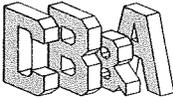




CALHOUN-BURNS AND ASSOCIATES, INC.
BRIDGES ♦ STRUCTURES ♦ TRANSPORTATION

CITY OF WEST BRANCH
2011
BRIDGE INSPECTION AND RATING



TRANSMITTAL

Date: August 15, 2011

To: Matt Muckler, City Administrator
 City of West Branch
 110 North Poplar Street
 West Branch, IA 52358

Project: City of West Branch
 2011 Bridge Inspection
 CB&A No. 2011175

ITEMS TRANSMITTED:

Drawing Number	Copies	Description
	1	Bridge Listing Certification
	1	Bridge Rating Summary
	4	Bridge Rating Packets (Including SI&A form, Photographs, Bridge Inspection Report, Calculations and Scour Stability Worksheets if necessary)

For your Information/Review	<input checked="" type="checkbox"/>		
No Exception Taken	<input type="checkbox"/>	Rejected	<input type="checkbox"/>
Make Corrections Noted	<input type="checkbox"/>	Submit Specified Item	<input type="checkbox"/>
Revise and Resubmit	<input type="checkbox"/>	Return One Corrected Copy	<input type="checkbox"/>

REMARKS:

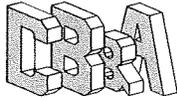
Underwater inspections were not required for these structures; therefore, a master list was not prepared.

The SI&A information in the Iowa DOT database has been updated.

This completes the 2011 Bridge Inspection Program for the City of West Branch as requested.

Thank you.

By: 
 Michael A. Vander Wert, P.E.
 President



CITY OF WEST BRANCH BRIDGE INSPECTION AND RATING - 2011

The following bridges were inspected and the completed reports submitted:

<u>FHWA No.</u>	<u>Location</u>
012371	Main Street (over W. BR. Wapsinonic creek)
012380	College Street (over W. BR. Wapsinonic creek)
018431	Main Street (over Drainage Ditch)
102161	300 th Street (over W. BR. Wapsinonic Creek)

Also enclosed is a summary tabulation of all bridges and structures indicating the major deficiencies, recommended signs/postings, and additional remarks for some bridges. You should refer to the actual reports and computations before taking any action on the summary tabulations.

I hereby certify that this plan, specifications, or report was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.



Michael A. Vander Wert
 Signature

August 15, 2011
 Date

My Registration expires December 31, 2011



CALHOUN-BURNS AND ASSOCIATES, INC.
 CONSULTING ENGINEERS
 WEST DES MOINES, IOWA

**CITY OF WEST BRANCH
 2011 BRIDGE RATING SUMMARY**

Bridge No. FHWA No. Street Name	T-R-Sec	Len. Wid.	Bridge Type	ADT	Year Built			Condition Ratings			Current Postings		SR	Est Rem Life	Yr Fq	Remarks
					Deck	Sup	Sub	Cul	OL	N	Load					
102161 300TH ST.	79-04-17	91 30	CONTINUOUS CONCRETE SLAB	80	8	8	8	N		<input type="checkbox"/>	<input type="checkbox"/>	NONE	100	40	11	
012380 COLLEGE ST.	79-04-05	31 19.7	STEEL I-BEAM	930	5	4	4	N		<input type="checkbox"/>	<input checked="" type="checkbox"/>	NONE	41	4	11	MONITOR BEAM CORROSION & PILE DECAY CLOSELY. CONSIDER REPLACEMENT.
012371 MAIN ST.	79-04-08	70 40	CONTINUOUS CONCRETE SLAB	4070	7	7	7	N		<input type="checkbox"/>	<input type="checkbox"/>	NONE	98	30	11	MONITOR CRACKING & LEACHING DECK.
018431 MAIN ST.	79-04-07	20	TWIN R.C.B. CULVERT	3370	N	N	N	7		<input type="checkbox"/>	<input type="checkbox"/>	NONE	97	25	11	

Date Printed: 8/15/2011

* Sufficiency Rating 098

* Do Not Change

Note:

IDENTIFICATION COUNTY ENGR.

* COUNTY/CITY CEDAR WEST BRANCH
 COUNTY ID 16
 * 8 STRUCTURE NO 012371
 * 5 INVENTORY ROUTE 0
 2 STATE AREA NO 6
 6 FEATURES CROSSED W BRANCH WAPSINONIC CRE
 7 FACILITY CARRIED MAIN ST
 9 LOCATION 0 0000000
 11 MILE POINT 0.000
 98 BORDER BRIDGE CODE 000 SHARE 00 %
 * 99 BORDER BRIDGE NO

INSPECTIONS

90 INSPECTION DATE 06 / 11
 91 FREQUENCY 24 MO
 92 CRITICAL FEATURE INSPECTION Y/N
 93 CFI DATE
 A FRACTURE CRIT DETAIL N MO A MO YR
 B UNDERWATER INSP N MO B MO YR
 C OTHER SPECIAL INSP N MO C MO YR
 Inspected By: MICHAEL P. CAVEN
 Consulting Firm Name: CALHOUN-BURNS & ASSOC.

STRUCTURE TYPE AND MATERIAL

43 MAIN STRUCTURE TYPE 201
 44 APPROACH TYPE NEAR 0 FAR 0
 45 NO OF SPANS - MAIN 2
 46 NO OF APPR SPANS NEAR 00 FAR 00
 107 DECK TYPE 1
 108 WEARING SURFACE/PROTECTIVE SYSTEM 1 0 0

CONDITION

58 DECK POP OUTS, CRACKS, SIDEWALK SPALLED, RATING (9-0) 7
FENCE DAMAGED
 59 SUPER MAP CRACKING AT EDGES, LEACHING 7
 60 SUB MINOR CRACKS 8 7
 61 CHAN & PROT MINOR DRIFT 7
 62 CULV N

AGE AND SERVICE

27 YEAR BUILT 1989
 106 YEAR RECONST 0000
 42 TYPE OF SERVICE 15
 28 LANES: ON 2 UNDER 0
 * 29 EST AVE DAILY TRAFFIC 4070
 * 30 YEAR ADT 2006
 * 109 TRUCK ADT 00 % (PRIMARY ONLY)
 19 BYPASS, DETOUR LENGTH 6.000

LOAD RATING AND POSTING

31 DESIGN LOAD 5 64 OPERATING RATING ~~45.0~~ 88.6 66 INVENTORY RATING 36.0
 63 METHOD USED - OPERATING RATING 5- 1 65 METHOD USED - INVENTORY RATING 5- 1
 70 BRIDGE POSTING 5 41 STRUCTURE OPEN, POSTED OR CLOSED A
 POSTED
 CALC OPER 428 472 540 599 640 699
 CALC INV 420 443 530 562 630 673

GEOMETRIC DATA

48 LONGEST SPAN 35 112 NBIS BR 0
 49 STRUCTURE LENGTH 70
 50 CURB OR SIDEWALK: RT 0.0 LT 0.0
 51 BR RDWY WIDTH C-C 40.0
 52 DECK WIDTH O-O 43.3
 32 APPR RDWY WIDTH (W/ SHOULDERS) 41
 33 BRIDGE MEDIAN NONE
 34 SKEW 0
 35 STRUCTURE FLARED NO
 10 MIN VERT CLEAR 3m LANE 99 99
 47 TOTAL HORIZ CLEAR RT 0 00 LT
 53 VERT CLEAR OVER BR RDWY RT 99 99 LT
 54 VERT UNDERCLEAR RT N 0 00
 55 LAT UNDERCLEAR RT N 0 00
 56 LAT UNDERCLEAR LT

APPRAISAL

67 STRUC EVAL LEGAL RATING (9-0) 7
 68 DECK GEO 5
 69 UNDERCLEAR, VERT & HORI N
 71 WATER ADQ 7
 72 APP RDWY ALIG OVERLAY 8
 36 TRAFFIC SAFETY FEATURES 1000 113 SCOUR CRIT BR 8

NAVIGATION DATA

38 NAVIGATION CONTROL 0
 111 PIER PROTECTION
 39 NAV VERT CLEARANCE 0
 116 VERT-LIFT BR NAV MIN VERT CLEAR 00.0
 40 NAVIGATION HORIZ CLEAR 0

PROPOSED IMPROVEMENTS

75 TYPE OF WORK 381 76 LENGTH OF STRUCT. IMP 70
 94 BRIDGE IMP. COST (1000's) 15 95 RDWY. IMPROVE COST (1000's) 2
 96 TOTAL PROJ. COST (1000's) 22 97 YEAR IMPROVE ESTIMATE MADE 2009

CLASSIFICATION

101 PARALLEL HIGHWAY N 103 TEMPORARY STRUCTURE
 102 DIRECTION OF TRAFFIC 2 *26 FUNC. CL 07 MAJ COLL
 20 TOLL 3 21 MAINTAIN 04 22 OWNER 04

LAST RECORDED INSPECTION 05/ 2009 NO POSTING REQUIRED. MONITOR CRACKING AND LEACHING DECK.



ROAD VIEW LOOKING WEST



SIDE VIEW LOOKING NORTH



UNDER VIEW LOOKING WEST AT PIER



CRACKED TOP OF SLAB (TYPICAL)



**FENCE REPAIRED AT NORTHWEST,
LOOKING SOUTHEAST**



**CRACKING & LEACHING UNDERSIDE OF
SLAB NEAR EAST ABUTMENT, LOOKING
EAST**



Bridge No.	Bridge Type	CONTINUOUS CONCRETE SLAB	Date	6/17/2011
FHWA No. 012371	Crossing (over)	W. BR. WAPSINONIC CREEK	Inspector	MPC
Street Name MAIN ST.	Township	SPRINGDALE	City	WEST BRANCH
Sect. 08 T- 79 N, R- 04 W	Suff. Rating	98	Est. Remaining Life	30 Yrs
ADT	4070	Year Built	1989	
Operating Rating 88.6	Inventory Rating 53.0	Fracture Critical	<input type="checkbox"/>	Item 113 Code 8
		Yr. Reconst.		

POSTED LOAD LIMITS

Posted	<input type="checkbox"/> One Lane	Object
Loading	<input type="checkbox"/> Narrow	Markers
Legibility:	-	-
Visibility:	-	-
Comments:	NONE	NONE
	NONE	NONE

72. APPR. ALIGNMENT COND. RATING REMARKS

1. Alignment	8	
2. Approach Slab	7	OVERLAYED
3. Relief Joints	-	
4. Approach - Guardrail	NONE	
Pavement	7	
Embankment	7	
INSPECTOR'S CONDITION RATING	8	

58. DECK ITEM CONDITION RATING REMARKS

1. Wearing Surface	7	FEW POP-OUTS, TRANSV. CRACKS, LONGIT. CRACKS
2. Deck- Structural Condition	7	CRACKS UNDERSIDE w/ LEACHING
3. Curbs	-	
4. Median	-	
5. Sidewalks	7	SMALL SPALL @ SW.
6. Parapet	-	
7. Railing	7	CRACKS
8. Paint	-	
9. Drains	-	
10. Lighting Standards	-	
11. Utilities	7	RCP UNDER W. FOOTING, N. SIDE UNDER
12. Joint Leakage	-	
13. Expansion Joints and Devices	-	
14. Record Elevations (if available) @ CL Brgs and Spans	-	

INSPECTOR'S CONDITION RATING **7**

59. SUPERSTRUCTURE

1. Bearing Devices	-	
2. Stringers	-	
Lateral Support ()		
3. Girders/Beams	7	18 1/2" SLAB, MINOR MAP CRACKS @ EDGE, CRACKS & LEACHING UNDER
Lateral Support (SLAB)		
4. Floor Beams	-	
Lateral Support ()		
5. Trusses - General	-	
Portals	-	
Bracing	-	
6. Paint	-	
7. Machinery (Movable Spans)	-	
8. Rivets or Bolts	-	
9. Welds - Cracks	-	
10. Rust	-	
11. Timber Decay	-	
12. Concrete Cracking	7	
13. Collision Damage	-	
14. Deflection Under Load	8	
15. Alignment of Members	-	
16. Vibration Under Load	8	

INSPECTOR'S CONDITION RATING **7**

CONDITION RATING

(Use for SIA items 58, 59, 60, 61, 62, 62)

 Date: 6/17/2011
 City: WEST BRANCH
 Bridge No. _____
 Street Name: MAIN ST.

- N Not Applicable
 9 Excellent Condition
 8 Very Good Condition - No problems noted.
 7 Good Condition - Some minor problems.
 6 Satisfactory Condition - Structural Elements show minor deterioration
 5 Fair Condition - Primary structural elements have minor section loss, spalling, cracking or scour.
 4 Poor Condition - Advanced section loss, deterioration, spalling or scour. Posting for some truck traffic is warranted.
 3 Serious Condition - Primary structural elements affected by section loss, deterioration, cracking or scour. Posting for most truck traffic is warranted immediately.
 2 Critical Condition - Advanced deterioration of concrete or steel and/or critical scour. Structure should be closed to all traffic.
 1 "Imminent" Failure Condition - Major deterioration of structural elements. Structure is closed but corrective action may allow light service.
 0 Failed Condition - Out of service and beyond repair.

<u>ITEM</u>	<u>CONDITION RATING</u>	<u>REMARKS</u>
60. SUBSTRUCTURE		
1. Abutments - Caps	-	
Wings	8	
Backwall	-	
Footing	8	
Piles	-	
Erosion	7	
Settlement	-	
2. Piers or Bents - Caps	8	
Columns	7	MINOR CRACKS
Footings	-	
Piles	-	
Scour	7	
Settlement	-	
3. Pile Bents	-	
4. Concrete Cracking	7	
5. Steel Corrosion	-	
6. Timber Decay	-	
7. Debris on Seats	-	
8. Paint	-	
9. Collision Damage	-	

INSPECTOR'S CONDITION RATING 7**61.CHANNEL CHANNEL PROTECTION**

1. Channel Scour	7	
2. Embankment Erosion	7	
3. Drift	7	MINOR
4. Vegetation	7	
5. Channel Change	-	
6. Fender System	-	
7. Spur Dikes and Jetties	-	
8. Riprap	7	EROSION STONE
9. Adequacy of Opening	7	
10. Channel Depth (Top of Deck to Streambed)	-	

INSPECTOR'S CONDITION RATING 7**62.CULVERT RETAINING WALLS**

1. Barrel - Concrete	-	
Steel	-	
Timber	-	
2. Headwall	-	
3. Cut-off Wall	-	
4. Adequacy	-	
5. Debris	-	

INSPECTOR'S CONDITION RATING N

Date Printed: 8/15/2011

* Sufficiency Rating 041

* Do Not Change

Note:

IDENTIFICATION COUNTY ENGR.
 * COUNTY/CITY CEDAR WEST BRANCH
 COUNTY ID 16
 *⁸ STRUCTURE NO 012380
 *⁵ INVENTORY ROUTE 0
 2 STATE AREA NO 6
 6 FEATURES CROSSED W BRANCH WAPSINONIC CRE
 7 FACILITY CARRIED COLLEGE ST
 9 LOCATION 0 0000000
 11 MILE POINT 0.000
 98 BORDER BRIDGE CODE 000 SHARE 00 %
 *⁹⁹ BORDER BRIDGE NO

INSPECTIONS
 90 INSPECTION DATE 06 / 11
 91 FREQUENCY 24 MO
 92 CRITICAL FEATURE INSPECTION Y/N
 93 CFI DATE
 A FRACTURE CRIT DETAIL N MO A MO YR
 B UNDERWATER INSP N MO B MO YR
 C OTHER SPECIAL INSP N MO C MO YR
 Inspected By: MICHAEL P. CAVEN
 Consulting Firm Name: CALHOUN-BURNS & ASSOC.

STRUCTURE TYPE AND MATERIAL
 43 MAIN STRUCTURE TYPE 302
 44 APPROACH TYPE NEAR 0 FAR 0
 45 NO OF SPANS - MAIN 1
 46 NO OF APPR SPANS NEAR 00 FAR 00
 107 DECK TYPE 8
 108 WEARING SURFACE/PROTECTIVE SYSTEM 7 0 0

CONDITION RATING (9-0)
 58 DECK SAND IN GUTTERS, WORN, SPLINTERS, DECAYED RAIL 5
 59 SUPER SEVERE CORROSION WITH SECTION LOSS 4
 60 SUB CAPS CORRODED, DECAYED & BOWED BACKWALL, SEVERE PILE DECAY, EROSION 4
 61 CHAN & PROT 7
 62 CULV N

AGE AND SERVICE
 27 YEAR BUILT 1940
 106 YEAR RECONST 1985
 42 TYPE OF SERVICE 15
 28 LANES: ON 2 UNDER 0
 *²⁹ EST AVE DAILY TRAFFIC 930
 *³⁰ YEAR ADT 2006
 *¹⁰⁹ TRUCK ADT 00 % (PRIMARY ONLY)
 19 BYPASS, DETOUR LENGTH 1.000

LOAD RATING AND POSTING
 31 DESIGN LOAD 0 64 OPERATING RATING 3.0 30.0 66 INVENTORY RATING 24.1
 63 METHOD USED - OPERATING RATING 2 65 METHOD USED - INVENTORY RATING 2
 70 BRIDGE POSTING 5 41 STRUCTURE OPEN, POSTED OR CLOSED A
 POSTED "NARROW"
 CALC OPER 427 544 645
 CALC INV 422 536 637

GEOMETRIC DATA
 48 LONGEST SPAN 29 112 NBIS BR 0
 49 STRUCTURE LENGTH 31
 50 CURB OR SIDEWALK: RT 0.0 LT 4.0
 51 BR RDWY WIDTH C-C 19.7
 52 DECK WIDTH O-O 24.3
 32 APPR RDWY WIDTH (W/ SHOULDERS) 28
 33 BRIDGE MEDIAN NONE
 34 SKEW 0
 35 STRUCTURE FLARED NO
 10 MIN VERT CLEAR 3m LANE 99 99
 47 TOTAL HORIZ CLEAR RT 0 00 LT
 53 VERT CLEAR OVER BR RDWY RT 99 99 LT
 54 VERT UNDERCLEAR RT N 0 00
 55 LAT UNDERCLEAR RT N 0 00
 56 LAT UNDERCLEAR LT

APPRAISAL RATING (9-0)
 67 STRUC EVAL LEGAL 4
 68 DECK GEO NARROW 2
 69 UNDERCLEAR, VERT & HORI N
 71 WATER ADQ 6
 72 APP RDWY ALIG ON CREST, HILL, PAVEMENT SETTLED, GUARDRAIL DAMAGED 6
 36 TRAFFIC SAFETY FEATURES 0000 113 SCOUR CRIT BR 8

NAVIGATION DATA
 38 NAVIGATION CONTROL 0
 111 PIER PROTECTION
 39 NAV VERT CLEARANCE 0
 116 VERT-LIFT BR NAV MIN VERT CLEAR 00.0
 40 NAVIGATION HORIZ CLEAR 0
 LAST RECORDED INSPECTION 05/ 2009

PROPOSED IMPROVEMENTS
 75 TYPE OF WORK 311 76 LENGTH OF STRUCT. IMP 75
 94 BRIDGE IMP. COST (1000's) 249 95 RDWY. IMPROVE COST (1000's) 25
 96 TOTAL PROJ. COST (1000's) 381 97 YEAR IMPROVE ESTIMATE MADE 2009

CLASSIFICATION
 101 PARALLEL HIGHWAY N 103 TEMPORARY STRUCTURE
 102 DIRECTION OF TRAFFIC 2 *²⁶ FUNC. CL 09 LOCAL
 20 TOLL 3 21 MAINTAIN 04 22 OWNER 04

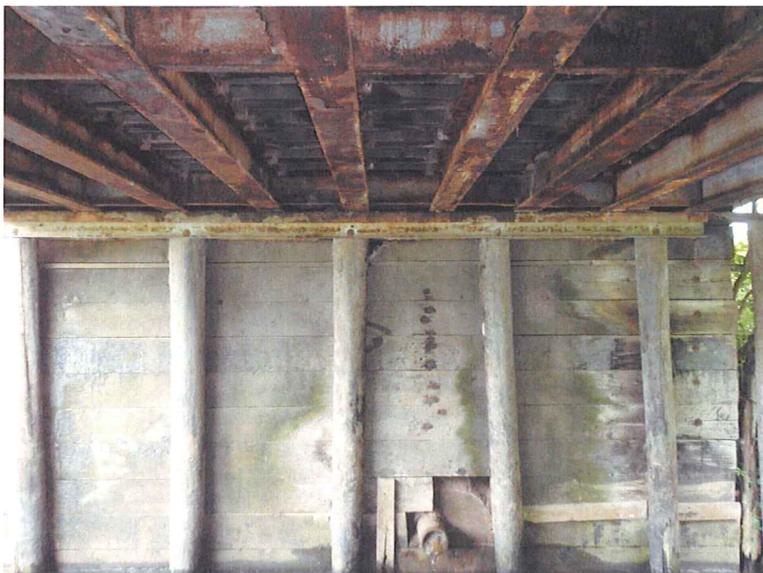
NO LOAD POSTING REQUIRED. KEEP "NARROW". MONITOR BEAM CORROSION AND PILE DECAY CLOSELY. CONSIDER REPLACEMENT.



ROAD VIEW LOOKING WEST



SIDE VIEW LOOKING SOUTH



UNDER VIEW LOOKING EAST



STEEP SIDEWALK APPROACH, LOOKING EAST



TIPPED WEST BACKWALL, LOOKING SOUTH



TYPICAL BEAM CORROSION & DELAMINATION



POOR SIDEWALK DETAIL, LOOKING WEST

**DECAYED EAST ABUTMENT PILES,
1ST - 3RD FROM SOUTH (TYPICAL)**



**DECAYED EAST ABUTMENT PILE, 1ST FROM
NORTH, LOOKING SOUTHEAST**



Bridge No.	Bridge Type	STEEL I-BEAM	Date	6/17/2011
FHWA No. 012380	Crossing (over)	W. BR. WAPSINONIC CREEK	Inspector	MPC
Street Name COLLEGE ST.	Township	SPRINGDALE	City	WEST BRANCH
Sect. 05 T- 79 N, R- 04 W	Suff. Rating	41	Est. Remaining Life	4 Yrs
ADT	930	Year Built	1940	
Operating Rating 30.0	Inventory Rating 24.1	Fracture Critical	<input type="checkbox"/>	Item 113 Code 8
		Yr. Reconst.	1985	

POSTED LOAD LIMITS

Posted	<input type="checkbox"/> One Lane	Object
Loading	<input checked="" type="checkbox"/> Narrow	Markers
Legibility:	-	7
Visibility:	-	7
Comments:	NONE	LOW, SMALL

72. APPR. ALIGNMENT COND. RATING REMARKS

1. Alignment	5	ON CREST, HILL W.
2. Approach Slab	-	
3. Relief Joints	-	
4. Approach - Guardrail	6	3 OF 4 CORNERS, DAMAGE,
Pavement	6	SETTLED POST DECAY
Embankment	6	
INSPECTOR'S CONDITION RATING	5	

58. DECK ITEM CONDITION RATING REMARKS

1. Wearing Surface	5	SAND IN GUTTERS, 3 x 12 LONGIT. ON 3 x 12 @ 24"
2. Deck- Structural Condition	5	WORN, SPLINTERS
3. Curbs	-	
4. Median	-	
5. Sidewalks	4	STEEP APPROACHES, PARTIALLY SUPPORTED BY TRANSV. PLANK CANTILEVER
6. Parapet	-	
7. Railing	5	RUSTY, DECAYED
8. Paint	4	PEELING
9. Drains	-	
10. Lighting Standards	-	
11. Utilities	-	
12. Joint Leakage	-	
13. Expansion Joints and Devices	-	
14. Record Elevations (if available) @ CL Brgs and Spans	-	
INSPECTOR'S CONDITION RATING	5	

59. SUPERSTRUCTURE

1. Bearing Devices	4	CORRODED
2. Stringers	-	
Lateral Support ()		
3. Girders/Beams	4	10- 12 1/4 x 8 x 5/8 @ ~ 28 1/2" O.C., DIAPHRAGM @ MIDPOINT, CLIPPED, SEVERE
Lateral Support (3')		CORROSION W/ SECTION LOSS
4. Floor Beams	-	
Lateral Support ()		
5. Trusses - General	-	
Portals	-	
Bracing	-	
6. Paint	3	
7. Machinery (Movable Spans)	-	
8. Rivets or Bolts	-	
9. Welds - Cracks	-	
10. Rust	4	
11. Timber Decay	-	
12. Concrete Cracking	-	
13. Collision Damage	-	
14. Deflection Under Load	5	
15. Alignment of Members	5	
16. Vibration Under Load	5	
INSPECTOR'S CONDITION RATING	4	

CONDITION RATING

(Use for SIA items 58, 59, 60, 61, 62, 62)

Date: 6/17/2011
 City: WEST BRANCH
 Bridge No. _____
 Street Name: COLLEGE ST.

- N Not Applicable
- 9 Excellent Condition
- 8 Very Good Condition - No problems noted.
- 7 Good Condition - Some minor problems.
- 6 Satisfactory Condition - Structural Elements show minor deterioration
- 5 Fair Condition - Primary structural elements have minor section loss, spalling, cracking or scour.
- 4 Poor Condition - Advanced section loss, deterioration, spalling or scour. Posting for some truck traffic is warranted.
- 3 Serious Condition - Primary structural elements affected by section loss, deterioration, cracking or scour. Posting for most truck traffic is warranted immediately.
- 2 Critical Condition - Advanced deterioration of concrete or steel and/or critical scour. Structure should be closed to all traffic.
- 1 "Imminent" Failure Condition - Major deterioration of structural elements. Structure is closed but corrective action may allow light service.
- 0 Failed Condition - Out of service and beyond repair.

<u>ITEM</u>	<u>CONDITION RATING</u>	<u>REMARKS</u>
60. SUBSTRUCTURE		
1. Abutments - Caps	3	<i>CORRODED, FLAT 10" CHANNEL @ SIDEWALK</i>
Wings	5	<i>NE. BOWED, PLANKS SEPARATING @ SE.</i>
Backwall	5	<i>HOLE @ E. FROM UTILITY DECAYED, BOWED</i>
Footing	-	
Piles	4	<i>#1 F.N. @ E. SPLITTING IN FLEXURE, #2 F.S. SEVERE DECAY, OTHERS ADVANCED DECAY</i>
Erosion	5	<i>FLOWS ALONG E. ABUTMENT</i>
Settlement	-	
2. Piers or Bents - Caps	-	
Columns	-	
Footings	-	
Piles	-	
Scour	-	
Settlement	-	
3. Pile Bents	-	
4. Concrete Cracking	-	
5. Steel Corrosion	5	
6. Timber Decay	4	<i>5 PILE SUBSTRUCTURES, PLUS 1 UNDER WALK</i>
7. Debris on Seats	-	
8. Paint	-	
9. Collision Damage	-	

INSPECTOR'S CONDITION RATING 4

61. CHANNEL CHANNEL PROTECTION

1. Channel Scour	7	
2. Embankment Erosion	6	<i>@ NE.</i>
3. Drift	7	
4. Vegetation	7	
5. Channel Change	-	
6. Fender System	-	
7. Spur Dikes and Jetties	-	
8. Riprap	5	<i>RUBBLE IN CHANNEL, ON BANKS</i>
9. Adequacy of Opening	6	
10. Channel Depth (Top of Deck to Streambed)	-	

INSPECTOR'S CONDITION RATING 7

62. CULVERT RETAINING WALLS

1. Barrel - Concrete	-	
Steel	-	
Timber	-	
2. Headwall	-	
3. Cut-off Wall	-	
4. Adequacy	-	
5. Debris	-	

INSPECTOR'S CONDITION RATING N

Date Printed: 8/15/2011

* Sufficiency Rating 097

*Do Not Change

Note:

IDENTIFICATION COUNTY ENGR.
 *COUNTY/CITY CEDAR WEST BRANCH
 COUNTY ID 16
 *8 STRUCTURE NO 018431
 *5 INVENTORY ROUTE 0
 2 STATE AREA NO 6
 6 FEATURES CROSSED DRAINAGE DITCH
 7 FACILITY CARRIED MAIN ST
 9 LOCATION 0 0000000
 11 MILE POINT 0.000
 98 BORDER BRIDGE CODE 000 SHARE 00 %
 *99 BORDER BRIDGE NO

INSPECTIONS
 90 INSPECTION DATE 06 / 11
 91 FREQUENCY 24 MO
 92 CRITICAL FEATURE INSPECTION Y/N
 93 CFI DATE
 A FRACTURE CRIT DETAIL N MO A MO YR
 B UNDERWATER INSP N MO B MO YR
 C OTHER SPECIAL INSP N MO C MO YR
 Inspected By: MICHAEL P. CAVEN
 Consulting Firm Name: CALHOUN-BURNS & ASSOC.

STRUCTURE TYPE AND MATERIAL
 43 MAIN STRUCTURE TYPE 219
 44 APPROACH TYPE NEAR 0 FAR 0
 45 NO OF SPANS - MAIN 2
 46 NO OF APPR SPANS NEAR 00 FAR 00
 107 DECK TYPE N
 108 WEARING SURFACE/PROTECTIVE SYSTEM N N N

CONDITION RATING (9-0)
 58 DECK N
 59 SUPER N
 60 SUB N
 61 CHAN & PROT 8
 62 CULV MINOR CRACKS & SPALLS 7

AGE AND SERVICE
 27 YEAR BUILT 1978
 106 YEAR RECONST 0000
 42 TYPE OF SERVICE 15
 28 LANES: ON 2 UNDER 0
 *29 EST AVE DAILY TRAFFIC 3370
 *30 YEAR ADT 2002
 *109 TRUCK ADT 00 % (PRIMARY ONLY)
 19 BYPASS, DETOUR LENGTH 10.000

LOAD RATING AND POSTING
 31 DESIGN LOAD 5 64 OPERATING RATING 45.0 48.6 66 INVENTORY RATING 36.0
 63 METHOD USED - OPERATING RATING 5 65 METHOD USED - INVENTORY RATING 5
 70 BRIDGE POSTING 5 41 STRUCTURE OPEN, POSTED OR CLOSED A
 POSTED
 CALC OPER 428 540 640
 CALC INV 420 530 630

GEOMETRIC DATA
 48 LONGEST SPAN 10 112 NBIS BR 0
 49 STRUCTURE LENGTH 20
 50 CURB OR SIDEWALK: RT 0.0 LT 0.0
 51 BR RDWY WIDTH C-C
 52 DECK WIDTH O-O .0
 32 APPR RDWY WIDTH (W SHOULDERS) 34
 33 BRIDGE MEDIAN NONE
 34 SKEW 0
 35 STRUCTURE FLARED NO
 10 MIN VERT CLEAR 3m LANE 99 99
 47 TOTAL HORIZ CLEAR RT 0 00 LT
 53 VERT CLEAR OVER BR RDWY RT 99 99 LT
 54 VERT UNDERCLEAR RT N 0 00
 55 LAT UNDERCLEAR RT N 0 00
 56 LAT UNDERCLEAR LT

APPRAISAL RATING (9-0)
 67 STRUC EVAL LEGAL 7
 68 DECK GEO N
 69 UNDERCLEAR, VERT & HORI N
 71 WATER ADQ 8
 72 APP RDWY ALIG H.M.A. CRACKS, GUARDRAIL DAMAGE 8
 36 TRAFFIC SAFETY FEATURES 1010 113 SCOUR CRIT BR 8

NAVIGATION DATA
 38 NAVIGATION CONTROL 0
 111 PIER PROTECTION
 39 NAV VERT CLEARANCE 0
 116 VERT-LIFT BR NAV MIN VERT CLEAR 00.0
 40 NAVIGATION HORIZ CLEAR 0
 LAST RECORDED INSPECTION 05 / 2009 NO POSTING REQUIRED.

PROPOSED IMPROVEMENTS
 75 TYPE OF WORK 381 76 LENGTH OF STRUCT. IMP 25
 94 BRIDGE IMP. COST (1000's) 15 95 RDWY. IMPROVE COST (1000's) 2
 96 TOTAL PROJ. COST (1000's) 22 97 YEAR IMPROVE ESTIMATE MADE 2009

CLASSIFICATION
 101 PARALLEL HIGHWAY N 103 TEMPORARY STRUCTURE
 102 DIRECTION OF TRAFFIC 2 *26 FUNC. CL 07 MAJ COLL
 20 TOLL 3 21 MAINTAIN 04 22 OWNER 04



ROAD VIEW LOOKING EAST

SIDE VIEW LOOKING SOUTH





**RIPRAP ADDED AT NORTH SIDE,
LOOKING WEST**

**SPALLING SOUTHEAST WING, LOOKING
NORTHWEST**





Bridge No.	_____	Bridge Type	<i>TWIN R.C.B. CULVERT</i>	Date	<i>6/17/2011</i>
FHWA No.	<i>018431</i>	Crossing (over)	<i>DRAINAGE DITCH</i>	Inspector	<i>MPC</i>
Street Name	<i>MAIN ST.</i>	Township	<i>SPRINGDALE</i>	City	<i>WEST BRANCH</i>
Sect. <i>07 T- 79 N, R- 04 W</i>	Suff. Rating <i>97</i>	Est. Remaining Life	<i>25 Yrs</i>	ADT	<i>3370</i>
Operating Rating <i>48.6</i>	Inventory Rating <i>36.0</i>	Fracture Critical	<input type="checkbox"/>	Item 113 Code	<i>8</i>
				Year Built	<i>1978</i>
				Yr. Reconst.	_____

POSTED LOAD LIMITS

Posted	<input type="checkbox"/> One Lane	Object
Loading	<input type="checkbox"/> Narrow	Markers
Legibility:	-	-
Visibility:	-	-
Comments:	<i>NONE</i>	<i>NONE</i>
		<i>REFLECTORS</i>

72. APPR. ALIGNMENT COND. RATING REMARKS

1. Alignment	<i>8</i>	
2. Approach Slab	-	
3. Relief Joints	-	
4. Approach - Guardrail	<i>6</i>	<i>MINOR DAMAGE</i>
Pavement	<i>7</i>	<i>HMA, CRACKS</i>
Embankment	<i>7</i>	<i>TREE @ SW.</i>
INSPECTOR'S CONDITION RATING	<i>8</i>	

58. DECK ITEM CONDITION RATING REMARKS

1. Wearing Surface	-	
2. Deck- Structural Condition	-	
3. Curbs	-	
4. Median	-	
5. Sidewalks	-	
6. Parapet	-	
7. Railing	-	
8. Paint	-	
9. Drains	-	
10. Lighting Standards	-	
11. Utilities	-	
12. Joint Leakage	-	
13. Expansion Joints and Devices	-	
14. Record Elevations (if available) @ CL Brgs and Spans	-	
INSPECTOR'S CONDITION RATING	<i>N</i>	

59. SUPERSTRUCTURE

1. Bearing Devices	-	
2. Stringers	-	
Lateral Support ()		
3. Girders/Beams	-	
Lateral Support ()		
4. Floor Beams	-	
Lateral Support ()		
5. Trusses - General	-	
Portals	-	
Bracing	-	
6. Paint	-	
7. Machinery (Movable Spans)	-	
8. Rivets or Bolts	-	
9. Welds - Cracks	-	
10. Rust	-	
11. Timber Decay	-	
12. Concrete Cracking	-	
13. Collision Damage	-	
14. Deflection Under Load	-	
15. Alignment of Members	-	
16. Vibration Under Load	-	
INSPECTOR'S CONDITION RATING	<i>N</i>	

CONDITION RATING

(Use for SIA items 58, 59, 60, 61, 62, 62)

 Date: 6/17/2011
 City: WEST BRANCH
 Bridge No. _____
 Street Name: MAIN ST.

- N Not Applicable
- 9 Excellent Condition
- 8 Very Good Condition - No problems noted.
- 7 Good Condition - Some minor problems.
- 6 Satisfactory Condition - Structural Elements show minor deterioration
- 5 Fair Condition - Primary structural elements have minor section loss, spalling, cracking or scour.
- 4 Poor Condition - Advanced section loss, deterioration, spalling or scour. Posting for some truck traffic is warranted.
- 3 Serious Condition - Primary structural elements affected by section loss, deterioration, cracking or scour. Posting for most truck traffic is warranted immediately.
- 2 Critical Condition - Advanced deterioration of concrete or steel and/or critical scour. Structure should be closed to all traffic.
- 1 "Imminent" Failure Condition - Major deterioration of structural elements. Structure is closed but corrective action may allow light service.
- 0 Failed Condition - Out of service and beyond repair.

<u>ITEM</u>	<u>CONDITION RATING</u>	<u>REMARKS</u>
60. SUBSTRUCTURE		
1. Abutments - Caps	-	
Wings	-	
Backwall	-	
Footing	-	
Piles	-	
Erosion	-	
Settlement	-	
2. Piers or Bents - Caps	-	
Columns	-	
Footings	-	
Piles	-	
Scour	-	
Settlement	-	
3. Pile Bents	-	
4. Concrete Cracking	-	
5. Steel Corrosion	-	
6. Timber Decay	-	
7. Debris on Seats	-	
8. Paint	-	
9. Collision Damage	-	
INSPECTOR'S CONDITION RATING		N

61.CHANNEL CHANNEL PROTECTION		
1. Channel Scour	8	
2. Embankment Erosion	8	@ NW. & NE. (REPAIRED)
3. Drift	7	UTILITY ACROSS CHANNEL N., PEDESTRIAN BRIDGE DOWNSREAM
4. Vegetation	7	
5. Channel Change	-	
6. Fender System	-	
7. Spur Dikes and Jetties	-	
8. Riprap	-	
9. Adequacy of Opening	8	
10. Channel Depth (Top of Deck to Streambed)	-	
INSPECTOR'S CONDITION RATING		8

62.CULVERT RETAINING WALLS		
1. Barrel - Concrete	7	MINOR CRACKS
Steel	-	
Timber	-	
2. Headwall	7	SE. WING SPALLED
3. Cut-off Wall	-	
4. Adequacy	8	
5. Debris	7	
INSPECTOR'S CONDITION RATING		7

Date Printed: 8/15/2011

* Sufficiency Rating 100

*Do Not Change

Note: BROS-16(10)

IDENTIFICATION COUNTY ENGR.

*COUNTY/CITY **CEDAR**

COUNTY ID **102161**

*8 STRUCTURE NO **102161**

*5 INVENTORY ROUTE **0**

2 STATE AREA NO **6**

6 FEATURES CROSSED **W BR WAPSINONOC CREEK**

7 FACILITY CARRIED **300TH ST**

9 LOCATION **079041705**

11 MILE POINT **0.000**

98 BORDER BRIDGE CODE **000** SHARE **00 %**

*99 BORDER BRIDGE NO

INSPECTIONS

90 INSPECTION DATE **06 / 11**

91 FREQUENCY **24** MO

92 CRITICAL FEATURE INSPECTION Y/N

93 CFI DATE

A FRACTURE CRIT DETAIL **N** MO A MO YR

B UNDERWATER INSP **N** MO B MO YR

C OTHER SPECIAL INSP **N** MO C MO YR

Inspected By: **MICHAEL P. CAVEN**

Consulting Firm Name: **CALHOUN-BURNS & ASSOC.**

STRUCTURE TYPE AND MATERIAL

43 MAIN STRUCTURE TYPE **201**

44 APPROACH TYPE NEAR **0** FAR **0**

45 NO OF SPANS - MAIN **3**

46 NO OF APPR SPANS NEAR **00** FAR **00**

107 DECK TYPE **1**

108 WEARING SURFACE/PROTECTIVE SYSTEM **1 0 0**

CONDITION RATING (9-0)

58 DECK **ROCK IN GUTTERS** **8**

59 SUPER **8**

60 SUB **SPALLS** **8**

61 CHAN & PROT **TREES** **8**

62 CULV **N**

AGE AND SERVICE

27 YEAR BUILT **1997**

106 YEAR RECONST **0000**

42 TYPE OF SERVICE **15**

28 LANES: ON **2** UNDER **0**

*29 EST AVE DAILY TRAFFIC **80**

*30 YEAR ADT **2002**

*109 TRUCK ADT **00** % (PRIMARY ONLY)

19 BYPASS, DETOUR LENGTH **5.000**

LOAD RATING AND POSTING

31 DESIGN LOAD **5** 64 OPERATING RATING **67.8** 66 INVENTORY RATING **39.7**

63 METHOD USED - OPERATING RATING **1** 65 METHOD USED - INVENTORY RATING **1**

70 BRIDGE POSTING **5** 41 STRUCTURE OPEN, POSTED OR CLOSED **A**

POSTED

CALC OPER **435** **550** **650**

CALC INV **428** **540** **640**

GEOMETRIC DATA

48 LONGEST SPAN **34** 112 NBIS BR **0**

49 STRUCTURE LENGTH **91**

50 CURB OR SIDEWALK: RT **0.0** LT **0.0**

51 BR RDWY WIDTH C-C **30.0**

52 DECK WIDTH O-O **32.1**

32 APPR RDWY WIDTH (W/ SHOULDERS) **23**

33 BRIDGE MEDIAN **NONE**

34 SKEW **0**

35 STRUCTURE FLARED **NO**

10 MIN VERT CLEAR 3m LANE **99 99**

47 TOTAL HORIZ CLEAR RT **0 00** LT

53 VERT CLEAR OVER BR RDWY RT **99 99** LT

54 VERT UNDERCLEAR RT **N 0 00**

55 LAT UNDERCLEAR RT **N 0 00**

56 LAT UNDERCLEAR LT

APPRAISAL RATING (9-0)

67 STRUC EVAL **LEGAL** **8**

68 DECK GEO **7**

69 UNDERCLEAR, VERT & HORI **N**

71 WATER ADQ **8**

72 APP RDWY ALIG **8**

36 TRAFFIC SAFETY FEATURES **1110** 113 SCOUR CRIT BR **8**

NAVIGATION DATA

38 NAVIGATION CONTROL **0**

111 PIER PROTECTION

39 NAV VERT CLEARANCE **0**

116 VERT-LIFT BR NAV MIN VERT CLEAR **00.0**

40 NAVIGATION HORIZ CLEAR **0**

LAST RECORDED INSPECTION **05 / 2009** **NO POSTING REQUIRED.**

PROPOSED IMPROVEMENTS

75 TYPE OF WORK **381** 76 LENGTH OF STRUCT. IMP **91**

94 BRIDGE IMP. COST (1000's) **15** 95 RDWAY. IMPROVE COST (1000's) **2**

96 TOTAL PROJ. COST (1000's) **22** 97 YEAR IMPROVE ESTIMATE MADE **2009**

CLASSIFICATION

101 PARALLEL HIGHWAY **N** 103 TEMPORARY STRUCTURE

102 DIRECTION OF TRAFFIC **2** *26 FUNC. CL **09 LOCAL**

20 TOLL **3** 21 MAINTAIN **02** 22 OWNER **02**



ROAD VIEW LOOKING EAST



SIDE VIEW LOOKING SOUTH



UNDER VIEW LOOKING WEST



Bridge No.	_____	Bridge Type	<i>CONTINUOUS CONCRETE SLAB</i>	Date	<i>6/17/2011</i>
FHWA No.	<i>102161</i>	Crossing (over)	<i>W. BR. WAPSINONOC CREEK</i>	Inspector	<i>MPC</i>
Street Name	<i>300TH ST.</i>	Township	<i>SPRINGDALE</i>	City	<i>WEST BRANCH</i>
Sect. <i>17 T- 79 N, R- 04 W</i>	Suff. Rating <i>100</i>	Est. Remaining Life	<i>40</i> Yrs	ADT	<i>80</i>
Operating Rating <i>67.8</i>	Inventory Rating <i>39.7</i>	Fracture Critical	<input type="checkbox"/>	Item 113 Code	<i>8</i>
				Year Built	<i>1997</i>
				Yr. Reconst.	_____

POSTED LOAD LIMITS

Posted	<input type="checkbox"/> One Lane	Object
Loading	<input type="checkbox"/> Narrow	Markers
Legibility:	-	<i>8</i>
Visibility:	-	<i>8</i>
Comments:	<i>NONE</i>	<i>NONE</i>

72. APPR. ALIGNMENT COND. RATING REMARKS

1. Alignment	<i>8</i>	
2. Approach Slab	-	
3. Relief Joints	-	
4. Approach - Guardrail	<i>7</i>	
Pavement	-	
Embankment	<i>8</i>	
INSPECTOR'S CONDITION RATING	<i>8</i>	

58. DECK

ITEM	CONDITION RATING	REMARKS
1. Wearing Surface	<i>8</i>	<i>ROCK IN GUTTERS</i>
2. Deck- Structural Condition	<i>8</i>	
3. Curbs	-	
4. Median	-	
5. Sidewalks	-	
6. Parapet	-	
7. Railing	<i>8</i>	
8. Paint	-	
9. Drains	-	
10. Lighting Standards	-	
11. Utilities	-	
12. Joint Leakage	-	
13. Expansion Joints and Devices	-	
14. Record Elevations (if available) @ CL Brgs and Spans	-	
INSPECTOR'S CONDITION RATING	<i>8</i>	

59. SUPERSTRUCTURE

1. Bearing Devices	-	
2. Stringers	-	
Lateral Support ()		
3. Girders/Beams	<i>8</i>	
Lateral Support (<i>SLAB</i>)		
4. Floor Beams	-	
Lateral Support ()		
5. Trusses - General	-	
Portals	-	
Bracing	-	
6. Paint	-	
7. Machinery (Movable Spans)	-	
8. Rivets or Bolts	-	
9. Welds - Cracks	-	
10. Rust	-	
11. Timber Decay	-	
12. Concrete Cracking	<i>8</i>	
13. Collision Damage	-	
14. Deflection Under Load	<i>9</i>	
15. Alignment of Members	-	
16. Vibration Under Load	<i>9</i>	
INSPECTOR'S CONDITION RATING	<i>8</i>	

CONDITION RATING

(Use for SIA items 58, 59, 60, 61, 62, 62)

Date: 6/17/2011
 City: WEST BRANCH
 Bridge No. _____
 Street Name: 300TH ST.

- N Not Applicable
- 9 Excellent Condition
- 8 Very Good Condition - No problems noted.
- 7 Good Condition - Some minor problems.
- 6 Satisfactory Condition - Structural Elements show minor deterioration
- 5 Fair Condition - Primary structural elements have minor section loss, spalling, cracking or scour.
- 4 Poor Condition - Advanced section loss, deterioration, spalling or scour. Posting for some truck traffic is warranted.
- 3 Serious Condition - Primary structural elements affected by section loss, deterioration, cracking or scour. Posting for most truck traffic is warranted immediately.
- 2 Critical Condition - Advanced deterioration of concrete or steel and/or critical scour. Structure should be closed to all traffic.
- 1 "Imminent" Failure Condition - Major deterioration of structural elements. Structure is closed but corrective action may allow light service.
- 0 Failed Condition - Out of service and beyond repair.

<u>ITEM</u>	<u>CONDITION RATING</u>	<u>REMARKS</u>
60. SUBSTRUCTURE		
1. Abutments - Caps	-	
Wings	B	
Backwall	-	
Footing	B	
Piles	-	
Erosion	B	
Settlement	-	
2. Piers or Bents - Caps	B	
Columns	-	
Footings	-	
Piles	B	SPALLS E.
Scour	B	
Settlement	-	
3. Pile Bents	B	
4. Concrete Cracking	B	
5. Steel Corrosion	-	
6. Timber Decay	-	
7. Debris on Seats	-	
8. Paint	-	
9. Collision Damage	-	

INSPECTOR'S CONDITION RATING B

61. CHANNEL CHANNEL PROTECTION		
1. Channel Scour	B	
2. Embankment Erosion	B	
3. Drift	B	
4. Vegetation	6	TREES UNDER BRIDGE & AROUND
5. Channel Change	-	
6. Fender System	-	
7. Spur Dikes and Jetties	-	
8. Riprap	B	BOTH ABUTMENTS
9. Adequacy of Opening	B	
10. Channel Depth (Top of Deck to Streambed)	-	

INSPECTOR'S CONDITION RATING B

62. CULVERT RETAINING WALLS		
1. Barrel - Concrete	-	
Steel	-	
Timber	-	
2. Headwall	-	
3. Cut-off Wall	-	
4. Adequacy	-	
5. Debris	-	

INSPECTOR'S CONDITION RATING N