BRIDGE NO. 04548

68940 - SIMSBURY
CLIMAX ROAD
over
NOD BROOK

Routine Inspection
09/17/2015
Inspected by: Team 2
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location Map</td>
<td>1</td>
</tr>
<tr>
<td>Structure Inventory and Appraisal (BRI-19)</td>
<td>2</td>
</tr>
<tr>
<td>Inspection Data (BRI-18)</td>
<td>6</td>
</tr>
<tr>
<td>National Bridge Elements</td>
<td>12</td>
</tr>
<tr>
<td>Concrete Deterioration Worksheet (BRI-10)</td>
<td>13</td>
</tr>
<tr>
<td>Sketches</td>
<td>14</td>
</tr>
<tr>
<td>Pictures</td>
<td>19</td>
</tr>
</tbody>
</table>
Form: Location
Inspection type: Routine
Inspection Date: 09/17/2015
Inspected by: Team 2

Bridge No: 04548

Town: SIMSBURY
Carried: CLIMAX ROAD
Crossed: NOD BROOK
Inventory Route: Non-NHS

Map data ©2015 Google
### STRUCTURE INVENTORY & APPRAISAL

<table>
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<th>Functionally Obsolete</th>
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### STRUCTURE TYPE & MATERIALS

(43) Structure Type, Main

- A) Material: Steel
- B) Design Type: Stringer/Multi-beam or Girder

(44) Structure Type, Approach

- A) Material: Other
- B) Design Type: Other

(45) Number of Spans, Main Unit: 1

(46) Number of Approach Spans: 0

(107) Deck Structure Type: Concrete Cast-In-Place

(108) Wearing Surface Protection Systems

- A) Type of Wearing Surface: Bituminous
- B) Type of Membrane: Preformed Fabric
- C) Type of Deck Protection: None

### IDENTIFICATION

<table>
<thead>
<tr>
<th>Bridge Name</th>
<th>Town Code - Name</th>
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<tr>
<td>04548</td>
<td>88940 - SIMSBURY</td>
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</table>

(5) Inventory Route

- (A) Record Type: Route carried "on" the structure
- (B) Signing Prefix: CITY STREET
- (C) Level of Service: NONE OF THE BELOW
- (D) Route Number: 00000
- (E) Dir Suffix: NOT APPLICABLE
- (6A) Featured Intersected: NOD BROOK

(6B) Critical Facility Indicator

(7) Facility Carried: CLIMAX ROAD

(9) Location: 150 FT EAST OF ROUTE 167

(11) Mile Post: 0

(16) Latitude: 41 Deg. 49 Min. 32.09 Sec.

(17) Longitude: 72 Deg. 51 Min. 21.27 Sec.

(88) Border Bridge

- (A) State Code
- (B) Percent Responsibility
- (C) Border Town Name

(99) Border Bridge Structure No.

### GEOMETRIC DATA

(48) Length of Maximum Span: 31 ft.

(49) Structure Length: 34 ft.

(50) Curb or Sidewalk Widths

- A) Left: 6 in.
- B) Right: 6 in.

(51) Bridge Roadway Width: Curb to Curb 30 ft. 1 in.

(52) Deck Width, Out to Out: 34 ft. 6 in.

Bridge No: 04548

AGE AND SERVICE

Year Built: 1942 (106) Year Reconstructed: 1969

Type of Service
A) On 1 - Highway
B) Under 5 - Waterway

Number of Lanes
A) On 02 B) Under 00

Average Daily Traffic: 2700
Is Above Half ADT: No
Precent Truck: 4 %
Years of ADT: 2015
Bypass, Detour Length: 4 Miles

CONDITION

Deck: 6
Superstructure: 6
Substructure: 7
Channel & Channel Protections: N
Culverts: N

Traffic Safety Features
A) Bridge Railings: 0
B) Transitions: 0
C) Approach Guardrail: 0
D) Approach Guardrail Ends: 0

WATERWAY

Drainage Basin Waterway: 4318 - Hop Brook

Navigation Control: 0 - No navigation control on waterway (bridge permit not required)

Navigation Vertical Clearance: 0 ft.
Navigation Horiz.Clr: 0 ft.
Pier/Abutment Navigation: 
Vert-Lift Brdg Nav Min: 

APPRASALS

Structural Evaluation: 6
Deck Geometry: 4
Underclearances, Vert. & Horiz.: N
Waterway Adequacy: 7
Approach Roadway Alignment: 8
Scur Critical: 8

COMMENTS

2015- No Projects AES 10-2-15

CLASSIFICATION

NBIS Bridge Length: Yes
Highway System: 0 - Structure/Route is NOT on NHS

Functional Class: 17 - Urban - Collector
Defense Highway: 0 - Not a STRAHOME route
Parallel Structure: N - No parallel structure
Direction of Traffic: 2 - 2-way traffic
**Form: BRI-19, Rev. 2/15**

**Inspection type:** Routine  
**Inspection Date:** 09/17/2015  
**Inspected by:** Team 2  
**Bridge No:** 04548  
**Town:** SIMSBURY  
**Carried:** CLIMAX ROAD  
**Crossed:** NOD BROOK  
**Inventory Route:** Non-NHS

### Temporary Structure
- **Designated National Network:** 0 - Inventory route not on network
- **Toll:** 3 - On Free Road
- **Maintain:** 03 - Town or Township Highway Agency
- **Owner:** 03 - Town or Township Highway Agency
- **Report Class:** L - LOCAL
- **Historical Significance:** 5 - Not eligible for National Register

### POSTED SIGNS
- **Other Posted Sign 1**
- **Other Posted Sign 2**

### PROPOSED IMPROVEMENTS
- **Type of Work Proposed**
- **Work Done By**
- **Length of Structure Improvement** [ft.]
- **Bridge Improvement Cost**
- **Roadway Improvement Cost**
- **Total Project Cost**
- **Year of Improvement Estimate**
- **Future ADT**
- **Year of Future ADT**
- **DOT Bridge Program List No**
- **Project No**
- **Advertised Date**

### LOAD RATING & POSTING
- **Design Load** 0 - Unknown
- **Operating Rating Type** 1 - Load Factor (LF)
- **Operating Rating** 44.2
- **Inventory Rating Type** 1 - Load Factor (LF)
- **Inventory Rating** 26.5
- **Evaluation Code** L - Load Factor
- **Year of Evaluation** 2001
- **Bridge Posting** 3 - 10.0-19.9% below legal loads (6-10 tons)
- **Structure Status** P - Posted for Load

### OTHER FEATURES
- **Fence Required** No
- **Fence Material**
- **Fence Height** 0
- **Fence Top Type**
- **Barrel Ladders** No
- **Stand Pipes** No
- **Catwalks** No
- **Moveable Inspection System** No
- **Haunches Present over Roadway** NO
- **Utilities** N | No Utilities present
Form: BRI-19, Rev. 2/15
Inspection type: Routine
Inspection Date: 09/17/2015
Inspected by: Team 2

Bridge No: 04548
Town: SIMSBURY
Carried: CLIMAX ROAD
Crossed: NOD BROOK
Inventory Route: Non-NHS

INSPECTOR'S SIGNATURES:

1) 
Date: 09/30/2015
P.E. SIGNATURE:
Date:

2) 
Date: 10/01/2015
P.E. #

3) 
Date:
Reviewed By:

4) 
Date:

_____________________________
FIELD INSPECTION REPORT

Location: 150 FT EAST OF ROUTE 167  Year Built: 1942  Snooper Required: □
Main Material: 3 - Steel  Year Rebuilt: 1989  Snooper Used: □
Main Design: 02 - Stringer/Multi-beam or
Lead Inspector: Tracy Matthews

Inspection Date: 09/17/2015  Crossed: NOD BROOK
Inspected by: Team 2  Inventory Route: Non-NHS

Visits:

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<td>12:55 PM</td>
<td>03:00 PM</td>
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<td>BSE - Inspector</td>
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58. DECK:

Rating

Overlay: 7  Newer bituminous overlay.

Deck - Str. Condition: 6  Areas of light map cracks (curing type) in all bays.

Hairline cracks with efflorescence, especially in bay#4.

Small areas of honeycomb and horizontal cracks at random locations in haunches.

Bay #1 -
Efflorescence stains with a 5' x up to 3' area of short hairline cracks with efflorescence.

(1) 7' x 6" hollow area/ potential spall along haunch of beam #2 adjacent to abutment #1.

Bay #2 -

(1) 8' x 6" hollow area/ potential spall along haunch of beam #2 adjacent to abutment #1.

Curbs: 6  Concrete curbs -

Areas of moderate to heavy scale.

Random mortar patches, some with hairline cracks and efflorescence.

Isolated hollow areas.

Median: N

Sidewalks: N

Parapet: 5  RAILBASE -
Light to moderate scale with random areas of heavy scale.

Vertical, transverse & map cracking with efflorescence.

Mortar patches.

North -

Exterior face has (1) 12' x 9" hollow area with hairline cracks and efflorescence.
South -

Exterior face has several hollow patched areas up to 7' x 1' with hairline cracks and efflorescence.

Random surface spalls up to 1' diameter.

West end has (1) large corner spall.

Railing: STEEL PICKETS - Chipped and peeling paint.

Areas of light to medium rust and areas of laminer rust with section loss and perforations along the bottom rail adjacent to connection point of pickets at the east end of south rail & west end of north rail.

North Rail -

Bent rail at 2nd section.

(1) missing picket at 3rd section.

South Rail -

West end section missing.

Random stanchions have collision damage with dents & scrape & minor bends of interior flanges.

East end section bent.

Paint: N
Fence: N
Drains: N
Lighting Standard: N

Overall Utility Condition Rating
Utility Type/Size
N | No Utilities present

Construction Joints: N
Expansion Joint: N
Haunches Present over travelway?  NO

APPROACH CONDITION:  

Rating
Approach Slab: N
Relief Joints: N
Approach Guide Rail: 6  Wire rope on wood posts -
Weathered posts with splits & checks .
Random newer posts.
Some post leaning with areas of loose & slacked cables.

Approach Pavement: 7
Newer Bituminous-
Transverse and longitudinal cracks.

Additionally there is (1) catch basin at east approach on south side adjacent to structure that is filled/ clogged with leaves, pine needles & debris.

Approach Embankment: 8

Traffic Safety Features
Bridge Railings: 0
Transitions: 0
Approach Guardrails: 0
Approach Guardrail Ends: 0

59. SUPERSTRUCTURE:

Rating
Bearing Devices: N
Stringers: N
Girders: 6 Areas of light rust mainly along top flanges from previous deck leakage.

Areas of heavy laminar rust with minimal section loss at top and bottom flanges on exterior face of the north & south fascia beam.

Beam #2 top flange in bay #2 adjacent to abutment #1 exhibits area of heavy to laminar rust with minimal section loss.

Verify minimum section loss by removing laminar rust and taking measurements next inspection. (icc 10/6/15)

Floor Beams: N
Trusses - General: N
Trusses - Portals: N
Trusses - Bracing: N
Paint: 7 Areas of peeling paint where laminar rust was painted over.
Rust: 6 Areas of light to laminar rust with small areas of minimal section loss.

Machinery Moveable Span: N
Rivets & Bolts: N
Welds - Cracks: 8
Timber Decay: N
Concrete Cracking: N
Collision Damage: 8
Member Alignment: 8
Deflection Under Load: N
Vibration Under Load: N
Stand Pipes: N

Overall Rating: 6
Barrel Ladders: N

Are Barrel Ladders OSHA Compliant?

60. SUBSTRUCTURE:

Rating
Abutments - Stem: 7 Vertical and horizontal hairline cracks with efflorescence frosting.

Void behind abutment northwest corner, probed up to 40" deep.

Abutment #2 has (1) 1" x 8" surface spall on west end face.

Abutments - Backwall: 7 Vertical hairline cracks with efflorescence frosting.

Abutments - Footings: N
Abutments - Settlement: 8
Abutments - Wingwalls: N
Piers/Bents - Caps: N
Piers/Bents - Pile Bent: N
Piers/Bents - Columns: N
Piers/Bents - Footings: N
Piers/Bents - Settlement: N
Erosion - Scour: 8
Concrete Crack - Spall: 7 See above items.
Steel Corrosion: N
Paint: N
Timber Decay: N
Collision Damage: 8
Debris: N

Overall Rating: 7

61. CHANNEL AND CHANNEL PROTECTION:

Rating
Channel - Scour: 8
Embankment - Erosion: 8

Debris: 6 Moderate embankment encroachment at the northwest & southeast with heavy muck and silt build-up in the channel.

Some debris slowing water flow at the inlet side.

Vegetation: 7 Heavy vegetation growth around structure especially at the southeast & northwest wingwall with channel embankments well vegetated up & down stream.

Channel Change: 7 Flow comes from a narrowed channel from the northwest caused by encroachment at the northwest with channel widening under structure and flow evenly distributed. Flow exits structure to encroachment at the southeast narrowing channel by up to 50% at outlet and eventually widens back to originally cut embankments downstream.

Channel is deep at centerline under structure.

Overall Rating: N
Slow flow during 9-17-15 inspection.

Fender - System: N
Spur Dikes and Jetties: N
Rip Rap: 8

62. CULVERTS AND RETAINING WALLS:

Rating

Barrel: 
Concrete: N
Steel: N
Timber: N
Headwall: N
Cutoff Wall: N
Debris: N
Retaining Wall System: N
Footing: N

Overall Rating: N

LOAD POSTING:

Rating

Single Unit (Tons):
Semi Trailer (Tons):

4 Axle (Tons): 32 Posted at the bridge, both directions.

32 Tons.

3S2 (Tons):
All Vehicles:
Advanced Warning: N
Warning At Bridge:
Legibility: 8
Visibility: 8
None.
At structure only.

VERTICAL CLEARANCE POSTING

Min. Vert Under Clearance: Ft In
Posted Clearance Under Bridge: Ft In
Posted Clearance On Bridge: Ft In
Advanced Warning: False
Warning At Bridge:
Legibility:
Visibility:

NOTES / COMMENTS:

Character of Traffic: Light with mixed weights.

Additional Notes:

West to East roadway.
<table>
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<tr>
<td>Verify minimum section loss by removing laminar rust and taking measurements next inspection. (icc 10/6/15)</td>
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<tr>
<td>Environment</td>
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<tr>
<td>12 - Reinforced Concrete Deck</td>
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<tr>
<td>1080 - Delamination/Spall/Patched Area</td>
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<tr>
<td>1120 - Efflorescence/Rust Staining</td>
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<tr>
<td>1190 - Abrasion/Wear (PSC/RC)</td>
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<td>107 - Steel Open Girder/Beam</td>
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<td>1000 - Corrosion</td>
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<td>215 - Reinforced Concrete Abutment</td>
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<td>1120 - Efflorescence/Rust Staining</td>
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<td>330 - Metal Bridge Railing</td>
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<td>1000 - Corrosion</td>
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<td>1020 - Connection</td>
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<td>7000 - Damage</td>
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<td>331 - Reinforced Concrete Bridge Railing</td>
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### CONCRETE DETERIORATION WORKSHEET

#### Form BRI-10, Rev. 967

**Deterioration by Span - In Square FEET**

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<td>Cracks: w/Efflorescence (use .5&quot; width x length)</td>
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<td>Map Cracking: w/Efflorescence (use full area)</td>
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<tr>
<td>w/o Efflo. (use 50% of area)</td>
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<td>Honeycombed Areas (only areas more than .5&quot; deep)</td>
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<td>% Spalled and Delaminated on Top</td>
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<tr>
<td>% Deterioration on Bottom</td>
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**Date:** 10-03-13  **Prepared By:** TEAM 2

**9-17-15**

CONCWORK.SHT
Sketches

Inspection type: Routine
Inspection Date: 09/17/2015
Inspected by: Team 2

Bridge No: 04548

Town: SIMSBURY
Carried: CLIMAX ROAD
Crossed: NOD BROOK
Inventory Route: Non-NHS

Channel Plan
Looking eastbound on Climax Road from west approach.

Weight limit posting at the west approach.
Bridge No: 04548

Looking westbound on Climax Road from east approach.

Weight limit posting at east approach.
Broken post with cables lying on ground at the southeast. Note clogged catch basin.

Area of collision damage to south railing at west end with missing end section.
Form: Asset Photos
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Photo Number: 7
North elevation. (Inlet)

Photo Number: 8
Looking upstream.

Photo Taken: 09/17/2015

22
Form: Asset Photos
Bridge No: 04548
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Photo Number: 9
South elevation.

Photo Number: 10
Looking downstream.

Photo Taken: 09/17/2015
Exterior face of south railbase exhibits large hollow patched areas with cracking and efflorescence.

General view of abutment #1.
Hollow area/potential spall in haunch over beam #2 in bay 2.

Bay 4 exhibits cracks with heavy efflorescence.
Beam 5 south side at top of bottom flange exhibits heavy laminar rust.

General view of abutment #2.
BRIDGE NO. 04549

68940 - SIMSBURY
FIRETOWN ROAD
over
BISSELL BROOK

Routine Inspection
09/21/2015
Inspected by: Team 2
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Bridge No: 04549

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<td>09/21/2015</td>
<td><strong>24</strong></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Indepth Insp</th>
<th>Proposed next Indepth Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td></td>
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<table>
<thead>
<tr>
<th>Deck Survey Date</th>
<th>Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1/1900</td>
<td><strong>01</strong></td>
</tr>
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<table>
<thead>
<tr>
<th>Access</th>
<th>Flagman</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - None</td>
<td><strong>0</strong></td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Fracture</th>
<th>Date</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Underwater | |
|------------||
|           |   |

| Special | |
|--------||
|        |   |

#### STRUCTURE TYPE & MATERIALS

<table>
<thead>
<tr>
<th>A) Material</th>
<th>1 - Concrete</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>B) Design Type</th>
<th>01 - Slab</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>A) Material</th>
<th>0 - Other</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>B) Design Type</th>
<th>00 - Other</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Number of Spans, Main Unit</th>
<th>1</th>
</tr>
</thead>
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<table>
<thead>
<tr>
<th>Number of Approach Spans</th>
<th>0</th>
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<table>
<thead>
<tr>
<th>Deck Structure Type</th>
<th>1 - Concrete Cast-in-Place</th>
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#### IDENTIFICATION

<table>
<thead>
<tr>
<th>Bridge Name</th>
<th>04549</th>
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<table>
<thead>
<tr>
<th>Town Code - Name</th>
<th>68940 - SIMSBURY</th>
</tr>
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<table>
<thead>
<tr>
<th>(5) Inventory Route</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(A) Record Type</th>
<th>1: Route carried &quot;on&quot; the structure</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(B) Signing Prefix</th>
<th>5 - CITY STREET</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>(C) Level of Service</th>
<th>0 - NONE OF THE BELOW</th>
</tr>
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<table>
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<tr>
<th>(D) Route Number</th>
<th>00000</th>
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<table>
<thead>
<tr>
<th>(E) Dir Suffix</th>
<th>0 - NOT APPLICABLE</th>
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<table>
<thead>
<tr>
<th>(6A) Featured Intersected</th>
<th>BISSELL BROOK</th>
</tr>
</thead>
</table>

| (6B) Critical Facility Indicator | |
|----------------------------------||

<table>
<thead>
<tr>
<th>(7) Facility Carried</th>
<th>FIRETOWN ROAD</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(9) Location</th>
<th>OFF ROUTE 309</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(11) Mile Post</th>
<th>0 Miles</th>
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</table>

<table>
<thead>
<tr>
<th>(16) Latitude</th>
<th>Deg. 55 Min. 0.98 Sec.</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>(17) Longitude</th>
<th>Deg. 51 Min. 4.26 Sec.</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>(98) Border Bridge</th>
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</thead>
</table>

| (A) State Code |  |
|----------------||

<table>
<thead>
<tr>
<th>(B) Percent Responsibility</th>
<th><strong>%</strong></th>
</tr>
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</table>

| (C) Border Town Name |  |
|----------------------||

| (99) Border Bridge Structure No. |  |
|----------------------------------||

#### GEOMETRIC DATA

<table>
<thead>
<tr>
<th>(48) Length of Maximum Span</th>
<th>21 ft.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(49) Structure Length</th>
<th>24 ft.</th>
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</table>

<table>
<thead>
<tr>
<th>(60) Curb or Sidewalk Widths</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>A) Left</th>
<th>0 ft. 0 in.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>B) Right</th>
<th>0 ft. 0 in.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(51) Bridge Roadway Width Curb to Curb</th>
<th>26 ft. 0 in.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>(52) Deck Width, Out to Out</th>
<th>28 ft. 8 in.</th>
</tr>
</thead>
</table>

|-----------------------------|-------|
Bridge No: 04549

**AGE AND SERVICE**

- **Year Built**: 1949
- **106 Year Reconstructed**

**Type of Service**
- A) On Highway
- B) Under Waterway

**Number of Lanes**
- A) On 02
- B) Under 00

**Average Daily Traffic**
- 428

**Is Above Half ADT?**
- Yes

**Percent Truck**
- 7%

**Years of ADT**
- 2015

**Bypass, Detour Length**
- 6 Miles

**APPRAISALS**

- **Structural Evaluation**: 6
- **Deck Geometry**: 5
- **Underclearances, Vert. & Horiz.**: N
- **Waterway Adequacy**: 7
- **Approach Roadway Alignment**: 6
- **Scour Critical**: 8

**COMMENTS**

- 2015- No Project's AES 10-8-15

**CLASSIFICATION**

- **NBIS Bridge Length**: Yes
- **Highway System**: 0 - Structure/Route is NOT on NHS
- **Functional Class**: 09 - Rural - Local
- **Defense Highway**: 0 - Not a STRAHNET route
- **Parallel Structure**: N - No parallel structure
- **Direction of Traffic**: 2 - 2-way traffic

**CONDITION**

- **Deck**: 7
- **Superstructure**: 7
- **Substructure**: 6
- **Channel & Channel Protections**: 6
- **Culverts**: N
- **Traffic Safety Features**
  - A) Bridge Railings: 0
  - B) Transitions: 0
  - C) Approach Guardrail: 0
  - D) Approach Guardrail Ends: 0

**WATERWAY**

- **Drainage Basin Waterway**: 4399
- **Navigation Control**: 0 - No navigation control on waterway (bridge permit not required)
- **Navigation Vertical Clearance**: 0 ft.
- **Navigation Horiz. Clr.**: 0 ft.
- **Pier/Abutment Navigation**: 
- **Vert-Lift Brg Nav Min**: 

**Bridge Median**: 0 - No median

**Deck Area**: 088 sq. ft.

**Skew Angle**: 45 deg.

**Structure Flared**: 0 - No flare


**Inv. Rte. Total Horiz. Clr.**: 26 ft. 0 in.

**Log Inv. Rte. Total Horiz. Clr.**: 26 ft. 0 in.

**RLog Inv. Rte. Total Horiz. Clr.**: 0 ft. 0 in.

**Min. Vert. Clearance Over Bridge**: 99 ft. 99 in.

**Log-Min. Vert. Underclearance**: N ref. 0 ft. 0 in.

**Min. Lat Underclearance on Right**: N ref. 0 ft. 0 in.

**Min. Lat Underclearance on Left**: 0 ft. 0 in.
**Form: BRI-19, Rev. 2/15**  
**Inspection type:** Routine  
**Inspection Date:** 09/21/2015  
**Inspected by:** Team 2

**Bridge No:** 04549  
**Carried:** FIRETOWN ROAD  
**Crossed:** BISSELL BROOK  
**Inventory Route:** Non-NHS  
**Town:** SIMSBURY

<table>
<thead>
<tr>
<th>(103) Temporary Structure</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(110) Designated National Network</td>
<td>0 - Inventory route not on network</td>
<td></td>
</tr>
<tr>
<td>(20) Toll</td>
<td>3 - On Free Road</td>
<td></td>
</tr>
<tr>
<td>(21) Maintain</td>
<td>03 - Town or Township Highway Agency</td>
<td></td>
</tr>
<tr>
<td>(22) Owner</td>
<td>03 - Town or Township Highway Agency</td>
<td></td>
</tr>
<tr>
<td>Report Class</td>
<td>L - LOCAL</td>
<td></td>
</tr>
<tr>
<td>(37) Historical Significance</td>
<td>5 - Not eligible for National Register</td>
<td></td>
</tr>
</tbody>
</table>

**POSTED SIGNS**

| Other Posted Sign 1 |  |  |
| Other Posted Sign 2 |  |  |

<table>
<thead>
<tr>
<th>Actual</th>
<th>Recommended</th>
<th>tons</th>
<th>tons</th>
<th>tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posted Load Single Unit Truck</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posted Load Semi-Trailer Truck</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posted Load 4 Axle Truck</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posted Load 3S2 Truck</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Vehicles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Posted Vert. Clearance on Bridge</th>
<th>ft.</th>
<th>in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posted Vert. Underclearance</td>
<td>ft.</td>
<td>in.</td>
</tr>
<tr>
<td>Posted Speed Limit on Bridge</td>
<td>m.p.h.</td>
<td></td>
</tr>
</tbody>
</table>

**PROPOSED IMPROVEMENTS**

| (75A) Type of Work Proposed |  |  |
| (75B) Work Done By |  |  |
| (76) Length of Structure Improvement | ft. |  |
| (94) Bridge Improvement Cost | $ |  |
| (95) Roadway Improvement Cost | $ |  |
| (96) Total Project Cost | $ |  |
| (97) Year of Improvement Estimate |  |  |
| (114) Future ADT |  |  |
| (115) Year of Future ADT |  |  |
| DOT Bridge Program List No |  |  |
| Project No |  |  |
| Advertised Date |  |  |

**LOAD RATING & POSTING**

| (31) Design Load | 0 - Unknown |  |
| (63) Operating Rating Type | 0 - Field evaluation and documented engineering judgment |  |
| (64) Operating Rating | 60 |  |
| (65) Inventory Rating Type | 0 - Field evaluation and documented engineering judgment |  |
| (66) Inventory Rating | 40 |  |
| Evaluation Code | J - Judgement Rating |  |
| Year of Evaluation | 1993 |  |
| (70) Bridge Posting | 5 - Equal to or above legal loads |  |
| (41) Structure Status | A - Open |  |

**OTHER FEATURES**

| Fence Required | No |  |
| Fence Present | No |  |
| Fence Height |  |  |
| Fence Material |  |  |
| Fence Top Type |  |  |
| Barrel Ladders | No |  |
| Stand Pipes | No |  |
| Catwalks | No |  |
| Moveable Inspection System | No |  |
| Haunches Present over Roadway | NO |  |
| Utilities | N | No Utilities present |  |

4
Form: BRI-19, Rev. 2/15
Inspection type: Routine
Inspection Date: 09/21/2015
Inspected by: Team 2

Bridge No: 04549
Town: SIMSBURY
Carried: FIRETOWN ROAD
Crossed: BISSELL BROOK
Inventory Route: Non-NHS

INSPECTOR'S SIGNATURES:

1) Date: 10/08/2015

2) Date: 10/07/2015

3) Date:

4) Date:

P.E. SIGNATURE:

Date:

P.E. #

Reviewed By: Date: 10/14/2015

Amy E. Stabile
FIELD INSPECTION REPORT

Location: OFF ROUTE 309
Year Built: 1949
Main Material: 1 - Concrete
Year Rebuilt
Main Design: 01 - Slab
Lead Inspector: Tracy Matthews

Visits:
Visit Date: 09/21/2015
Temp: 57
Start Time: 09:35 AM
End Time: 10:55 AM

58. DECK:

Overall Rating: 7

Rating
Overlay: 7 Chip seal overlay.

Isolated transverse & random cracks.

Deck - Str. Condition: 7 Per CT.DOT Inspection Manual chapter 10.1 the deck rating is based on condition of wearing surface.

Curbs: N

Median: N

Sidewalks: N

Parapet: 7 Railbases -

Light to moderate scale and one small surface spall with exposed rebar on the west railbase.

East railbase has (1) hairline transverse crack with area of exposed rebar.

Railbase reveal west 2.5 inches at midspan.

Railbase reveal east 6 inches at midspan.

Hairline cracks along the top surface.

Railing: 6 Angle iron posts and caps show light to moderate rust with exposed primer & isolated areas of laminar rust.

Wire rope from post to post.

Paint: N

Fence: N

Drains: N

Lighting Standard: N

Overall Utility Condition Rating
Utility Type/Size

N | No Utilities present

Construction Joints: N

Expansion Joint: N
APPRAOCH CONDITION:

Rating
Approach Slab: N
Relief Joints: N
Approach Guide Rail: 7 Double wire rope on wood posts.
Approach Pavement: 7 Chip seal overlay.
            Random transverse and longitudinal cracks.
            North approach in southbound lane exhibits isolated area of map cracking and (1) full width transverse crack open up to 1/4" adjacent to structure.
            South approach has (1) full width transverse crack with adjacent 32" x 12" open up to 1/2" D type crack with breakage & small spalls.
Approach Embankment: 8 Rip rap has been placed behind all four wings and embankments at varying amounts.

Traffic Safety Features
Bridge Railings: 0
Transitions: 0
Approach Guardrails: 0
Approach Guardrail Ends: 0

59. SUPERSTRUCTURE:

Rating
Bearing Devices: N
Stringers: N
Girders: 7 Reinforced concrete slab.
            A narrow band of intermittent light map hairline cracks 3"w x 21"L (curing type) adjacent to abutment #1.
            Several small surface spalls with exposed shallow rebar.
Floor Beams: N
Trusses - General: N
Trusses - Portals: N
Trusses - Bracing: N
Paint: N
Rust: N
Machinery Movable Span: N
Rivets & Bolts: N
Welds - Cracks: N

Overall Rating: 7
60. SUBSTRUCTURE:

Overall Rating: 6

Rating
Abutments - Stem: 6
   Both abutments show light to moderate scale at the waterline.
   Graffiti on faces.
   Abutment #2 -
      Full height vertical crack open 1/8" with small surface spalls, at west end.
      Area of moderate to heavy scale on stem at west end.
      (1) Small surface spall at top near east end & (1) crack with 4" diameter hollow area extending from crack in northeast wingwall.
Abutments - Backwall: N
Abutments - Footings: 8
Abutments - Settlement: N
Abutments - Wingwalls: 5
   Wingwalls -
      Rip rap placed behind all wings.
      Light to moderate scale along caps.
Northeast wingwall -
   (1) Diagonal crack, starting as hairline from base near free end extending upwards to structure opening up to 1.5" at top with 4" spalls along crack with exposed rebar adjacent to structure.
   Open 1.5" at top, shifted 1" at paint mark. No change noted during 9/21/15 inspection.
Northeast wingwall shows an area of severe scale on cap near abutment, 10"x 6"x 2" deep.
   Southwest -
      (1) 8" x 10" x 1" deep spall & (1) 12" x 8" x 2" deep spall at free end.

Piers/Bents - Caps: N
Piers/Bents - Pile Bent: N
Piers/Bents - Columns: N
Piers/Bents - Footings: N
Piers/Bents - Settlement: N
61. CHANNEL AND CHANNEL PROTECTION:

Overall Rating: 6

Rating
Channel - Scour: 8 Dry channel no scour noted.
Embankment - Erosion: 8 Channel upstream lined with rocks and rip rap.
Debris: 6 (2) Medium size fallen trees in channel upstream with small trees growing in channel downstream and limbs and branches on embankments.
Vegetation: 6 Heavy gravel build up along the northeast and abutment #2.
Channel Change: 7 Channel comes from the northwest at moderate angle and aligns with the southwest wingwall and abutment #1. Note no flow during 9-21-15 inspection/ dry channel.
Fender - System: N
Spur Dikes and Jetties: N
Rip Rap: 8 Rip rap has been placed behind all four wings at varying amounts.

62. CULVERTS AND RETAINING WALLS:

Overall Rating: N

Rating
Barrel:
Concrete:
Steel:
Timber:
Headwall:
Cutoff Wall:
Debris:
Retaining Wall System:
Footing:

LOAD POSTING:

Rating
Single Unit (Tons):
Semi Trailer (Tons):
4 Axle (Tons):
3S2 (Tons):
All Vehicles:
Advanced Warning: N
Warning At Bridge:
  Legibility: N
  Visibility: N

VERTICAL CLEARANCE POSTING

<table>
<thead>
<tr>
<th>Min. Vert Under Clearance</th>
<th>Ft</th>
<th>In</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posted Clearance Under Bridge</td>
<td>Ft</td>
<td>In</td>
</tr>
<tr>
<td>Posted Clearance On Bridge</td>
<td>Ft</td>
<td>In</td>
</tr>
</tbody>
</table>

Advanced Warning: False

NOTE / COMMENTS:
  Character of Traffic: Light with mixed weights.
  Additional Notes:

South to north roadway.
  Additional Comments:
<table>
<thead>
<tr>
<th>Environment</th>
<th>Total Quantity</th>
<th>Units</th>
<th>Condition State 1</th>
<th>Condition State 2</th>
<th>Condition State 3</th>
<th>Condition State 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>38 - Reinforced Concrete Slab</td>
<td>Mod. 689</td>
<td>sq. ft. 677</td>
<td>12</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>1080 - Delamination/Spall/Patched Area</td>
<td>5</td>
<td></td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1090 - Exposed Rebar</td>
<td>7</td>
<td></td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>215 - Reinforced Concrete Abutment</td>
<td>Mod. 144</td>
<td>ft. 126</td>
<td>9</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1130 - Cracking (RC and Other)</td>
<td>10</td>
<td></td>
<td>1</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1190 - Abrasion/Wear (PSC/RC)</td>
<td>134</td>
<td></td>
<td>126</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>330 - Metal Bridge Railing</td>
<td>Mod. 46</td>
<td>ft. 34</td>
<td>8</td>
<td>0</td>
<td></td>
<td></td>
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<tr>
<td>1000 - Corrosion</td>
<td>42</td>
<td></td>
<td>34</td>
<td>8</td>
<td></td>
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<tr>
<td>331 - Reinforced Concrete Bridge Railing</td>
<td>Mod. 46</td>
<td>ft. 46</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1080 - Delamination/Spall/Patched Area</td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1090 - Exposed Rebar</td>
<td>45</td>
<td></td>
<td>45</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Form: National Bridge
Inspection type: Routine
Inspection Date: 09/21/2015
Inspected by: Team 2

Bridge No: 04549
Carried: FIRETOWN ROAD
Crossed: BISSELL BROOK
Inventory Route: Non-NHS
Sketches
Inspection type: Routine
Inspection Date: 09/21/2015
Inspected by: Team 2

Bridge No: 04549
Carried: FIRETOWN ROAD
Crossed: BISSELL BROOK
Inventory Route: Non-NHS

State of Connecticut
Department of Transportation
Bureau of Engineering & Highway Operations
06B-003 REV 1-93
(305-06-0025)
COMPUTATION SHEET

Simsbury

Pr 04549 Firetown Rd at Bissell Brook Simsbury

0 - Trees
1 - Brush & Vegetation
2 - Water Durnal

Flow

No flow, dry channel at Insp

Printed on Recycled or Recovered Paper

12
Date
9-21-15

9' - 2" 8' - 11" 8' - 11" 9' - 4" 9' - 7"

* Note channel was dry at time of inspection. Measurements taken from bottom of slab to stream bed.
Form: Asset Photos
Inspection type: Routine
Inspection Date: 09/21/2015
Inspected by: Team 2

Bridge No: 04549

Town: SIMSBURY
Carried: FIRETOWN ROAD
Crossed: BISSELL BROOK
Inventory Route: Non-NHS

---

Photo Number: 1
Looking northbound on Firetown Road from south approach.

Photo Taken: 09/21/2015

---

Photo Number: 2
Looking southbound on Firetown Road from north approach.

Photo Taken: 09/21/2015
General view of wearing surface.

West elevation. (Inlet)
Bridge No: 04549

Town: SIMSBURY
Carried: FIRETOWN ROAD
Crossed: BISSELL BROOK
Inventory Route: Non-NHS

Photo Number: 5

View upstream.

Photo Taken: 09/21/2015

---

Photo Number: 6

East elevation.

Photo Taken: 09/21/2015
View downstream.

General view of abutment #1.
Form: Asset Photos
Inspection type: Routine
Inspection Date: 09/21/2015
Inspected by: Team 2

Bridge No: 04549
Town: SIMSBURY
Carried: FIRETOWN ROAD
Crossed: BISSELL BROOK
Inventory Route: Non-NHS

Photo Number: 9
General view of underside.

Photo Number: 10
General view of abutment #2.

Photo Taken: 09/21/2015
Full height vertical crack in abutment #2 adjacent to inlet.

Northeast wingwall exhibits open diagonal crack with adjacent spalls near structure.