

## MINI-SCOPE

Des No: 0501205

Roadway: I-64

Limits: From 0.13 miles East of SR 61 to 0.95 miles East of SR 68/SR 161 (RP 39.15 to RP 52.00)

County: Warrick

Date: January 25, 2007

### A. Project Location:



The major pavement project is on I-64 from 0.13 miles East of SR 61 to 0.95 miles East of SR 68/SR 161 (RP 39.15 to RP 52.00) in Warrick County in the Vincennes District.

### B. Purpose and Need

The existing pavement condition is deteriorating. The purpose of the project is to restore rideability and extend service life.

### C. Existing Conditions

Functional Class: Rural Interstate

Nat'l Truck Network: Yes

NHS: Yes

2002 AADT: 14820

% Trucks: 57

% DHV: 8

PQI: 78 (Fair)

IRI: 88 (Good)

RUT: 0.33 (Poor)

PCR: 90 (Excellent)

History: Built in 1975, Full Depth Asphalt. Deep patched and resurfaced in 1996.

Pavement Type: Asphalt

Existing Geometry:

Rdwy Wd: 39'

Ln Wd: 12'

Outside Pvd Shldr: 11'

Inside Pvd. Shldr: 4'

4R Design Manual Minimum Guidelines are:

Rdwy Wd: 39'

Ln Wd: 12'

Outside Pvd Shldr: 11'

Inside Pvd. Shldr: 4'

**D. Crash Data**

Crash Data should be reviewed by the designer. Problem areas should be incorporated with the design.

**E. Traffic Forecasts**

I-64 is classified as a Rural Interstate. 2002 traffic data has been provided. The designer should request future traffic forecasts from the INDOT Traffic Forecasting section. According to the INDOT Design Manual, the project should be designed based on 20 year traffic forecasts.

**F. Other Information**

1. **Widening** – The existing cross section is sufficient – no widening required.
2. **Guardrail** – There are several bridges and guardrail runs with substandard guardrail and end treatments. There are other locations where new guardrail may be warranted. These areas should be looked at for inclusion/upgrade if possible.
3. **Structures** –The Vincennes Bridge Inspection Engineer has identified seven large culverts that are recommended for replacement within the project limits. Please see Attachment 1. Pipes and other small structures should be inspected by the designer. Deficient structures should be included in this project. The Tell City Sub District identified thirteen small pipes that need replacement. See Attachment 2 for Tell City Sub District’s small structure replacement recommendations.
4. **Other Projects within Limits:**

DES	Location	Feature	Type	Letting
0501207	On I-64 from RP 56.97 to 66.00	From Bridge over Southern RR to Spencer CL	HMA Overlay, Functional	9/15/2009

**G. Project Recommendations**

1. The existing cross section complies with INDOT design criteria for a 4R project.
2. Preliminary pavement recommendations from Dave Andrews are to construct the project as a 4R job.
3. Repair westbound bridge approach for bridge located over Little Red Creek (RP 50.71).
4. Upgrade/Install new guardrail where warranted.
5. Replace deficient structures where applicable and apply for necessary permits.

**Estimated Cost = \$ 23.5 Million**

**H. Project Specific Supplemental Information**

1. Large Culvert Data – Attachment 1.
2. Small Structure Inspections – Attachment 2.
3. Cores – Dave Dallas, Vincennes Pavement Design Engineer, is to schedule.
4. Environmental Document – Will be developed by Vincennes Planning and Programming.

# **Attachment 1**

## **Large Culvert Data**

## Large Culvert Data from Vincennes Bridge Inspection Engineer

### Large Culvert Data From RP 39.15 to RP 52.00

Large Culvert	Location	Description	Additional Description	Ref Post	Pavement/Wearing Surface	Estimated Remaining Life	Overall Rating	Recommendations
W-I-64-87-39.38	W-I-64( WEST BOUND OFF RAMP TO SR61) 0+13 MILE EAST OF JCT SR 61	Corrugated Metal Pipe	4 X 2 SMP	39.38	7	5	5	REPLACEMENT NEEDED
E-W-I-64-87-39.46	E-W-I-64 (AND EAST BOUND ON RAMP FROM SR 61	Corrugated Metal Pipe	4 X 2 SMP	39.46	7	5	5	REPLACEMENT NEEDED
E-W-I-64-87-40.33	E-W-I-64 1+04 MILE EAST OF JCT SR 61	Corrugated Metal Pipe	4 X 4 MP	40.33	5	5	5	REPLACEMENT NEEDED
E-W-I-64-87-40.55	E-W-I-64 1+26 MILE EAST OF JCT SR 61	Corrugated Metal Pipe	4' 9" X 4' 9" MP	40.55	7	5	5	REPLACEMENT NEEDED
E-W-I-64-87-42.46	E-W-I-64 3+16 MILE EAST OF JCT SR 61	Corrugated Metal Pipe	5 X 5 MP / PAVED INVERT	42.46	6	10	6	REPLACEMENT NEEDED
W-I-64-87-49.25	E-I-64 4+38 MILE WEST OF JCT SR 161	Corrugated Metal Pipe	9 X 9 MMP / PAVED INVERT	49.25	8	10	6	REPLACEMENT NEEDED
E-I-64-87-49.28	E-I-64 9+97 MILE EAST OF JCT SR 61	Corrugated Metal Pipe	9 X 9 MMP / PAVED INVERT	49.28	7	10	6	REPLACEMENT NEEDED
E-W-I-64-87-51.10	E-W-I-64 11+80 MILE EAST OF JCT SR 61	Corrugated Metal Pipe	5 X 5 MP	51.1	7	5	6	REPLACEMENT NEEDED

# **Attachment 2**

## **Small Structure Inspections**

## Pipe Inspections from Tell City Sub District

Des No.: 501205	<b>Location Key:</b>	<b>Type Key:</b>		
Route: I-64	R-Right Side	BC-Box Culvert	CB-Catch Basin	S-Squash Pipe
Location: RP 39.15 to RP 52.00	L-Left Side	MP-Metal Pipe	PSD-Paved Side Ditch	ST-Slab Top
Length: 12.22 miles	M-Median	VC-Vitrified Clay	SD-Slotted Drain	PSD-Paved Side Ditch
County: Warrick	H-Highway	C-Concrete Pipe	MPP-Multi-plate	FT-Farm Tile
District: Vincennes	C-County	P-Plastic Pipe	PL-Plastic Liner	I-Inlet

Ref. Post	Location	Type	Size	Length	Recommendations
40.51	M	MP	12"	100'	Pipe is rusted - Replace
40.87	M	MP	12"	75'	Pipe is rusted - Replace
41.23	M	MP	12"	75'	Pipe is rusted - Replace
41.24	M	MP	12"	75'	Pipe is rusted - Replace
41.38	H	MP	36"	150'	Pipe is rusted - Replace
42.04	H	PL	28"	200'	Sink hole sucking at outlet side - Repair
43.05	H	MP	36"	150'	Pipe is rusted - Replace
43.10	H	MP	36"	150'	Pipe is rusted - Replace
43.55	H	MP	12"	110'	Pipe is rusted - Replace
44.38	M	MP	12"	?	Inlet flowline caved in - Replace
46.77	H	MP	18"	100'	Pipe is rusted - Replace
50.98	M	MP	15"	100'	Pipe is rusted - Replace
50.96	M	MP	18"	100'	Pipe is rusted - Replace