

# **Structure Safety Report**

## **Routine Element Inspection - Contract**

| DUPLIN                           | STRUCTURE NUMBER: 3 | 00016              | FREQUENCY: 24 MONTHS  |
|----------------------------------|---------------------|--------------------|-----------------------|
| CILITY CARRIED: US117 NBL        | -                   | N                  | MILE POST:            |
| CATION: 0.1MI.N.JCT.SR1320       | )                   |                    |                       |
| ATURE INTERSECTED: CSX R         | AILROAD             |                    |                       |
| TITUDE: 35° 8' 58.65"            | LONGITU             | JDE: 78° 6' 32.65" |                       |
|                                  |                     |                    |                       |
|                                  |                     | RDERS              |                       |
| BSTRUCTURE: E.BTS:RC SPI         |                     | RDERS              |                       |
| PANS: 5@42'-6  FRACTURE CRITICAL |                     | RDERS              | □SCOUR PLAN OF ACTION |
| PANS: 5@42'-6                    | LL THRU;BTS:RCP&B   |                    | _                     |
| PANS: 5@42'-6  FRACTURE CRITICAL | LL THRU;BTS:RCP&B   | SCOUR CRITICAL     | 1/17/2015             |



| ign notice |                 |   | lumber<br>equired |  |
|------------|-----------------|---|-------------------|--|
| NO         | WEIGHT LIMIT    |   | 0                 |  |
| NO         | DELINEATORS     |   | 0                 |  |
| NO         | NARROW BRIDGE   | _ | 0                 |  |
| NO         | ONE LANE BRIDGE |   | 0                 |  |
| NO         | LOW CLEARANCE   | _ | 0                 |  |
|            |                 | - |                   |  |

## LOOKING NORTH

| INSPECTED BY | SIGNATURE | 110      | ASSISTED BY | R D WILLIAMS |
|--------------|-----------|----------|-------------|--------------|
| TS EARP      |           | / d Earp |             |              |

# Span Element Report

Structure Number: 300016 Inspection Date: 11/17/2015

Span Number 1 Span Length 40.92 Feet Number of Beams/Girders: 4

| Element<br>Number | Parent<br>Number | Element Name                         | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code |
|-------------------|------------------|--------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|
| 12                |                  | Reinforced Concrete Deck             | 1,114             | 1,114               | 0                   | 0                   | 0                   | 0                  | 3326           |
| 110               |                  | Reinforced Concrete Open Girder/Bear | 164               | 141                 | 14                  | 9                   | 0                   | 23                 | 3306           |
| 205               |                  | Reinforced Concrete Column           | 3                 | 3                   | 0                   | 0                   | 0                   | 0                  | 3348           |
| 234               |                  | Reinforced Concrete Pier Cap         | 45                | 0                   | 45                  | 0                   | 0                   | 45                 | 3348           |
| 316               |                  | Other Bearings                       | 8                 | 8                   | 0                   | 0                   | 0                   | 0                  | 3334           |
| 331               |                  | Reinforced Concrete Bridge Railing   | 82                | 68                  | 14                  | 0                   | 0                   | 14                 | 3318           |
| 510               |                  | Wearing Surface                      | 1,105             | 1,063               | 42                  | 0                   | 0                   | 42                 | 2816           |

<sup>&</sup>quot;Near" Approach and Substructure quantities have been include for reporting purposes. The last span will also include End Bent 2 and Far Approach quantities where applicable

#### Span Number 2

#### Span Length 40.92 Feet

#### Number of Beams/Girders: 4

| Element<br>Number | Parent<br>Number | Element Name                         | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code |
|-------------------|------------------|--------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|
| 12                |                  | Reinforced Concrete Deck             | 1,114             | 1,070               | 44                  | 0                   | 0                   | 44                 | 3326           |
| 110               |                  | Reinforced Concrete Open Girder/Bear | 164               | 95                  | 54                  | 2                   | 13                  | 69                 | 3306           |
| 205               |                  | Reinforced Concrete Column           | 3                 | 0                   | 2                   | 1                   | 0                   | 3                  | 3348           |
| 234               |                  | Reinforced Concrete Pier Cap         | 45                | 0                   | 20                  | 21                  | 4                   | 45                 | 3348           |
| 301               |                  | Pourable Joint Seal                  | 42                | 0                   | 42                  | 0                   | 0                   | 42                 | 3310           |
| 316               |                  | Other Bearings                       | 8                 | 8                   | 0                   | 0                   | 0                   | 0                  | 3334           |
| 331               |                  | Reinforced Concrete Bridge Railing   | 82                | 0                   | 82                  | 0                   | 0                   | 82                 | 3318           |
| 510               |                  | Wearing Surface                      | 1,105             | 1,063               | 42                  | 0                   | 0                   | 42                 | 2816           |

<sup>&</sup>quot;Near" Approach and Substructure quantities have been include for reporting purposes. The last span will also include End Bent 2 and Far Approach quantities where applicable

## Span Number 3

## Span Length 40.92 Feet

#### Number of Beams/Girders: 4

| Element<br>Number | Parent<br>Number | Element Name                         | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code |
|-------------------|------------------|--------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|
| 12                |                  | Reinforced Concrete Deck             | 1,114             | 1,114               | 0                   | 0                   | 0                   | 0                  | 3326           |
| 110               |                  | Reinforced Concrete Open Girder/Bear | 164               | 163                 | 0                   | 1                   | 0                   | 1                  | 3306           |
| 205               |                  | Reinforced Concrete Column           | 3                 | 0                   | 2                   | 0                   | 1                   | 3                  | 3348           |
| 234               |                  | Reinforced Concrete Pier Cap         | 45                | 26                  | 13                  | 0                   | 6                   | 19                 | 3348           |
| 301               |                  | Pourable Joint Seal                  | 42                | 0                   | 42                  | 0                   | 0                   | 42                 | 3310           |
| 316               |                  | Other Bearings                       | 8                 | 8                   | 0                   | 0                   | 0                   | 0                  | 3334           |
| 331               |                  | Reinforced Concrete Bridge Railing   | 82                | 0                   | 82                  | 0                   | 0                   | 82                 | 3318           |
| 510               |                  | Wearing Surface                      | 1,105             | 1,063               | 42                  | 0                   | 0                   | 42                 | 2816           |

"Near" Approach and Substructure quantities have been include for reporting purposes. The last span will also include End Bent 2 and Far Approach quantities where applicable

#### Span Number 4

#### Span Length 40.92 Feet

## Number of Beams/Girders: 4

| Element<br>Number | Parent<br>Number | Element Name                         | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code |
|-------------------|------------------|--------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|
| 12                |                  | Reinforced Concrete Deck             | 1,114             | 897                 | 217                 | 0                   | 0                   | 217                | 3326           |
| 110               |                  | Reinforced Concrete Open Girder/Bear | 164               | 88                  | 76                  | 0                   | 0                   | 76                 | 3306           |
| 205               |                  | Reinforced Concrete Column           | 3                 | 0                   | 3                   | 0                   | 0                   | 3                  | 3348           |
| 234               |                  | Reinforced Concrete Pier Cap         | 45                | 0                   | 12                  | 21                  | 12                  | 45                 | 3348           |

| Structure Number: 300016 Inspection Date: 11/17/2015 |  |                                    |       |       |    |   |    |    | 11/17/2015 |
|--|--|------------------------------------|-------|-------|----|---|----|----|------------|
| 301  |  | Pourable Joint Seal                | 42    | 0     | 7  | 0 | 35 | 42 | 3310       |
| 316  |  | Other Bearings                     | 8     | 8     | 0  | 0 | 0  | 0  | 3334       |
| 331  |  | Reinforced Concrete Bridge Railing | 82    | 0     | 82 | 0 | 0  | 82 | 3318       |
| 510  |  | Wearing Surface                    | 1,105 | 1,063 | 42 | 0 | 0  | 42 | 2816       |

"Near" Approach and Substructure quantities have been include for reporting purposes. The last span will also include End Bent 2 and Far Approach quantities where applicable

#### Span Number 5

## Span Length 40.92 Feet

#### Number of Beams/Girders: 4

| Element<br>Number | Parent<br>Number | Element Name                         | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code |
|-------------------|------------------|--------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|
| 12                |                  | Reinforced Concrete Deck             | 1,114             | 1,112               | 2                   | 0                   | 0                   | 2                  | 3326           |
| 110               |                  | Reinforced Concrete Open Girder/Bear | 164               | 123                 | 38                  | 0                   | 3                   | 41                 | 3306           |
| 205               |                  | Reinforced Concrete Column           | 6                 | 3                   | 3                   | 0                   | 0                   | 3                  | 3348           |
| 234               |                  | Reinforced Concrete Pier Cap         | 90                | 0                   | 68                  | 16                  | 6                   | 90                 | 3348           |
| 301               |                  | Pourable Joint Seal                  | 42                | 0                   | 34                  | 8                   | 0                   | 42                 | 3310           |
| 316               |                  | Other Bearings                       | 8                 | 8                   | 0                   | 0                   | 0                   | 0                  | 3334           |
| 331               |                  | Reinforced Concrete Bridge Railing   | 82                | 0                   | 82                  | 0                   | 0                   | 82                 | 3318           |
| 510               |                  | Wearing Surface                      | 1,105             | 1,063               | 42                  | 0                   | 0                   | 42                 | 2816           |

<sup>&</sup>quot;Near" Approach and Substructure quantities have been include for reporting purposes. The last span will also include End Bent 2 and Far Approach quantities where applicable

# **Superstructure Detailed Element Quantites**

Structure Number: 300016 Inspection Date: 11/17/2015

| Element Location   | Location<br>Number | Element<br>Number | Element Name                         | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code | Priority<br>Maintenance |
|--------------------|--------------------|-------------------|--------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|-------------------------|
| ✓ Deck             | 1                  | 12                | Reinforced Concrete Deck             | 1114              | 1114                | 0                   | 0                   | 0                   | 0                  | 3326           | Requested               |
| ✓ Bridge Rail      | 1                  | 331               | Reinforced Concrete Bridge Railing   | 41                | 27                  | 14                  | 0                   | 0                   | 14                 | 3318           | Requested               |
| ✓ Bridge Rail      | 2                  | 331               | Reinforced Concrete Bridge Railing   | 41                | 41                  | 0                   | 0                   | 0                   | 0                  | 3318           | Requested               |
| ✓ Wearing Surfaces |                    | 510               | Wearing Surface                      | 1105              | 1063                | 42                  | 0                   | 0                   | 42                 | 2816           | Requested               |
| ✓ Beam             | 1                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 33                  | 8                   | 0                   | 0                   | 8                  | 3306           | Requested               |
| ✓ Beam             | 2                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 41                  | 0                   | 0                   | 0                   | 0                  | 3306           | Requested               |
| ✓ Beam             | 3                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 41                  | 0                   | 0                   | 0                   | 0                  | 3306           | Requested               |
| ✓ Beam             | 4                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 26                  | 6                   | 9                   | 0                   | 15                 | 3306           | ✓ Requested             |
| ✓ Bearing Device   | 1                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 1                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 2                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 2                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 3                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 3                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 4                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 4                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |

| Element Location   | Location<br>Number | Element<br>Number | Element Name                         | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code | Priority<br>Maintenance |
|--------------------|--------------------|-------------------|--------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|-------------------------|
| ✓ Deck             | 1                  | 12                | Reinforced Concrete Deck             | 1114              | 1070                | 44                  | 0                   | 0                   | 44                 | 3326           | Requested               |
| ✓ Bridge Rail      | 1                  | 331               | Reinforced Concrete Bridge Railing   | 41                | 0                   | 41                  | 0                   | 0                   | 41                 | 3318           | Requested               |
| ✓ Bridge Rail      | 2                  | 331               | Reinforced Concrete Bridge Railing   | 41                | 0                   | 41                  | 0                   | 0                   | 41                 | 3318           | Requested               |
| ✓ Wearing Surfaces |                    | 510               | Wearing Surface                      | 1105              | 1063                | 42                  | 0                   | 0                   | 42                 | 2816           | Requested               |
| ✓ Beam             | 1                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 10                  | 18                  | 0                   | 13                  | 31                 | 3306           | Requested               |
| ✓ Beam             | 2                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 41                  | 0                   | 0                   | 0                   | 0                  | 3306           | Requested               |
| ✓ Beam             | 3                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 32                  | 9                   | 0                   | 0                   | 9                  | 3306           | Requested               |
| ✓ Beam             | 4                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 12                  | 27                  | 2                   | 0                   | 29                 | 3306           | Requested               |
| ✓ Bearing Device   | 1                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 1                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 2                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 2                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 3                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 3                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| Bearing Device     | 4                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| Bearing Device     | 4                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| Expansion Joints   | 1                  | 301               | Pourable Joint Seal                  | 42                | 0                   | 42                  | 0                   | 0                   | 42                 | 3310           | Requested               |

| Element Location   | Location<br>Number | Element<br>Number | Element Name                         | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code | Priority<br>Maintenance |
|--------------------|--------------------|-------------------|--------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|-------------------------|
| ✓ Deck             | 1                  | 12                | Reinforced Concrete Deck             | 1114              | 1114                | 0                   | 0                   | 0                   | 0                  | 3326           | Requested               |
| ✓ Bridge Rail      | 1                  | 331               | Reinforced Concrete Bridge Railing   | 41                | 0                   | 41                  | 0                   | 0                   | 41                 | 3318           | Requested               |
| ✓ Bridge Rail      | 2                  | 331               | Reinforced Concrete Bridge Railing   | 41                | 0                   | 41                  | 0                   | 0                   | 41                 | 3318           | Requested               |
| ✓ Wearing Surfaces |                    | 510               | Wearing Surface                      | 1105              | 1063                | 42                  | 0                   | 0                   | 42                 | 2816           | Requested               |
| ✓ Beam             | 1                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 41                  | 0                   | 0                   | 0                   | 0                  | 3306           | Requested               |
| ✓ Beam             | 2                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 41                  | 0                   | 0                   | 0                   | 0                  | 3306           | Requested               |
| ✓ Beam             | 3                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 41                  | 0                   | 0                   | 0                   | 0                  | 3306           | Requested               |
| ✓ Beam             | 4                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 40                  | 0                   | 1                   | 0                   | 1                  | 3306           | Requested               |
| ✓ Bearing Device   | 1                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 1                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 2                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 2                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 3                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 3                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| Bearing Device     | 4                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| Bearing Device     | 4                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| Expansion Joints   | 1                  | 301               | Pourable Joint Seal                  | 42                | 0                   | 42                  | 0                   | 0                   | 42                 | 3310           | Requested               |

| Element Location   | Location<br>Number | Element<br>Number | Element Name                         | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code | Priority<br>Maintenance |
|--------------------|--------------------|-------------------|--------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|-------------------------|
| ✓ Deck             | 1                  | 12                | Reinforced Concrete Deck             | 1114              | 897                 | 217                 | 0                   | 0                   | 217                | 3326           | Requested               |
| ✓ Bridge Rail      | 1                  | 331               | Reinforced Concrete Bridge Railing   | 41                | 0                   | 41                  | 0                   | 0                   | 41                 | 3318           | Requested               |
| ✓ Bridge Rail      | 2                  | 331               | Reinforced Concrete Bridge Railing   | 41                | 0                   | 41                  | 0                   | 0                   | 41                 | 3318           | Requested               |
| ✓ Wearing Surfaces |                    | 510               | Wearing Surface                      | 1105              | 1063                | 42                  | 0                   | 0                   | 42                 | 2816           | Requested               |
| ✓ Beam             | 1                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 8                   | 33                  | 0                   | 0                   | 33                 | 3306           | Requested               |
| ✓ Beam             | 2                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 34                  | 7                   | 0                   | 0                   | 7                  | 3306           | Requested               |
| ✓ Beam             | 3                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 41                  | 0                   | 0                   | 0                   | 0                  | 3306           | Requested               |
| ✓ Beam             | 4                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 5                   | 36                  | 0                   | 0                   | 36                 | 3306           | Requested               |
| ✓ Bearing Device   | 1                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 1                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 2                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 2                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 3                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 3                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 4                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 4                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| Expansion Joints   | 1                  | 301               | Pourable Joint Seal                  | 42                | 0                   | 7                   | 0                   | 35                  | 42                 | 3310           | Requested               |

| Element Location   | Location<br>Number | Element<br>Number | Element Name                         | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code | Priority<br>Maintenance |
|--------------------|--------------------|-------------------|--------------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|-------------------------|
| ✓ Deck             | 1                  | 12                | Reinforced Concrete Deck             | 1114              | 1112                | 2                   | 0                   | 0                   | 2                  | 3326           | Requested               |
| ✓ Bridge Rail      | 1                  | 331               | Reinforced Concrete Bridge Railing   | 41                | 0                   | 41                  | 0                   | 0                   | 41                 | 3318           | Requested               |
| ✓ Bridge Rail      | 2                  | 331               | Reinforced Concrete Bridge Railing   | 41                | 0                   | 41                  | 0                   | 0                   | 41                 | 3318           | Requested               |
| ✓ Wearing Surfaces |                    | 510               | Wearing Surface                      | 1105              | 1063                | 42                  | 0                   | 0                   | 42                 | 2816           | Requested               |
| ✓ Beam             | 1                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 0                   | 38                  | 0                   | 3                   | 41                 | 3306           | Requested               |
| ✓ Beam             | 2                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 41                  | 0                   | 0                   | 0                   | 0                  | 3306           | Requested               |
| ✓ Beam             | 3                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 41                  | 0                   | 0                   | 0                   | 0                  | 3306           | Requested               |
| ✓ Beam             | 4                  | 110               | Reinforced Concrete Open Girder/Beam | 41                | 41                  | 0                   | 0                   | 0                   | 0                  | 3306           | Requested               |
| ✓ Bearing Device   | 1                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 1                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 2                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 2                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 3                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 3                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 4                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| ✓ Bearing Device   | 4                  | 316               | Other Bearings                       | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3334           | Requested               |
| Expansion Joints   | 1                  | 301               | Pourable Joint Seal                  | 42                | 0                   | 34                  | 8                   | 0                   | 42                 | 3310           | Requested               |

## Superstructure Element Defect Descriptions

Structure Number: 300016 Inspection Date: 11/17/2015

Span Number 1

Span 1 Bridge Rail 1 Component Name: Concrete Railing

Element: 331 Name Reinforced Concrete Bridge Ra Qty: 41 Lvl 2: 14 Lvl 3 0 Lvl 4 0 Maint. Qty 14

**Defect Description:** 

10 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound. LEFT CURB IS CRACKED, SPALLED AND DELAMINATED 10' FROM END BENT 1 AREA IS 10' LONG 10" UP FACE 8" BACK ON TOP.

4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound. LEFT CURB @ MID SPAN FACE IS CRACKED, SPALLED AND DELAMINATED. AREA IS 4' LONG 6" HIGH 1" DEEP.

Span 1 Wearing Surfaces Component Name: Asphalt Wearing Surface

Element: 510 Name Wearing Surface Qty: 1105 Lvl 2: 42 Lvl 3 0 Lvl 4 0 Maint. Qty 42

Defect Description: 42 Lvl 3 0 Lvl 4 0 Maint. Qty 42

42 Square Feet of Crack (Wearing Surface): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. THE ASPHALT OVER BENT 1 IS CRACKED.

Span 1 Beam 1 Component Name: Reinforced Concrete Girder

Element: 110 Name Reinforced Concrete Open Gird Qty: 41 Lvl 2: 8 Lvl 3 0 Lvl 4 0 Maint. Qty 8

Defect Description:

8 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. SPAN 1 LEFT SIDE OF G1 NEAR BENT 1 SCATTERED MAP CRACKING IN FACE OF GIRDER.

Span 1 Beam 4 Component Name: Reinforced Concrete Girder

Element: 110 Name Reinforced Concrete Open Gird Qty: 41 Lvl 2: 6 Lvl 3 9 Lvl 4 0 Maint. Qty 15

**Defect Description:** 

9 Feet of Delamination/Spall/Patched Area: Spall greater than 1 in. deep or greater than 6 in. diameter. Patched area that is unsound or showing distress. Does not warrant structural review.

SPAN 1 G4 CRACKED AND DELAMINATED SPALL AREA AT MID SPAN ALONG LEFT AND RIGHT SIDE AND UNDER BOTTOM 9" UP FACE 8' 5" LONG 18" WIDE.

4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound

SPAN 1 LEFT AND RIGHT SIDE AND BOTTOM OF G4 AT BENT 1 IS CRACKED AND DELAMINATED 6" UP EACH FACE 18" WIDE UNDER BOTTOM 4' LONG.

2 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.

SPAN 1 RIGHT SIDE OF G4 CRACKED SPALL DELAMINATED AREA FROM THE END BACK 20" TOP DOWN 24" 3" DEEP.

#### Span Number 2

Span 2 Deck 1 Component Name: Reinforced Concrete Deck

Element: 12 Name Reinforced Concrete Deck Qty: 1114 Lvl 2: 44 Lvl 3 0 Lvl 4 0 Maint. Qty

Defect Description: 44 Lvl 3 0 Lvl 4 0 Maint. Qty

4 Square Feet of Delamination/Spall: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. SPAN 2 BOTTOM OF DECK OF BAY 3 OVER BENT 1 CAP CRACKED AND DELAMINATED AREA WITH REBAR EXPOSED.

40 Square Feet of Delamination/Spall: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. SPAN 2 BOTTOM OF DECK IN BAY 1 CRACKED AND DELAMINATED FROM BENT OUT 10' 4' WIDE.

Span 2 Bridge Rail 1 Component Name: Concrete Railing

Element: 331 Name Reinforced Concrete Bridge Ra Qty: 41 Lvl 2: 41 Lvl 3 0 Lvl 4 0 Maint. Qty 41

Defect Description: 41 Lvl 3 0 Lvl 4 0 Maint. Qty 41

41 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. LEFT CURB FACE IS CRACKED FULL LENGTH.

Span 2 Bridge Rail 2 Component Name: Concrete Railing

Element: 331 Name Reinforced Concrete Bridge Ra Qty: 41 Lvl 2: 41 Lvl 3 0 Lvl 4 0 Maint. Qty 41

**Defect Description:** 

41 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. FACE OF CURB HAS A CRACK FULL LENGTH OF SPAN

Span 2Wearing SurfacesComponent Name:Asphalt Wearing SurfaceElement: 510Name Wearing SurfaceQty:1105Lvl 2:42Lvl 3:0Lvl 4:0Maint. Qty42

**Defect Description:** 

42 Square Feet of Crack (Wearing Surface): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. WEARING SURFACE OVER BENT 2 IS CRACKED.

Span 2 Beam 1 Component Name: Reinforced Concrete Girder

Element: 110 Name Reinforced Concrete Open Gird Qty: 41 Lvl 2: 18 Lvl 3 0 Lvl 4 13 Maint. Qty 31

Defect Description:

4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.

SPAN 2 LEFT AND RIGHT SIDE AND BOTTOM OF G1 CRACKED AND DELAMINATED AREAS 18" WIDE FROM BENT 1 CAP OUT 4' AND 4" UP FACE.

3 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.

SPAN 2 G1 CRACKED AND DELAMINATED AREA NEAR MID SPAN 18" UNDER BOTTOM 5" UP RIGHT FACE 32" LONG.

13 Feet of Delamination/Spall/Patched Area: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge.

SPAN 2 G1 FROM MID SPAN NORTH 13' CRACKED AND DELAMINATED AND PATCHED AREA FROM LEFT TO RIGHT FACE AND UNDER BOTTOM. SPALL AREA IS 10" X 50" 3 1/2" DEEP. 3 LARGE REBAR AND STIRRUPS EXPOSED 5" UP EACH FACE 18" UNDER BOTTOM 13' LONG.

10 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. SPAN 2 LEFT SIDE OF G1 SCATTERED MAP CRACKING IN LEFT FACE OF GIRDER.

1 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound

SPAN 2 LEFT SIDE OF G1 OVER BENT 2 7" X 7" CRACK AREA OVER TOP OF GIRDER.

Span 2 Beam 3 Component Name: Reinforced Concrete Girder

Element: 110 Name Reinforced Concrete Open Gird Qty: 41 Lvl 2: 9 Lvl 3 0 Lvl 4 0 Maint. Qty 9

Defect Description:

4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.

SPAN 2 LEFT AND RIGHT SIDE OF G3 AND BOTTOM CRACKED AND DELAMINATED FROM END OF GIRDER OVER BENT 1 OUT 4' 18" UNDER BOTTOM AND 4" UP THE FACE.

5 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. SPAN 2 RIGHT SIDE OF G3 SCATTERED MAP CRACKING AT BENT 2.

Span 2 Beam 4 Component Name: Reinforced Concrete Girder

Element: 110 Name Reinforced Concrete Open Gird Qty: 41 Lvl 2: 27 Lvl 3 2 Lvl 4 0 Maint. Qty 29

Defect Description:

7 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. SPAN 2 LEFT SIDE OF G4 HAS A DIAG CRACK COMING OFF THE INTERIOR DIAPHRAGM 7' LONG FROM TOP TO BOTTOM.

20 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. SPAN 2 RIGHT SIDE OF G4 SCATTERED LONGITUDINAL CRACKS AND MAP CRACKING.

2 Feet of Delamination/Spall/Patched Area: Spall greater than 1 in. deep or greater than 6 in. diameter. Patched area that is unsound or showing distress. Does not warrant structural review.

BENT 2 RIGHT BOTTOM SIDE OF G4 AT BENT 2 SPALL AND DELAMINATED EXPOSED REBAR STIRRUPS EXPOSED 4"

UP FACE 24" LONG 8" UNDER BOTTOM AND 3" DEEP.

Span 2 Expansion Joints 1 Component Name: Standard Joint

Element: 301 Name Pourable Joint Seal Qty: 42 Lvl 2: 42 Lvl 3 0 Lvl 4 0 Maint. Qty 42

**Defect Description:** 

42 Feet of Seal Cracking: Surface crack. ASPHALT OVER BENT 1 JOINT IS CRACKED.

#### Span Number 3

Span 3 Bridge Rail 1 Component Name: Concrete Railing

Element: 331 Name Reinforced Concrete Bridge Ra Qty: 41 Lvl 2: 41 Lvl 3 0 Lvl 4 0 Maint. Qty 41

**Defect Description:** 

41 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. FACE OF CURB HAS A CRACK FULL LENGTH OF SPAN.

Span 3 Bridge Rail 2 Component Name: Concrete Railing

Element: 331 Name Reinforced Concrete Bridge Ra Qty: 41 Lvl 2: 41 Lvl 3 0 Lvl 4 0 Maint. Qty 41

**Defect Description:** 

41 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. FACE OF CURB HAS A CRACK FULL LENGTH OF SPAN.

Span 3 Wearing Surfaces Component Name: Asphalt Wearing Surface

Element: 510 Name Wearing Surface Qty: 1105 Lvl 2: 42 Lvl 3 0 Lvl 4 0 Maint. Qty 42

Defect Description: 42 Lvl 3 0 Lvl 4 0 Maint. Qty 42

42 Square Feet of Crack (Wearing Surface): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. ASPHALT WEARING SURFACE IS CRACKED OVER BENT 3

Span 3 Beam 4 Component Name: Reinforced Concrete Girder

Element: 110 Name Reinforced Concrete Open Gird Qty: 41 Lvl 2: 0 Lvl 3 1 Lvl 4 0 Maint. Qty 1

Defect Description:

1 Feet of Delamination/Spall/Patched Area: Spall greater than 1 in. deep or greater than 6 in. diameter. RIGHT SIDE G 4 HAS A SPALLED AND DELAMINATED AREA OVER BENT 3 9" X 24" WITH LARGE REBAR EXPOSED.

Span 3 Expansion Joints 1 Component Name: Standard Joint

Element: 301 Name Pourable Joint Seal Qty: 42 Lvl 2: 42 Lvl 3 0 Lvl 4 0 Maint. Qty 42

Defect Description: 42 Lvl 3 0 Lvl 4 0 Maint. Qty 42

42 Feet of Seal Cracking: Surface crack. ASPHALT OVER BENT 2 IS CRACKED.

### Span Number 4

Span 4 Deck 1 Component Name: Reinforced Concrete Deck

Element: 12 Name Reinforced Concrete Deck Qty: 1114 Lvl 2: 217 Lvl 3 0 Lvl 4 0 Maint. Qty 217

Defect Description:

3 Square Feet of Delamination/Spall: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. BOTTOM OF DECK BAY 2 NEAR BENT 4 HAS SURFACE SPALL AREA 4" WIDE X 24" LONG.

200 Square Feet of Delamination/Spall: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. BOTTOM OF DECK IN BAY 3 HAS A SMALL PATCHED AREA WITH SOME DELAMINATION. BAYS 1 & 2 HAVE SIMILAR AREAS.

14 Square Feet of Exposed Rebar: Present without measurable section loss. BOTTOM OF DECK RIGHT OVER HANG HAS 2 SPALL AND DELAMINATED AREAS WITH REBAR EXPOSED NEAR BENT 4. AREAS ARE 16" X 20" X 2" & 23" X 26" X 2".

Span 4 Bridge Rail 1 Component Name: Concrete Railing

Element: 331 Name Reinforced Concrete Bridge Ra Qty: 41 Lvl 2: 41 Lvl 3 0 Lvl 4 0 Maint. Qty 41

Defect Description: 41 Lvl 2: 41 Lvl 3 0 Lvl 4 0 Maint. Qty 41

41 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. CURB IS CRACKED IN FACE FULL LENGTH OF SPAN.

**Bridge Rail Component Name:** Concrete Railing Span 4

Element: 331 Name Reinforced Concrete Bridge Ra Qty: 41 Lvl 2: 41 LvI 3 0 LvI 4 0 Maint. Qty 41

**Defect Description:** 

41 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. CURB IS CRACKED IN FACE FULL LENGTH OF SPAN.

Wearing Surfaces Asphalt Wearing Surface Span 4 Component Name: Element: 510 Name Wearing Surface Qty: 1105 Lvl 2: 42 LvI 3 0 LvI 4

**Defect Description:** 

42 Square Feet of Crack (Wearing Surface): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. ASPHALT WEARING SURFACE IS CRACKED OVER BENT

42

0 Maint. Qty

Beam Reinforced Concrete Girder Span 4 **Component Name:** 

Name Reinforced Concrete Open Gird Qty: 41 Lvl 2: 33 LvI 3 0 LvI 4 33 Element: 110 0 Maint. Qty

**Defect Description:** 

3 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. RIGHT SIDE AND BOTTOM OF G1 AT BENT 4 PATCHED AREA IS DELAMINATED 16" UNDER BOTTOM 3' LONG & 7" UP FACE. 30 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. LEFT SIDE OF G 1 SCATTERED MAP CRACKING FROM BENT 3 TO BENT 4.

Span 4 Beam **Component Name:** Reinforced Concrete Girder Name Reinforced Concrete Open Gird Qty: Element: 110 41 Lvl 2: 7 Lvl 3 0 LvI 4 7 0 Maint. Qty **Defect Description:** 

7 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. RIGHT SIDE OF G 2 HAS SCATTERED MAP **CRACKING AT BENT 4** 

**Beam Component Name:** Reinforced Concrete Girder Span 4 Name Reinforced Concrete Open Gird Qty: Element: 110 41 Lvl 2: 36 LvI 3 0 LvI 4 0 Maint. Qty 36 **Defect Description:** 

4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. BOTTOM OF G 4 IS CRACKED & DELAMINATED 7' FROM BENT 4 18" UNDER BOTTOM 4' LONG.

7 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. BOTTOM OF G 4 IS CRACKED, PATCHED AND DELAMINATED FROM BENT 4 BACK 7' 18" WIDE AND UP FACE 5".

25 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. RIGHT SIDE OF G 4 HAS SCATTERED MAP CRACKING IN FACE.

Expansion Joints 1 **Component Name:** Standard Joint Span 4 Name Pourable Joint Seal Element: 301 Qty: 42 Lvl 2: 0 LvI 4 7 Lvl 3 35 Maint. Qty 42 **Defect Description:** 

7 Feet of Seal Cracking: Crack that partially penetrates the seal. ASPHALT OVER BENT 3 IS CRACKED AND LEAKING. 35 Feet of Leakage: Moderate. More than a drip and less than free flow of water. 35' OF JOINT MATERIAL AND ASPHALT MISSING OVER BENT 3.

0 Feet of Leakage: Free flow of water through the joint. JOINT MATERIAL MISSING IN RIGHT CURB AREA OVER BENT 3. OPENING IS 2 1/2" WIDE SPANS ARE MISALIGNED

0 Feet of Leakage: Free flow of water through the joint. JOINT MATERIAL IS MISSING IN THE LEFT CURB AREA. THE OPENING IS 3" AND THE SPANS ARE MISALIGNED.

#### Span Number 5

| Span 5         | Deck   | 1                        | C    | component Name: | Reinforced C | Concrete Deck  |              |   |
|----------------|--------|--------------------------|------|-----------------|--------------|----------------|--------------|---|
| Element: 12    | Name F | Reinforced Concrete Deck | Qty: | 1114 Lvl 2:     | 2 Lvl 3      | 0 <b>Lvl 4</b> | 0 Maint. Qty | 2 |
| Defect Descrip | otion: |                          |      |                 |              |                |              |   |

2 Square Feet of Delamination/Spall: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. THE LEFT OVERHANG BOTTOM OF DECK HAS TWO AREAS SPALLED AND DELAMINATED 15' FROM END BENT 2. ONE AREA IS 6" X 10" AND 7" X 12".

Span 5 Bridge Rail 1 Component Name: Concrete Railing

Element: 331 Name Reinforced Concrete Bridge Ra Qty: 41 Lvl 2: 41 Lvl 3 0 Lvl 4 0 Maint. Qty 41

**Defect Description:** 

41 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. FACE OF CURB IS CRACKED FULL LENGTH OF SPAN.

Span 5 Bridge Rail 2 Component Name: Concrete Railing

Element: 331 Name Reinforced Concrete Bridge Ra Qty: 41 Lvl 2: 41 Lvl 3 0 Lvl 4 0 Maint. Qty 41

**Defect Description:** 

41 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. FACE OF CURB IS CRACKED FULL LENGTH OF SPAN.

Span 5 Wearing Surfaces Component Name: Asphalt Wearing Surface

Element: 510 Name Wearing Surface Qty: 1105 Lvl 2: 42 Lvl 3 0 Lvl 4 0 Maint. Qty 42

**Defect Description:** 

42 Square Feet of Crack (Wearing Surface): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. ASPHALT WEARING SURFACE IS CRACKED OVER BENT.

Span 5 Beam 1 Component Name: Reinforced Concrete Girder

Element: 110 Name Reinforced Concrete Open Gird Qty: 41 Lvl 2: 38 Lvl 3 0 Lvl 4 3 Maint. Qty 41

Defect Description: 41 Lvl 2: 41 Lvl 2: 41 Lvl 3 Maint. Qty 41

30 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. LEFT SIDE OF G 1 HAS SCATTERED MAP CRACKING IN FACE.

3 Feet of Delamination/Spall/Patched Area: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. G 1 AT END BENT 2 SPALLED, CRACKED AND DELAMINATED WITH LARGE REBAR EXPOSED. THE AREA IS 18" WIDE X 2 1/2" DEEP X 32" LONG IN FACE AND BOTTOM.

7 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. G1 LEFT FACE NEAR MID SPAN IS CRACKED.

Span 5 Expansion Joints 1 Component Name: Standard Joint

Element: 301 Name Pourable Joint Seal Qty: 42 Lvl 2: 34 Lvl 3 8 Lvl 4 0 Maint. Qty 42

Defect Description:

34 Feet of Seal Cracking: Surface crack. ASPHALT OVER BENT 4 IS CRACKED IN BOTH LANES FROM LEFT CURB OUT 32'.

8 Feet of Leakage: Moderate. More than a drip and less than free flow of water. JOINT MATERIAL IS MISSING IN RIGHT LANE FROM RIGHT CURB OUT 8'. THIS AREA HAS SOME DEBRIS.

## **Substructure Detailed Element Quantites**

Structure Number: 300016 Inspection Date: 11/17/2015

**End Bent 1** 

| Element Location  | Location<br>Number | Element<br>Number | Element Name                 | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code | Priority<br>Maintenance |
|-------------------|--------------------|-------------------|------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|-------------------------|
| ✓ Caps            | 1                  | 234               | Reinforced Concrete Pier Cap | 45                | 0                   | 45                  | 0                   | 0                   | 45                 | 3348           | Requested               |
| Piles and Columns | 1                  | 205               | Reinforced Concrete Column   | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3348           | Requested               |
| Piles and Columns | 2                  | 205               | Reinforced Concrete Column   | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3348           | Requested               |
| Piles and Columns | 3                  | 205               | Reinforced Concrete Column   | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3348           | Requested               |

#### Bent 1

| Element Location    | Location<br>Number | Element<br>Number | Element Name                 | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code | Priority<br>Maintenance |
|---------------------|--------------------|-------------------|------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|-------------------------|
| ✓ Caps              | 1                  | 234               | Reinforced Concrete Pier Cap | 45                | 0                   | 20                  | 21                  | 4                   | 45                 | 3348           | Requested               |
| ✓ Piles and Columns | 1                  | 205               | Reinforced Concrete Column   | 1                 | 0                   | 0                   | 1                   | 0                   | 1                  | 3348           | ✓ Requested             |
| ✓ Piles and Columns | 2                  | 205               | Reinforced Concrete Column   | 1                 | 0                   | 1                   | 0                   | 0                   | 1                  | 3348           | Requested               |
| ✓ Piles and Columns | 3                  | 205               | Reinforced Concrete Column   | 1                 | 0                   | 1                   | 0                   | 0                   | 1                  | 3348           | Requested               |

## Bent 2

| Element Location    | Location<br>Number | Element<br>Number | Element Name                 | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code | Priority<br>Maintenance |
|---------------------|--------------------|-------------------|------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|-------------------------|
| ✓ Caps              | 1                  | 234               | Reinforced Concrete Pier Cap | 45                | 26                  | 13                  | 0                   | 6                   | 19                 | 3348           | Requested               |
| ✓ Piles and Columns | 1                  | 205               | Reinforced Concrete Column   | 1                 | 0                   | 0                   | 0                   | 1                   | 1                  | 3348           | Requested               |
| ✓ Piles and Columns | 2                  | 205               | Reinforced Concrete Column   | 1                 | 0                   | 1                   | 0                   | 0                   | 1                  | 3348           | Requested               |
| ✓ Piles and Columns | 3                  | 205               | Reinforced Concrete Column   | 1                 | 0                   | 1                   | 0                   | 0                   | 1                  | 3348           | Requested               |

#### Bent 3

| Element Location    | Location<br>Number | Element<br>Number | Element Name                 | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code | Priority<br>Maintenance |
|---------------------|--------------------|-------------------|------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|-------------------------|
| ✓ Caps              | 1                  | 234               | Reinforced Concrete Pier Cap | 45                | 0                   | 12                  | 21                  | 12                  | 45                 | 3348           | Requested               |
| ✓ Piles and Columns | 1                  | 205               | Reinforced Concrete Column   | 1                 | 0                   | 1                   | 0                   | 0                   | 1                  | 3348           | Requested               |
| ✓ Piles and Columns | 2                  | 205               | Reinforced Concrete Column   | 1                 | 0                   | 1                   | 0                   | 0                   | 1                  | 3348           | Requested               |
| ✓ Piles and Columns | 3                  | 205               | Reinforced Concrete Column   | 1                 | 0                   | 1                   | 0                   | 0                   | 1                  | 3348           | Requested               |

Bent 4

| Element Location    | Location<br>Number | Element<br>Number | Element Name                 | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code | Priority<br>Maintenance |
|---------------------|--------------------|-------------------|------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|-------------------------|
| ✓ Caps              | 1                  | 234               | Reinforced Concrete Pier Cap | 45                | 0                   | 23                  | 16                  | 6                   | 45                 | 3348           | Requested               |
| ✓ Piles and Columns | 1                  | 205               | Reinforced Concrete Column   | 1                 | 0                   | 1                   | 0                   | 0                   | 1                  | 3348           | Requested               |
| ✓ Piles and Columns | 2                  | 205               | Reinforced Concrete Column   | 1                 | 0                   | 1                   | 0                   | 0                   | 1                  | 3348           | Requested               |
| Piles and Columns   | 3                  | 205               | Reinforced Concrete Column   | 1                 | 0                   | 1                   | 0                   | 0                   | 1                  | 3348           | Requested               |

## End Bent 2

| Element Location  | Location<br>Number | Element<br>Number | Element Name                 | Total<br>Quantity | Level 1<br>Quantity | Level 2<br>Quantity | Level 3<br>Quantity | Level 4<br>Quantity | Maint.<br>Quantity | Maint.<br>Code | Priority<br>Maintenance |
|-------------------|--------------------|-------------------|------------------------------|-------------------|---------------------|---------------------|---------------------|---------------------|--------------------|----------------|-------------------------|
| ✓ Caps            | 1                  | 234               | Reinforced Concrete Pier Cap | 45                | 0                   | 45                  | 0                   | 0                   | 45                 | 3348           | Requested               |
| Piles and Columns | 1                  | 205               | Reinforced Concrete Column   | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3348           | Requested               |
| Piles and Columns | 2                  | 205               | Reinforced Concrete Column   | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3348           | Requested               |
| Piles and Columns | 3                  | 205               | Reinforced Concrete Column   | 1                 | 1                   | 0                   | 0                   | 0                   | 0                  | 3348           | Requested               |

## Substructure Element Defect Descriptions

Structure Number: 300016 Inspection Date: 11/17/2015

**End Bent 1** 

End Bent 1 Row 1 Caps

Element: 234 Name Reinforced Concrete Pier Cap Qty: 45 Lvl 2: 45 Lvl 3 0 Lvl 4 0 Maint. Qty 45

**Defect Description:** 

45 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. END BENT 1 HAS SCATTERED MAP CRACKING WITH HORIZ CRACKS FROM LEFT TO RIGHT END.

Bent 1 Row 1 Caps 1

Element: 234 Name Reinforced Concrete Pier Cap Qty: 45 Lvl 2: 20 Lvl 3 21 Lvl 4 4 Maint. Qty 45

**Defect Description:** 

4 Feet of Delamination/Spall/Patched Area: The condition warrants structural review to determine the effect on strength and sreviceability of the element or the bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge

BENT 1 CAP LEFT END OF CAP AND SOUTH FACE OF CAP CRACKED AND DELAMINATED SPALL AND DETERIORATED FROM THE LEFT END OVER 4' 38" WIDE AND FROM TOP TO BOTTOM 3' AND HAS LARGE REBAR EXPOSE. PM ISSUED.

5 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound

BENT 1 SOUTH FACE OF CAP RIGHT SIDE OF G1 CRACKED AND PATCHED AREA IS DELAMINATED TOP DOWN 22" 5' LONG.

7 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound

BENT 1 SOUTH FACE OF CAP CRACKED PATCHED AND DELAMINATED AREA WITH HEAVY EFCRACKED AND DELAMINATEDFLO FROM G2 OVER TO COL 2 18" DOWN FACE 78" LONG.

4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound

BENT 1 SOUTH FACE OF CAP PATCHED AREA ALONG THE BOTTOM EDGE AT COL 2 7" UP FACE AND 40" LONG.

5 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound

BENT 1 SOUTH FACE OF CAP HAS A PATCHED AREA ALONG TOP FACE RIGHT SIDE OF G3 13" DOWN FACE AND 55 " LONG.

20 Feet of Cracking (RC and Other): Width greater than 0.05 in. or spacing of less than 1 ft.

BENT 1 SOUTH FĂCE OF CAP HÁS SCATTERED MAP CRACKING AND HORIZ CRACKS FROM LEFT TO RIGHT END WITH EFFLO STAINS LEACHING.

0 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound

BENT 1 NORTH FACE OF CAP PATCHED AREA ALONG BOTTOM EDGE AT COL 2 5" UP FACE 45" LONG.

0 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft.

BENT 1 NORTH FACE OF CAP SCATTERED MAP CRACKING AND HORIZ CRACKS FROM LEFT TO RIGHT END.

Bent 1 Row 1 Piles and 1 Columns

Element: 205 Name Reinforced Concrete Column Qty: 1 Lvl 2: 0 Lvl 3 1 Lvl 4 0 Maint. Qty 1

Defect Description:

1 Each of Delamination/Spall/Patched Area: Spall greater than 1 in. deep or greater than 6 in. diameter. Patched area that is unsound or showing distress. Does not warrant structural review.

BENT 1 COL 1 WEST FACE END BENT 1 CRACKED SPALL DELAMINATED AND DETERIORATED 31" WIDE FROM TOP TO GROUND LINE 13' WITH HEAVY EFFLO EXPOSED. ALSO CRACKED AND DELAMINATED ON NORTH FACE AND SOUTH FACE 10".

0 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft.

BENT 1 COL 1 SOUTH AND EAST FACE OF COL HEAVY VERTICAL AND MAP CRACKING AND NORTH FACE IS SIMILAR.

Bent 1 Row 1 Piles and 2

Columns

Element: 205 Name Reinforced Concrete Column Qty: 1 Lvl 2: 1 Lvl 3 0 Lvl 4 0 Maint. Qty 1

**Defect Description:** 

1 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft. SCATTERED VERTICAL CRACKS.

Bent 1 Row 1 Piles and 3 Columns

Element: 205 Name Reinforced Concrete Column Qty: 1 Lvl 2: 1 Lvl 3 0 Lvl 4 0 Maint. Qty 1

**Defect Description:** 

**Defect Description:** 

1 Each of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.

BENT 1 EAST FACE OF COL 3 CRACKED AND DELAMINATED WITH EFFLO STAINS TO- DOWN 12'

Bent 2 Row 1 Caps 1

Element: 234 Name Reinforced Concrete Pier Cap Qty: 45 Lvl 2: 13 Lvl 3 0 Lvl 4 6 Maint. Qty 19

Defect Description: 19

6 Feet of Delamination/Spall/Patched Area: The condition warrants structural review to determine the effect on strength and sreviceability of the element or the bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge

BENT 2 LEFT END OF CAP AND SOUTH AND NORTH FACE OF CAP HEAVILY CRACKED AND DELAMINATED AND SPALL AND IS HEAVILY DETERIORATED 3' ON TOP 3' ON EACH FACE 37" WIDE AND FROM TOP TO BOTTOM 37" AND 4" DEEP.

4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound

BENT 2 SOUTH FACE OF CAP PATCHED AREA RIGHT SIDE OF G1 CRACKED AND DELAMINATED TOP DOWN 12" AND 40" LONG.

3 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound

BENT 2 SOUTH FACE OF CAP CRACKED AND DELAMINATED AND PATCHED AREA RIGHT SIDE OF G2 12" X 36".

3 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound

BENT 2 SOUTH FACE OF CAP CRACKED AND DELAMINATED AREA WITH HEAVY EFFLO UNDER G3 15" X 34".

3 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound

BENT 2 SOUTH FACE OF CAP CRACKED AND DELAMINATED AND PATCHED AREA RIGHT SIDE OF G3 10" DOWN FACE AND 32" LONG.

0 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. NORTH FACE OF CAP HAS 3 PATCHED AREAS IN FACE AT G 3.

Bent 2 Row 1 Piles and 1 Columns

Element: 205 Name Reinforced Concrete Column Qty: 1 Lvl 2: 0 Lvl 3 0 Lvl 4 1 Maint. Qty 1

Defect Description:

1 Each of Delamination/Spall/Patched Area: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge.

BENT 2 WEST FACE OF COL 1 HEAVILY CRACKED AND DELAMINATED AND SPALL WITH HEAVY DETERIORATION AND EFFLO STAIN FROM TOP TO BOTTOM 20' 30" WIDE BY 9" ON EACH FACE AND 3" DEEP.

0 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft.

BENT 2 COL 1 SOUTH FACE OF CAP VERTICAL AND MAP CRACKING FROM TOP TO BOTTOM AND ALL OTHER FACES ARE SIMILAR.

Bent 2 Row 1 Piles and 2 Columns

Element: 205 Name Reinforced Concrete Column Qty: 1 Lvl 2: 1 Lvl 3 0 Lvl 4 0 Maint. Qty 1

#### BENT 2 WEST FACE OF COL 1 VERTICAL AND MAP CRACKING ALL OTHER FACES SIMILAR.

Bent 2 Row 1 Piles and 3 Columns

Element: 205 Name Reinforced Concrete Column Qty: 1 Lvl 2: 1 Lvl 3 0 Lvl 4 0 Maint. Qty 1

Defect Description:

1 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft.

**Defect Description:** 

Bent 3 Row 1 Caps 1

Element: 234 Name Reinforced Concrete Pier Cap Qty: 45 Lvl 2: 12 Lvl 3 21 Lvl 4 12 Maint. Qty 45

Defect Description: 45 Lvl 2: 45 Lvl 3 21 Lvl 4 12 Maint. Qty 45

3 Feet of Delamination/Spall/Patched Area: Spall greater than 1 inch deep or greater than 6 inches in diameter. SOUTH FACE OF CAP @ RIGHT END HAS A AREA THAT IS CRACKED SPALLED AND DELAMINATED. THE AREA IS 30" X 36". 5 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. NORTH FACE OF CAP IS CRACKED, SPALLED AND DELAMINATED WITH HEAVY EFFLO AT G 3. AREA IS 27" X 54" 10 Feet of Delamination/Spall/Patched Area: Spall greater than 1 inch deep or greater than 6 inches in diameter. NORTH FACE OF CAP IS CRACKED, SPALLED AND DELAMINATED WITH EXCESSIVE EFFLO FROM G 1 TO G 2 42" TOP TO BOTTOM 10' LONG. SPALLED AREA IS 11" X 27" X 9" DEEP.

12 Feet of Delamination/Spall/Patched Area: The condition warrants structural review to determine the effect on strength and sreviceability of the element or the bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. LEFT END OF CAP IS CRACKED, SPALLED DELAMINATED AND DETERIORATED 37" X 37". 3' X 5" DEEP ON NORTH AND SOUTH FACES.

3 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. SOUTH FACE OF CAP IS PATCHED AND DELAMINATED RIGHT OF G 2 10" DOWN FACE 36" LONG.

4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. SOUTH FACE OF CAP IS PATCHED AND DELAMINATED RIGHT OF G 3 12" DOWN FACE 4' LONG.

8 Feet of Cracking (RC and Other): Width greater than 0.05 in. or spacing of less than 1 ft. SOUTH FACE OF CAP HAS MAP CRACKING WITH HEAVY EFFLO LEFT OF G 2 TO G 4.

0 Feet of Cracking (RC and Other): Width greater than 0.05 in. or spacing of less than 1 ft. BOTTOM OF CAP BETWEEN COL. 1 & 2 AND COL. 3 & 4 HAVE AREAS OF HEAVY MAP CRACKING WITH EFFLO.

Bent 3 Row 1 Piles and 1 Columns

Element: 205 Name Reinforced Concrete Column Qty: 1 Lvl 2: 1 Lvl 3 0 Lvl 4 0 Maint. Qty 1

0 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft. SCATTERED VERTICAL CRACKS.

1 Each of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. COL. 1 EAST FACE HAS 3 SPALLED AREAS ABOVE SRTUT. AREAS ARE 5" X 5" X 3/4" DEEP AND 7" X 18" X 3/4" DEEP.

0 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft. NORTH FACE OF COL. HAS SCATTERED MAP AND VERTICAL CRACKS. SIMILAR ON THE EAST AND SOUTH FACES.

0 Each of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. COL. 1 HAS A PATCHED AREA SOUTH EAST CORNER @ STRUT AREA IS 3' HIGH AND 4" ON EACH FACE.

Bent 3 Row 1 Piles and 2 Columns

Element: 205 Name Reinforced Concrete Column Qty: 1 Lvl 2: 1 Lvl 3 0 Lvl 4 0 Maint. Qty 1

Defect Description:

1 Each of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. COL. HAS CRACKED, SPALLED AND DELAMINATED AREAS 6' ABOVE GROUND 7" X 12".

0 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft. COL. HAS SCATTERED VERTICAL CRACKS IN ALL FACES.

Bent 3 Row 1 Piles and 3 Columns

Element: 205 Name Reinforced Concrete Column Qty: 1 Lvl 2: 1 Lvl 3 0 Lvl 4 0 Maint. Qty 1 Defect Description:

1 Each of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. NORTH FACE HAS TWO PATCHED AREAS 4' ABOVE GROUND UP 4' X 30" WIDE.

Bent 4 Row 1 Caps 1

Element: 234 Name Reinforced Concrete Pier Cap Qty: 45 Lvl 2: 23 Lvl 3 16 Lvl 4 6 Maint. Qty 45

**Defect Description:** 

6 Feet of Delamination/Spall/Patched Area: The condition warrants structural review to determine the effect on strength and sreviceability of the element or the bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. LEFT END OF CAP IS SPALLED & DELAMINATED. 3' ON SOUTH AND NORTH FACES. 37" X 37" ON END UP TO 4" DEEP.

15 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. BOTTOM OF CAP BETWEEN COL. 1 7 COL. 2 CRACKED AND DELAMINATED WITH EFFLO 35" X 55".

3 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. SOUTH FACE OF CAP IS CRACKED AND DELAMINATED RIGHT OF G 2. AREA IS 10" DOWN FACE 35" LONG & 5" ON TOP.

5 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. SOUTH FACE OF CAP IS CRACKED AND DELAMINATED 28" UNDER G 3 AND DOWN FACE 5'.

10 Feet of Cracking (RC and Other): Width greater than 0.05 in. or spacing of less than 1 ft. BOTTOM OF CAO HAS SCATTERED CRACKING FROM COL. 2 TO COL. 3.

6 Feet of Cracking (RC and Other): Width greater than 0.05 in. or spacing of less than 1 ft. NORTH FACE OF CAP HAS SCATTERED MAP, HORIZONTAL AND VERTICAL CRACKS.

0 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. SOUTH FACE OF CAP HAS SCATTERED MAP CRACKING WITH EFFLO STAINING.

| Bent 4             | Row 1     | Piles and<br>Columns | 1                  |          |         |                |              |   |
|--------------------|-----------|----------------------|--------------------|----------|---------|----------------|--------------|---|
| Element: 205       | Name Reir | nforced Concrete Co  | olumn <b>Qty</b> : | 1 Lvl 2: | 1 Lvl 3 | 0 <b>Lvl 4</b> | 0 Maint. Qty | 1 |
| Defect Description | on:       |                      |                    |          |         |                |              |   |

1 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft. SCATTERED VERTICAL CRACKS.

0 Each of Delamination/Spall/Patched Area: Spall greater than 1 in. deep or greater than 6 in. diameter. WEST FACE OF COL. HAS CRACKS WITH HEAVY EFFLO STAINS FROM TOP DOWN 14' 30" WIDE.

| Bent 4             | Row 1     | Piles and 2<br>Columns  |      |          |         |                |              |   |
|--------------------|-----------|-------------------------|------|----------|---------|----------------|--------------|---|
| Element: 205       | Name Reir | nforced Concrete Column | Qty: | 1 Lvl 2: | 1 Lvl 3 | 0 <b>Lvl 4</b> | 0 Maint. Qty | 1 |
| Defect Description | n·        |                         |      |          |         |                |              |   |

1 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft. SCATTERED VERTICAL CRACKS.

| Bent 4             | Row 1     | Piles and<br>Columns | 3                 |          |         |                |              |   |
|--------------------|-----------|----------------------|-------------------|----------|---------|----------------|--------------|---|
| Element: 205       | Name Reir | nforced Concrete Co  | olumn <b>Qty:</b> | 1 Lvl 2: | 1 Lvl 3 | 0 <b>Lvl 4</b> | 0 Maint. Qty | 1 |
| Defect Description | on:       |                      |                   |          |         |                |              |   |

- 1 Each of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. EAST FACE IS CRACKED FROM TOP DOWN 16' X 25" WIDE.
- 0 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft. NORTH FACE HAS SCATTERED VERTICAL AND MAP CRACKING WITH SOME DELAMINATION. SIMILAR IN OTHER FACES.
- 0 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft. SOUTH AND EAST FACES OF COL. 3 HAVE CRACKS WITH HEAVY EFFLO FROM CAP DOWN 10'. OTHER FACES ARE CRACKED.

| End Bent 2         | Row 1   | Caps            | 1                       |           |          |         |              |    |
|--------------------|---------|-----------------|-------------------------|-----------|----------|---------|--------------|----|
| Element: 234       | Name Re | inforced Concre | te Pier Cap <b>Qty:</b> | 45 Lvl 2: | 45 Lvl 3 | 0 Lvl 4 | 0 Maint. Qty | 45 |
| Defect Description | on:     |                 |                         |           |          |         |              |    |

45 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. FACE OF END BENT 2 CAP HAS SCATTERED MAP CRACKING FROM LEFT END TO RIGHT END.

# **National Bridge and NC Inspection Items**

Structure Number: 300016 Inspection Date: 11/17/2015

## **National Bridge Inventory Items**

| Item                                    | Grade Scale | Grade |
|---|-------------|-------|
| Item 58: Deck                           | 0 - 9 , N   | 5     |
| Item 59: Superstructure                 | 0 - 9 , N   | 4     |
| Item 60: Substructure                   | 0 - 9 , N   | 4     |
| Item 61: Channel and Channel Protection | 0 - 9 , N   |       |
| Item 62: Culvert                        | 0 - 9 , N   |       |
| Item 71: Waterway Adequacy              | 0 - 9 , N   |       |
| Item 72: Approach Roadway Alignment     | 0 - 9 , N   | 8     |

Note: If NBI Inspection Item is not present, code NBI item with "N"

## **NC SMU Inspection Items**

| ltem                     | Grade Scale   | Grade | Maint. Qty. | Maint. Code |
|--------------------------|---------------|-------|-------------|-------------|
| Deck Debris              | G, F, P, or C | F     | 170         | 3376        |
| Drainage System          | G, F, P, or C | G     | 0           | 3332        |
| Utilities                | G, F, P, or C |       |             |             |
| Slope Protection         | G, F, P, or C | F     | 0           | 3352        |
| Scour                    | G, F, P, or C |       |             |             |
| Wingwall                 | G, F, P, or C | G     | 0           | 3350        |
| Field Scour Evaluation   |               |       |             |             |
| Drift                    | G, F, P, or C |       | 0           | 3366        |
| Fender System            | G, F, P, or C |       |             |             |
| Movable Span Machinery   | G, F, P, or C |       |             |             |
| Response to Live Load    | G, F, P, or C | G     |             |             |
| Estimated Remaining Life | 0 - 100 Years | 5     |             |             |

Note: If NC SMU Insepction Item is not present, leave NC SMU item blank

## **Inspection Information**

| Item                                   | Grade Scale | Grade |
|--|-------------|-------|
| Regulatory Sign Noticed Issued         | YES/NO      | N     |
| Priority Maintenance Request Submitted | YES/NO      | Υ     |
| Inspection Time                        | Hours       | 30    |
| Traffic Control Time                   | Hours       | 6     |
| Snooper Time                           | Hours       | 6     |
| Ladder Used                            | YES/NO      | N     |
| Bucket Truck Used                      | YES/NO      | N     |
| Boat Used                              | YES/NO      | N     |
| Other Equipment Used                   | YES/NO      | N     |

# National Bridge and NC SMU Inspection Item Details

Structure Number: 300016 Inspection Date: 11/17/2015

Item Deck Debris Grade F Maint Code 3376 Qty. 170

Details DECK DEBRIS ADJACENT TO CURB IN SPAN 1 LEFT SIDE FROM CURB OUT 20" FULL LENGTH OF SPAN.

DECK DEBRIS LEFT SIDE AJACENT TO CURB SPAN 3 FROM BENT 2 ALONG CURB 27' 20" WIDE.

DECK DEBRIS LEFT SIDE SPAN 5 ADJACENT TO CURB STARTING 10' FROM BENT 4 TO END BENT 2 (32') FROM CURB OUT 12".



Span 1 Beam 4: 9 Feet of Delamination/Spall/Patched Area: Spall greater than 1 in. deep or greater than 6 in. diameter. Patched area that is unsound or showing distress. Does not warrant structural review.

SPAN 1 G4 CRACKED AND DELAMINATED SPALL AREA AT MID SPAN ALONG LEFT AND RIGHT SIDE AND UNDER BOTTOM 9" UP FACE 8' 5" LONG 18" WIDE.



Bent 1 Cap : 45 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. END BENT 1 HAS SCATTERED MAP CRACKING WITH HORIZ CRACKS FROM LEFT TO RIGHT END.



Bent 1 Cap: 4 Feet of Delamination/Spall/Patched Area: The condition warrants structural review to determine the effect on strength and sreviceability of the element or the bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge

BENT 1 CAP LEFT END OF CAP AND SOUTH FACE OF CAP CRACKED AND DELAMINATED SPALL AND DETERIORATED FROM THE LEFT END OVER 4' 38" WIDE AND FROM TOP TO BOTTOM 3' AND HAS LARGE REBAR EXPOSE. PM ISSUED.



Span 1 Beam 1: 8 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. SPAN 1 LEFT SIDE OF G1 NEAR BENT 1 SCATTERED MAP CRACKING IN FACE OF GIRDER.



Bent 1 Cap : 5 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound

BENT 1 SOUTH FACE OF CAP RIGHT SIDE OF G1 CRACKED AND PATCHED AREA IS DELAMINATED TOP DOWN 22" 5' LONG.



END DIAPHGRAM OVER BENT 1 IN BAY 1 6" X 8" X 3/4" VERTICAL REBAR EXPOSED.



Bent 1 Pile 1: 1 Each of Delamination/Spall/Patched Area: Spall greater than 1 in. deep or greater than 6 in. diameter. Patched area that is unsound or showing distress. Does not warrant structural review.

BENT 1 COL 1 WEST FACE END BENT 1 CRACKED SPALL DELAMINATED AND DETERIORATED 31" WIDE FROM TOP TO GROUND LINE 13' WITH HEAVY EFFLO EXPOSED. ALSO CRACKED AND DELAMINATED ON NORTH FACE AND SOUTH FACE 10".



Bent 1 Pile 1: 0 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft.
BENT 1 COL 1 SOUTH AND EAST FACE OF COL HEAVY VERTICAL AND MAP CRACKING AND NORTH FACE IS SIMILAR.



Bent 1 Cap : 7 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound
BENT 1 SOUTH FACE OF CAP CRACKED PATCHED AND DELAMINATED AREA WITH HEAVY EFFLO FROM G2
OVER TO COL 2 18" DOWN FACE 78" LONG.



Bent 1 Cap : 4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound

BENT 1 SOUTH FACE OF CAP PATCHED AREA ALONG THE BOTTOM EDGE AT COL 2 7" UP FACE AND 40"

LONG.



Bent 1 Cap : 5 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound BENT 1 SOUTH FACE OF CAP HAS A PATCHED AREA ALONG TOP FACE RIGHT SIDE OF G3 13" DOWN FACE AND 55 " LONG.

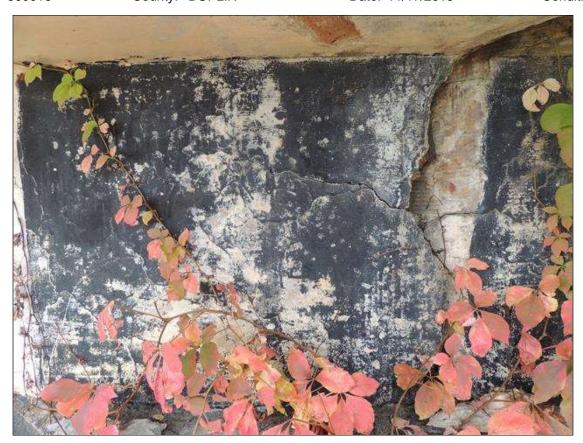


Bent 1 Cap: 0 Feet of Cracking (RC and Other): Width greater than 0.05 in. or spacing of less than 1 ft.
BENT 1 SOUTH FACE OF CAP HAS SCATTERED MAP CRACKING AND HORIZ CRACKS FROM LEFT TO RIGHT END WITH EFFLO STAINS LEACHING.



Span 1 Beam 4: 4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.

SPAN 1 LEFT AND RIGHT SIDE AND BOTTOM OF G4 AT BENT 1 IS CRACKED AND DELAMINATED 6" UP EACH FACE 18" WIDE UNDER BOTTOM 4' LONG.



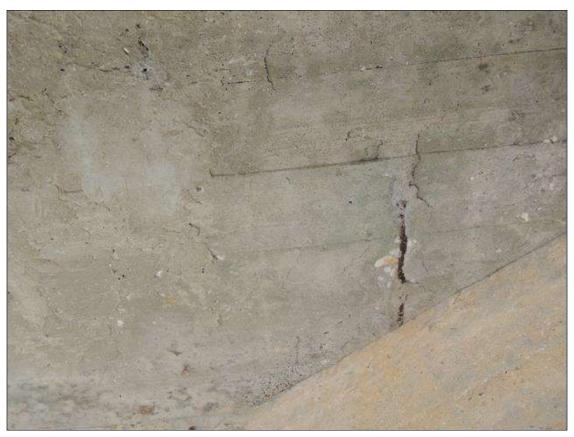
Span 1 Beam 4: 2 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.

SPAN 1 RIGHT SIDE OF G4 CRACKED SPALL DELAMINATED AREA FROM THE END BACK 20" TOP DOWN 24" 3" DEEP.



Bent 1 Pile 3: 1 Each of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.

BENT 1 EAST FACE OF COL 3 CRACKED AND DELAMINATED WITH EFFLO STAINS TO- DOWN 12'



Span 2 Deck: 4 Square Feet of Delamination/Spall: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. SPAN 2 BOTTOM OF DECK OF BAY 3 OVER BENT 1 CAP CRACKED AND DELAMINATED AREA WITH REBAR EXPOSED.



Span 2 Beam 3: 4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.

SPAN 2 LEFT AND RIGHT SIDE OF G3 AND BOTTOM CRACKED AND DELAMINATED FROM END OF GIRDER OVER BENT 1 OUT 4' 18" UNDER BOTTOM AND 4" UP THE FACE.



Bent 1 Cap : 0 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound BENT 1 NORTH FACE OF CAP PATCHED AREA ALONG BOTTOM EDGE AT COL 2 5" UP FACE 45" LONG.



Span 2 Deck: 40 Square Feet of Delamination/Spall: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. SPAN 2 BOTTOM OF DECK IN BAY 1 CRACKED AND DELAMINATED FROM BENT OUT 10' 4' WIDE.



Span 2 Beam 1: 4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.

SPAN 2 LEFT AND RIGHT SIDE AND BOTTOM OF G1 CRACKED AND DELAMINATED AREAS 18" WIDE FROM BENT 1 CAP OUT 4' AND 4" UP FACE.



Bent 1 Cap : 0 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. BENT 1 NORTH FACE OF CAP SCATTERED MAP CRACKING AND HORIZ CRACKS FROM LEFT TO RIGHT END.



Span 2 Beam 1: 3 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.

SPAN 2 G1 CRACKED AND DELAMINATED AREA NEAR MID SPAN 18" UNDER BOTTOM 5" UP RIGHT FACE 32" LONG.



Span 2 Beam 1: 13 Feet of Delamination/Spall/Patched Area: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge.

SPAN 2 G1 FROM MID SPAN NORTH 13' CRÄCKED AND DELAMINATED AND PATCHED AREA FROM LEFT TO RIGHT FACE AND UNDER BOTTOM. SPALL AREA IS 10" X 50" 3 1/2" DEEP. 3 LARGE REBAR AND STIRRUPS EXPOSED 5" UP EACH FACE 18" UNDER BOTTOM 13' LONG.



Bent 2 Cap: 6 Feet of Delamination/Spall/Patched Area: The condition warrants structural review to determine the effect on strength and sreviceability of the element or the bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge

BENT 2 LEFT END OF CAP AND SOUTH AND NORTH FACE OF CAP HEAVILY CRACKED AND DELAMINATED AND SPALL AND IS HEAVILY DETERIORATED 3' ON TOP 3' ON EACH FACE 37" WIDE AND FROM TOP TO BOTTOM 37" AND 4" DEEP.



Bent 2 Pile 1: 1 Each of Delamination/Spall/Patched Area: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge.

BENT 2 WEST FACE OF COL 1 HEAVILY CRACKED AND DELAMINATED AND SPALL WITH HEAVY DETERIORATION AND EFFLO STAIN FROM TOP TO BOTTOM 20' 30" WIDE BY 9" ON EACH FACE AND 3" DEEP.

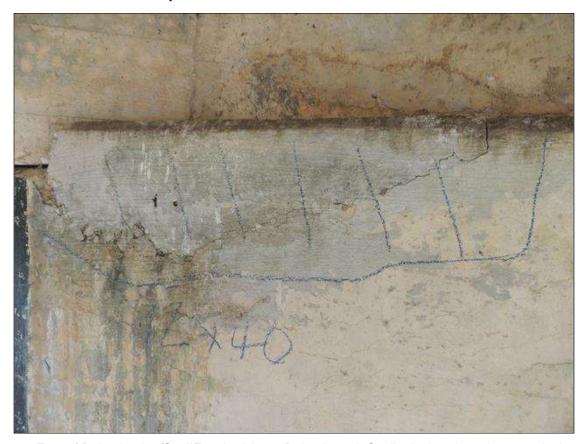


Span 2 Beam 1: 1 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.

SPAN 2 LEFT SIDE OF G1 OVER BENT 2 7" X 7" CRACK AREA OVER TOP OF GIRDER.



Bent 2 Pile 1: 0 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft.
BENT 2 COL 1 SOUTH FACE OF CAP VERTICAL AND MAP CRACKING FROM TOP TO BOTTOM AND ALL
OTHER FACES ARE SIMILAR.



Bent 2 Cap : 4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound
BENT 2 SOUTH FACE OF CAP PATCHED AREA RIGHT SIDE OF G1 CRACKED AND DELAMINATED TOP DOWN 12" AND 40" LONG.



Bent 2 Cap : 3 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound

BENT 2 SOUTH FACE OF CAP CRACKED AND DELAMINATED AND PATCHED AREA RIGHT SIDE OF G2 12" X 36".



Bent 2 Cap : 3 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound

BENT 2 SOUTH FACE OF CAP CRACKED AND DELAMINATED AREA WITH HEAVY EFFLO UNDER G3.



Bent 2 Cap: 3 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. Patched area that is sound

BENT 2 SOUTH FACE OF CAP CRACKED AND DELAMINATED AND PATCHED AREA RIGHT SIDE OF G3 10"

DOWN FACE AND 32" LONG.



Span 2 Beam 3: 5 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. SPAN 2 RIGHT SIDE OF G3 SCATTERED MAP CRACKING AT BENT 2.



Span 2 Beam 4: 7 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. SPAN 2 LEFT SIDE OF G4 HAS A DIAG CRACK COMING OFF THE INTERIOR DIAPHRAGM 7' LONG FROM TOP TO BOTTOM.



Span 2 Beam 4: 20 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. SPAN 2 RIGHT SIDE OF G4 SCATTERED LONGITUDINAL CRACKS AND MAP CRACKING.



Span 2 Beam 4: 2 Feet of Delamination/Spall/Patched Area: Spall greater than 1 in. deep or greater than 6 in. diameter. Patched area that is unsound or showing distress. Does not warrant structural review.

BENT 2 RIGHT BOTTOM SIDE OF G4 AT BENT 2 SPALL AND DELAMINATED EXPOSED REBAR STIRRUPS EXPOSED.



BENT 2 TOP OF CAP AND RIGHT END OF CAP HAS CONCRETE SMOOTH ON TOP AND END AND IS MAP CRACKED ON SOUTH RIGHT END AND NORTH FACES.



Span 1 Right Bridge Rail: 10 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound. LEFT CURB 10' FROM END BENT 1 IS SPALLED, CRACKED AND DELAMINATED. AREA IS 10' LONG 10" HIGH AND 8" BACK ON TOP



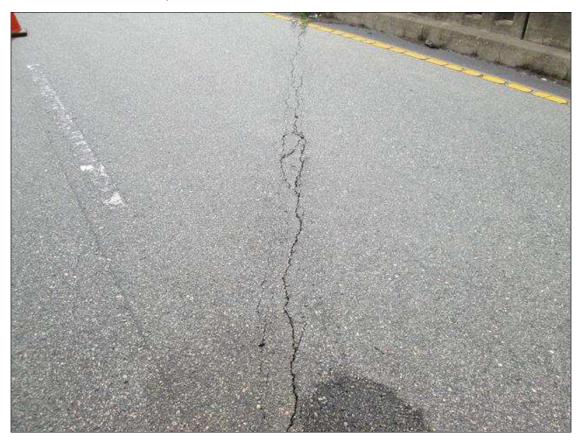
Span 1 Left Bridge Rail: 4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound. LEFT CURB @ MID SPAN FACE IS CRACKED, SPALLED AND DELAMINATED. AREA IS 4' LONG 6" HIGH 1" DEEP.



Span 2 Left Bridge Rail: 41 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. LEFT CURB FACE IS CRACKED FULL LENGTH.



Expansion Joint 2: 42 Feet of Seal Cracking: Surface crack. ASPHALT OVER BENT 1 JOINT IS CRACKED.



Expansion Joint 3: 42 Feet of Seal Cracking: Surface crack. ASPHALT OVER BENT 2 IS CRACKED.



Span 5 Deck: 2 Square Feet of Delamination/Spall: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. THE LEFT OVERHANG BOTTOM OF DECK HAS TWO AREAS SPALLED AND DELAMINATED 15' FROM END BENT 2. ONE AREA IS 6" X 10" AND 7" X 12".



Span 4 Deck: 3 Square Feet of Delamination/Spall: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. BOTTOM OF DECK BAY 2 NEAR BENT 4 HAS SURFACE SPALL AREA 4" WIDE X 24" LONG.



Span 4 Deck: 200 Square Feet of Delamination/Spall: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. BOTTOM OF DECK IN BAY 3 HAS A SMALL PATCHED AREA WITH SOME DELAMINATION. BAYS 1 & 2 HAVE SIMILAR AREAS.



Span 4 Deck: 14 Square Feet of Exposed Rebar: Present without measurable section loss. BOTTOM OF DECK RIGHT OVER HANG HAS 2 SPALL AND DELAMINATED AREAS WITH REBAR EXPOSED NEAR BENT 4. AREAS ARE 16" X 20" X 2" & 23" X 26" X 2".



Expansion Joint 4: 35 Feet of Leakage: Moderate. More than a drip and less than free flow of water. 35' OF JOINT MATERIAL AND ASPHALT MISSING OVER BENT 3.



Expansion Joint 5 : 32 Feet of Seal Cracking: Surface crack. ASPHALT OVER BENT 4 IS CRACKED IN BOTH LANES FROM LEFT CURB OUT 32'.



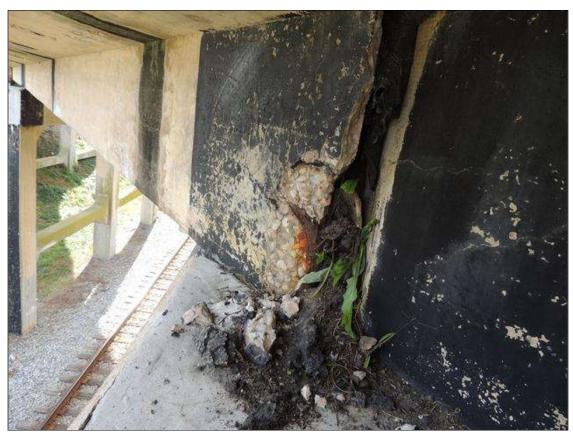
Expansion Joint 5: 8 Feet of Leakage: Moderate. More than a drip and less than free flow of water. JOINT MATERIAL IS MISSING IN RIGHT LANE FROM RIGHT CURB OUT 8'. THIS AREA HAS SOME DEBRIS.



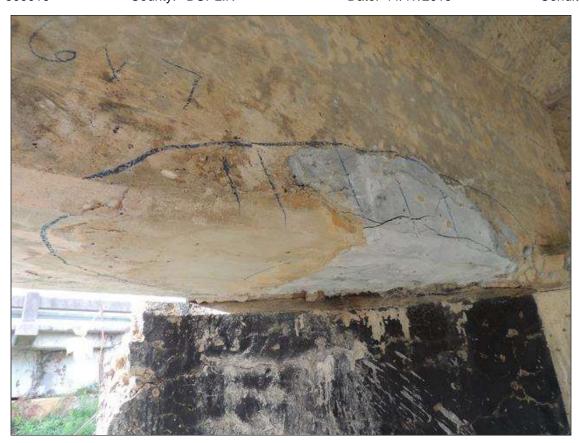
Expansion Joint 4: 0 Feet of Leakage: Free flow of water through the joint. JOINT MATERIAL MISSING IN RIGHT CURB AREA OVER BENT 3. OPENING IS 2 1/2" WIDE SPANS ARE MISSALINGED



Expansion Joint 4 : 0 Feet of Leakage: Free flow of water through the joint. JOINT MATERIAL IS MISSING IN THE LEFT CURB AREA. THE OPENING IS 3" AND THE SPANS ARE MISALIGNED.



Span 3 Beam 4: 1 Feet of Delamination/Spall/Patched Area: Spall greater than 1 in. deep or greater than 6 in. diameter. RIGHT SIDE G 4 HAS A SPALLED AND DELAMINATED AREA OVER BENT 3 9" X 24" WITH LARGE REBAR EXPOSED.



Span 4 Beam 1: 3 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. RIGHT SIDE AND BOTTOM OF G1 AT BENT 4 PATCHED AREA IS DELAMINATED 16" UNDER BOTTOM 3' LONG & 7" UP FACE.



Span 4 Beam 1: 30 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. LEFT SIDE OF G 1 SCATTERED MAP CRACKING FROM BENT 3 TO BENT 4.



Span 4 Beam 2: 7 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. RIGHT SIDE OF G 2 HAS SCATTERED MAP CRACKING AT BENT 4



Span 4 Beam 4: 4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. BOTTOM OF G 4 IS CRACKED & DELAMINATED 7' FROM BENT 4 18" UNDER BOTTOM 4' LONG.



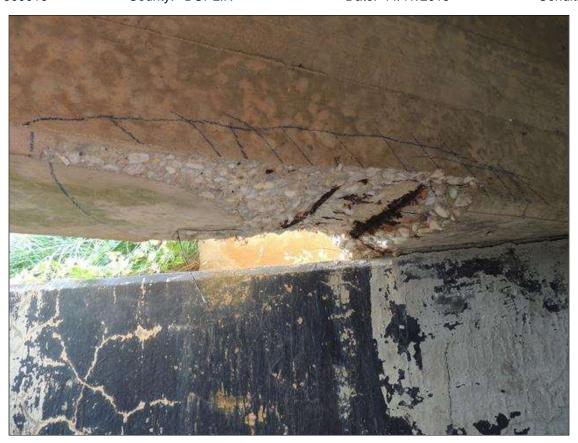
Span 4 Beam 4: 7 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. BOTTOM OF G 4 IS CRACKED, PATCHED AND DELAMINATED FROM BENT 4 BACK 7' 18" WIDE AND UP FACE 5".



Span 4 Beam 4: 25 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. RIGHT SIDE OF G 4 HAS SCATTERED MAP CRACKING IN FACE.



Span 5 Beam 1: 30 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. LEFT SIDE OF G1 HAS SCATTERED MAP CRACKING IN FACE.



Span 5 Beam 1: 3 Feet of Delamination/Spall/Patched Area: The condition warrants a structural review to determine the effect on strength or serviceability of the element or bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. G 1 AT END BENT 2 SPALLED, CRACKED AND DELAMINATED WITH LARGE REBAR EXPOSED. THE AREA IS 18" WIDE X 2 1/2" DEEP X 32" LONG IN FACE AND BOTTOM.



Span 5 Beam 1: 10 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. G1 LEFT FACE NEAR MID SPAN IS CRACKED.



Bent 4 Cap : 6 Feet of Delamination/Spall/Patched Area: The condition warrants structural review to determine the effect on strength and sreviceability of the element or the bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. LEFT END OF CAP IS SPALLED & DELAMINATED. 3' ON SOUTH AND NORTH FACES. 37" X 37" ON END UP TO 4" DEEP.



Bent 4 Cap: 15 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. BOTTOM OF CAP BETWEEN COL. 1 7 COL. 2 CRACKED AND DELAMINATED WITH EFFLO 35" X 55".



Bent 4 Cap : 3 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. SOUTH FACE OF CAP IS CRACKED AND DELAMINATED RIGHT OF G 2. AREA IS 10" DOWN FACE 35" LONG & 5" ON TOP.



Bent 4 Cap: 5 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. SOUTH FACE OF CAP IS CRACKED AND DELAMINATED 28" UNDER G 3 AND DOWN FACE 5'.



Bent 4 Cap : 10 Feet of Cracking (RC and Other): Width greater than 0.05 in. or spacing of less than 1 ft. BOTTOM OF CAO HAS SCATTERED CRACKING FROM COL. 2 TO COL. 3.



Bent 4 Cap : 6 Feet of Cracking (RC and Other): Width greater than 0.05 in. or spacing of less than 1 ft. NORTH FACE OF CAP HAS SCATTERED MAP, HORIZONTAL AND VERTICAL CRACKS.



Bent 4 Cap : 0 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. SOUTH FACE OF CAP HAS SCATTERED MAP CRACKING WITH EFFLO STAINING.



Bent 3 Cap : 3 Feet of Delamination/Spall/Patched Area: Spall greater than 1 inch deep or greater than 6 inches in diameter. SOUTH FACE OF CAP @ RIGHT END HAS A AREA THAT IS CRACKED SPALLED AND DELAMINATED. THE AREA IS 30" X 36".



Bent 3 Cap : 5 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. NORTH FACE OF CAP IS CRACKED, SPALLED AND DELAMINATED WITH HEAVY EFFLO AT G 3.

AREA IS 27" X 54"



Bent 3 Cap : 10 Feet of Delamination/Spall/Patched Area: Spall greater than 1 inch deep or greater than 6 inches in diameter. NORTH FACE OF CAP IS CRACKED , SPALLED AND DELAMINATED WITH EXCESSIVE EFFLO FROM G 1 TO G 2 42" TOP TO BOTTOM 10' LONG. SPALLED AREA IS 11" X 27" X 9" DEEP.



Bent 3 Cap: 12 Feet of Delamination/Spall/Patched Area: The condition warrants structural review to determine the effect on strength and sreviceability of the element or the bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge. LEFT END OF CAP IS CRACKED, SPALLED DELAMINATED AND DETERIORATED 37" X 37". 3' X 5" DEEP ON NORTH AND SOUTH FACES.



Bent 3 Cap: 3 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. SOUTH FACE OF CAP IS PATCHED AND DELAMINATED RIGHT OF G 2 10" DOWN FACE 36" LONG.



Bent 3 Cap: 4 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. SOUTH FACE OF CAP IS PATCHED AND DELAMINATED RIGHT OF G 3 12" DOWN FACE 4' LONG.



Bent 3 Cap : 8 Feet of Cracking (RC and Other): Width greater than 0.05 in. or spacing of less than 1 ft. SOUTH FACE OF CAP HAS MAP CRACKING WITH HEAVY EFFLO LEFT OF G 2 TO G 4.



Bent 3 Cap : 0 Feet of Cracking (RC and Other): Width greater than 0.05 in. or spacing of less than 1 ft. BOTTOM OF CAP BETWEEN COL. 1 & 2 AND COL. 3 & 4 HAVE AREAS OF HEAVY MAP CRACKING WITH EFFLO.



Bent 2 Cap : 0 Feet of Delamination/Spall/Patched Area: Delaminated. Spall 1 inch or less deep or 6 inches or less in diameter. NORTH FACE OF CAP HAS 3 PATCHED AREAS IN FACE AT G 3.



End Bent 2 Cap : 45 Feet of Cracking (RC and Other): Width 0.012-0.05 in. or spacing of 1.0-3.0 ft. FACE OF END BENT 2 CAP HAS SCATTERED MAP CRACKING FROM LEFT END TO RIGHT END.



Bent 4 Pile 3: 1 Each of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. EAST FACE IS CRACKED FROM TOP DOWN 16' X 25" WIDE.



Bent 4 Pile 3: 0 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft. NORTH FACE HAS SCATTERED VERTICAL AND MAP CRACKING WITH SOME DELAMINATION. SIMILAR IN OTHER FACES.



Bent 3 Pile 2: 1 Each of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. COL. HAS CRACKED, SPALLED AND DELAMINATED AREAS 6' ABOVE GROUND 7" X 12".



Bent 3 Pile 1: 1 Each of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. COL. 1 EAST FACE HAS 3 SPALLED AREAS ABOVE SRTUT. AREAS ARE 5" X 5" X 3/4" DEEP AND 7" X 18" X 3/4" DEEP.



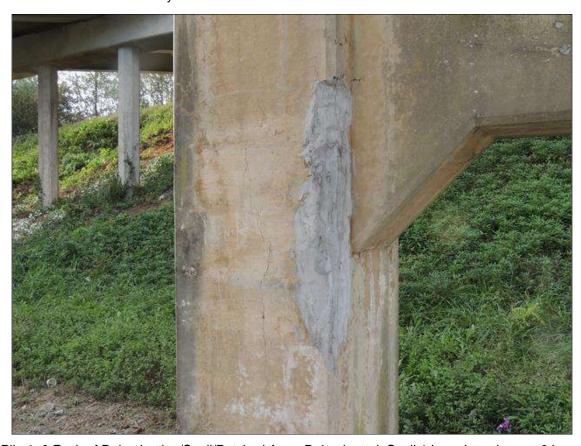
Bent 3 Pile 1: 0 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft. NORTH FACE OF COL. HAS SCATTERED MAP AND VERTICAL CRACKS. SIMILAR ON THE EAST AND SOUTH FACES.



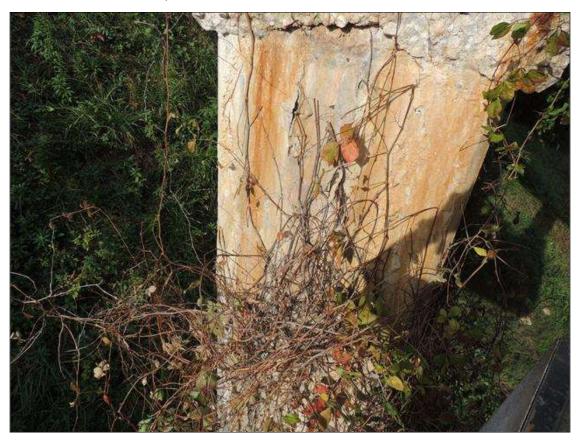
TOP OF STRUT BETWEEN COL. 1 AND COL. 2 @ BENT 3 IS CRACKED ON TOP 12' LONG



SPAN 3 HAS SHIFTED 3" TO EAST OVER BENT 3.



Bent 3 Pile 1: 0 Each of Delamination/Spall/Patched Area: Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. COL. 1 HAS A PATCHED AREA SOUTH EAST CORNER @ STRUT AREA IS 3' HIGH AND 4" ON EACH FACE.



Bent 4 Pile 1: 0 Each of Delamination/Spall/Patched Area: Spall greater than 1 in. deep or greater than 6 in. diameter. WEST FACE OF COL. HAS CRACKS WITH HEAVY EFFLO STAINS FROM TOP DOWN 14' 30" WIDE.



Bent 4 Pile 3: 0 Each of Cracking (RC and Other): Width 0.012-0.05 in. or spacing or 1.0-3.0 ft. SOUTH AND EAST FACES OF COL. 3 HAVE CRACKS WITH HEAVY EFFLO FROM CAP DOWN 10'. OTHER FACES ARE CRACKED.



BENT 3 COL. 3 NORTH FACE HAS 2 PATCHED AREAS 4' ABOVE GROUND EXTENDING & 30 " WIDE.



**END BENT 1** 



SLOPE PROTECTION IN FRONT OF END BENT 1 HAS BEEN SAND BAGGED APPROX 25'DOWN SLOP AND ALL THE WAY ACROSS.



**GUARDRAIL TERMINAL END** 



**GUARDRAIL TRANSITION** 



**GUARDRAIL ATTACHMENT** 



WEARING SURFACE SPAN 3 ( SIM. IN ALL SPANS )



RAIL AND CURB LEFT SIDE SPAN 2. ( SIM IN ALL SPANS BOTH SIDES )



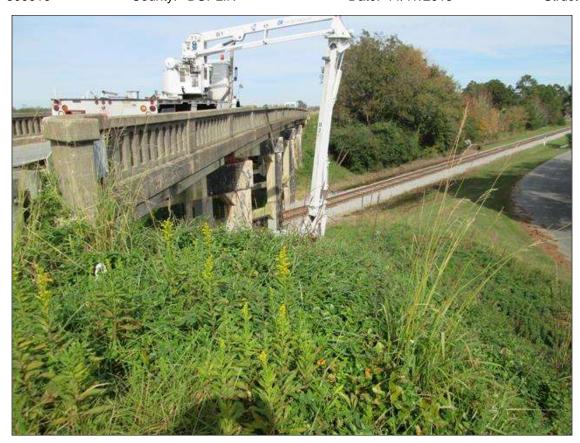
LOOKING WEST FROM BRIDGE



LOOKING EAST FROM BRIDGE



WEST PROFILE



EAST PROFILE



LOOKING NORTH



LOOKING SOUTH



LOOKING NORTH FROM BRIDGE



LOOKING SOUTH FROM BRIDGE



LOOKING EAST THROUGH SPAN 3



LOOKING WEST THROUGH SPAN 3



SUPER STRUCTURE



BENT 1. BENTS 2, 3 AND 4 ARE SIMILAR.



END OF BENT CAP



END BENT 2

## NATIONAL BRIDGE INVENTORY------ STRUCTURE INVENTORY AND APPRAISAL Run Date: 06/08/2016

| IDENTIFICATION —                           |                 |  |           |
|--|-----------------|--|-----------|
| (1) STATE NAME -NORTH CAROLINA BRIDGE      | 300016          | SUFFICIENCY RATING =   | 38.85     |
| (8) STRUCTURE NUMBER(FEDERAL) 000          | 0000000610016   | STATUS = Structurally Deficient                                |           |
| (5) INVENTORY ROUTE (ON/UNDER) - ON        | 21001170        |  |           |
| (2) STATE HIGHWAY DEPARTMENT DISTRICT      | 2               |  | - CODE    |
| (3) COUNTY CODE 61 (4) PLACE CODE          | 9760            | (112)NBIS BRIDGE SYSTEM -                                      | YES       |
| (6) FEATURE INTERSECTED - CSX RAILROAD     |                 | (104)HIGHWAY SYSTEM Is not on NHS                              | (         |
| (7) FACILITY CARRIED US117 NBL             |                 | (26) FUNCTIONAL CLASS - Major Collector                        | 07        |
| (9) LOCATION 0.1MI.N.JCT.SR1320            |                 | (100)STRAHNET HIGHWAY - Not a STRAHNET Route                   | (         |
| (11)MILEPOINT                              | 0               | (101)PARALLEL STRUCTURE - Right Parallel Structure             | F         |
| (16)LAT 35° 8' 58.65" (17)LONG 78° 6' 32.  | 65"             | (102)DIRECTION OF TRAFFIC - 1-way Traffic                      | 1         |
| (98)BORDER BRIDGE STATE CODE PCT SHA       | ARE             | (103)TEMPORARY STRUCTURE -                                     |           |
| (99)BORDER BRIDGE STRUCTURE NO             |                 | (110)DESIGNATED NATIONAL NETWORK - Not on the National Network | (         |
|  |                 | (20) TOLL On Free Road   | 3         |
| STRUCTURE TYPE AND MATERIAL —              |                 | (31) MAINTAIN - State Highway Agency                           | 01        |
| (43) STRUCTURE TYPE MAIN: Concrete         |                 | (22) OWNER - State Highway Agency                              | 01        |
| TYPE - Tee Beam                            | CODE 104        | (37) HISTORICAL SIGNIFICANCE - Not Eligible                    | 5         |
| (44) STRUCTURE TYPE APPR :                 |                 |  |           |
| TYPE -                                     | CODE 000        | CONDITION  | CODE      |
| (45) NUMBER OF SPANS IN MAIN UNIT          | 5               | (58) DECK  | 5         |
| (46) NUMBER OF APPROACH SPANS              |                 | (59) SUPERSTRUCTURE  | 4         |
| (107)DECK STRUCTURE TYPE - 1               | CODE            | (60) SUBSTRUCTURE  | 4         |
| (108)WEARING SURFACE / PROTECTIVE SYSTEM:  |                 | (61) CHANNEL & CHANNEL PROTECTION                              | N         |
| (A) TYPE OF WEARING SURFACE -              | CODE            | (62) CULVERTS  | N         |
| (B) TYPE OF MEMBRANE -                     | CODE            | LOAD RATING AND POSTING  | CODE      |
| (C) TYPE OF DECK PROTECTION -              | CODE            | (31) DESIGN LOAD H 15  | 2         |
|  |                 | (63) OPERATING RATING METHOD - Load Factor                     | 1         |
| AGE AND SERVICE -                          |                 | (64) OPERATING RATING - HS-24                                  | 43        |
| (27) YEAR BUILT                            | 1936            | (65) INVENTORY RATING METHOD - Load Factor                     | 1         |
| (106)YEAR RECONSTRUCTED                    |                 | (66) INVENTORY RATING - HS-14                                  | 25        |
| (42) TYPE OF SERVICE : ON - Highway        |                 | (70) BRIDGE POSTING - No Posting Required                      | Ę         |
| UNDER - Railroad                           | CODE 12         | (41) STRUCTURE OPEN, POSTED ,OR CLOSED                         | A         |
| (28) LANES: ON STRUCTURE 2 UNDER STRUCTURE | 0               | DESCRIPTION - Open, No Restriction                             |           |
| (29) AVERAGE DAILY TRAFFIC                 | 1850            | APPRAISAL  | - CODE    |
| (30) YEAR OF ADT 2013 (109) TRUCK ADT PCT  | 7%              | (67) STRUCTURAL EVALUATION                                     | 4         |
| (19) BYPASS OR DETOUR LENGTH               | 1 MI            | (68) DECK GEOMETRY   | 2         |
| GEOMETRIC DATA                             |                 | (69) UNDERCLEARANCES, VERTI & HORIZ                            | 3         |
| (48) LENGTH OF MAXIMUM SPAN                | 41 FT           | (71) WATERWAY ADEQUACY   | N         |
| (49) STRUCTURE LENGTH                      | 213 FT          | (72) APPROACH ROADWAY ALIGNMENT                                | 8         |
| (50)CURB OR SIDEWALK: LEFT .2085 FT RIGHT  | .2085 FT        | (36) TRAFFIC SAFETY FEATURES                                   | 0111      |
| (51) BRIDGE ROADWAY WIDTH CURB TO CURB     | 24.25 FT        | (113)SCOUR CRITICAL BRIDGES                                    | N         |
| (52) DECK WIDTH OUT TO OUT                 | 27.167 FT       | PROPOSED IMPROVEMENTS  |           |
| (32) APPROACH ROADWAY WIDTH (W/SHOULDERS)  | 24 FT           | (75) TYPE OF WORK - CODE                                       |           |
| (33) BRIDGE MEDIAN - No Median             | CODE 1          | (76) LENGTH OF STRUCTURE IMPROVEMENT                           |           |
| (34) SKEW 56° (35) STRUCTURE FLARED        | 0               | (94) BRIDGE IMPROVEMENT COST                                   |           |
| (10) INVENTORY ROUTE MIN VERT CLEAR        | 999.9 FT        | (95) ROADWAY IMPROVEMENT COST                                  |           |
| (47) INVENTORY ROUTE TOTAL HORIZ CLEAR     | 24.25 FT        | (96) TOTAL PROJECT COST  |           |
| (53) MIN VERT CLEAR OVER BRIDGE RDWY       | 999.9 FT        | (97) YEAR OF IMPROVEMENT COST ESTIMATE                         |           |
| (54) MIN VERT UNDERCLEAR REF Railroad      | 22 FT           | (114)FUTURE ADT 3700 (115) YEAR FUTURE ADT                     | 2025      |
| (55) MIN LAT UNDERCLEAR RT REF Railroad    | 7.667 FT        |  |           |
| (56) MIN LAT UNDERCLEAR LT REF -           | 000 FT          | INSPECTIONS  |           |
| NAVIGATION DATA                            |                 |  | 1/17/2015 |
|  | CODE N          | (92) CRITICAL FEATURE INSPECTION: (93) CFI DATE                |           |
| (38) NAVIGATION CONTROL - Not Applicable   | OODL IN         | A) FRACTURE CRIT DETAIL - NO A)                                |           |
| (38) NAVIGATION CONTROL - Not Applicable   | CODE            |  |           |
| (111)PIER PROTECTION -                     | CODE            | B) UNDERWATER INSP - NO B)                                     |           |
|  | CODE<br>0<br>FT | B) UNDERWATER INSP - NO B) C) OTHER SPECIAL INSP NO C) SCOUR   |           |

Structure No: 300016 County: DUPLIN Run Date:

|             |                     |                 | rtical                           |           |                      |                     |      | _                         |                |                       | Fraffic               | nce                      |                   | See Not                            | e 1                             |                                |     |                          | 9                    | ure     |
|-------------|---------------------|-----------------|----------------------------------|-----------|----------------------|---------------------|------|---------------------------|----------------|-----------------------|-----------------------|--------------------------|-------------------|------------------------------------|---------------------------------|--------------------------------|-----|--------------------------|----------------------|---------|
| Span Number | Feature Intersected | Inventory Route | Minimum Maximum Ver<br>Clearance | Milepoint | Base Highway Network | LRS Inventory Route | Toll | Functional Classification | Numer of Lanes | Average Daily Traffic | Year of Average Daily | Total Horizontal Clearan | Reference Feature | Minimum Vertical<br>Underclearance | Right Lateral<br>Underclearance | Left Lateral<br>Underclearance | _ ` | STRAHNET I<br>Designator | Direction of Traffic | Highway |
|             | 6                   | 5               | 10                               | 11        | 12                   | 13                  | 20   | 26                        | 28             | 29                    | 30                    | 47                       | 54A               | 54                                 | 55                              | 56                             | 69  | 100                      | 102 1                | 04      |
| 3           | CSXRR               | 80000000        |                                  |           |                      |                     |      |                           |                |                       |                       |                          | R                 | 22                                 | 7.67                            |                                | 9   |                          |                      |         |

### **BRIDGE MANAGEMENT UNIT**

DATA ON EXISTING STRUCTURE Run Date: 06/08/2016

**CSX RAILROAD** 

CITY:

**UNDER** 

0

COUNTY: DIVISION: DISTRICT: STRUCTURE NUMBER: LENGTH:

213 DUPLIN 300016 FEET

**ROUTE CARRIED:** FEATURE INTERSECTED: US117 NBL

LOCATED: BRIDGE NAME: 0.1MI.N.JCT.SR1320

**CALYPSO** 

FUNC. CLASS: SYST.ON: SYST.UNDER: ADT & YR: RAIL TYPE:

NFA 2013 FΑ 1850 LT 311 RT 311

BUILT: BY: PROJ: FED.AID PROJ: **DESIGN LOAD:** 

**SHPWC** H 15 1936 2180

ALIGNMENT: SKEW: REHAB: BY: PROJ: LANES: TAN 34

ON 2

**NAVIGATION:** HT. CRN. TO BED: WATER DEPTH:

VC. 0 FT HC 0 FT FT FT

SUPERSTRUCTURE: REINFORCED CONCRETE DECK GIRDERS

SUBSTRUCTURE: E.BTS:RC SPILL THRU;BTS:RCP&B

SPANS: 5@42'-6

**BEAMS OR GIRDERS:** 4LNS. RC DECK GIRDERS@8' CTS.

FLOOR: **ENCROACHMENT:** DECK (OUT TO OUT):

27.167 FT RC/3 AWS

**CLEAR ROADWAY: BETWEEN RAILS:** SIDEWALK OR CURB:

.2085 .2085 24.25 FT 24.667 FT LT RT

FT FΤ

VERT.CL.OVER:

999.9 FT

INV.RTG.: OPE.RTG.: CONTR.MEMBER: POSTED:

HS-24 ext.RCDG HS-14 SV TTST DATE

SYSTEM: **GREEN LINE ROUTE:** 

Primary U.S. Route Υ

### UNDER ROUTES AND CLEARANCES

|      |                   | Vertical C | earances | Horizontal Clearances |      |        |  |  |
|------|-------------------|------------|----------|-----------------------|------|--------|--|--|
| Span | Route Description | MMVC       | MVC      | Total                 | Left | Right  |  |  |
| 3    | CSXRR             | 0          | 22       | 0                     | 0    | 7.6670 |  |  |

Note: All measurements are in feet.

Bridge: 300016 County DUPLIN Date:

### These Repairs Should Be Made Within Twelve Months From Date Of This Inspection

| MMS<br>Code | Description of Function                              | Unit | Quantity | Remarks   | Est.<br>Cost |
|-------------|--|------|----------|---|--------------|
| 3306        | Maintain<br>Concrete<br>Superstructure<br>Components | SF   | 2        | SPAN 1 G4 CRACKED SPALLED AND<br>DELAMINATED AREA ALONG BOTTOM<br>AND BOTH FACES AT MID SPAN. AREA<br>IS 9" HIGH X 8' 5" LONG X 18"                       |              |
| 3306        | Maintain<br>Concrete<br>Superstructure<br>Components | SF   | 5        | SP. 2 G1 FROM MIDSPAN NORTH 13'.<br>LT., RT. FACES & BOTTOM<br>SPALLED,CRACKED,DELAM. &<br>PATCHED. SPALLED AREA 10" X 50" X 3<br>1/2" D.3 REBAR EXPOSED. |              |
| 3306        | Maintain<br>Concrete<br>Superstructure<br>Components | SF   | 2        | BT. 2 RT. BOTTOM SIDE G4. SPALLED,<br>DELAM. WITH REBAR STIRRUPS<br>EXPOSED 4" X 24" L X 8" UNDER<br>BOTTOM 3" DEEP.                                      |              |
| 3306        | Maintain Concrete Superstructure Components          | SF   | 2        | SP. 3 RT. SIDE G 4 DELAM. & SPALLED<br>AREA OVER BT. 3 9" X 24" WITH LARGE<br>REBAR EXPOSED.  |              |
| 3306        | Maintain<br>Concrete<br>Superstructure<br>Components | SF   | 6        | SPAN 5 G1 @ END BENT 2 SPALLED ,<br>DELAM. AND CRACKED 32" X 2 1/2" X<br>18"  |              |
| 3348        | Maintain<br>Concrete<br>Substructure<br>Components   | LF   | 3        | LEFT END OF BENT 1 CAP AND SOUTH FACE . SPALLED, CRACKED , DELAM. & DETERIORATED FROM LEFT END OUT 4' LONG X 38" WIDE X 3' TOP AND BOTTOM WITH REBAR.     |              |
| 3348        | Maintain<br>Concrete<br>Substructure<br>Components   | LF   | 3        | BT. 2 CAP LT. END, NORTH & SOUTH FACES HEAVLY CRACKED, DELAM, SPALLED & DETERIORATED. 3' N & S FACE 37" WIDE X 37" DOWN X 4" DEEP.                        |              |
| 3348        | Maintain<br>Concrete<br>Substructure<br>Components   | LF   | 20       | BT. 2 COL.1 W FACE CRACKED,<br>DELAM, SPALLED & DETERIORATED<br>WITH EFFLO. FROM BOTTOM OF CAP<br>DOWN 20' X 30" W X 9" ON EACH FACE<br>3" DEEP.          |              |
| 3348        | Maintain<br>Concrete<br>Substructure<br>Components   | LF   | 4        | BT. 3 CAP LT. END CRACKED,<br>SPALLED, DELAM.& DETERIORATED.<br>37" X 37" 3' ON N. & S. FACE 5" DEEP.   |              |
| 3348        | Maintain<br>Concrete<br>Substructure<br>Components   | LF   | 4        | BT. 4 LT. END OF CAP<br>CRACKED,SPALLED, DELAM. &<br>DETERIORATED 3' ON N & S FACE AND<br>37" X 37" ON END 3" TO 4" DEEP.                                 |              |

Bridge: 300016 County DUPLIN Date:

### These Repairs Should Be Made Within Twelve Months From Date Of This Inspection

| MMS<br>Code | Description of Function                         | Unit | Quantity | Remarks  | Est.<br>Cost |
|-------------|---|------|----------|--|--------------|
| 4632        | Maintenance of<br>Concrete Pile<br>Substructure | LF   | 13       | BT. 1 COL. 1 WEST FACE CRAKED,<br>DELAM. & DETERIORATED. TOP TO<br>BOTTOM 13' X 31" WIDE WITH HEAVY<br>EFFLO AND EXTENDS AROUND SOUTH<br>& NORTH FACES 10" |              |



Bridge: 300016 County DUPLIN

| MMS Code          | MM   | 1S Descrip | otion                            |  | Quantity |  |  |  |  |
|-------------------|--|------------|----------------------------------|--|----------|--|--|--|--|
| 3306              | Mair   | ntain Cond | crete Superstructure Components  | 2  | SF       |  |  |  |  |
| Location:         | Location:  |            |                                  |  |          |  |  |  |  |
| Beams and Girders |  |            | Bent/Span No. 1                  | Bent/Span No. 1 SPAN 1 G4                |          |  |  |  |  |
| Priority Leve     | ŀ  |            | Status                           |  |          |  |  |  |  |
| Priority Main     | itenan   | се         | Division Bridge Maintenance Noti | Division Bridge Maintenance Notification |          |  |  |  |  |
| Submitted D       | ate:   | Submitte   | Assisted By:                     |  |          |  |  |  |  |
| 11/18/2015        |  | TIM EA     | RP                               | CARLTON ADAMS                            |          |  |  |  |  |
| Details           |  |            |                                  |  |          |  |  |  |  |
|                   | SPAN 1 G4 CRACKED SPALLED AND DELAMINATED AREA ALONG BOTTOM AND BOTH FACES AT MID SPAN. AREA IS 9" HIGH X 8' 5" LONG X 18" |            |                                  |  |          |  |  |  |  |

| MMS Code        | MMS Descrip   | otion                            |               | Quantity |    |  |  |  |  |
|-----------------|---|----------------------------------|---------------|----------|----|--|--|--|--|
| 3306            | Maintain Cond   | crete Superstructure Components  |               | 5        | SF |  |  |  |  |
| Location:       |   |                                  |               |          |    |  |  |  |  |
| Beams and G     | irders  | Bent/Span No. 2                  | SPAN 2 G1     |          |    |  |  |  |  |
| Priority Level  |   | Status                           |               |          |    |  |  |  |  |
| Priority Mainte | enance  | Division Bridge Maintenance Noti | fication      |          |    |  |  |  |  |
| Submitted Da    | te: Submitte  | d By:                            | Assisted By:  |          |    |  |  |  |  |
| 11/18/2015      | TS EAR  | P                                | CARLTON ADAMS |          |    |  |  |  |  |
| Details         |   |                                  |               |          |    |  |  |  |  |
|                 | SP. 2 G1 FROM MIDSPAN NORTH 13'. LT., RT. FACES & BOTTOM SPALLED, CRACKED, DELAM. & PATCHED. SPALLED AREA 10" X 50" X 3 1/2" D.3 REBAR EXPOSED. |                                  |               |          |    |  |  |  |  |

Bridge: 300016 County DUPLIN

| MMS Code                    | MMS Descri    | otion                            |                                | Quantity     |   |  |  |
|-----------------------------|---------------|----------------------------------|--------------------------------|--------------|---|--|--|
| 3306                        | Maintain Con  | crete Superstructure Components  | 2                              | SF           |   |  |  |
| Location:                   |               |                                  |                                |              |   |  |  |
| Beams and G                 | Girders       | Bent/Span No. 2                  | BENT 2 RIGHT SIDE G 4          |              |   |  |  |
| Priority Level              |               | Status                           |                                |              |   |  |  |
| Priority Mainto             | enance        | Division Bridge Maintenance Noti | fication                       |              |   |  |  |
| Submitted Da                | ate: Submitte | ed By:                           | Assisted By:                   |              |   |  |  |
| 11/18/2015                  | TS EAF        | RP.                              | CARLTON ADAMS                  |              |   |  |  |
| Details                     |               |                                  |                                |              |   |  |  |
| BT. 2 RT. BC<br>BOTTOM 3" I |               | G4. SPALLED, DELAM. WITH REB     | AR STIRRUPS EXPOSED 4" X 24" I | L X 8" UNDEF | ₹ |  |  |

| MMS Code       | MMS Des     | cription                   |                                 |                               | Quantity |  |  |
|----------------|-------------|----------------------------|---------------------------------|-------------------------------|----------|--|--|
| 3306           | Maintain C  | oncrete Superstructure Com | crete Superstructure Components |                               |          |  |  |
| Location:      |             |                            |                                 |                               |          |  |  |
| Beams and C    | Girders     | Bent/Span No.              | 3                               | RIGHT SIDE G4 SPAN 3          |          |  |  |
| Priority Level |             | Status                     |                                 |                               |          |  |  |
| Priority Maint | tenance     | Division Bridge Mainten    | nance Noti                      | fication                      |          |  |  |
| Submitted Da   | ate: Subm   | itted By:                  |                                 | Assisted By:                  |          |  |  |
| 11/18/2015     | TS E        | ARP                        |                                 | CARLTON ADAMS                 |          |  |  |
| Details        |             |                            |                                 |                               |          |  |  |
| SP. 3 RT. SI   | IDE G 4 DEI | AM. & SPALLED AREA OV      | 'ER BT. 3                       | 9" X 24" WITH LARGE REBAR EXP | OSED.    |  |  |

Bridge: 300016 County DUPLIN

| MMS Code       | MMS Descri     | ntion                            |                        | Quantity |    |  |  |  |  |
|----------------|----------------|----------------------------------|------------------------|----------|----|--|--|--|--|
| IVIIVIS Code   | IVIIVIO DESCIT | ριιοι                            |                        | Quantity |    |  |  |  |  |
| 3306           | Maintain Con   | crete Superstructure Components  |                        | 6        | SF |  |  |  |  |
| Location:      |                |                                  |                        |          |    |  |  |  |  |
| Beams and 0    | Girders        | Bent/Span No. 5 G1 SPAN 5        |                        |          |    |  |  |  |  |
| Priority Level | l              | Status                           |                        |          |    |  |  |  |  |
| Priority Maint | tenance        | Division Bridge Maintenance Noti | fication               |          |    |  |  |  |  |
| Submitted Da   | ate: Submitte  | ed By: Assisted By:              |                        |          |    |  |  |  |  |
| 11/18/2015     | TS EAF         | RP                               | CARLTON ADAMS          |          |    |  |  |  |  |
| Details        |                |                                  |                        |          |    |  |  |  |  |
| SPAN 5 G1      | @ END BENT     | 2 SPALLED , DELAM. AND CRAC      | KED 32" X 2 1/2" X 18" |          |    |  |  |  |  |
|                |                |                                  |                        |          |    |  |  |  |  |

| MMS Code      | MN  | //S Descrip | otion                            |                     | Quantity |  |  |  |  |
|---------------|---|-------------|----------------------------------|---------------------|----------|--|--|--|--|
| 3348          | Maii  | ntain Cond  | crete Substructure Components    | 3                   | LF       |  |  |  |  |
| Location:     | Location:   |             |                                  |                     |          |  |  |  |  |
| Pier Cap      |   |             | Bent/Span No. 1                  | BENT 1 CAP LEFT END |          |  |  |  |  |
| Priority Leve | el  |             | Status                           |                     |          |  |  |  |  |
| Priority Main | itenan  | ce          | Division Bridge Maintenance Noti | fication            |          |  |  |  |  |
| Submitted D   | ate:  | Submitte    | d By: Assisted By:               |                     |          |  |  |  |  |
| 11/18/2015    |   | TS EAR      | P                                | CARLTON ADAMS       |          |  |  |  |  |
| Details       |   |             |                                  |                     |          |  |  |  |  |
|               | LEFT END OF BENT 1 CAP AND SOUTH FACE . SPALLED, CRACKED , DELAM. & DETERIORATED FROM LEFT END OUT 4' LONG X 38" WIDE X 3' TOP AND BOTTOM WITH REBAR. |             |                                  |                     |          |  |  |  |  |

Bridge: 300016 County DUPLIN

| MMS Code       | MMS Descrip   | otion                                      |                              | Quantity  |      |  |  |  |
|----------------|---------------|--|------------------------------|-----------|------|--|--|--|
| 3348           | Maintain Cond | crete Substructure Components              |                              | 3         | LF   |  |  |  |
| Location:      |               |  |                              |           |      |  |  |  |
| Pier Cap       |               | Bent/Span No. 2 BENT 2 CAP                 |                              |           |      |  |  |  |
| Priority Level |               | Status                                     |                              |           |      |  |  |  |
| Priority Maint | enance        | Division Bridge Maintenance Noti           | fication                     |           |      |  |  |  |
| Submitted Da   | ate: Submitte | d By:                                      | Assisted By:                 |           |      |  |  |  |
| 11/18/2015     | TS EAR        | P  | CARLTON ADAMS                |           |      |  |  |  |
| Details        |               |  |                              |           |      |  |  |  |
|                |               | TH & SOUTH FACES HEAVLY CRADOWN X 4" DEEP. | ACKED, DELAM, SPALLED & DETE | RIORATED. | 3' N |  |  |  |

| MMS Code      | MN   | //S Descrip | otion                            |               | Quantity |    |  |  |
|---------------|--|-------------|----------------------------------|---------------|----------|----|--|--|
| 3348          | Maii   | ntain Cond  | crete Substructure Components    |               | 20       | LF |  |  |
| Location:     |  |             |                                  |               |          |    |  |  |
| Pier Substru  | ucture   |             | Bent/Span No. 2                  | BENT 2 COL. 1 |          |    |  |  |
| Priority Leve | el   |             | Status                           |               |          |    |  |  |
| Priority Mair | ntenan   | ce          | Division Bridge Maintenance Noti | fication      |          |    |  |  |
| Submitted D   | Date:  | Submitte    | d By:                            | Assisted By:  |          |    |  |  |
| 11/18/2015    |  | TS EAR      | Р                                | CARLTON ADAMS |          |    |  |  |
| Details       |  |             |                                  |               |          |    |  |  |
|               | BT. 2 COL.1 W FACE CRACKED, DELAM, SPALLED & DETERIORATED WITH EFFLO. FROM BOTTOM OF CAP DOWN 20' X 30" W X 9" ON EACH FACE 3" DEEP. |             |                                  |               |          |    |  |  |

Bridge: 300016 County DUPLIN

| MMS Code  | MMS Desc    | Quantity                                  |               |  |    |
|---|-------------|---|---------------|--|----|
| 3348  | Maintain Co | Maintain Concrete Substructure Components |               |  | LF |
| Location:   |             |   |               |  |    |
| Pier Cap Bent/Span No. 3 LEFT END BENT 3 CAP  |             |   |               |  |    |
| Priority Level Status   |             |   |               |  |    |
| Priority Main   | tenance     | Division Bridge Maintenance Notification  |               |  |    |
| Submitted Da  | ate: Submit | ed By:                                    | Assisted By:  |  |    |
| 11/18/2015  | TS EA       | RP  | CARLTON ADAMS |  |    |
| Details   | Details     |   |               |  |    |
| BT. 3 CAP LT. END CRACKED, SPALLED, DELAM.& DETERIORATED. 37" X 37" 3' ON N. & S. FACE 5" DEEP. |             |   |               |  |    |

| MMS Code  | MN                    | MMS Description Quantity                       |                 |                        |  |    |
|---|-----------------------|--|-----------------|------------------------|--|----|
| 3348  | Mai                   | Maintain Concrete Substructure Components 4 LF |                 |                        |  | LF |
| Location:   |                       |  |                 |                        |  |    |
| Pier Cap  |                       |  | Bent/Span No. 4 | LEFT END OF BENT 4 CAP |  |    |
| Priority Leve   | Priority Level Status |  |                 |                        |  |    |
| Priority Maintenance Division Bridge Maintenance Notification   |                       |  | fication        |                        |  |    |
| Submitted D   | ate:                  | e: Submitted By:                               |                 | Assisted By:           |  |    |
| 11/18/2015  |                       | TS EAR   | P               | CARLTON ADAMS          |  |    |
| Details   |                       |  |                 |                        |  |    |
| BT. 4 LT. END OF CAP CRACKED, SPALLED, DELAM. & DETERIORATED 3' ON N & S FACE AND 37" X 37" ON END 3" TO 4" DEEP. |                       |  |                 |                        |  |    |

Bridge: 300016 County DUPLIN

| MMS Code   | MMS Description       |   |                 |                        | Quantity |    |
|--|-----------------------|---|-----------------|------------------------|----------|----|
| 4632   | Main                  | Maintenance of Concrete Pile Substructure |                 |                        | 13       | LF |
| Location:  | Location:             |   |                 |                        |          |    |
| Pier Substru   | cture                 |   | Bent/Span No. 1 | BT. 1 COL. 1 WEST FACE |          |    |
| Priority Leve  | Priority Level Status |   |                 |                        |          |    |
| Priority Maintenance Division Bridge Maintenance Notification  |                       |   |                 |                        |          |    |
| Submitted D  | ate:                  | Submitte                                  | d By:           | Assisted By:           |          |    |
| 11/18/2015   |                       | TS EAR                                    | Р               | CARLTON ADAMS          |          |    |
| Details  |                       |   |                 |                        |          |    |
| BT. 1 COL. 1 WEST FACE CRAKED, DELAM. & DETERIORATED. TOP TO BOTTOM 13' X 31" WIDE WITH HEAVY EFFLO AND EXTENDS AROUND SOUTH & NORTH FACES 10" |                       |   |                 |                        |          |    |



SPAN 1 G4 CRACKED SPALLED AND DELAMINATED AREA ALONG BOTTOM AND BOTH FACES AT MID SPAN. AREA IS 9" HIGH X 8' 5" LONG X 18"



LEFT END OF BENT 1 CAP AND SOUTH FACE . SPALLED, CRACKED , DELAM. & DETERIORATED FROM LEFT END OUT 4' LONG X 38" WIDE X 3' TOP AND BOTTOM WITH REBAR.



BT. 1 COL. 1 WEST FACE CRAKED, DELAM. & DETERIORATED. TOP TO BOTTOM 13' X 31" WIDE WITH HEAVY EFFLO AND EXTENDS AROUND SOUTH & NORTH FACES 10"



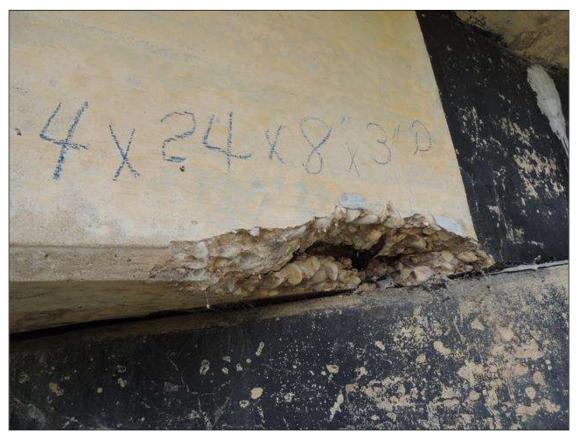
SP. 2 G1 FROM MIDSPAN NORTH 13'. LT., RT. FACES & BOTTOM SPALLED, CRACKED, DELAM. & PATCHED. SPALLED AREA 10" X 50" X 3 1/2" D.3 REBAR EXPOSED.



BT. 2 CAP LT. END, NORTH & SOUTH FACES HEAVLY CRACKED, DELAM, SPALLED & DETERIORATED. 3' N & S FACE 37" WIDE X 37" DOWN X 4" DEEP.



BT. 2 COL.1 W FACE CRACKED, DELAM, SPALLED & DETERIORATED WITH EFFLO. FROM BOTTOM OF CAP DOWN 20' X 30" W X 9" ON EACH FACE 3" DEEP.



BT. 2 RT. BOTTOM SIDE G4. SPALLED, DELAM. WITH REBAR STIRRUPS EXPOSED 4" X 24" L X 8" UNDER BOTTOM 3" DEEP.



SP. 3 RT. SIDE G 4 DELAM. & SPALLED AREA OVER BT. 3 9" X 24" WITH LARGE REBAR EXPOSED.



BT. 3 CAP LT. END CRACKED, SPALLED, DELAM.& DETERIORATED. 37" X 37" 3' ON N. & S. FACE 5" DEEP.



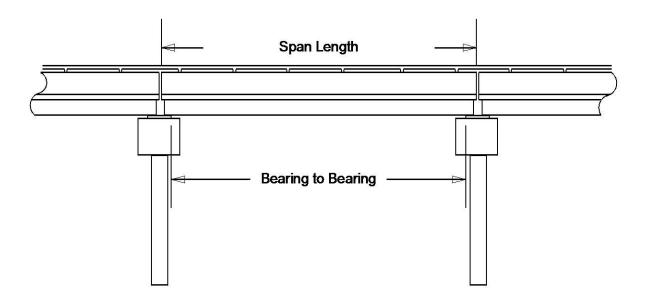
BT. 4 LT. END OF CAP CRACKED, SPALLED, DELAM. & DETERIORATED 3' ON N & S FACE AND 37" X 37" ON END 3" TO 4" DEEP.



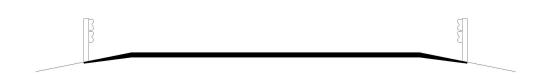
SPAN 5 G1 @ END BENT 2 SPALLED , DELAM. AND CRACKED 32" X 2 1/2" X 18"

# **Structure Data Worksheet**

County: DUPLIN Structure No: 300016 Date: Inspected By: TSE



| Span No | Span<br>Length | Bearing to<br>Bearing | Comments  |
|---------|----------------|-----------------------|-----------|
| 1       | 42.5           | 40.916'               |           |
| 2       | 42.5           | 40.916'               |           |
| 3       | 42.5           | 40.916'               |           |
| 4       | 42.5           | 40.916'               |           |
| 5       | 42.5           | 40.916'               |           |
|         |                |                       | NBIS 208' |



| Roadway         | 24.25ft Wide  | 2 Paved Lanes | Looking North |
|-----------------|---------------|---------------|---------------|
| Left Shoulder   | 8ft Wide      |               | 8ft Unpaved   |
| Right Shoulder  | 6ft Wide      |               | 6ft Unpaved   |
| Left Guardrail  | 8ft from road |               |               |
| Right Guardrail | 6ft from road |               |               |

VERIFIRED BY TS EARP 11/18/15

## VERIFIED BY RGM ON 11-15-13

| Title                           |  | Descri | ption          |                         |  |
|---------------------------------|--|--------|----------------|-------------------------|--|
| Approach Roadway                |  |        | Looking North  |                         |  |
| Bridge No: 300016 Drawn By: RBH |  |        | Date: 03/25/08 | File Name: \$0234000493 |  |
|                                 |  |        |                |                         |  |

| Deck Width/Out to Out            | 27.167ft | Wearing Surface       | 0.25ft  |
|----------------------------------|----------|-----------------------|---------|
| Between Rails                    | 24.667ft | Median Width          |         |
| Curb Height                      | 0.54167  | t Median Height       |         |
| Top Rail to Deck/Wearing Surface | 3.5833ft | Left Guardrail Width  | 1.27ft  |
| Clear Roadway                    | 24.25ft  | Right Guardrail Width | 1.27ft  |
| Left Bridge Rail                 | Type 28  | Right Bridge Rail     | Type 28 |

| Measurements for Span #       | 2     |                |        |
|-------------------------------|-------|----------------|--------|
| Deck Thickness                | 0.833 | Left Overhang  | 3.5833 |
| Top of Rail to Bottom of Beam | 6.75  | Right Overhang | 3.5833 |

| Beam No | Beam Type      | Spacing | Comments                |
|---------|----------------|---------|-------------------------|
| 1       | RC Deck Girder | 6.667ft | Beams Size: 18"W x 28"H |
| 2       | RC Deck Girder | 6.667ft |                         |
| 3       | RC Deck Girder | 6.667ft |                         |
| 4       | RC Deck Girder |         |                         |

# VERIFIED BY TS EARP 11/18/15

# VERIFIED BY RGM ON 11-15-13

| Title                           |  | Description                   |                         |  |
|---------------------------------|--|-------------------------------|-------------------------|--|
| Typical Section                 |  | 4 Lines of Concrete Tee beams |                         |  |
| Bridge No: 300016 Drawn By: RBH |  | Date: 03/25/08                | File Name: \$0234000494 |  |
|                                 |  |                               |                         |  |

# Measurements Under Span 3

| Rail to Rail                   | 5ft     | 1 set(s) of tracks | Looking: EAST |
|--------------------------------|---------|--------------------|---------------|
| Vertical Clearance             | 22ft    | Measured from rail | 1at Beam # 4  |
| Distance to Left Bent          | 7.667ft |                    |               |
| Distance to Left Toe of Slope  |         |                    |               |
| Distance to Right Bent         | 8.083ft |                    |               |
| Distance to Right Toe of Slope |         |                    |               |

VERIFIED BY TS EARP 11/18/15

## VERIFIED BY RGM ON 11-15-13

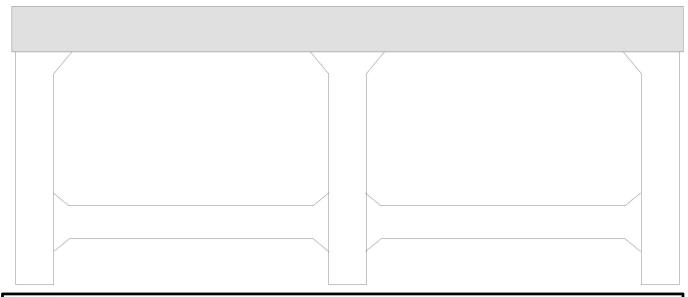
| Title                           |  | Descri | ption          |                         |  |
|---------------------------------|--|--------|----------------|-------------------------|--|
| Clearance Profile               |  |        | Looking East   |                         |  |
| Bridge No: 300016 Drawn By: RBH |  |        | Date: 03/25/08 | File Name: \$0234000495 |  |
|                                 |  |        |                |                         |  |

SPAN 2



G-1 IN SPAN 2 SIMILAR.

| Title             |              |  | Description     |                         |  |  |
|-------------------|--------------|--|-----------------|-------------------------|--|--|
| PRIORITY MAINT.   |              |  | G-1 IN SPAN 2   |                         |  |  |
| Bridge No: 300016 | Drawn By: BC |  | Date:11/29/2011 | File Name: \$0038000728 |  |  |



|                             |           |            |            |          |               | _           |             |            |                  |           |  |
|-----------------------------|-----------|------------|------------|----------|---------------|-------------|-------------|------------|------------------|-----------|--|
| Cap Infor                   | mation    |            | Material   | Cast-in- | -Place Concre | ete         |             |            |                  |           |  |
| Length                      | Width     | Height     | Left Over  | hang     | Right Overh   | ang Left B  | eam to Er   | nd of Cap. | Right Beam to Er | nd of Cap |  |
| 44.083 ft.                  | 3.166 ft. | 3.000 ft.  | 1.500      | ft.      | 1.500 ft.     | 3.375 ft.   |             |            | 3.375 ft.        |           |  |
| Subcap Information Material |           |            |            |          |               |             |             |            |                  |           |  |
| Length                      | Width     | Height     | Left Over  | hang     | Right Overh   | ang Left P  | ile to Spli | ce.        |                  |           |  |
|                             |           |            |            |          |               |             |             |            |                  |           |  |
| Sill Inforn                 | nation    |            | Material   |          |               | ,           |             |            |                  |           |  |
| Length                      | Width     | Height     |            |          |               |             |             |            |                  |           |  |
|                             |           |            |            |          |               |             |             |            |                  |           |  |
| Pile# N                     | /laterial | Spacing    | Width/Dia. | Height   | Length        | Orientation | Driven?     | Replaceme  | ent? Removed?    | Collar?   |  |
| 1 0                         | Concrete  | 20.541 ft. | 2.5 ft.    |          |               | Vertical    | No          | No         | No               | No        |  |
| 2 (                         | Concrete  | 20.541 ft. | 2.5 ft.    |          |               | Vertical    | No          | No         | No               | No        |  |
| 3 (                         | Concrete  |            | 2.5 ft.    |          |               | Vertical    | No          | No         | No               | No        |  |
|                             |           |            |            |          |               |             |             |            |                  |           |  |
|                             |           |            |            |          |               |             |             |            |                  |           |  |
|                             |           |            |            |          |               |             |             |            |                  |           |  |
|                             |           |            |            |          |               |             |             |            |                  |           |  |
|                             |           |            |            |          |               |             |             |            |                  |           |  |
|                             |           | \/⊏□       | DIEIED     | RV 7     | ΓS EARF       | 0 11/12     | /15         |            |                  |           |  |
|                             |           | V L        |            | ווט      | 3 LAIN        | 11/10       | / 13        |            |                  |           |  |
|                             |           |            |            |          |               |             |             |            |                  |           |  |
|                             |           |            |            |          |               |             |             |            |                  |           |  |
|                             |           |            |            |          |               |             |             |            |                  |           |  |
|                             |           |            |            |          |               |             |             |            |                  |           |  |
|                             |           |            |            |          |               |             |             |            |                  |           |  |
| Bent/Abu                    | tment #:  | 1          | Similar I  | Bents:   | 2,3,AND 4     | VERIF       | IED BY      | RGM ON     | 11-15-13         |           |  |

Title Description
SUBSTRUCTURE LOOKING NORTH

Bridge No: 300016 Drawn By: RGM Date:12/10/2009 File Name:S0042061378

G-3 IN SPAN 4 AT BENT 4



G-4 IN SPAN 4 AT BENT 4 SIMILAR

# **LOOKING NORTH**

| Title             |              |   | Description     |                         |  |  |
|-------------------|--------------|---|-----------------|-------------------------|--|--|
| PRIORITY MAINT. 2 |              |   | GIRDERS         |                         |  |  |
| Bridge No: 300016 | Drawn By: BC | 1 | Date:12/14/2009 | File Name: \$0038000729 |  |  |