7	7	7	91.9	91.9
I90-64-014-1 WBL	7	7	7	7	7	7	91.9	91.9
I90-64-014-3 EBL	7	7	7	7	6	7	86.8	86.8
I90-64-014-3 WBL	7	7	7	7	7	7	86.8	86.8
I90-64-014-4 EBL	6	6	7	6	7	6	86.8	86.8
I90-64-014-4 WBL	7	7	7	7	7	7	86.8	86.8
I90-64-014-5	7	7	7	7	7	7	82.5	84.5
I90-64-014-6 EBL	7	7	6	7	6	7	84.7	84.7
I90-64-014-6 WBL	7	7	6	7	6	7	84.7	84.7
I90-64-015-1 EBL	5	5	5	5	5	5	75.4	74.4
I90-64-015-1 WBL	5	5	5	5	5	5	75.4	74.4
I90-64-015-2 EBL	5	5	5	5	6	5	75.4	74.4
I90-64-015-2 WBL	5	5	5	5	6	5	75.4	74.4
I90-64-015-3 EBL	5	5	5	5	6	5	77.7	76.7
I90-64-015-3 WBL	5	5	6	5	6	5	88.0	88
I90-64-015-4 EBL	6	6	7	6	7	6	83.9	82.9
I90-64-015-4 WBL	6	6	7	6	6	6	83.9	82.9
I90-64-015-5	7	7	7	7	8	7	92.9	94.9
I90-64-015-8	8	8	7	8	8	8	87.8	89.9
I90-64-016-1	7	7	8	7	7	7	76.7	78.8
I90-64-016-2	7	7	5	7	7	7	86.8	84.8
I90-64-016-4	N	N	N	N	N	N	N	78.6
I90-64-016-5	8	8	7	8	8	8	87.8	89.8
I90-64-016-8 EBL	6	6	6	6	7	6	83.4	83.4
I90-64-016-8 WBL	6	6	7	6	6	6	83.4	83.4
I90-64-017-1 EBL	6	6	6	6	7	6	83.4	83.4
I90-64-017-1 WBL	6	6	7	6	6	6	83.4	83.4

Bridge Number	Change in Rating: Deck		Change in Rating: Superstructure		Change in Rating: Substructure		Change in Rating: Sufficiency	
	2011	2013	2011	2013	2011	2013	2011	2013
I90-64-017-2 EBL	6	6	5	6	6	6	75.2	72.1
I90-64-017-2 WBL	6	6	7	6	6	6	85.5	85.5
I90-64-017-4	8	8	7	8	8	8	92.7	94.7
I90-64-017-7	7	7	7	7	8	7	90.5	93.2
I90-64-23-01ML	7	7	6	7	7	7	94.7	95.8
I90-71-0083R	8	8	7	8	6	8	92.5	90.9
I90-71-024-B	8	8	8	8	7	8	83.8	86.4
I90-71-024-C	7	7	8	7	8	7	89.4	93.2
I90-71-025-A	7	7	8	7	7	7	91.5	93.8
I90-71-025-B EBL	4	6	4	6	6	6	56.8	52.6
I90-71-025-B WBL	4	6	4	6	6	6	56.8	52.6
I90-71-025-C EBL	5	5	5	5	6	5	74.4	71.3
I90-71-025-C WBL	4	4	5	4	6	4	72.4	69.3
I90-71-026-A	7	7	8	7	7	7	90.9	92.9
I90-71-026-B	7	7	7	7	8	7	85.6	88.4
I90-71-026-C	8	7	9	7	8	7	90.7	93.1
I90-71-027-A NBL	7	7	8	7	6	7	74.5	77.5
I90-71-027-A SBL	5	5	8	5	7	5	72.5	76.5
I90-71-027-B	7	7	8	7	8	7	73.7	75.7
I90-71-027-C EBL	4	5	5	5	6	5	74.2	73.2
I90-71-027-C WBL	5	5	5	5	7	5	76.3	75.3
I90-71-028-1 EBL	8	7	7	7	7	7	93.5	96.5
I90-71-028-1 WBL	8	7	7	7	7	7	93.5	96.5
I90-71-029-1 EBL	5	5	5	5	6	5	75.2	74.2
I90-71-029-1 WBL	5	5	5	5	5	5	82.4	82.4
I90-71-029-2 EBL	5	4	6	4	7	4	91.6	91.6
I90-71-029-2 WBL	4	4	5	4	5	4	74.2	73.2
I90-71-029-3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	79.8
I90-71-029-4 EBL	6	6	7	6	8	6	95.6	95.7
I90-71-029-4 WBL	8	8	8	8	8	8	91.6	91.6
I90-71-029-6	N	N	N	N	N	N	N	79.8
I90-71-029-7 EBL	7	7	7	7	7	7	87.5	89.6
I90-71-029-7 WBL	7	7	7	7	7	7	89.5	89.6
I90-71-029-8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	68.2
I90-71-030-1 NBL	7	7	8	7	8	7	76.5	78.5
I90-71-030-1 SBL	6	6	8	6	7	6	76.5	78.5
I90-71-030-2 EBL	6	5	7	5	7	5	87.5	87.5
I90-71-030-2 WBL	6	6	7	6	7	6	86.5	87.5

Bridge Number	Change in Rating: Deck		Change in Rating: Superstructure		Change in Rating: Substructure		Change in Rating: Sufficiency	
	2011	2013	2011	2013	2011	2013	2011	2013
I90-71-030-3 .5	8	8	7	8	7	8	88.3	89.2
I90-71-030-3 NBL	7	7	8	7	7	7	94.9	96.9
I90-71-030-3 SBL	6	6	7	6	7	6	75.3	77.3
I90-71-030-5	5	5	7	5	8	5	66.3	69.4
I90-71-030-6	6	6	5	6	6	6	58.1	60.1
I90-71-030-6 .5NB	7	7	8	7	8	7	95.4	97.4
I90-71-030-6 .5SB	8	8	8	8	8	8	95.4	98.5
I90-71-031-1 EBL	7	7	8	7	8	7	90.6	89.6
I90-71-031-1 WBL	7	7	8	7	8	7	91.6	91.6
I90-71-031-3	6	6	8	6	7	6	75.1	77.1
I90-71-031-5	7	7	8	7	7	7	79.7	82.7
I90-71-0WX-1	7	7	7	7	6	7	94.9	94.9
I90-76-048-2 EBL	7	6	6	6	7	6	85.7	86.7
I90-76-048-2 WBL	7	6	6	6	7	6	83.7	85.7
I90-76-049-3	8	8	7	8	8	8	91.0	93
I90-76-049-4	8	8	8	8	8	8	91.0	93
I90-76-049-5 EBL	7	7	7	7	7	7	92.8	92.8
I90-76-049-5 WBL	7	7	7	7	7	7	92.8	92.8
I90-76-049-6 EBL	8	7	7	7	7	7	89.8	87.7
I90-76-049-6 WBL	8	7	8	7	8	7	89.8	89.8
I90-76-050-7	8	7	8	7	7	7	84.5	86.6
I90-76-050-8 EBL	7	7	7	7	7	7	89.8	89.8
I90-76-050-8 WBL	7	7	7	7	7	7	89.8	89.8
I90-76-050-9 EBL	7	6	7	6	7	6	87.7	87.7
I90-76-050-9 WBL	7	7	7	7	7	7	87.7	87.7
I90-76-051-1	8	7	8	7	8	7	78.3	80.3
I90-76-051-2 EBL	8	8	8	8	8	8	95.8	95.8
I90-76-051-2 WBL	8	8	8	8	8	8	95.8	95.8
I90-76-051-5	8	7	8	7	8	7	92.8	94.8
I90-76-051-6 EBL	8	8	8	8	7	8	95.8	95.8
I90-76-051-6 WBL	8	8	8	8	7	8	95.8	95.8
I90-76-051-7 EBL	8	8	8	8	8	8	96.9	96.9
I90-76-051-7 WBL	8	8	8	8	8	8	80.4	78.6
I90-76-052-2	8	8	8	8	8	8	96.0	98
I90-76-052-3	7	7	7	7	7	7	95.9	97.9
I90-76-052-5	8	7	6	7	8	7	96.0	98
I90-76-052-6	8	7	8	7	7	7	80.8	82.8
I90-76-053-1	8	7	8	7	7	7	91.8	93.8

Bridge Number	Change in Rating: Deck		Change in Rating: Superstructure		Change in Rating: Substructure		Change in Rating: Sufficiency	
	2011	2013	2011	2013	2011	2013	2011	2013
I90-76-053-2	8	8	8	8	7	8	95.2	98
I90-76-053-3 EBL	8	8	8	8	7	8	94.8	94.8
I90-76-053-3 WBL	8	8	8	8	7	8	94.8	94.8
I90-76-053-5 EBL	8	8	8	8	8	8	94.8	94.8
I90-76-053-5 WBL	8	8	8	8	8	8	94.8	92.8
I90-76-053-6	8	8	7	8	7	8	95.2	96.9
I90-76-053-7	N/A	N/A	N/A	N/A	N/A	N/A	80.2	80.2
I90-76-053-8 EBL	8	7	8	7	7	7	94.8	94.8
I90-76-053-8 WBL	8	7	8	7	8	7	93.8	94.8
I90-76-053-9	7	7	7	7	7	7	91.0	93
I90-76-50-10 EBL	8	7	8	7	8	7	95.8	96.9
I90-76-50-10 WBL	8	7	8	7	8	7	95.8	95.8
I90-76-50-7A	8	8	8	8	8	8	96.0	98

Table 2.1: NBI and Bridge Sufficiency Ratings for all Bridges on ITR

2.2 Summary of Mainline Pavement

Under the direction of the ITRCC, the condition rating percentages of the toll road mainline have been determined. These mainline pavement ratings are determined quantitatively from the PQI formula shown below.

ITR Mainline	
	PQI
2014	93.30
2015	93.25

Table 2.2 – Mainline Pavement Conditions

2.3 Summary of Toll Plaza Ramp Pavement

The pavement ratings for the toll plazas are based on engineering judgment during visual inspections, the results of which are shown in the table below, and detailed in Section 3.4 of the Annual Report.

Toll Plaza	MP	General Condition 2014	General Condition 2015
Indianapolis Blvd.	0	Fair	Good
Westpoint	1	Good	Good
S.R. 912	3	Fair	Poor
Calumet Ave. (EB Entr.)	5	Fair	Fair
Calumet Ave. (WB Exit)	5	Good	Fair
Cline Ave.	10	Good	Good
Gary West	14A	Excellent	Excellent
Broadway	14B	Excellent	Excellent
Gary East	17	Excellent	Good
Lake Station	21	Poor	Poor
Willow Creek	23	Good	Good
Portage Barrier	24	Good	Good
Valparaiso-Chesterton	31	Good	Good
Michigan City	39	Excellent	Good
LaPorte	49	Fair	Good
South Bend West	72	Poor	Excellent
So. Bend-Notre Dame	77	Good	Good
Mishawaka	83	Good	Fair
Elkhart	92	Fair	Good
Elkhart East	96	Good	Good
Bristol	101	Excellent	Excellent
Middlebury	107	Fair	Fair
Howe-LaGrange	121	Good	Good
Angola	144	Good	Good
Eastpoint	153	Good	Good

Table 2.3 – Toll Plaza Ramp Conditions

2.4 Summary of Travel Plaza Parking Lot Pavement

The pavement ratings for the travel plazas are based on engineering judgment during visual inspections, the results of which are shown in the table below, and detailed in Section 3.4 of the Annual Report.

Travel Plaza	MP	General Condition 2014	General Condition 2015
Eastbound			
TRP - 1S	21.7	Fair	Good
TRP - 2S (Trucks Only)	37.5	Fair	Fair
TRP - 3S	55.9	Poor	Poor
Dist. 11 ISP	96.0	Excellent	Excellent
TRP - 5S	90.0	Poor	Poor
TRP - 6S (Trucks Only)	108.0	Fair	Poor
TRP - 7S	125.8	Good	Good
TRP - 8S	145.7	Fair	Fair
Westbound			
TRP - 1N	21.7	Good	Fair
TRP - 2N (Trucks Only)	37.5	Poor	Poor
TRP - 3N	55.9	Fair	Poor
TRP - 5N	90.0	Fair	Fair
TRP - 6N (Trucks Only)	108.0	Poor	Poor
TRP - 7N	125.8	Fair	Good
TRP - 8N	145.7	Poor	Poor

Table 2.4 - Travel Plaza Ramp Conditions

2.5 Facility Condition Report Summary

The Facilities Inspections were intended to assure compliance with the spirit of the “Acceptance Criteria” listed in the Concession Lease Agreement (Volume I, Sections K.3.4 and L.3.4, Pages 97 – 98 and 108 – 110) and the “Acceptance Standards” listed in the Concession Lease Agreement (Volume II, Section J.2.4., Pages 97-98). Shown below is a Condition State breakdown of all buildings within the area of the 2015 inspection limits:

Mile Point	Building Group	Building Number	General Condition
1.1	TP-1	45-01	Good
1.1	TP-1	45-02	Good
1.1	TP-1	45-03	Fair
1.1	TP-1	45-04	Fair
1.1	TP-1	45-05	Fair
1.1	TP-1	45-07	Good
1.1	TP-1	45-08	Good
1.1	TP-1	45-09	Fair
1.1	TP-1	45-10	Good
1.1	TP-1	45-11	Good
1.1	TP-1	45-13	Good
1.1	TP-1	45-14	Good
1.1	TP-1	45-15	Good
1.1	TP-1	45-16	Good
1.1	TP-1	45-17	Fair
1.1	TP-1	45-18	Good
1.1	TP-1	45-19	Good
1.1	TP-1	45-87	Fair
1.1	TP-1	45-88	Fair
4.6	ASA-4.7	45-20	Good
4.6	ASA-4.7	45-21	Good
4.6	ASA-4.7	45-23	Good
4.6	ASA-4.7	45-24	Good
4.7 EBL	TP-5	45-31	Good
4.7 EBL	TP-5	45-32	Good
4.7 EBL	TP-5	45-34	Fair
4.7 EBL	TP-5	45-35	Fair
4.7 EBL	TP-5	45-36	Fair
4.7 WBL	TP-5	45-25	Good
4.7 WBL	TP-5	45-26	Fair
4.7 WBL	TP-5	45-27	Good
4.7 WBL	TP-5	45-29	Good
4.7 WBL	TP-5	45-30	Fair
10.1	TP-10	45-37	Good
10.1	TP-10	45-38	Fair
10.1	TP-10	45-39	Fair
10.1	TP-10	45-41	Good
10.1	TP-10	45-42	Good
10.1	TP-10	45-43	Good
10.1	TP-10	45-44	Good
10.1	TP-10	45-46	Good

Mile Point	Building Group	Building Number	General Condition
10.1	TP-10	45-47	Good
10.1	TP-10	45-48	Good
10.1	TP-10	45-49	Good
10.1	TP-10	45-50	Good
10.1	TP-10	45-89	Good
16.7	TP-17	45-53	Good
16.7	TP-17	45-54	Fair
16.7	TP-17	45-55	Fair
16.7	TP-17	45-56	Fair
16.7	TP-17	45-57	Fair
16.7	TP-17	45-58	Good
16.7	TP-17	45-60	Good
16.7	TP-17	45-61	Good
16.7	TP-17	45-62	Good
16.7	TP-17	45-63	Good
16.7	TP-17	45-64	Good
16.7	TP-17	45-65	Good
16.7	TP-17	45-66	Good
16.7	TP-17	45-67	Good
16.7	TP-17	45-68	Good
16.7	TP-17	45-69	Good
16.7	TP-17	45-70	Good
16.7	TP-17	45-90	Fair
20.6	TP-21	45-71	Fair
20.6	TP-21	45-72	Good
20.6	TP-21	45-73	Fair
20.6	TP-21	45-75	Fair
20.6	TP-21	45-76	Fair
20.6	TP-21	45-77	Good
20.6	TP-21	45-78	Good
20.6	TP-21	45-79	Good
20.6	TP-21	45-81	Good
20.6	TP-21	45-82	Good
20.6	TP-21	45-83	Good
20.6	TP-21	45-84	Good
20.6	TP-21	45-85	Good
20.6	TP-21	45-86	Good
21.6	ASA	64-09	Fair
21.6	ASA	64-11	Good
21.6	ASA	64-12	Fair
21.7	TRP-1N	64-05	Fair
21.7	TRP-1N	64-06	Fair
21.7	TRP-1N	64-07	Good
21.7	TRP-1N	64-08	Good
21.7	TRP-1S	64-01	Good
21.7	TRP-1S	64-02	Fair
21.7	TRP-1S	64-03	Fair
21.7	TRP-1S	64-04	Fair
23.5	MB-1	64-13	Fair

Mile Point	Building Group	Building Number	General Condition
23.5	MB-1	64-14	Good
23.5	MB-1	64-15	Good
23.5	MB-1	64-16	Good
23.5	MB-1	64-17	Good
23.8	TP-23	64-18	Good
23.8	TP-23	64-19	Fair
23.8	TP-23	64-20	Fair
23.8	TP-23	64-21	Fair
23.8	TP-23	64-45	Good
23.8	TP-23	64-46	Good
24.1	TP-24	64-22	Good
24.1	TP-24	64-23	Good
24.1	TP-24	64-24	Good
24.1	TP-24	64-25	Good
24.1	TP-24	64-26	Good
24.1	TP-24	64-27	Good
24.1	TP-24	64-28	Good
24.1	TP-24	64-29	Good
24.1	TP-24	64-30	Good
24.1	TP-24	64-31	Good
24.1	TP-24	64-33	Good
24.1	TP-24	64-34	Good
24.1	TP-24	64-35	Good
24.1	TP-24	64-36	Good
24.1	TP-24	64-47	Good
24.1	TP-24	64-48	Good
24.1	TP-24	64-49	Good

Table 2.5 – Facility Condition States



3: BRIDGE AND STRUCTURE CONDITION REPORT



SECTION 3. Bridge and Structure Condition Report

3.1 General

Bridge Inspections, consisting of a complete re-inspection and assessment of each bridge within the ITR Concession Company's (ITRCC) jurisdiction were performed in 2013 by URS Corporation on behalf of the ITRCC. Routine NBIS inspections were performed on 333 bridges with Structure Inventory and Appraisal Sheets for each bridge prepared utilizing INDOT's web-based Bridge Inspection Application System (BIAS). Routine inspections were not required in 2014. However, inspections such as fracture critical, pin & hanger, post tension, small structures, and steel pier cap inspections were conducted as required by Federal, State, and CLA regulations. State Highway bridges, Federal land bridges, privately owned bridges, and bridges carrying railroad traffic were not included in the report.

3.1.1 Routine Bridge Inspections

The 2013 NBIS Bridge Inspection report is the result of visual observations and data obtained during field inspections performed by URS Corporation between July and September 2013 with conclusions based on relatively evident deficiencies. A full round of routine inspections will be completed again in late 2015 as part of the 2015 NBIS Inspection. No invasive or destructive testing or inspections were performed unless specifically authorized by the ITRCC and so noted. A great deal of emphasis is placed on the judgment and expertise of the Engineer performing the field inspections. As such, all field work was completed by a Bridge Inspection Team Leader certified by the Indiana Department of Transportation. Although every effort was made to maintain the highest level of professional judgment throughout this report, it is noted that inconspicuous and/or concealed deficiencies are possible and remain unnoted in some cases. The ITRCC is encouraged to maintain a program of continuing observation, particularly in the case of severely deficient and decayed structures, to anticipate future problems before they develop.

3.1.2 Fracture Critical Inspections

Fracture Critical Inspections are required on an annual basis for a total of five bridges under ITRCC jurisdiction as noted in Column A of Table B2.1: Special Detail Bridges. These inspections were performed in the fall of 2014 as part of the 2014 Bridge Inspection Program cycle.

3.1.3 Underwater Inspections

Underwater Inspections are required on a 5-year cycle for a total of 10 bridges under ITRCC jurisdiction as noted in Column B of Table B2.1: Special Detail Bridges. These inspections were last performed in June 2012 (by others), and will not require inspection again until early 2017.

3.1.4 *Special Inspections*

Special Inspections are required for a total of seven bridges under ITRCC jurisdiction as noted in Column C of Table B2.1: Special Detail Bridges. Special Detail Inspections may be required on an annual or biennial frequency. Special Detail Inspections (steel pier cap “hands-on”, pin & hanger “hands-on”, post-tensioning inspection, or low water scour inspection) for each of these structures were completed in 2014.

URS Corporation performed the “hands-on” inspection of the pin & hanger detail of I90-45-005-2. In 2012 secondary supports, called “catcher beams” were added to the underside of this detail to provide redundancy to the pin & hanger elements. Additionally the pin & hanger and girder ends were blast cleaned and painted. The bridges were inspected in September 2013, and the details were found to be in very good condition. With the addition of the secondary supports the special inspection frequency for this structure has been increased to 24-months to correspond with the routine inspections. The pin & hanger detail will continue to receive an ultrasonic testing examination (NDT) every 48 months per INDOT and FHWA guidelines.

Special Inspections are typically required for bridges deemed scour critical, meaning that the bridge substructure units may be vulnerable to undermining from scour during a high-water event. The scour depths used to determine the risks are theoretical and based various hydraulic analyses. The evaluation does not necessarily mean that scour exist at the bridges, though actual scour history is a contributing factor to the evaluation.

Currently all bridges on the Indiana Toll Road system with substructure units in the waterway are rated as not critical for scour (SI&A Coding Item 113A = 8). Even with a low risk scour critical evaluation, all Toll Road structures with substructure units (piers and/or abutments) in the water are checked for actual scour as part of the routine NBIS inspections and underwater inspections, if required. In 2013, during the routine inspections, probing around substructure units submerged in less than 3 feet of water did not reveal ongoing local or general scour around the units.

STRUCTURE NO.	MP	FEATURE INTERSECTED	(A)	(B)	(C)
1A-1	0.08	US 12, 20, 41, SR 152	X		
1-3 EBL & WBL	1.56	Indiana Harbor Belt RR	X		
5-2 EBL & WBL	6.56	Grand Calumet River, Roxana Drive		X	P-H
10(02) WX	10.16	Grand Calumet River		X	
10(03) EX	10.15	Grand Calumet River		X	
10(04) EN	10.06	Grand Calumet River		X	
10(05) WN	10.05	Grand Calumet River		X	
28-1 EBL & WBL	75.97	St. Joseph River	X	X	
32-6 EBL & WBL	90.98	C.R. 7			P-T
35-1.6	96.10	Ramp (C.R. 17) over ITR			P-T
36-1 EBL & WBL	100.2	C.R. 25 & St. Joseph River		X	
40/41-1 EBL & WBL	112.6	Pigeon River			SPC
Number of Inspections by Type:			5	10	7
<p>Notes: Column (A): Indicates Fracture Critical Inspection required on annual basis Column (B): Indicates Underwater Inspection required on 5-year cycle Column (C): Indicates Special Inspection as follows: P-H indicates pin and hanger inspection required on a biennial basis, and UT every 48 months SC indicates low-water scour inspection required on biennial basis (Item 113 = 3) P-T indicates post-tension inspection required on an annual basis SPC indicates steel pier cap inspection required on annual basis</p>					

Table 2.1: Special Detail Bridges

3.2 Bridge Organizational Performance Index (BOPI)

As previously noted, all bridges within the jurisdiction of the Indiana Toll Road undergo routine NBIS inspections on a biennial basis in keeping with FHWA requirements. The Federal Highway Administration (FHWA) scale of 0 to 9 (worst to best) is used as the Performance Index (PI) for the bridge items.

The following categories, as defined in the OPI Manual, are evaluated for the purpose of establishing the Bridge Organizational Performance Index:

- **Bridge Wearing Surface** – Defined as the top concrete or HMA surface of the bridge that provides smooth ride ability for the vehicles and protections for the bridge deck. This item is considered deficient when rated ≤ 5 . The deficiency should be measured in square foot of the deck area.
- **Paint** - The protective item for the superstructure (steel beams and girder) against rust and corrosions. This item is considered deficient when rated ≤ 5 . The deficiency is measured in percentage of bridges with a rating ≤ 5 .

The numerical condition ratings given to paint condition are as outlined in the Bridge Coding Guide as follows:

- | | |
|---|---|
| N | Not Applicable – no paint |
| 9 | Excellent – recently painted, good seal |
| 8 | Very Good – may be several years since painting, still a good seal, some chalkiness |
| 7 | Good – a few areas of light rust, possibly some chalkiness, some peeling |
| 6 | Satisfactory – light rust in many areas, lots of chalkiness, some peeling |
| 5 | Fair – many areas of light rust, localized areas of medium to heavy rust buildup, lots of peeling |
| 4 | Poor – many areas of medium rust, localized areas of heavy rust buildup, lots of peeling |
| 3 | Very Poor – many areas of heavy rust, lots of peeling |
| 2 | Very Poor – many areas of heavy rust, lots of peeling |
| 1 | Total Paint Failure – large areas of extremely heavy rust, little paint remains |
| 0 | Total Paint Failure – large areas of extremely heavy rust, little paint remains |
- **Deck** – Represents one of the bridge’s major components which transfer the live (vehicular) load to the beams and girders (superstructure). This item is considered deficient when rated ≤ 5 . The deficiency is measured in percentage of bridges with a rating ≤ 5 .
 - **Superstructure** – Represents the load carrying components of the bridge. This item is considered deficient when rated ≤ 4 . The deficiency is measured in percentage of bridges with a rating ≤ 4 .
 - **Substructure** – Defined as the support for beams, girders, deck, railings, and other features. This item is considered deficient when rated ≤ 4 . The deficiency is measured in percentage of bridges with a rating ≤ 4 .

The numerical condition ratings given to deck, superstructure, and substructure conditions are as outlined in the Bridge Coding guide as follows:

N	Not Applicable – structural element does not exist
9	Excellent – newly constructed
8	Very Good – no problems
7	Good – some minor problems
6	Satisfactory – minor structural deterioration
5	Fair – minor section loss, spalling, cracking
4	Poor – advanced section loss, deterioration
3	Serious Poor – failure is possible
2	Critical Poor – advanced deterioration or primary elements
1	Imminent Failure – major deterioration, closed
0	Failed – beyond correction, out of service

Bridge sufficiency ratings are calculated based on the formula and guidelines provided by the Federal Highway Administration (FHWA) in the "Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges," also known as the Bridge Inspections Coding Guide.

The sufficiency rating formula is a method of evaluating data by calculating four separate factors (S1, S2, S3 and S4) to obtain a numeric value which is indicative of bridge sufficiency to remain in service.

The result of this method is a percentage in which 100% would represent an entirely sufficient bridge and 0% would represent an entirely insufficient or deficient bridge. It is reasonable to conclude that bridges with a sufficiency rating of:

90% -100% are generally in Excellent Condition.

80% - 90% are generally in Good Condition.

70% - 80% are generally Fair Condition.

60% - 70% are generally Marginal Condition.

Below 60% are generally in Poor Condition.

Bridge Sufficiency Rating = **S1 + S2 + S3 - S4**

Where;

S1 represents the Structural Adequacy and Safety of the bridge which is indicative of the bridge's main element conditions such as Superstructure, Substructure, Culvert and the load carry capacity of the bridge. These elements are evaluated or rated based on the scale of 0-9. If rating of any of these elements falls below 6, it will deduct a percentage value from the 100 depending on the rating, up to maximum of 55% total.

S2 represents the Serviceability and Functional Obsolescence which is indicative of the bridge's geometry, structure type and the importance of the facility that bridge carries. It includes thirteen different items and is evaluated based on the 0-9 scale using the current standards. If the rating of any of these elements falls below 6, it will deduct a percentage value from the 100 depending on the rating, up to maximum of 30% total.

S3 represents Essentiality for Public Use which includes the Detour Length, Average Daily Traffic and Defense Highway Designation. These items are evaluated according to the guidelines provided by the FHWA in the Bridge Inspections Coding Guide. If rating of any of these elements falls below 6, it will deduct a percentage value from the 100 depending on the rating, up to maximum of 15% total.

S4 represents Special Reductions (and is used when S1 + S2 + S3 is equal to or less than 50%). Guidelines for evaluating this item are provided in the Bridge Inspections Coding Guide. If rating of any of these elements falls below 6, it will deduct a percentage value from the 100 depending on the rating, to maximum of 13% total.

3.3 Bridge Condition Summary

The following figure details the conditions of the bridge elements over the period from 2004 to 2014 and results are based on NBIS biennial inspections performed during this period. In general, the protective paint coating is the most deficient element with condition of the concrete bridge decks being the second-most deficient. Statistically, the paint and wearing surface ratings, the deck, superstructure, and substructure ratings have improved. The most recent inspections were performed by INDOT Certified Bridge Inspection Team Leaders and were inspected in a thorough and complete manner in accordance with the NBIS standards.

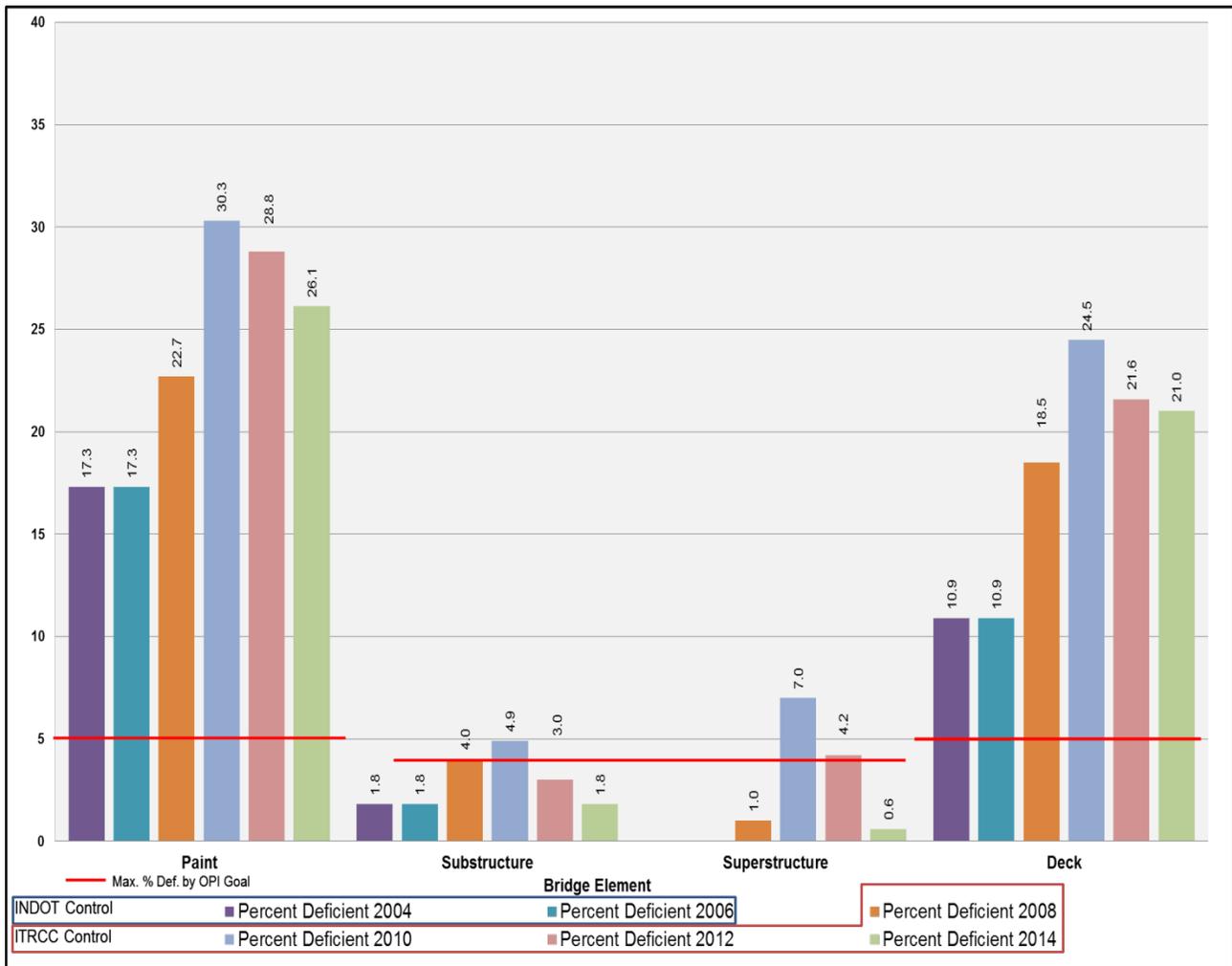


Figure 2.1: Bridge Condition Ratings

As the following table details, the majority of bridge elements are rated as “excellent” or “good”. There has been a decrease in the percent deficiencies of the individual items compared to the previous year.

Indiana Toll Road Bridge Road Conditions							
		2004 (INDOT Control)		2006 (INDOT Control)		2008 (ITRCC Control)	
	Def.Rating	Avg. Suff. Rating	% Def.	Avg. Suff. Rating	% Def.	Avg. Suff. Rating	% Def.
Wearing Surface	<=5	86.7	n/a	n/a	n/a	86.2	23
Deck	<=5		11		11		19
Paint	<=5		17		17		23
Superstructure	<=4		0		0		1
Substructure	<=4		2		2		4
		2010 (ITRCC Control)		2012 (ITRCC Control)		2014 (ITRCC Control)	
	Def.Rating	Avg. Suff. Rating	% Def.	Avg. Suff. Rating	% Def.	Avg. Suff. Rating	% Def.
Wearing Surface	<=5	85.9	n/a	83.8*	39	84.7	20
Deck	<=5		25		21		21
Paint	<=5		30		29		26
Superstructure	<=4		7		4		1
Substructure	<=4		5		3		2

*Sufficiency rating for 2012 based on information from FHWA database for 2012.

Table 2.2: Average Bridge Sufficiency Rating and Percent Deficiencies of Elements from 1998-2014

The 2014 data includes NBIS and INDOT data obtained from completed 2013 NBIS inspections. It is worth noting that, at present, ITRCC has 7 structures under construction and 13 other structures in various stages of design. These bridges are generally rated low in regard to condition and sufficiency rating. Once these bridge projects are complete, the percent deficiencies and sufficiency rating of the aggregate population should improve.

3.4 Fracture Critical Member Report (Summary)

Five bridge structures were inspected in 2014 as part of the most recent fracture critical inspection program completed during the 2014 Bridge Inspection Program. These structures include:

<u>STRUCTURE NO.</u>	<u>MILE POINT</u>	<u>FEATURE INTERSECTED</u>
1A-1	0.08	US 12/20 & US 41
1-3 EBL	1.56	Indiana Harbor Belt RR
1-3 WBL	1.56	Indiana Harbor Belt RR
28-1 EBL	75.97	St. Joseph River
28-1 WBL	75.97	St. Joseph River

3.4.1 Bridge 1A-1 over US 12/20 & US41

Fracture critical elements in Bridge 1A-1 include the column steel bent substructure units. The steel bents are comprised of riveted steel plate and angles. An arms-length visual and tactile inspection focused on the tension zone areas of the substructure units and their connections was performed to identify visible defects such as cracks, section loss, pack rust and damage. In general, the overall condition of the fracture critical steel cross-members is fair. Several of the steel bents exhibit measurable section loss in critical positive and negative moment tension zones. The load rating completed in 2013 revealed ample capacity of the bents, even with significant loss of section in certain members. Despite these findings, the underlying causes of the corrosion, i.e. leaking joints, constant salt overspray exposure, and marginal paint overcoat condition still exist and will continue to promote corrosion until the joints are repaired or eliminated and the entire structure is repainted. These elements will continue to require hands-on monitoring for signs of active deterioration during future inspections until the causes of the corrosion is addressed.

3.4.2 Bridge 1-3

Fracture critical elements in Bridges 1-3 EBL & WBL include the built-up riveted cross-girders supporting the main superstructure spans over the IHB railroad. The cross-girders are supported by concrete columns at each end and span across the railroad tracks. In 2013 a load-rating analysis was performed on the cross-girder members based on section loss measurements found on previous inspections. The analysis revealed no loss of load capacity of the members despite the loss, establishing the robust design of these members. The entire steel superstructure, including the cross-girders, was fully blast cleaned and painted in 2013, which facilitated an uncomplicated hands-on inspection performed later in the year. Because of the cleaning, any corresponding steel deficiencies were readily apparent and easy to measure. This inspection, completed at the end of 2014, did not reveal any additional deterioration that would warrant further investigation. Only continued monitoring is required on members with pitting or section loss.

3.4.3 Bridges 28-1 EBL & WBL over St. Joseph River

Fracture critical elements in Bridges 28-1 EBL & WBL include the two main girders supporting the deck beams and stringers. The two main girders are comprised of riveted steel plate and angles and were last painted in 1987 as part of a bridge widening / rehabilitation project. An arms-length visual and tactile inspection focused on the tension zone areas of the top and bottom flanges along with a review of the floor beam to girder connections to identify visible defects such as cracks, section loss, pack rust and damage. In general, the overall condition of the fracture critical steel cross-members is satisfactory. The visible pack-rust between the bottom flange cover plates and resulting plate deformation/minor loss of section should continue to be monitored. The floorbeam end connections at the main girders should also continue to be monitored. Some active corrosion was found on both structures, especially on the fascia girders. Although the faded paint system is performing adequately over much of the two structures it is failing at numerous locations such as the fascia girders and the G2 and G3 girder cover plates. Because of the age of the paint system, the criticality of the superstructure members, and the presence of bird nests and other debris on the lower connection plates, bridge repainting should be planned within the next 5 years.

The inspection walkway requires more immediate maintenance if it is to be used for inspector access for future inspections or maintenance.

3.5 Underwater Condition Report (Summary)

In 2012, underwater inspections were performed on the following structures, and no significant problems or issues were noted. The next underwater inspections will not be required until 2017, though review of the most recent underwater inspections will be undertaken prior to completion of all future NBIS inspections.

<u>STRUCTURE NO.</u>	<u>MILE POINT</u>	<u>FEATURE INTERSECTED</u>
5-2 EBL	6.56	Over Grand Calumet River (Roxana Dr.)
5-2 WBL	6.56	Over Grand Calumet River (Roxana Dr.)
10(02) WX	10.16	Over Grand Calumet River
10(03) EX	10.15	Over Grand Calumet River
10(04) EN	10.05	Over Grand Calumet River
10(05) WN	10.05	Over Grand Calumet River
28-1 EBL	75.97	Over St. Joseph River
28-1 WBL	75.97	Over St. Joseph River
36-1 EBL	100.14	Over St. Joseph River
36-1 WBL	100.14	Over St. Joseph River

3.6 Pin & Hanger Inspection

As noted, the two bridge structures listed here were inspected for pin and hanger details in the fall of 2014:

<u>STRUCTURE NO.</u>	<u>MILEPOINT</u>	<u>FEATURE INTERSECTED</u>
5-2 EBL & WBL	6.56	Over Grand Calumet River & Roxana Drive

The overall condition of the pin & hanger assemblies on both structures is satisfactory. The entire assembly area has been fully cleaned and painted. The superstructure area within 10 feet of each assembly is free of corrosion and is in good condition. The in-depth special feature inspection revealed minor steel section loss on hangers and secondary members. These deficiencies only require monitoring during future inspections for reappearance of rust and corrosion. The catcher beams installed below each pin & hanger assembly are designed to fully support the suspended middle span transfer loading to the cantilevered section in the event of failure in the pin & hanger assembly. The detail would behave similar to a seated-type joint assembly.

Because of the improvements, the Special Feature Detail inspection frequency can be reduced from the current 12 month frequency to 24 months. The pin & hanger assemblies are located in the middle of the 3 main spans which cross the Grand Calumet River, and these spans require the use of an underbridge, or snooper platform, as part of the normal NBIS inspection, and completing the hands-on examination can logically be completed as part of the routine inspection. Additionally, the UT inspection of the pins could be undertaken at every other inspection cycle, which would place it at a 48 month frequency

3.7 Post Tension Inspection

Three bridge structures were inspected for post tension in the fall of 2014:

<u>STRUCTURE NO.</u>	<u>MILEPOINT</u>	<u>FEATURE INTERSECTED</u>
35-1.6	96.10	Ramp (Co. Rd. 17) Over ITR
32-1.6 EBL & WBL	90.98	Over Co. Rd. 7

3.7.1 Bridge 35-1.6 carrying County Road 17 Ramp over the Mainline

This unique overpass structure consists of a welded steel plate girder superstructure supporting a reinforced concrete bridge deck. Post-tensioned tendons are draped externally within the interior girder bays adjacent to the girders. The tendons are high-strength steel strands placed within thin PVC ducts and anchored at both bridge abutments. A lean grout mixture is placed within the duct in order to protect the steel strands from moisture and corrosion. Research has found that the main purpose of the post-tensioning for this structure, constructed in the 1990's, was to provide additional compressive force to the concrete deck in order to reduce overall deck cracking.

Per the Plan-of-Action on file for this structure, the first level of inspection of the post-tensioned system was to consist of acoustical sounding, or "hammer tapping" of the exposed post-tensioned ducts, the purpose of which is to ascertain the existence of the grout protecting the steel strands. The test does not determine the actual condition of the strands, grout quality or the overall tension being carried by the strand structure. The first hammer tap inspection of the post tensioned grout was conducted over two days at the end of 2013, and revealed a potentially high number of voids. Any voids could significantly compromise the protection of the steel tendons. Given the potential for such a high level of voids it was decided to resound the tendon ducts for the 2014 inspection to verify the number of voids and duct conditions to better ascertain the testing needs and methods in preparation for more invasive non-destructive testing. The next level of inspection consist of opening up a random amount of tendons at the hollow sounding areas and inserting a boroscope within the tendons to look for voids and/or deteriorated grout. This testing will be completed during the summer of 2015.

3.7.2 Bridges 32-6 EBL & WBL over County Road 7

Both structures are concrete slab bridges with longitudinal and transverse post-tensioned tendons within the slab. The longitudinal tendons are indicated by the exposed grout ports at each end of both bridges and the transverse tendons anchorages, although covered with grout, are outlined along the outside elevation view of the slabs. Tight longitudinal cracking in the undersides of the slabs was noted shortly after construction. Previous inspections (by others) monitoring these cracks have noted they have not changed noticeable from one year to the next. Both structures exteriors were found to be in good condition but the tendons cannot be accessed by visual inspection. It is recommended that some of the tendons from both structures have corrosion rates performed and grout samples obtained to access the conditions of the tendons. The tendons of both structures should have a determined number subjected to boroscope testing to confirm that no voids exist in the duct tubes. The exposed grout ports for the longitudinal tendons should be drilled out approximately 2 inches and filled with epoxy to prevent contaminants from entering the tendon duct and possibly exposing the tendons to corrosion.

3.8 Steel Pier Cap Inspection

Two bridge structures were inspected in 2014 as part of the most recent detailed steel pier cap inspection completed during the 2014 Bridge Inspection Program. These structures include:

<u>STRUCTURE NO.</u>	<u>MILEPOINT</u>	<u>FEATURE INTERSECTED</u>
40/44-1 EBL & WBL	112.55	Over Pigeon River

These two structures were rehabilitated and widened in 1995 during which steel members were thru-bolted (attached with bolts that pass entirely through the existing concrete pier cap) onto the existing concrete substructure units to support new fascia beams. INDOT has identified these steel members for annual inspection to monitor their performance and condition. The overall condition of the steel fracture critical pier cap extensions is very good. The hands-on inspection did not reveal loss of section or fatigue issues on the members in the tension zone regions that would warrant further investigations. As a result of repairs made in 2014, the previous issue of weld cracking on the bottom of the steel pier cap has been resolved with the removal of the c-shaped cover plates. The original cracked welds have been removed and the base material has been ground smooth.

3.9 Vertical Clearance

All bridges crossing over the Indiana Toll Road mainline are required to have a minimum vertical clearance of 16'-0" per the INDOT Design Manual, Chapter 53 (Future Chapter 302), Geometric Design Criteria for Freeways (Figure 53-1), Existing Overpassing Bridge. At present, 37 existing bridges provide a vertical clearance below this minimum as listed in the following. Future rehabilitation of these bridges will include increasing the vertical clearance as required to meet the minimum clearance requirement.

Bridge Number	Features Intersected (Under)	Facility Carried (On)	Min. Vert Clearance (ft)	Min Vert Clearance (in)
(13)I90-20-038-2	I-90 EB/WB	SR 13	15	7
(15)I90-20-037-1	I-90 EB/WB	SR 15	15	9
(421)I90-46-018-5	I-90 EB/WB	US 421	15	10
I90-20-034-2	I-90	I-90 RAMP/SR 19	15	8
I90-20-038-1	I-90 EB/WB	I-90 RAMP TO SR 13	15	6
I90-44-039-1	I-90	CR 4/1150W	15	8
I90-44-039-2	I-90	CR 1000W	15	8
I90-44-039-3	I-90	CR 900W/SNYDER RD	15	9
I90-44-039-4	I-90	CR 800W/FERGUSON	15	10
I90-44-040/41-2	I-90	CR 675W	15	10
I90-44-040/41-3	I-90	CR 600W/OLNEY RD	15	10
I90-44-040/41-4	I-90	CR 450W/CRAMPTON	15	11
I90-44-040/41-5	I-90	CR 375W/BERGER RD	15	9
I90-44-040/41-6	I-90 EB/WB	CR 300W	15	11
I90-44-043-6	I-90 EB/WB	CR 100E/WEILAND	15	10
I90-44-045-1	I-90 EB/WB	CR 250E	15	9
I90-44-045-5	I-90 EB/WB	CR 375E	15	9
I90-44-046-1	I-90 EB/WB	CR 575E	15	9
I90-46-019-3	I-90 EB/WB	GOLDRING ROAD	15	10
I90-46-020-4	I-90 EB/WB	I-90 RAMP/SR 39	15	7
I90-46-021-3	I-90 EB/WB	FAIL ROAD	15	10
I90-46-022-1	I-90 EB/WB	ST JOHNS ROAD	15	9
I90-46-022-2	I-90 EB/WB	BOWELL RD/CR 300E	15	10
I90-46-022-3	I-90 EB/WB	CR 425E/TEETER RD	15	8
I90-64-015-8	I-90 EB/WB	ESSERMAN RD/50 W	15	11
I90-64-016-2	I-90 EB/WB	I-90 RAMP TO SR 49	15	8
I90-64-017-4	I-90 EB/WB	CR 550E	15	11
I90-71-027-A NBL	I-90 EB/WB	BENDIX DRIVE NB	15	9
*I90-71-027-A SBL	I-90 EB/WB	BENDIX DRIVE SB	15	10
I90-71-030-5	I-90 EB/WB	FIR ROAD	15	10
I90-71-0WX-1	I-90 EB/WB	I-90 TO US 31 RAMP	15	11
I90-76-049-3	I-90 EB/WB	CR 850W	15	11
I90-76-050-9 WBL	I-69, STEUBEN CO IR-415	I-90 WB	15	7
I90-76-051-1	I-90 EB/WB	VAN GUILDER ROAD	15	10
I90-46-019-5	I-90 EB/WB	JOHNSON ROAD	15	11
I90-76-053-6	I-90 EB/WB	I-90 RAMP TO SR 13	15	3
I90-44-038-3	I-90	CR 1200W/CO LN RD	15	7

*Str 27-A SBL-St. Joseph County maintains this structure

Table 2.3: Bridges with Min. Vertical Clearance less than 16'-0". Future rehabilitation of these bridges will include increasing the vertical clearance as required to meet the minimum clearance requirement.

3.10 Bridge Structures Maintained and Inspected by Others

Bridge Number (NBIS 8B)	Features Intersected (NBIS 6)	Facility Carried (NBIS 7)
7-1B	I-90	SR912/Cline Ave.
16-3	I-90	SR 49
21-4	I-90	US 20
34-1	I-90	SR 19
1-80-16	I-90	I-94
31-71-5807N	I-90	US 31 Bypass
31-71-5807S	I-90	US 31 Bypass

Table 2.4: Bridge Structures Maintained and Inspected by Others

3.11 Bridge Structures Maintained by Others but Inspected by Toll Road

Bridge Number (NBIS 8B)	NBI Number (NBIS 8A)	Features Intersected (NBIS 6)	Facility Carried (NBIS 7)
I90-45-07-1A	46270	I-90	CSS & SB RR
I90-71-027-A	47650	I-90	BENDIX DRIVE SBL
I90-64-013-6	46780	I-90	CR 600W/WILLOW CR
I90-71-027-B	47660	I-90	PORTAGE ROAD
I90-71-030-3	47847	I-90	MAIN STREET
I90-71-030-6	47867	I-90	SR331NB,CAPITAL AV
I90-71-030-6	47868	I-90	SR331SB,CAPITAL AV

Table 2.5: Bridge Structures Maintained by Others but Inspected by Toll Road

3.12 New Bridge Structures

I90-45-BHX-A and I90-45-BHX-B are currently under construction and are scheduled to be complete of the end of 2015.

Structure 5262 was rebuilt in 2014. This structure received a new bridge deck and superstructure.

3.13 Demolished Structures

Structure BHX-A was demolished in the spring of 2015. As mentioned in Section 2.12, Str BHX-A is currently under construction.

3.14 Transferred and Decommissioned Structures

No bridges were transferred or decommissioned between the summers of 2014 and 2015.



4: ROADWAY CONDITION REPORT



SECTION 4. Roadway Condition Report

4.1 Pavement History

The Indiana Toll Road pavement is generally in a good state of repair, but as is typical for a facility of this type and age, it is essential that an ongoing resurfacing program be maintained. The roadway was completely resurfaced with bituminous asphalt during the years of 1974 through 1980. The resurfacing covered the original plain jointed concrete pavement constructed in the 1950's. A second resurfacing cycle was completed from 1984 through 1992. This second generation resurfacing project, as was typical for this time, milled throughout existing asphalt overlays and replaced the overlay with new material. Vertical bridge clearances were maintained by milling existing overlays.

For a short period of time from 1993 to 1995, the Indiana Toll Road used some in-place-recycling on resurfacing projects. On the more conventional resurfacing projects, existing overlays were milled and replaced with new material. Some of the milled material was used in the new asphalt pavement being constructed and some was used for erosion control and parking lot expansions at various locations and facilities of the toll road. On a major resurfacing project in 1998, existing asphalt overlays were milled full depth and underlying concrete pavement was cracked and sealed and resurfaced with new asphalt materials. A considerable amount of the milled material from this project was used as subbase material for the reconstruction of shoulders.

In 1999, the District began a "wedge and level" program and the program has been continued in successive years through the present time (though now called a "mill and fill" program). This work consists of milling and removing approximately 1.5 inches of existing pavement and replacing it with new surface material. The procedure has extended the life of relatively sound pavements that begin to develop minor to moderate surface distresses. Generally, these pavements show no rutting or other base problems, with only the surface deterioration affecting the ride of the pavement. This procedure is used at various locations throughout the toll road on an as needed basis in the traveled lane, the passing lane and on the shoulders.

4.2 Pavement Organizational Performance Index (POPI)

The pavement condition measurements that follow (with the exception of the surface friction data) were procured in December, 2014 by Applied Research Associates, Inc. and provided to URS Corp. by the ITRCC for use in developing the POPI. The friction data was provided to the Indiana Toll Road by INDOT. The “Pavement Condition Inspection for the Indiana Toll Road” report was provided by Applied Research Associated, Inc. and can be referenced for additional POPI information. The toll road pavement is assessed in three different areas and with a composite rating index as stated in the OPI Manual:

Mainline Pavement - *Defined as the entire pavement associated with the main driving lane, the passing, and the shoulders from MP 0 to MP 156.73.*

Toll Plaza Ramp Pavement – *Defined as the pavement on both the entrance and exit ramps of the Toll Road.*

Travel Plaza Parking Lot Pavement - *Defined as the entire pavement associated with the Travel Plaza primarily the parking lot but also the entrance and exit ramps for the Travel Plazas.*

Since 1998, the Indiana Toll Road uses the Pavement Quality Index (PQI) as the primary method to rate pavement conditions for monitoring purposes.

4.3 Mainline Pavement

4.3.1 Mainline Pavement – Pavement Quality Index (PQI) – Overall Condition Rating

The Pavement Quality Index is a composite score of pavement ratings and measurements used to determine the overall condition of the roadway. The variables used in the determination of the PQI such as PCR, IRI and RUT are detailed in the following pages of this section.

The OPI Manual states:

The PQI rating is a calculated composite index of the following three measured factors and ranges: Pavement Condition Rating (PCR)... International Roughness Index (IRI)... [and] Rut. ...The PQI rating is from 0 to 100 with excellent pavements in the 90 to 100 range, good pavements in the 80 to 90 range, fair pavements in the 70 to 80 range, and poor pavements below 70. The Toll Road District's goal for mainline pavement is an average PQI of 80 with no more than 10% of the pavement in the "poor" condition.

The equation for determining PQI is as follows:

$$\text{PQI} = (10 * \text{PSI}) + (0.5 * \text{PCR}) - (25 * \text{RUT})$$

where $\text{PSI} = 9.0 * e^{(-0.008747 * \text{IRI})} \leq 5$,
 $\text{RUT} \leq 1$ inch,
and $e \approx 2.71828$

The rating ranges are as follows:

- 90 – 100: Excellent
- 80 – 89: Good
- 70 – 79: Fair
- < 70: Poor

As the following tables and figures illustrate, the average PQI for the Toll Road mainline is 93, which is considered "excellent". 0% of the mainline is rated in "poor" condition and 0.6 % is rated in "fair" condition. The Toll Road District's OPI goals for mainline PQI have been met. Furthermore, in accordance with the OPI Manual ratings system, the Toll Road mainline is rated a 6 on a scale from 0 (worst) to 6 (best) for the mainline pavement.

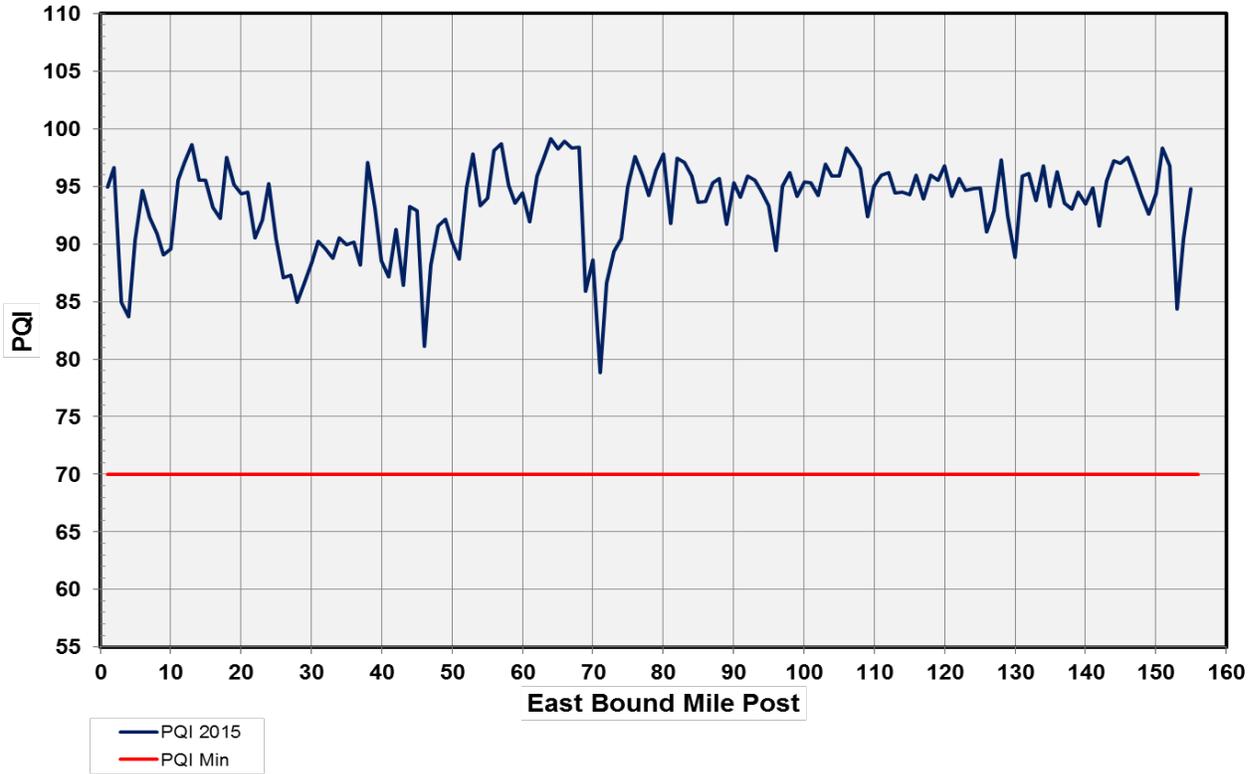


Figure 3.1: Pavement Quality Index (PQI) for east bound mainline at one mile intervals

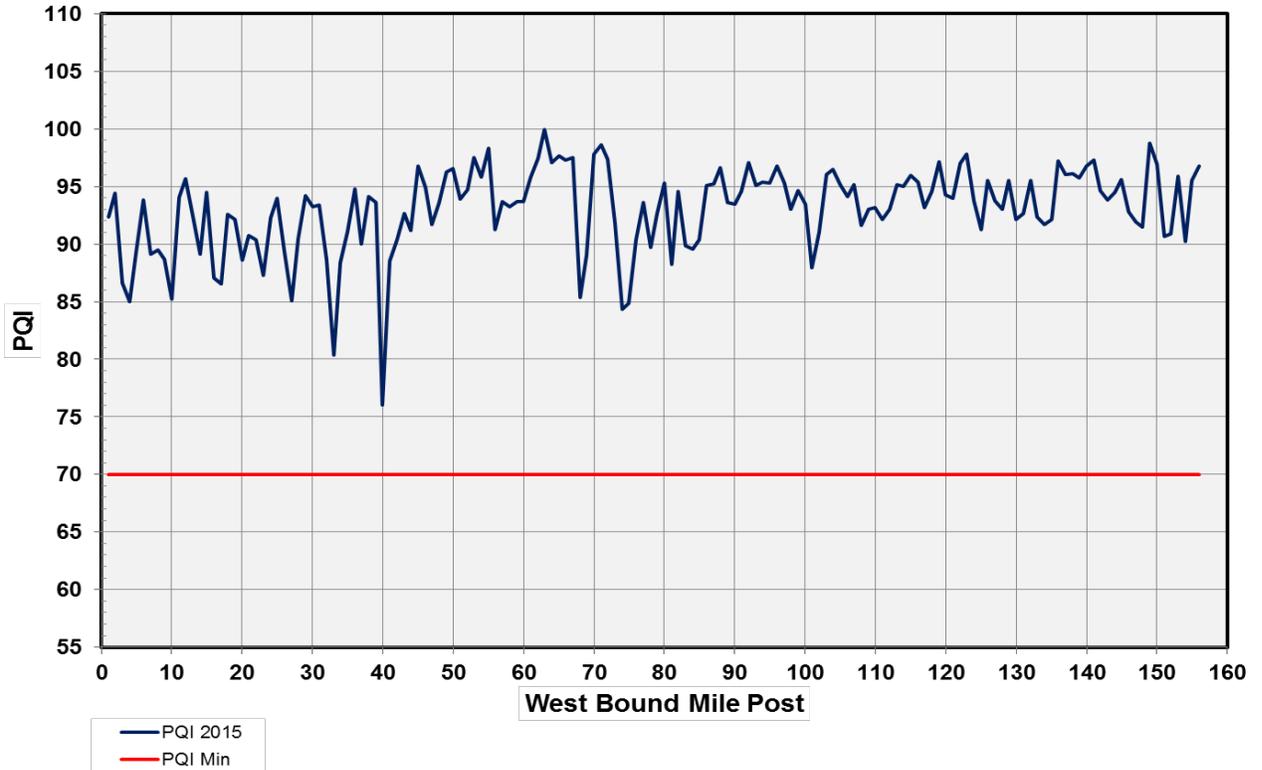


Figure 3.2: Pavement Quality Index (PQI) for west bound mainline at one mile intervals

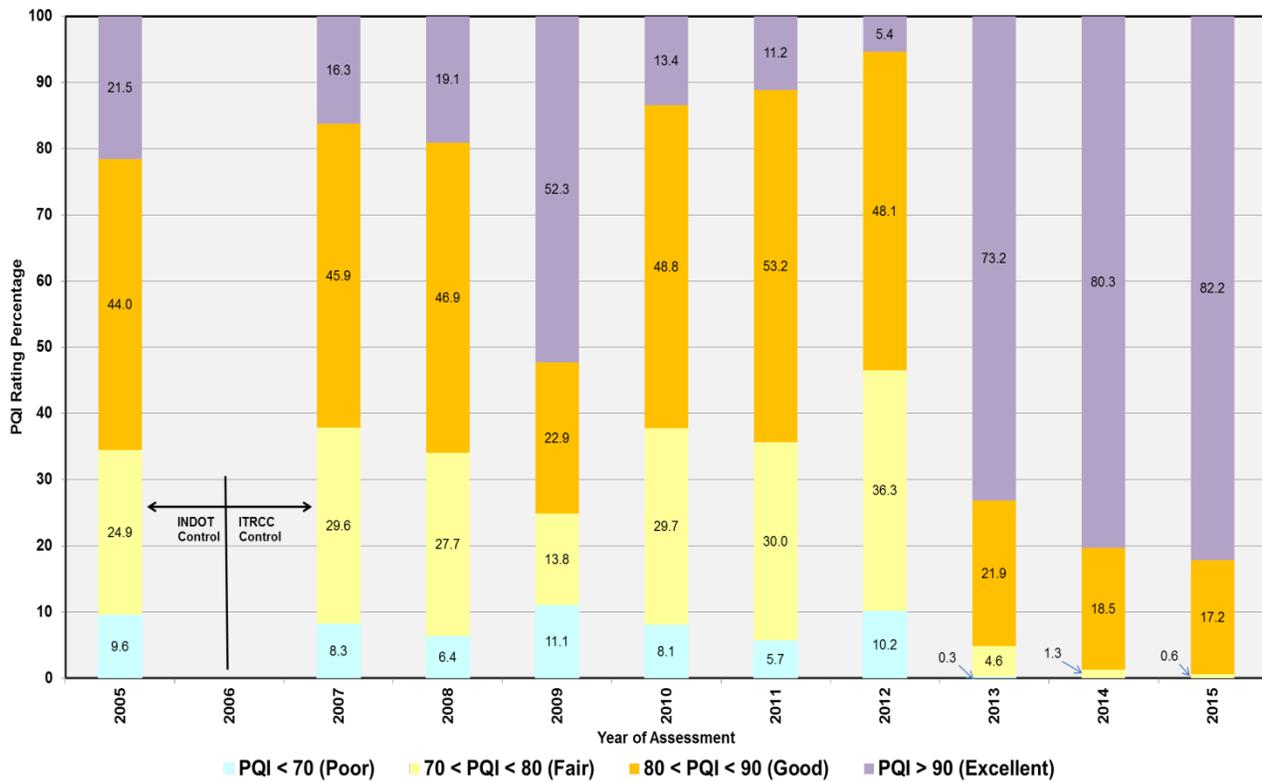


Figure 3.3: Pavement Quality Index (PQL) rating percentages for the entire mainline from 2005 to 2015

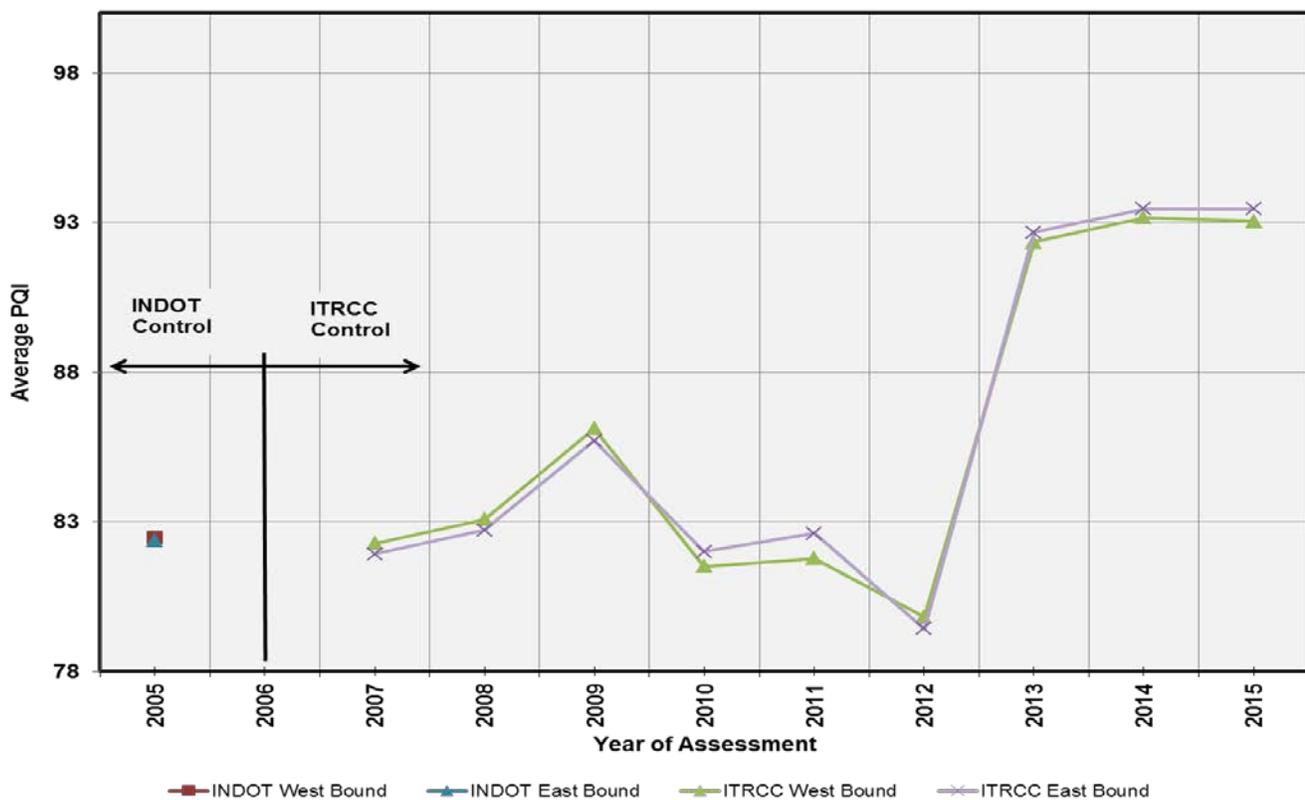


Figure 3.4: *Pavement Quality Index (PQL) for east bound and west bound mainline from 2005 to 2015

Indiana Toll Road Pavement Conditions											
		1999 (INDOT Control)		2000 (INDOT Control)		2001 (INDOT Control)		2002 (INDOT Control)		2003 (INDOT Control)	
Route System	Rating	Avg PQI	%Ln Mi	Avg PQI	%Ln Mi	Avg PQI	%Ln Mi	Avg PQI	%Ln Mi	Avg PQI	%Ln Mi
Interstate	% Excellent	89	43	89	65	86	47	85	37	84	29
	% Good		56		24		34		40		48
	% Fair		1		8		15		15		15
	% Poor		0		4		4		9		9
		2004 (INDOT Control)		2005 (INDOT Control)		2006 (Agency Transfer)		2007 (ITRCC Control)		2008 (ITRCC Control)	
Route System	Rating	Avg PQI	%Ln Mi	Avg PQI	%Ln Mi	Avg PQI	%Ln Mi	Avg PQI	%Ln Mi	Avg PQI	%Ln Mi
Interstate	% Excellent	88	52	82	22	No Data		82	16	83	19
	% Good		33		44				46		47
	% Fair		11		25				30		28
	% Poor		5		10				8		6
		2009 (ITRCC Control)		2010 (ITRCC Control)		2011 (ITRCC Control)		2012 (ITRCC Control)		2013 (ITRCC Control)	
Route System	Rating	Avg PQI	%Ln Mi	Avg PQI	%Ln Mi	Avg PQI	%Ln Mi	Avg PQI	%Ln Mi	Avg PQI	%Ln Mi
Interstate	% Excellent	86	52	82	13	82	11	80	5	92.5	73.6
	% Good		23		49		53		48		24.8
	% Fair		14		30		30		36		1.6
	% Poor		11		8		6		10		0
		2014 (ITRCC Control)		2015 (ITRCC Control)							
Route System	Rating	Avg PQI	%Ln Mi	Avg PQI	%Ln Mi						
Interstate	% Excellent	93.3	80.3	93.2	82.2						
	% Good		18.5		17.2						
	% Fair		1.3		0.6						
	% Poor		0		0						

Table 3.1: Pavement Quality Index (PQI) Rating Percentages and Averages from 1999 to 2015

4.3.2 Mainline Pavement – International Roughness Index (IRI)

The International Roughness Index is a measurement of pavement smoothness. The Concession Lease Agreement (Volume I, Section B.3.2., Page 13) states:

Pavement surface smoothness shall be maintained below an average of 150 in/mi as determined by the International Roughness Index (IRI). The IRI shall be measured annually on all traveled Mainline surfaces including Bridges and reported as an average IRI per 0.1 mile segment throughout the length of the ITR. IRI readings shall start at the 0 Mile Post. The average of any given one (1) mile section shall not exceed 170 IRI. No individual 1/10th mile segment average IRI shall exceed 190 in/mi.

The rating ranges are as follows:

- 60 – 100: Excellent
- 101 – 150: Good
- 151 – 200: Fair
- >200: Poor

The average IRI measurement is 68 for the mainline, which falls within the rating range “excellent”. For the third consecutive year, 0.0% of the Toll Road mainline has a “poor” IRI rating. The maximum value for one mile intervals is 143, which is classified by the lease agreement as “good”. There were no exceedances.

	EB Avg.	WB Avg.	Combined Avg.	Criteria (Avg. for Mainline)
2015 IRI	69.09	67.48	68.29	<= 150 in/mi
2014 IRI	70.50	69.14	69.85	
2013 IRI	73.90	75.30	74.65	
2012 IRI	86.11	85.65	85.88	
2011 IRI	87.15	87.16	87.16	

Table 3.2: International Roughness Index (IRI) Summary

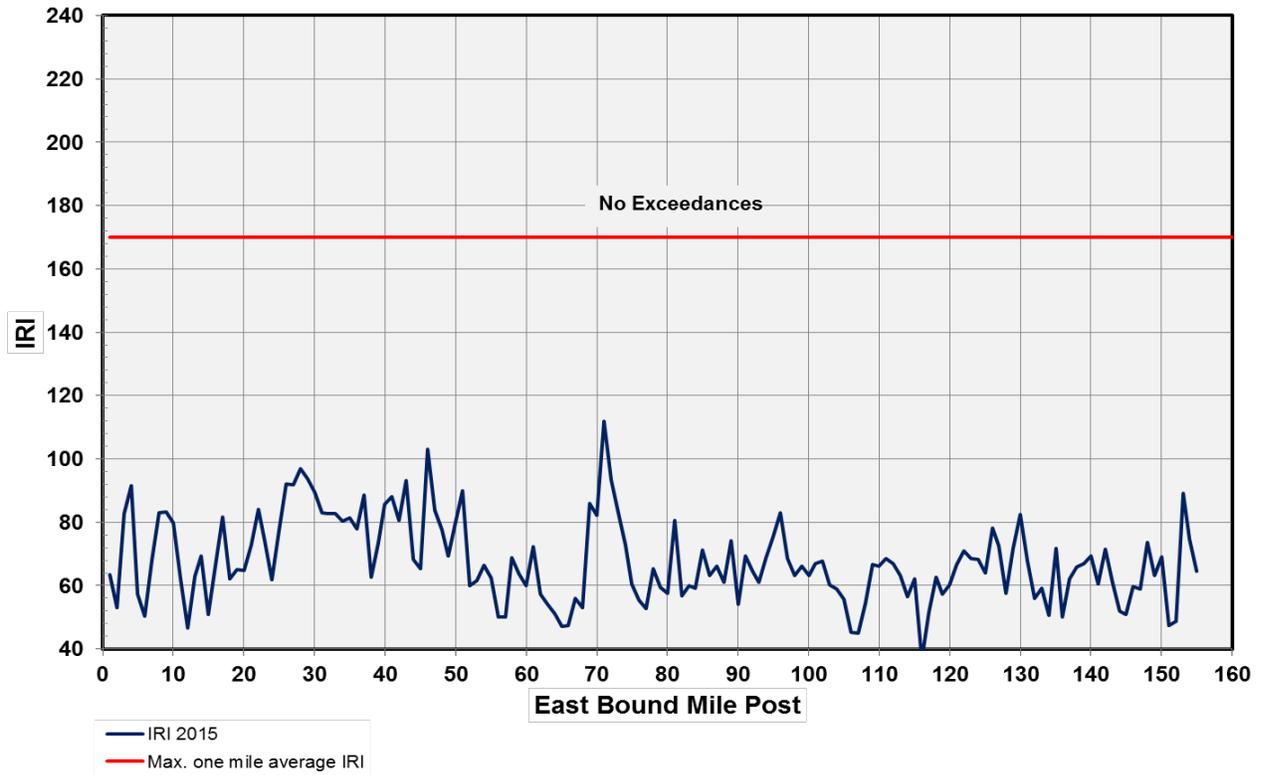


Figure 3.5: International Roughness Index (IRI) for east bound mainline at one mile intervals

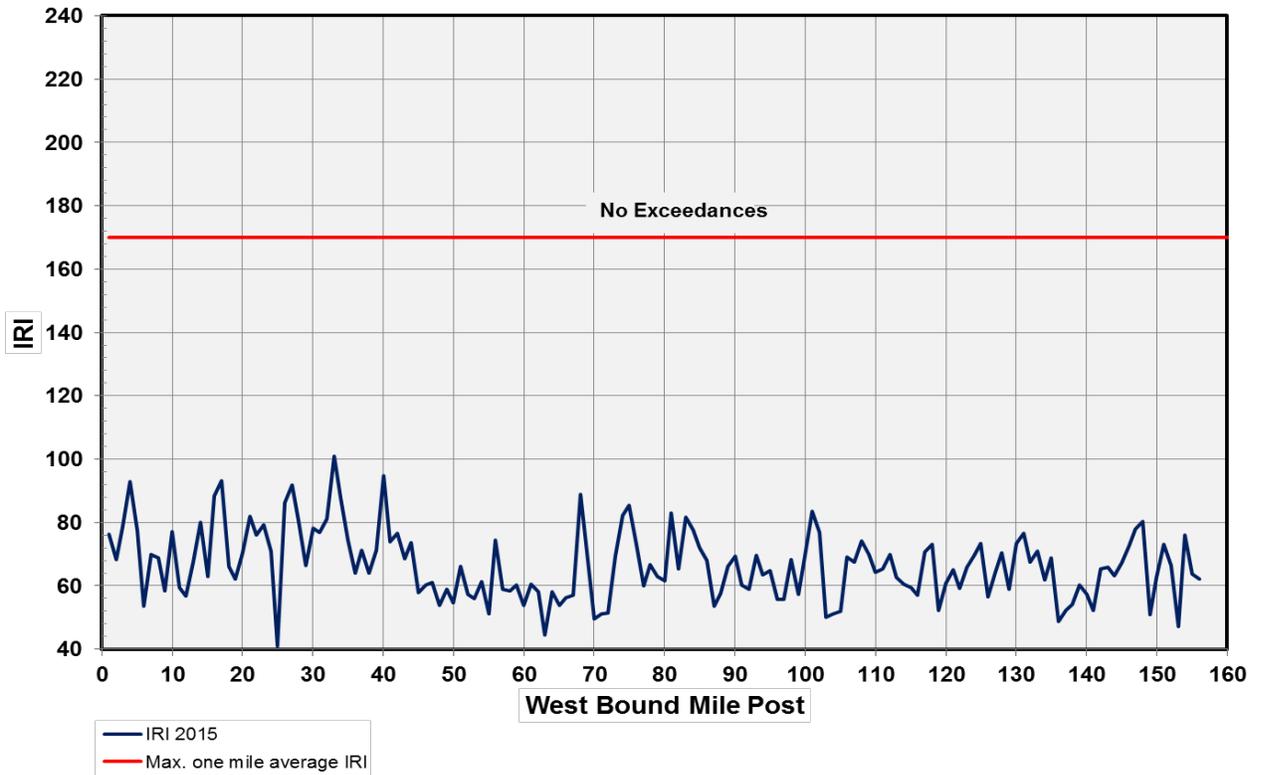


Figure 3.6: International Roughness Index (IRI) for west bound mainline at one mile intervals

4.3.3 Mainline Pavement – Rutting (RUT)

Rutting is the measurement of surface deformation that occurs in wheel paths of pavement. The Concession Lease Agreement (Volume I, Section B.3.2., Page 13) states:

Rutting in Asphalt pavement in the wheel paths shall be minimized to prevent steering and hydroplaning problems. The Rut depths in the wheel paths shall be measured in accordance with INDOT Standard Specifications, but more detailed methods are acceptable. The average Rut depth shall not exceed 3/8" average in a one (1) mile segment and no individual 1/10th mile segment shall exceed 5/8".

For the third consecutive year, the average RUT measurement is a relatively low 0.01 in. for the entire mainline, and no exceedances exist for either one mile or one-tenth mile intervals.

	EB Avg. (inches/mi)	WB Avg. (inches/mi)	Combined Avg. (inches/mi)
2015 RUT	0.01	0.01	0.01
2014 RUT	0.01	0.01	0.01
2013 RUT	0.01	0.01	0.01
2012 RUT	0.07	0.07	0.07
2011 RUT	0.06	0.05	0.06

Table 3.3: Rutting (RUT) Summary

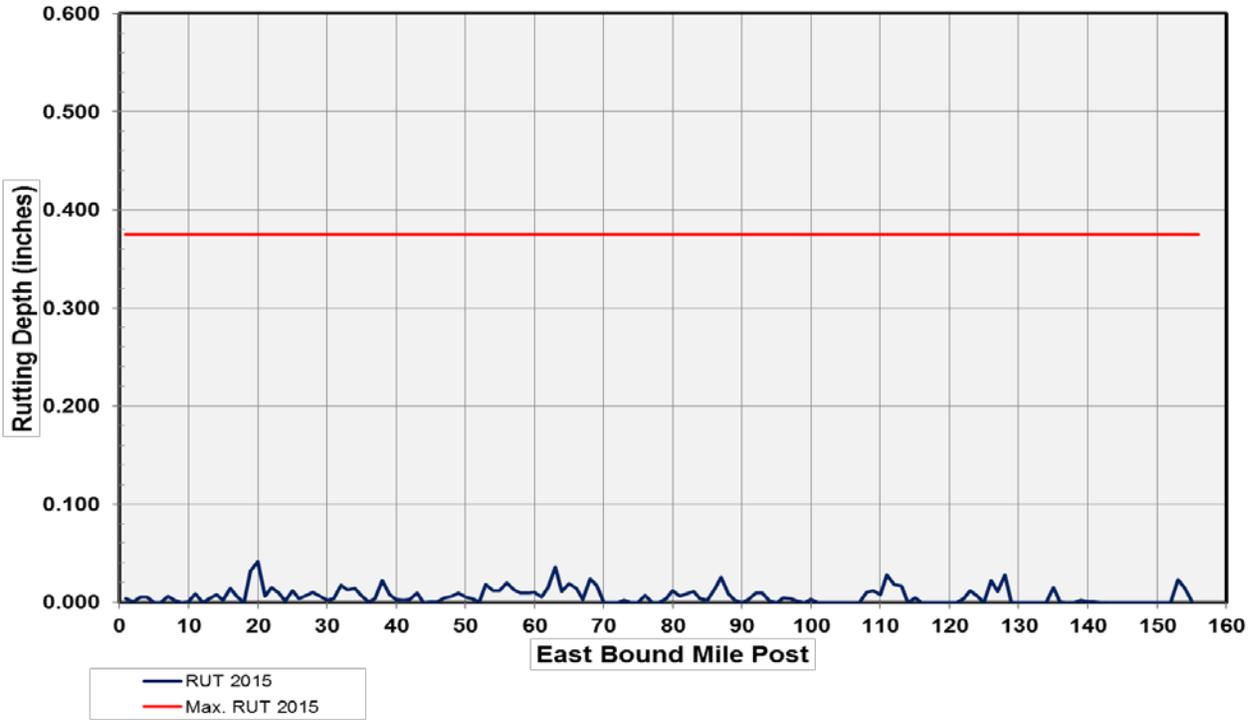


Figure 3.7: Rutting (RUT) for east bound mainline at one mile intervals

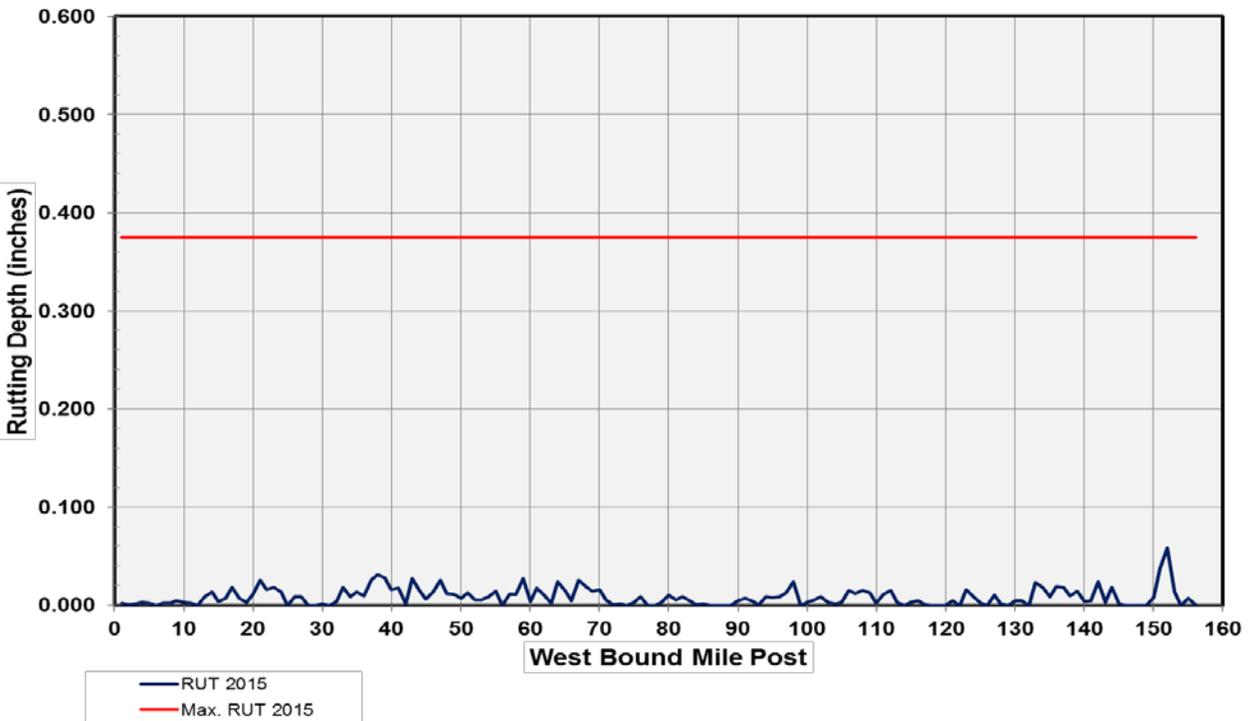


Figure 3.8: Rutting (RUT) for west bound mainline at one mile intervals

4.3.4 Mainline Pavement – Pavement Condition Rating (PCR)

The Pavement Condition Rating (PCR) is a measurement of the distresses on a pavement surface. The rating varies between 0 to 100 with excellent pavements in the 90 to 100 range, good pavements in the 80 to 90 range, fair pavements in the 70 to 80 range, and poor pavements below 70. The Indiana Toll Road considers the system's pavement is deficient when the PCR is below 65 points. The pavement of the system is evaluated annually using the PCR.

As shown in table B3.4 as well as in figures B3.9 to B3.10, the PCR ratings have remained within the excellent (90 – 100) range. There is no pavement categorized in the poor (below 65 points) range based on the 2015 data.

	EB Avg.	WB Avg.	Combined Avg.
2015 PCR	93.5	92.0	92.8
2014 PCR	94.1	93.2	93.6
2013 PCR	92.8	92.1	92.4

Table 3.4: Pavement Condition Rating (PCR) Summary

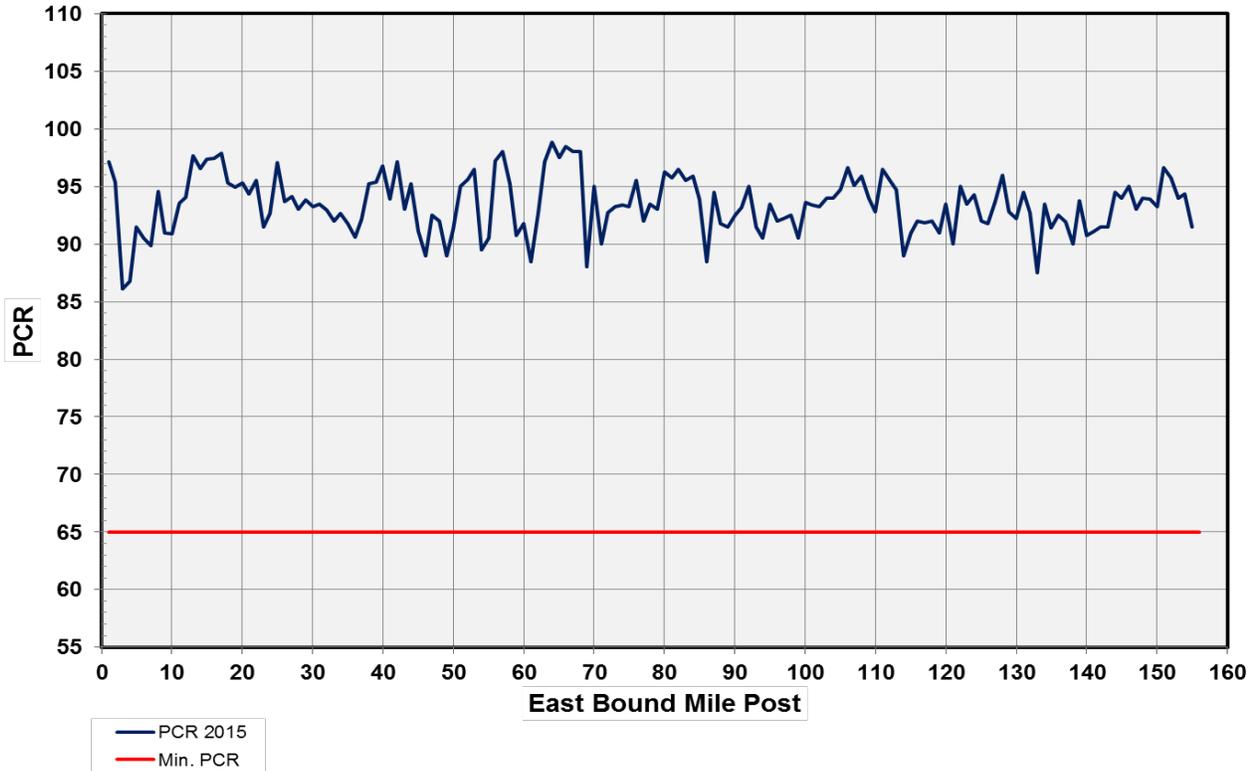


Figure 3.9: Pavement Condition Rating (PCR) for east bound mainline at approximate one mile intervals

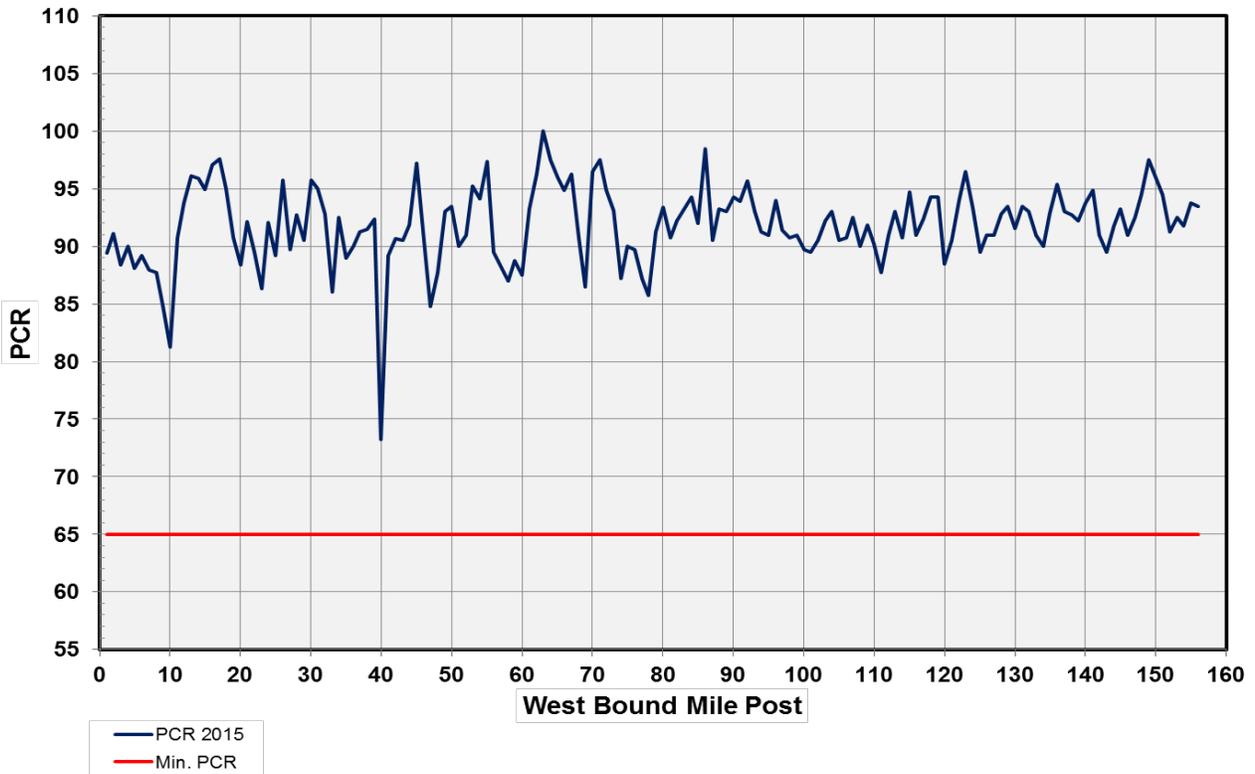


Figure 3.10: Pavement Condition Rating (PCR) for west bound mainline at approximate one mile intervals

4.3.5 (a) Surface Friction (FNS) – Mainline Pavement

Surface friction is a measurement of the adhesion between tires and pavement. The Concession Lease Agreement (Volume I, Section B.3.2., Page 14) states:

The IFA or its designee will periodically monitor and measure the pavement surface for the tire friction capabilities of the pavement surface. Any readings of the surface friction below 30 shall require investigation by INDOT for possible remediation and shall be reported to the Concessionaire.

The average FNS for the Toll Road mainline is 56. There were six exceedances (FNS measurements under 30) found by INDOT on the mainline in one mile intervals. The exceedances found in the EB lanes had readings of 25.0, and 28.7, respectively. The WB exceedances had readings of 26.8, 26.1, 28.1, and 27.9, respectively. There were five exceedances noted in the previous report. However, the FNS average has fluctuated over the past several years, which can be seen in Figure B3.13.

	EB Avg.	WB Avg.	Combined Avg.
2015 FNS	55.6	57.0	56.3
2014 FNS	53.6	55.0	54.3
2013 FNS	56.6	59.0	58.0
2012 FNS	64.5	63.0	64.0

Table 3.5: Friction Number (FNS) Summary

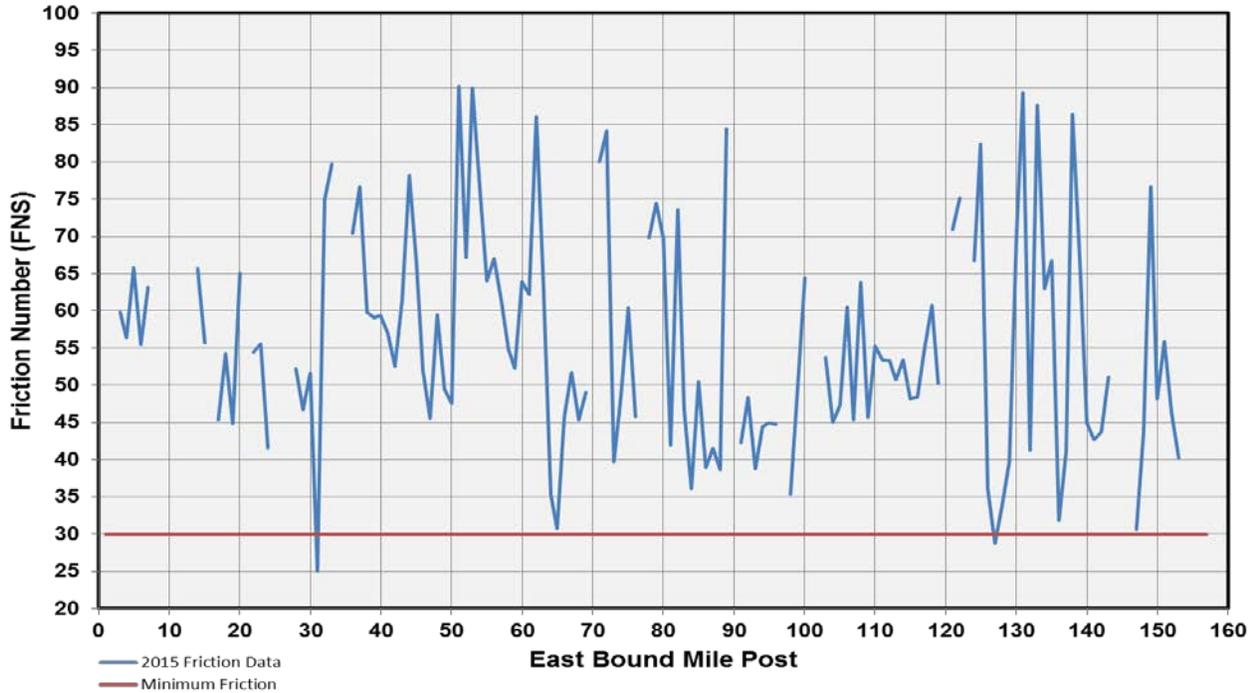


Figure 3.11: Friction Number (FNS) 2015 for east bound mainline at approximate one mile intervals

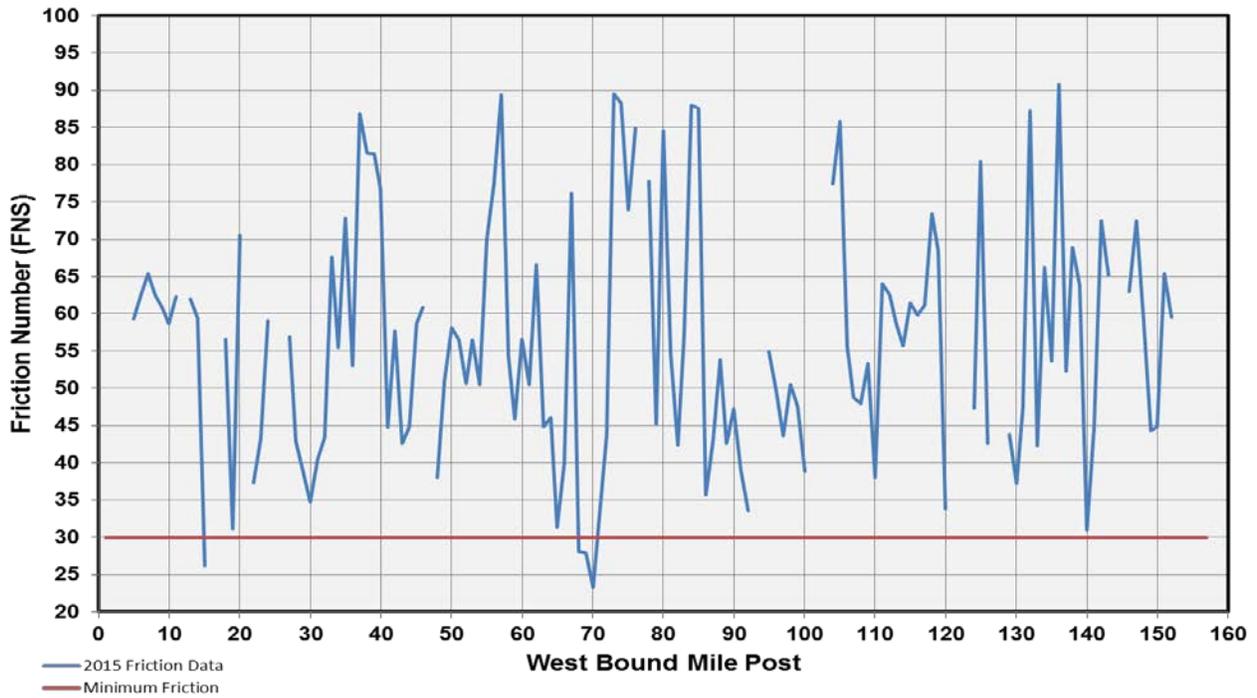


Figure 3.12: Friction Number (FNS) 2015 for west bound mainline at approximate one mile intervals

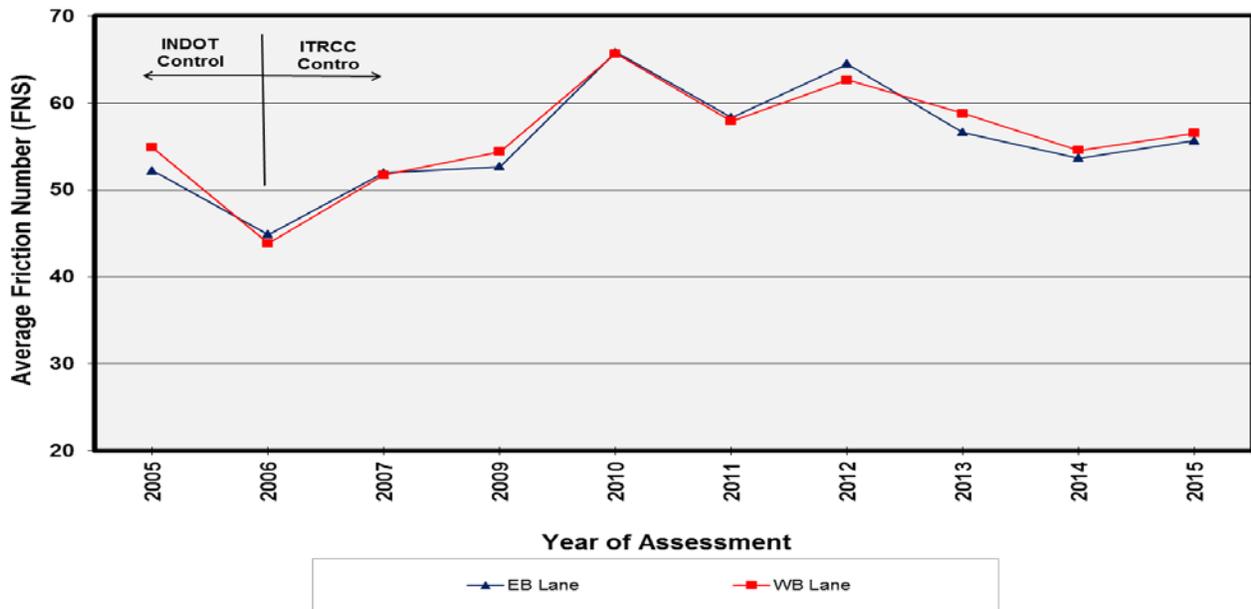


Figure 3.13: Average Friction Number (FNS) for east bound and west bound mainline from 2005 to 2015

4.3.6 (b) Surface Friction (FNS) – Bridge Decks

In July of 2012, INDOT performed their annual surface friction tests. It was in this year that INDOT began recording friction readings with the inclusion of bridge deck data. According to the “Field Investigation of Bridge Deck Surface Friction on Toll Road (I-90)” report written by the INDOT Division of Research and Development, a visual inspection of the bridge decks on the ITR presented several locations within the wheel paths showing signs of distress and polishing. These locations coincided with the locations of recorded low FNS numbers. The results in the east bound direction had an average FNS reading of 36.7, the west bound average was 35.9 and the overall average was 36.3. Although the average numbers for FNS were above the required minimum reading of 30, several numbers on bridge decks were recorded with low FNS. In the east bound direction there were 16 exceedances (below 30), with 11 of these readings being below 20. In the westbound direction there were 16 exceedances with 3 of these readings being below 20.

In order to improve the surface friction on the Indiana Toll Road bridge decks, ITRCC is implementing a diamond grooving/grinding remediation plan (as recommended by INDOT). This plan is to involve diamond grinding of all sound bridge decks in the EB and WB direction of the ITR that were found to have deficient FNS numbers. The implementation of this process should bring the surface friction on bridge decks back to an acceptable level.

4.4 Toll Plaza Ramp and Travel Plaza Lot Pavement

The toll and travel plazas were inspected for pavement condition on April 8 and 9, 2015. In accordance with precedent and engineering judgment, the following qualitative ratings were applied to the toll plaza ramps and travel plaza lots based on visual assessments:

Qualitative Pavement Rating Criteria			
Rating	Approximate Corresponding PQI Index	Asphalt Pavement Condition	Concrete Pavement Condition
Excellent	90 to 100	Pavement shows virtually no visible deterioration.	Same
Good	90 to 80	Pavement shows some indication of initial deterioration present, but not yet requiring appreciable amounts of maintenance. Distress items include the start of small transverse and/or longitudinal cracks. Slight rutting may be apparent in the wheel path.	Pavement shows some indication of initial deterioration present, but not yet requiring appreciable amounts of maintenance. Distress items may include the start of small transverse and/or longitudinal cracks, or slight seam and joint separation. Joints may show very small amounts of deterioration.
Fair	70 to 80	Pavement shows average deterioration requiring occasional routine maintenance. Distresses may include minor transverse and longitudinal cracking; becoming continuous throughout the segment. Severe cracking is patched effectively. Rutting may be a little more severe and hold small amounts of water.	Pavement shows average deterioration requiring occasional routine maintenance. Distresses may include minor transverse and longitudinal cracking; becoming continuous throughout the segment. Severe cracking is patched effectively. Through lanes and shoulders may begin to show separation from failing tie bars.
Poor	Below 70	Pavement shows excessive deterioration requiring frequent maintenance and warrants resurfacing soon. Distress may be evident in wide transverse and longitudinal cracks. Severe "shallow cracking" could be evident if the pavement is composite. If the segment has been patched, the cracks may be showing through. Rutting is severe and may affect driving.	Pavement shows excessive deterioration requiring frequent maintenance and warrants resurfacing soon. Distress may be evident in wide transverse and longitudinal cracks. If the segment has been patched, cracks may be showing through. Joint repairs could begin to fail. Shoulder and/or through-lane separation may be apparent. Pop outs or spalling could also be present in the section.

Table 3.6: Pavement Condition Survey Qualitative Rating System

4.4.1 Toll Plaza Ramp Pavement

The Toll Road's goal is to have 90% of the toll plaza ramp pavement rated in the "good" range. The "good" range is assumed to include the "fair", "good" and "excellent" ratings. These ratings correlate with the approximate PQI indices over 70, which is the corresponding deficient rating on the mainline per the OPI Manual.

Four toll plaza ramps fall within the "excellent" rating while two fall within the "poor" rating. The OPI rating according to the OPI Manual is 6 (best). The toll plaza pavement ratings have varied from the previous year's ratings.

Toll Plaza	MP	Overall Condition
Indianapolis Blvd.	0	Good
Westpoint	1	Good
S.R. 912	3	Poor
Calumet Ave. (EB Entr.)	5	Fair
Calumet Ave. (WB Exit)	5	Fair
Cline Ave.	10	Good
Gary West	14A	Excellent
Broadway	14B	Excellent
Gary East	17	Good
Lake Station	21	Poor
Willow Creek	23	Good
Portage Barrier	24	Good
Valparaiso-Chesterton	31	Good
Michigan City	39	Good
LaPorte	49	Good
South Bend West	72	Excellent
So. Bend-Notre Dame	77	Good
Mishawaka	83	Fair
Elkhart	92	Good
Elkhart East	96	Good
Bristol	101	Excellent
Middlebury	107	Fair
Howe-LaGrange	121	Good
Angola	144	Good
Eastpoint	153	Good

Table 3.7: Pavement Condition Survey of Toll Plaza Ramps

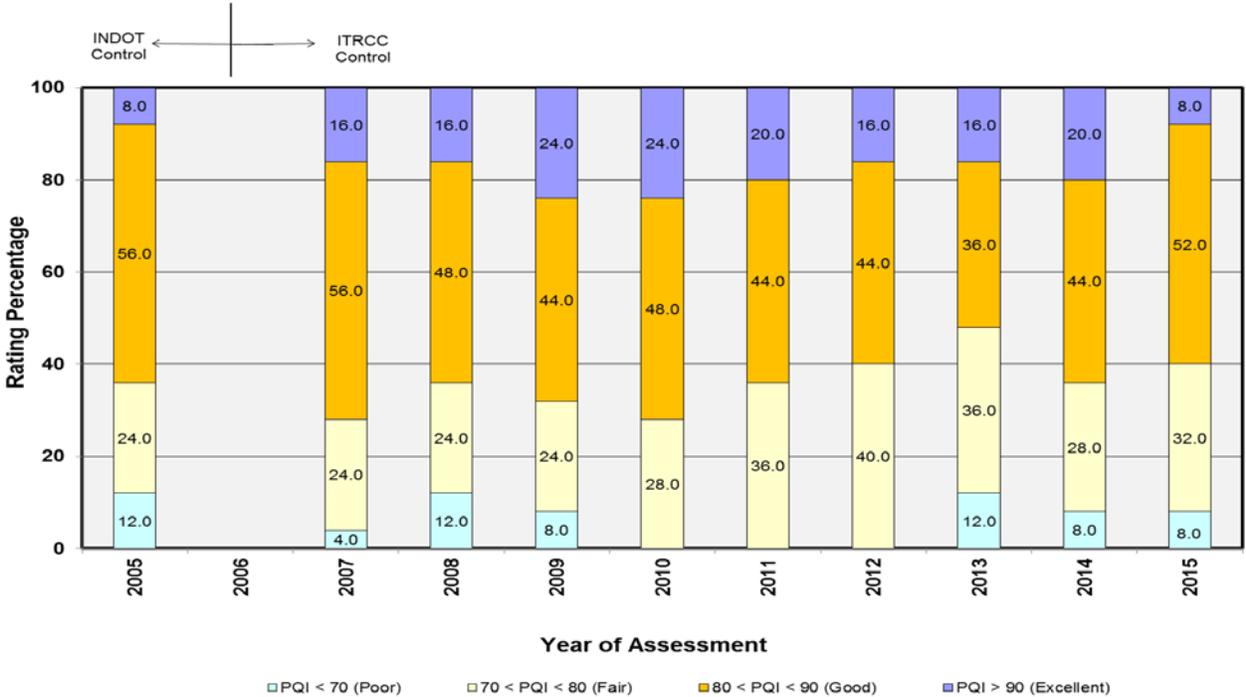


Figure 3.14: Pavement rating percentages for the toll plaza ramps from 2005 to 2015

4.4.2 Travel Plaza Lot Pavement

The Toll Road's goal is to have 90% of the travel plaza ramp pavement rated in the "good" range. The "good" range is assumed to include the "fair", "good" and "excellent" ratings. These ratings correlate with the approximate PQI indices over 70, which is the corresponding deficient rating on the mainline per the OPI Manual.

Seven travel plazas fall within the "poor" rating. The OPI rating according to the OPI Manual is 6 (best). The toll plaza pavement ratings have varied from the previous year's ratings.

Travel Plaza	MP	Overall Condition
Eastbound		
TRP - 1S	21.7	Good
TRP - 2S (Trucks Only)	37.5	Fair
TRP - 3S	55.9	Poor
Dist. 11 ISP	96.0	Excellent
TRP - 5S	90.0	Poor
TRP - 6S (Trucks Only)	108.0	Poor
TRP - 7S	125.8	Good
TRP - 8S	145.7	Fair
Westbound		
TRP - 1N	21.7	Good
TRP - 2N (Trucks Only)	37.5	Poor
TRP - 3N	55.9	Poor
TRP - 5N	90.0	Fair
TRP - 6N (Trucks Only)	108.0	Poor
TRP - 7N	125.8	Good
TRP - 8N	145.7	Poor

Table 3.8: Pavement Condition Survey of Travel Plaza Lots

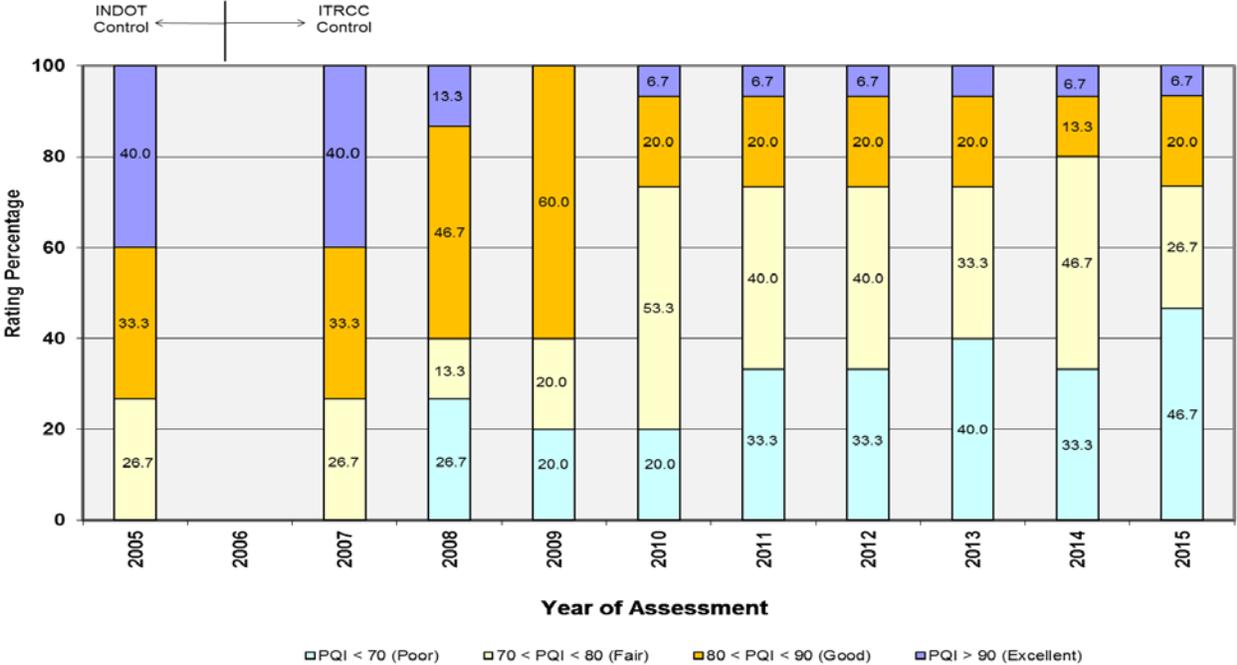


Figure 3.15: Pavement rating percentages for the travel plaza lots from 2005 to 2015



5: MAINTENANCE ITEMS REPORT



SECTION 5. Maintenance Items Report

5.1 General

The OPI Manual lists the following nine maintenance items to be inspected annually:

1. Guardrail
2. Pavement Deficiency
3. Vegetation Obstruction
4. Litter
5. Drainage Obstruction
6. Sign
7. Pavement Marking
8. Fencing Deficiency
9. Lighting Conditions

The Indiana Toll Road roadway maintenance items (except lighting) were inspected April 8 and 9, 2015 with the assistance of ITRCC maintenance personnel. Lighting was inspected April 15-16 (daytime inspections) and April 23 (nighttime inspection), 2015. Like the pavement conditions described in Part B, Section 3, these maintenance items are assessed in three different areas: mainline (subdivided by maintenance district), toll plazas, and travel plazas.

Route System	Mainline Miles		Toll Plazas	Toll Plaza Ramps	Travel Plaza Parking Lots
	Eastbound	Westbound			
Toll Road	156.7	156.7	24	43	14
M-1	30	30	11	18	2
M-2	32	32	3	6	4
M-3	30	30	4	8	2
M-4	32	32	4	8	2
M-5	32.9	32.9	2	3	4

Table 4.1: Summary of Toll Road System Quantities

5.2 Maintenance Items - Organizational Performance Index (OPI)

The OPI Manual details specific deficiencies to be noted for each one of the nine items listed above:

Guardrail Deficiency:

Deficiencies are recorded for damaged or deteriorated guardrail, anchor assembly, bridge anchor assembly or impact attenuator, which does not properly function as a safety barrier.

Pavement Deficiency

In addition to evaluating the pavement's PQI, pavement deficiencies are recorded for potholes, rutting, shoving blowup, and / or drop offs.

Vegetation Obstruction:

Deficiencies are recorded for any vegetation obscuring signage, and guardrail.

Litter:

Deficiencies are recorded for each segment where countable litter exceeds 10 items and for each large item litter.

Drainage Obstruction:

Deficiencies are recorded for any ditch or culvert where 50% of the cross section is obstructed and includes water pooling on the pavement. The presence of cattails does not necessarily indicate a drainage obstruction. In some instances, the Toll Road allows cattails to grow for environmental reasons.

Signs:

Deficiencies are recorded for any deteriorated signs that prevent the message from being clearly read. Examples of such are:

1. Message that is significantly faded or missing 25% or more of the message
2. Damaged or twisted posts or sign sheeting
3. Obsolete signs that confuse motorists

Pavement Marking:

Deficiencies are recorded for missing, faded, or covered pavement markings. Examples of such markings are:

1. Center line
2. Pavement edge lines
3. Delineation lines

Fences:

Deficiencies are recorded for any fence damage that prevents the fence from acting as a physical deterrent to large animals or people.

Lighting:

Deficiencies are recorded for any lighting damage that prevents proper function and illumination. Examples are:

1. Foundation problems
2. Missing covers / plates
3. Exposed wiring
4. Burnt out bulbs, defects, damages.
5. Missing rodent guards.
6. Any miscellaneous unsafe problems.

The OPI Manual provides a rating called an “OPI index” (referred to hereafter as an “OPI rating” since use of the word “index” is redundant) in accordance with the number of deficiencies found in each category per mile (mainline), per plaza ramp (toll plazas for all maintenance items except lighting), or per plaza (toll plazas for lighting and travel plazas for all maintenance items). The ranges of deficiencies per mile or plaza as they relate to the OPI rating can differ between maintenance districts, but the Toll Road’s goal is to achieve an OPI rating of 4 or better for every category in every maintenance district.

5.2.1 Mainline Maintenance Items

The following six tables list the number of deficiencies, deficiency rates, and OPI ratings for the eight mainline maintenance items. (Lighting is only included in toll and travel plazas.) The OPI ratings meet the Toll Road's goal of 4 for every item in every maintenance district with the exception of pavement marking deficiencies, and in maintenance district 1, fencing.

OPI Measures	Mainline Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / mile	OPI Goal	OPI Rating
Guardrail Deficiency	80	0.2553	>= 4	5
Pavement Deficiency	49	0.1563	>= 4	6
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	79	0.2521	>= 4	6
Drainage Obstruction	1	0.0032	>= 4	6
Sign Deficiency	6	0.0191	>= 4	6
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	34	0.1085	>= 4	5

*The pavement makings are deteriorating in some areas. Once acceptable ambient temperatures are achieved, the ITRCC intends to re-establish the pavement markings in those areas.

Table 4.2: Mainline Maintenance Items for Toll Road

OPI Measures	M-1 Mainline Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / mile	OPI Goal	OPI Rating
Guardrail Deficiency	31	0.5116	>= 4	5
Pavement Deficiency	20	0.3300	>= 4	5
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	7	0.1155	>= 4	6
Drainage Obstruction	0	0.0000	>= 4	6
Sign Deficiency	0	0.0000	>= 4	6
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	14	0.2310	>= 4	3

Table 4.3: Mainline Maintenance Items for M-1

OPI Measures	M-2 Mainline Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / mile	OPI Goal	OPI Rating
Guardrail Deficiency	21	0.3312	>= 4	5
Pavement Deficiency	22	0.3470	>= 4	5
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	16	0.2524	>= 4	6
Drainage Obstruction	1	0.0158	>= 4	6
Sign Deficiency	0	0.0000	>= 4	6
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	8	0.1262	>= 4	5

Table 4.4: Mainline Maintenance Items for M-2

OPI Measures	M-3 Mainline Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / mile	OPI Goal	OPI Rating
Guardrail Deficiency	11	0.1833	>= 4	5
Pavement Deficiency	5	0.0833	>= 4	6
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	21	0.3500	>= 4	6
Drainage Obstruction	0	0.0000	>= 4	6
Sign Deficiency	0	0.0000	>= 4	6
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	2	0.0333	>= 4	6

Table 4.5: Mainline Maintenance Items for M-3

OPI Measures	M-4 Mainline Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / mile	OPI Goal	OPI Rating
Guardrail Deficiency	5	0.0791	>= 4	6
Pavement Deficiency	0	0.0000	>= 4	6
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	20	0.3165	>= 4	6
Drainage Obstruction	0	0.0000	>= 4	6
Sign Deficiency	3	0.0475	>= 4	6
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	6	0.0949	>= 4	5

Table 4.6: Mainline Maintenance Items for M-4

OPI Measures	M-5 Mainline Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / mile	OPI Goal	OPI Rating
Guardrail Deficiency	12	0.1818	>= 4	5
Pavement Deficiency	2	0.0303	>= 4	6
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	15	0.2273	>= 4	6
Drainage Obstruction	0	0.0000	>= 4	6
Sign Deficiency	3	0.0455	>= 4	6
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	4	0.0606	>= 4	5

Table 4.7: Mainline Maintenance Items for M-5

5.2.2 Toll Plaza Ramp Maintenance Items

The following six tables list the number of deficiencies, deficiency rates, and OPI ratings for the nine toll plaza maintenance items. The pavement ratings in this section refer to localized deficiencies such as “isolated potholes” whereas the pavement ratings in Section 3, refer to the general “overall” condition of the pavement. The OPI ratings meet the Toll Road’s goal of 4 for every item in every maintenance district with the exception of pavement, pavement marking, signage, and guardrail. Toll plaza ramp pavement has a deficient rating in maintenance districts 1 and 2. Toll plaza ramp signs have a deficient rating in maintenance district 2. Toll plaza guardrail has a deficient rating in maintenance district 4. Note that signage, pavement, and lighting deficiencies OPI ratings have improved from last year in several maintenance districts.

OPI Measures	Toll Plaza Ramp Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / plaza (ramp)	OPI Goal	OPI Rating
Guardrail Deficiency	20	0.4651	>= 4	5
Pavement Deficiency	32	0.7442	>= 4	3
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	45	1.0465	>= 4	6
Drainage Obstruction	0	0.0000	>= 4	6
Sign Deficiency	7	0.1628	>= 4	5
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	9	0.2093	>= 4	6
Lighting Deficiency	274	6.3721	>= 4	5

Table 4.8: Toll Plaza Maintenance Items for Toll Road

OPI Measures	M-1 Toll Plaza Ramp Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / plaza (ramp)	OPI Goal	OPI Rating
Guardrail Deficiency	8	0.4444	>= 4	5
Pavement Deficiency	23	1.2778	>= 4	1
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	28	1.5556	>= 4	6
Drainage Obstruction	0	0.0000	>= 4	6
Sign Deficiency	0	0.0000	>= 4	6
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	4	0.2222	>= 4	6
Lighting Deficiency	159	8.8333	>= 4	4

Table 4.9: Toll Plaza Maintenance Items for M-1

OPI Measures	M-2 Toll Plaza Ramp Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / plaza (ramp)	OPI Goal	OPI Rating
Guardrail Deficiency	4	0.6667	>= 4	6
Pavement Deficiency	6	1.0000	>= 4	2
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	2	0.3333	>= 4	6
Drainage Obstruction	0	0.0000	>= 4	6
Sign Deficiency	4	0.6667	>= 4	3
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	5	0.8333	>= 4	6
Lighting Deficiency	26	4.3333	>= 4	6

Table 4.10: Toll Plaza Maintenance Items for M-2

OPI Measures	M-3 Toll Plaza Ramp Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / plaza (ramp)	OPI Goal	OPI Rating
Guardrail Deficiency	0	0.0000	>= 4	6
Pavement Deficiency	2	0.2500	>= 4	6
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	2	0.2500	>= 4	6
Drainage Obstruction	0	0.0000	>= 4	6
Sign Deficiency	1	0.1250	>= 4	4
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	0	0.0000	>= 4	6
Lighting Deficiency	45	5.6250	>= 4	5

Table 4.11: Toll Plaza Maintenance Items for M-3

OPI Measures	M-4 Toll Plaza Ramp Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / plaza (ramp)	OPI Goal	OPI Rating
Guardrail Deficiency	7	0.8750	>= 4	3
Pavement Deficiency	1	0.1250	>= 4	6
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	11	1.3750	>= 4	6
Drainage Obstruction	0	0.0000	>= 4	6
Sign Deficiency	2	0.2500	>= 4	4
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	0	0.0000	>= 4	6
Lighting Deficiency	31	3.8750	>= 4	6

Table 4.12: Toll Plaza Maintenance Items for M-4

OPI Measures	M-5 Toll Plaza Ramp Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / plaza (ramp)	OPI Goal	OPI Rating
Guardrail Deficiency	1	0.3333	>= 4	6
Pavement Deficiency	0	0.0000	>= 4	6
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	2	0.6667	>= 4	6
Drainage Obstruction	0	0.0000	>= 4	6
Sign Deficiency	0	0.0000	>= 4	6
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	0	0.0000	>= 4	6
Lighting Deficiency	13	4.3333	>= 4	6

Table 4.13: : Toll Plaza Maintenance Items for M-5

5.2.3 Travel Plaza Parking Lot Maintenance Items

The following six tables list the number of deficiencies, deficiency rates, and OPI ratings for the nine travel plaza maintenance items. The pavement ratings in this section refer to localized deficiencies such as “isolated potholes” whereas the pavement ratings in Section 3, refer to the general “overall” condition of the pavement. The OPI ratings meet the Toll Road’s goal of 4 for every item in every maintenance district with the exception of pavement, drainage and litter. Travel plaza parking lot pavement has a deficient rating in maintenance districts 2 and 3. Travel plaza litter has a deficiency rating in maintenance district 2 and 3. Drainage obstruction has a deficient rating in maintenance district 5. Note that the sign and lighting deficiency OPI ratings have improved from last year in several maintenance districts.

OPI Measures	Travel Plaza Parking Lot Maintenance Deficiencies			
	2015			
	Deficiencies	def / plaza	OPI Goal	OPI Rating
Guardrail Deficiency	4	0.2857	>= 4	5
Pavement Deficiency	82	5.8571	>= 4	0
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	50	3.5714	>= 4	4
Drainage Obstruction	10	0.7143	>= 4	4
Sign Deficiency	2	0.1429	>= 4	6
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	1	0.0714	>= 4	6
Lighting Deficiency	8	0.5714	>= 4	6

Table 4.14: Travel Plaza Maintenance Items for Toll Road

OPI Measures	M-1 Parking Lot Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / plaza	OPI Goal	OPI Rating
Guardrail Deficiency	0	0.0000	>= 4	6
Pavement Deficiency	3	1.5000	>= 4	4
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	2	1.0000	>= 4	6
Drainage Obstruction	1	0.5000	>= 4	6
Sign Deficiency	1	0.5000	>= 4	6
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	0	0.0000	>= 4	6
Lighting Deficiency	4	2.0000	>= 4	5

Table 4.15: Travel Plaza Maintenance Items for M-1

OPI Measures	M-2 Parking Lot Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / plaza	OPI Goal	OPI Rating
Guardrail Deficiency	0	0.0000	>= 4	6
Pavement Deficiency	49	12.2500	>= 4	0
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	17	4.2500	>= 4	3
Drainage Obstruction	1	0.2500	>= 4	6
Sign Deficiency	1	0.2500	>= 4	6
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	0	0.0000	>= 4	6
Lighting Deficiency	2	0.5000	>= 4	6

Table 4.16: Travel Plaza Maintenance Items for M-2

OPI Measures	M-3 Parking Lot Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / plaza	OPI Goal	OPI Rating
Guardrail Deficiency	0	0.0000	>= 4	6
Pavement Deficiency	24	12.000	>= 4	0
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	19	9.5000	>= 4	0
Drainage Obstruction	0	0.0000	>= 4	6
Sign Deficiency	0	0.0000	>= 4	6
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	0	0.0000	>= 4	6
Lighting Deficiency	1	0.5000	>= 4	6

Table 4.17: Travel Plaza Maintenance Items for M-3

OPI Measures	M-4 Parking Lot Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / plaza	OPI Goal	OPI Rating
Guardrail Deficiency	2	1.0000	>= 4	6
Pavement Deficiency	3	1.5000	>= 4	4
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	3	1.5000	>= 4	6
Drainage Obstruction	3	1.5000	>= 4	4
Sign Deficiency	0	0.0000	>= 4	6
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	0	0.0000	>= 4	6
Lighting Deficiency	4	2.0000	>= 4	6

Table 4.18: Travel Plaza Maintenance Items for M-4

OPI Measures	M-5 Parking Lot Maintenance Item Deficiencies			
	2015			
	Deficiencies	def / plaza	OPI Goal	OPI Rating
Guardrail Deficiency	2	0.5000	>= 4	5
Pavement Deficiency	3	0.7500	>= 4	4
Vegetation Obstruction	0	0.0000	>= 4	6
Litter	9	2.2500	>= 4	6
Drainage Obstruction	5	1.2500	>= 4	2
Sign Deficiency	0	0.0000	>= 4	6
Pavement Marking Deficiency	*	*	*	*
Fence Deficiency	1	0.2500	>= 4	6
Lighting Deficiency	1	0.2500	>= 4	5

Table 4.19: Travel Plaza Maintenance Items for M-5

5.3 Recommended Improvements

5.3.1 *Guardrail Deficiencies*

The OPI rating for the mainline guardrail exceeds the OPI goal.

5.3.2 *Pavement Deficiencies*

Over the next year, the ITRCC needs to continue their focus on repairing the pavement deficiencies at the toll plaza ramps and the travel plaza parking lots.

Travel plazas 2N, 3S, 6N, and 8N are in poor condition and are continuing to deteriorate. The mainline pavement and toll plaza ramps have a higher priority over the truck parking areas in ITRCC's maintenance and repair schedule. The lots of MP 38 and 108 are not travel plazas, do not have full service rest facilities, and are only for overnight truck parking. Accordingly, the reconstruction of these lots does not rise to the level of priority as mainline and travel plaza lots. At this point, the ITRCC is evaluating – within the context of their clients' needs and expectations – how and when to proceed with any improvements to these lots.

5.3.3 *Litter Deficiencies*

Several Travel plazas had an excessive amount of litter, resulting in deficient rating in two maintenance zones. Lessees should pay particular attention to litter at the travel plazas.

5.3.4 *Drainage Obstruction Deficiencies*

Maintenance crews should continue to prioritize removing vegetation, litter, and other debris from toll plaza ramp lot drainage structures to prevent water buildup near the road as well as exacerbated damage to shoulders and drainage structures from freeze/thaw cycles. Travel plaza lots in M-5 (particularly Travel Plaza 8), which constitute the majority of drainage obstruction deficiencies, should be closely monitored by lessees for drainage obstructions.

5.3.5 *Sign Deficiencies*

Signage deficiencies improved from previous years. The OPI Goals have been met.

5.3.6 *Pavement Marking Deficiencies*

None of the pavement marking met OPI Goals. It should be noted however, that the inspection of this item takes place in early spring, after several months of harsh winter conditions. In 2013, the ITRCC purchased a paint striper with the intent to perform the perennial pavement marking work "in-house". This work is ongoing, and typically does not begin until freeze/thaw cycles have subsided.

5.3.7 *Fencing Deficiencies*

Fencing should be replaced where it has been cut, knocked over, or rusted through to deter animals and people from accessing the toll road facilities. Most fencing deficiencies were noted along the mainline in districts M-1, M-2 and M-4.

5.3.8 Lighting Deficiencies

Maintenance crews should prioritize replacing burnt-out bulbs, rodent guards and missing cover plates in the light posts of the toll plazas, particularly the cover plates in maintenance district M-1.

5.4 Areas of Achieved Improvement

The ITRCC has made many general mainline and toll plaza ramp pavement improvements. Signage deficiencies have improved over the past year along the mainline as well. The Toll Road has also shown general improvement in the pavement, drainage obstruction, signage and lighting deficiencies at the toll plaza ramps.



6: FACILITIES CONDITION REPORT



SECTION 6. Facilities Condition Report – Group A

6.1 General

The Concession Lease Agreement (Volume I, Section L.3.1., Page 102) states:

The objective of Facility maintenance is to ensure to the greatest extent reasonably possible that all Facilities and the components, elements and systems located within such Facilities are properly maintained in such a manner that they remain safe, habitable, and continually operational in their functions of supporting the ITR.

In accordance with the Concession Lease Agreement (Volume II, Section J.2.3., Page 96), a Facilities Condition Report shall be completed once every four years. Previous reports have divided the facilities along the toll road into 4 groups and inspected one group of buildings every year. The following table outlines the inspection schedule:

	Facilities	Next Inspection Year
Group A	MP 0 to MP 24.1	2015
Group B	MP 24.1 to MP 62	2016
Group C	MP 62 to MP 115	2017
Group D	MP 115 to MP 156.9	2015

Table B5.1: Facilities Condition Report Schedule

A detailed inspection by IFA-approved personnel was conducted of all buildings in Group A during the period of May 4 through May 8, 2015.

The inspections were intended to assure compliance with the spirit of the “Acceptance Standards” listed in the Concession Lease Agreement (Volume II, Section J.2.4., Pages 97-98). The inspections were conducted using the same or improved methodologies employed in past years for the Indiana Finance Authority (IFA). Building inspection responsibilities were allocated to the following parties:

- Lead Firm – URS Corporation
- Architectural – URS Corporation
- Mechanical and Electrical – URS Corporation
- Environmental – URS Corporation
- An ITRCC Staff Member accompanied inspection personnel throughout the inspection process to provide access to all building areas and mechanical equipment.

Each main building component was assessed and rated by the following categories:

- Excellent – New Condition
- Good – Minor deficiencies noted
- Fair – Deficiencies and deterioration present
- Poor – Advanced deterioration present
- Critical – Major deterioration of primary elements

Each finding or remark in the database was assigned a priority level for repair of either 1 or 2 to identify the criticality and/or impact on the facility:

Priority Level Timeline for Repair

- 1 Suggested for immediate attention in current year
- 2 Schedule for Repair/Rehabilitation within 1 to 3 years

A database of all noted findings and remarks was created and reports were generated from that database. For the purposes of the Facilities Condition Report, only those findings and remarks assigned as “Priority Level 1: Requires Immediate Attention,” have been included. A separate “Building Inventory & Assessment Report” is being provided to the ITRCC, incorporating all condition ratings, findings and remarks to serve as a guide for future maintenance and capital improvement projects.

For the most part, the majority of Group A facility components, elements, systems, and appurtenances were found to be operational, secure, clean, sound, and in all ways safe and suitable for use. Some specific issues were observed in various structures, but the majority of noted items can be completed by ITRCC maintenance personal and be scheduled as normal maintenance schedules allow.

6.2 Preventative Maintenance Program

It is suggested that a program for preventative maintenance be established in order to maintain mechanical equipment located at all buildings belonging to the ITRCC. Establishment of a preventative maintenance plan is required by the IFA lease agreement in Volume I, Section L.3.2, p. 102:

The Concessionaire shall incorporate sound and established Facility maintenance practices and perform Preventative Maintenance strategies

Preventative Maintenance is defined by the IFA lease agreement in Volume I, Section L.1:

Preventative Maintenance: Services required to maintain a Facility and its components, equipment and systems at the original design standards throughout their intended life span, including periodic and scheduled inspections, adjustment, calibration, cleaning, replacement of parts and minor repairs to restore equipment to normal function.

Establishing a preventative maintenance plan would also help fulfill the requirements defined by the IFA lease agreement in Volume I, Section L.3.2, p. 102 for maintenance of inventory:

[Concessionaire is required to] Maintain an inventory and historical record of all Facilities equipment, elements, components, systems, and appurtenances.

6.3 Facility Responsibility Statement

ITRCC currently leases all publicly accessed travel plaza buildings to outside vendors. These buildings are referenced in this document as parts of the following:

- Travel Plaza 1 Westpoint Barrier.
- Auxiliary Storage Area.
- Toll Plaza 5 West (45-25, 45-26, 45-27, 45-29, 45-30).
- Toll Plaza 5 East Calumet Ave. (45-31, 45-32, 45-34, 45-35, 45-36).
- Toll Plaza 10 Cline Ave. (45-37, 45-38, 45-39, 45-41, 45-42, 45-43, 45-44, 45-46, 45-47, 45-48, 45-49, 45-50, 45-89).
- Toll Plaza 17 Gary East (45-53, 45-54, 45-55, 45-56, 45-57, 45-58, 45-60, 45-61, 45-62, 45-63, 45-64, 45-65, 45-66, 45-67, 45-68, 45-69, 45-70, 45-90).
- Toll Plaza 21 Lake Station (45-71, 45-72, 45-73, 45-75, 45-76, 45-77, 45-78, 45-79, 45-81, 45-82, 45-83, 45-84, 45-85, 45-86).
- Travel Plaza 1 South (64-1, 64-4, 64-2, 64-3).
- Travel Plaza 1 North (64-5, 64-8, 64-6, 64-7).
- Auxiliary Storage Area (64-9, 64-12, 64-11).
- Maintenance Building Porter (64-13, 64-14, 64-15, 64-16, 64-17).
- Toll Plaza 23 Willow Creek (64-18, 64-21, 64-19, 64-45, 64-20, 64-46).
- Toll Plaza 24 Portage Barrier (64-22, 64-23, 64-24, 64-25, 64-26, 64-27, 64-28, 64-29, 64-30, 64-31, 64-32, 64-33, 64-35, 64-35, 64-36, 64-47, 64-48, 64-49).

According to the travel plaza vendor agreements, the restaurant and fuel vendors leasing these sites are responsible for maintenance of the interiors of their respective buildings and the outside perimeters extending to the sidewalks around the buildings. It is ITRCC's responsibility to ensure that all identified issues in these areas have been addressed and corrected.

6.4 Major Buildings Overview with Elements in Poor Condition:

Travel Plazas

Travel plaza exteriors:

The window glazing sealant is cracked and deteriorating and requires replacement. The masonry joints and chimney caps are showing signs of deterioration and require re-pointing at various locations around the building. The roofing caulk is cracked and deteriorated at the metal copings and requires replacement. There are some locations where the underside of the metal soffits are bent and damaged and require replacement. The caulking around the perimeter of the building at the base of the exterior wall is cracked and separated and requires replacement.

Travel plaza roofs:

All travel plaza main building roofs exhibited various localized areas of standing water and organic growth due to both insufficient roof pitch and rooftop equipment mounted in the path of direct flow to roof drains. Though not observed during the inspection or reported by maintenance personnel there may be some leakage of the roofing systems in the near future, due to the same issues causing the roof ponding. In addition to this several roof top unit pipe coverings are badly deteriorated and require recovering in order to help the units run more efficiently.

As the leases to the travel plazas are set to expire soon, studies are in progress to determine the futures of all travel plaza sites. It is likely that a complete replacement or a major renovation will occur at all travel plazas in the future. Therefore, the ITRCC should assess the conditions of all roofs, and develop an appropriate course of action regarding the futures of these roofs, considering the potentially short future life span of the structure.

Travel plaza interiors and basements:

The interior walls and ceiling finishes are showing signs of wear. Some of the ceiling panels show signs of water damage but no active leaks were observed. Underutilized areas of all travel plaza main building basements revealed various maintenance issues such as inadequate lighting, emergency exit lighting and open panels and junction boxes. Some improvements in the travel plaza basements have been made. Deficiencies noted in the previous report such as areas with localized standing water, broken, unused or abandoned mechanical and/or electrical equipment have been repaired. The basements have been cleaned out and repair work on the equipment is continual with only a few areas exhibiting water on the floor. Moving forward the flooding issues in the basements of the Travel Plazas will require continual care and maintenance in order to prevent further flooding.

Travel Plaza Life Safety:

There are exposed electrical panels in the basement as well as open junction boxes with exposed wiring that need to be capped or closed off. Finally some of the walking surfaces around the loading dock areas are uneven with spalled/loose concrete and tile surfaces that require repair. The ITRCC should immediately address the life safety deficiencies listed within the body of the report.

Toll Plazas

Toll Plaza Booths:

The sealant at the base of the wall at the perimeter of the toll booths is exhibiting signs of cracking and separating. It is important that the sealant be repaired as further deterioration could eventually lead to leaks down into the tunnel below. Also the door latches on the entry doors and the sliding doors on the roadway side require repairs to the door latching hardware. The lights on the toll booths over the roadway have broken or missing lenses and the light housing is corroding. Finally the window frames in the stairwell enclosures that lead down to the tunnel are heavily corroded and the windows require replacement.

Toll Plazas Main Building Exterior:

The window glazing sealant is cracked and deteriorating and requires replacement. The masonry joints and chimney caps are showing signs of deterioration and require re-pointing around the building. The roofing caulk is cracked and deteriorated at the metal copings and requires replacement. The caulking around the perimeter of the building at the base of the exterior walls is cracked and separated and requires replacement.

Toll plaza roofs and canopies:

In general the roofing over the Main Buildings is showing signs of wear and in some areas the membrane is overstretched. Organic growth, small holes and open lap joints in the membrane were also observed. Roof patching or replacement is required. Note some roofs were currently scheduled for repairs. The painted steel on the underside of the canopies are showing signs of rust and require rust removal and painting.

Toll plaza interior and basement:

The basements and tunnels are exhibiting signs of minor leaking with localized areas of standing water. These leaks will require continual care and maintenance in order to prevent further water intrusion. Many of the doors and frames are severely rusted and require replacement. Open wiring at some of the junction boxes in the tunnels was observed and requires capping and closure.

Toll plaza Life Safety:

There are several locations where the building exit doors require proper door exiting hardware or entire replacement in order to be code compliant. Roof hatches lack ladder up safety bars as well as fall protection around these roof openings and near the roof edge where there is equipment, install OSHA compliant fall protection. There are several locations where the exterior concrete stair treads are cracked or spalled making the walking surface hazardous, repairs are required. Finally there are several locations where the exterior stair handrails and guardrails are loose or severely corroded at the base/wall connections making them unstable, repairs/replacement are required. The ITRCC should immediately address the life safety deficiencies listed within the body of the report.

Maintenance and Miscellaneous support Facilities

Maintenance Facilities exteriors:

There are several locations where the exterior metal panels are bent and damaged and require replacement. There are some locations where the underside of the metal soffits are coming loose and in danger of falling off and require replacement. There are several areas where there are cracked windows that require glazing replacement (see life safety). The caulking around the perimeter of the buildings at the base of the exterior wall is cracked and separated and requires replacement.

Maintenance Facilities roofs:

The majority of the maintenance facility roofs are steep pitched metal panel roofs and therefore a visual inspection from grade was done. The gutters and downspouts on several of the facilities are bent and falling off and require replacement. There are many areas around the building where the soil has eroded away adjacent to the buildings. This is partially due to the lack of the use of splashblocks at the grade level which helps divert water away from the building. Erosion of the soils around the building can eventually lead to building settlement issues. Install splash blocks at the base of all downspouts. Some flat roofs were also inspected and show signs of organic growth which needs to be continually maintained in order to prevent damage to the roofing membrane.

Maintenance Facility interiors:

The interior walls and ceiling finishes are showing signs of wear. Most of the facilities lacked emergency exit lighting.

Maintenance Facility Life Safety

There are several locations (as can be seen in body of the report) where the building exit doors require proper door exiting hardware to be in compliance with code. In addition, some of these doors may require entire replacement in order to be code compliant as well. The ITRCC should immediately address the life safety deficiencies listed within the body of the report.

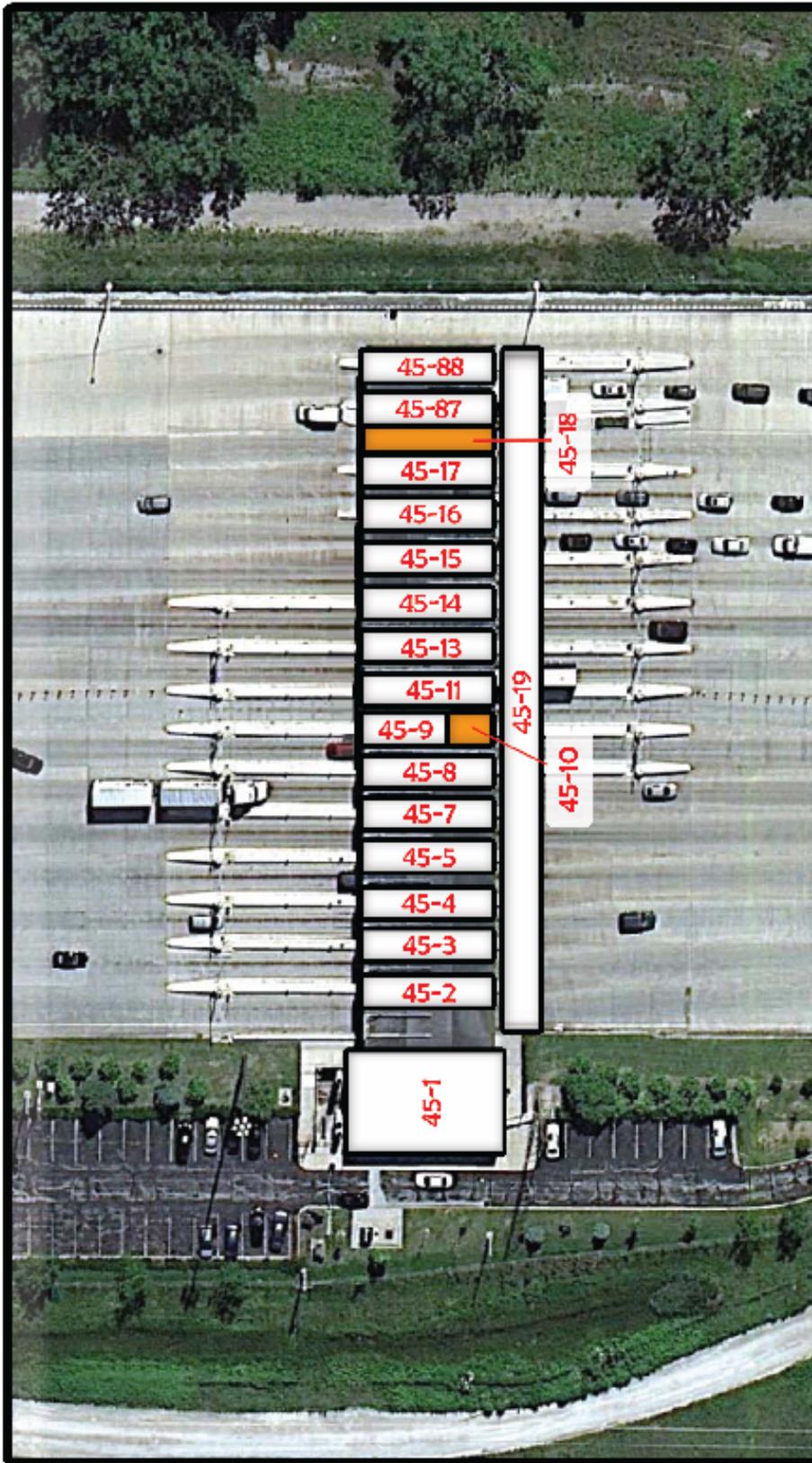
6.5 Current Facilities Capital Expense Projects

No major facilities renovations are underway.

6.6 Facility Assessment Priority Findings Database

The following pages include aerial photography and condition reports only for those facilities having repair and rehabilitation items considered "Priority Level 1: Suggest immediate attention in current year."

The facilities listed in the following pages have been labeled and sorted according to their maintenance responsibility, and it should be noted that some of the facilities (and corresponding maintenance items) are the responsibilities of the vendors who have contracted with the ITRCC.



TOLL PLAZA
WEST-POINT
1 BARRIER
Mile Point 1.1



- 45-15: Toll Booth
- 45-16: Toll Booth
- 45-17: Toll Booth
- 45-18: Stairwell
- 45-19: Toll Booth Canopy
- 45-87: NEW Toll Booth
- 45-88: NEW Toll Booth

- 45-8: Toll Booth
- 45-9: Toll Booth
- 45-10: Stairwell
- 45-11: Toll Booth
- 45-12: Coin-Machine
- 45-13: Toll Booth
- 45-14: Toll Booth

- 45-1: Main Building
- 45-2: Toll Booth
- 45-3: Toll Booth
- 45-4: Toll Booth
- 45-5: Toll Booth
- 45-6: Coin-Machine
- 45-7: Toll Booth

FACILITY ASSESSMENT - PRIORITY 1 FINDINGS

Building Group: TP-1

MAINTENANCE DISTRICT: M-1
MILEPOINT: 1.1

45-01 Main Building

General Condition: Good

Maintenance Responsibility: ITRCC

Classification: Toll Plaza

Architectural/Structural Assessments:

Foundation: Good	Ext. Walls: Poor	Windows: Good
Floor: Good	Int. Walls: Good	Doors: Good
Roof: Fair	Ceilings: Fair	Sidewalks: Good

Mechanical Assessments:

Elec. Service: Good	HVAC: Good
Elec. Distrib.: Good	Plumbing: Good
Lighting: Good	

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Replace all door weatherstripping and door closers which are not connected.	
1	Architectural	Replace rusted roof vent.	
1	Architectural	Install proper roof curbs for roof pipe supports.	
1	Architectural	All exterior walls showing sealant failures.	
1	Architectural	Replace all doors/frames in basement.	
1	Architectural	EDPM Roof - Needs to be replaced.	
1	Architectural	All exterior walls showing sealant failures.	
1	Architectural	Roof hatch lack fall protection guardrail and ladder-up safety bar (life safety).	
1	Architectural	Roof lacks edge fall protection (life safety).	
1	Electrical	Old existing panel board currently being used as a junction box. Provide cover plate to minimize access inside.	
1	Mechanical	Main Building condensing unit is out of service. Access cover is partially removed. Maintenance indicates that this unit is scheduled for replacement.	
1	Mechanical	The Radio Equipment Room is furnished with a standard small split system with an indoor blower coil unit. Apparently, this room requires year-around air conditioning and they are having trouble with coil freeze-ups.	
1	Mechanical	Heater in storage room needs repair.	

45-07 Toll Booth

General Condition: Good

Maintenance Responsibility: ITRCC

Classification: Toll Booth

Architectural/Structural Assessments:			
Foundation:	Good	Ext. Walls:	Fair
Floor:	Good	Int. Walls:	Good
Roof:	N/A	Ceilings:	Good
		Windows:	Good
		Doors:	Fair
		Sidewalks:	Good

Mechanical Assessments:			
Elec. Service:	Good	HVAC:	N/A
Elec. Distrib.:	Good	Plumbing:	Good
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Electrical	Provide blank cover plate for open junction box.	

45-08 Toll Booth

General Condition: Good

Maintenance Responsibility: ITRCC

Classification: Toll Booth

Architectural/Structural Assessments:			
Foundation:	Good	Ext. Walls:	Fair
Floor:	Good	Int. Walls:	Good
Roof:	N/A	Ceilings:	Good
		Windows:	Good
		Doors:	Fair
		Sidewalks:	Good

Mechanical Assessments:			
Elec. Service:	Good	HVAC:	N/A
Elec. Distrib.:	Good	Plumbing:	Good
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	The door wicket is damaged and needs to be replaced.	

45-11 Toll Booth

General Condition: Good

Maintenance Responsibility: ITRCC

Classification: Toll Booth

Architectural/Structural Assessments:			
Foundation:	Good	Ext. Walls:	Fair
Floor:	Good	Int. Walls:	Good
Roof:	N/A	Ceilings:	Good
		Windows:	Good
		Doors:	Fair
		Sidewalks:	Good

Mechanical Assessments:			
Elec. Service:	Good	HVAC:	Good
Elec. Distrib.:	Good	Plumbing:	N/A
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	The door wickets are missing. Install new door wickets.	
1	Architectural	Sliding door latch is not working properly. Repair the door latches.	
1	Architectural	Light fixture rusted.	
1	Architectural	Stainless steel corroded.	

45-13 Toll Booth

Maintenance Responsibility: ITRCC

General Condition: Good

Classification: Toll Booth

Architectural/Structural Assessments:			
Foundation:	Good	Ext. Walls:	Fair
Floor:	Good	Int. Walls:	Good
Roof:	N/A	Ceilings:	Good
		Windows:	Good
		Doors:	Fair
		Sidewalks:	Good

Mechanical Assessments:			
Elec. Service:	Good	HVAC:	Good
Elec. Distrib.:	Good	Plumbing:	N/A
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Door wicket is missing. Install new door wickets.	
1	Architectural	1 exterior panel at the top of the booth is damaged and needs to be replaced.	
1	Architectural	1 door latch is not opening and needs to be repaired.	

45-14 Toll Booth

Maintenance Responsibility: ITRCC

General Condition: Good

Classification: Toll Booth

Architectural/Structural Assessments:			
Foundation:	Good	Ext. Walls:	Fair
Floor:	Good	Int. Walls:	Good
Roof:	N/A	Ceilings:	Good
		Windows:	Good
		Doors:	Poor
		Sidewalks:	Good

Mechanical Assessments:			
Elec. Service:	Good	HVAC:	Good
Elec. Distrib.:	Good	Plumbing:	N/A
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	The door wicket is missing and needs to be replaced.	
1	Electrical	Provide proper installation of thermostat and control wiring. Provide blank cover plate if open junction box is left in place.	
1	Electrical	Repair or replace broken light fixture.	

45-18 Stairwell Covering

Maintenance Responsibility: ITRCC

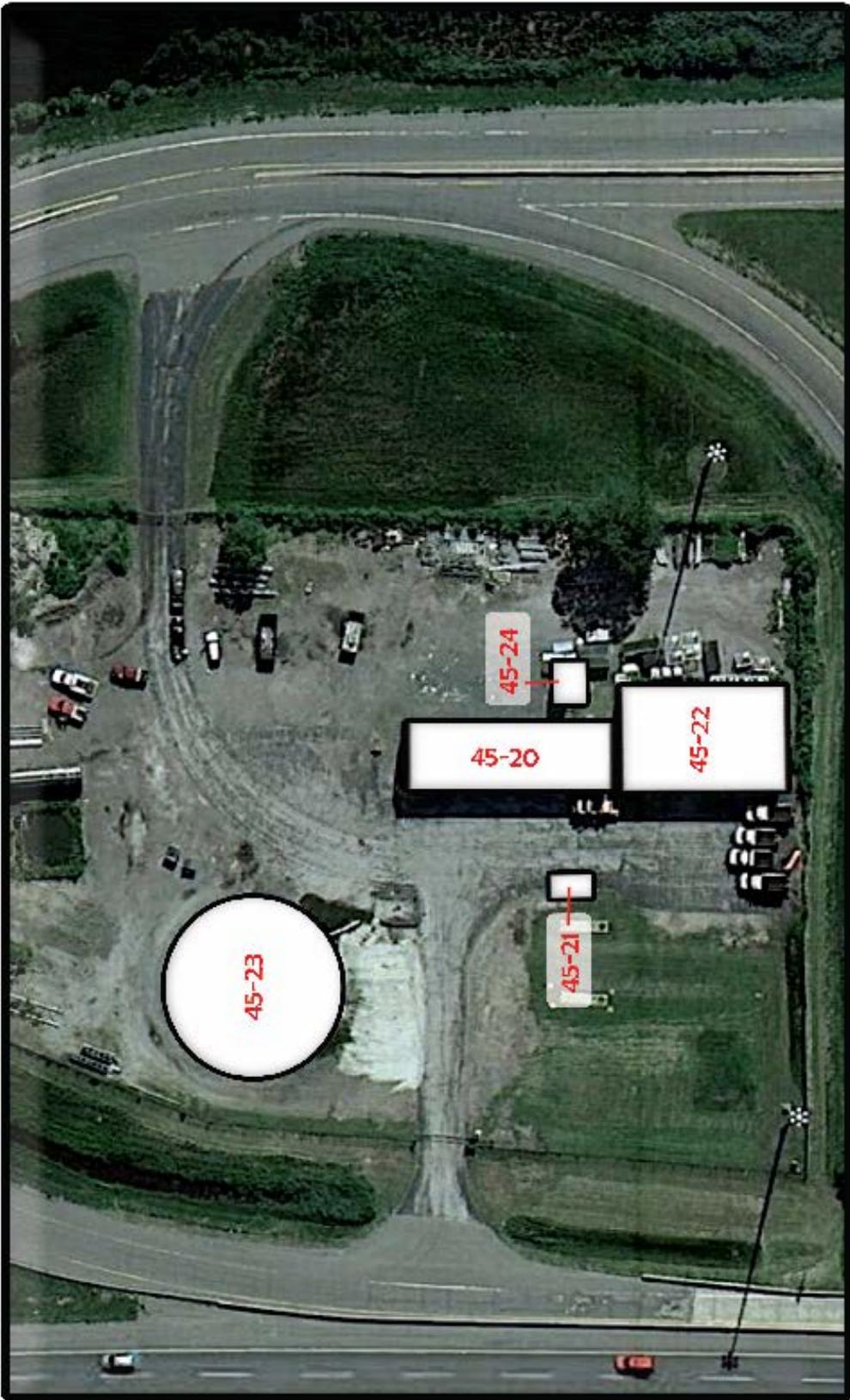
General Condition: Good

Classification: Other

Architectural/Structural Assessments:			
Foundation:	Good	Ext. Walls:	Good
Floor:	Good	Int. Walls:	Poor
Roof:	N/A	Ceilings:	Fair
		Windows:	Fair
		Doors:	Fair
		Sidewalks:	Good

Mechanical Assessments:			
Elec. Service:	N/A	HVAC:	N/A
Elec. Distrib.:	N/A	Plumbing:	N/A
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Electrical	Conduit in stairwell is rusted and open. Replace conduit.	



**AUXILIARY
STORAGE AREA**
Mile Point 4.6



45-24: Communications Hut

**45-22: Pole Barn
45-23: Salt Storage Pyramid**

**45-20: Maintenance Building
45-21: Gas Shanty**

FACILITY ASSESSMENT - PRIORITY 1 FINDINGS

Building Group: ASA-4.7

MAINTENANCE DISTRICT: M-2
MILEPOINT: 4.6

45-20 Maintenance Building

General Condition: Good

Maintenance Responsibility: ITRCC

Classification: Toll Plaza

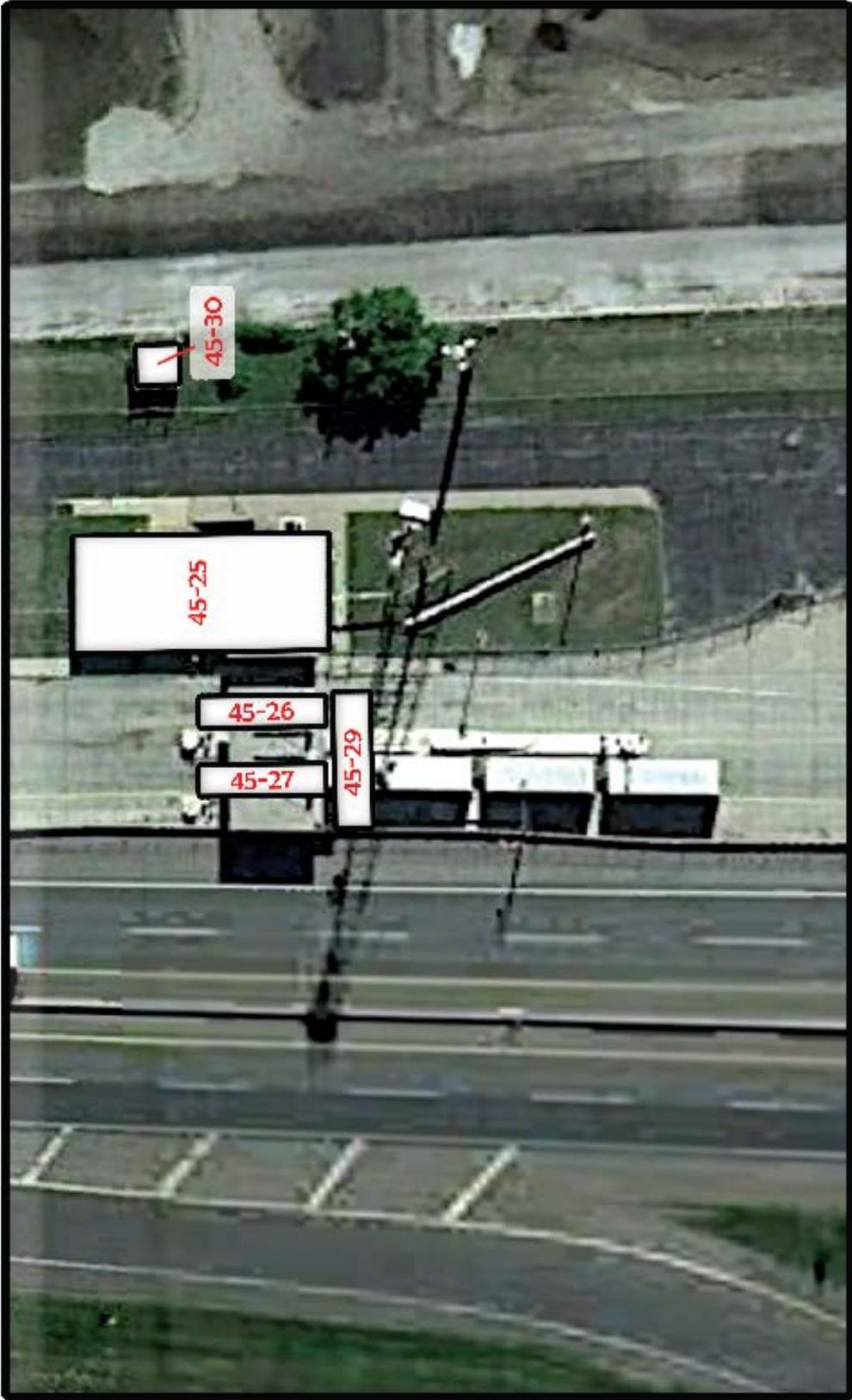
Architectural/Structural Assessments:

Foundation: Good	Ext. Walls: Good	Windows: N/A
Floor: Good	Int. Walls: N/A	Doors: Fair
Roof: Good	Ceilings: N/A	Sidewalks: Good

Mechanical Assessments:

Elec. Service: Good	HVAC: Good
Elec. Distrib.: Good	Plumbing: Good
Lighting: Good	

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Door lock set is missing to kitchen area. Install door lock set.	
1	Architectural	Entrance door is an exit and lacks proper exiting door hardware. Install door exiting hardware (life safety).	
1	Architectural	Replace the door frame hardware in the N/W corner of the building and the door on west wall. The door is rusted shut and has no door handle (life safety).	
1	Electrical	Provide emergency egress lighting as existing emergency lighting is not operational.	
1	Electrical	Near Northern door, provide proper support of outlet box cover.	
1	Plumbing	Replace p-trap that is leaking in garage at service sink.	



TOLL PLAZA
5 (W)
CALUMET
AVENUE
Mile Point 4.7



45-29: Toll Booth Canopy
45-30: Storage Shed

45-27: Toll Booth
~~45-28: Coin Machine~~

45-25: Main Building
45-26: Toll Booth

FACILITY ASSESSMENT - PRIORITY 1 FINDINGS

Building Group: TP-5

MAINTENANCE DISTRICT: M-1
MILEPOINT: 4.7 WBL

45-25 Main Building

General Condition: Fair

Maintenance Responsibility: ITRCC

Classification: Toll Plaza

Architectural/Structural Assessments:

Foundation: Good	Ext. Walls: Poor	Windows: Good
Floor: Poor	Int. Walls: Good	Doors: Fair
Roof: N/A	Ceilings: Fair	Sidewalks: Good

Mechanical Assessments:

Elec. Service: Fair	HVAC: Fair
Elec. Distrib.: Fair	Plumbing: Fair
Lighting: Fair	

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Facility is not ADA accessible.	
1	Architectural	Door lock to womens locker/toilet is not opening. Replace door lock set.	
1	Architectural	Guardrail that protects the stairs is loose and is a safety hazard. Repair/replace guardrail/handrail to the basement level (life safety).	
1	Architectural	The coping stone joint is missing, repaint joints.	
1	Architectural	Downspouts are loose around the bldg, repair downspout attachments.	
1	Architectural	Repair underlying rust and reset stone sill at NW corner.	
1	Electrical	Replace existing dead front cover on panel board in Tunnel.	
1	Electrical	In the Radio Equipment Room, provide additional grounding of receptacle near doorway.	
1	Mechanical	Drinking fountain is not working at all repair.	
1	Mechanical	Generator Room intake louver is disconnected and discharge back draft damper on exhaust fan is stuck open.	
1	Mechanical	Exhaust fan thermostat in the Generator Room needs to be replaced and exhaust fan should then be tested.	
1	Mechanical	Sink p-trap is leaking pipe has a hole in it and needs to be replaced.	

45-26 Toll Booth

General Condition: Good

Maintenance Responsibility: ITRCC

Classification: Toll Booth

Architectural/Structural Assessments:			
Foundation:	Good	Ext. Walls:	Good
Floor:	Poor	Int. Walls:	Good
Roof:	N/A	Ceilings:	Good
		Windows:	Fair
		Doors:	Good
		Sidewalks:	Good

Mechanical Assessments:			
Elec. Service:	Good	HVAC:	Good
Elec. Distrib.:	Good	Plumbing:	N/A
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Window pane is shattered. Replace window pane.	
1	Architectural	The door does not shut on the back side of the pay kiosk. Repair the door.	

45-27 Toll Booth

General Condition: Good

Maintenance Responsibility: ITRCC

Classification: Toll Booth

Architectural/Structural Assessments:			
Foundation:	Good	Ext. Walls:	Poor
Floor:	Poor	Int. Walls:	Good
Roof:	N/A	Ceilings:	Good
		Windows:	Fair
		Doors:	Good
		Sidewalks:	Good

Mechanical Assessments:			
Elec. Service:	Good	HVAC:	Good
Elec. Distrib.:	Good	Plumbing:	N/A
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Window gaskets are badly deteriorated. Replace all window gaskets and damaged window glazings.	
1	Architectural	Door on expressway side is out of its track and needs to be repaired.	

45-30 Storage Shed

General Condition: Good

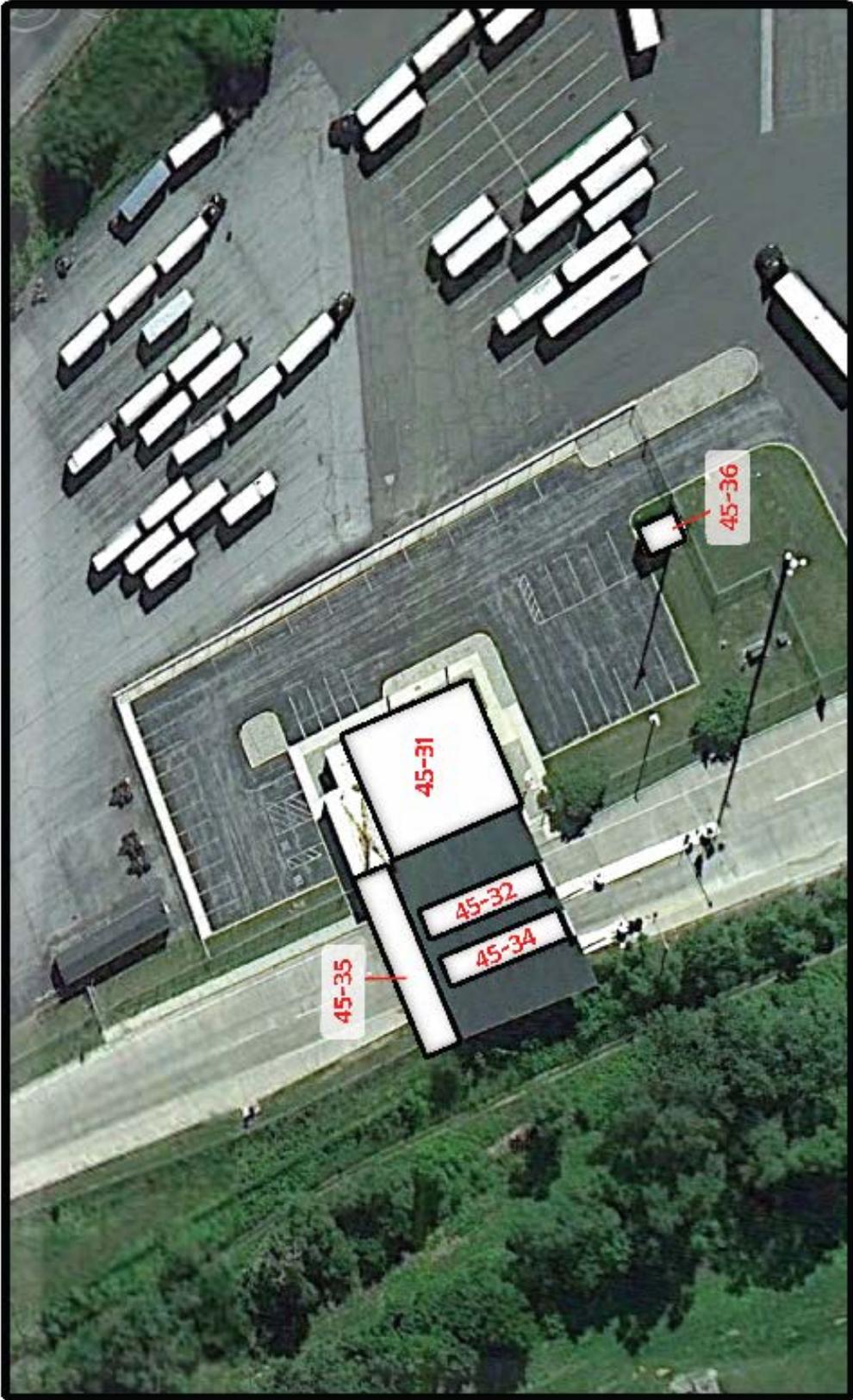
Maintenance Responsibility: ITRCC

Classification: Small Storage

Architectural/Structural Assessments:			
Foundation:	Good	Ext. Walls:	Fair
Floor:	N/A	Int. Walls:	N/A
Roof:	N/A	Ceilings:	N/A
		Windows:	N/A
		Doors:	Good
		Sidewalks:	Good

Mechanical Assessments:			
Elec. Service:	Good	HVAC:	Good
Elec. Distrib.:	Good	Plumbing:	N/A
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Replace rusted and bent panel on the entrance door. The pair of doors/frame/hardware are missing door handles. Install new handles.	



TOLL PLAZA
5 (E) AVENUE
Mile Point 4.7



45-35: Toll Booth Canopy
45-36: Communications Hut

~~45-33: Coin Machine~~
45-34: Toll Booth

45-31: Main Building
45-32: Toll Booth

FACILITY ASSESSMENT - PRIORITY 1 FINDINGS

Building Group: TP-5

MAINTENANCE DISTRICT: M-1
MILEPOINT: 4.7 EBL

45-31 Main Building

General Condition: Good

Maintenance Responsibility: ITRCC

Classification: Toll Plaza

Architectural/Structural Assessments:

Foundation:	Good	Ext. Walls:	Good	Windows:	Good
Floor:	Good	Int. Walls:	Good	Doors:	Good
Roof:	N/A	Ceilings:	Good	Sidewalks:	Good

Mechanical Assessments:

Elec. Service:	Good	HVAC:	Good
Elec. Distrib.:	Good	Plumbing:	Good
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	The aluminum window panning on the south wall is loose and needs to be repaired.	
1	Electrical	Several open junction boxes are in the tunnel. A long section of wire has missing cover plates. Large sections are corroded away. High and low voltage wiring has been run together. The wire needs to be seperated.	
1	Electrical	Comm. Panel is missing and there are exposed wires/cables in Repair Panel 121.	
1	Electrical	UPS installed in front of Panel P-5 in the Comm. Room. Panel needs to be kept accessible.	
1	Mechanical	Comm. Room AHU	

45-35 Toll Booth Canopy

General Condition: Good

Maintenance Responsibility: ITRCC

Classification: Other

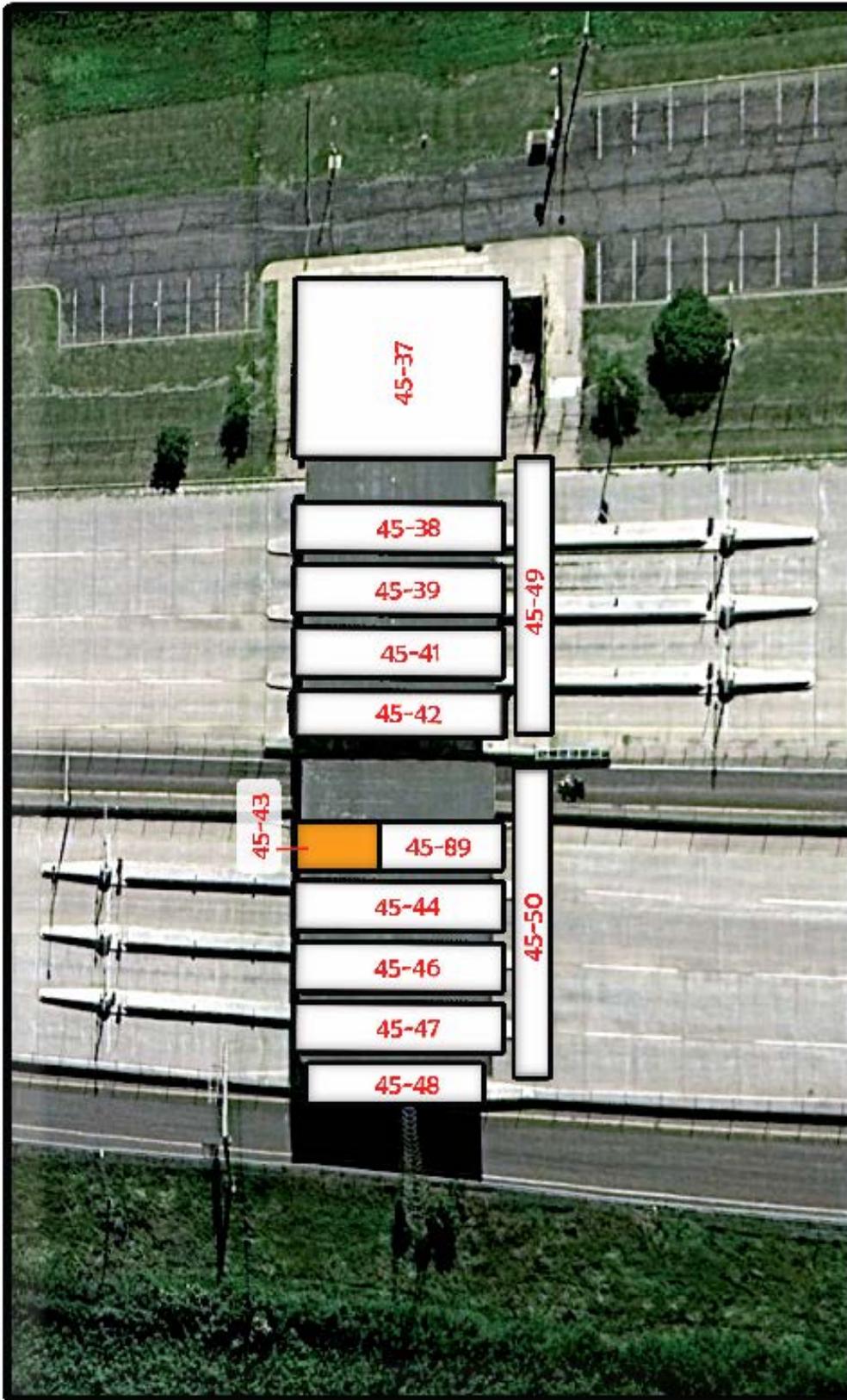
Architectural/Structural Assessments:

Foundation:	Good	Ext. Walls:	N/A	Windows:	N/A
Floor:	N/A	Int. Walls:	N/A	Doors:	N/A
Roof:	N/A	Ceilings:	Good	Sidewalks:	Good

Mechanical Assessments:

Elec. Service:	N/A	HVAC:	N/A
Elec. Distrib.:	N/A	Plumbing:	Good
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Repair broken roof leader.	
1	Electrical	Replace missing canopy light fixture lense or replace fixture.	
1	Mechanical	Near the West end of the canopy, there is a broken roof drain pipe that needs to be replaced.	



TOLL PLAZA
CLINE
10
AVENUE
Mile Point 10.1



- 45-37:** Main Building
- 45-38:** Toll Booth
- 45-39:** Toll Booth
- 45-40:** Coin-Machine
- 45-41:** Toll Booth
- 45-42:** Toll Booth
- 45-43:** Stairwell
- 45-44:** Toll Booth
- 45-45:** Coin-Machine
- 45-46:** Toll Booth
- 45-47:** Toll Booth
- 45-48:** Stairwell
- 45-49:** Toll Booth Canopy (E)
- 45-50:** Toll Booth Canopy (W)
- 45-89:** NEW Toll Booth

FACILITY ASSESSMENT - PRIORITY 1 FINDINGS

Building Group: TP-10

MAINTENANCE DISTRICT: M-1
MILEPOINT: 10.1

45-37 Main Building

Maintenance Responsibility: ITRCC

General Condition: Good

Classification: Toll Plaza

Architectural/Structural Assessments:

Foundation: Fair	Ext. Walls: Fair	Windows: Good
Floor: Good	Int. Walls: Good	Doors: Good
Roof: N/A	Ceilings: Fair	Sidewalks: Good

Mechanical Assessments:

Elec. Service: Good	HVAC: Good
Elec. Distrib.: Good	Plumbing: Good
Lighting: Good	

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Window gaskets are deteriorated and need replacements.	
1	Architectural	Roof needs a ladder up safety bar and fall protection around the opening. Also fall protection around the perimeter is needed.	
1	Electrical	In tunnel area, provide cover plates for open junction boxes.	
1	Electrical	Tunnel has no emergency egress or exit lights in it.	
1	Mechanical	Condensing unit for Comm. Room is not equipped with a disconnect.	

45-48 Stairwell

Maintenance Responsibility: ITRCC

General Condition: Good

Classification: Other

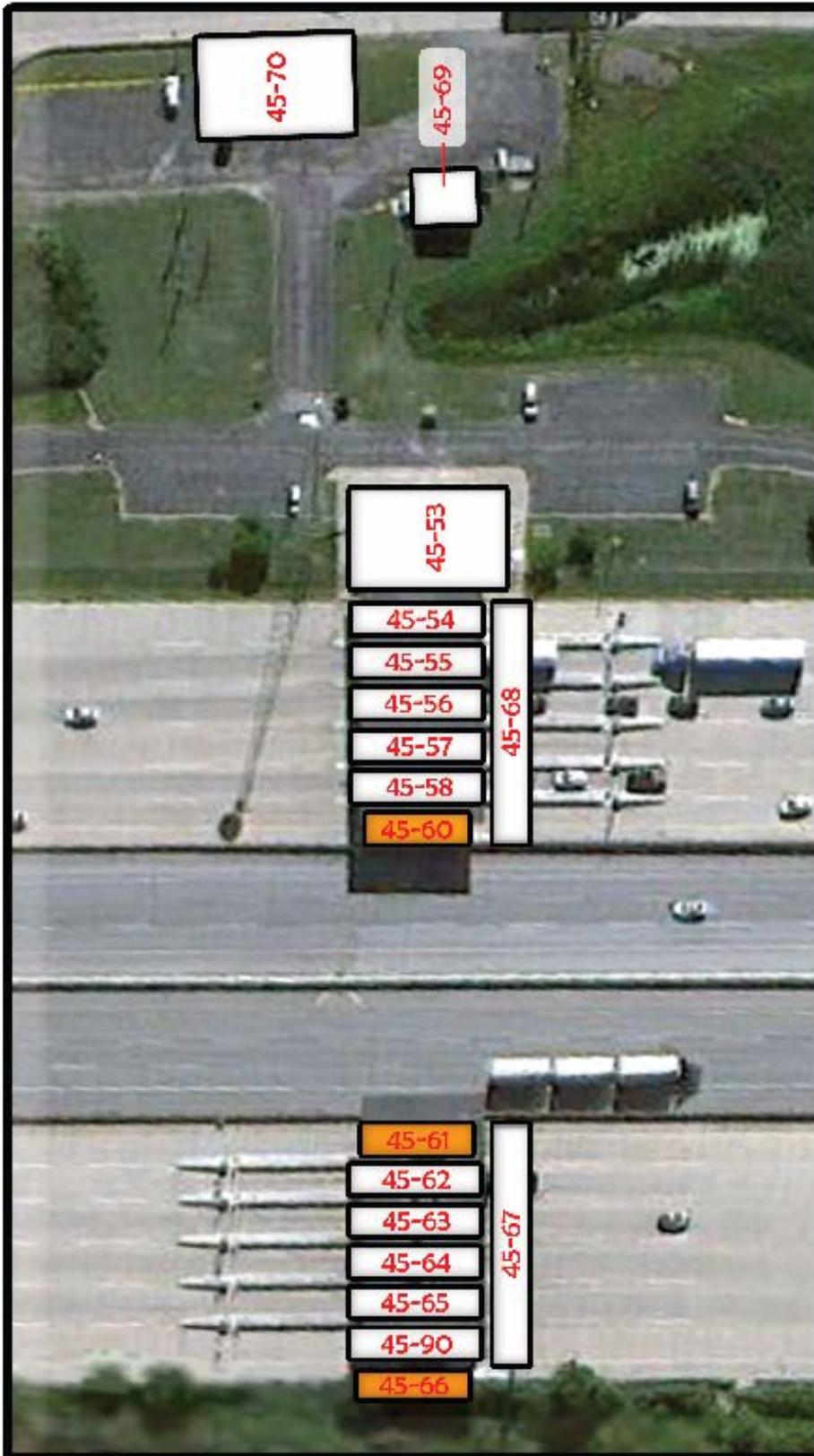
Architectural/Structural Assessments:

Foundation: Good	Ext. Walls: Good	Windows: Good
Floor: N/A	Int. Walls: N/A	Doors: N/A
Roof: Good	Ceilings: Good	Sidewalks: Good

Mechanical Assessments:

Elec. Service: Good	HVAC: Good
Elec. Distrib.: Good	Plumbing: N/A
Lighting: Good	

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Heavy corrosion of steel frame - replace components and paint as req'd.	



TOLL PLAZA
17^{CARY EAST}
Mile Point 16.7



- 45-67: Toll Booth Canopy (W)
- 45-68: Toll Booth Canopy (E)
- 45-69: Storage Shed
- 45-70: Maintenance Building
- 45-90: NEW Toll Booth

- 45-60: Stainwell
- 45-61: Stainwell
- 45-62: Toll Booth
- 45-63: Toll Booth
- 45-64: Toll Booth
- 45-65: Toll Booth
- 45-66: Stainwell

- 45-53: Main Building
- 45-54: Toll Booth
- 45-55: Toll Booth
- 45-56: Toll Booth
- 45-57: Toll Booth
- 45-58: Toll Booth
- 45-59: ~~Car Machine~~

FACILITY ASSESSMENT - PRIORITY 1 FINDINGS

Building Group: TP-17

MAINTENANCE DISTRICT: M-1
MILEPOINT: 16.7

45-53 Main Building

General Condition: Good

Maintenance Responsibility: ITRCC

Classification: Toll Plaza

Architectural/Structural Assessments:

Foundation: Fair	Ext. Walls: Fair	Windows: Good
Floor: Good	Int. Walls: Good	Doors: Good
Roof: N/A	Ceilings: Fair	Sidewalks: Good

Mechanical Assessments:

Elec. Service: Good	HVAC: Good
Elec. Distrib.: Good	Plumbing: Good
Lighting: Good	

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	There is an active roof leak in storage room. Patch roof in this area.	
1	Architectural	Roof hatch lacks fall protection, railing and ladder-up bar.	
1	Electrical	Cap exposed at Lane	
1	Electrical	There are several missing light fixture lenses in the Tunnel and a few loose lenses. Repair/Replace.	
1	Electrical	Tunnel: Light fixture in middle of Tunnel is damaged due to water leak at median location.	
1	Electrical	Tunnel: Missing junction box covers need to be replaced.	
1	Mech/Electrical	In Tunnel: there is a water leak that is leaking on junction boxes. This is below Toll Booth 45-54. The next liquid-tight box to the West currently has water dripping out of the box. One of the Lane Treadles closest to 45-53 is not sealed properly.	
1	Plumbing	The flush valve at the Men's Room urinal was not lined up correctly. The supply tube is too short. The urinal is leaking. Repair needed.	
1	Structural	A water leak at lane 1 in tunnel requires repair.	

45-58 Toll Booth

General Condition: Fair

Maintenance Responsibility: ITRCC

Classification: Toll Booth

Architectural/Structural Assessments:

Foundation: Fair	Ext. Walls: Fair	Windows: Fair
Floor: Fair	Int. Walls: Fair	Doors: Fair
Roof: Fair	Ceilings: Fair	Sidewalks: Fair

Mechanical Assessments:

Elec. Service: Fair	HVAC: Fair
Elec. Distrib.: Fair	Plumbing: Fair
Lighting: Fair	

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Sealant at the perimeter of the booth is seperated. Re-seal at entire perimeter of the toll booth.	

45-60 Stairwell

General Condition: Fair

Maintenance Responsibility: ITRCC

Classification: Other

Architectural/Structural Assessments:			
Foundation:	Fair	Ext. Walls:	Fair
Floor:	Fair	Int. Walls:	Fair
Roof:	Fair	Ceilings:	Fair
		Windows:	Fair
		Doors:	Fair
		Sidewalks:	Fair

Mechanical Assessments:			
Elec. Service:	Fair	HVAC:	Fair
Elec. Distrib.:	Fair	Plumbing:	FAIR
Lighting:	Fair		

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	The stair nosings are loose and are a trip hazard. Repair all stair treads.	

45-66 Stairwell

General Condition: Fair

Maintenance Responsibility: ITRCC

Classification: Other

Architectural/Structural Assessments:			
Foundation:	Good	Ext. Walls:	Fair
Floor:	Good	Int. Walls:	Poor
Roof:	N/A	Ceilings:	Fair
		Windows:	Fair
		Doors:	Fair
		Sidewalks:	Good

Mechanical Assessments:			
Elec. Service:	Good	HVAC:	Good
Elec. Distrib.:	Good	Plumbing:	N/A
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	The interior steel window frame is badly rusted. Replace window glazing and frames.	

45-70 Maintenance Building

General Condition: Fair

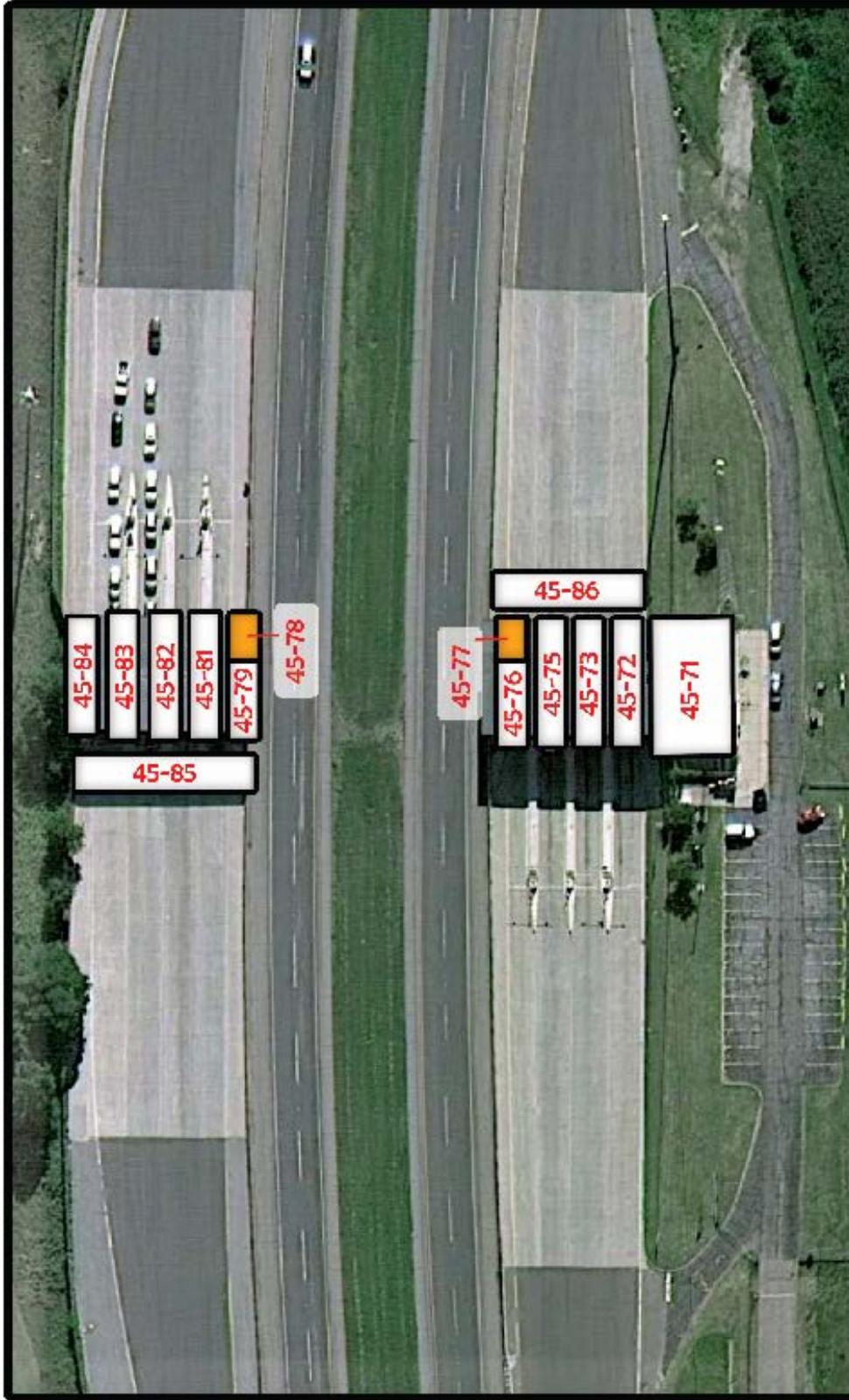
Maintenance Responsibility: ITRCC

Classification: Toll Plaza

Architectural/Structural Assessments:			
Foundation:	Fair	Ext. Walls:	Fair
Floor:	Fair	Int. Walls:	Fair
Roof:	N/A	Ceilings:	Fair
		Windows:	Fair
		Doors:	Fair
		Sidewalks:	Good

Mechanical Assessments:			
Elec. Service:	Good	HVAC:	Good
Elec. Distrib.:	Good	Plumbing:	Good
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Electrical	Provide exit/emergency egress lighting in basement and in tunnel.	
1	Mechanical	Building equipped with a rooftop unit, install clean filters in unit.	
1	Plumbing	Drinking fountain is not operable. Repair or remove.	



45-71: Main Building
45-72: Toll Booth
45-73: Toll Booth
~~45-74~~: Coin-Machine
45-75: Toll Booth

45-76: Toll Booth
45-77: Stairwell
45-78: Stairwell
45-79: Toll Booth
~~45-80~~: Coin-Machine

45-81: Toll Booth
45-82: Toll Booth
45-83: Toll Booth
45-84: Stairwell
45-85: Toll Booth Canopy (W)

45-86: Toll Booth Canopy (E)

TOLL PLAZA
LAJC
21 STATION
Mile Point 201.0

FACILITY ASSESSMENT - PRIORITY 1 FINDINGS

Building Group: TP-21

MAINTENANCE DISTRICT: M-1
MILEPOINT: 20.6

45-71 Main Building

Maintenance Responsibility: ITRCC

General Condition: Good

Classification: Toll Plaza

Architectural/Structural Assessments:

Foundation: Fair	Ext. Walls: Poor	Windows: Good
Floor: Good	Int. Walls: Good	Doors: Good
Roof: Poor	Ceilings: Fair	Sidewalks: Good

Mechanical Assessments:

Elec. Service: Good	HVAC: Good
Elec. Distrib.: Good	Plumbing: Good
Lighting: Good	

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	The window pane on the east wall is broken and is in danger of falling out.	
1	Architectural	Patch the hole in roof at the large exhaust fan.	
1	Architectural	Install emergency lights in the tunnel.	
1	Architectural	The ladder to the roof lacks ladder up bar and fall protection around the roof opening. Install ladder up bar and fall protection railing.	
1	Electrical	Tunnel: Junction box covers and disconnect switch covers are missing.	
1	Electrical	Install electrical panel cover in Tunnel below 45-75.	

45-76 Toll Booth

Maintenance Responsibility: ITRCC

General Condition: Good

Classification: Toll Booth

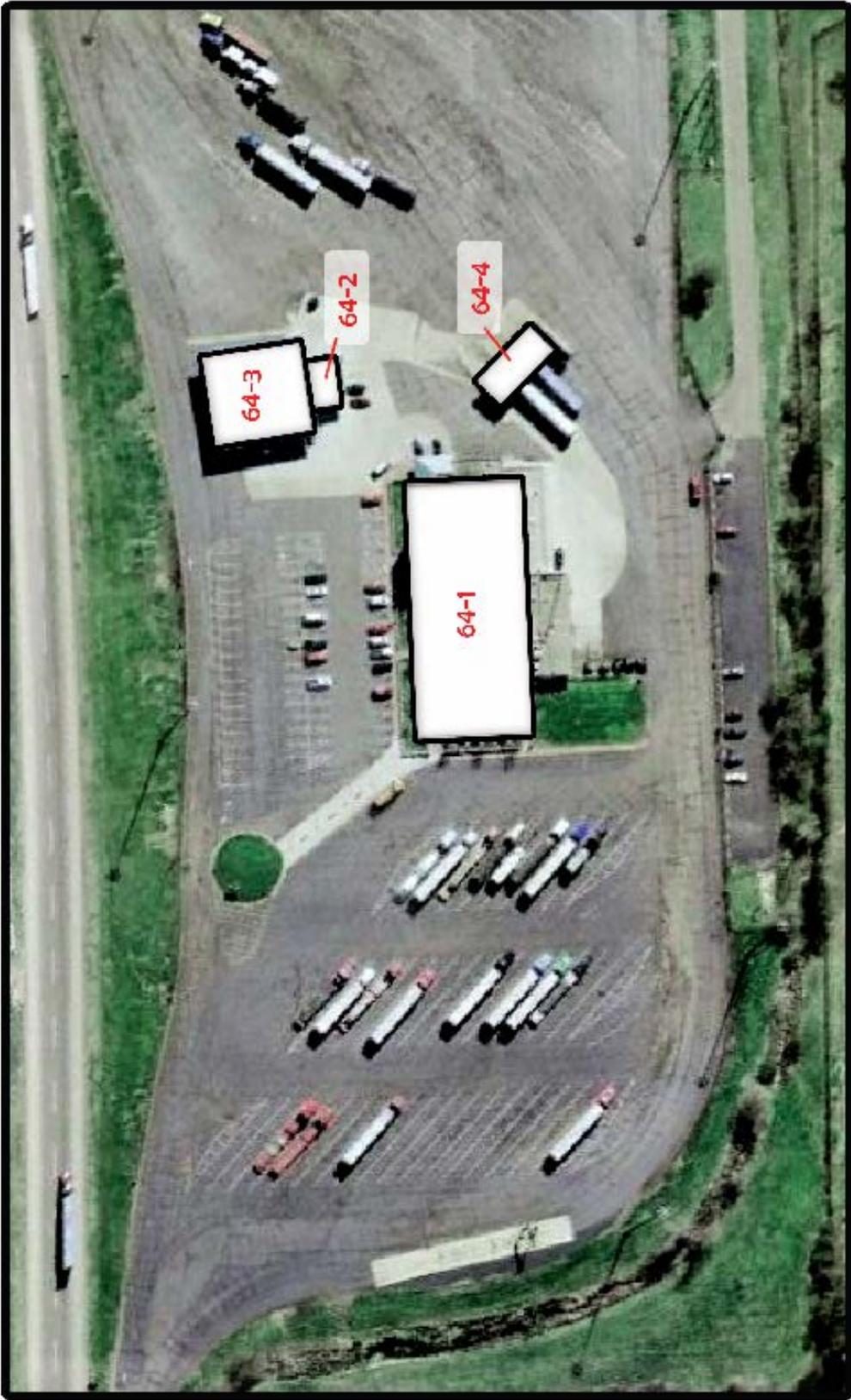
Architectural/Structural Assessments:

Foundation: Good	Ext. Walls: Fair	Windows: Good
Floor: Good	Int. Walls: Good	Doors: Fair
Roof: N/A	Ceilings: Good	Sidewalks: Good

Mechanical Assessments:

Elec. Service: Good	HVAC: Good
Elec. Distrib.: Good	Plumbing: N/A
Lighting: Good	

Priority	Discipline	Findings/Remarks	Completed
1	Electrical	There are exposed wires that need cover plate at the thermostat.	



TRAVEL PLAZA
1 (SOUTH)
Mile Point: 217



64-3: Gas Island

64-2: Gas Kiosk

64-1: Main Building
64-4: Diesel Island

FACILITY ASSESSMENT - PRIORITY 1 FINDINGS

Building Group: TRP-1S

MAINTENANCE DISTRICT: M-2
MILEPOINT: 21.7

64-01 Main Building

General Condition: Good

Maintenance Responsibility: Outside Vendor

Classification: Travel Plaza Restaur

Architectural/Structural Assessments:

Foundation:	Good	Ext. Walls:	Fair	Windows:	Good
Floor:	Fair	Int. Walls:	Good	Doors:	Good
Roof:	Fair	Ceilings:	Fair	Sidewalks:	Good

Mechanical Assessments:

Elec. Service:	Good	HVAC:	Good
Elec. Distrib.:	Good	Plumbing:	Good
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Replace window pane that is broken in Food Service office area.	
1	Architectural	Repoint chimney cup. The mortar is missing and/or deteriorated.	
1	Architectural	Basement: No exit lights were observed.	
1	Architectural	Exterior: entire perimeter caulk joint to wall on concrete slab over areaway, west side.	
1	Electrical	Elect. Equipment Room Door is missing and there are open panels w/live wiring inside, although taped. Install Electrical Equipment Room door and repair and lock panel covers.	
1	Electrical	Provide cover plate for receptacle in Game Room.	
1	Electrical	In Storage Room near the entrance to the Convenience Store, one light fixture is out. Ballast cover missing. Lense covers missing. Repair or replace.	
1	Mechanical	In Food Service Office, clean elements on electric unit heater.	
1	Mechanical	The condensing units on roof top neoprene is missing or badly deteriorated. Replace with UV stable conduit covering.	
1	Plumbing	Drum line is leaking in the corridor in basement area. Repair the drain line.	



TRAVEL PLAZA
1 (NORTH)
Mile Point 2L7



64-7: Gas Island

64-6: Gas Kiosk

64-5: Main Building

64-8: Diesel Island

FACILITY ASSESSMENT - PRIORITY 1 FINDINGS

Building Group: TRP-1N

MAINTENANCE DISTRICT: M-2
MILEPOINT: 21.7

64-05 Main Building

General Condition: Good

Maintenance Responsibility: Outside Vendor

Classification: Travel Plaza Restaur

Architectural/Structural Assessments:

Foundation:	Good	Ext. Walls:	Fair	Windows:	Good
Floor:	Fair	Int. Walls:	Good	Doors:	Good
Roof:	Fair	Ceilings:	Fair	Sidewalks:	Good

Mechanical Assessments:

Elec. Service:	Good	HVAC:	Good
Elec. Distrib.:	Good	Plumbing:	Good
Lighting:	Good		

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Mens janitor closet ceiling tiles are water damaged and require repair.	
1	Architectural	Cap stone and chimney need repointing.	
1	Architectural	Roof: replace cracked and deteriorated sealant on cap stone.	
1	Architectural	Exterior: Repair/regROUT sill @ SE corner	
1	Architectural	Basement: No exit lights were observed.	
1	Architectural	Roof: Replace broken glass in clerestory.	
1	Architectural	Exterior: Replace sealant in vertical control joint.	
1	Architectural	Window at clerestory is broken and needs replacement.	
1	Electrical	No functioning lighting in Transformer Vault. This is a critical item.	
1	Electrical	There are exiting control switches by rear Loading Dock door that are mounted below a grease removal pipe. Should be reinstalled per appropriate code.	
1	Electrical	Transformer Vault doors open into vault. Should open out.	
1	Electrical	There are no lights in the basement. Install emergency lights.	



**AUXILIARY
STORAGE AREA**
Mile Point 21.6



64-11: Loader Shed

64-10: Litter Hut

64-9: Salt Storage

64-12: Communications Hut

FACILITY ASSESSMENT - PRIORITY 1 FINDINGS

Building Group: ASA-21.6

MAINTENANCE DISTRICT: M-2
MILEPOINT: 21.7

64-09 Salt Dome

General Condition: Good

Maintenance Responsibility: ITRCC

Classification: Salt Storage

Architectural/Structural Assessments:

Foundation: Good	Ext. Walls: Good	Windows: N/A
Floor: Good	Int. Walls: Good	Doors: Good
Roof: Good	Ceilings: N/A	Sidewalks: Good

Mechanical Assessments:

Elec. Service: Fair	HVAC: N/A
Elec. Distrib.: Good	Plumbing: N/A
Lighting: Good	

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Exterior: Connection of wall and fabric panel is loose on west wall near O.H. door and on the north wall. Reattach.	
1	Architectural	Exterior: Replace the backer-rod and sealant at the base of the wall along entire perimeter of the building.	



**MAINTENANCE
BLDG PORTER**
Mile Point 23.5



64-17: Ice Ban Tank

**64-15: Gas Shanty
64-16: Pole Barn (E)**

**64-13: Main Building
64-14: Pole Barn (W)**

FACILITY ASSESSMENT - PRIORITY 1 FINDINGS

Building Group: MB-1

MAINTENANCE DISTRICT: M-2
MILEPOINT: 23.5

64-13 Main Building

General Condition: Good

Maintenance Responsibility: ITRCC

Classification: Maintenance

Architectural/Structural Assessments:

Foundation: Good	Ext. Walls: Fair	Windows: Good
Floor: Good	Int. Walls: Good	Doors: Good
Roof: Good	Ceilings: Fair	Sidewalks: Good

Mechanical Assessments:

Elec. Service: Good	HVAC: Good
Elec. Distrib.: Good	Plumbing: Good
Lighting: Fair	

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Metal soffit panels are in danger of falling out. Repair soffit at North and Southeast.	
1	Architectural	Exit door in supervisor office should have latch hardware. Not to code. Install latch hardware.	
1	Architectural	Repair broken windows in small truck bay.	
1	Architectural	Several windows are broken on the south elevation.	
1	Electrical	GFI receptacle near Panel D in Center Bay does not appear to be functioning correctly and should be replaced.	
1	Electrical	Install combination exit/emergency egress light fixtures throughout entire building.	
1	Electrical	Exterior pole lights at the North side of the main facility, one has no lamp heads installed. The one to the East has only one light on. Repair/replace lights.	
1	Mechanical	Small East Bay is not equipped with any exhaust. Consider installing an exhaust system to meet current Code.	
1	Mechanical	Center Automobile Parking Area near Locker Room is equipped with an exhaust fan, but there does not appear to be a make-up air source.	
1	Mechanical	Large East Truck Storage Bays: west exhaust fan should be relocated. Switch is currently in a separate room and is unlabeled.	

64-14 Pole Barn (W)

General Condition: Fair

Maintenance Responsibility: ITRCC

Classification: Other

Architectural/Structural Assessments:			
Foundation:	Fair	Ext. Walls:	Fair
Floor:	Fair	Int. Walls:	Fair
Roof:	Fair	Ceilings:	Fair
		Windows:	Fair
		Doors:	Fair
		Sidewalks:	Fair

Mechanical Assessments:			
Elec. Service:	Fair	HVAC:	Fair
Elec. Distrib.:	Fair	Plumbing:	FAIR
Lighting:	Fair		

Priority	Discipline	Findings/Remarks	Completed
1	Electrical	Main panel board: Romex connector fitting at the top of the panel board that should be replaced with a hole plug.	
1	Electrical	Install combo exit and emergency egress fixtures throughout building.	

64-16 Pole Barn (E)

General Condition: Good

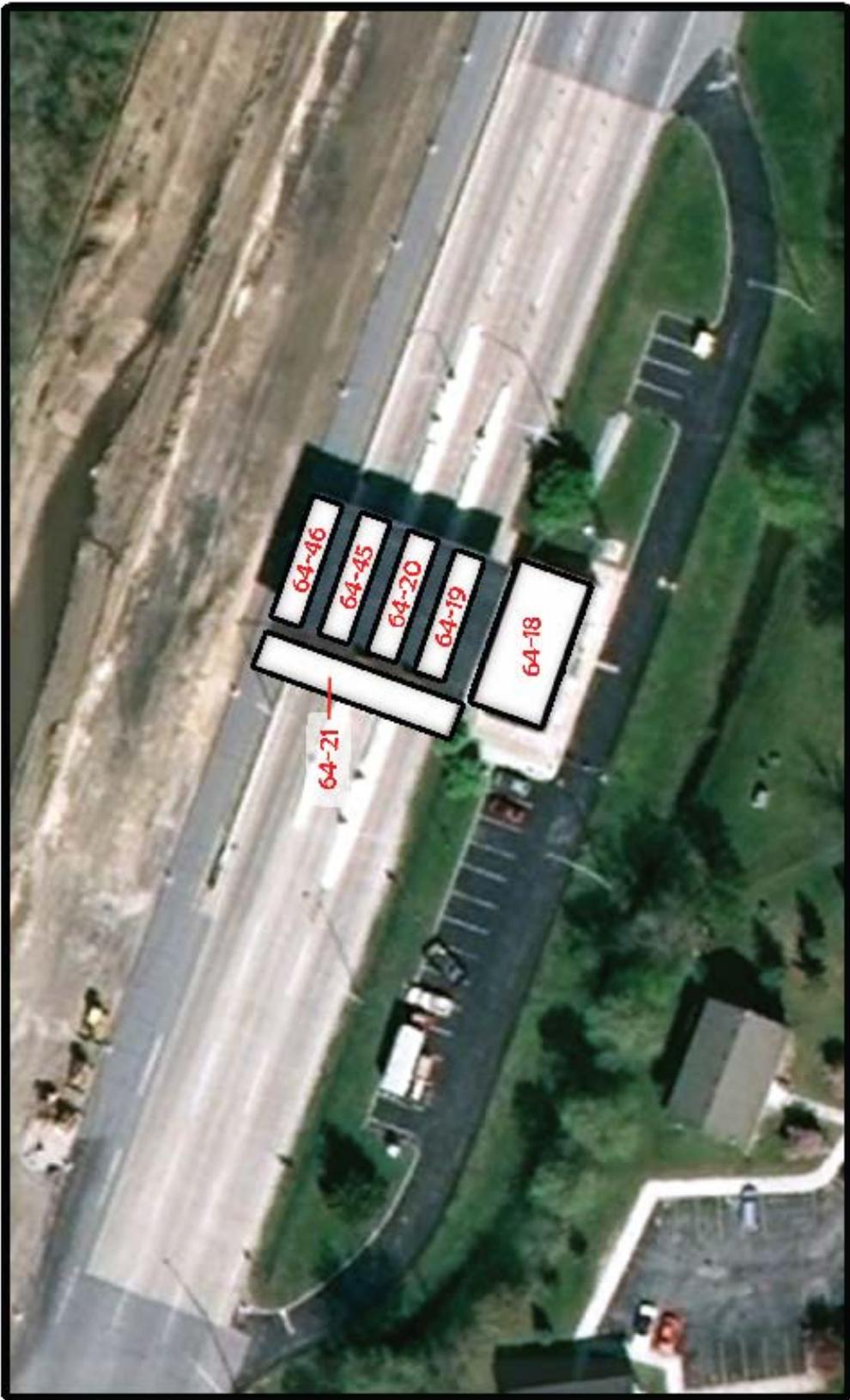
Maintenance Responsibility: ITRCC

Classification: Other

Architectural/Structural Assessments:			
Foundation:	Good	Ext. Walls:	Fair
Floor:	Good	Int. Walls:	Good
Roof:	N/A	Ceilings:	Good
		Windows:	Good
		Doors:	Good
		Sidewalks:	Good

Mechanical Assessments:			
Elec. Service:	Good	HVAC:	N/A
Elec. Distrib.:	Good	Plumbing:	N/A
Lighting:	Fair		

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	There are large openings in exterior metal wall panels.	
1	Architectural	Exterior: missing down spouts on south elevation that need to be installed. Also repair gutter connections that are loose.	
1	Electrical	Install combination exit and emergency egress lighting throughout the building.	
1	Electrical	Provide GFI protection for all receptacles in building.	



TOLL PLAZA
23 MILE CREEK
Mile Point 23.8



64-20: Toll Booth
64-46: NEW Toll Booth

64-19: Toll Booth
64-45: NEW Toll Booth

64-18: Main Building
64-21: Toll Booth Canopy

FACILITY ASSESSMENT - PRIORITY 1 FINDINGS

Building Group: TP-23

MAINTENANCE DISTRICT: M-2
MILEPOINT: 23.8

64-18 Main Building

Maintenance Responsibility: ITRCC

General Condition: Good

Classification: Toll Plaza

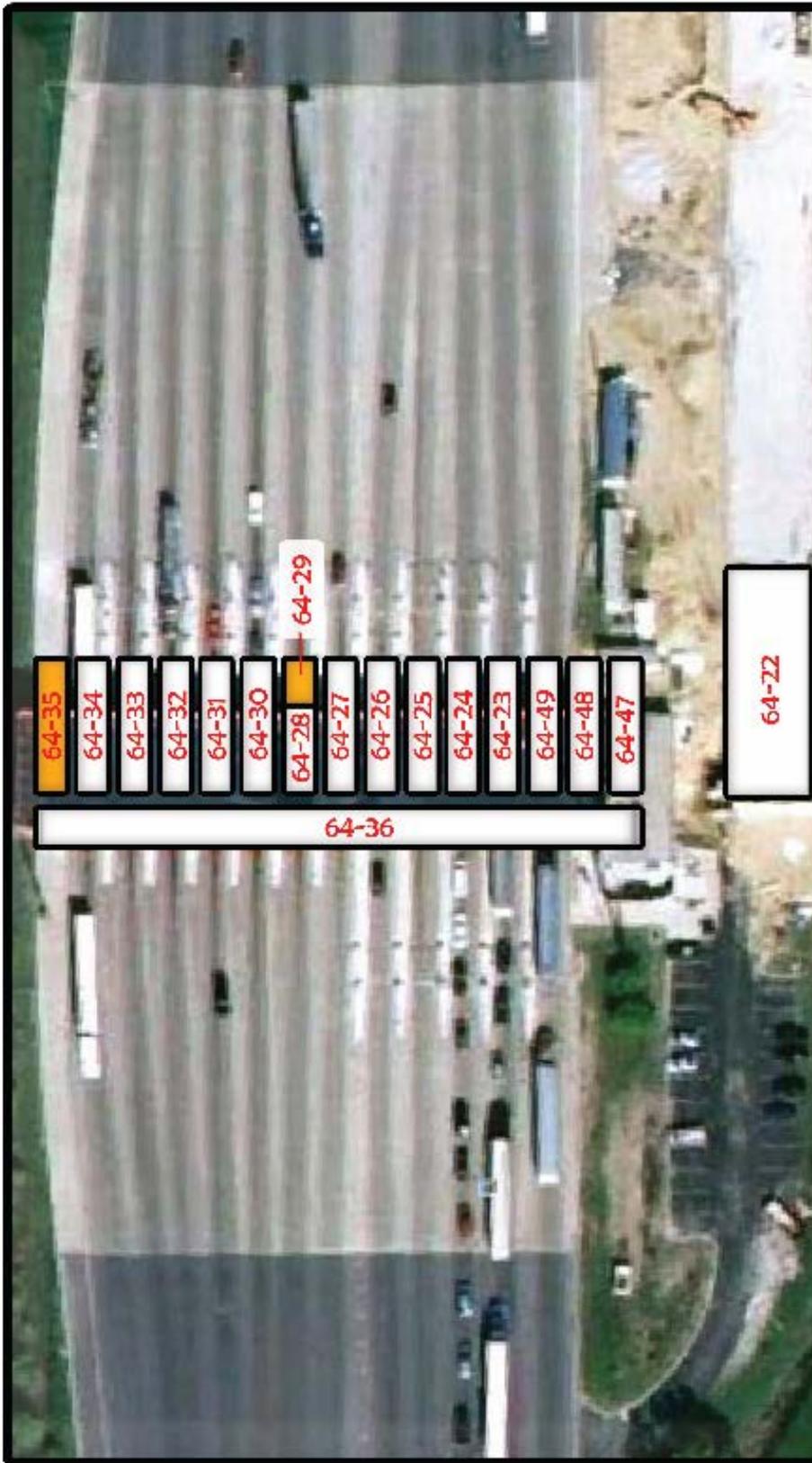
Architectural/Structural Assessments:

Foundation: Fair	Ext. Walls: Poor	Windows: Good
Floor: Good	Int. Walls: Good	Doors: Good
Roof: Poor	Ceilings: Fair	Sidewalks: Good

Mechanical Assessments:

Elec. Service: Good	HVAC: Good
Elec. Distrib.: Good	Plumbing: Good
Lighting: Good	

Priority	Discipline	Findings/Remarks	Completed
1	Architectural	Roof: Rubber roof membrane stretched, pulled out of coping, leaving open roof in multiple locations.	
1	Architectural	Exterior: Remove rust, prime & paint street columns.	
1	Architectural	Exterior: Replace broken glass panels, north side.	
1	Electrical	Provide combination exit/emergency egress lights in all areas of the building including Basement.	



64-22: Main Building
64-23: Toll Booth
64-24: Toll Booth
64-25: Toll Booth
64-26: Toll Booth
64-27: Toll Booth
64-28: Toll Booth

64-29: Stairwell
64-30: Toll Booth
64-31: Toll Booth
64-32: Toll Booth
64-33: Toll Booth
64-34: Toll Booth
64-35: Stairwell

64-36: Toll Booth Canopy
~~64-37: Ticket Storage~~
64-47: NEW Toll Booth
64-48: NEW Toll Booth
64-49: NEW Toll Booth



TOLL PLAZA
24
BOYRACE
BARRIER
Mile Point 24.1

FACILITY ASSESSMENT - PRIORITY 1 FINDINGS

Building Group: TP-24

MAINTENANCE DISTRICT: M-2
MILEPOINT: 24.1

64-22 Main Building

Maintenance Responsibility: ITRCC

General Condition: Good

Classification: Toll Plaza

Architectural/Structural Assessments:

Foundation: Good	Ext. Walls: Good	Windows: Good
Floor: Good	Int. Walls: Good	Doors: Good
Roof: Good	Ceilings: Good	Sidewalks: Good

Mechanical Assessments:

Elec. Service: Good	HVAC: Good
Elec. Distrib.: Good	Plumbing: Good
Lighting: Good	

<u>Priority</u>	<u>Discipline</u>	<u>Findings/Remarks</u>	<u>Completed</u>
1	Electrical	Regulator vent between generators should be extended 8 feet.	

64-36 Toll Booth Canopy

Maintenance Responsibility: ITRCC

General Condition: Good

Classification: Other

Architectural/Structural Assessments:

Foundation: Good	Ext. Walls: Good	Windows: Good
Floor: Good	Int. Walls: Good	Doors: Good
Roof: N/A	Ceilings: Good	Sidewalks: Good

Mechanical Assessments:

Elec. Service: Good	HVAC: Good
Elec. Distrib.: Good	Plumbing: N/A
Lighting: Good	

<u>Priority</u>	<u>Discipline</u>	<u>Findings/Remarks</u>	<u>Completed</u>
1	Electrical	Repair/replace axle light	



7: TREATMENT PLANTS AND OTHER
ENVIRONMENTAL ISSUES REPORT



SECTION 7. Treatment Plants and Other Environmental Issues Report

7.1 General

The 2014-2015 audit was conducted from May 13 through May 15, 2015. Field visits to many of the toll road facilities were made the first two days and the final day consisted of records reviews in the Administration Building. The visit was attended by Raymond "Ed" Eiseman, the Environmental Manager representing the ITRCC and Scott Beckmeyer, E.I.T. representing URS Corporation. URS was contracted to conduct this Treatment Plants and Other Environmental Issues review as a part of the ITRCC Annual State of the ITR.

The majority of major equipment at Indiana Toll Road (ITR) facilities was observed to be in operable condition by audit personnel. Continued routine and preventative maintenance efforts can provide a long useful life for the major process equipment components.

7.2 Environmental Records

A majority of environmental records are under the control of the Environmental Manager and stored in the Administration Building. Recycled materials including batteries and paper/cardboard tracking and associated reports are handled by the ITR procurement group at the ITR Stockroom. Lead contaminated paint waste is tracked by the ITRCC Environmental Manager and submitted by the Environmental Manager to the IFA in the form of a report annually. Selected first level documents such as operator licenses and SPCC plans are maintained at work locations per federal and state requirements. Operator licenses and certificates are also stored in an electronic database that is controlled by the ITRCC Human Resources Department.

Environmental Management information is submitted monthly for incorporation into the ITR Monthly Managers Report. The type of information reported monthly includes a summary of utility usage, environmental reminders, energy conservation, pertinent environmental projects, progress made, and regulatory communications.

The management of regulatory environmental records by the Environmental Manager, Ed Eiseman, should be commended. Requested records and related documentation during the audit were provided in a timely manner, complete and in good order. Records are also kept of all correspondence with authorities and a detailed log is kept of important environmental events throughout the year.

The ITR has continued to make strides in converting environmental paper files to digital files.

7.3 Wastewater Treatment

7.3.1 Treatment Plants

The ITRCC operates two (2) wastewater treatment plants (WWTP) under National Pollutant Discharge Elimination System (NPDES) discharge permits at Travel Plaza 3 and Travel Plaza 7. The Water Treatment Plant at 8 North had a NPDES permit for iron filter backwash discharge but it was allowed to expire on December 31, 2012 because the wastewater discharge limits were not attainable with current installed technology. There is no current intention on renewing. Table B7.1: NPDES Permits below shows pertinent information regarding the permits issued by the Indiana Department of Environmental Management (IDEM).

Travel Plaza	NPDES Permit Number	Effective Date	Expiration Date
3 South	IN 0020931	April 1, 2011	March 31, 2016
7 South	IN 0050300	August 1, 2012	July 31, 2017

Table 7.1: NPDES Permits

Monthly Reports of Operation (MROs) are submitted to IDEM for both permits.

All water treatment plants make use of liquid Sodium Hypochlorite for disinfection. In certain locations peristaltic pumps used to dose the liquid chlorine were found resting unanchored to the top of the drums. While the system was observed to be functioning correctly, it is recommended that the pumps be anchored to the wall separate from the Sodium Hypochlorite containment. This would prevent the pump from falling, cutting off regular service or being damaged.

As water and wastewater treatment plants age, the maintenance and upkeep required to keep them in working service will increase as well as the demand on the staff servicing them. Staffing, training and capital investments is recommended for the long term.

The Indiana Toll Road WWTP process laboratories are adequately equipped to perform analysis for routine operational and regulatory compliance reporting. The ITRCC employs certified operators to perform the permit required tests for the Indiana Toll Road. A majority of the sludge sample analysis for metals and other land application criteria is tested by third party laboratories.

Name	License	Type / Number	Expires
Raymond Eiseman	Wastewater	Class II WW006610	6/30/2017
	Wastewater	Class B WW013501	6/30/2016
Pete Rousculp	Wastewater	Class II WW016542	6/30/2016
Matthew McLaughlin	Wastewater	Class II WW019790	6/30/2016
David Smith	Wastewater	Class III WW019029	6/30/2016
	Wastewater	Class C WW019161	6/30/2016

Table 7.2: Wastewater Operators



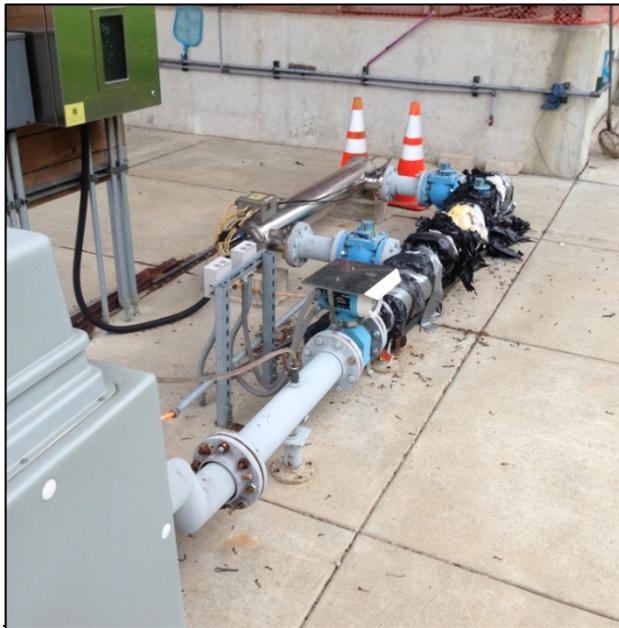
Figure 7.1: Sodium Hypochlorite in Adequate Containment

7.3.1.1 Travel Plaza 3

The WWTP at Travel Plaza 3 south is the newest wastewater treatment plant built at the travel plazas and was constructed within the last 7 years.

Further improvements and repairs to the plant were made in 2013 and 2014 per URS recommendation. The ITR installed four new OSHA qualified access stairwells to the treatment area to allow for easier ingress and egress for operators. Also, repairs were made to piping that supplies ferric chloride for disinfection. This was to address siphonage issues with the previous configuration. The problem was resolved allowing for precise metering of ferric chloride dosage. Future consideration should be made to incorporate ferric chloride metering and dosage into the SCADA system.

Travel Plaza 3 wastewater treatment plant uses Ultraviolet (UV) light for final disinfection before discharge to the environment. Currently, the system has only one (1) UV unit installed through which all water is treated before discharge. Given a history of clogging, a recommended best management practice ITR is considering an installation of a second UV treatment system in parallel to easily and quickly respond to backups in the main line. Future consideration should be made to incorporate the UV system into the SCADA system.



(a)



(b)

Figure 7.2: Travel Plaza 3 WWTP (a) UV Treatment Unit (b) Aeromod Selector Tank

Periodically, tanks within the waste water treatment plant must be accessed for servicing and improvements. The current configuration of the Travel Plaza 3 WWTP does not allow for bypassing of the selector tank so that it can be fully drained. As sediment builds, the capacity of the plant may decrease resulting in less than optimal performance. Improvements to the plant could be considered to allow for servicing of all vital tanks and equipment.

The Unincorporated Village of Rolling Prairie had contacted ITRCC regarding connection of Travel Plaza 3 to their proposed sewer system extension to LaPorte. Their proposal was evaluated as required by the Lease Agreement. The wastewater treatment plant at connection would require a force main of several miles and the wastewater treatment plant at Travel Plaza 3 is no more than seven (7) years old. The cost estimate was provided to the ITRCC and the ITRCC has determined via cost benefit analysis that this project is not currently practical. Should the wastewater treatment plant fail to meet discharge or flow treatment requirements, a reevaluation would be warranted.

7.3.1.2 Travel Plaza 7

The WWTP at Travel Plaza 7 was part of the original ITR construction in 1956. Due to its age, the concrete floors and common tank walls at the facility are deteriorating, spalled, and cracking. It is nearing its designed service life. In the meantime, the current plant should be maintained to meet discharge water permit limits.

The SCADA system, which was installed in 2001 to allow for an automated alternate to continuous operator monitoring, has slowly become obsolete. New replacement equipment is no longer manufactured for these units, but limited amounts of refurbished parts are available. As these systems continue to age, repairs will become more difficult and more expensive. Consideration should be made to replace the SCADA system with a more current system.

7.3.2 Land Application

Sludge from the WWTPs is land applied under existing permits. The ITRCC currently maintains one permit at MP 53 (IN LA 000380). The permit for MP 136 was allowed to expire in January 2015. Per permit requirements, the sludge is sprayed and incorporated into the soil. Sludge from the anaerobic digester at Travel Plaza 7 was unable to pass the fecal coliform test presumably because there is no separate storage location to allow sludge aging prior to application. Sludge is moved from the anaerobic digester at Travel Plaza 7 to the sludge holding tank at Travel Plaza 3 to allow for appropriate aging prior to application. In 2013 there was one series of applications made from the combined sludge from Travel Plazas 3 and 7 at MP 53 in September. A detailed report is submitted to IDEM when sludge is land applied. An email notification to IDEM is submitted monthly, indicating those months when no application occurred. Table B7.3: Land Application Permits list the permits issued by IDEM.

Location	Biosolids Land Application Permit	Effective Date	Expiration Date
MP 53	IN LA 000380	Dec. 23, 2014	Nov. 30, 2024
MP 136	IN LA 000381		Expired Jan 2015

Table 7.3: Land Application Permits

7.3.3 Septic Systems

Due to the increased automation of toll plazas, the load on septic tanks at certain locations has decreased significantly thus their scheduled pumping has been extended to three (3) years. The pumping log, maintained by the Environmental Department, details the last date serviced for each unit. Details of pumping / maintenance frequency can be found in Table B7.4: Pumping Frequency for Certain Wastewater Treatment Units.

Location	Frequency
Grease Traps (TRP-3)	1 month
Grease Traps	3 months
Septic Tanks (Maintenance/Admin)	2 years
Septic Tanks (Toll Plazas)	3 years

Table 7.4: Pumping Frequency for Certain Wastewater Treatment Units

Part of a leach field is buried under the paved parking lot at LaGrange Maintenance blocking transpiration. Since re-opening, this leach field has been operating with no problems. If failure does occur, the leach field may need to be repaired or replaced.

ITRCC has conducted significant repairs on the vacuum tanker which has been in service since 1996. Considerations should be made to replace the truck in the medium term. The vacuum tanker is used on a wide variety of tasks including moving solids between wastewater treatment plants, pumping out flooded manholes and low areas, maintaining restaurant grease traps, and pumping septic tanks.

MP	Location	Number of Septic Systems	Quantity of Lift Stations
1.1	Westpoint Toll Plaza	N/A	1
4.7 E	Calumet Entry Toll Plaza	N/A	1
4.7 W	Calumet Exit Toll Plaza	N/A	1
13.5	Gary West – Closed Toll Plaza	N/A	Closed
16.7	Gary East Toll Plaza	2	N/A gravity fed
20.6	Lake Station Toll Plaza	1	N/A gravity fed
23.5	Porter Maintenance	N/A	1
30.9	Valparaiso Toll Plaza	1	N/A gravity fed
37.5	West Facility	1	N/A gravity fed
38.9	Michigan City Toll Plaza	1	N/A gravity fed
49.2	La Porte Toll Plaza	N/A	1
51.9	La Porte Maintenance	1	1
72.4	South Bend West Toll Plaza	1	N/A gravity fed
82.9	Mishawaka Toll Plaza	1	N/A gravity fed
87.0	Administration Building	2	1
87.1	Maintenance Central Facility	1	N/A gravity fed
87.1	Toll Maintenance Shop	1	1
87.1	Str 20-6	1	N/A gravity fed
87.1	Elkhart Maintenance	1	1
91.8	Elkhart West Toll Plaza	1	N/A gravity fed
96.0	Elkhart East Toll Plaza	1	1
101.2	Bristol Toll Plaza	1	N/A gravity fed
107.1	Middlebury Toll Plaza	1	N/A gravity fed

MP	Location	Number of Septic Systems	Quantity of Lift Stations
114.4	LaGrange Maintenance	1	N/A gravity fed
120.5	Howe/LaGrange Toll Plaza	1	N/A gravity fed
137.5	Steuben Maintenance	1	N/A gravity fed
143.9	Angola Toll Plaza	1	N/A gravity fed
145.7	Travel Plaza 8 N&S	N/A	1
153.0	Eastpoint Toll Plaza	1	1

Table 7.5: ITRCC Septic Systems and Lift Stations Stand-Alone or Connected to a System other than an ITRCC Wastewater Treatment Plant

7.3.4 Lift Stations

Lift stations are listed in Table B7.5. ITRCC has placed signs located near each lift station with a phone number to call if anyone observes the warning light flashing. All lift stations appear to be in good condition during the site visits.

New level controls were installed in 2014 and 2015 at lift stations located at MP 1.1 Westpoint Toll Plaza, MP 23.5 Porter Maintenance and MP 145.7 Travel Plaza 8. The new level controls replaced bubbler systems for liquid level sensors.

There is cathodic protection at the Travel Plaza 8 lift station which extends the entire two stories below grade. A third party inspection and testing was performed in 2013 to ensure the protection is functioning properly.

7.4 Water Treatment

7.4.1 Public Water Supply

The ITR operates four (4) public water supplies at the following locations: Travel Plaza 3 South, Administration Building, Travel Plaza 7 South, and Travel Plaza 8 North. Three (3) of the four (4) are co-located with separate structure water treatment plants (WTP). Table B7.6: Public Water Supply Permits below indicates the location, type of facility, number of wells and permit number issued by IDEM. Lead and copper action levels are posted at each site.

MP	Location	Type of Facility	Number of Wells	Permit Number PWS ID #
55.9	Travel Plaza #3	Water Treatment Plant/ Public Water Supply	3	2460162
87	Administration Bldg.	Public Water Supply	1	2710827
125.8	Travel Plaza #7	Water Treatment Plant/ Public Water Supply	2	2440876
145.7	Travel Plaza #8	Water Treatment Plant/ Public Water Supply	3	2760832

Table 7.6: Public Water Supply Permits

The Administration Building is supplied by water from one ground water well which is disinfected with Sodium Hypochlorite. The application point of the liquid Chlorine is at a location that, depending on the arrangement of flow, may vary the concentration of the chlorine. In order to ensure adequate and even mixing, the application point must be downstream of the inflow from the well.

ITR should continue its efforts to maintain a free chlorine residual above 0.2 mg/L and below 4 mg/L to ensure proper disinfection and satisfy PWS regulations.

According to 327 IAC 8-2-8.6 (3),

“The residual disinfectant concentration in the distribution system, measured as total chlorine, combined chlorine, or chlorine dioxide, ..., may not be [below 0.2 mg/L] in more than five percent (5%) of the samples each month for any two (2) consecutive months that the system serves water to the public.”

ITRCC continues to use liquid sodium hypochlorite for disinfection eliminating the need for gaseous chlorine. Sodium Hypochlorite naturally degrades in potency over time and so measures should be taken to adjust feed rates and concentrations accordingly. Per the Ten State Standards:

“5.4.4 Sodium hypochlorite

Sodium hypochlorite storage and handling procedures should be arranged to minimize the slow natural decomposition process of sodium hypochlorite either by contamination or by exposure to more extreme storage conditions. In addition, feed rates should be regularly adjusted to compensate for this progressive loss in chlorine content.

a. Storage

- 1. Sodium hypochlorite shall be stored in the original shipping containers or in sodium hypochlorite compatible bulk liquid storage tanks.*
- 2. Storage containers or tanks shall be located out of the sunlight in a cool area and shall be vented to the outside of the building.*

3. *Wherever reasonably feasible, stored sodium hypochlorite shall be pumped undiluted to the point of addition. Where dilution is unavoidable, deionized or softened water should be used.*
4. *Storage areas, tanks, and pipe work shall be designed to avoid the possibility of uncontrolled discharges and a sufficient amount of appropriately selected spill absorbent shall be stored on-site.*
5. *Reusable sodium hypochlorite storage containers shall be reserved for use with sodium hypochlorite only and shall not be rinsed out or otherwise exposed to internal contamination."*

Table B7.7: Water Operator Certifications includes the name, type, number, and expiration date of ITR Drinking Water operators per State of Indiana professional license listing on 19-May-2015.

Name	Certification Type	Number	Expiration Date
Raymond Eiseman	Drinking Water Operator WT3	WT031775	6/30/2018
	Drinking Water Operator DSM	DS040200	6/30/2016
Pete Rousculp	Drinking Water Operator WT3	WT070339	6/30/2016
	Drinking Water Operator DSS	DS070341	6/30/2016
David Smith	Drinking Water Operator WT3	WT150102	6/30/2017
	Drinking Water Operator DSS	DS140119	6/30/2016
Matthew McLaughlin	Drinking Water Operator DSM	DS090163	6/30/2015
	Drinking Water Operator WT3	WT100073	6/30/2016

Note: DSM – Distribution System Medium; DSS – Distribution System Small

Table 7.7: Water Operator Certifications

7.4.2 Backflow Preventers

Backflow preventers are installed throughout the facilities along the Toll Road. Inspections are conducted once per year on each reduced pressure backflow preventer and each double check valve backflow preventer by a certified backflow technician. This is per regulation 327 IAC 8-10-8 finalized November 13, 2012. Table B7.8, below, includes a list of Certified Backflow Technicians employed by the ITRCC during the audit period.

Name	License	Type / Number
Raymond Eiseman	Backflow Technician	BF92-0508
Peter Rousculp	Backflow Technician	BF13-4929
Matthew McLaughlin	Backflow Technician	BF11-4345

Table 7.8: Licensed Backflow Technicians

There are approximately 65 backflow preventers throughout facilities along the Toll Road. Table B7.9: Backflow Preventers to be Relocated lists backflow preventers not installed to current code.

These preventers should be relocated when replaced to meet the Indiana Amendments to the Uniform Plumbing Code 603.3.3.

MP	Location	Location at Site	Type
1.1 E	Westpoint Toll Plaza	Above boiler	Public
16.7 W	Gary East Toll Plaza	Above boiler	Public
20.8 E	Lake Station Toll Plaza	Above boiler	Public
23.5 W	Porter Maintenance	Above boiler	Public
23.8 W	Willow Creek Toll Plaza	Above boiler	Public
30.9 W	Valparaiso Toll Plaza	Above boiler	Private
51.9 E	LaPorte Maintenance	Above boiler	Private

Table 7.9: Backflow Preventers to be relocated

7.4.3 Wells

Certain water supply wells along the ITR are still the original pit wells installed in 1956. Due to their age, the casings are in less than optimal condition. Pit wells terminate in below-grade pits which collect water around the casings and also pose a freezing hazard. Consideration should be made to whether these wells should be replaced. Wells recommended for replacement are listed in order of priority in Table B7.10 below.

ITR is currently providing bottled water to toll plaza staff for drinking purposes in most locations with aging wells. The wells may continue to be used for all other non-drinking water purposes. The increased automation of toll plazas has significantly reduced the demand for drinking water.



Figure 7.3: Condition of Aging Pit Well

MP	Location	Notes
30.9 W	Valparaiso Toll Plaza	Suggest connecting to city water when available
107.1 W	Middlebury Toll Plaza	
143.9 E	Angola Toll Plaza	
38.9 W	Michigan City Toll Plaza	
91.8 W	Elkhart West Toll Plaza	Suggest connecting to city water when available

Table 7.10: Drinking Water Wells Recommended for Replacement

The ITRCC operates five (5) Significant Water Withdrawal Facilities which require annual reporting to the Indiana Department of Natural Resources. These wells are located at Elkhart Maintenance, the Administration Building and Travel Plazas 3, 7 and 8.

Remediation activity continues at many of the travel plazas due to legacy contamination from the toll road’s previous responsible entity. All components of the remediation effort are under the responsibility of the IFA. Water samples are taken periodically which require the flushing of the well. The purge volume is captured in drums and stored as non-hazardous waste at the perimeter the toll plaza parking lots. In 2014, three (3) locations received a “No Further Action”.

MP	Location	Year of Discovery	Remediation Status
21.7 W	Travel Plaza 1 North	1991	Continues
21.7 E	Travel Plaza 1 South	1991	Continues
21.7 E	Travel Plaza 1 South	2001	Continues
55.9 W	Travel Plaza 3 North	2001	NFA Oct 2014
55.9 E	Travel Plaza 3 South	1999	NFA Oct 2014
72.9 E	District 21	1999	Continues
90.0 W	Travel Plaza 5 North	2001	NFA Apr 2010
90.0 E	Travel Plaza 5 South	1994	NFA Apr 2010
21.7 W	Travel Plaza 7 North	1999	Continues
21.7 E	Travel Plaza 7 South	2002	NFA Sept 2014
21.7 W	Travel Plaza 8 North	2001	Continues
21.7 E	Travel Plaza 8 South	2001	ERC 2007

Table 7.11: Status of IFA Remediation Activities

Presently, the ITRCC maintains a closed drinking water well affected by the remediation activities at Travel Plaza 3 North. While the remediation activities have now been completed at this location, the water quality of the groundwater is still above the minimum levels for acceptable drinking water use thus the well cannot be put back into use in the near term. Per Indiana Administrative Code, if the original purpose and use of a well has been discontinued for more than five (5) years, the well is considered abandoned, and must be permanently plugged. Further guidance can be found in 312 IAC 13-10.

7.4.4 Water Supply

The repair of a broken water main was completed at Travel Plaza 3 South in mid- March 2014. The water lost had been under winter snowdrifts and was not found immediately. The gradually increasing leak had become an estimated 20,000 gallons per day in the last days before the leak was repaired. A boil order was placed at the Travel Plaza restaurants due to the water main leak. This required successive days of water quality testing after the repair passed with no contamination found. IDEM allowed the boil order to be lifted after the sample results of the tests were reported clear by the laboratory.

7.5 Hazardous Material Management/Response to Hazardous Substance Emergencies

The ITRCC is currently designated as a Large Quantity generator (LQG) under a single EPA waste ID. As a result, all ITRCC facilities must comply with LQG requirements.

The majority of hazardous waste generated along the ITR is due to waste from removal of leaded paint from bridges. For the paint removal, hazardous material handling and waste management is under the responsibility of contractors performing work with tracking by the ITRCC Environmental Manager.

Universal waste is handled by ITRCC Procurement department. The Procurement department purchases chemical supplies for facilities, coordinates the waste vendor contracts, and arranges pick-ups.

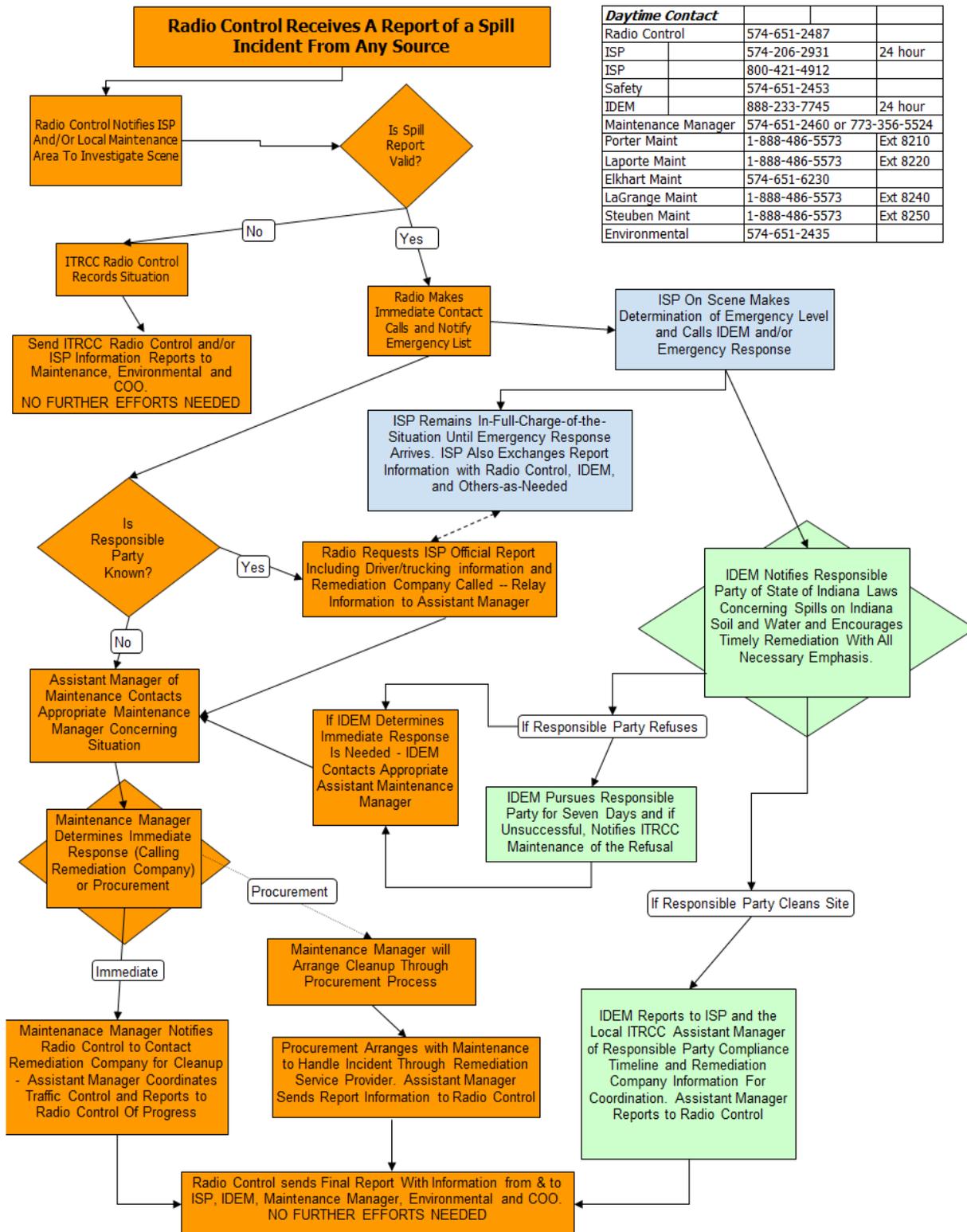
The Environmental Manager coordinates with the environmental representative of the IFA for generating and submitting annual hazardous waste reports to IDEM. The facility level inspections and organization of labeling and storage of materials and waste are coordinated by various ITRCC departments.

7.5.1 Response to Patron Related Released Substance Emergencies

ITRCC has developed an effective strategy to address all patron releases along the Indiana Toll Road. Figure B7.4: Spill Response Flow Chart demonstrates the process for responding to a release.

Each reported incident is added to a spill incident tracking file including information such as the date, location, type of spill or release, responsible party, IDEM Incident number, and other additional information. All major spills are handled by a third party spill response contractor hired by either the ITRCC or responsible party. In general, the spill response contractor or the responsible party will forward the spill cleanup report to the ITR, however not all of these reports are always obtained. A quarterly report of this information is submitted to the toll road owner, the Indiana Finance Authority (IFA).

Spill Response Flow Chart



Daytime Contact		
Radio Control	574-651-2487	
ISP	574-206-2931	24 hour
ISP	800-421-4912	
Safety	574-651-2453	
IDEM	888-233-7745	24 hour
Maintenance Manager	574-651-2460 or 773-356-5524	
Porter Maint	1-888-486-5573	Ext 8210
Laporte Maint	1-888-486-5573	Ext 8220
Elkhart Maint	574-651-6230	
LaGrange Maint	1-888-486-5573	Ext 8240
Steuben Maint	1-888-486-5573	Ext 8250
Environmental	574-651-2435	

Figure 7.4: Spill Response Flow Chart

7.5.2 Hazardous Waste

The ITRCC may generate greater than 1000 kg (2200 pounds) of hazardous waste in a calendar month which would categorize the ITRCC as a Large Quantity Generator (LQG). The ITRCC has notified IDEM regarding their status as a LQG. Large Quantity Generators must comply with 40 CFR 262 and portions of 40 CFR 265 as incorporated, as well as 40 CFR 268.

As a requirement, the following documents must be maintained and made available:

- Contingency Plan
- Complete Manifests and Land Disposal Restriction (LDR) Forms
- Biennial Reports/Annual Reports
- Waste Analyses/Determinations
- Personnel Training Program & Records
- Inspections (weekly for containers, monthly for safety equipment)
- Waste Minimization Program

All of the above records have been confirmed to be maintained in 2014 through interviews with the ITRCC staff. The ITRCC is operating under a single EPA waste ID for all its facilities, IND078918000. This is the original EPA ID number for the Toll Road under previous management. At the time of application for the ID, IDEM requested that the ITRCC obtain separate EPA ID numbers for each bridge. However, because of an ITRCC request, IDEM agreed to a single EPA ID number for the entire ITR, considering it one contiguous facility.

As a result the Large Quantity generator status applied to the EPA waste ID, all ITRCC facilities under the ID must comply with LQG requirements. This may include toll plazas, maintenance buildings, administrative buildings, storage structures, etc.

Should the ITRCC opt to continue with a single EPA waste ID, the ITRCC should seek clarification on the extent of the ITR facilities that are considered to fall under the EPA ID. A majority of the hazardous waste generated by the ITR comes from bridge paint and sandblasting.

Bridges are currently being repainted along the ITR. Prior to repainting, the old paint is removed through sandblasting. The age of the bridges is such that lead based paint may be present. The sandblasting waste from each bridge is sampled and analyzed for proper waste determination. The analytical results are primarily reviewed to determine if the waste is hazardous for the toxicity characteristic of lead (D008). Even though the contractor packages the sandblasting hazardous waste and preparing it for shipment as the "offerer," but that does not relieve the ITRCC of Large Quantity Generator requirements (70 FR 10776).

Hazardous wastes may not be kept on site by large quantity generators for more than 90 days without modifying the regulatory status of the facility to a treatment, storage and disposal site (40 CFR 265), and other materials cannot be stored in designated hazardous storage areas. Areas previously defined as hazardous storage areas at each maintenance facility have been reclassified for use as material storage or storage of used oil which relieve them of certain inspection requirement for those areas. Employees must be appropriately trained to ensure that no hazardous waste is then stored in these areas to comply with requirements and instead store any future hazardous waste separately and in a correct fashion.

The ITRCC uses the HMIS labeling system for hazardous materials which is a four bar label with numerical values indicating the level of hazard in different hazard categories: Health, Flammability, Reactivity and Protective Equipment. Some containers, primarily at maintenance facilities, were found unlabeled. OSHA regulations require that all virgin chemicals be labeled and RCRA and DOT regulations require that hazardous wastes be labeled. Some containers at facilities along the visit were found without any label or identification. It is recommended training should continue to raise staff awareness of proper container labeling, storage, etc.

New OSHA Standards have been created to be consistent with the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS). As a result, labeling requirement for all related chemicals must be compliant with the new standards by June, 15, 2015. All affected employees are to be trained on the new standard by December 1, 2013. Training documentation needs to be maintained and available.

The US Environmental Protection Agency requires that all persons involved in the handling, labeling, manifesting and shipment of hazardous wastes for large quantity generators receive annual training on the facility RCRA Contingency Plan. This is required in all contracts with vendors who generate waste such as bridge painters. Some contractors have contingency plans more stringent than the IFA produced plan. The US Department of Transportation requires that all persons involved in the labeling, completion of bills of lading and shipment of hazardous materials receive HAZMAT Shippers training every three years. Providing this information is required in all contracts with vendors who generate waste on ITRCC or IFA behalf such as bridge painters. Documents need to be maintained and available.

The Environmental Manager distributes a monthly reminder email to all pertinent employees reminding these employees of proper reporting requirements for hazardous waste generation, spill reporting, and other helpful environmental information. ITRCC employees are not allowed to perform actions related to hazardous waste shipping.

Empty barrels, if not triple washed, should be contained indoors or covered in secondary containment. Improvements in empty barrels storage were noted during field visits. This practice should be continued.

Storage of flammable materials is strictly regulated under 29 CFR 1926.152. According to these regulations:

1. Not more than 60 gallons of Category 1, 2 and/or 3 flammable liquids or 120 gallons of Category 4 flammable liquids shall be stored in any one storage cabinet. Not more than three such cabinets may be located in a single storage area.
2. Quantities in excess of this shall be stored in an inside storage room.
3. Inside storage rooms shall be constructed to meet the required fire-resistive rating for their use.
4. No more than 25 gallons of flammable liquids shall be stored in a room outside of an approved storage cabinet. For storage of liquefied petroleum gas, see 1926.153

Storage of flammable materials has improved since last year. Flammable storage closets were found to be closed, well organized and without any conflicting materials.

6.5.3 Universal Waste Such as Lamps and Lead Acid Batteries

Universal waste handlers are required to:

1. Designate and maintain a secure and orderly universal waste accumulation area.
2. Store universal wastes in the appropriate US DOT approved containers for shipping, with the containers upright and closed when not in use.
3. Provide secondary containment for liquid pesticides, batteries and mercury.
4. Appropriately label universal wastes and mark the accumulation start date on each container.

The ITR generates Universal Wastes and are regulated under 40 CFR 273. Universal Wastes include lamps, batteries, used electronics and mercury containing equipment. A small quantity handler of universal waste may accumulate less than 11,000 pounds (5,000 kg) of total universal waste, (i.e., batteries, pesticides, mercury thermostats or mercury containing lamps) for periods up to one year. Universal waste handlers are required to manage universal wastes in a way that prevents releases of any universal waste or component of a universal waste to the environment. ITRCC employees are trained in the proper management of Universal Wastes by being required to review a PowerPoint presentation on Multi-share. The training, as well as the training documents, should continue to be maintained and reviewed with appropriate staff.

Universal wastes were found to be better organized and properly stored including batteries, light bulbs and e-waste.

Training should continue to be conducted to inform employees on the distinction between universal waste and hazardous waste. Training documents should continue to be updated to meet current guidelines in 40 CFR 273.

7.5.4 Used Oil

The ITRCC generates used oil, regulated under 40 CFR 279, at maintenance facilities along the ITR. Used oil is stored in tanks and containers which are subject to Spill Prevention Control and Countermeasures (40 CFR 112) requirements. SPCC requirements are addressed below in section 6.5.6 of this report. Used oil is not considered waste if it is intended to be recycled. Used oil, should therefore not be stored with waste or in waste containment, but separately in designated areas. Containers and tanks of used oil should be stored with covers closed to reduce evaporation of used oil, reduce the possibility of spills and minimize the likelihood of contamination. Any amount of used oil, if mixed with any amount of a hazardous waste, reclassifies the used oil as hazardous waste and increases handling requirements and disposal fees. Used oil should not be mixed with windshield wiper solution, antifreeze, etc. All oil drain pans or other equipment containing spent used oil need to be labeled at maintenance facilities.

7.5.5 Waste Tires

On November 9, 2000 waste tire management regulations were revised under 329 IAC 15. Indiana code (13-20) was changed to read, shops that generate 12 or more tires per year must keep records indicating the number of tires generated, and how these tires are managed. The ITRCC maintains copies of the waste tire manifests received from the waste tire transporter. These documents are to be maintained for one (1) year.

7.5.6 Spill Prevention Control and Countermeasures Plan

Per 40 CFR 112.5(b) a review and evaluation of the SPCC Plan must be completed every five (5) years. The SPCC plans are present at appropriate locations throughout the ITR.

ITRCC employees are trained to respond only to small spills. Small spills (likely oil) are dealt with by applying oil-dry. According to an interview with a maintenance worker, oil-dry is reused to saturation and then moved to a drum for disposal. For larger spills, employees are instructed to contact a third party contractor that will respond to and remediate the spill.

To take measures to endure proper control of maintenance related contamination, the ITRCC installed new containment berms in each maintenance facility. The employees have been trained to perform all maintenance to vehicles within these berms. These new habits must be reinforced periodically to ensure that employees do not deviate from this practice.

The drainage design in all maintenance areas is still such that spills are not necessarily directed to the appropriate floor drains (which pass through an oil water separator).

Instead, oil contaminated water has the potential to overflow onto the parking lot and enter an open storm water conveyance system. Spills can result from vehicle oil changes, overturned or



Figure 7.5: Visible Signage at All Travel Plazas

leaking drums, lead acid batteries, and other liquid contained within the maintenance areas. The implications of this for stormwater contamination and permitted discharges will be discussed further in section 6.9 Stormwater Management.

SPCC training is required for employees with oil handling responsibilities. Current training records for all employees with oil handling responsibilities should be made easily available.

There were sixty-five (65) patron spills or releases along the ITR during 2014. The patrons are responsible for remediation of the contamination. Spill remediation reports are maintained by the Environmental Manager when the patrons or their consultants submit them.

7.5.7 Training and Education

Training is discussed throughout this report. Many environmental and safety regulations require training to affected employees. A compliance review of the ITRCC training program should be kept under review to ensure that it is complete and up to date.

7.6 Underground Storage Tanks

ITRCC operates seventy-one (71) underground storage tanks (USTs) throughout various facilities, such as the Administration Building, Maintenance Areas, Toll Plazas, and Travel Plazas. The tanks are primarily used for the storage of gasoline and diesel fuel. In order to closely monitor the various underground fuel storage tanks, ITRCC has been contracting outside services to test for tank and piping system leakage and corrosion. The USTs are continuously monitored for leak detection by the Veeder-Root system. The piping tightness and

leak detection tests are conducted on an annual basis to confirm tightness.

Fuel management units (FuelMaster) have been installed at ITRCC gasoline and diesel fuel tanks that vend fuel to vehicles (i.e., are not for backup generators). The majority of these systems were installed in 1998-1999. There are three USTs that do not have Veeder-Root systems at Travel Plaza 1, 7, and 8. These are not currently required by regulation, but may be in the future. In August 2012, the ITRCC began the Veeder-Root Improvement Project which involved installation of relays and an automatic reporting system that meet current UST monitoring requirements. FuelMaster fuel management system improvements involved establishing communication and return to operations at remote sites.



Figure 7.6: Veeder-Root Control Panel

Section 1524 of the Energy Policy Act of 2005 stated that the EPA, in coordination with States, must develop training guidelines for three distinct classes of operators who operate and maintain federally-regulated underground storage tank systems. On August 8, 2007, EPA published the operator training guidelines. States not meeting the 2009 deadline must ensure all three classes of operators are trained according to state-specific training requirements by August 8, 2012. ITRCC has been staying current on the associated IDEM rule for applicable regulations to ITR sites. The ITRCC has trained over twenty (20) Class B and Class A operators in compliance with the IDEM training and certification program.

Gasoline Dispensing Facilities (GDF) not otherwise covered by an air permit are subject to the 40 CFR 63 Subpart CCCCCC. Additional information is located in the air section of this report.

7.7 Air

The ITRCC has recently acquired a permit for their paint booth at the LaGrange maintenance facility which has been brought back in service in 2014. This is the only paint booth of five (5) that will be put in service. The booth was observed at the time of the audit to be functioning properly. The others will remain closed. The details of the permit are detailed below in Table B7.12: Air Permit Details. This is currently the only air permit or registration regarding air quality.

Location	Source ID	Permit Number	Date of Issue
Paint Booth – M-4 MP 114.4	087-00087	087-33948-00087	01/17/2014

Table 7.12: Air Permit Details

The following activities associated with the ITR commonly contribute to air emissions:

1. Emergency Generators – RICE NESHEP, 40 CFR 63 ZZZZ
2. Boilers
3. Leaking Underground Storage Tank¹ (LUST) remediation activities
4. Maintenance Facility Activities: used oil storage, parts washers, etc.
5. Wastewater treatment activities
6. Fueling stations

The National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Category: Gasoline Dispensing Facilities, 40 CFR 63 Subpart CCCCCC was published on January 10, 2008 in the Federal Register. It applies to all existing and new gasoline dispensing facilities (GDF) that are not otherwise covered by a major source permit.

¹ As a condition of the lease all LUST activities are the responsibility of the IFA, owner of the toll road and have no association with the ITRCC

Notification for GDF with a throughput of greater than 10,000 gallons per month was completed in 2010. Compliance with the standard which includes recordkeeping and possible retrofits was achieved by January 10, 2011.



Figure 7.7: Example of Fueling Station

Parts washers were observed to be closed when not in use. An initiative is underway to change the current solvent used by the parts washers from DynaClean, a solvent used to remove grease, to a solvent with lower flammability and hazardous properties. This practice is highly commended. As each washer runs out of DynaClean, the solvent will be changed out.

Refrigerant storage, recycling and disposal is regulated under 40 CFR 82 *Protection of Stratospheric Ozone*. Storage of units with refrigerant still in them brings the risk of the refrigerant leaking into the atmosphere resulting in an adverse environmental impact and possible EPA violation (40 CFR 82.154 (a)(1) - (2)) The refrigerant in each air conditioner must be evacuated by a State of Indiana certified Air Conditioning Technician unless the appliance has five (5) pounds or less of a class I or class II substance used as a refrigerant. Proof of the evacuations for all of the air conditioners must be maintained. Once an invoice is received for the recycling / incineration, no further record keeping is required. Out of service air conditioning units were found stored at Porter Maintenance in the south west storage barn without any indication if they have been evacuated.

Currently, the ITRCC has State Certified Air Conditioning Technicians in its employment.

Due to the age of the facilities, many of them built in 1956, asbestos may be present. Prior to demolition or remodeling, a review for the presence of asbestos should be performed. Asbestos studies for ITRCC buildings have been completed and reports are on file.

7.8 Herbicides and Pesticides

The pesticides and herbicides being used on the ITR contain chemicals that are available to the general population for home use. Every attempt is made to purchase only what is needed to avoid excess storage. ITRCC endeavors to follow the proper storage, application and PPE of all herbicides and pesticides in accordance with manufactures regulations and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The ITRCC currently has seven (7) registered technicians that are able to apply chemicals for the purpose of Right of Way management along the ITR.

7.9 Storm Water Management

There are six (6) storm water structural best management practice structures (BMPs) installed at Travel Plaza 8 North and South. These structures are designed to remove sediment, floatables, and oils and greases from storm water prior to discharge off-site. The units require periodic maintenance to remove the materials that accumulate.

Other considerations for storm water quality best management practices include maintaining closed dumpsters for trash and steel recycling and better management of areas surrounding salt domes, including removal of spilled salt.

7.9.1 Other Point Source Discharges

The ITRCC currently does not maintain NPDES permits for their five (5) vehicle maintenance facilities. Indiana Rule 6 (see 327 IAC 15-6-2) outlines the types of facilities that are required to have NPDES permits based on SIC code. The ITRCC is operating their vehicle maintenance facilities under the code 4173, *Terminal and Service Facilities for Motor Vehicle Passenger Transportation*. According to Indiana Rule 6, facilities with SIC code 4173 must have an NPDES permit for discharging storm water associated with industrial activity. Facilities with this SIC code may only discharge storm water without a permit if they do not have any industrial activities exposed to storm water, and submit a signed certification to IDEM stating this.

Each maintenance facility with exception of the Porter Maintenance oil-water separator, discharges stormwater or water used within the maintenance areas either through an oil-water separator or through surface flow to an open stormwater conveyance system. This could reasonably be considered discharge associated with industrial activity and therefore would constitute an NPDES permit for each of the four (4) facilities. Porter Maintenance may also require a permit if it cannot be shown that all activity within the maintenance areas is appropriately contained.

High pressure lubricants have been stored unprotected and uncontained outdoor at the Calumet Entry MP 5 parking lot. This lot is currently leased as a way station for certain shipping companies. In order to ensure that pollutants are not discharged into Indiana State waters (a condition which would require a NPDES permit; 40 CFR 122) petroleum products of this nature should be stored covered and with secondary containment that can handle 10% of the total volume of the material or the largest container, whichever is greater in volume.

In the past, free RV dump stations were operated at Travel Plazas 3, 5, and 7 which have since been removed from use. In order to eliminate the potential for illegal dumping of materials the ITRCC has responded by permanently capping the dump stations with concrete. This action is highly commendable.



Figure 7.8: Permanently capped dump station at Travel Plaza 3

7.10 Community Right-to-Know

Under the Superfund Amendments and Reauthorization Act (SARA), Tier II Emergency and Hazardous Chemical Inventory forms are submitted by March 1 of each year to IDEM, local fire departments, and Local Emergency Planning Committees (LEPC). The ITRCC has continued to comply with this requirement.

MP	Location	Forms Submitted to Local Emergency Planning Committees
156	Maintenance Salt Storage Area	Completed
153	East Point Toll Plaza	Completed
137	Steuben Maintenance	Completed
56	Travel Plaza 7 WWTP	Completed
114	LaGrange Maintenance	Completed
99	Salt Storage MP - 99 WB	Completed
87.1	Elkhart Maintenance	Completed
87	Administration Building	Completed
72.9	4N Maintenance Storage Building	Completed
125.8	Travel Plaza 3 WWTP	Completed
52	LaPorte Maintenance	Completed
37.5 E	2 South Salt Storage Area	Completed
23	Porter Maintenance	Completed
4.6	Lake Maintenance	Completed

Table 7.13: Community Right-to-Know Hazardous Chemical Inventory Forms

A Toxic Release Inventory (TRI or Form R) is not required because the ITRCC does not fall under an SIC code covered by the regulation (40 CFR 372).

7.11 Materials Management

The ITR stores and stockpiles many materials inside and outside throughout the entire length of the ITR. These materials include, but are not limited to:

1. Pesticides
2. Petroleum products
3. Scrap metal (empty used drums, tanks, damaged guardrail, old sign trusses, road signage, etc.)
4. Paints
5. Cement
6. Cold patch

7. Recycle material (ground up asphalt pavement)
8. Solvents
9. Brush, wood, untreated lumber, wooden pallets
10. Plastic, corrugated metal, and concrete reinforced piping
11. Concrete culvert boxes and manhole rings
12. Obsolete machinery
13. Construction materials for reuse, abandoned by contractors or considered waste
14. Old tires
15. Road sweepings
16. Pavement markers
17. Sand, stone, riprap, and other fill materials
18. Deer/Animal carcass and sawdust
19. Old limestone
20. Impact attenuators

Outdoor, uncovered storage of the above-listed items could contribute pollutants to stormwater runoff. Removing or reducing the amount of stockpiled materials will reduce the potential of these sites being designated solid waste disposal facilities. Much of the stockpiled material is surplus and is not being stored for future use.

Best management practices of surplus materials include:

- Sell or recycling or disposal of materials that will not be used by the ITRCC. Please note that there is a significant amount of scrap metal including steel, aluminum and electronic materials that has monetary value.
- Conduct an inventory of the materials that may likely be used. This inventory will prevent the purchase of materials that are already on-site and will increase the chance that the materials may be used before their useful life has expired.
- Mark the locations and extents of allowed storage. Particular attention should be made for mislabeled containers. Find indoor storage or hard surface with tarping whenever possible of materials that may release pollutants to runoff. Protect stockpiled materials, including closing open dumpsters, from wind erosion.
- Require contractors to use specified lay down areas. Include requirements in standard conditions of construction contracts for the contractor to remove all construction materials including pipe, casting, prefabricated concrete castings, etc. prior to closing out a job (paying the retainage) unless otherwise approved by the ITRCC.

7.12 Regulatory Compliance

Numerous State and Federal environmental regulations continue to be promulgated regarding such topics as underground fueling systems, wastewater effluent discharge limits, potable water quality, hazardous waste disposal, air quality, storm water quality, groundwater protection, industrial hygiene, and other related topics. Environmental inspection and enforcement are expected to increase. ITRCC has already seen an increase in IDEM inspections. It is expected that the permit burden on the ITRCC will not decrease in the foreseeable future.

Volume III of III, Environmental Management Manual of the Concession and Lease Agreement for the Indiana Toll Road defines a scope of work for an Environmental Management Plan to ensure that ITRCC has considered, trained, addressed, and planned for situations that could be deemed as creating an endangerment to human health or the environment within or adjacent to the ITR. This Plan has been generated and will be reviewed and revised on an annual basis. The report should be reviewed by all ITRCC to find opportunities for continuous improvement.

7.13 Additional Initiatives

ITRCC has continued to show initiative in developing programs to encourage protecting our environment and natural resources.

In October of 2012, a Sustainability Study was performed by an outside third party. Of 40 assets, the ITR scored 2.93 of a goal of 3 compared to an industry average of 2.63. This should be celebrated.

ITRCC has formed a standing committee to maintain and implement the Energy Management Plan. A monthly email poster is sent to all employees as a reminder to save energy by the Energy Committee. The Environmental Manager distributes a monthly report to ITR managers outlining the amount of energy being used.

The usage of LP gas, natural gas, and electricity are tracked and reported monthly to accounting with a year over year comparison. Utilities are broken down into four groups (Administration Building, Toll Collection Facilities, Roadway Maintenance, and Roadway Lighting).