



Green River Bridge NDT Survey
Peter Guice Memorial Bridge
Hendersonville, North Carolina
S&ME Project No. 6105-18-008
Phase 340

PREPARED FOR:

North Carolina Department of Transportation
1501 Mail Service Center
Raleigh, North Carolina 27699

PREPARED BY:

S&ME, Inc.
3201 Spring Forest Road
Raleigh, NC 27616

September 25, 2018



September 25, 2018

North Carolina Department of Transportation
1501 Mail Service Center
Raleigh, North Carolina 27699

Attention: Mr. Stephen Porter

Reference: **Green River Bridge NDT Survey**
Peter Guice Memorial Bridge
Hendersonville, North Carolina
S&ME Project No. 6105-18-008 Phase 340

Dear Mr. Porter:

S&ME, Inc. (S&ME) has completed our nondestructive testing (NDT) Survey of specific locations at the Green River Bridge in Hendersonville, North Carolina. Our testing was performed as outlined in your Scope for NDT Work, Project 15BPR.20, Green River Bridges, 440108 and 440112, dated July 31, 2018. The purpose of these services was to perform Visual, Magnetic Particle, and Ultrasonic testing of various locations on bridges 440108 and 440112. This report presents our understanding of the proposed project, a summary of our NDT testing, and results.

◆ PROJECT INFORMATION

We understand that there were previous inspections of the two bridges that noted multiple discrepancies. We further understand that there were differences between the previous inspections' results. NCDOT identified multiple locations for more in depth NDT using visual, magnetic particle, and possibly ultrasonic testing. The desired locations for NDT testing were identified on DWG's S-3 and S-4 (see appendix II). As requested by NCDOT, S&ME subcontracted McClain & Company, Inc. to provide traffic control and a UB-60 under bridge access vehicle with two operators. We were on-site at the bridges on August 28, 29, and 30, 2018. We performed inspection of twelve accessible locations on Bridge number 440112. These locations are labeled on the DWGS S-3 and S-4 in green number labels 1 – 12 (see appendix III). We performed inspection of five accessible locations on Bridge number 400108. These locations are labeled in green numbers 13 – 17. Digital images were taken of specific conditions and are presented in Appendix I.



◆ METHOD OF TESTING

Visual testing was performed on the above mentioned locations. Visual testing was performed by personnel qualified (see appendix IV) as a Certified Welding Inspector (CWI) in accordance with the American Welding Society (AWS). Task lighting with a minimum intensity of 100 foot-candles at the inspection surface was utilized to perform the inspection. Welding quality visual acceptance criteria was in accordance with AWS D1.5 Bridge Welding Code.

Magnetic Particle Testing was performed on the above mentioned locations. Magnetic Particle Testing was performed utilizing a Parker, DA-400 magnetic yoke, Magnaflux dry red particles, and alternating current. The lifting capability of the yoke was verified using a 10 pound calibration weight. The MT testing was performed in accordance with S&ME Inc. procedure number WI-TP-NDT-MT-01.

Ultrasonic testing, when used, was performed using an Epoch LT manufactured by Olympus. The transducer utilized was a 2.25MHz model A540s. Ultrasonic testing was performed in accordance with S&ME Inc. procedure WI-TP-NDT-UT01 and AWS D1.5 Bridge Welding Code.

◆ TESTING RESULTS

Bridge 440112:

- 1. Span 2 Beam 2 (QA Check Location)** – weld connection of girder 2 web to web stiffener at 7 feet north of floor beam 10 near mid-height. Visual inspection and MT inspection was performed. There were no defects noted.
- 2. Span 3 Beam 2 (QA Check Location)** - web to web stiffener weld north face at floor beam 20. Visual inspection of this area revealed there was a possible linear indication. The area was then MT inspected and the linear indication was marked. The area was wire brushed with a power wire wheel and then ground with a hard disk and reexamined. There were no defects noted.
- 3. Span 3, Beam 2 (NDT Test Location)** - at 2nd stiffener from floor beam 26 vertical seam weld. Visual inspection was performed. The area was wire brushed with a power wheel brush and an MT inspection was performed. Noted a linear indication 1-Inch long transverse to weld axis (see image #1).
- 4. Span 4, Beam 2 (NDT Test Location)** - the web to web stiffener weld at floor beam 33 near bottom. A visual inspection noted a linear indication on an overlap portion of the weld toe in the wrapped area of the stiffener plate. The area was then MT inspected and the linear indication was marked. The area was wire brushed with a power wire wheel and then ground with a hard disk and reexamined. There were no defects noted.
- 5. Span 4, Beam 2 (QA Check Location)** – the underside of connection plate, north side at floor beam 33. A visual inspection was performed and noted overlap and incomplete fusion at the weld toe. The area was power wire brushed and a MT inspection was performed. A linear indication was noted at the weld toe. The area was then ground smooth and reexamined. Noted a linear indication 6-Inch long (see image #2). A UT inspection was performed. No indications were noted in the adjacent base metal.



6. **Span 4, Beam 1 (NDT Test Location)** – the web to web stiffener weld south face at floor beam 35. A visual inspection was performed. The area had a small rust layer running along the weld toe area with no visual signs of a linear indication. The area was then wire brushed using a power wheel brush and the MT inspection was performed. There were no defects noted after the rust removal.
7. **Span 5, Beam 1 (NDT Test Location)** - The web underside longitudinal stiffener between 2nd and 3rd vertical stiffener exterior face. A visual inspection was performed. The area had a rust layer over the weld and a weld pass start and stop (see image #3) in the fillet weld. The area was power wire brushed and a MT inspection was performed. There were no defects noted.
8. **Span 4, Beam 1 (NDT Test Location)** – The web to web stiffener weld south facing at floor beam 33. A visual inspection was performed. The area had a light surface rust and overlap at the weld toe. The area was power wire brushed and a MT inspection was performed. A linear indication was noted at the weld toe. The area was then ground smooth and reexamined. There were no defects noted.
9. **Span 3, Beam 1 (QA Check Location)** - The web to web stiffener weld south facing at floor beam 24 near lower plate connection. A visual inspection was performed on the fillet weld and the following defects were noted: overlap, undercut and unacceptable weld profile over the entire length of the weld (see images #4 & #5). Because of the significant unacceptable visual defects, an MT inspection was not performed.
10. **Span 3, Beam 1 (NDT Test Location)** – The web to web stiffener weld south facing at floor beam 23 near lower plate connection. Visual inspection was performed. The area was wire brushed with a power wheel brush and an MT inspection was performed. There were no defects noted.
11. **Span 3, Beam 1 (QA Check Location)** - The weld of lower connection plate at floor beam 22. A visual inspection was performed on the fillet weld and the following defects were noted: overlap, unacceptable weld profile, weld spatter, and arc strikes on the lower portion of the weld joint (see image #6). An MT inspection was performed after power wire brushing. Other than the visible weld quality defects, there were no defects noted with MT inspection.
12. **Span 2, Beam 1 (QA Check Location)** - weld of lower connection plate at floor beam 10. A visual inspection was performed on the weld and the following defects were noted: overlap, unacceptable weld profile, and arc strikes on the upper and lower portion of weld joint (see images #7 & #8). An MT inspection was performed after power wire brushing. Other than the visible weld quality defects, there were no defects noted with MT inspection.

Bridge 440108:

13. **Span 2, Beam 2 (NDT Test Location)** - upper web to 4th web stiffener from bent 2 on the exterior face. The weld was cleaned with the power wire wheel brush and MT inspection was performed. There were no defects noted. A visual inspection was performed. Twelve areas of porosity were noted in the 33-Inch length of weld (see images #9 & #10). The porosity does not exceed the AWS D1.5 acceptance criteria.
14. **Span 3, Beam 2 (NDT Test Location)** – The web at bottom flange weld 5 feet north of floor beam 20. The area was cleaned using a power wire wheel brush and MT inspection was performed. Noted a linear indication transverse to weld axis (see images #11, #12 & #13) in the lower flange to web weld. The linear indication extends through the entire face of the weld and into the base metal of the bottom flange by 1/8-Inch and extends into the web base metal 1/16-Inch. A UT inspection was performed to attempt to determine the depth that the indication extends into the base metal. Because of the orientation of the linear indication, UT did not reveal an indication in the base metal.



15. **Span 3, Beam 2 (QA Check Location)** – bottom flange to girder 2 web weld at floor beam 24. A visual inspection was performed on the weld and no defects were noted. The area was power wire brushed and MT inspection was performed. There were no defects noted (see image #14).
16. **Span 4, Beam 2 (QA Check Location)** - web stiffener north facing at mid-height around floor beam 30, weld repair area. The area was cleaned using a power wire wheel and visual inspection was performed. Noted cluster porosity at the start of the weld. The porosity ranged in size from 1/16-Inch to 1/32-Inch in diameter (see image #15). Total cluster porosity diameter was 3/16-Inch. The porosity does exceed the AWS D1.5 acceptance criteria, and is therefore unacceptable. An MT inspection was performed. Other than the visible porosity defects, there were no defects noted with MT inspection.
17. **Span 4, Beam 2 (QA Check Location)** – connection plate to girder 2 web weld at floor beam 30. The area was cleaned using a power wire brush and then visual inspection performed. No defects were noted. An MT inspection was performed. There were no defects noted with MT inspection.

◆ SUMMARY

Bridge 440112:

1. **Span 2 Beam 2 (QA Check Location)** – No defects noted
2. **Span 3 Beam 2 (QA Check Location)** – No defects noted
3. **Span 3, Beam 2 (NDT Test Location)** – Linear indication 1-Inch long
4. **Span 4, Beam 2 (NDT Test Location)** – No defects noted
5. **Span 4, Beam 2 (QA Check Location)** – Linear indication 6-Inch long
6. **Span 4, Beam 1 (NDT Test Location)** – No defects noted
7. **Span 5, Beam 1 (NDT Test Location)** – No defects noted
8. **Span 4, Beam 1 (NDT Test Location)** – No defects noted
9. **Span 3, Beam 1 (QA Check Location)** – No defects noted
10. **Span 3, Beam 1 (NDT Test Location)** – No defects noted
11. **Span 3, Beam 1 (QA Check Location)** – Overlap, unacceptable weld profile, weld spatter, and arc strikes
12. **Span 2, Beam 1 (QA Check Location)** – Overlap, unacceptable weld profile, and arc strikes

Bridge 440108:

13. **Span 2, Beam 2 (NDT Test Location)** – No defects noted
14. **Span 3, Beam 2 (NDT Test Location)** – Linear indication 5/8-Inch long
15. **Span 3, Beam 2 (QA Check Location)** – No defects noted
16. **Span 4, Beam 2 (QA Check Location)** – Cluster Porosity
17. **Span 4, Beam 2 (QA Check Location)** – No defects noted



◆ **CLOSING**

We appreciate the opportunity to be of service on this project. Please call if you have questions or need additional information.

Sincerely,

S&ME, Inc.

A handwritten signature in blue ink, appearing to read 'Mark Powers', followed by a horizontal line.

Mark Powers, CWI/NDT Level II
Senior NDE Technician

A handwritten signature in blue ink, appearing to read 'Perry R. Vezina'.

Perry R. Vezina, ASNT NDT Level III
NDE Area Manager


Appendices

Appendix I – Photo Log

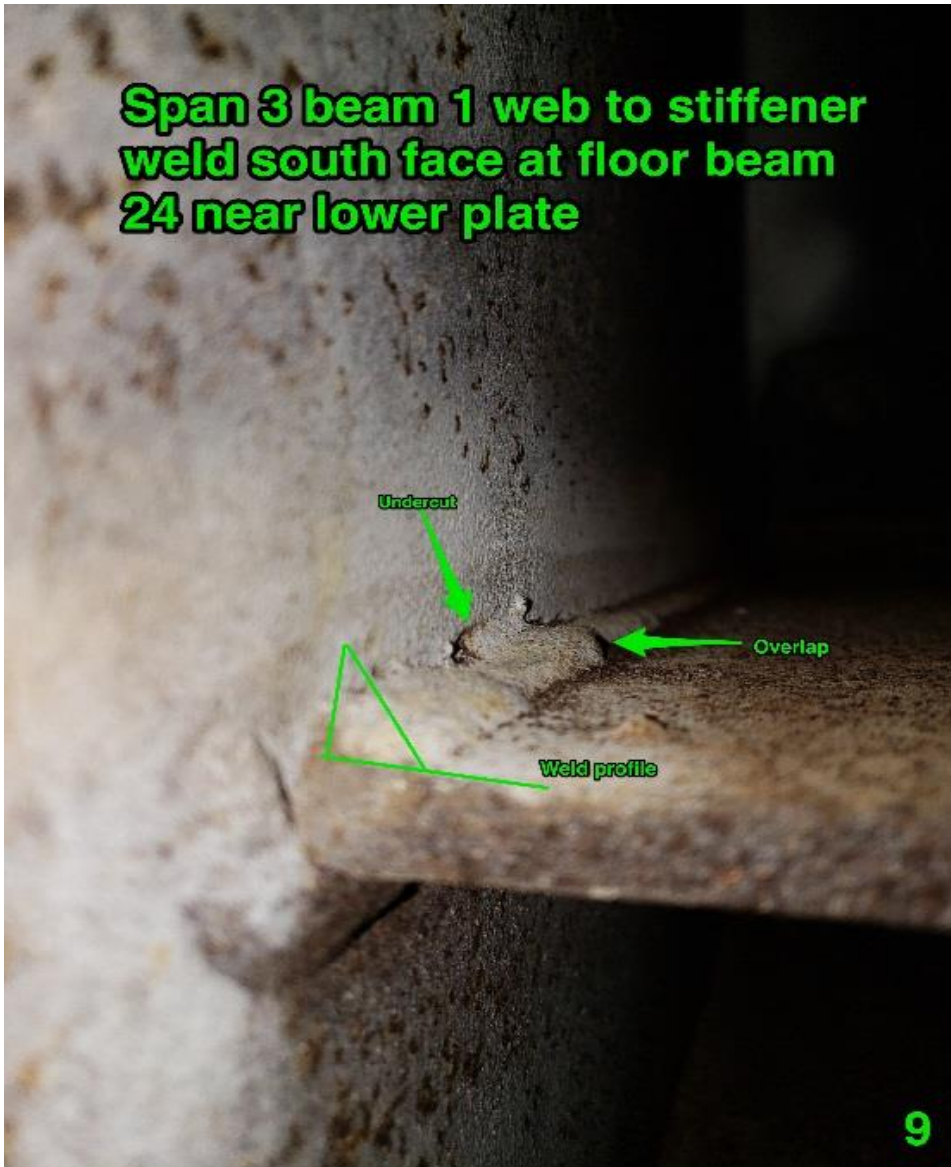


 <p style="color: green; font-weight: bold;">Span 3 beam 2 at 2nd stiffener from floor beam 26 vertical weld seam weld.</p>		Date: 8/28/2018
		Photographer: Mark Powers
Location / Orientation	440112 - Span3, Beam 2, Location 3	
Remarks	Image #1 - Transverse web splice	



		Date: 8/28/2018
		Photographer: Mark Powers
Location / Orientation	440112 - Span 4, Beam 2, Location 5	
Remarks	Image #2 - Linear indication	

		Date: 8/28/2018 Photographer: Mark Powers
Location / Orientation	440112 - Span 5, Beam 1, Location 7	
Remarks	Image #3 - Start and stop of weld	



Date: 8/28/2018

Photographer: Mark Powers

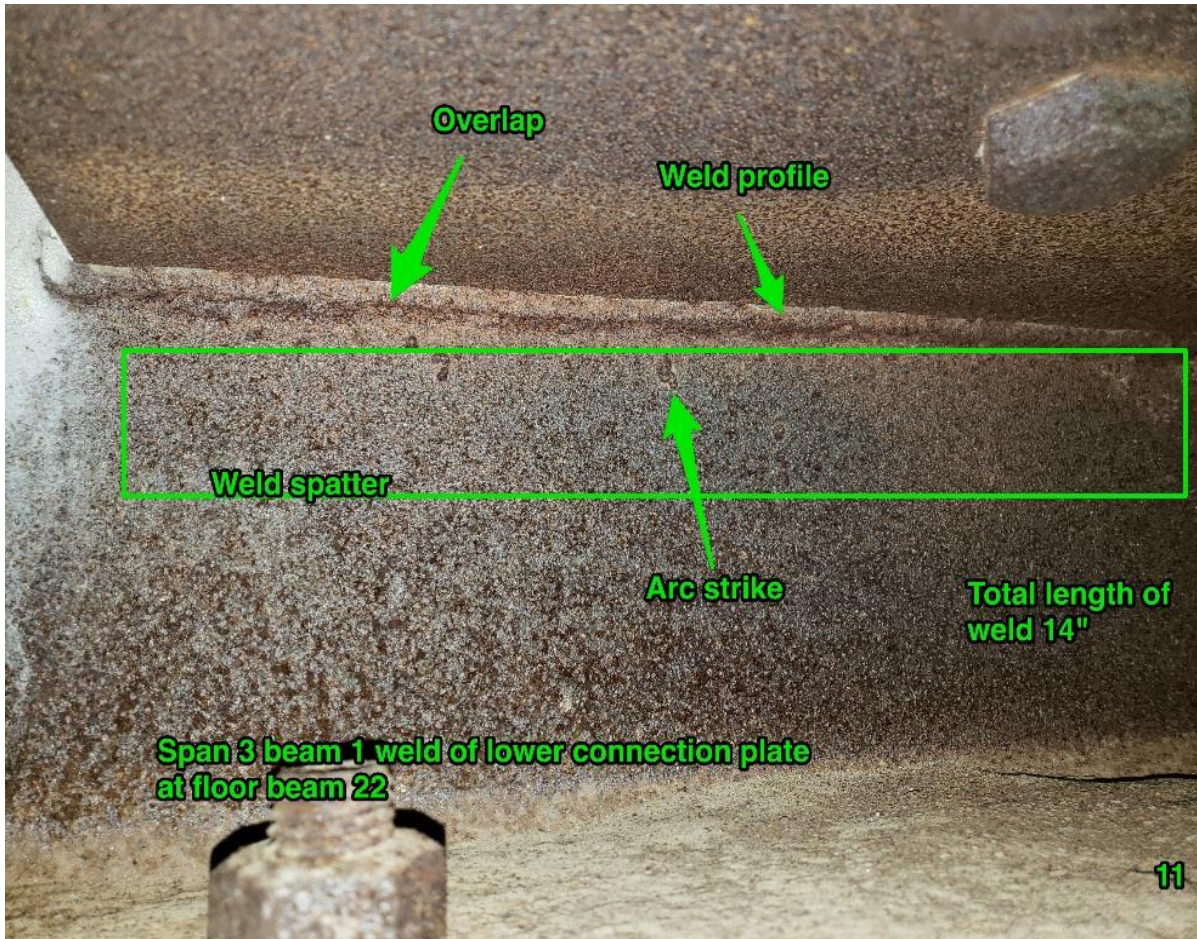
<p>Location / Orientation</p>	<p>440112 - Span 3, Beam 1, Location 9</p>
<p>Remarks</p>	<p>Image #4 - Visual Defects</p>



Date: 8/28/2018

Photographer: Mark Powers

<p>Location / Orientation</p>	<p>440112 - Span 3, Beam 1, Location 9</p>
<p>Remarks</p>	<p>Image #5 - Visual defects</p>



Date: 8/28/2018

Photographer: Mark Powers

Span 3 beam 1 weld of lower connection plate at floor beam 22

11

<p>Location / Orientation</p>	<p>440112 - Span 3, Beam 1, Location 11</p>
<p>Remarks</p>	<p>Image #6 - Visual defects</p>



Date: 8/28/2018

Photographer: Mark Powers

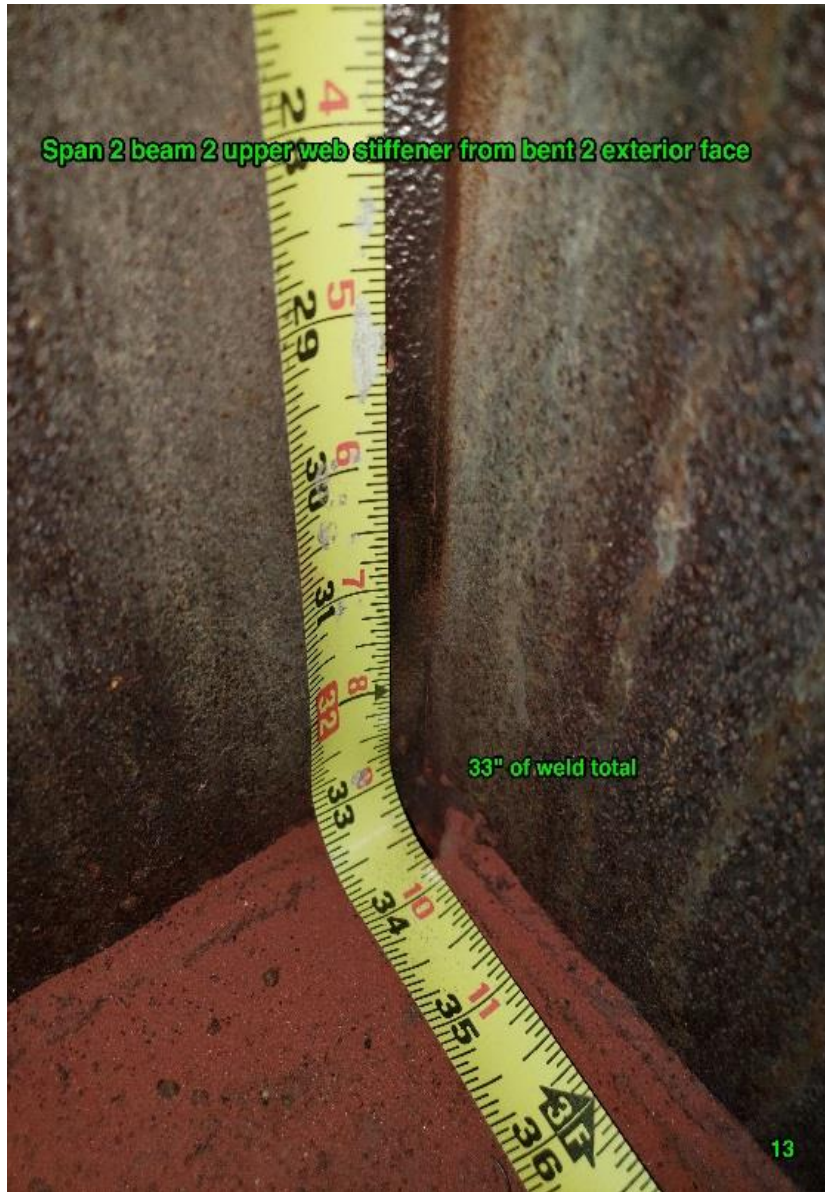
Location / Orientation	440112 - Span2, Beam 1, Location 12
Remarks	Image #7 - Visual defects



Date: 8/28/2018

Photographer: Mark Powers

Location / Orientation	440112 - Span 2, Beam 1, Location 12
Remarks	Image #8 - Visual defects



Date: 8/28/2018

Photographer: Mark Powers

<p>Location / Orientation</p>	<p>440108 - Span 2, Beam 2, Location 13</p>
<p>Remarks</p>	<p>Image #9 - Porosity locations</p>



Date: 8/28/2018

Photographer: Mark Powers

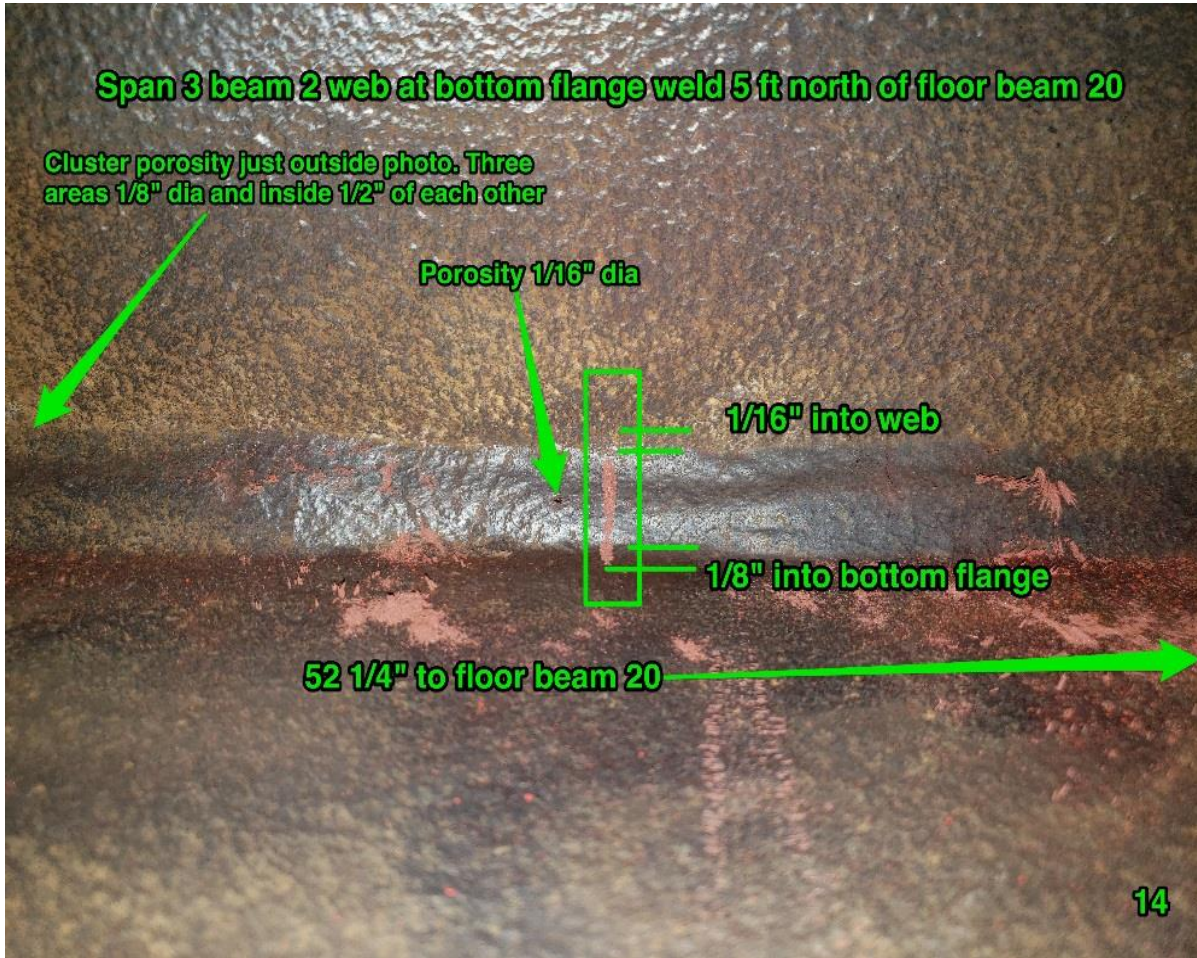
<p>Location / Orientation</p>	<p>440108 - Span 2, Beam 2, Location 13</p>
<p>Remarks</p>	<p>Image #10 - Porosity locations</p>



Date: 8/28/2018

Photographer: Mark Powers

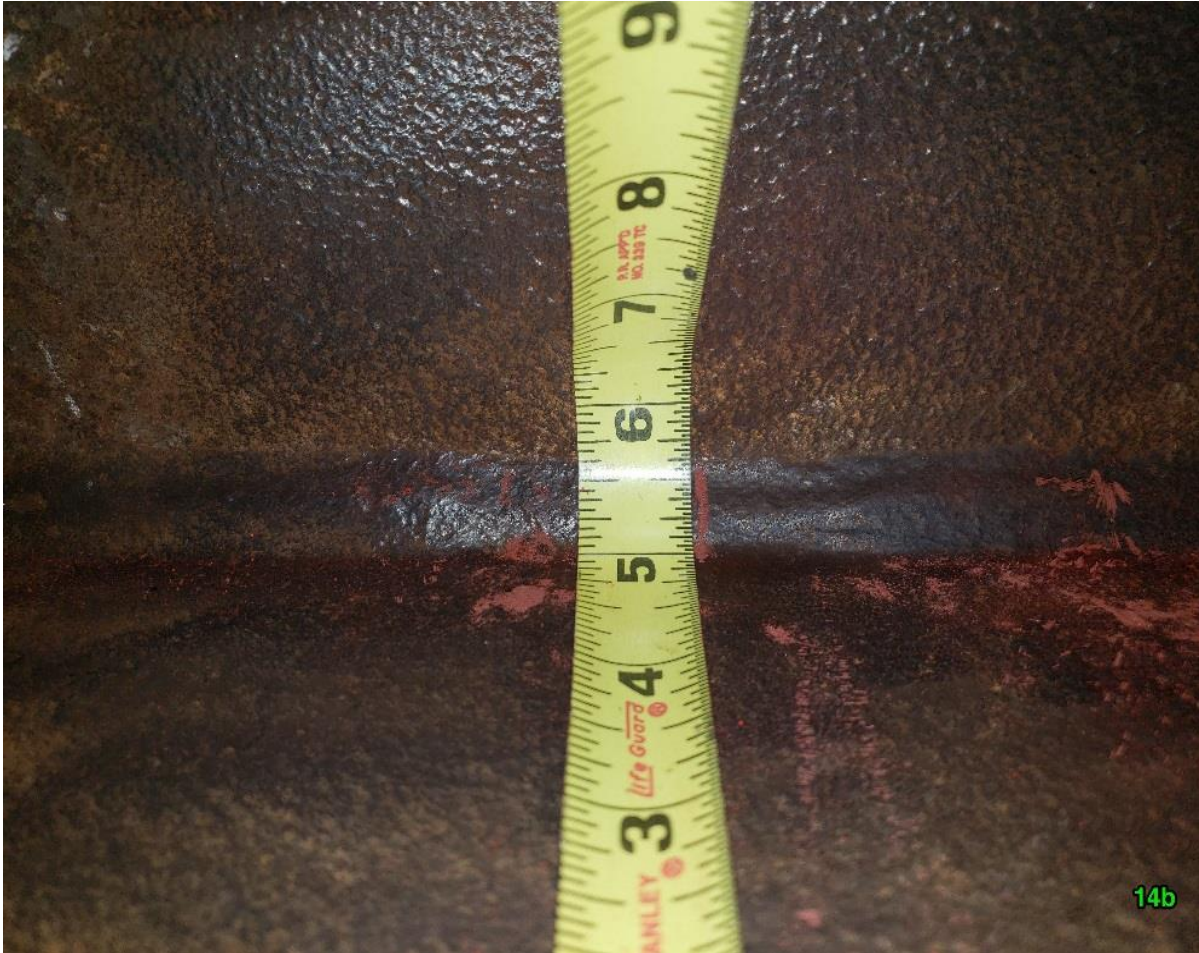
<p>Location / Orientation</p>	<p>440108 - Span 3, Beam 2, Location 14</p>
<p>Remarks</p>	<p>Image #11 - Transverse linear indication</p>



Date: 8/28/2018

Photographer: Mark Powers

Location / Orientation	440108 - Span 3, Beam 2, Location 14
Remarks	Image #12 - Linear indication



Date: 8/28/2018

Photographer: Mark Powers

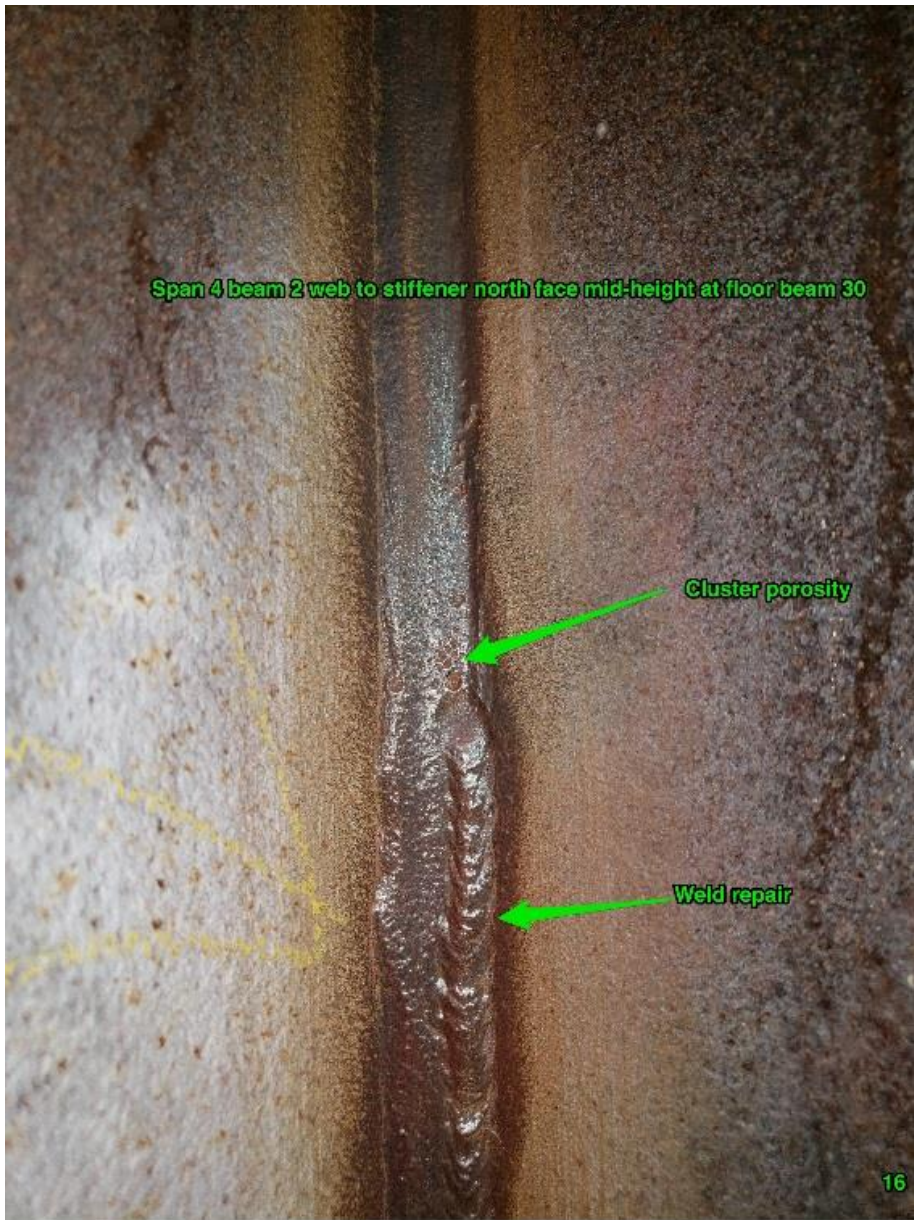
<p>Location / Orientation</p>	<p>440108 - Span 3, Beam 2, Location 14</p>
<p>Remarks</p>	<p>Image #13 - Measurement</p>



Date: 8/28/2018

Photographer: Mark Powers

<p>Location / Orientation</p>	<p>440108 - Span 3, Beam 2, Location 15</p>
<p>Remarks</p>	<p>Image #14 - Visual look at weld</p>

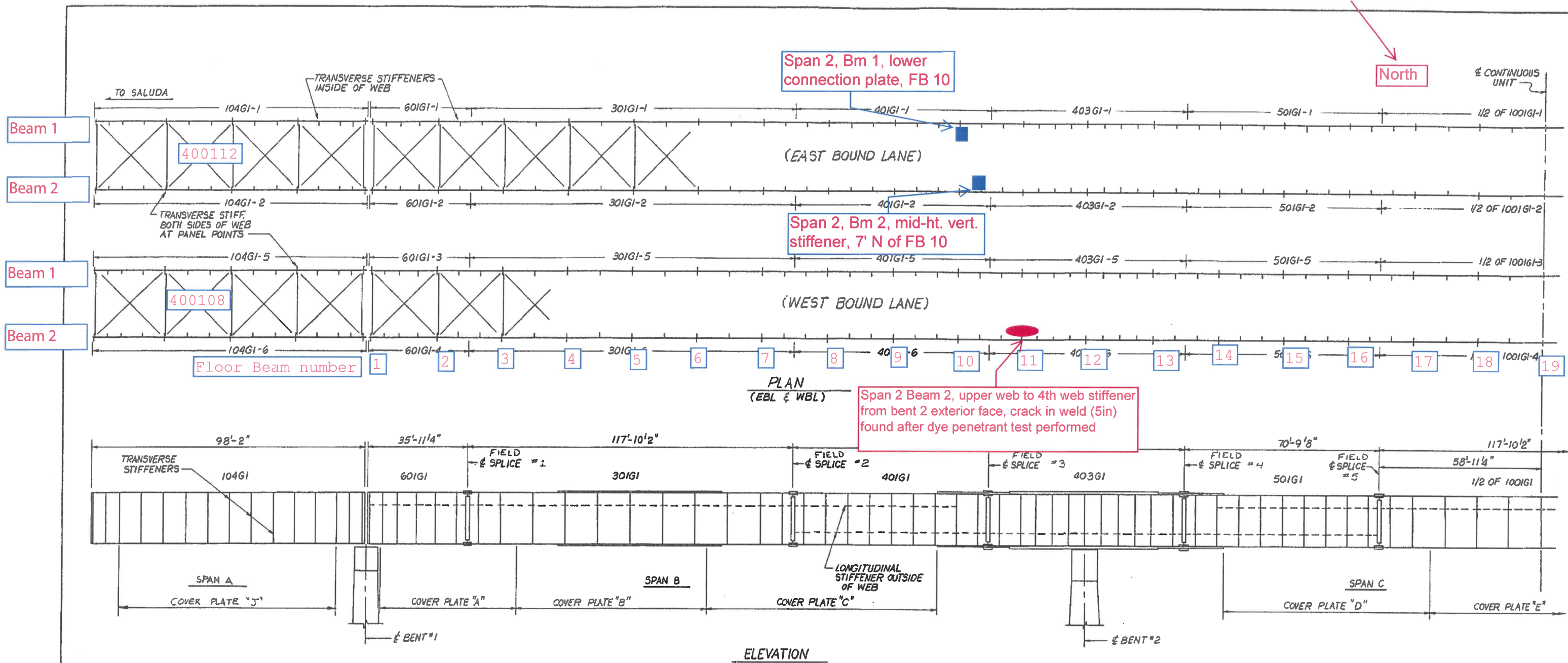


Date: 8/28/2018

Photographer: Mark Powers

<p>Location / Orientation</p>	<p>440108 - Span 4, Beam 2, Location 16</p>
<p>Remarks</p>	<p>Image #15 - Visual look at weld</p>

Appendix II – NCDOT Drawings S-3, S-4



North

CONTINUOUS UNIT
1/2 OF 100IG1-1

Beam 1

Beam 2

Beam 1

Beam 2

400112

400108

Floor Beam number

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

PLAN
(EBL & WBL)

ELEVATION

PROJECT No. 8.1950901
HENDERSON COUNTY

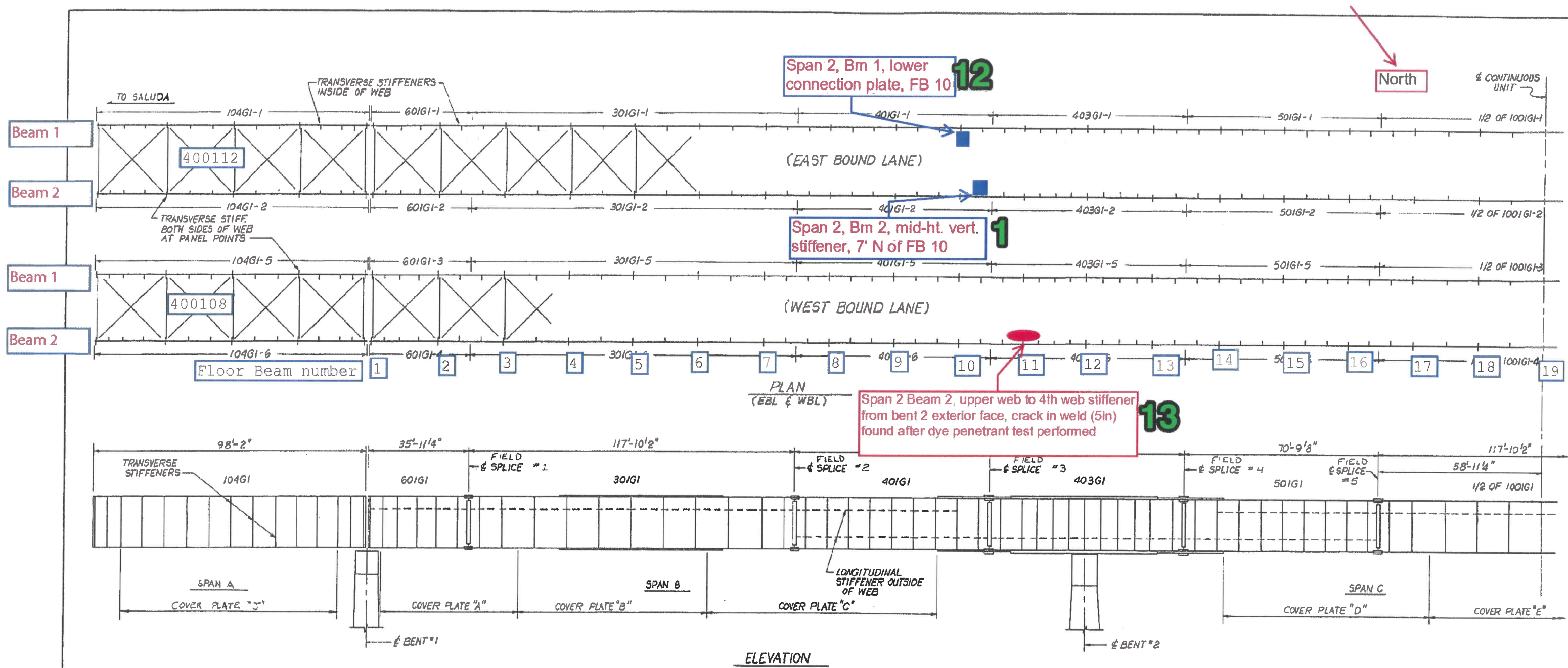
STATION:
Sheet 1 of 2

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH
PLATE GIRDER AND COVER
PLATE LAYOUT

REVISIONS						SHEET NO. 5-3
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 31
2			4			

DRAWN BY: C. M. PATTERSON DATE: 11/09/92
CHECKED BY: E. D. KLAMBRACH DATE: 1/18/93

Appendix III – Drawings S-3, S-4 with S&ME Test Locations



Span 2, Bm 1, lower connection plate, FB 10 **12**

Span 2, Bm 2, mid-ht. vert. stiffener, 7' N of FB 10 **1**

Span 2 Beam 2, upper web to 4th web stiffener from bent 2 exterior face, crack in weld (5in) found after dye penetrant test performed **13**

North

● **NDT Test Location** - Perform NDT to verify crack location, length, etc. and to determine if crack has propagated into web base metal.

■ **QA Check Location** - Perform NDT to confirm findings of previous dye-penetrant testing.

Green number = report item number

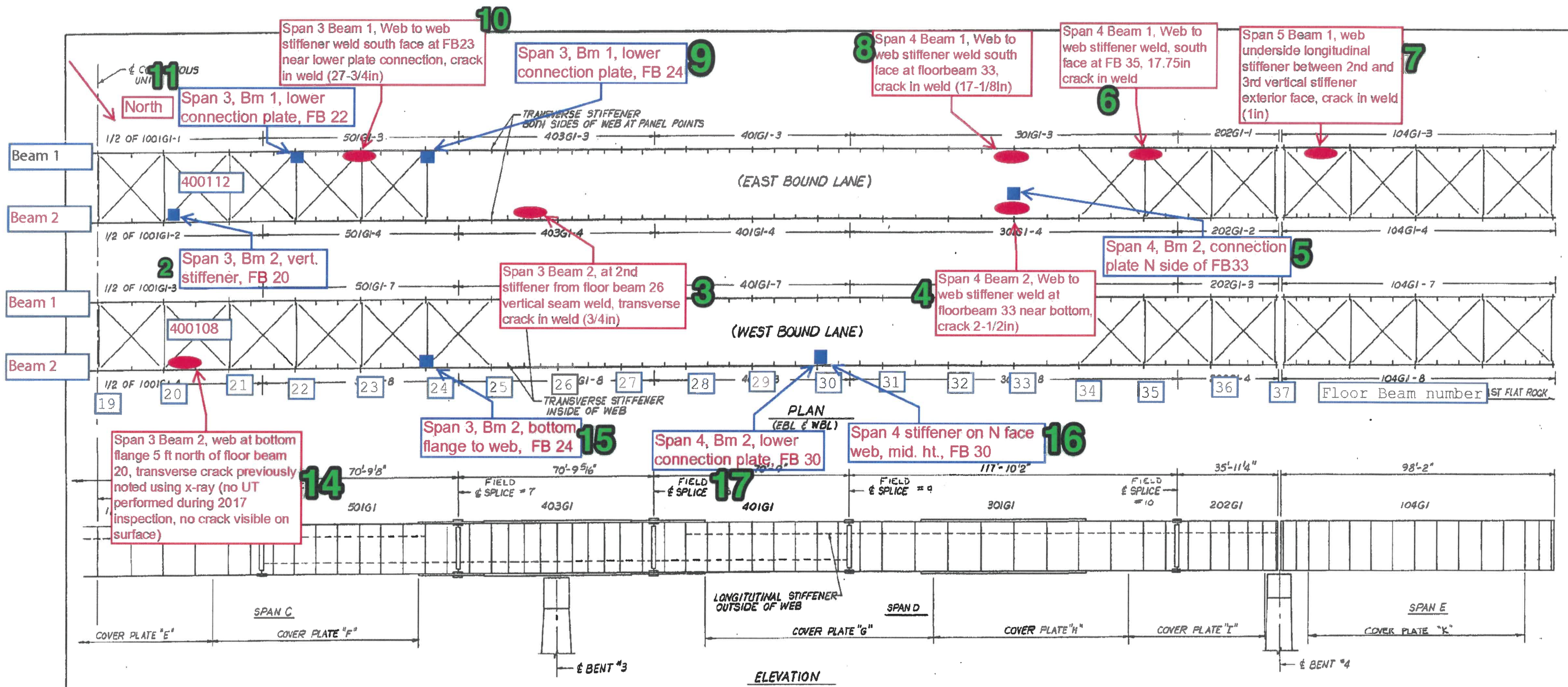
PROJECT NO. 8.1950901
 HENDERSON COUNTY

STATION:
 Sheet 1 of 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 PLATE GIRDER AND COVER
 PLATE LAYOUT

REVISIONS						SHEET NO. 5-2
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 31
2			4			

DRAWN BY L. M. Patterson DATE 11/20/92
 CHECKED BY B. P. Klarenschack DATE 11/18/93



- **NDT Test Location** - Perform NDT to verify crack location, length, etc. and to determine if crack has propagated into web base metal.
- **QA Check Location** - Perform NDT to confirm findings of previous dye-penetrant testing.

Green numbers = report item number

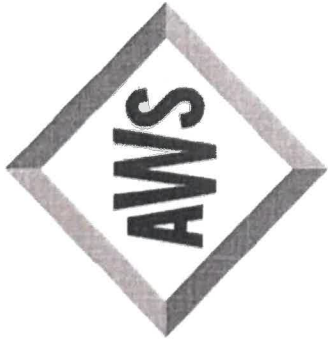
PROJECT No. 8.1950901
 HENDERSON COUNTY
 STATION: _____
 SHEET 2 of 2

STATE OF NORTH CAROLINA
 DEPARTMENT OF TRANSPORTATION
 RALEIGH
 PLATE GIRDER AND COVER
 PLATE LAYOUT

REVISIONS						SHEET NO. S-4
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS 31
2			4			

DRAWN BY: J.M. Patterson DATE: 11/09/92
 CHECKED BY: B.D. Klappenbach DATE: 1/15/95

Appendix IV – Personnel Certifications



American Welding Society®

Certifies that Welding Inspector

Ryan Byerly

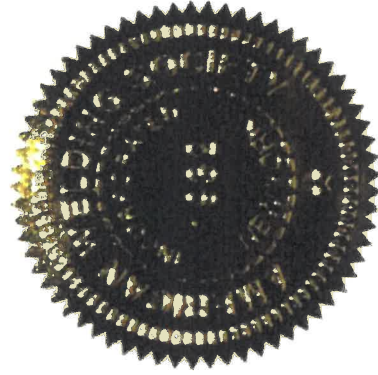
*has complied with the requirements of AWS QC1,
Standard for AWS Certification of Welding Inspectors*

18079441

CERTIFICATE NUMBER

July 01, 2021

EXPIRATION DATE



D Flood

AWS PRESIDENT

George Alfano

AWS QUALIFICATION & CERTIFICATION
COMMITTEE CHAIR

Form No: QA-M-PCR-01

Revision No. 1

Revision Date: 04/28/09

Reference: QAP-07-05

PERSONNEL CERTIFICATION RECORD



S&ME, Inc. - Raleigh 3201 Spring Forest Road Raleigh, NC 27616

Name: Ryan Byerly Date: 8/9/2016

Position/Title: Technician Department: 2360

Branch/Office: Raleigh Certification Level: MT Level II

Section A: Education Verification: (Check highest level of education verified)

High school Associate's Degree Bachelor's Degree

Master's Degree PHD Other:

School West Forsyth High School Dates: 2001-2005

Major General Studies Time: 4 years

Location Clemmons, NC

School _____ Dates: _____

Major _____ Time: _____

Location _____

Section B: Experience

Company: S&ME Dates: 9/9/2010-Present

Level: Magnetic Particle Testing Level II Time: 5 years 11 months

Location Raleigh, NC

Company: _____ Dates: _____

Level: _____ Time: _____

Location _____

Section C: Training School

Company/School: S&ME, Inc. Dates: 8/9/2013

Level/Course: MT Level II Time: 8 hours

Location Wilmington, North Carolina

Company/School: S&ME, Inc. Dates: 8/7/2013

Level/Course: MT Level I Time: 12 hours

Location Wilmington, North Carolina

Section D: Examination (Grades)

General: 80.00% Specific: 92.50% Practical: 90.00% Total Composite Grade: 87.50%

Section E: Visual Examination:

Near Vision: Meets without eye correction Meets with eye correction Does not Meet

Color Perception: Meets Does not Meet

Section F: Comments:

Recertification due 08/31/21

Section C: Approval

Perry R. Vezina
Name

Corporate NDT Level III
Position/Title

Perry R. Vezina
Signature

8/9/2016
Date

Form No: QA-M-VER-02

Revision No. 2

Revision Date: 08/08/16

Reference: QAP-07-05

VISUAL ACUITY - COLOR VISUAL EXAMINATION RECORD



Quality Assurance

S&ME, Inc. - Raleigh 3201 Spring Forest Road, Raleigh, NC 27616

Name: Ryan Byerly Date: 7/18/2018
 Position/Title: NDE Technician Department: 2360
 Branch/Office: S&ME Raleigh

Section A: Examination Performed by S&ME, Inc.

1. Visual Acuity: Natural or corrected near vision - Jager Number 1 or equivalent type and size letters at a distance of not less than twelve inches.

Meets without eye correction Meets with eye correction Does not Meet

2. Color Perception: Normal red/green and blue/yellow differentiation verified with pseudoisochromatic plates.

Meets Does not Meet

3. Examinee referred to Medical Doctor or Optometrist for further evaluation.

Yes No

Remarks:

Next Visual Acuity Check due 7/31/2019

I certify that the above named examinee has been administered a visual exam, in accordance with the above listed procedure, which demonstrates the visual capabilities indicated above, in at least one eye.

Russell W. Ogden
Name

ASNT NDE Level III
Position/Title

Signature

7/18/2018
Date

Section B: Examination conducted by Medical Doctor or Optometrist

1. Near Vision: Ability to read Jager Number 1 (J1) or equivalent type and size letters at a distance of not less than twelve inches with at least one eye.

Meets without eye correction Meets with eye correction Does not Meet

2. Color Perception: Normal red/green and blue/yellow differentiation.

Meets Does not Meet

Remarks:

I certify that the above named examinee has been administered an examination to verify the capabilities to meet No. 1 and 2 requirements above, and that the results are as noted in Section B.

Name

Position/Title

Signature

Date

Section C: Approval

Perry R. Vezina
Name

Company NDT Level III
Position/Title

Signature

7/18/2018
Date



American Welding Society®

Certifies that Welding Inspector

Mark W Powers

*has complied with the requirements of AWS QC1,
Standard for AWS Certification of Welding Inspectors*

14020401

CERTIFICATE NUMBER

February 1 2020

EXPIRATION DATE



D. F. McHard

AWS PRESIDENT

Bill Babin

AWS QUALIFICATION COMMITTEE CHAIR

George Zifko

AWS CERTIFICATION COMMITTEE CHAIR

Form No: QA-M-PCR-01

Revision No. 1

Revision Date: 04/28/09

Reference: QAP-07-05

PERSONNEL CERTIFICATION RECORD



S&ME, Inc. - Raleigh 3201 Spring Forest Road Raleigh, NC 27616

Name: Mark Powers Date: 1/5/2016
 Position/Title: NDE Technician Department: 2360
 Branch/Office: Raleigh Certification Level: MT Level II

Section A: Education Verification: (Check highest level of education verified)

High school Associate's Degree Bachelor's Degree
 Master's Degree PHD Other:

School South Brunswick High School Dates: 1986/1990
 Major General Studies Time: 4 years
 Location Boiling Springs Lakes, North Carolina
 School _____ Dates: _____
 Major _____ Time: _____
 Location _____

Section B: Experience

Company: S&ME Dates: Jan. 2013- Present
 Level: Magnetic Particle Testing Level II Time: 3 years
 Location Raleigh, NC
 Company: MQS Cooper Heat Dates: Jan. 2003- Aug. 2007
 Level: Magnetic Particle Testing Level II Time: 4 years 7 months
 Location Jacksonville, Florida

Section C: Training School

Company/School: United States Navy Dates: 8/26/1994
 Level/Course: MT Level II Time: 12 hours
 Location NAS San Diego, California
 Company/School: United States Navy Dates: 7/17/1991
 Level/Course: MT Level I Time: 8 hours
 Location NAS San Diego, California

Section D: Examination (Grades)

General: 87.50% Specific: 97.50% Practical: 96.00% Total Composite Grade: 93.67%

Section E: Visual Examination:

Near Vision: Meets without eye correction Meets with eye correction Does not Meet
 Color Perception: Meets Does not Meet

Section F: Comments:

Recertification due 01/05/19

Section C: Approval

Perry R. Vezina
Name

Corporate NDT Level III
Position/Title

Signature

1/5/2016
Date

Form No: QA-M-PCR-01

Revision No. 1

Revision Date: 04/28/09

Reference: QAP-07-05

PERSONNEL CERTIFICATION RECORD



S&ME, Inc. - Raleigh 3201 Spring Forest Road Raleigh, NC 27616

Name: Mark Powers Date: 1/5/2016

Position/Title: NDE Technician Department: 2360

Branch/Office: Raleigh Certification Level: UT Level II

Section A: Education Verification: (Check highest level of education verified)

High school Associate's Degree Bachelor's Degree
 Master's Degree PHD Other:

School South Brunswick High School Dates: 1986/1990
 Major General Studies Time: 4 years
 Location Boiling Springs Lakes, North Carolina

School _____ Dates: _____
 Major _____ Time: _____
 Location _____

Section B: Experience

Company: S&ME Dates: Jan. 2013- Present
 Level: Ultrasonic Testing Level II Time: 3 years
 Location Raleigh, NC

Company: MQS Cooper Heat Dates: Jan. 2003- Aug. 2007
 Level: Ultrasonic Testing Level II Time: 4 years 7 months
 Location Jacksonville, Florida

Section C: Training School

Company/School: Krautkramer NDT Schools Dates: 7/24/1998
 Level/Course: UT Level II Time: 40 hours
 Location Lewistown, Pennsylvania

Company/School: Krautkramer NDT Schools Dates: 7/17/1998
 Level/Course: UT Level I Time: 40 hours
 Location Lewistown, Pennsylvania

Section D: Examination (Grades)

General: 87.50% Specific: 92.50% Practical: 89.00% Total Composite Grade: 89.67%

Section E: Visual Examination:

Near Vision: Meets without eye correction Meets with eye correction Does not Meet
 Color Perception: Meets Does not Meet

Section F: Comments:

Recertification due 01/05/19

Certification meets ASME Section V, AWS D1.1, AWS D1.5, and AWS D1.8 requirements

Section C: Approval

Perry R. Vezina
Name

Corporate NDT Level III
Position/Title

Perry R. Vezina
Signature

1/5/2016
Date

VISUAL ACUITY - COLOR VISUAL EXAMINATION RECORD



Quality Assurance

S&ME, Inc. - Corporate 3201 Spring Forest Road, Raleigh, NC 27616

Name:	Mark Powers	Date:	1/12/2018.
Position/Title:	NDE Technician	Department:	2360
Branch/Office:	S&ME Raleigh		

Section A: Examination Performed by S&ME, Inc.

1. Visual Acuity: Natural or corrected near vision - Jager Number 1 or equivalent type and size letters at a distance of not less than twelve inches.

<input checked="" type="checkbox"/> Meets without eye correction	<input type="checkbox"/> Meets with eye correction	<input type="checkbox"/> Does not Meet
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2. Color Perception: Normal red/green and blue/yellow differentiation verified with pseudoisochromatic plates.

<input checked="" type="checkbox"/> Meets	<input type="checkbox"/> Does not Meet
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3. Examinee referred to Medical Doctor or Optometrist for further evaluation.

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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Remarks: Next visual acuity check due 1/31/19

I certify that the above named examinee has been administered a visual exam, in accordance with the above listed procedure, which demonstrates the visual capabilities indicated above, in at least one eye.

Perry R. Vezina
Name

Company NDT Level III
Position/Title

Perry R. Vezina
Signature

1/12/2018
Date

Section B: Examination conducted by Medical Doctor or Optometrist

1. Near Vision: Ability to read Jager Number 1 (J1) or equivalent type and size letters at a distance of not less than twelve inches with at least one eye.

<input type="checkbox"/> Meets without eye correction	<input type="checkbox"/> Meets with eye correction	<input type="checkbox"/> Does not Meet
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2. Color Perception: Normal red/green and blue/yellow differentiation.

<input type="checkbox"/> Meets	<input type="checkbox"/> Does not Meet
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Remarks:

I certify that the above named examinee has been administered an examination to verify the capabilities to meet No. 1 and 2 requirements above, and that the results are as noted in Section B.

Name

Position/Title

Signature

Date

Section C: Approval

Perry R. Vezina
Name

Company NDT Level III
Position/Title

Perry R. Vezina
Signature

1/12/2018
Date