



FIELD REPORT #019

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Date:	August 24, 2020	Project #:	2018-046	Page 1 of 6
To:	Michael Cahalane Town of Effingham 68 School St. Effingham, NH 03882	Project:	Elm Street Bridge Preservation	
Email:	effingham@roadrunner.com	Location:	Effingham, NH	
Prepared By:	Jonathan K. MacDougall, PE	Owner:	Town of Effingham	
Reviewed & Approved By:	Christopher R. Fournier, PE	Contractor:	Hansen Construction	
		Weather Conditions:	80°F, sunny	

SITE VISIT

Arrived at site: 11:40 AM

Left site at: 3:15 PM

Personnel & Equipment on site:

- HEB Engineers, Inc. (HEB): Jonathan MacDougall
- R and D Paving (Subcontractor): Brian, Crew of 5
- R and D Paving Equipment:
 - Leeboy 8520 Paver
 - Cat CB34B Roller Compactor
 - Bobcat w/milling wheel.
- Michael Hansen Construction Ltd. (Contractor): Mike
- Michael Hansen Construction Ltd. Equipment:
 - Volvo Excavator

Visitors to site:

- Mike Cahalane – Town of Effingham.

Purpose of Site Visit:

- To observe installation of pavement.

Work Performed by Contractor since last site visit:

- Contractor removed equipment from the site.

Work Performed by Contractor during HEB site visit:

- Contractor loaded excavator on a trailer and trucked off site.
- Contractor milled pavement at bridge approaches and installed pavement on the bridge and approaches.

Items discussed and observed:

- Contractor and Engineer reviewed the pavement at the approaches. At the north approach the Contractor milled 12 inches back from the sawcut line of the pavement to create a transition from the old pavement to the new pavement (see Photo 2). At the south approach the existing pavement tapers from about 2 inches above the deck elevation at the downstream side to nearly flush with the deck at the upstream side (see Photo 1). Contractor and Engineer agreed the best solution to match in the bridge pavement and be able to install the asphaltic plug joint would be to pave completely past the end of the deck about 2 feet. The contractor milled in an 18-inch-wide strip, ending 2 feet off the end of the bridge, where the pavement can be tied in.
- Contractor swept and blew debris off the deck prior to paving.

Please notify HEB if any information is missing from this field report or has been interpreted differently.

- Contractor installed pavement by hand at the north approach ending at the backwall, and compacted with a vibrating plate compactor (see Photo 3). Contractor also installed pavement by hand at the north downstream corner of the bridge where the paver could not access due to the skew of the bridge.
- Contractor paved the deck with the paver using a 9.5mm (3/8-inch) mix in two courses, initially with a 1-inch bridge base, and then the remainder ~1¼ inches. The deck was compacted with the drum roller without the use of the vibrations (see Photo 5 & 6).
- Engineer noted there was a bubble in the base course from the membrane in two locations on the deck the translated through to the base pavement: one above 3 feet long and 6 inches wide located approximately 10 feet from the north end of the bridge and 2 feet in from the downstream curb, the other located approximately 12 feet from the south end of the bridge in the middle of the upstream lane (see Photo 4). Contractor contacted AD Rossi (membrane installer) and they recommended cutting a small hole in the membrane at these locations to release the air in the bubble which is what the Contractor did. AD Rossi said the heat from the pavement should melt the membrane and reseal the small holes. Once popped the bubbles went away.
- Contractor and Engineer reviewed the wingwall repair. The repair would likely be approximately 2-foot- wide on the stem face and 1-foot- wide across to the wingwall side face (not on the actual wingwall). It would extend from the top of the wall to the ground level. He noted they would like to build a platform to work off to prevent debris from entering the water and create a safe work space. The area would be approximately 12 feet long and 10 feet wide. They would use sandbags as a base and a crane mat as a platform. Contractor said the work would take approximately a week, closing the road, or at least a lane of traffic, to allow for a work area and a place to park an excavator to remove debris from below bridge. Contractor said they would like to install jersey barriers and temporary traffic lights. Mike Calahane said a lane closure would be the preferred alternative if required.
- Contractor noted a crack at the southeast wingwall. The crack emanates from backwall near the sidewalk and travels diagonally approximately 3 feet down. Contractor asked if the Town would like this area repaired as well during the repair of the north abutment. Contractor and Engineer to develop a cost for this repair.
- Contractor said NICOM will be on site at some point Thursday (August 27, 2020) to install the asphaltic plug. They would install one lane at a time and have cones and a flagger on site. Contractor and Mike Calahane discussed the option of having a police officer on site as well.

Work Scheduled:

- Asphaltic plug joint installation Thursday, August 27, 2020.

Outstanding Construction Issues:

- Install containment to prevent demolition debris from falling in the river (FR #008, July 27, 2020).

Next Observation:

- Thursday, August 27, 2020.

Photos:

- Taken by JKM August 24, 2020.



Photo 1: Milled pavement at south approach.



Photo 2: Milled pavement at north approach.



Photo 3: Hand paving at north approach.



Photo 4: Bubble in membrane translating through pavement at north end of bridge.



Photo 5: Compacting wearing course.



Photo 6: Finished pavement on bridge deck.

Copy: Michael Hansen Construction Ltd.
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