

Bridge No. BC 8019

Aliceanna Street at Central Avenue over
Harford Run

Routine Inspection

2009

BRIDGE INSPECTION PROGRAM

City of Baltimore Contract #1105



Presented by:  STV

In association with:
Modjeski & Masters, Inc.
Sabra, Wang & Associates, Inc.
Tuhin Basu & Associates, Inc.
M&N Engineering and Diving, Inc.

2009 BALTIMORE CITY BRIDGE INSPECTION

BRIDGE NO. BC 8019

ALICEANNA STREET AT CENTRAL AVENUE OVER HARFORD RUN

Amanda D. Schindhelm, P.E.

Date

Professional Certification - I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 27713, Expiration Date: July 12, 2012.

This inspection report was prepared under my supervision. The condition data and recommendations contained within this report are based on a visual inspection of accessible portions of the existing structure. No responsibility is accepted for the existence of latent defects, which cannot be detected during visual inspection.

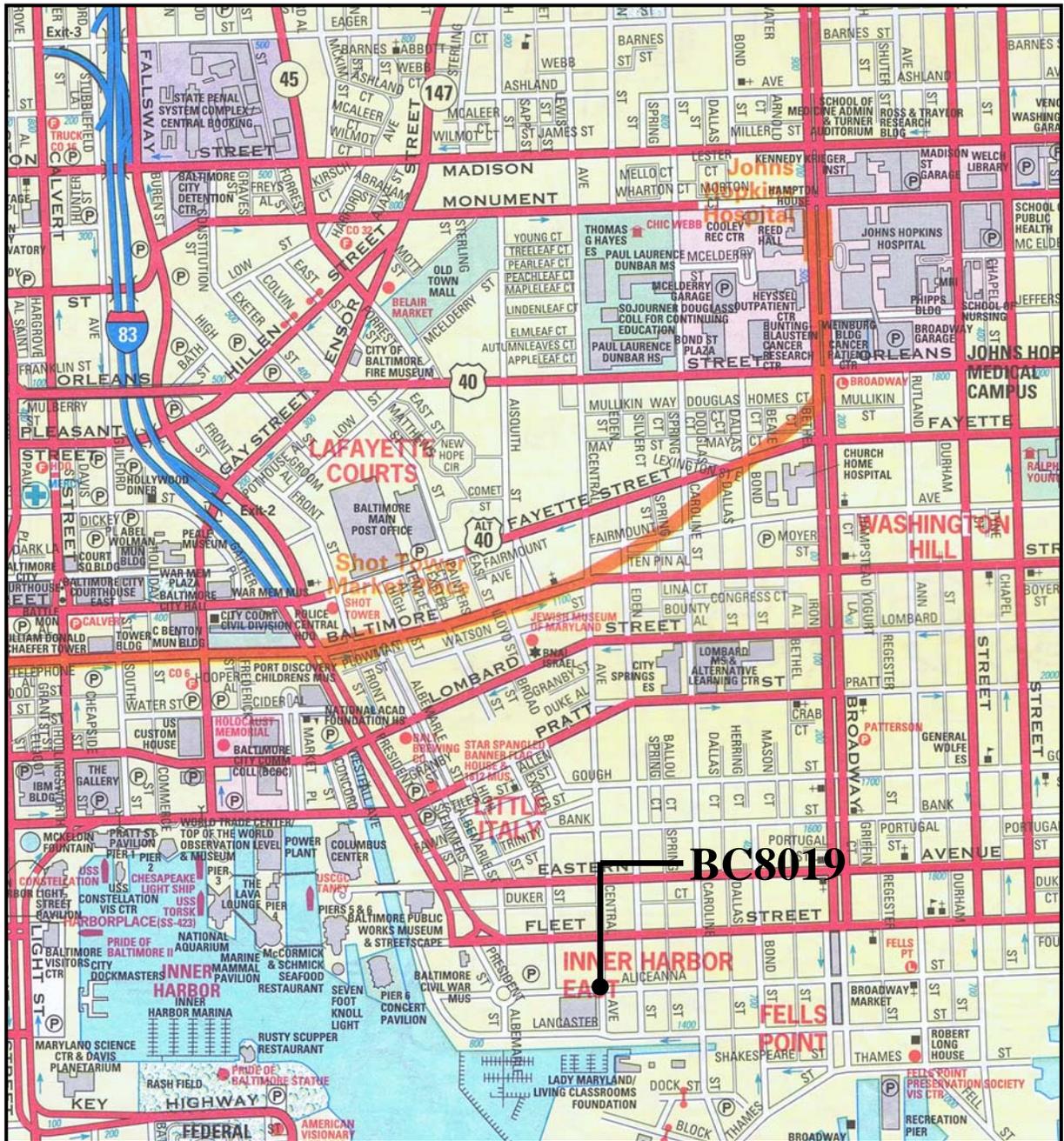
2009 BALTIMORE CITY BRIDGE INSPECTION

BRIDGE NO. BC 8019

ALICEANNA STREET AT CENTRAL AVENUE OVER HARFORD RUN

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ADC Street Grid Location: DOWNTOWN G6

LOCATION MAP

SCALE: 1" = 2,000'

Copyright ADC The Map People
M&N's Permitted Use Number: 21007246
Expiration Date: July 31, 2011

**2009 BALTIMORE CITY BRIDGE INSPECTION
BRIDGE NO. BC 8019
ALICEANNA STREET AT CENTRAL AVENUE OVER HARFORD RUN
SUMMARY REPORT**

BRIDGE NO.:	BC 8019
DESCRIPTION:	ALICEANNA STREET AT CENTRAL AVENUE OVER HARFORD RUN
REPORT PREPARED BY:	M&N Engineering & Diving Services, Inc.
REPORT REVIEWED AND SUBMITTED BY:	STV
PROJECT MANAGER:	Amanda D. Schindhelm, P.E.
DATE OF INSPECTION:	08/24/2010
REDUNDANT/NON-REDUNDANT:	Redundant
FRACTURE CRITICAL:	No
PIN/HANGER UT INSPECTION:	No
UNDERWATER INSPECTION:	Required. Due 08/11.
POSTED:	No
RATING RECOMMENDED:	No
POSTING RECOMMENDED:	No
MAINTENANCE NEEDS:	Yes, See Repair Recommendations.
REPAIR NEEDS:	Yes, See Repair Recommendations.
REHABILITATION:	No
LETTER OF CONCERN:	No
BRIDGE SUFFICIENCY RATING:	96.8
FOLLOW-UP REQUIREMENTS:	
Warm Weather Inspection:	No
Storm Weather Inspection:	No
Underwater Inspection:	Required. Due 08/11.
Increased Inspection Frequency:	No
Other:	None
SCOUR EVALUATION:	5B
DATE OF SUBMISSION:	

2009 BALTIMORE CITY BRIDGE INSPECTION
BRIDGE NO. BC 8019
ALICEANNA STREET AT CENTRAL AVENUE OVER HARFORD RUN
BRIDGE INSPECTION DATA FORM

BRIDGE NO. BC 8019 **YEAR BUILT** 1920 (Estimated)
(8) (27, 106)
PRINCIPAL ROUTE Aliceanna Street at Central Avenue
CROSSING Harford Run (6)
TYPE C35, Concrete Encased Steel Beam **POSTED WEIGHT & SPEED** A, None (7)
(43, 44, 206, 207) (41, 224, 225)
LENGTH 25'-0"
(Total length from end of approach pavement to end of approach pavement)

ROADWAY MEASUREMENTS

APPROACH	BRIDGE	SIDEWALKS
Width-Traveled Way: <u>41'</u> <small>(32)</small>	Clear Roadway: <u>69.5'</u> <small>(curb to curb) (51)</small>	Number: <u>None</u>
Type of Roadway: <u>Bituminous</u>	Surface: <u>Bituminous</u> <small>(107, 108, 232)</small>	Clear Width: Lt <u>0'</u> Rt <u>0'</u> <small>(50) (50)</small>
Width of Shoulders: <u>None</u> <small>(32)</small>	Clearance over Rd.: <u>Unlimited</u> <small>(53, 226)</small>	Railing Type: <u>None</u> <small>(235, 236)</small>
Type of Shoulders: <u>None</u>	Skew: <u>0 Degrees</u> <small>(34)</small>	
	Long. Dist.: <u>25'</u>	
Alignment: <u>Intersection</u> <small>(72)</small>	Trans. Dist.: <u>69.5'</u> <small>(52)</small>	
	Alignment: <u>Tangent</u>	

FOUNDATION

Character of Foundation Material: Unknown

Type of Footing: Pile None Spread Stone and Brick
(228, 230) (228, 230)

HYDRAULIC DATA (To be completed for structures over water - By others)

Record of High Water Above Uncl. (Ft) _____ Below Uncl. (Ft) _____ Data _____
(251) (251) (252)

WATERSHED DATA -By others

UTILITIES (260, 261)

Area in Acres: _____	Storm Sewers: <u>Yes, Present Under Bridge</u>
Discharge at Bridge (c.f.s.): _____	Sanitary Sewers: <u>None</u>
Velocity Thru Bridge (ft./sec.): _____	Water Mains: <u>Yes, 8" Present On Bridge</u>
Bridge Opening Calculated (sq. ft.): _____	Gas Mains: <u>None</u>
Bridge Opening Furnished (sq. ft.): _____	Electric Mains: <u>Yes, Present On Bridge</u>
Underclearance of Bridge to M.L.W.: _____	Overhead: <u>None</u>
	Underground: <u>DPW Conduit - Present On Bridge</u>
	Other: _____

CLEARANCES UNDER BRIDGES OVER HIGHWAYS AND RAILROADS

Vertical: N/A
(Minimum distance from top of roadway to underside of bridge superstructure) (54)

Horizontal: N/A
(Each lane of duals - Minimum distance face to face of supports flanking roadway. Measurements to be made perpendicular to Centerline of roadway) (55, 56, 280)

2009 BALTIMORE CITY BRIDGE INSPECTION
BRIDGE NO. BC 8019
ALICEANNA STREET AT CENTRAL AVENUE OVER HARFORD RUN
BRIDGE INSPECTION DATA FORM

TYPE C35, Concrete Encased Steel Beam **POSTED WEIGHT AND SPEED** A, None

TRAFFIC SAFETY FEATURES N-N-N-N **YEAR BUILT** 1920 (Estimated)

DATE OF INSPECTION	08/06/03	11/15/05	12/3/07	08/24/10	REMARKS
INSPECTOR	ADS	BEC	DS	ADS	
1. Number of Spans	1	1	1	1	
a. Arch	N	N	N	N	
b. Girder	N	N	N	N	
c. Beam	1	1	1	1	
d. Prestressed or Voided	N	N	N	N	
2. Foundations	7	7	7	7	
a. Undermining	7	7	7	7	
b. Scour	7	7	7	7	
c. Alignment	8	8	8	8	
3. Abutments and Wing Walls	6	6	6	6	
a. Concrete	N	N	N	N	
b. Rubble	6	6	6	6	Missing Mortar
c. Alignment	8	8	8	8	
d. Timber	N	N	N	N	
4. Piers	N	N	N	N	
a. Concrete	N	N	N	N	
b. Rubble	N	N	N	N	
c. Alignment	N	N	N	N	
d. Timber	N	N	N	N	
5. Bents	N	N	N	N	
a. Piles	N	N	N	N	
b. Caps	N	N	N	N	
c. X Bracing	N	N	N	N	
6. Superstructure	6	5	5	5	Core Holes in Deck
a. Girder	N	N	N	N	
b. Beams	6	6	6	6	
c. Floorbeams	N	N	N	N	
d. Hangers, Pins	N	N	N	N	
e. Expansion Devices	N	N	N	N	
f. Slab or Deck	6	5	5	5	Core Holes in Deck
g. Surfacing	8	7	7	7	
h. Curbs	N	N	N	N	
i. Sidewalks	N	N	N	N	
j. Parapet, Balust., Handrail	N	N	N	N	
k. Drainage Devices	N	N	N	N	
l. Approaches					
7. Slope Protection	N	N	N	N	
8. Paint	N	N	N	N	
9. Stream Channel	7	7	7	7	
10. Removal of Vegetation	No	No	No	No	
11. Deck Punctures	None	3	3	3	3-2" Diameter Core Holes
12. Identification Number	BC8019	BC8019	BC8019	BC8019	
13. Hardware	N	N	N	N	
14. Culvert and Retaining Walls	N	N	N	N	
15. Bearings	N	N	N	N	

**2009 BALTIMORE CITY BRIDGE INSPECTION
BRIDGE NO. BC 8019
ALICEANNA STREET AT CENTRAL AVENUE OVER HARFORD RUN
BRIDGE INSPECTION FINDINGS**

Description

Bridge No. BC 8019 is a concrete-encased steel beam bridge built in 1920 (see Photograph Nos. 1 - 7). The bridge spans 23'-0" and has an overall length of 25'-0" with a curb-to-curb width of 69'-6" and carries two lanes in multiple directions through an intersection. The superstructure consists of ten concrete-encased steel beams supporting a reinforced concrete deck. The substructure consists of stone masonry abutments. There are no approach traffic barriers along the approaches or on the bridge, however; these are not required due to urban features.

The bridge is not posted. The bridge was inspected on August 24, 2010. The numbering convention for reporting purposes is from the north and the west.

Inspection Access

The inspection of Bridge No. BC 8019 required chest waders, an extension ladder and a boat. The bridge is located between and abuts up to BC1255 to the north and BC 1555 to the south. Access was obtained through the underside of BC 8018 and BC 1555.

Inspection Findings

Overall the bridge is in fair condition. The following is a summary of the bridge inspection findings. For a more detailed description of the condition of each bridge element, see Pontis form:

Approach Roadways

1. The approach roadways and transitions are generally smooth and in good condition.
2. The West Approach pavement exhibits random mapcracking up to 1/4" wide within 15' of the abutment.

Deck

1. The deck is in fair condition with minor unevenness at the pavement joints and numerous pavement patches throughout (see Photograph 7).
2. There is a 1'-0" square x 6" deep spall in the soffit near the East Abutment Backwall between Beams 4 and 5 exposing a brick wall.

3. Approximately 30% of the soffit exhibits spalling less than 1" deep with exposed and corroded wire mesh reinforcement.

4. There is an 8'-0" wide x 1'-8" long x up to 6" deep area of spalling with exposed wire reinforcing in the soffit between Beams 6 and 7 near the West Abutment. It appears as if three 2" diameter deck cores were taken at 2'-0" spacing between the beams causing the deck soffit to spall. There is asphalt visible in the 2" diameter core holes (see Photograph 8).

Superstructure

1. The concrete-encased steel beams are in satisfactory condition.

2. Approximately 30% of the bottom flanges of the steel beams are exposed and exhibit minor to moderate surface rust with minor section loss (see Photograph 9).

3. The steel beam concrete encasements are delaminated and typically exhibit cracking along the bottom flange corners of approximately 80% of the total beam lengths.

4. There is a timber support system for a utility at the midpoint of the bridge.

5. There is a terra cotta utility duct supported by a steel channel which is sagging below the beams as much as 8" at the south side of the bridge (see Photograph 10).

6. There is an abandoned utility pipe that is broken at midspan running next to terra cotta utility duct.

Substructure

1. The stone masonry abutments are in satisfactory condition. Approximately 50% of the mortar is missing above the waterline (see Photograph 11).

2. The brick backwalls are in good condition (see Photograph 12).

Stream Channel

1. The stream channel consists of sand and gravel.

Review of Previous Report

The 2007 Bridge Inspection Report was available and used for comparison purposes. The overall condition of the structure differed from the previous report as noted:

The following repairs have been completed since the previous inspection:

1. No repairs were noted.

The following defects have progressed since the previous inspection:

1. No significant change in defects since the last inspection.

The following are new defects noted in the current inspection:

1. No new defects since the last inspection.

Review of Item 113 - Scour Potential Rating

Item 113 was originally rated 6U, indicating that the foundation type is unknown. Comparison of soundings from consecutive cycles indicates that only minor scour is occurring. Based on this comparison and in accordance with Chapter 7 of SHA's Manual for Hydrologic and Hydraulic Design, a rating of 5B is recommended for this structure. A multi-disciplinary scour evaluation should be performed for this structure in order to refine this rating.

Load Ratings Summary/Posting Recommendation

Whether due to deterioration or rehabilitation, the overall condition of the structure and rated components has not significantly changed since the 2007 inspection. The following Maryland Legal Load Limits were reproduced from the 2007 inspection report. Since review of the load rating computations is beyond the scope of this inspection, no representation is hereby made or responsibility hereby assumed for the accuracy of the following tabulation:

Vehicle	Gross Vehicle Weight	Inventory (Tons)	Operating (Tons)
H-15	15 tons	33	55
HS-20	36 tons	60	99
Type 3	33 tons	39	65
Type 3S2	40 tons	69	99

Based on the above ratings, the bridge does not require posting for weight restriction.

**2009 BALTIMORE CITY BRIDGE INSPECTION
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RECOMMENDATIONS**

Item	Quantity	Units	Unit Cost	Total Cost
<i>Immediate</i>				
None				\$0.00
Subtotal (Immediate)				\$0.00
<i>Short Term</i>				
1. Repair the spalls in the soffit.	120	SF	\$70	\$8,400.00
2. Remove loose concrete encasement and clean and repaint the exposed portions of the steel beams.	1	LS	\$10,500.00	\$10,500.00
3. Perform a multi-disciplinary scour evaluation to refine the Item 113 rating.	1	LS	\$12,000.00	\$12,000.00
Subtotal (Short Term)				\$30,900.00
<i>Long Term</i>				
1. Remove the abandoned and deteriorated utilities.	1	LS	\$1,000.00	\$1,000.00
Subtotal (Long Term)				\$1,000.00
<i>No Priority Provided</i>				
1. Repoint the Abutment Masonry joints.	1	LS	\$5,300.00	\$5,300.00
Subtotal (No Priority Provided)				\$5,300.00
Total Maintenance Cost				\$37,200.00

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PHOTOGRAPHS**



1. South Approach Looking North



3. West Approach Looking East.

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PHOTOGRAPHS**



4. West Approach Looking West.



5. East Approach Looking West

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PHOTOGRAPHS**



6. East Approach Looking East



7. Patches in the Bituminous Wearing Surface of the Deck

**2009 BALTIMORE CITY BRIDGE INSPECTION
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ALICEANNA STREET AT CENTRAL AVENUE OVER HARFORD RUN
PHOTOGRAPHS**



8. Soffit Spalls at Core Holes between Beams 6 and 7 near the West Abutment



9. Typical Exposed Bottom Flange of the Concrete Beams

**2009 BALTIMORE CITY BRIDGE INSPECTION
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PHOTOGRAPHS**



10. Sagging Steel Channel Supporting a Terra Cotta Utility



11. Typical Mortar Joints in Stone Masonry Abutment

**2009 BALTIMORE CITY BRIDGE INSPECTION
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PHOTOGRAPHS**



12. Typical Brick Abutment Backwall

Structure Inventory and Appraisal Forms

STRUCTURE INVENTORY AND APPRAISAL REPORT

BRIDGE NUMBER:

IDENTIFICATION

FORM 1 OF 8

(8) STRUCTURE NUMBER:

(7) FACILITY CARRIED:

(6) FEATURE INTERSECTED:

(27) YEAR BUILT: (106) YEAR RECONSTR:

(1) STATE CODE: (2) DISTRICT CODE:

(3) COUNTY CODE: (4) PLACE CODE:

(5) INVENTORY ROUTE:

Route Prefix Level of Service Number Direction

(9) LOCATION:

(11) MILE POINT: (16) LATITUDE:

(17) LONGITUDE: (28) LANES ON: LANES UNDER:

(42) TYPE OF SERVICE ON: TYPE OF SERVICE UNDER:

(98) BORDER STATE: BORDER STATE'S SHARE %:

(99) BORDER STATE'S NUMBER:

(262) NAME OF STRUCTURE:

CLASSIFICATION

FORM 2 OF 8

(104) HWY SYSTEM: (26) FUNCTION CLASS:

(100) DEFENSE HWY: (101) PARALLEL STRUCT:

(102) DIRECTION: (103) TEMP STRUCT:

(110) NAT'L NTWK: (20) TOLL:

(21) MAINTENANCE: (22) OWNER:

(37) HISTORICAL:

TRAFFIC

(19) DETOUR: (29) ADT: (114) FUTURE ADT:

(109) TRUCK ADT %: (30) ADT YEAR: (115) FUTURE ADT YEAR:

Bridge Number:

1

STRUCTURE TYPE AND MATERIAL

FORM 3 OF 8

(43) STRUCT TYPE:	<input type="checkbox"/>	<input type="checkbox"/>	(274) MAIN SUPP MEMBERS:	<input type="checkbox"/>
(44) STRUCT TYPE - APPR:	<input type="checkbox"/>	<input type="checkbox"/>		
(206) SUPPL TYPE - MAIN:	<input type="checkbox"/>	(207) SUPPL APPROACH:	<input type="checkbox"/>	
(208) STRUCT TYPE - WIDENED/EXTENDED:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(228) FOOTING - ABUTMENT:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(229) SUBSTRUCT ABUTMENT:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(230) FOOTING - PIER:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(231) SUBSTRUCTURE PIER:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(233) SUPSTRUCT DESIGN:	<input type="checkbox"/>	<input type="checkbox"/>		
(277) SUBSTRUCT - SPECIAL:	<input type="checkbox"/>	(219) SLOPE PROTECTION:	<input type="checkbox"/>	
(221) STRUCTURAL STEEL:	<input type="checkbox"/>	(235) PARAPET:	<input type="checkbox"/>	
(242) BEARING TYPE:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(107) DECK STRUCTURE TYPE:	<input type="checkbox"/>	(270) CONCRETE SLAB:	<input type="checkbox"/>	
(271) REBARS:	<input type="checkbox"/>	(272) ADMIXTURES:	<input type="checkbox"/>	
(108) WEARING SURFACE:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(243) JOINT TYPE:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(236) RAILING:	<input type="checkbox"/> <input type="checkbox"/>	-	<input type="checkbox"/> <input type="checkbox"/>	-
(237) FENCING:	<input type="checkbox"/> <input type="checkbox"/>	-		
(278) PAINT SYSTEM:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
(344) PAINT COLOR / NUMBER:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

GEOMETRICS

FORM 4 OF 8

(112) NBIS BRIDGE LENGTH:	<input type="checkbox"/>	(49) STRUCTURE LENGTH:	<input type="checkbox"/>
(210) NUMBER OF SPANS:	<input type="checkbox"/>	(48) LENGTH MAX SPAN:	<input type="checkbox"/>
(45) # SPANS IN MAIN UNIT:	<input type="checkbox"/>	(46) # APPROACH SPANS:	<input type="checkbox"/>
(209) # CONTINUOUS SPANS:	<input type="checkbox"/>		
(211) SPAN LENGTH 1:	<input type="checkbox"/>	(212) SPAN LENGTH 2:	<input type="checkbox"/>
(213) SPAN LENGTH 3:	<input type="checkbox"/>	(214) SPAN LENGTH 4:	<input type="checkbox"/>
(215) SPAN LENGTH 5:	<input type="checkbox"/>	(216) SPAN LENGTH 6:	<input type="checkbox"/>
(217) SPAN LENGTH 7:	<input type="checkbox"/>	(218) SPAN LENGTH 8:	<input type="checkbox"/>
(238) # STRINGER - ORIGINAL:	<input type="checkbox"/>	(239) # STRINGERS - WIDENED:	<input type="checkbox"/>
(240) SPACING - ORIGINAL:	<input type="checkbox"/>	(241) SPACING - WIDENED:	<input type="checkbox"/>
(51) DECK CURB-CURB WIDTH:	<input type="checkbox"/>	(52) DECK OUT-OUT WIDTH:	<input type="checkbox"/>
(50) CURB/SIDEWALK WIDTHS:	<input type="checkbox"/> <input type="checkbox"/>	(223) SHOULDER WIDTHS:	<input type="checkbox"/> <input type="checkbox"/>
(33) BRIDGE MEDIAN:	<input type="checkbox"/>	(205) MEDIAN WIDTH:	<input type="checkbox"/>
(32) APPROACH ROAD WIDTH:	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	(35) STRUCTURE FLARED:	<input type="checkbox"/>
(10) INVENT ROUTE, MIN VERT CLEAR:	<input type="checkbox"/>	(47) INVENT ROUTE, TOTAL HORIZ CLEAR:	<input type="checkbox"/>
(53) BRIDGE ROADWAY, MIN VERTCLEAR:	<input type="checkbox"/>		

Bridge Number:

GEOMETRICS (Cont.)

FORM 5 OF 8

(54) MIN VERTICAL UNDERCLEARANCE:

(55) MIN LATERAL UNDERCLEARANCE (RIGHT):

(56) MIN LATERAL UNDERCLEARANCE (LEFT):

(342) HORIZONTAL CLEARANCE - ON:

(280) HORIZONTAL CLEARANCE - UNDER

(34) SKEW, IN DEGREES:

(256) SPAN OF CELLS:

(343) CENTERLINE LENGTH - CULVERTS/PIPES:

(253) NUMBER OF CELLS:

(258) EARTH FILL:

(254) RISE:

LOAD RATINGS AND POSTINGS

(41) STATUS:

(31) DESIGN LOAD:

(70) POSTING:

(224) WEIGHT POSTED, KIPS:

SINGLE VEH. COMBO VEH.
(First 2 Digits) (Second 2 Digits)

(64) OPERATING RATING:

(464) OPERATING RATING - H:

(564) OPERATING RATING - HS:

(664) OPERATING RATING - T3:

(764) OPERATING RATING - 3S2:

(225) SPEED LIMIT ON STRUCTURE

(226) MIN VERT CLEARANCE OVER ROADWAY POSTED:

(227) MIN VERT UNDERCLEARANCE POSTED:

(66) INVENTORY RATING:

(466) INVENTORY RATING - H:

(566) INVENTORY RATING - HS:

(666) INVENTORY RATING - T3:

(766) INVENTORY RATING - 3S2:

BMS CONDITION RATINGS

FORM 6 OF 8

(90) INSPECTION DATE:

(91) INSPECTION FREQUENCY, MONTHS:

	FRACTURE CRITICAL	UNDER WATER	OTHER SPECIAL
(92) CRITICAL FEATURE INSP:	<input type="text"/>	<input type="text"/>	<input type="text"/>
(93) CRIT FEATURE INSP DATE	<input type="text"/>	<input type="text"/>	<input type="text"/>

(58) DECK:

(59) SUPERSTRUCTURE

(60) SUBSTRUCTURE:

(61) CHANNEL:

(62) CULVERT:

(332) POSTING SIGNS:

(307) UNDER CONSTRUCTION:

(340) INSPECTION CLASSIFICATION

<input type="text"/>	<input type="text"/>

Bridge Number:

3

APPRAISAL

FORM 7 OF 8

- (67) STRUCTURAL EVALUATION:
- (69) UNDERCLEARANCE:
- (71) WATERWAY ADEQUACY:
- (36) TRAFFIC SAFETY FEATURES:
- RAILINGS:
- TRANSITIONS:
- (113) SCOUR EVALUATION:

BSR

- (68) DECK GEOMETRY:
- (72) APPROACH ALIGNMENT:
- APPROACH BARRIER:
- APPROACH BARRIER ENDS:

NAVIGATION AND HYDRAULIC

- (38) NAVIGATION CONTROL:
- (40) NAV HORIZONTAL CLEARANCE:
- (111) PIER/ABUTMENT PROTECTION:
- (116) MIN NAV VERT CLEARANCE, VERT LIFT BRIDGE:
- (247) DESIGN YEAR STORM:
- (249) DRAINAGE AREA:
- (251) HIGH WATER ELEVATION:
- (252) YEAR HIGH WATER ELEVATION - LATEST:

- (39) NAV VERT CLEARANCE:
- (248) RUN-OFF Q:
- (250) STRUCTURE IN TIDAL AREA:

HISTORY AND PROPOSED IMPROVEMENTS

FORM 8 OF 8

- (201) CONTRACT NUMBERS:
- (202) CONTRACT NUMBERS:
- (203) SHA SPEC-YEAR:
- (263) SHA SPEC RECON 1:
- (265) AASHTO SPEC RECON 1:
- (75) TYPE OF WORK:
- (94) BRIDGE IMPROVE COST:
- (96) TOTAL PROJECT COST:

- (204) AASHTO SPEC-YEAR:
- (264) SHA SPEC RECON 2:
- (266) AASHTO SPEC RECON 2:
- (76) LENGTH OF IMPROVEMENT:
- (95) ROADWAY IMPROVE COST:
- (97) YEAR OF IMPROVEMENT:

MISCELLANEOUS

- (244) SIGNS ON STRUCTURE:
- (246) ROADWAY LIGHTING:
- (260) UTILITIES - ON:
-
-
-
-
-

- (245) BRIDGE ROADWAY LIGHTING:
- (261) UTILITIES - UNDER:
-
-
-
-
-

REMARKS:

Bridge Number: 4

PONTIS Form

2009 BALTIMORE CITY BRIDGE INSPECTION
BRIDGE NO. BC 8019
ALICEANNA STREET AT CENTRAL AVENUE OVER HARFORD RUN
PONTIS FORM

BRIDGE NUMBER: BC 8019

INSPECTION DATE: 08/24/2010

(58) DECK (59) SUPERSTRUCTURE (60) SUBSTRUCTURE
 (61) CHANNEL (62) CULVERT

ELEMENT **TQ** **CS 1** **CS 2** **CS 3** **CS 4** **CS 5**

013 Concrete Deck, Unprotected, with AC Overlay (EA)

The deck is in fair condition. The deck has minor unevenness at the pavement joints and numerous pavement patches throughout.

178 Steel Open Girder, Concrete Encased (LF)

The concrete encased steel beams are in satisfactory condition. Approximately 30% of the bottom flanges of the steel beams are exposed and exhibit minor to moderate surface rust with minor section loss. The concrete encasements are delaminated and typically exhibit cracking along the bottom flange corners of approximately 80% of the total beam lengths. There is a timber support system for a utility at the midpoint of the bridge. There is a terra cotta utility duct supported by a steel channel which is sagging below the beams as much as 8" at the south side of the bridge. There is an abandoned utility pipe that is broken at midspan running next to the terra cotta utility duct.

217 Other Material Abutment (LF)

The stone masonry abutments are in satisfactory condition. Approximately 50% of the mortar is missing above the waterline.

218 Reinforced Concrete Abutment Backwall (LF)

The abutment backwalls are in satisfactory condition.

322 Roadway Approach Transition (EA)

The approach roadways and transitions are generally smooth and in good condition. The West Approach pavement exhibits random mapcracking up to 1/4" wide within 15' of the abutment.

359 Soffit (EA)

The soffit is in fair condition. There is a 1'-0" square x 6" deep spall in the soffit near the East Abutment Backwall between Beams 4 and 5 exposing a brick wall. Approximately 30% of the soffit exhibits spalling less than 1/2" deep with exposed and corroded wire mesh reinforcement. There is an 8'-0" wide x 1'-8" long x up to 6" deep area of spalling with exposed wire reinforcing in the soffit between Beams 6 and 7 near the West Abutment. It appears as if three 2" diameter deck cores were taken at 2'-0" spacing between the beams causing the deck soffit to spall. There is asphalt visible in the 2" diameter core holes.



SOUNDING SHEET

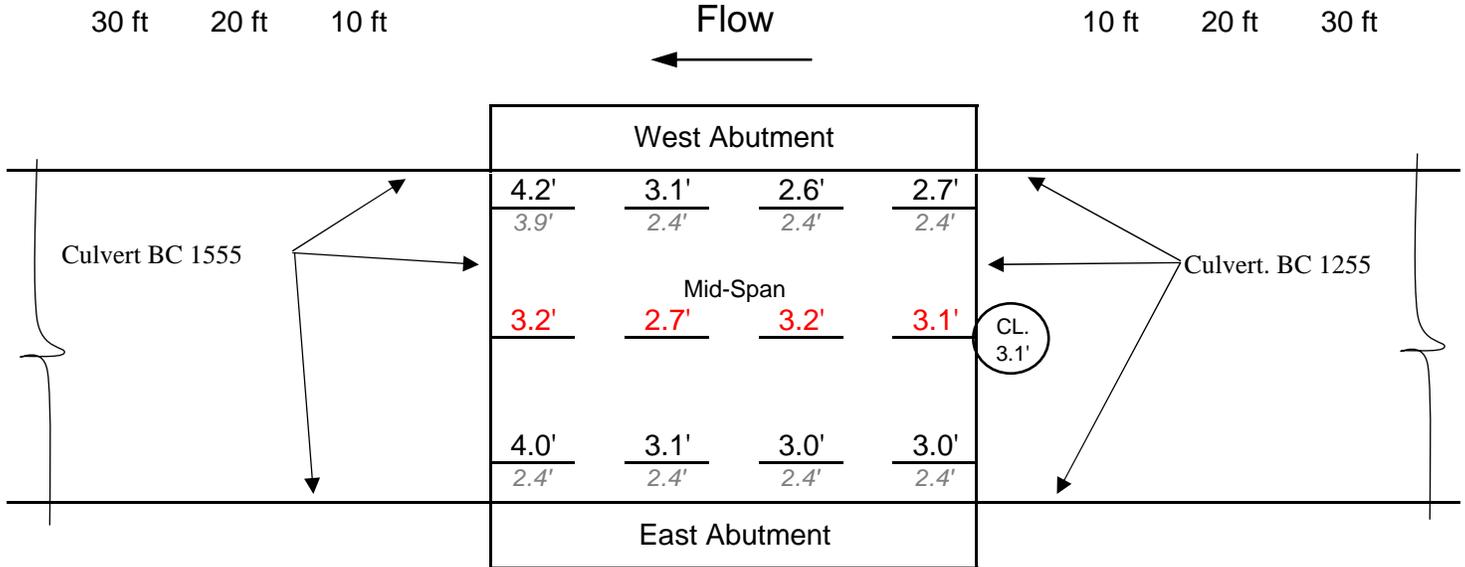
(All measurements are in feet)



Clearance Location: Bottom of the Slab to Water Line at Mid-span

Inspectors: ADS/BM

Clearance is the distance measured from the water surface to the clearance location.



Streambed Composition: soft silt

Legend: X.X - Current Soundings (**Red** numbers indicate degradation of 2.0' or more compared to Base Year)
(**Green** numbers indicate aggradation of 2.0' or more compared to Base Year)

X.X - 2002 Base Year Soundings (Adjusted for difference in water surface elevation)

CL.
X.X' - Clearance

~ - Edge of Stream



BALTIMORE CITY
BRIDGE SOUNDING REPORT

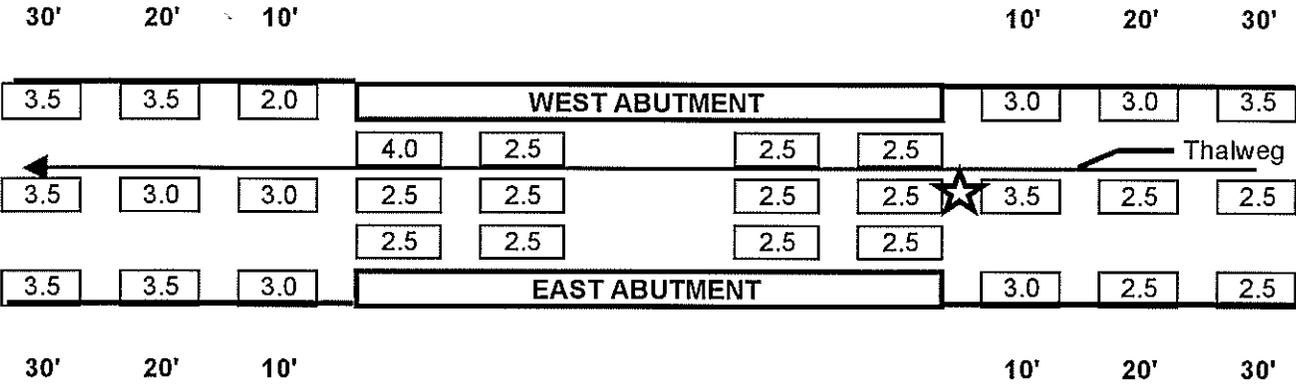
BRIDGE: BC 8019

INSPECTION DATE: 1/29/2002

<<<<<<<FLOW DIRECTION



Note: All water levels are rounded to the nearest 6"



Datum: ★ 3'-0" from the botom of the slab to the top of the waterline.