Inspection Type: Routine and Special



BRIDGE NO.06841

15910 - COLCHESTER ROUTE 2 over BROOK

Routine and Special Inspection 2/06/2019

Inspected by: Team 5



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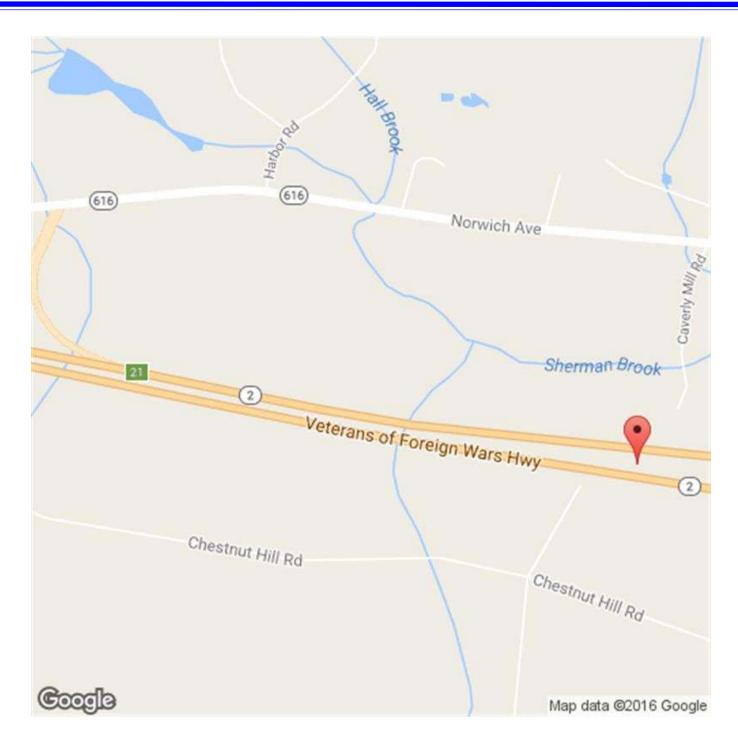
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Form: Location

Inspection type: Routine, Special Inspection Date: 2/06/2019 Inspected by: Team 5

:Bridge No 06841

Town: COLCHESTER
Carried: ROUTE 2
Crossed: BROOK
Inventory Route: NHS



Location Map # 1

1.0 miles East of Route 2 Exit No. 21 {SR 610
- Norwich Avenue}

3.5 miles West of Route 2 Exit No. 22 {Scott Hill Road}

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Town: COLCHESTER
Carried: ROUTE 2
Crossed: BROOK
Inventory Route: NHS

STRUCTURE INVENTORY & APPRAISAL

| INSPECTION | STRUCTURE TYPE & MATERIALS |
|--|---|
| Structurally Deficient Y Functionally Obsolete N | (43) Structure Type, Main |
| Sufficiency Rating 33.7 | A) Material 3 - Steel |
| (90) Inspection Date 02/06/2019 (91) Frequency 24 | B) Design Type 19 - Culvert (includes frame culverts) |
| Indepth Insp No Proposed next Indepth Year | (44) Structure Type, Approach |
| Deck Survey Date Class 01 | A) Material 0 - Other |
| Access Flagman | B) Design Type 00 - Other |
| Frequency Date Type | (45) Number of Spans, Main Unit 001 |
| Fracture | (46) Number of Approach Spans 0000 |
| Underwater | (107) Deck Structure Type N - Not Applicable |
| Special 12 02/06/2019 J Corrosion / Section loss | (108) Wearing Surface/Protection Systems |
| ——— IDENTIFICATION | A) Type of Wearing Surface N - NA |
| Bridge Name 06841 | |
| Town Code - Name 15910 - COLCHESTER | B) Type of Membrane N - NA |
| (5) Inventory Route | C) Type of Deck Protection N - NA |
| (A) Record Type 1: Route carried "on" the structure | Substructure |
| (B) Signing Prefix 3 - STATE HIGHWAY | A) Material |
| (C) Level of Service 1 - MAINLINE | B) Design Type |
| (D) Route Number. 00002 | Paint |
| (E) Dir Suffix | Туре |
| (6A) Featured Intersected BROOK | Year |
| (6B) Critical Facility Indicator | Comment |
| (7) Facility Carried ROUTE 2 | GEOMETRIC DATA |
| (9) Location 1 MI EAST OF EXIT 21 | (48) Length of Maximum Span 7 ft. |
| (11) Mile Post 27.433 Miles | (49) Structure Length 7 ft. |
| (16) Latitude 41 Deg. 34 Min. 8.37 Sec. | (50) Curb or Sidewalk Widths |
| (17) Longitude -72 Deg. 16 Min. 34.53 Sec. | A) Left 0 ft. 0 in. B) Right 0 ft. 0 in. |
| (98) Border Bridge | (51) Bridge Roadway Width Curb to Curb 0 ft. 0 in. |
| (A) State Code (B) Percent Responsibility % | (52) Deck Width, Out to Out 0 ft. 0 in. |
| (C) Border Town Name | (32) Approach Roadway Width 80 ft. |
| (99) Border Bridge Structure No. | |

Inspection type: Routine, Special Inspection Date: 2/06/2019

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| (33) Bridge Median | 2 - Closed median (no barrier) | A | AGE AND SERVICE |
|---------------------------------------|---------------------------------|--|---|
| Deck Area 3318 | sq. ft. | Year Built 1971 | (106) Year Reconstructed |
| (34) Skew Angle | deg. | (42) Type of Service | |
| (35) Structure Flared 0 - No f | flare | A) On 1 - Highw | ray |
| (10) Inv. Rte. Min. Vert. Clearance | 99 ft. 99 in. | B) Under 5 - Waterv | vay |
| (47) Inv. Rte. Total Horiz. Clr. | 38 ft. 0 in. | (28) Number of Lanes | |
| Log Inv. Rte. Total Horiz. Clr. | 38 ft. 0 in. | A) On 04 | B) Under 00 |
| RLog Inv. Rte. Total Horiz. Clr. | 42 ft. 0 in. | (29) Average Daily Traffic | 23800 |
| (53) Min. Vert. Clearence Over Bridge | | Is Above Half ADT? | No |
| (54) Log-Min. Vert. Underclearance | N ref. 0 ft. 0 in. | (109) Precent Truck | 10 % |
| (55) Min. Lat Underclearance on Rig | ght N ref. 0 ft. 0 in. | (30) Years of ADT | 2015 |
| (56) Min. Lat Underclearance on Let | ft 0 ft. 0 in. | (19) Bypass, Detour Leng | th 1 Miles |
| ———— CONDIT | TION | | APPRAISALS ———— |
| (58) Deck | N | (67) Structural Evaluation | 3 |
| (59) Superstructure | N | (68) Deck Geometry | N |
| (60) Substructure | N | (69) Underclearances, Ver | t. & Horiz. N |
| (61) Channel & Channel Protections | 7 | (71) Waterway Adequacy | 8 |
| (62) Culverts | 3 | (72) Approach Roadway A | lignment 8 |
| (36) Traffic Safety Features | | (113) Scour Critical | 8 |
| A) Bridge Railings | N | | COMMENTS — |
| B) Transitions | N | Route 2 (Veterans of Fo Inventory Route Log Dir | oreign Wars Memorial Highway} - rection - East |
| C) Approach Guardrail | N | | |
| D) Approach Guardrail E | nds N | | |
| WATE | RWAY ——— | c | LASSIFICATION |
| Drainage Basin Waterway | 3903 - Sherman Brook | (112) NBIS Bridge Length | No |
| (38) Navigation Control | N - Not applicable, no waterway | (104) Highway System | 1 - Structure/Route is on NHS |
| (39) Navigation Vertical Clearance | 0 ft. | (26) Functional Class | 02 - Rural - Principal Arterial - Other |
| (40) Navigation Horiz. Clr. | 0 ft. | (100) Defense Highway | 0 - Not a STRAHNET route |
| (111) Pier/Abutment Navigation | | (101) Parallel Structure | N - No parallel structure |
| (116) Vert-Lift Brg Nav Min | 0 ft. 0 In. | (102) Direction of Traffic | 2 - 2-way traffic |

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| (103) Temporary Structure | 9 | | | | PROPOSE | D IMPRO | VEMENTS ———— |
|-------------------------------------|---|-----------------|-----------------------------|------|--|-----------|--|
| (110) Designated Nationa Network | ational 1 - Inventory route on National Truck Network | | (75A) Type of Work Proposed | | 35 - Rehabilitation - Deterioration | | |
| (20) Toll | 3 - On Free Road | | (75B) Work Done By | | 1 - Work to be done by | | |
| (21) Maintain | 01 - Stat | te Highway A | Agency | | (76) Length of Structure Impro | vement | ft. |
| (22) Owner | 01 - Stat | te Highway A | Agency | | (94) Bridge Improvement Cost | \$ | |
| Report Class | S - STA | TE | | | (95) Roadway Improvement Co | ost \$ | |
| (37) Historical Significance | ∋ 5 - Not e | eligible for Na | ational Regist | ter | (96) Total Project Cost | \$ | 600 |
| | POSTED | SIGNS — | | | (97) Year of Improvement Estir | mate | 2015 |
| Other Posted Sign 1 | | | | | (114) Future ADT | | 35364 |
| Other Posted Sign 2 | | | | | (115) Year of Future ADT | | 2035 |
| | | Actual | Recomended | d | DOT Bridge Program List No | | 28 |
| Posted Load Single Unit | ruck | | | tons | Project No | | 0028-0202 |
| Posted Load Semi-Trailer | Truck [| | | tons | Advertised Date | | 01/03/2018 |
| Posted Load 4 Axle Truck | [| | | tons | ——— LOAD R | ATING & F | POSTING ——— |
| Posted Load 3S2 Truck | [| | | tons | (31) Design Load | 5 - HS 20 | 0 |
| All Vehicles | [| | | tons | (63) Operating Rating Type | | evaluation and nted engineering judgment |
| Posted Vert. Clearance o | n Bridge | ft. | in. | | (64) Operating Rating | 999 | |
| Posted Vert. Undercleara | nce [| ft. | in. | | (65) Inventory Rating Type | | evaluation and nted engineering judgment |
| Posted Speed Limit on Br | idge | 65 m.p.l | h. | | (66) Inventory Rating | 99.9 | |
| o | THER FEA | TURES - | | | Evaluation Code | E - Evalu | uated |
| Fence Required | | | | | Year of Evaluation | 2014 | |
| Fence Present | | | | | (70) Bridge Posting | 5 - Equa | I to or above legal loads |
| Fence Type | | | | | (41) Structure Status | A - Oper | 1 |
| Fence Height | | | | | | | |
| Fence Material | | | | | | | |
| Fence Top Type | | | | | | | |
| Barrel Ladders | | | | | | | |
| Stand Pipes | | | | | | | |
| Catwalks | | | | | | | |
| Moveable Inspection Syst | em | | | | | | |
| Haunches Present over R | oadway | NO | | | | | |
| Utilities N | No Utilities μ | present | | | | | |

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Town: COLCHESTER
Carried: ROUTE 2
Crossed: BROOK
Inventory Route: NHS

INSPECTOR'S SIGNATURES:

| 1) | ()-HA | Date: 02/19/2019 | P.E. SIGNATURE: | Dalfallach pe David Pawlikowski, P.E. | Date: 02/28/2019 |
|----|-------------|------------------|-----------------|--|------------------|
| 2) | 2 11 | Date: 02/26/2019 | P.E. # | | |
| | James Honas | | Reviewed By: | | Date: 02/28/2019 |
| 3) | | Date: | _ | David Pawlikowski, P.E. | _ |
| 4) | | Date: | | | |

Form: BRI-18, Rev. 1/14 **Inspection type:** Routine, Special Inspection Date: 2/06/2019

Inspected by: Team 5

:Bridge No 06841

Town: COLCHESTER Carried: ROUTE 2 Crossed: BROOK Inventory Route: NHS

FIELD INSPECTION REPORT

| Location: | 1 MI EAST OF | EXIT 21 | Year Built: | 1971 | | Snoop | er Required: | |
|------------------|--|-------------------|--------------------|--------------|----------------|------------|--------------|-------------------|
| Main Material: | 3 - Steel | | Year Rebuilt | | | Snoop | er Used: | |
| Main Design: | 19 - Culvert (inc | cludes frame | | | | | | |
| | | | | | 1 | | | |
| Inspectors: | | - . | | | <u>Visits:</u> | _ | O | |
| Lead Inspector | r: | | Venoutsos | | Visit Date: | Temp: | Start Time: | |
| Inspector: | | Task: | | | 02/06/2019 | 43 | 10:45 AM | 12:40 AM |
| Area, 05 | | | Inspector | | _ | | | |
| Jones, James | | | Inspector | | _ | | | |
| Venoutsos, Pe | ter | BSE - | Inspector | | | | | |
| 58. DECK: | | | | | | | | |
| to I | ute 2 {Veterans of East et - South Side of | - | Memorial Highv | vay} - Inve | ntory Route L | .og Direc | tion - West | Overall Rating: N |
| | ute 2 East Bound | | | | | | | |
| Ru | ute 2 West Boun | d Approximater | y 9 leet of ballas | st & Diturni | nous Concret | e Pavem | ent | |
| | Rating Overlay: 7 | D' 0 | oncrete Paveme | | | | | |
| Ligh | Str. Condition: N Curbs: N Median: N Sidewalks: N Parapet: N Railing: N Paint: N Fence: N Drains: N ting Standard: N | | transverse crac | ks with lig | ht raveling, m | ostly in s | houlders. | |
| Utility Type/Siz | ze | Utilities present | | | | | | |
| Const | ruction Joints: N | | | | | | | |
| | pansion Joint: N | | | | | | | |
| | sent over travelw | ray? NO | | | | | | |
| ADDDOACH | | , | | | | | | |

APPROACH CONDITION:

Inspection type: Routine, Special Inspection Date: 2/06/2019

Inspected by: Team 5

:Bridge No 06841

| | | Overall Rating: 7 |
|----------------------------|---|-------------------|
| Rating | | |
| Approach Slab: N | | |
| Relief Joints: N | | |
| Approach Guide Rail: N | | |
| Approach Pavement: 7 | Bituminous Concrete Approach Pavement exhibits: | |
| | Up to ¾" open transverse cracks with light raveling, mostly in shoulders. | |
| | Westbound- up to ½" open map cracking thru out shoulder. | |
| Approach Embankment: 8 | | |
| Trafic Safety F | <u>eatures</u> | |
| Bridge Railings: N | | |
| Transitions: N | | |
| Approach Guardrails: N | | |
| Approach Guardrail Ends: N | | |
| 59. SUPERSTRUCTURE: | | |
| | | Overall Rating: N |
| Rating | | |
| Bearing Devices: N | | |
| Stringers: N | | |
| Girders: N | | |
| 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 | | |
| Timber Decay: N | | |
| Concrete Cracking: N | | |
| Collision Damage: N | | |
| Member Alignment: N | | |
| Deflection Under Load: N | | |
| Vibration Under Load: N | | |
| Stand Pipes: N | | |
| Catwalks: | | |
| Movable Inspection System: | | |
| Barrel Ladders: N | | |
| Are | e Barrel Ladders OSHA Compliant? NA | |

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Inspection Date: 2/06/2019 Inspected by: Team 5 :Bridge No 06841

| 60. SUBSTRUCTURE: | |
|--|--|
| | Overall Rating: N |
| Rating | |
| Abutments - Stem: N | |
| Abutments - Backwall: N | |
| Abutments - Footings: N | |
| Abutments - Settlement: N | |
| 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: N | |
| Concrete Crack - Spall: N | |
| Steel Corrosion: N | |
| Paint: N | |
| Timber Decay: N | |
| Collision Damage: N | |
| Debris: N | |
| 61. CHANNEL AND CHANNE | PROTECTION: |
| | Overall Rating: 7 |
| Rating | |
| Channel - Scour: 7 | Mild Stream bed Scour |
| | Outlet out off well expected up to 10" high y full width. It must be noted that there is a small hydraulia |
| | Outlet- cut off wall exposed up to 10" high x full width. It must be noted that there is a small hydraulic jump at the outlet. |
| Embankment - Erosion: 8 | |
| Debris: 7 | Minor deadwood in and along channel. |
| 2 33.1.5. | |
| | Courthwest ambankment approachment parrowing shapped up to 40 paraent with three small trace |
| | Southwest - embankment encroachment narrowing channel up to 40 percent with three small trees growing directly in from of inlet. |
| | |
| Vegetation: 7 | Embankments well vegetated. |
| Channel Change: 7 | Low flow this inspection. |
| | It must be noted that the channel is comprised of rock and ledge, it also steps downward at both |
| | upstream and downstream of structure. |
| | |
| | Water depths- In pipe 2" to 3" Upstream 1" to 10" |
| | Downstream 1" to 8" |
| | Free heard at inlet 6' 0" |
| Eandar System N | Free board at inlet 6' - 9" |
| Fender - System: N Spur Dikes and Jetties: N | |
| טייים אות אפווופט. אויי | |

Inspection type: Routine, Special

Inspection Date: 2/06/2019 Inspected by: Team 5

:Bridge No 06841

Town: COLCHESTER
Carried: ROUTE 2
Crossed: BROOK
Inventory Route: NHS

Overall Rating: 3

| Ri | n | Ra | n. | N |
|------|---|-----|----|-----|
| 1 \1 | v | ıνα | υ. | 1 4 |

62. CULVERTS AND RETAINING WALLS:

Inlet Section {Grass Area} - Single Span Corrugated Steel Round Pipe Culvert..

84 inch diameter Round Pipe by 60 feet 00 inches {Length}...

Corrugation Size: 2 2/3 inch by 1/2 inch by 0.1380 inch {10 gauge thickness}...

Outlet Section Route 2 West Bound & East Bound - Single Span corrugated Steel Elongated

Pipe Culvert..

84 inch diameter Elongated Round Pipe by 413 feet 8 inches {Length}...

Top Plates Corrugation Size: 6 inch by 2 inch by 12 gauge {0.109 inch thickness}...

Bottom Plates Corrugation Size: 6 inch by 2 inch by 10 gauge {0.138 inch thickness}...

| <u>Rating</u> | |
|--------------------------|--|
| Barrel: | |
| Concrete: N | |
| Steel: 3 | 7 ft. Round a.c.c.m.p inlet (north), flared steel end treatment with heavy laminar rust and minor |
| | Loss of asphalt coating at and below waterline throughout with varying degrees of section loss. 50 ft. north of inlet, top dented in up to 18 in. Area is approximately 25 ft. Long. Note, this appears to be a construction defect and is not under the roadway. From 80 ft. To 125 ft. north of inlet, perforations in edges of bottom plate up to 12 in. X 2 in. From 125 ft. To 300 ft. north of inlet, heavy laminar rust with scattered perforations up to 4 in. X 3 in. From 240' north of inlet,3 missing bolts at seam along bottom. |
| | 264 ft. north of inlet, perforations in west side and bottom plates. Area is 6 ft. long with the largest hole being 12 in. X 10 in. Can probe behind pipe 14 in. This condition is typical at 291 ft. north of inlet. |
| | From 300 ft. To 360 ft. north of inlet, heavy laminar rust on bottom plate with minor section loss. |
| | 360 ft. North of inlet, (4) holes torn through top plate (from construction) some sealed. |
| | 370 ft. North of inlet, (2) perforations in west side plate 4 in. X 3 in. Each. |
| | 405 ft. north of inlet, perforation in east side and bottom plate 6 in. X 2 in. |
| Timber: N | |
| Headwall: 7 | Outlet (north) only - concrete. |
| | - light scale at and below waterline. |
| Cutoff Wall: 7 | Outlet- cut off wall exposed up to 10" high x full width. |
| Debris: 8 | |
| Retaining Wall System: 7 | Outlet end only - concrete |
| Footing: N | Not visible. |

LOAD POSTING:

| at | | |
|----|--|--|
| | | |

Single Unit (Tons):

Form: BRI-18, Rev. 1/14
Inspection type: Routine, Special
Inspection Date: 2/06/2019

:Bridge No 06841

| Inspected by: Team 5 | | | | Inventory Route: NHS |
|-----------------------|-------------|-----------|-----------|----------------------|
| Semi Trailer (Tons): | | | | |
| 4 Axle (Tons): | | | | |
| 3S2 (Tons): | | | | |
| All Vechicles: | | | | |
| Advanced Warning: | | | | |
| Warning At Bridge: | | | | |
| Legibility: | | | | |
| Visibility: | | | | |
| VERTICAL (| CLEARANCE | POSTING | <u>}</u> | |
| Min. Vert Under | Clearance: | Ft | In | |
| Posted Clearence Und | der Bridge: | Ft | In | |
| Posted Clearence | On Bridge: | Ft | In | |
| Advanced Warning: | False | | | |
| Warning At Bridge: | | | | |
| Legibility: | | | | |
| Visibility: | | | | |
| NOTES / COMMENTS: | | | | |
| Character of Traffic: | Moderate to | heavy vol | lume, mix | xed weights. |
| Additional Notes: | | | | |
| | | | | |
| Additional Comments: | | | | |
| | | | | |

National Bridge Elements
Inspection type: Routine, Special
Inspection Date: 2/06/2019

Inspected by: Team 5

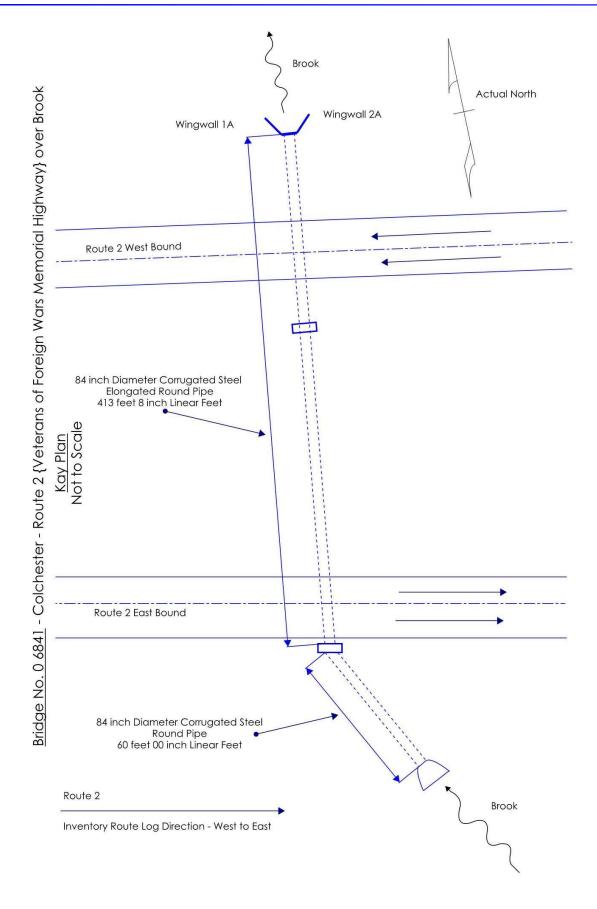
:Bridge No 06841

| | Environment | Total Quantity | Units | Condition State 1 | Condition State 2 | Condition State 3 | Condition State 4 | | |
|---------------------|---|-------------------|-------|----------------------|----------------------|----------------------|----------------------|--|--|
| 240 - Steel Culvert | Mod. | 474 | ft. | 36 | 0 | 413 | 25 | | |
| | Inlet Section {Grass Area} - Single Span Corrugated Steel Round Pip Culvert 84 inch diameter Round Pipe by 60 feet 00 inches {Length} Corrugation Size: 2 2/3 inch by 1/2 inch by 0.1380 inch {10 gauge thickness} Outlet Section Route 2 West Bound & East Bound - Single Span corrugated Steel Elongated Pipe Culvert 84 inch diameter Elongated Round Pipe by 413 feet 8 inches {Length} Top Plates Corrugation Size: 6 inch by 2 inch by 12 gauge {0.109 incthickness} Bottom Plates Corrugation Size: 6 inch by 2 inch by 10 gauge {0.138 inch thickness} | | | | | | | | |
| 1000 - Corrosion | | 413 | | 0 | 0 | 413 | 0 | | |
| 1900 - Distortion | | 25 | | 0 | 0 | 0 | 25 | | |

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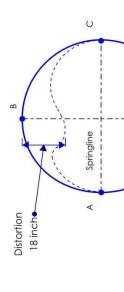
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:Bridge No 06841

Town: COLCHESTER Carried: ROUTE 2 Crossed: BROOK **Inventory Route: NHS**

Note: Corrugated Steel Round Pipe (Inlet Section) exhibits a Distortion (Bulge), Approximately 18 inch Bulge, Located in the Top Plates (Crown) of the Corrugated Pipe Bridge No. 0 6841 - Colchester - Route 2 (Veterans of Foreign Wars Memorial Highway) over Brook The Effected Area is Approximately 6 feet wide by 25 feet Long Located Approximately 50 feet from Inlet.



Rust & Rust Holes

AC = Span {Horizontal Diameter} {Springline} BD = Rise {Vertical Diameter} Note: Corrugated Steel Round Pipe & Round Elongated Pipe exhibits an Area of Light to Extensive Heavy Rust with Deep pitting, Scattered Rust Holes & Pronouced Thinning

Some Deflection or Penetration When Struck with Hammer.

Numerous Random Rust Holes Ranging in Size Approximately 1/2 inch diameter to Approximately 10 inch by 12 inch

These Conditions for the Full Length of the Corrugated Steel Round Pipe & Round Elongated Pipe and Located on the Bottom Plates (Invert) Approximately 24 inch High Area

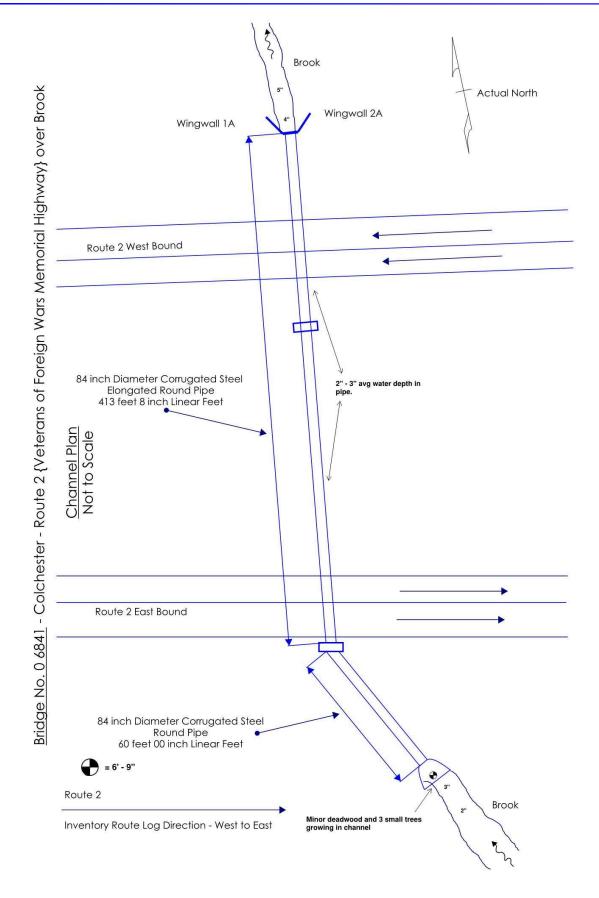
Corrugated Steel Pipe Cross-Section March 6, 2018 Not to Scale

Prepared By: David Pawlikowski, P.E. - CTDOT Bridge Safety - April 5, 2018

Inspection type: Routine, Special **Inspection Date:** 2/06/2019

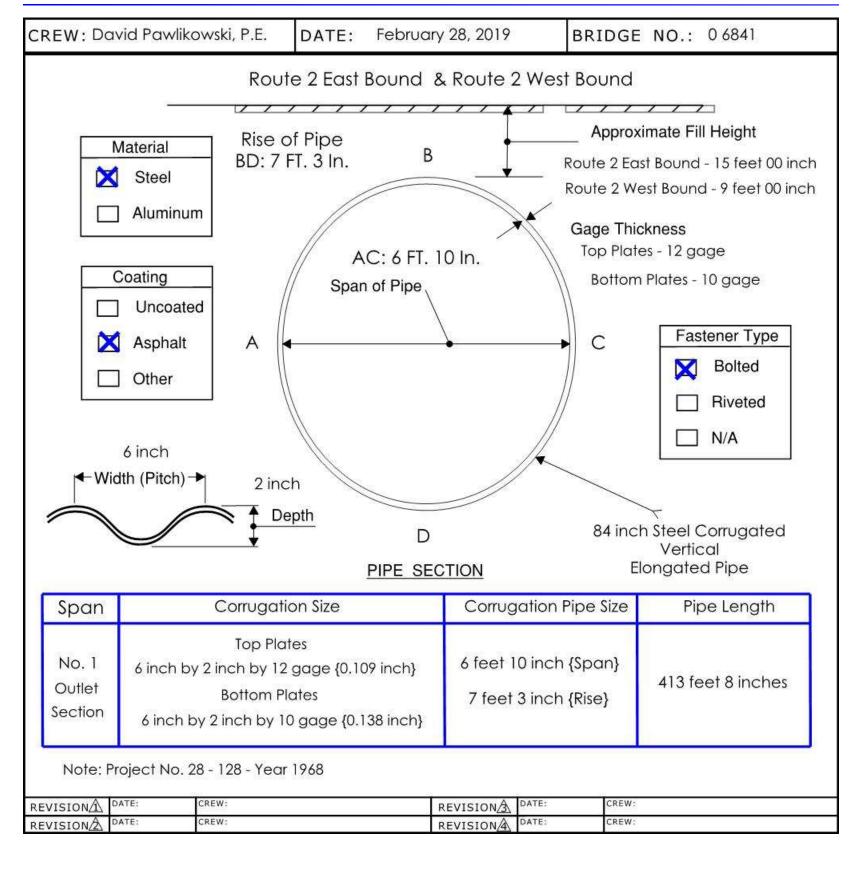
Inspected by: Team 5

:Bridge No 06841



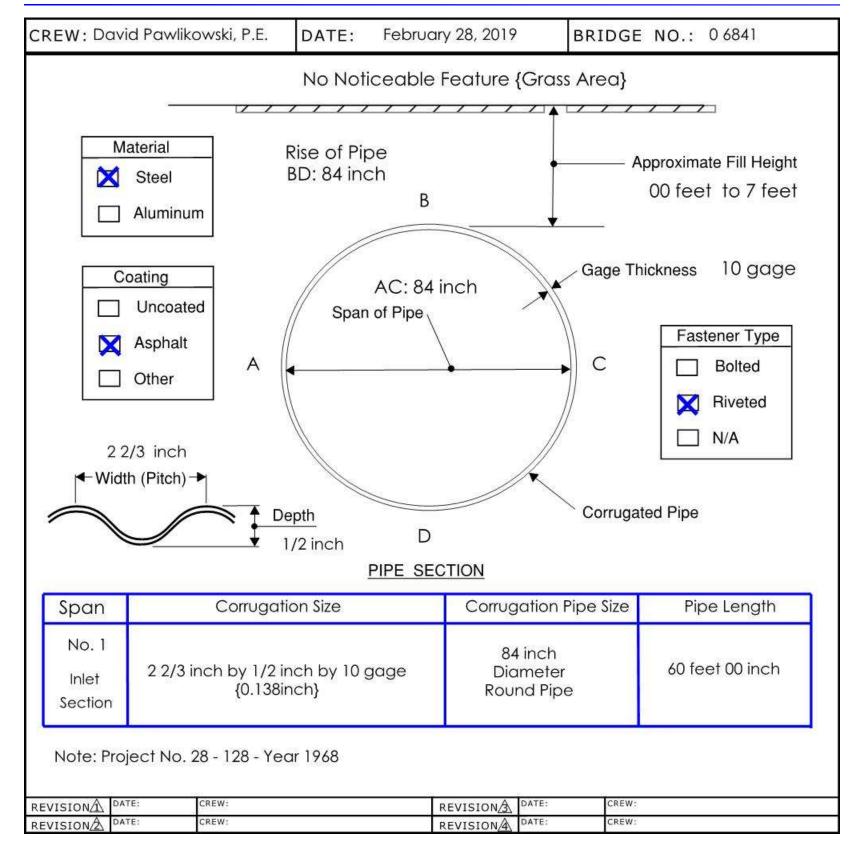
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:Bridge No 06841



Inspection type: Routine, Special Inspection Date: 2/06/2019 Inspected by: Team 5

:Bridge No 06841



Bridge No. 0 6841 Town of Colchester Route 2 over Brook

Horizontal & Vertical Round Pipe Diameter Measurements Project No. 28 - 128 - Year 1968

| Date: | 12-Dec-13 | 12-Dec-13 | 5-Jan-15 | 5-Jan-15 | 16-Sep-15 | 16-Sep-15 | 10-Nov-16 | 10-Nov-16 | |
|----------|------------------------|----------------------|------------------------|----------------------|------------------------|----------------------|------------------------|----------------------|--------|
| Location | Horizontal Diameter | Vertical Diameter | Horizontal Diameter | Vertical Diameter | Horizontal Diameter | Vertical Diameter | Horizontal Diameter | Vertical Diameter | |
| Inlet | 6' -8 3/4" | 7' - 1'' | 6' - 8 1/4" | 7' - 3 " | 6' - 8 7/16" | 7' - 3 3/16" | 6' - 8 7/16" | 7' - 3 5/16" | Inlet |
| 50 feet | 6' - 8 3/4" | 5' - 8'' | 6' - 10 3/8" | 5' - 7 1/4" | 6' - 10 9/16" | 5' - 8 11/16" | 6' - 10 15/16" | 5' 8 11/32" | |
| 100 feet | 6' - 7 1/2" | 7' - 4 1/8" | 6' - 7" | 7' - 3 3/4" | 6' - 7 1/8" | 7' - 3 7/8" | 6' - 7 3/16" | 7' - 4 1/4" | |
| 150 feet | 6' - 7 3/4" | 7' - 4'' | 6' - 7 3/8'' | 7' - 3 5/8" | 6' - 7 5/16" | 7' - 3 9/16" | 6' - 7 3/8" | 7' - 3 31/32" | |
| 200 feet | 6' - 9'' | 7' - 4 3/4" | 6' - 8 1/2" | 7' - 2 1/4" | 6' - 8 3/4" | 7' - 2 3/8" | 6' - 8 3/4" | 7' - 2 7/16" | |
| 250 feet | 6' - 9 1/2" | 7' - 3 1/2" | 6' - 8 3/4" | 7' - 2 5/8" | 6' - 8 15/16" | 7' - 2 13/16" | 6' - 9 3/16" | 7' - 2 5/16" | |
| 300 feet | 6' - 9 1/2" | 7' - 2'' | 6' - 9 1/8" | 7' - 1 3/8" | 6' - 9 1/4" | 7' - 1 3/8" | 6' - 9 3/8" | 7' - 1 3/4" | |
| 350 feet | 6' - 8 1/4" | 7' - 3 1/2" | 6' - 8" | 7' - 2 3/4" | 6' - 7 15/16" | 7' - 2 13/16" | 6' - 7 15/16" | 7' - 3 1/4" | |
| 400 feet | 6' - 8 1/2" | 7' - 3 1/2" | 6' - 8 1/8" | 7' - 2 7/8" | 6' - 8 3/4" | 7' - 3" | 6' - 8 7/16" | 7' - 3 5/8'' | |
| Outlet | 6' - 6 1/4" | 7' - 4 1/2" | 6' - 5 3/4" | 7' - 4 1/2" | 6' - 5 13/16" | 7'- 4 1/2" | 6' - 5 27/32 | 7 - 5" | Outlet |

Notes: Corrugated Steel Round Pipe - 84 inch diameter by 60 feet - 00 inches {length} - Inlet Section

Corrugated Steel Round Elongated Pipe - 84 inch diameter by 413 feet 8 inches {length} - Outlet Section Steel Round Pipe Corrugation Size 2 2/3 inch by 1/2 inch by 10 gage {0.138 inch thickness} - Inlet Section Steel Round Pipe Elongated Corrugation Size - Top Plates - 6 inch by 2 inch by 12 gage {0.109 inch thickness} -

Outlet Section

Steel Round Pipe Elongated Corrugation Size - Bottom Plates - 6 inch by 2 inch by 10 gage {0.138 inch thickness} - Outlet Section

Route 2 East Bound Ballast Depth - Approximately 15 feet 00 inches

Route 2 West Bound Ballast Depth - Approximately 9 feet 00 inches

Location - 50 feet from Inlet {South Side of Structure}; 100 feet from Inlet {South Side of Structure}; etc.

Bridge No. 0 6841 Town of Colchester Route 2 over Brook

Horizontal & Vertical Round Pipe Diameter Measurements Project No. 28 - 128 - Year 1968

| Date: | 6-Mar-18 | 6-Mar-18 | 16-Feb-19 | 16-Feb-19 | | | | | |
|----------|------------------------|----------------------|------------------------|----------------------|------------------------|----------------------|------------------------|----------------------|--------|
| Location | Horizontal Diameter | Vertical Diameter | Horizontal Diameter | Vertical Diameter | Horizontal Diameter | Vertical Diameter | Horizontal Diameter | Vertical Diameter | |
| Inlet | 6' - 8 7/16" | 7' - 3" | 6' - 8 7/16" | 7' - 3'' | | | | | Inlet |
| 50 feet | 6' - 10 5/16" | 5' - 8 11/32" | 6' - 10 17/32" | 5' - 8 9/32" | | | | | |
| 100 feet | 6' - 7 1/8" | 7' - 4" | 6' - 7 1/8" | 7' - 4'' | | | | | |
| 150 feet | 6' - 7 3/8" | 7' - 3 1/2" | 6' - 7 1/2" | 7' - 3 3/8" | | | | | |
| 200 feet | 6' - 8 3/4" | 7' - 2 7/16'' | 6' - 8 27/32" | 7' - 2 7/16" | | | | | |
| 250 feet | 6' - 9 5/16" | 7' - 2 1/4" | 6' - 8 29/32" | 7' - 3 11/32" | | | | | |
| 300 feet | 6' - 9 3/8" | 7' - 1 3/8'' | 6' - 9 11/32" | 7' - 1 7/8'' | | | | | |
| 350 feet | 6' - 7 15/16" | 7' - 3'' | 6' - 7 19/32" | 7' - 3 17/32" | | | | | 1 |
| 400 feet | 6' - 8 1/2" | 7' - 3 3/8'' | 6' - 7 3/4" | 7' - 3 21/32" | | | | | |
| Outlet | 6' - 5 13/16" | 7' - 5" | 6' - 5 3/4" | 7' - 5'' | | | | | Outlet |

Notes: Corrugated Steel Round Pipe - 84 inch diameter by 60 feet - 00 inches {length} - Inlet Section

Corrugated Steel Round Elongated Pipe - 84 inch diameter by 413 feet 8 inches {length} - Outlet Section

Steel Round Pipe Corrugation Size 2 2/3 inch by 1/2 inch by 10 gage {0.138 inch thickness} - Inlet Section

Steel Round Pipe Elongated Corrugation Size - Top Plates - 6 inch by 2 inch by 12 gage {0.109 inch thickness} -

Steel Round Pipe Elongated Corrugation Size - Bottom Plates - 6 inch by 2 inch by 10 gage {0.138 inch

Route 2 East Bound Ballast Depth - Approximately 15 feet 00 inches

Route 2 West Bound Ballast Depth - Approximately 9 feet 00 inches

Location - 50 feet from Inlet {South Side of Structure}; 100 feet from Inlet {South Side of Structure}; etc.

Culvert Worksheet

Bridge No.: 0 6841 **Town**: Colchester

Facility Carried\Feature Intersected: Route 2 {Veterans of Foreign Wars Memorial Highway}

over Brook {Sherman Brook - Downstream}

Description: Single Span Corrugated Steel Round Pipe Culvert - Inlet Section {Grass Area} 84 inch diameter by 60 feet 00 inches {length} - Inlet Section {Grass Area} Corrugation Size - 2 2/3 inch by 1/2 inch by 10 gage {0.138 inch thickness} - Inlet Section {Grass Area}

Description: Single Span Corrugated Steel Round Elongated Pipe Culvert - Outlet Section {Route 2} 84 inch diameter Elongated by 413 feet 8 inches {length} - Outlet Section {Route 2} Top Plates Corrugation Size - 6 inch by 2 inch by 12 gage {0.109 inch thickness} - Outlet Section Bottom Plates Corrugation Size - 6 inch by 2 inch by 10 gage {0.138 inch thickness} - Outlet Section

Ballast Depth: Route 2 East Bound Approximately 15 feet of Ballast & Bituminous Concrete Pavement Route 2 West Bound Approximately 9 feet of Ballast & Bituminous Concrete Pavement

Item No. 113 Scour Critical: - 8 -

Tidal: No Rip Rap: No

Cutoff Wall Exposed: Yes - Outlet Cutoff Wall Exposed up to Approximately 10 inches high

Cutoff Wall Undermining: No

Wingwall Exposed Footing: No

Wingwall Footing Undermining: No

Concrete Apron: No Bed Rock: No

Comments: Bridge Plans - Project No. 28 - 128 - Year 1968

Outlet Cutoff Wall Height - 2 feet 6 inches - per plans

Outlet Wingwall Width {No Wingwall Footings} - Varies 1 foot 11 1/4 inches to 3 feet 6 3/8 inches

Inlet Metal Culvert End - per field

Prepared By: David Pawlikowski, P.E. Date: February 28, 2019

CTDOT - Bridge Safety

Inspection type: Routine, Special Inspection Date: 2/06/2019 Inspected by: Team 5

:Bridge No 06841



Photo Number: 1 Photo Taken: 02/06/2019



Photo Number: 2 Photo Taken: 02/06/2019 Eastbound overlay.

Inspection type: Routine, Special **Inspection Date:** 2/06/2019

Inspected by: Team 5

:Bridge No 06841



Photo Number: 3 Photo Taken: 02/06/2019



Photo Number: 4 Photo Taken: 02/06/2019 Looking through first section at south end.

Inspection type: Routine, Special Inspection Date: 2/06/2019 Inspected by: Team 5

outine,Special :Bridge No 06841



Photo Number: 5

Photo Taken: 02/06/2019

Past noted damage to upper section of pipe.



Photo Number: 6 Photo Taken: 02/06/2019

Catch basin junction.

Inspection type: Routine, Special Inspection Date: 2/06/2019 Inspected by: Team 5

:Bridge No 06841



Photo Number: 7 Photo Taken: 02/06/2019
Looking through main section of pipe adjacent to catch basin.



Photo Number: 8 Photo Taken: 02/06/2019
Section loss to invert near inlet.

Inspection type: Routine, Special Inspection Date: 2/06/2019 Inspected by: Team 5

:Bridge No 06841



Photo Number: 9 Photo Taken: 02/06/2019 Looking through pipe. Noted pipe is angled downward towards outlet.



Photo Number: 10 Photo Taken: 02/06/2019
Rust along upper bolt line.

Inspection type: Routine, Special Inspection Date: 2/06/2019 Inspected by: Team 5

:Bridge No 06841



Photo Number: 11 Photo Taken: 02/06/2019



Photo Number: 12 Photo Taken: 02/06/2019

More section loss to pipe sections some penetrations up to two feet deep.

Inspection type: Routine, Special Inspection Date: 2/06/2019 Inspected by: Team 5

:Bridge No 06841



Photo Number: 13 Photo Taken: 02/06/2019



Photo Number: 14 Photo Taken: 02/06/2019 Looking downstream.

Inspection type: Routine, Special Inspection Date: 2/06/2019 Inspected by: Team 5

:Bridge No 06841



Photo Number: 15 Photo Taken: 02/06/2019



Photo Number: 16 Photo Taken: 02/06/2019

View of westbound overlay.