

SECTION 00 65 16

CERTIFICATE OF SUBSTANTIAL COMPLETION

Project: CR 115A Bridge Over Little St. Mary's River

Contract No.: CM 2329

Contract Date: June 13, 2016

This Certificate of Substantial Completion applies to:

☒ All work under Contract     ☐ Portion of work described as follows:

The Work to which this Certificate applies has been inspected by authorized representatives of the COUNTY and the CONTRACTOR and that Work is hereby declared to be substantially complete in accordance with the Contract Documents on : October 28, 2016.

DATE

A tentative list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of CONTRACTOR to complete all the Work in accordance with the Contract Documents. The items in the tentative list shall be completed or corrected by CONTRACTOR within 60 days of the above date of Substantial Completion.

The date of Substantial Completion is the date upon which all guarantees and warranties begin.

SIGNED:

NASSAU COUNTY CONSTRUCTION INSPECTOR / (ETM)

By: Kurt A. Paul RE.

DATE: 11-1-16

NASSAU COUNTY PROJECT MANAGER

By: Rebecca Bray

DATE: 11/9/16

NASSAU COUNTY OPERATIONS DIRECTOR

By: [Signature]

DATE: 11/9/16

CONSULTING ENGINEER/ARCHITECT, ETC.:

Civil Services, Inc.

By: [Signature]

DATE: 11/4/16

CONTRACTOR:

Hal Jones Contactors, Inc.

By: [Signature]

DATE: 11-1-16

## FINAL CRUTCH BENT INSPECTION REVIEW

BRIDGE NUMBER: 740086 LOCATION: CR-115A (KINGS FERRY ROAD) over LITTLE ST. MARY'S R.

NASSAU COUNTY PROJECT # CM2329

Structure Member	Deficiency	Comments / Corrective Actions
Southwest Terminal & G/R Transition.	Soil Plate is exposed above the asphalt.	Dress The asphalt / adjust post to ensure the soil plate is fully embedded. NOTE- This condition is similar at each of the 4 Terminal ends.
Bridge Guardrail	Left Side of Span 1, Post 4 has a loose bolt which needs tightening.	Tighten the loose hardware at Span1, Post 4.
Bridge Guardrail	Left side Span 8, Post 1 (Concrete) & 2 (Timber) - Holes and connection bolts are missing from the new rail.	Drill the G/R Panel and install the missing bolts.

Bridge Guardrail	Left Side Span 8, Timber post has loose bolted connection	Tighten the loose bolt.
North West End Post	The asphalt shoulder and cement rip rap is damaged due to post installation.	Repair the damaged rip-rap and misc. asphalt.
Bridge Guardrail	Right side Span 8. Posts 1 & 2 (Timber) - Holes and connection bolts are missing from the new rail.	Drill the rail and install the new bolts.
Bridge Guardrail	Right side Span 8, Post 4 has had the bolt head cut off but has not been removed.	Remove the damaged bolt and install a new one.
Guardrail Panels and Posts	There are several locations which have damaged galvanized finish due being struck with a hammer. Many of these areas have sharp edges and exposed bare metal.	Dress up the damaged areas to remove any sharp edges and treat with galvanized paint IAW Specifications.

Guardrail posts	There are several locations which have the Guardrail anchor bolt connection height is above 25". Some locations were checked and found to be as much as 28" (Northwest Transition).	Check the height of the G/R post connection and ensure that the 25" as specified are met. There is no +/- for this measurement. Adjust as needed.
Misc. Asphalt	There are several locations in the miscellaneous asphalt which have been damaged with the installation of the guardrail.  There are locations which are pulled away from the post, cracked and settled.	Patch and repair the damaged asphalt around the steel guardrail posts.
Bridge Deck	There is debris collected along the gutter line of the bridge. Timber shavings, metal and general debris litter the gutter lines.	Clean and remove all debris from the gutter lines along both sides of the structure.
Approach Slab.	The north approach slab has an area which is soiled from a hydraulic hose rupture on the post driving machine. Oil dry was laid down; however, the area remains in need of additional cleaning.	Sweep and clean up the oil dry material wash down as needed.

### Final Inspection Checklist

Inspection Date	Inspection By:	Item
		<i>Southwest G/R Terminal &amp; Transition</i>
10/31/16	KMB	Post 1, uses slotted holes ✓
10/31/16	KMB	Post 3, uses standard post holes
10/31/16	KMB	Rail bolted at posts 1, 2, 4, 6, 7 and 8 Only
10/31/16	KMB	Rails not bolted to posts at Posts 3 and 5
10/31/16	KMB	Square washer used at Post 1
10/31/16	KMB	Post 2 rail bolted using trailing / back slot on post
①		Posts 1, 4, 6 rails bolted using approach / front hole on posts
10/31/16	KMB	Rails 3 and 4 spliced using special yellow shear bolts
10/31/16	KMB	Rails 2 and 3 spliced using special yellow shear bolts
10/31/16	KMB	At Post 7, 10" bolt passes through both guardrail sections, block-out and post.
②		Slider assembly properly assembled with bolts from back to front with nuts on the outside
10/31/16	KMB	Angled position of Slider panel points toward the trailing / back end of the system.
10/31/16	KMB	Arrows on slider should point toward the front of the system
③		Cable bracket and washer installed on Cable at Post 2
④		Approximately 60 ft.-lb. torque applied to cable nut at Post 2
10/31/16	KMB	No blockout on Post 1 or Post 2
10/31/16	KMB	Tangent installation or with allowable offset from 0 - 24" (0 - 600mm) over length of the system

- ① Posts #4 & #6 are bolted through the trailing side of post (back side).
- ② The top & bottom connection bolts are installed backwards.
- ③ L Bracket & Washer missing @ Post 2 cable connection.
- ④ Cable tension loose - Nut not Torqued to 60 ft.-lbs.

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# Final Inspection Checklist

Inspection Date	Inspection By:	Item
		<i>Southeast G/R Terminal &amp; Transition</i>
<i>10/31/16</i>	<i>KB</i>	Post 1, uses slotted holes
<i>10/31/16</i>	<i>KB</i>	Post 3, uses standard post holes
<i>10/31/16</i>	<i>KB</i>	Rail bolted at posts 1, 2, 4, 6, 7 and 8 Only
<i>10/31/16</i>	<i>KB</i>	Rails not bolted to posts at Posts 3 and 5
<i>10/31/16</i>	<i>KB</i>	Square washer used at Post 1
<i>10/31/16</i>	<i>KB</i>	Post 2 rail bolted using trailing / back slot on post
<i>10/31/16</i>	<i>KB</i>	Posts 1, 4, 6, rails bolted using approach / front hole on posts
<i>10/31/16</i>	<i>KB</i>	Rails 3 and 4 spliced using special yellow shear bolts
<i>10/31/16</i>	<i>KB</i>	Rails 2 and 3 spliced using special yellow shear bolts
<i>10/31/16</i>	<i>KB</i>	At Post 7, 10" bolt passes through both guardrail sections, block-out and post.
①		Slider assembly properly assembled with bolts from back to front with nuts on the outside
<i>10/31/16</i>	<i>KB</i>	Angled position of Slider panel points toward the trailing / back end of the system.
<i>10/31/16</i>	<i>KB</i>	Arrows on slider should point toward the front of the system
<i>10/31/16</i>	<i>KB</i>	Cable bracket and washer installed on Cable at Post 2
②		Approximately 60 ft.-lb. torque applied to cable nut at Post 2
<i>10/31/16</i>	<i>KB</i>	No blockout on Post 1 or Post 2
<i>10/31/16</i>	<i>KB</i>	Tangent installation or with allowable offset from 0 - 24" (0 - 600mm) over length of the system

- ① The top & bottom connection bolts are installed backwards.
- ② Cable tension loose - Nut not torqued to 60 ft.-lbs.

# Final Inspection Checklist

Inspection Date	Inspection By:	Item
		<i>Northwest G/R Terminal &amp; Transition</i>
<i>10/31/16</i>	<i>KJB</i>	Post 1, uses slotted holes
<i>10/31/16</i>	<i>KJB</i>	Post 3, uses standard post holes
<i>10/31/16</i>	<i>KJB</i>	Rail bolted at posts 1, 2, 4, 6, 7 and 8 Only
<i>10/31/16</i>	<i>KJB</i>	Rails not bolted to posts at Posts 3 and 5
<i>10/31/16</i>	<i>KJB</i>	Square washer used at Post 1
<i>10/31/16</i>	<i>KJB</i>	Post 2 rail bolted using trailing / back slot on post
①		Posts 1, 4, 6 rails bolted using approach / front hole on posts
<i>10/31/16</i>	<i>KJB</i>	Rails 3 and 4 spliced using special yellow shear bolts
<i>10/31/16</i>	<i>KJB</i>	Rails 2 and 3 spliced using special yellow shear bolts
<i>10/31/16</i>	<i>KJB</i>	At Post 7, 10" bolt passes through both guardrail sections, block-out and post.
②		Slider assembly properly assembled with bolts from back to front with nuts on the outside
③		Angled position of Slider panel points toward the trailing / back end of the system.
④		Arrows on slider should point toward the front of the system
<i>10/31/16</i>	<i>KJB</i>	Cable bracket and washer installed on Cable at Post 2
⑤		Approximately 60 ft.-lb. torque applied to cable nut at Post 2
<i>10/31/16</i>	<i>KJB</i>	No blockout on Post 1 or Post 2
<i>10/31/16</i>	<i>KJB</i>	Tangent installation or with allowable offset from 0 - 24" (0 - 600mm) over length of the system

- ① Posts #4 & #6 are bolted through the trailing side of post, back side
- ② The top & bottom connection bolts are installed backwards.
- ③ Angled portion of slider is pointing towards approach / front.
- ④ Slider is upside down. Arrow is pointing towards trailing / back.
- ⑤ Cable Tension is loose - Nut not torqued to 60 ft.-lbs.



④

# Final Inspection Checklist

Inspection Date	Inspection By:	Item
		<i>Northeast G/R Terminal &amp; Transition</i>
10/31/16	KB	Post 1, uses slotted holes
10/31/16	KB	Post 3, uses standard post holes
10/31/16	KB	Rail bolted at posts 1, 2, 4, 6, 7 and 8 Only
10/31/16	KB	Rails not bolted to posts at Posts 3 and 5
10/31/16	KB	Square washer used at Post 1
10/31/16	KB	Post 2 rail bolted using trailing / back slot on post
①		Posts 1, ④, ⑥ rails bolted using approach / front hole on posts
10/31/16	KB	Rails 3 and 4 spliced using special yellow shear bolts
10/31/16	KB	Rails 2 and 3 spliced using special yellow shear bolts
10/31/16	KB	At Post 7, 10" bolt passes through both guardrail sections, block-out and post.
②		Slider assembly properly assembled with bolts from back to front with nuts on the outside
10/31/16	KB	Angled position of Slider panel points toward the trailing / back end of the system.
10/31/16	KB	Arrows on slider should point toward the front of the system
10/31/16	KB	Cable bracket and washer installed on Cable at Post 2
③		Approximately 60 ft.-lb. torque applied to cable nut at Post 2
10/31/16	KB	No blockout on Post 1 or Post 2
10/31/16	KB	Tangent installation or with allowable offset from 0 - 24" (0 - 600mm) over length of the system

- ① Posts #4 & #6 are bolted through the trailing side of posts.
- ② The top & bottom connection bolts are installed backwards.
- ③ Cable tension is loose - not torqued to 60 ft. lbs.