SECTION 106 CONSULTATION CASE STUDY REPORT

COUNTY ROAD (CR) 664 BRIDGE OVER LITTLE PAYNE CREEK (BRIDGE No. 060034) HARDEE COUNTY, FLORIDA

EVALUATION OF EFFECTS TO THE LITTLE PAYNE CREEK (BRIDGE No. 060034) (8HR00374)

Financial Project ID No. 435830-1-21-01



Florida Department of Transportation District One 801 North Broadway Avenue Bartow, Florida 33830

The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by FDOT pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated December 14, 2016, and executed by FHWA and FDOT.

May 2021

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May 2021

EXECUTIVE SUMMARY

The Florida Department of Transportation (FDOT), District One, is conducting a Project Development and Environment (PD&E) Study to evaluate proposed improvements to County Road (CR) 664 Bridge over Little Payne Creek, in Hardee County, Florida (Figure 1-1). The purpose of the project is to address the structural deficiencies and functional obsolescence of the CR 664 Bridge No. 060034. The ultimate goal of the project is to identify the optimal solution for a bridge structure in need of replacement due to deteriorating conditions (FDOT 2020). This Draft Section 106 Case Study Report is being prepared as part of the project's ongoing PD&E Study.

In September 2020, Archaeological Consultants, Inc. (ACI) conducted a Cultural Resource Assessment Survey (CRAS) of the project area as part of the PD&E Study. The purpose of this CRAS was to locate and identify any cultural resources within the Area of Potential Effects (APE) and to assess their significance in terms of eligibility for listing in the National Register of Historic Places (NRHP). Based on the project type and location of the proposed work, the archaeological and historical APE were limited to the footprint of proposed activities within the existing boundaries of the project. As a result of the CRAS, no archaeological sites were discovered; however, one historic resource was identified within the APE. The Little Payne Creek Bridge, Bridge No. 060034 (8HR00374), has been determined eligible for listing in the NRHP by the State Historic Preservation Officer (SHPO).

The Little Payne Creek Bridge, Bridge No. 060034 (8HR00374), is a 96-foot, single-lane, three span reinforced concrete arch deck bridge that was constructed in ca. 1915 by the Luten Bridge Company. The superstructure consists of decorative cast-in recessed panel railings and the substructure is comprised of three solid concrete arches with cantilevered floor beams that support the deck. These are typical design characteristics found on Luten bridges. The bridge is NRHP-eligible under Criterion C in the area of Engineering as an example of Florida's earliest arch deck reinforced concrete bridges and it retains historical significance for its association with the prominent Luten Bridge Company. In addition, the bridge is NRHP-eligible under Criterion A in the area of Transportation as a means to connect Bowling Green to Fort Green during improvement efforts undertaken throughout the county to further develop transportation routes.

The total length of this project is roughly 490-feet (ft) (approximately 120-ft west of the bridge to approximately 275-ft east of the bridge) to accommodate for any adjustments that may need to be made to the bridge approaches (FDOT 2020). Two alternatives were evaluated for reconstruction and replacement of the bridge. The first alternative, On Alignment, involves replacing the existing one-lane wide bridge entirely with a two-lane bridge that maintains the same road alignment. The second alternative, Parallel Alignment, proposes to re-align the road and construct a new bridge, leaving the old bridge in place. This option however will eventually lead demolition of the existing bridge when it can no longer be maintained. The No-Build Alternative does not meet purpose and need but remains a viable alternative throughout the study.

The objective of this Section 106 Consultation Case Study Report is to evaluate the potential effects (primary and secondary) of the proposed undertaking to the Little Payne Creek Bridge, Bridge No. 060034 (8HR00374), located within the project APE. Potential effects to this historic property were evaluated in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966 (Public Law 89-665, as amended), as implemented by 36 CFR Part 800 ("Protection of Historic Properties," revised January 2004), and Chapter 267, Florida Statutes. This report includes a summary

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Little Payne Creek Bridge No. 060034 (8HR00374)

description of the project and of the significant historic property, as well as application of the Criteria of Adverse Effects, as defined in 36 CFR Part 800.5.

The FDOT Office of Environmental Management (OEM) will apply the Criteria of Adverse Effects found in 36 CFR Part 800.5 to the historic property determined eligible for listing in the NRHP located within the APE. This document provides information for consultation with the SHPO and OEM. Based on the proposed undertaking to replace the historic bridge, the findings presented here indicate that the proposed undertaking will have an **Adverse Effect** to the NRHP-eligible Little Payne Creek Bridge, Bridge No. 060034 (8HR00374).

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1.0 INTRODUCTION

The Florida Department of Transportation (FDOT), District One, is conducting a Project Development and Environment (PD&E) Study to evaluate proposed improvements to County Road (CR) 664 Bridge over Little Payne Creek, in Hardee County, Florida (Figure 1-1). The Little Payne Creek Bridge, Bridge No. 060034, is a 96-foot, single-lane, three span reinforced concrete arch deck bridge. The total length of this project is roughly 490-feet (ft) (approximately 120-ft west of the bridge to approximately 275-ft east of the bridge) to accommodate for any adjustments that may need to be made to the bridge approaches (FDOT 2020). The purpose of the project is to address the structural deficiencies and functional obsolescence of the CR 664 Bridge No. 060034. The ultimate goal of the project is to identify the optimal solution for a bridge structure in need of replacement due to deteriorating conditions (FDOT 2020).

As part of the PD&E Study, a *Cultural Resource Assessment Survey (CRAS)* was prepared in September 2020, on behalf of the FDOT, District One, by Archaeological Consultants, Inc. (ACI) of Sarasota, Florida. The objective of the CRAS was to locate and identify any archaeological sites and historic resources located within the project's Area of Potential Effect (APE) and to assess, to the extent possible, their significance as per the criteria of eligibility for listing in the National Register of Historic Places (NRHP). Based on the project type and location of the proposed work, the archaeological and historical APE were limited to the footprint of proposed activities within the existing boundaries of the project.

As a result of the CRAS, no archaeological sites were discovered; however, one historic resource that is listed, determined eligible, or appears potentially eligible for listing in the NRHP was identified within the APE (Figure 1-2). The significant historic property includes the NRHP-eligible Little Payne Creek Bridge, Bridge No. 060034 (8HR00374). The historic property is a 96-foot, single-lane, three span reinforced concrete arch deck bridge that was constructed in ca. 1915 by the Luten Bridge Company. The superstructure consists of decorative cast-in recessed panel railings and the substructure is comprised of three solid concrete arches with cantilevered floor beams that support the deck. The bridge was determined eligible for listing in the NRHP by the State Historic Preservation Officer (SHPO) in 2009 under Criterion C. As a result of the CRAS, the bridge remains eligible for listing in the NRHP under Criterion C in the area of Engineering and also appears NRHP-eligible under Criterion A in the area of Transportation. The SHPO concurred with the recommendations and findings on October 1, 2020 (Appendix A; Parsons 2020).

The objective of this *Section 106 Consultation Case Study Report* is to evaluate the potential effects (primary and secondary) of the proposed undertaking to the Little Payne Creek Bridge, Bridge No. 060034 (8HR00374), located within the project APE. Potential effects to this historic property were evaluated in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966 (Public Law 89-665, as amended), as implemented by 36 CFR Part 800 ("Protection of Historic Properties," revised January 2004), and Chapter 267, Florida Statutes. This report includes a summary description of the project and of the significant historic property, as well as application of the Criteria of Adverse Effects, as defined in 36 CFR Part 800.5.

As part of the public outreach for this project, kickoff notices were mailed out in the Summer of 2020 to property owners within 300-ft of the project area as well as to elected and appointed officials at the beginning of the study. These include the Wauchula Main Street Program, Hardee County Library,

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Fort Mead Historical Society, DeSoto County Historical Society, the Cracker Trail Museum, and the adjacent property owner, Mosaic. The newsletter was sent in both the English and Spanish and included the phone number and email of the FDOT Project Manager to call with any questions or comments from the public. The public notification will allow interested persons an opportunity to provide comments concerning the location, conceptual design, and environmental effects of the proposed bridge replacement/reconstruction within the study limits. See **Appendix E** for a copy of the Spring of 2020 kickoff newsletter.

A public hearing will be held for this PD&E Study in mid-2021. The hearing is being held to allow interested persons an opportunity to provide comments concerning the location, conceptual design, and social, economic, and environmental effects to replacing the bridge. The Section 106 Case Study Report will be on display at the public hearing along with the other PD&E Study documents. A second project newsletter will be distributed prior to the hearing. Information relating to the Section 106 process being undertaken for this project will be shown during the Public Hearing process. A third newsletter will be sent out in Fall of 2021 to announce the approval of the Study. Public involvement documentation will be contained in the appendix for the next submittal.

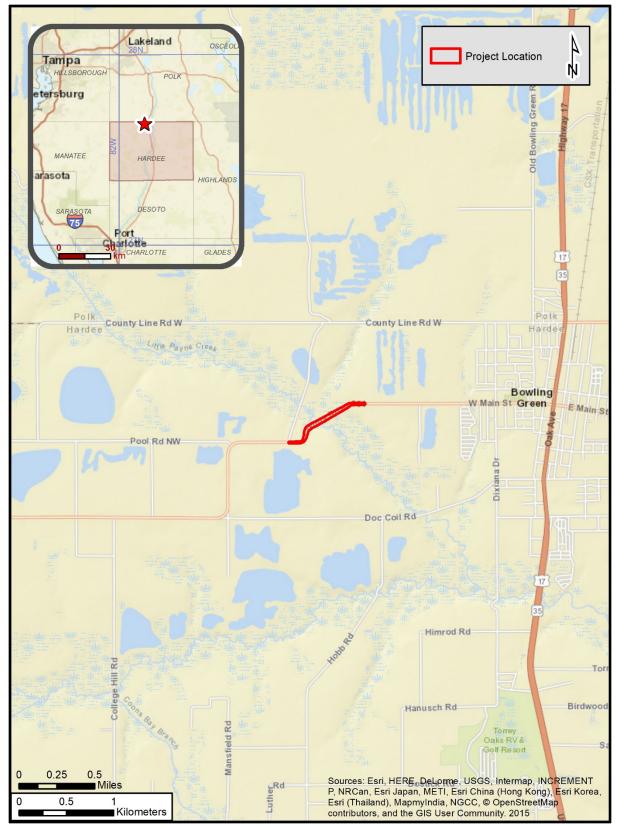


Figure 1-1 Location of the CR 664 Bridge over Little Payne Creek (Bridge No. 060034).

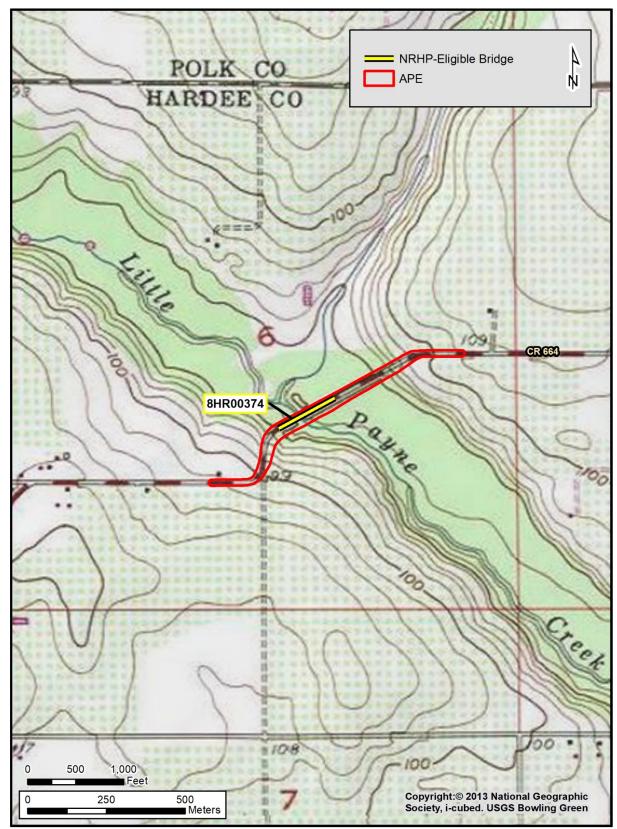


Figure 1-2 Location of the historic property within the APE.

2.0 PROJECT DESCRIPTION

The FDOT, District One, is conducting a PD&E Study to evaluate proposed improvements to CR 664 Bridge over Little Payne Creek, in Hardee County, Florida. This project involves the reconstruction and replacement of CR 664 Bridge No. 060034 to address structural integrity within unincorporated Hardee County, approximately 1.6 miles west of US 17 and the City of Bowling Green. The total length of this project is roughly 490-ft (approximately 120-ft west of the bridge to approximately 275-ft east of the bridge) to accommodate for any adjustments that may need to be made to the bridge approaches (FDOT 2020).

2.1 Purpose and Need

The purpose of the project is to address the structural deficiencies and functional obsolescence of the CR 664 Bridge (Bridge No. 060034). The ultimate goal of the project is to identify the optimal solution for a bridge structure in need of replacement due to deteriorating conditions. The project is needed to reinforce a connection between Fort Green and Bowling Green. Alternatives will be evaluated for reconstruction/replacement with consideration of shoulders on the bridge, as required at the approaches (FDOT 2020). The need for the project is based on the following criteria:

BRIDGE DEFICIENCIES: Address Structural Integrity

The current 96-foot, three span reinforced concrete arch deck bridge was originally constructed in 1915. When the bridge was recorded in 1989, the structure was in "poor, though original, condition" with a broken end railing, and with a built-up pavement that was causing water to run into the railing, leading to spalling (surface peeling and flaking) and rebar damage.

Based on a February 28, 2018 FDOT bridge inspection report prepared by Kisinger Campo & Associates, the CR 664 Bridge No. 060034 received a sufficiency rating of 60.5 on a scale of 0-100 (**Appendix B**). Sufficiency rating is essentially an overall rating of a bridge's fitness to remain in service. A bridge with a sufficiency rating of 80 or less is eligible for bridge rehabilitation funding. A sufficiency rating below 50.0 qualifies a bridge for replacement funds.

2.2 **Existing Conditions**

CR 664 is classified as a Rural, Major Collector and consists of a two-lane road; however, over Little Payne Creek, CR 664 Bridge No. 060034 is a one-lane bridge. CR 664 serves as the primary connection between Fort Green and Bowling Green. The bridge crosses over Little Payne Creek, a non-navigable waterway. The bridge is one of Florida's earliest arch deck bridges and holds historical associations with the Luten Bridge Company, a leader in building lower cost reinforced concrete structures. There are currently no sidewalks, shoulders, or designated bicycle facilities across the bridge. The posted speed limit is 55 miles per hour with 25 mph advisory due to the curve immediately to the west and the existing right-of-way (ROW) is 65-ft throughout the project limits.

2.3 Alignment Alternatives

Due to age, uncertainty exists regarding the ultimate lifespan of the existing bridge. The bridge deck is a single-lane and lacks shoulders. Furthermore, the bridge opening is not designed to modern storm clearances. Also, due to the existing structure type (3-span continuous arch), the potential to widen

or rehabilitate the bridge is very limited and would result in a substantial impact to the historic bridge, as the original design, proportions, and features of the bridge would be altered. In addition, a No-Build Alternative is not considered the most prudent and feasible alternative as it would result in continued deterioration of the existing bridge, but No-Build remains a viable alternative. Therefore, two alternatives were evaluated for reconstruction/replacement. Each of the build alternatives consists of the construction of an entirely new bridge that meets all governing design standards. Replacement of the existing bridge would eliminate any safety concerns since the entire structural system will be modern and designed per the current standards.

The first alternative is On Alignment, in which the existing bridge will be replaced with a new bridge on the same alignment. The new bridge will have two lanes and meet current criteria, including wider typical section (**Appendix C**). This will accommodate larger storm events flowing underneath than the current structure and will not require new ROW. Furthermore, this alignment can be built quicker due to the ability to close the road but would require a minor detour for a small number of vehicles.

The second alternative is the Parallel Alignment that proposes to re-align the road south of the existing bridge and construct a new bridge on a parallel alignment, leaving the old bridge in place. The new bridge will have two lanes and meet current criteria, including wider typical section (**Appendix C**). The existing bridge will remain an impediment for water flowing under the bridge during storm events. Building a structure parallel to the existing structure will require additional right of way to be purchased and increase the floodplain encroachment. The added structure and new roadway approaches will require wetlands to be filled and mitigated, which will require an individual permit due to the wetland impact. Additionally, the estimated construction costs and wetland/floodplain impacts are greater for keeping the Little Payne Bridge in place.

As part of the Parallel Alignment, the County will be required to maintain two structures and this alternative will require the County to secure additional funding for the eventual demolition of the existing bridge when it can no longer be maintained. This alignment will also drive up the construction cost of the structure. The costs are also substantially higher due to the embankment and pavement required to build the new roadway on the approaches. The funding mechanism programmed won't cover the difference for the Parallel Alignment and would drive the need to allocate millions more from other sources.

2.4 Recommended Alternative

Based on current public involvement and consultation with local stakeholders and SHPO as outlined in Section 6.0, in addition to an environmental impact analysis, engineering analysis, and project cost comparisons, On Alignment has been selected as the Recommended Alternative. On Alignment proposes to replace the existing bridge with a new bridge that meets current FDOT design and safety standards. The new bridge alignment will be widened in its current location and tie into the existing roadway alignment. This alignment is recommended as it has the least amount of environmental impacts, provides a safer route for motorists, meets the needs of the project, and is cost effective. Should the On Alignment alternative be selected as the Preferred Alternative following a public hearing and continued consultation with SHPO and local stakeholders, appropriate mitigation regarding the historic Little Payne Creek Bridge will be determined through close consultation with the community as FDOT continues with the Section 106 process.

This section will be updated after the Public Hearing to further describe the Preferred Alternative.

3.0 CULTURAL SETTING

This Section 106 Case Study Report is preceded by a CRAS Report for the PD&E Study of CR 664 Bridge over Little Payne Creek which included an extensive cultural overview (ACI 2020). While the entirety of that information is not repeated here, a brief summary of relevant historical trends within unincorporated Hardee County area follows and was taken directly from the CRAS PD&E.

In 1881, Hamilton Disston, a prominent Pennsylvania entrepreneur and friend of then Governor William Bloxham, entered into an agreement with the State of Florida to purchase four million acres of swamp and overflowed land for one million dollars. In exchange for this, he promised to drain and improve the land. This transaction, which became known as the Disston Purchase, enabled the distribution of large land subsidies to railroad companies, inducing them to begin extensive construction programs for new lines throughout the state. Disston and the railroad companies in turn sold smaller parcels of land to developers and private investors (Tebeau and Carson 1965:252). In the 1880s, the first railroad lines extended south through central Florida as a result of the sale of state lands and the Disston Purchase.

With the railroad as a catalyst, the 1880s through the 1910s witnessed a sudden surge of land buying. In the 1880s, cities such as Bowling Green and Wauchula were not yet in existence or they were limited to small settlements. It was not until the railroad arrived that settlers came in numbers and towns such as Bowling Green, Wauchula, and Zolfo Springs were established (Plowden 1929). A post office named Utica was established in what is now Bowling Green in 1885 – a year before the Florida Southern Railroad was constructed through the area. A year later, a large group of settlers arrived from Kentucky and renamed the community after their hometown of Bowling Green. This same year the first train passed through Bowling Green on the Florida Southern Railroad and the route was completed as far south as Punta Gorda by 1887.

During the late nineteenth century, phosphate deposits were discovered throughout the region and resulted in an industrial and land purchasing boom in the 1890s. The Peace River Valley became home to several companies such as the Peace River Phosphate Company and the DeSoto Phosphate Mining Company, reaching approximately 400 companies at the height of the boom. The phosphate boom endured roughly a decade before "a national recession, high costs, and reduced demand for phosphate" led to a swift decline, with approximately fifty companies remaining by 1900 (Janus Research 2015).

The town of Bowling Green was incorporated in 1905 and became well known as a watermelon shipping center between 1910 and 1920 (Plowden 1929). The Charlotte Harbor and Northern Railroad was constructed through the present-day Hardee County area and phosphate industrial region in 1912, heading south from Plant City through Fort Green, Fort Green Springs, Vandolah, Ona, Limestone, and eventually Arcadia where it connected with the Atlantic Coastline Railroad (Plowden 1929). Additional improvements were undertaken throughout the county to further develop transportation routes. Following a vote of the county commissioners, twenty-five concrete bridges were constructed between November 1915 and March 1916 within the Wauchula district of then-Desoto County. The vote approved a bond issue of \$30,000, approximately \$26,000 of which went toward the construction. Two of these bridges include the Little Payne Creek Bridge – the longest of the twenty-five bridges constructed – and the Payne Creek Bridge, both of which were erected with

the concrete arch design by the Luten Bridge Company for increased durability in the Florida climate (Plowden 1929; FDOT 2012).

The great Florida Land Boom of the 1920s saw widespread development of towns and highways. Several reasons prompted the boom, including the mild winters, the growing number of tourists, the larger use of the automobile, the completion of roads, the promise by the Florida Legislature never to pass state income or inheritance taxes, and the aggressive advertising campaigns of real estate companies. The growth spurred the division of DeSoto County into Highlands, Glades, Charlotte, Hardee, and DeSoto Counties in April 1921. In December of the same year, Wauchula was established as the county seat of Hardee County.

An election was held by the newly established Hardee County commissioners regarding a good roads bond in 1923. Financing was sought in order to improve the road systems throughout the county, including the reconstruction or hard surfacing of approximately 95 miles of roads. This project included the hard surfacing of the route from Bowling Green to Fort Green, now known as CR 664 (Plowden 1929). The road improvements throughout Hardee County began in 1924 and were completed in 1928 (Plowden 1929).

By 1927, the economic growth of the early 1920s was halted by the end of the Florida Land Boom. The generosity of private citizens and federal relief projects helped the residents of central Florida survive the Depression. Financier John Roebling and his wife Margaret Shippen Roebling, concerned over plans to turn a pristine wilderness area into farmland, purchased 3800 acres and donated the land for use as a state park. In 1931, the Highlands Hammock State Park opened, under the direction of Franklin D. Roosevelt's Civilian Conservation Corps (CCC). The CCC camp, which employed 200 men, provided a steady source of income for local merchants who supplied food, clothing, building materials, and tools to the contingent (Olausen 1993:25; Sebring Chamber of Commerce 1962:66). Although another federal relief project, the Writers' Program of the Work Projects Administration, did not directly support local businesses, it encouraged tourism by publishing a guide to Florida during the late 1930s (Federal Writers' Project [FWP] 1939).

Like tourism, agriculture continued to be a basis for the local economy in the post-World War II years. Today, agriculture continues to play an important role, as most of the county has been zoned agricultural. However, the employment consists of 24.6% government, 19.2% in natural resources and mining, 14.7% in trade and transportation, and 13.6% education and healthcare services (Enterprise Florida 2020). The 2019 population of the county is estimated at 27,385 (United States Census Bureau [USCB] 2020).

4.0 EXISTING SIGNIFICANT HISTORIC PROPERTY

Based on the results of ACI's 2020 CRAS, the Little Payne Creek Bridge, Bridge No. 060034 (8HR00374 was considered eligible for listing in the NRHP. The SHPO concurred with the recommendations and findings on October 1, 2020. A copy of the concurrence letter is included in **Appendix A** and a copy of the Florida Master Site File (FMSF) form created for the Little Payne Creek Bridge is included in **Appendix D**. The CRAS included extensive physical descriptions, and historical information related to the significant resource (ACI 2020) and some of the information is not repeated here. A summary of the history and importance of these significant property follows.

4.1 Little Payne Creek Bridge No. 060034 (8HR00374)



Photo 4-1 Little Payne Creek Bridge (8HR00374), looking west.

The Little Payne Creek Bridge (Bridge No. 060034) is a three span, reinforced concrete arch deck bridge constructed in ca. 1915 (**Photos 4-1 & 4-2**). The bridge was constructed to carry CR 664 over Little Payne Creek connecting Bowling Green in the east to Fort Green in the west. The single lane bridge crossing Little Payne Creek measures 16-ft wide and is flanked by solid concrete railings with decorative rectangular cast-in recessed panel design, piers are present at each span, and wingwalls are present at the approach. A single span measures approximately 32-ft long with an overall length of 96-ft. The substructure is comprised of three solid concrete arches with structural steel as reinforcement and cantilevered floor beams that support the deck. The bridge deck is constructed of concrete and covered with an asphalt surface. A plaque is present on the interior of the parapet to the south and reads "DeSoto County, Florida. District No. 1 County Commissioners. L.W. Whitehurst, John Hagan, W.G. Wells, Wm. M. Whitten, D.L. Skipper, A.L. Durrance Clerk." In 2009, metal approach guardrails and solid concrete barriers were installed as well as resurfacing the deck. In addition, there is evidence of graffiti on the wingwalls, and vegetation overgrowth is present on the railings and along the roadway.



Photo 4-2 Little Payne Creek Bridge (8HR00374), looking southwest.

The Luten Bridge Company of York, Pennsylvania – founded by Daniel B. Luten – was a prominent company known for its inexpensive and durable reinforced concrete bridges. Luten bridges were especially successful in Florida as they were well suited for the state's humid conditions and surrounding salt water and advertised as the more reliable and low maintenance alternative to "tin bridges" (FDOT 2012). Bridges constructed by the Luten Bridge Company, especially the Luten arch deck bridge, were also well-known for combining both structural integrity and architectural design. By the mid-1920s, the Luten Bridge Company held fifty patents related to reinforced concrete bridges and had constructed over 14,000 bridges throughout the United States (Harrington 2001). Little Payne Creek Bridge was commissioned by Desoto County in 1915 in order to facilitate the route between Bowling Green and Fort Green; however, ownership changed in 1920 with the creation of Hardee County during the division of Desoto County (FMSF; Plowden 1929). The bridge is one of two known bridges in Hardee County built by the Luten Company with the distinct reinforced concrete arch deck bridge and solid concrete railings with decorative rectangular cast-in recessed panel design.

The Little Payne Creek Bridge is an early example of the Luten Bridge Company's reinforced concrete arch deck bridge in Florida. The bridge retains historic integrity of location, setting, material, workmanship, feeling, and design characteristics as featured on Luten bridges. While the deck and approach have been maintained with modern improvements, such as asphalt resurfacing and metal guardrails, the bridge remains as a single lane bridge over the Little Payne Creek. Under the previous evaluations, the bridge was determined significant under Criterion C in the area of Engineering as an early example of a reinforced concrete arch deck bridge in Florida and for its historic association with the prominent Luten Bridge Company. The bridge remains NRHP-eligible under Criterion C, but also appears NRHP-eligible under Criterion A in the area of Transportation as a means to connect Bowling Green to Fort Green during improvement efforts undertaken throughout the county to further develop transportation routes. Furthermore, the resource meets the Property Type F.2: Arch Bridges registration requirements under Criteria A and C as described in the Florida's Historic Highway Bridges Multiple Property Listing (ACI 2013; Survey No. 20006).

5.0 EVALUATION OF EFFECTS

The Criteria of Adverse Effects (36 CFR Part 800.5(a)(1)) was applied to the NRHP-eligible resource located within the project APE, the Little Payne Creek Bridge (Bridge No. 060034). The criteria for assessing an adverse effect state that:

"(1) Criteria of adverse effect. An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of an historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association..."

The criteria further states that adverse effects on historic resources include, but are not limited to: physical destruction of or damage to all or part of the property; alteration of a property; removal of the property from its historic location; change of the character of the property's use or of physical features within the property's setting that contribute to its historic character; introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features; and neglect of a property which causes its deterioration.

Below is a summary of the effects evaluation for the Parallel Alignment alternative followed by an evaluation of the On Alignment Recommended Alternative. Overall, an evaluation of the two alternatives under consideration indicated that all will eventually have an **adverse effect** on the NRHP-eligible Little Payne Creek Bridge.

5.1 Parallel Alignment Alternative

Based on the Criteria of Adverse Effects, the proposed undertaking will have an **Adverse Effect** to the NRHP-eligible Little Payne Creek Bridge (Bridge No. 060034) (8HR00374). This alternative would realign the roadway by constructing a new bridge parallel to the old bridge. While this alternative would maintain the historic bridge in its current location, it would no longer continue to function as originally intended and would not remain accessible to vehicular traffic. While this Alternative would retain the historic bridge and would not impact the qualities for which it has been determined eligible, it would affect the setting and viewshed.

The existing bridge will remain an impediment for water flowing under the bridge during storm events. Building a structure parallel to the existing structure will require additional right of way to be purchased and increase the floodplain encroachment. Based on engineering and environmental analysis, this alternative is not a viable option. Furthermore, the County will be required to maintain two structures and this alternative will require the County to secure additional funding for the eventual demolition of the existing bridge when it can no longer be maintained. Thus, it would ultimately have an adverse effect.

Due to the greatly increased environmental issues and costs, as well as additional costs needed to rehabilitate and maintain the existing Little Payne Creek Bridge, it was determined that this alignment would not be a practical and feasible alternative for FDOT to pursue. Therefore, the Recommended Alternative, On Alignment, which involves the demolition of the historic bridge and the construction of a new bridge.

5.2 On Alignment Alternative (Recommended Alternative)

Based on the Criteria of Adverse Effect, the proposed removal and replacement of the historic Little Payne Creek Bridge (8HR00374) will have an **adverse effect** to the NRHP-eligible resource. The On Alignment Alternative proposes to replace the existing bridge with a new bridge that meets current FDOT design and safety standards. The new bridge alignment will be widened in its current location and tie into the existing roadway alignment. This alignment is recommended as it has the least amount of environmental impacts, provides a safer route for motorists, meets the needs of the project, and is cost effective. Since the Recommended Alternative would require the removal of the historic Little Payne Creek Bridge, an evaluation of visual effects, access and use, or noise and air effects is not warranted as the significant resource will be completely removed. Based on the proposed undertaking to replace the historic bridge, the findings presented here indicate that the proposed undertaking will have an **Adverse Effect** to the NRHP-eligible Little Payne Creek Bridge, Bridge No. 060034 (8HR00374).

5.3 Avoidance and Minimization Options

Avoidance and minimization options were considered as part of the PD&E Study to avoid impacts to the historic bridge; however, they were determined not to be viable alternatives. Due to the existing structure type (3-span continuous arch), the potential to widen or rehabilitate the bridge is very limited and would result in a substantial impact to the historic bridge, as the original design, proportions, and features of the bridge would be altered. This option would rehabilitate/reconstruct the existing Little Payne Creek Bridge to current FDOT safety and design standards, which would include lane widening, bridge widening, and the replacement of bridge railings. This option was ultimately dropped from further consideration during the PD&E Study since it was determined that it was not a feasible alternative. Although this could be considered a potential option to minimize harm to the historic bridge, it would also result in an adverse effect.

In addition, a No-Build Alternative is not considered the most prudent and feasible alternative as it would result in continued deterioration of the existing bridge. This option does not fulfill the Purpose and Needs of the subject undertaking. While it maintains the existing historic bridge, it does not address the long-term transportation needs of the local community and it does not address the physical deterioration, obsolescence, and safety concerns that the historic bridge presents.

6.0 COORDINATION

6.1 <u>Local Coordination</u>

As part of the public outreach for this project, kickoff notices were mailed out in the Summer of 2020 to property owners within 300-ft of the project area as well as to elected and appointed officials at the beginning of the study. These include the Wauchula Main Street Program, Hardee County Library, Fort Mead Historical Society, DeSoto County Historical Society, the Cracker Trail Museum, and the adjacent property owner, Mosaic. The newsletter was sent in both the English and Spanish and included the phone number and email of the FDOT Project Manager to call with any questions or comments from the public. The public notification will allow interested persons an opportunity to provide comments concerning the location, conceptual design, and environmental effects of the proposed bridge replacement/reconstruction within the study limits. See **Appendix E** for a copy of

the Spring of 2020 kickoff newsletter. Additional information regarding agency coordination efforts will be provided in this section following the public hearing process.

6.2 Public Hearing

An opportunity for a public hearing will be held for this PD&E Study in mid-2021. The hearing would be held to allow interested persons an opportunity to provide comments concerning the location, conceptual design, and social, economic, and environmental effects to replacing the bridge. The Section 106 Case Study Report will be on display at the public hearing along with the other PD&E Study documents. A second project newsletter will be distributed prior to the hearing. Information relating to the Section 106 process being undertaken for this project will be shown during the Public Hearing process. A third newsletter will be sent out in Fall of 2021 to announce the approval of the Study. Public involvement documentation will be contained in the appendix for the next submittal.

Thus far, responses received from the Summer of 2020 kickoff notice indicates that the Wauchula Main Street Program is interested in coordinating on preserving the history of Hardee County and has expressed interest in consulting on this project. However, it has been noted that Hardee County and the Wauchula Main Street Program do not have the ability or interest to maintain the bridge if left in place and a replacement built beside the old structure. The Hardee County Library, Fort Mead Historical Society, DeSoto County Historical Society, and the Cracker Trail Museum were contacted; none of which responded with interest in the project. In addition, the adjacent property owner, Mosaic stated they do not wish to take ownership or maintain the bridge (FDOT 2021).

7.0 CONCLUSIONS

The FDOT Office of Environmental Management (OEM) will apply the Criteria of Adverse Effects found in 36 CFR Part 800.5 to the historic property determined eligible for listing in the NRHP located within the APE. This document provides information for consultation with the SHPO and OEM. Based on the proposed undertaking to replace the historic bridge, the findings presented here indicate that the proposed undertaking will have an **Adverse Effect** to the NRHP-eligible Little Payne Creek Bridge, Bridge No. 060034 (8HR00374).

7.1 Continued Coordination

Following the PD&E Study, mitigation measures will be required. Mitigation options currently being discussed include a historic marker and documentation of the bridge's history. A Historic American Engineering Record (HAER) documentation was requested by the SHPO if no reasonable/prudent alternative is found. The FDOT will continue to work with the local stakeholders, including the Main Street Program and the Wauchula Main Street Program, to refine mitigation options during PD&E and design. The FDOT will also continue coordination with the SHPO to ensure that a sensitive and appropriate mitigation treatment plan is developed.

8.0 REFERENCES CITED

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- 2020 Cultural Resource Assessment Survey, County Road (CR) 664 Bridge over Little Payne Creek (Bridge No. 060034), Hardee County, Florida; FPID No.: 435830-1-21-01. ACI, Sarasota. MS #27276.

Enterprise Florida, Inc.

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Parsons, Timothy

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United States Geographic Survey (USGS)

2018 Bowling Green, Fla. US TOPO.

APPENDIX A Relevant SHPO Correspondence



RON DESANTIS GOVERNOR 801 North Broadway Avenue Bartow, FL 33830 KEVIN J. THIBAULT, P.E. SECRETARY

September 3, 2020

Dr. Timothy Parsons, Director Florida Division of Historical Resources Department of State, R.A. Gray Building 500 South Bronough Street Tallahassee, FL 32399-0250

Attn: Transportation Compliance Review Program

RE: Cultural Resource Assessment Survey

Project Development and Environment (PD&E) Study

County Road (CR) 664 Bridge over Little Payne Creek (Bridge No. 060034)

Polk County, Florida FPID No.: 435830-1-21-01

Dear Dr. Parsons:

A Cultural Resource Assessment Survey (CRAS) was performed within the area of potential effect (APE) on behalf of the Florida Department of Transportation (FDOT), District One, who is conducting a Project Development and Environment (PD&E) Study to evaluate proposed improvements to County Road (CR) 664 Bridge over Little Payne Creek, in Hardee County, Florida. This project involves the potential reconstruction/replacement of CR 664 Bridge No. 060034 to address structural integrity within unincorporated Hardee County, approximately 1.6 miles west of US 17 and the City of Bowling Green. Two alternatives will be evaluated for reconstruction/replacement; one alternative involves replacing the bridge entirely and the second alternative proposes to re-align the road and construct a new bridge, leaving the old bridge in place. The total length of the bridge is 96-feet (ft); however, the total length of this project is roughly 490 ft (approximately 120-ft west of the bridge to approximately 275-ft east of the bridge) to accommodate for any adjustments that may need to be made to the bridge approaches.

Based on the scale and nature of the activities, the project has a limited potential for any indirect (visual or audible) or cumulative effects outside the immediate footprint of construction. Therefore, because of the project type and location of the proposed work, the archaeological and historical APE are limited to the footprint of proposed activities within the existing boundaries of the project.

This CRAS was conducted in accordance with the requirements set forth in the National Historic Preservation Act of 1966 (as amended), which are implemented by the procedures contained in 36 CFR, Part 800, as well as the provisions contained in the revised Chapter 267, *Florida Statutes*. The investigations were carried out in accordance with Part 2, Chapter 8 (Archaeological and Historical Resources) of the FDOT's PD&E Manual, FDOT's Cultural Resources Manual, and the standards contained in the Florida Division of Historical Resources (FDHR) Cultural Resource Management Standards and Operations Manual (FDHR 2003). In

www.fdot.gov

DRAPIT DIMPHORPITORAFT DRAFT D

CR 664 Bridge over Little Payne Creek, Polk County September 2, 2020 Page 2 of 3

addition, this survey meets the specifications set forth in Chapter 1A-46, Florida Administrative Code.

Archaeological background research indicated that no archaeological sites have been recorded within the APE, but one (8HR00047) has been recorded proximate to the bridge. It was classified as a low-density artifact scatter. Based on a review of the relevant site information for environmentally similar areas within Hardee County and the surrounding region, the uplands adjacent to the Little Payne Creek floodplain were considered to have a high archaeological potential. As a result of the archaeological field investigations, consisting of surface reconnaissance and subsurface testing, no historic or prehistoric archaeological sites were found and no evidence of 8HR00047 was found to extend into the APE.

Historic background research indicated that one historic resource (8HR00374) was previously recorded within the APE. The Little Payne Creek Bridge, Bridge No. 060034 (8HR00374), is a three-span reinforced concrete arch deck bridge that was constructed in circa (ca.) 1915. The bridge was first recorded in 1989 as part of the Historic Highway Bridges of Florida survey (Survey No. 3801). The bridge was determined eligible for listing in the NRHP by the State Historic Preservation Officer (SHPO) in 2009. The bridge is significant under Criterion C in the area of Engineering as an early example of a reinforced concrete arch deck bridge in Florida and for its historic association with the prominent Luten Bridge Company. The historical/architectural field survey resulted in the re-evaluation of 8HR00374 within the APE. The Little Payne Creek Bridge is a 96-foot, single-lane, three span reinforced concrete arch deck bridge that was constructed in ca. 1915 by the Luten Bridge Company. The superstructure consists of decorative cast-in recessed panel railings and the substructure is comprised of three solid concrete arches with cantilevered floor beams that support the deck. These are typical design characteristics found on Luten bridges. The bridge remains NRHP-eligible under Criterion C in the area of Engineering as an example of Florida's earliest arch deck reinforced concrete bridges and it retains historical significance for its association with the prominent Luten Bridge Company. In addition, the bridge appears NRHP-eligible under Criterion A in the area of Transportation as a means to connect Bowling Green to Fort Green during improvement efforts undertaken throughout the county to further develop transportation routes.

Based on the results of the background research and field survey, no archaeological sites that are listed, determined eligible, or that appear potentially eligible for listing in the NRHP were located within the APE. However, the Little Payne Creek Bridge; Bridge No. 060034 (8HR00374) located within the APE, remains eligible for listing in the NRHP under Criterion C in the area of Engineering and appears NRHP-eligible under Criterion A in the area of Transportation. Considering the proposed replacement of the historic bridge, it is the professional opinion of ACI that the proposed undertaking will have an adverse effect to NRHP property. Based on the findings of this survey, a Section 106 Case Study Report is anticipated following concurrence from the SHPO.

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CR 664 Bridge over Little Payne Creek, Polk County

September 2, 2020

Page 3 of 3

The CRAS Report is provided for your review and comment. If you have any questions, please do not hesitate to call me at 863.519.2495 or Jonathon.Bennett@dot.state.fl.us.

Smathon A. Bennett

Jonathon Bennett

Environmental Project Manager

Enclosures: One original copy of the CRAS (September 2020); One Original FMSF Form, One

Completed Survey Log

CC: Marion Almy, ACI

The Florida State Historic Preservation Officer (SHPO) finds	
Assessment Survey Report complete and sufficient and	concurs/ does not
concur with the recommendations and findings provided in the	is cover letter for SHPO/FDHR
concur with the recommendations and findings provided in the Project File Number <u>2020–1688–B</u> . Or, the SHPO find	s the attached document contains
insufficient information.	
mournerent information.	
SHPO Comments:	
We concur that the proposed project will have an adverse effect	on the NPUP Eligible
8HR00374 - Little Payne Creek Bridge and that a Section 106 Ca	
Our office looks forward to continued consultation for this project	•
Jason Aldridge DSHPO	October 1, 2020
Dr. Timothy Parsons, Director	Date
State Historic Preservation Officer	Duic
Florida Division of Historical Resources	

APPENDIX B 2018 Bridge Inspection Report



BRIDGE INSPECTION REPORT

PREPARED FOR: FLORIDA DEPARTMENT OF TRANSPORTATION

BRIDGE OWNER: HARDEE COUNTY

ICA

INSPECTED BY:

KCA

BRIDGE NO. 060034

CONTENTS OF REPORT

U/W Inspection Report

INSPECTION DATE:

02/28/2018

BrM Report

CIDR

* Fracture Critical Data

Scour Elevation (Profile)

* Load Rating Analysis Summary

Addendum (Element Notes & Photos/Sketches)

*This section is not included in this report.



CR-664 over Little Payne Creek

1.6 Miles West of US-17



FLORIDA DEPARTMENT OF TRANSPORTATION

DRAFT Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

BY: Kisinger Campo & Associates STRUCTURE NAME: CR-664 OVER LITTLE PAYNE

CREEK

INSPECTION DATE: 2/28/2018 YIPJ

OWNER: 2 County Hwy Agency YEAR BUILT: 1915

MAINTAINED BY: 2 County Hwy Agency SECTION NO.: 06 520 000

STRUCTURE TYPE: 1 Reinforced Concrete - 11 Arch-Deck MP: 6.468 LOCATION: 1.6 MI W OF US-17 ROUTE: 00664

SERV. TYPE ON: 1 Highway FACILITY CARRIED: CR-664

SERV. TYPE UNDER: 5 Waterway FEATURE INTERSECTED: LITTLE PAYNE CREEK

Structures Maintervance

FUNCTIONALLY OBSOLETE

X STRUCTURALLY DEFICIENT

TYPE OF INSPECTION:

Regular NBI

DATE FIELD INSPECTION WAS PERFORMED: ABOVE WATER: 2/28/2018 UNDERWATER: 3/13/2018

SUFFICIENCY RATING: 60.5

HEALTH INDEX: 54.87

This report contains information relating to the physical security of a structure and depictions of the structure. This information is confidential and exempt from public inspection pursuant to sections 119.071(3)(a) and 119.071(3)(b), Florida Statutes. Only the cover page of this report may be inspected and copied.

REPORT ID: INSP005 PRINTED: 04/06/2018

BRIDGE MANAGEMENT SYSTEM

Inspection/CIDR Report

DRAFT DRAFT

DISTRICT: D1 - Bartow	INSP	ECTION DATE: 2/28/2018 YIPJ
BY: Kisinger Campo & Associa		CR-664 OVER LITTLE PAYNE
OWNER: 2 County Hwy Agency		CREEK
MAINTAINED BY: 2 County Hwy Agency		1915 06 520 000
STRUCTURE TYPE: 1 Reinforced Concrete - 11		6.468
LOCATION: 1.6 MI W OF US-17		00664
SERV. TYPE ON: 1 Highway	FACILITY CARRIED:	CR-664
SERV. TYPE UNDER: 5 Waterway	FEATURE INTERSECTED:	
THIS BRIDGE CONTAINS FRACTURE CRITICAL	COMPONENTS	
X THIS BRIDGE IS SCOUR CRITICAL		
THIS REPORT IDENTIFIES DEFICIENCIES WHICH	H REQUIRE PROMPT CORRECTIVE ACTION	
FUNCTIONALLY OBSOLETE	X STRUCTURALLY DEFICIENT	
TYPE OF INSPECTION: Regular NBI		
	OVE WATER: 2/28/2018 UNDERWATER:	3/13/2018
OVERALL NBI RATINGS:		
DECK: N N/A (NBI)	CHANNEL: 3 Bank Prot Failed	
SUPERSTRUCTURE: 4 Poor	CULVERT: N N/A (NBI)	
SUBSTRUCTURE: 4 Poor	SUFF. RATING: 60.5	
PERF. RATING: 4 - Poor	HEALTH INDEX: 54.87	
FIELD PERSONNEL / TITLE / NUMBER:		INITIALS
Renfro, Kenneth - Bridge Inspector (CBI#00395) (lead)	DECEIVED	KPR
Henry, Aaron - BI Technician	RECEIVED	
Hoogland, Keith - Bridge Inspector (CBI #00341) - Lead	Diver	
Goldman, Derek - Diver	APR 12 2018	-
Fescina, Michael - Diver	AFR 12 2010	-
	District 7	
REVIEWING BRIDGE INSPECTION SUPERVISOR:	Structures Maintenance	
Rothman, David - Bridge Inspector (CBI #00056)	Silusial os Maria	· ·
CONFIRMING REGISTERED PROFESSIONAL ENGIN	EER:	- 4
Cochran, Robert - (PE #45177) Kisinger Campo & Asso 9270 Bay Plaza Boulevard Certificate of Authorization #2317 Tampa FL 33619		
SIGNATURE:	No. 45477 (32)	
DATE:	04/20/18:0=	
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	"Illumini"	

This report contains information relating to the physical security of a structure and depictions of the structure. This information is confidential and exempt from public inspection pursuant to sections 119.071(3)(a) and 119.071(3)(b). Florida Statutes. Only the cover page of this report may be inspected and copied.

REPORT ID: INSP005 PRINTED: 04/06/2018





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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

INSPECTION DATE: 2/28/2018 YIPJ

All Elements

MISCELLANEOUS: Channel

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty
0	8290/3	Channel	0		0		0		1	100	1 (EA)
0	9120/3	Degradation	0		0		0	No.	1	100	1 (EA)

Element Inspection Notes:

8290/3

Note: This structure is considered Scour Critical. SIA Item 113 is coded a 3 SC - Unstable. Refer to Table 1 for the channel offset measurements with this report.

Phase IV Scour Recommendation:

The Plan of Action recommends monitoring of the structure during routine bridge inspections as well as during and after major storm events. If the scour critical elevation of +71.0ft. NGVD (8ft.) from the top of barrier wall (+79.0ft. NGVD) to channel bottom at Pier 3 is reached, the owner will evaluate bridge safety and decide if closure is necessary.

CS4 9120 = The west face of Pier 3 footer is exposed up to 12ft. long x 4ft. high, with an area of undermining to the footer up to 7ft. long x 4in. high x 3.6ft. penetration starting from the north end, due to degradation/scour - INCREASE. Refer to Element 220 for related comments. REPAIR (1EA)

The 4.3ft. difference for the Pier 2 right channel measurement (downstream) is due to the back side of the pier/channel bank edge starting to scour - NEW. Refer to photo 1.

The channel has a greater than a 30 degree angle of attack flowing into north face of Pier 3 and flows through Span $2\,$ - NEW. Refer to photo 2. REPAIR

There are vegetation islands with rooted trees along both sides of Pier 3 up to 17ft. \times 8ft. \times 6ft. which is affecting the flow. Refer to photo 3. REPAIR

The following was noted by the underwater divers: There is drift and debris throughout the channel - NEW.

9120/3 Refer to Parent Element

MISCELLANEOUS: Other Elements

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty
	8475 / 3	R/Conc Walls	7	21.88	20	62.5	5	15.63	0	14	32 ft
0	1080 / 3	Delamination/Spall/Patched Area	0		5	50	5	50	0		10 ft
0	1130/3	Cracking (RC and Other)	0	1	10	100	0	-	0	14	10 ft
0	1190/3	Abrasion(PSC/RC)	0	,	5	100	0		0	1.1	5 ft

Element Inspection Notes:

8475/3

CS2 1130 = There are intermittent transverse cracks up to 1/16in. wide in the top face of the wingwalls. (10FT)

CS2 1190 = The northeast and southeast wingwalls have light scale damage less than 1/4in. deep. (5FT)

CS2 1080 = There are delaminations up to 1ft. long x 3in. wide intermittently throughout the wingwalls. (5FT)

CS3 1080 = There are spalls up to 1ft. x 7in. x 2in. intermittently throughout. Refer to

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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

INSPECTION DATE: 2/28/2018 YIPJ

photo 4. (5FT)

1080/3 Refer to Parent Element

1130/3 Refer to Parent Element

1190/3 Refer to Parent Element

SUBSTRUCTURE: Substructure

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty
)	220/3	Re Conc Pile Cap/Ftg	0		17	48.57	6	17.14	12	34.29	35 ft
0	4000/3	Settlement	0		0	1	6	100	0		6 ft
0	6000/3	Scour	0		17	58.62	0		12	41.38	29 ft

Element Inspection Notes:

220/3

Note: The stream is directed towards the north face of Pier 3 and then to the east face of Pier 2. Refer to Element 8290 Channel for related comments.

CS2 6000 = Pier 2 is exposed up to 3ft. deep along the east face - INCREASE. (17FT)

CS4 6000 = Pier 3 footer is exposed on the west face up to 12ft. long x 3.6ft. high and up to 8ft. x 2ft. on the east face. Refer to photo 5. INCREASE REPAIR (12FT)

CS3 4000 = Pier 3 footer appears to be settling at the north end, as the water line measurements reflect up to a 4in. difference in elevation using the the barrier as a datum point - NEW. Refer to photo 6. (6FT)

Pier 3 footer has a 7in. x 7in. x 3in. spall in the northwest corner.

The footers have scale damage up to 2ft. x full width x 1/2in. deep.

The following was noted by the underwater divers: Pier 3 Footer: West side, starting at north end, undermined, 7ft. x 4in. x 3ft. 6in. of penetration - NEW. Refer to sketch 1. REPAIR (See deficiency above)

Top of footer to groundline measurements:

Footer 2

2018

NE - Buried

East (center) - 34in.

SE - 31in.

Footer 3

2018

NW - 34in.

West (Center) - 3ft. 7in.

SW - 24in.

Top of Footer 3 is irregular.

4000/3 Refer to Parent Element

6000/3 Refer to Parent Element





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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

INSPECTION DATE: 2/28/2018 YIPJ

SUPERSTRUCTURE: Superstru	ucture	
---------------------------	--------	--

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty
	144/3	Re Conc Arch	0		0		54	100	0		54 ft
0	1080 / 3	Delamination/Spall/Patched Area	0	+	0		27	100	0		27 ft
0	1090 / 3	Exposed Rebar	0		0		1	100	0		1 ft
0	1130/3	Cracking (RC and Other)	0		0		26	100	0		26 ft

Element Inspection Notes:

144/3

Note: This is a closed filled spandrel arches. No plans are available. Total quantity is the combined width (not length) of the arches.

The arches have intermittent scale damage up to 3/4in. and honeycomb up to 1in.

CS3 1130 = The arches have intermittent cracks up to 1/4in. wide. (4FT)

CS3 1130 = Arch 1 left edge underside has a diagonal/transverse crack, 5ft. from Pier 2, extending southwest 18ft. long x up to 1/4in. wide and a 10ft. long x up to 1/8in. wide longitudinal crack, propagating 6ft. from the left edge. A grout coating has been applied to these cracks. (15FT)

Arch 1 left spandrel wall has a 2ft. long \times 10in. wide delamination near Pier 2. This was not observed during this inspection.

CS3 1080 = Arch 1 underside has five spalls up to 1ft. 6in. x 5in. x 3/4in. with exposed steel in the western half of the arch. The exposed steel was coated with ZRC at the time of inspection. REPAIR (6FT)

Arch 1 underside has a 5in. x 4in. x 3in. void at the 2/3rd point.

CS3 1080 = Arch 1 right edge, underside and spandrel wall has intermittent spalls up to 10ft. 6in. \times 8in. \times 1-1/2in. with exposed steel with intermittent area along the outer rib with up to 100% section loss. A light grout coating has been applied; however, the steel is still exposed. The inspector coated the exposed steel with ZRC at the time of inspection. Refer to photo 7. REPAIR (11FT)

CS3 1080 = Arch 2 underside mid-span near the right edge has two spalls up to 6in. diameter x 1/2in. with exposed flat strap steel. There are also intermittent areas of exposed steel due to lack of cover throughout. All exposed steel was coated with ZRC. REPAIR (2FT)

CS3 1080 = Arch 2 right edge has intermittent spalls up to $10in. \times 5in. \times 1in.$ throughout and the underside has two $9in. \times 1in. \times 5in.$ deep voids. (5FT)

CS3 1130 = Arch 2 left spandrel wall/underside, starting two feet from Pier 2, has a transverse crack, with spalling up to 8in. x 3in. x 2in., extending east 7ft. long x up to 1/2in. wide and an associated 1/16in. wide multi-directional crack, extending to the midpoint of the arch and back towards Pier 2. A light grout coating has been applied to these cracks - INCREASE. Refer to photo 8. REPAIR (7FT)

CS3 1090 = Arch 3 left spandrel wall, 2ft. from Pier 3, has a 10in. x 10in. x 6in. spall with exposed steel with 30% section remaining. The steel was coated at the time of inspection with ZRC. REPAIR (1FT)

The left arch in Span 3 has a crack up to 1/8in. wide emitting from the above noted spall and extending up to 8ft. in length - NEW. Refer to photo 9. REPAIR

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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM Inspection/CIDR Report

Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

INSPECTION DATE: 2/28/2018 YIPJ

CS3 1080 = Arch 3 underside near mid-span at the centerline has two spalls up to $20in. \times 6in. \times 1-1/2in.$ with exposed steel.

CS3 1080 = The steel was coated with ZRC at the time of inspection. REPAIR (3FT)

There is a 10ft. long x 1/16in. wide longitudinal crack, extends from the spall in Arch 3 underside near mid-span.

1080/3 Refer to Parent Element

1090/3 Refer to Parent Element

1130/3 Refer to Parent Element

SUPERSTRUCTURE: Superstructure

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty
0	331/3	Re Conc Bridge Railing	112	58.33	50	26.04	30	15.63	0	1	192 ft
0	1080 / 3	Delamination/Spall/Patched Area	0		0		20	100	0		20 ft
0	1130/3	Cracking (RC and Other)	0	1 .	50	83.33	10	16.67	0		60 ft

Element Inspection Notes:

331/3

CS2 1130 = The top face of both bridge rails have intermittent transverse and vertical cracks up to 1/8in. wide intermittently throughout.(50FT)

CS3 1130 = The bottom outside left face of the arch and bridge rail in Span 3 has a crack up to 10ft. long x 1/4in. wide - NEW. Refer to photo 10. REPAIR (10FT)

CS3 1080 = Both bridge rails have intermittent spalls/delaminations up to 10ft. \times 8in. \times 3/4in. with exposed rebar in the top and outside faces throughout. Refer to photo 11. (20FT)

1080/3 Refer to Parent Element

1130/3 Refer to Parent Element

Total Number of Elements*: 5 *excluding defects/protective systems

Structure Notes

BRIDGE OWNER: HARDEE COUNTY

Structure inventoried from west to east.

TRAFFIC RESTRICTION: According to the load rating analysis dated 04/11/14, posting is not required. This structure is not posted.

This bridge is Scour Critical. SIA Item 113 is coded a 3 SC-Unstable. Refer to Table 1 for the 100ft. channel offset measurements.

This structure is on a 6 month inspection frequency due to the NBI rating for SIA Item 61 Channel being coded a 3.

This structure is on a 12 month inspection frequency due to the NBI rating for SIA Item 59 Superstructure and SIA Item 60 Substructure each being coded a 4.

This report contains information relating to the physical security of a structure and depictions of the structure. This information is confidential and exempt from public inspection pursuant to sections 119.071(3)(a) and 119.071(3)(b), Florida Statutes. Only the cover page of this report may be inspected and copied.

REPORT ID: INSP005 PRINTED: 04/06/2018





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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

INSPECTION DATE: 2/28/2018 YIPJ

INSPECTION NOTES:

YIPJ

2/28/2018

LOAD CAPACITY EVALUATION:

The findings of this inspection reveal the Scour Critical Elevation, as established in the Scour Evaluation report dated 02/27/03, has been exceeded by 3.7ft. at Pier 3, Lt. as well as other critical deficiencies noted in this report. It is recommended the structure be closed to all traffic until permanent repairs are made and a structural evaluation is performed.

An underwater inspection was performed due to the findings during the 2018 routine inspection of increased scour on the west side of Pier 3. Refer to Elements 8290 and 220 for related comments.

A email was sent to DBI requesting a bench mark to be established to monitor the structure, through the means of surveyors. This is due to the signs of suspected settlement. Refer to Element 220 for related comments.

The NBI rating for SIA Item 61 Channel was changed from a 5-Bank Prot Eroded to a 3-Bank Prot Failed during this inspection due to the scour noted at Pier 3 spread footer.

NON-STRUCTURAL ITEMS:

APPROACH ROADWAYS:

The asphalt surfacing over the structure has numerous intermittent longitudinal cracks up to 21ft. long x 1/4in. wide throughout.

The top of the bridge has heavy vegetation along the barriers - NEW. Refer to photo 12. REMOVE

APPROACH GUARDRAILS:

The guardrail end terminal has sustained impact at the southwest corner, resulting in one broken post and damage to a 12ft. panel. Refer to photo 13. REPAIR

OBJECT MARKERS:

The Type III marker at the northeast, southeast and southwest corners have bullet damage - NEW. Refer to photo 14. REPAIR

Sufficiency Rating Calculation Accepted by KNKCARX at 4/6/2018 8:40:33 AM

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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM Inspection/CIDR Report

Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

INSPECTION DATE: 2/28/2018 YIPJ



Photo 1- Element 8290 Channel

Difference in channel profile right at Pier 2 (downstream)

REPAIR RECOMMENDATION:





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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow



Photo 2 - Element 8290 Channel

Channel flow of attack on the substructure grater than 30 degrees

REPAIR RECOMMENDATION: Regrade and realign channel.

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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

INSPECTION DATE: 2/28/2018 YIPJ



Photo 3 - Element 8290 Channel

Vegetation island in the south channel at Pier 3

REPAIR RECOMMENDATION: Refer to photo 2.

This report contains information relating to the physical security of a structure and depictions of the structure. This information is confidential and exempt from public inspection pursuant to sections 119.07 (3)(a) and 119.07 (3)(b), Florida Statutes. Only the cover page of this report may be inspected and copied.

REPORT ID: INSP005 PRINTED: 04/06/2018





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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

INSPECTION DATE: 2/28/2018 YIPJ



Photo 4 - Element 8475 R/Conc Walls

Typical spall in the northwest wingwall

REPAIR RECOMMENDATION: None

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INSPECTION DATE: 2/28/2018 YIPJ

FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow



Photo 5 - Element 220 Re Conc Pile Cap/Ftg

Pier 3 footer unlevel and exposed on the west side with undermining

REPAIR RECOMMENDATION:

Install recommended scour countermeasures and establish a benchmark to monitor if settlement is increasing.





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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

INSPECTION DATE: 2/28/2018 YIPJ



Photo 6 - Element 220 Re Conc Pile Cap/Ftg

Pier 3 appears to have settled at the north end (left side)

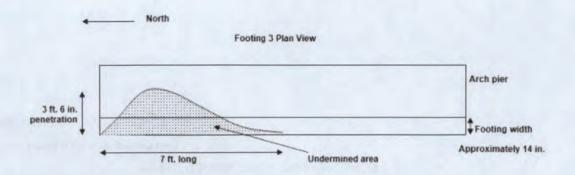
REPAIR RECOMMENDATION: Refer to photo 5.

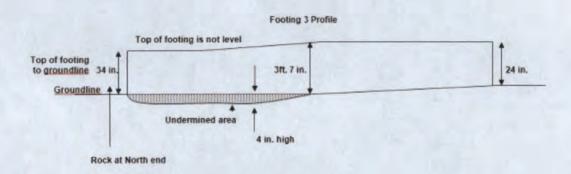
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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

INSPECTION DATE: 2/28/2018 YIPJ





Not to Scale

Sketch 1 - Element 220 Re Conc Pile Cap/Ftg

Footer 3 undermining

WORK ORDER RECOMMENDATION: Refer to photo 5.





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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

STRICT: D1 - Bartow INSPECTION DATE: 2/28/2018 YIPJ



Photo 7 - Element 144 Re Conc Arch

Spall with exposed steel sprayed with ZRC in the right edge of Arch 1

REPAIR RECOMMENDATION:

Repair all spalls with exposed steel in the arches.

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INSPECTION DATE: 2/28/2018 YIPJ

FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM Inspection/CIDR Report

Inspection/CIDR Report

Structure ID: 060034 DISTRICT: D1 - Bartow

Photo 8 - Element 144 Re Conc Arch

Spall with associated crack in Arch 2

REPAIR RECOMMENDATION: Repair spall and crack along the left side of Arch 2.

This report costains information relating to the physical security of a structure and depictions of the structure. This information is confidential and exempt from public inspection pursuant to sections 119.071(3)(a) and 119.071(3)(b). Florida Statutes. Only the cover page of this report may be hispected and copied.

REPORT ID: INSP005





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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

INSPECTION DATE: 2/28/2018 YIPJ



Photo 9 - Element 144 Re Conc Arch

Crack in the left side of Arch 3

REPAIR RECOMMENDATION: Seal crack in the left side of Arch 3

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INSPECTION DATE: 2/28/2018 YIPJ

FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM Inspection/CIDR Report

Inspection Report

Structure ID: 060034 DISTRICT: D1 - Bartow

Photo 10 - Element 331 Re Conc Bridge Railing

Crack in the bottom outside left face of Span 3

REPAIR RECOMMENDATION:
Repair crack in bottom outside left face of Span 3.

This report contains information relating to the physical security of a structure and depictions of the structure. This information is confidential and exempt from public inspection pursuant to sections 119.071(3)(a) and 119.071(3)(b), Florida Statutes. Only the cover page of this report may be inspected and copied.

REPORT ID: INSP005 PRINTED: 04/06/2018





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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM Inspection/CIDR Report

Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow



Photo 11 - Element 331 Re Conc Bridge Railing

Typical spall in the top of the bridge rails

REPAIR RECOMMENDATION: None

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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

INSPECTION DATE: 2/28/2018 YIPJ

Photo 12 - Inspection Notes

Heavy vegetation on top of structure along barrier

REPAIR RECOMMENDATION:
Remove vegetation on top of structure.

This report pontains information relating to the physical security of a structure and depictions of the structure. This information is confidential and exempt from public inspection pursuant to sections 119.071(3)(a) and 119.071(3)(b). Florida Statutes. Only the cover page of this report may be inspected and copied.

REPORT ID: INSP005 PRINTED: 04/06/2018





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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

INSPECTION DATE: 2/28/2018 YIPJ



Photo 13 - Inspection Notes

Southwest guardrail end terminal damage and broken post

REPAIR RECOMMENDATION:

Repair southwest guardrail end terminal, broken post and damaged 12ft. panel.

REPORT ID: INSP005 PRINTED: 04/06/2018

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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

Inspection/CIDR Report Inspection

Structure ID: 060034 DISTRICT: D1 - Bartow

INSPECTION DATE: 2/28/2018 YIPJ



Photo 14 - Inspection Notes

Typical bullet damage in object marker (southeast shown)

REPAIR RECOMMENDATION: Repair the object markers.





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FLORIDA DEPARTMENT OF TRANSPORTATION **BRIDGE MANAGEMENT SYSTEM**

REPORT ID: INSP005 Structure ID: 060034

Inspection/CIDR Report CIDR

DATE PRINTED: 4/6/2018

Description

Structure Unit Identification

Bridge/Unit Key: 060034 0

Structure Name: CR-664 OVER LITTLE PAYNE CREEK

Description: MAIN SPAN 1 Type: M - Main

Roadway Identification

NBI Structure No (8): 060034

Position/Prefix (5): 1 - Route On Structure

Kind Hwy (Rte Prefix): 4 County Hwy Design Level of Service: 1 Mainline

Route Number/Suffix: 00664 / 0 N/A (NBI)

Feature Intersect (6): LITTLE PAYNE CREEK

Critical Facility: Not Defense-crit

Facility Carried (7): CR-664 Mile Point (11): 6.468

Latitude (16): 027d38'11.8"

Long (17): 081d50'58.2"

Roadway Traffic and Accidents

Lanes (28): 1 Medians: 0

Speed: 25 mph

ADT Class: 2 ADT Class 2

Recent ADT (29): 500

Year (30): 2016 Year (115): 2038

Future ADT (114): 868 Truck % ADT (109): 5

Detour Length (19): 1 mi

Detour Speed: 25 mph Accident Count: -1

Rate: -1

Roadway Classification

Nat. Hwy Sys (104): 0 Not on NHS

National base Net (12): 0 - Not on Base Network

LRS Inventory Rte (13a): 06 520 000

Sub Rte (13b): 00

Functional Class (26): 07 Rural Mir Collector

On Federal Aid System: Yes

Defense Hwy (100): 0 Not a STRAHNET hwy Direction of Traffic (102): 3 1-lane Br for 2-way

Emergency:

Roadway Clearances

Vertical (10): 99.99 ft

Appr. Road (32): 16.7 ft

Horiz. (47): 16.1 ft

Truck Network (110): 0 Not part of natl netwo

NBI Project Data

Proposed Work (075A): 31 Repl-Load Capacity

Work To Be Done By (075B): 1 Contract

Improvement Length (076): 96.1 ft

Roadway (51): 16.1 ft

Toll Facility (20): 3 On free road Fed. Lands Hwy (105): 0 N/A (NBI)

School Bus Route: X

Transit Route:

NBI Rating

Channel (61): 3 Bank Prot Failed

Deck (58): N N/A (NBI)

Superstructure (59): 4 Poor

Substructure (60): 4 Poor

Improvement Cost (094): \$ 401,890.00

Roadway Improvement Cost (095): \$33,491.00

Total Cost (096): \$ 435,381.00

Year of Estimate (097): 2013

Culvert (62): N N/A (NBI)

Waterway (71): 7 Above Minimum

Unrepaired Spalls: -1 sq.ft.

Review Required: X

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DATE PRINTED: 4/6/2018

FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

REPORT ID: INSP005 Structure ID: 060034 Inspection/CIDR Report CIDR

Structure Identification

Admin Area: Heartland Regional
District (2): D1 - Bartow
County (3): (06)Hardee
Place Code (4): No city involved
Location (9): 1.6 MI W OF US-17

Border Br St/Reg (98): Not Applicable (P) Share: 0 %

Border Struct No (99):

FIPS State/Region (1): 12 Florida Region 4-Atlanta

NBIS Bridge Len (112): Y - Meets NBI Length

Parallel Structure (101): No || bridge exists

Temp. Structure (103): Not Applicable (P)

Maint. Resp. (21): 2 County Hwy Agency Owner (22): 2 County Hwy Agency

Historic Signif. (37): 3 Possibly eligible for

Structure Type and Material

Curb/Sidewalk (50): Left: 0 ft

Right: 0 ft

Bridge Median (33): 0 No median

Main Span Material (43A): 1 Reinforced Concrete

Appr Span Material (44A): Not Applicable (P)
Main Span Design (43B): 11 Arch-Deck

Appr Span Design (44B): 00 Other (NBI)

Appraisal

Structure Appraisal

Open/Posted/Closed (41): A Open, no restriction

Deck Geometry (68): 2 Intolerable - Replace

Underclearances (69): N Not applicable (NBI)

Underclearances (69): N Not applicable (NBI)
Approach Alignment (72): 5-Steady Brake/Downshift

Bridge Railings (36a): 0 Substandard

Transitions (36b): 1 Meets Standards

Approach Guardrail (36c): 1 Meets Standards Approach Guardrail Ends (36d): 1 Meets Standards

Scour Critical (113): 3 SC - Unstable

Minimum Vertical Clearance

Over Structure (53): 99.99 ft

Under (reference) (54a): N Feature not hwy or RR

Under (54b): 0 ft

Schedule

Current Inspection

Inspection Date: 02/28/2018

Inspector: KNKCARK - Kenneth Renfro

Bridge Group: E1N92

Alt. Bridge Group:

Primary Type: Regular NBI

Review Required: X

Geometrics

Spans in Main Unit (45): 3

Approach Spans (46): 0

Length of Max Span (48): 32.2 ft

Structure Length (49): 96.1 ft

Total Length: 96.1 ft

Deck Area: 0 sqft

Structure Flared (35): 0 No flare

Age and Service

Year Built (27): 1915

Year Reconstructed (106): 0

Type of Service On (42a): 1 Highway

Under (42b): 5 Waterway

Fracture Critical Details: Not Applicable

Deck Type and Material

Deck Width (52): 17.3 ft

Skew (34): 0 deg

Deck Type (107): N N/A (NBI)

Surface (108): N N/A (no deck (NBI))

Membrane: N N/A (no deck (NBI))

Deck Protection: N N/A (no deck (NBI))

Navigation Data

Navigation Control (38): Permit Not Required

Nav Vertical Clr (39): 0 ft

Nav Horizontal Clr (40): 0 ft

Min Vert Lift Clr (116): 0 ft

Pier Protection (111): Not Applicable (P)

NBI Condition Rating

Sufficiency Rating: 60.5

Health Index: 54.87

Structural Eval (67): 4 Minimum Tolerable

Deficiency: Structurally Deficient

Minimum Lateral Underclearance

Reference (55a): N Feature not hwy or RR

Right Side (55b): 0 ft

Left Side (56): 0 ft

Next Inspection Date Scheduled

NBI: 02/28/2020

Element: 08/28/2018

Fracture Critical:

Underwater: 07/13/2018

Other/Special: 08/28/2018





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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

REPORT ID: INSP005

Inspection/CIDR Report CIDR DATE PRINTED: 4/6/2018 Structure ID: 060034 Schedule Cont. Inspection Types NBI X Element X Fracture Critical Underwater X Other Special X Performed Inspection Intervals Required (92) Last Date (93) Inspection Resources Frequency (92) Fracture Critical Crew Hours: 8 mos 03/13/2018 Flagger Hours: 0 Underwater X 4 mos Helper Hours: 0 6 mos 02/28/2018 Other Special X NBI 24 mos (91) 02/28/2018 (90)Snooper Hours: 0 Special Crew Hours: 3 **Bridge Related** Special Equip Hours: 0 **General Bridge Information** Parallel Bridge Seq: Bridge Rail 1: Other Bridge Rail 2: Not applicable-No rail Channel Depth: 4.4 ft Electrical Devices: No electric service Radio Frequency: -1 Culvert Type: Cast-in-place conc arch Phone Number: Maintenance Yard: Not FDOT Maintained **Exception Date:** Exception Type: Unknown FIHS ON / OFF: No Routes on FIHS Accepted By Maint: 01/01/1915 Previous Structure: Warranty Expiration: 00/00/0000 2nd Previous Structure: Replacement Structure: Performance Rating: 4 - Poor Other Permitted Utilities: Power Water Gas Fiber Optic Sewage **Bridge Load Rating Information** Inventory Type (065): 1 LF Load Factor Inventory Rating (066): Operating Type (063): 1 LF Load Factor Operating Rating (064): Original Design Load (031): 0 Unknown FL120 Permit Rating: Date: 04/11/2014 HS20/FL120 Max Span Rating: Initials: SLC Dynamic Impact in Percent: 30 % Load Rating Rev. Recom.: Yes Governing Span Length: 30.6 ft Load Rating Plans Status: Field Measurements Minimum Span Length: Distribution Method: AASHTO formula Load Rating Notes: LEGAL LOADS POSTING SU2: -1.0 tons Recom. SU Posting: 99 tons Recom. C Posting: 99 tons SU3: -1.0 tons SU4: -1.0 tons Recom. ST5 Posting: 99 tons C3: -1.0 tons Actual SU Posting: 99 tons C4: -1.0 tons Actual C Posting: 99 tons C5: -1.0 tons Actual ST5 Posting: 99 tons ST5: -1.0 tons Actual Blanket Posting: 99 tons Posting (070): 5 At/Above Legal Loads Open/Posted/Closed (041): A Open, no restriction FLOOR BEAM (FB) FB Present: No SEGMENTAL (SEG) FB Span Length, Gov: 0.0 ft SEG Wing-Span: -1.0 ft FB Spacing, Gov: 0.0 ft SEG Web-to-Web Span: -1.0 ft FB OPR Rating: 0.0 tons SEG FL120 Transverse: -1.0 tons FB SU4 OPR Rating: 0.0 tons SEG Single Axle Transverse: -1.0 tons SEG Tandem Axle Transverse -1.0 tons FB FL120 Rating: 0.0 tons Bridge Scour and Storm Information Pile Driving Record: No pile driving records Scour Recommended I: Perform Phase II Foundation Type: Foundation details Scour Recommended II: Perform Phase III Mode of Flow: Riverine Scour Recommended III: Perform Phase IV

DRAFT DRAFT

Scour Elevation: 71 ft Action Elevation: 73 ft

Storm Frequency: 100

Rating Scour Eval: Scour Critical

Scour Evaluation Method:

Highest Scour Eval: Phase IV completed

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DATE PRINTED: 4/6/2018

FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

REPORT ID: INSP005

Inspection/CIDR Report

Structure ID: 060034 CIDR

Elements

Inspection Date: 02/28/2018 YIPJ

MISCELLANEOUS: Channel

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty
0	8290 / 3	Channel	0		0		0	**	1	100	1 (EA)
0	9120/3	Degradation	0		0		0	+	1	100	1 (EA)

MISCELLANEOUS: Other Elements

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty	
	8475 / 3	R/Conc Walls	7	21.88	20	62.5	5	15.63	0	+	32 ft	
0	1080 / 3	Delamination/Spall/Patched Area	0		5	50	5	50	0		10 ft	
0	1130/3	Cracking (RC and Other)	0		10	100	0		0		10 ft	
0	1190/3	Abrasion(PSC/RC)	0		5	100	0		0		5 ft	

SUBSTRUCTURE: Substructure

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty	
0	220 / 3	Re Conc Pile Cap/Ftg	0		17	48.57	6	17.14	12	34.29	35 ft	
0	4000/3	Settlement	0	9	0		6	100	0		6 ft	
0	6000/3	Scour	0	14	17	58.62	0		12	41.38	29 ft	

SUPERSTRUCTURE: Superstructure

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty
	144/3	Re Conc Arch	0	. 1	0		54	100			54 ft
0	1080 / 3	Delamination/Spall/Patched Area	0		0		27	100	0		27 ft
0	1090/3	Exposed Rebar	0	*	0	1	1	100	0		1 ft
0	1130/3	Cracking (RC and Other)	0	1	0		26	100	0	1	26 ft

SUPERSTRUCTURE: Superstructure

Str Unit	Elem/Env	Description	Qty1	%1	Qty2	%2	Qty3	%3	Qty4	%4	T Qty
0	331 / 3	Re Conc Bridge Railing	112	58.33	50	26.04	30	15.63	0		192 ft
0	1080/3	Delamination/Spall/Patched Area	0		0		20	100	0	1	20 ft
0	1130/3	Cracking (RC and Other)	0		50	83.33	10	16.67	0		60 ft

Total Number of Elements*: 5

Inspection Information

Inspection Date: 02/28/2018

Type: Regular NBI

Inspector: KNKCARK - Kenneth Renfro

^{*}excluding defects/protective systems





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DATE PRINTED: 4/6/2018

FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

REPORT ID: INSP005 Structure ID: 060034 Inspection/CIDR Report CIDR

Inspection Information

Inspection Notes:

LOAD CAPACITY EVALUATION:

The findings of this inspection reveal the Scour Critical Elevation, as established in the Scour Evaluation report dated 02/27/03, has been exceeded by 3.7ft. at Pier 3, Lt. as well as other critical deficiencies noted in this report. It is recommended the structure be closed to all traffic until permanent repairs are made and a structural evaluation is performed.

An underwater inspection was performed due to the findings during the 2018 routine inspection of increased scour on the west side of Pier 3. Refer to Elements 8290 and 220 for related comments.

A email was sent to DBI requesting a bench mark to be established to monitor the structure, through the means of surveyors. This is due to the signs of suspected settlement. Refer to Element 220 for related comments.

The NBI rating for SIA Item 61 Channel was changed from a 5-Bank Prot Eroded to a 3-Bank Prot Failed during this inspection due to the scour noted at Pier 3 spread footer.

NON-STRUCTURAL ITEMS:

APPROACH ROADWAYS:

The asphalt surfacing over the structure has numerous intermittent longitudinal cracks up to 21ft. long x 1/4in. wide throughout.

The top of the bridge has heavy vegetation along the barriers - NEW. Refer to photo 12. REMOVE

APPROACH GUARDRAILS:

The guardrail end terminal has sustained impact at the southwest corner, resulting in one broken post and damage to a 12ft. panel. Refer to photo 13. REPAIR

OBJECT MARKERS:

The Type III marker at the northeast, southeast and southwest corners have bullet damage - NEW. Refer to photo 14. REPAIR

Sufficiency Rating Calculation Accepted by KNKCARX at 4/6/2018 8:40:33 AM

Inspection Date:

02/07/2017

Type: Interim

Inspector: KNKCAMB - Brice McMinn

Inspection Notes:

LOAD CAPACITY EVALUATION:

The findings of this inspection reveal no reason to warrant a new analysis; therefore, the current load rating results still govern.

NON-STRUCTURAL ITEMS:

GRAFFITI:

There is graffiti on the wingwalls and bridge rails, which is visible to the general public. REMOVE

ASPHALT SURFACING:

The asphalt surfacing over the structure has numerous intermittent longitudinal cracks up to 21ft. long x 1/4in. wide throughout.

APPROACH GUARDRAILS:

The guardrail end terminal has sustained impact at the southwest corner, resulting in one broken post and damage to a 12ft.

panel. REPAIR

This is a 12 month Interim Inspection. Only Elements 144 Re Conc Arch and 220 Re Conc Sub Pile Cap/Ftg are included in this report. For all other element comments, refer to the last routine inspection report dated 02/17/2016.

Sufficiency Rating Calculation Accepted by KNKCADG at 3/11/2017 8:26:01 AM

Inspection Date:

02/17/2016

Type: Regular NBI

Inspector: KNKCAWR - Randall Whaley

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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

REPORT ID: INSP005 Structure ID: 060034

Inspection/CIDR Report CIDR

DATE PRINTED: 4/6/2018

Inspection Information

Inspection Notes: Sufficiency Rating Calculation Accepted by KNKCADG-P at 2016-03-28 15:03:14

LOAD CAPACITY EVALUATION:

The findings of this inspection reveal no reason to warrant a new analysis; therefore, the current load rating results still govern.

NON-STRUCTURAL ITEMS:

GRAFFITI:

There is graffiti on the wingwalls and bridge rails, which is visible to the general public - INCREASE. Refer to photo 11. REMOVE

The asphalt surfacing over the structure has numerous intermittent longitudinal cracks up to 20ft. long x 1/4in, wide throughout.

APPROACH GUARDRAILS:

The guardrail end terminal has sustained impact at the southwest corner, resulting in one broken post and damage to a 12ft.

panel. Refer to photo 12. REPAIR

The water depth at the channel was 5.6ft. deep. However, supports have less than 3ft. water depth. Therefore, an underwater

inspection was not required at this time.

Inspection Date:

02/27/2015

Type: Interim

Inspector: KNKCABA - Michael Betz

Inspection Notes:

Sufficiency Rating Calculation Accepted by KNKCADG-P at 2015-04-03 14:57:34

LOAD CAPACITY EVALUATION:

The findings of this inspection reveal no reason to warrant a new analysis; therefore, the current load rating results still govern.

NON-STRUCTURAL ITEMS:

The asphalt surfacing over the structure has numerous intermittent longitudinal cracks up to 20ft. long x 1/4in. wide throughout.

APPROACH GUARDRAILS:

The end terminal has sustained impact at the southwest corner resulting in one broken post and damage to one 12ft. panel - NEW.

There is graffiti on the wingwalls, which is not visible to the general public. No repair recommendation will be made at this time.

This is a 12 month Interim inspection. Only Elements 144 R/Conc Arch, 220 R/C Sub Cap/Ftg and 361 Scour Smart Flag are

included in this report. For all other element comments, refer to the routine inspection report dated 2/27/14.

Inspection Date:

02/27/2014

Type: Regular NBI

Inspector: INACTIVE1543 - Stephen Morris

Inspection Notes:

Sufficiency Rating Calculation Accepted by knicana-P at 2014-09-06 16:11:51 Sufficiency Rating Calculation Accepted by knicasm-P at 2014-03-12 10:36:31

LOAD CAPACITY EVALUATION:

The load rating dated 4/8/85 applies to the current condition of this bridge.

NON-STRUCTURAL ITEMS:

GRAFFITI

There is graffiti on the wingwalls which is not visible to the general public. No repair recommendation will be issued for this

condition.

SURFACING:

The asphalt surfacing over the structure has numerous intermittent longitudinal cracks up to 20ft. long x 1/4in. wide throughout.

APPROACH GUARDRAIL:

The end terminal has sustained impact at the southwest corner resulting in one broken post and damage to one 12ft. panel - NEW.

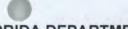
Refer to Photo 11. REPAIR

Inspection Date:

02/20/2013

Type: Interim

Inspector: INACTIVE1223 - William Ryan





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FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

REPORT ID: INSP005 Structure ID: 060034 Inspection/CIDR Report CIDR

DATE PRINTED: 4/6/2018

Inspection Information

Inspection Notes: Sufficiency Rating Calculation Accepted by knicawr-P at 2013-03-12 17:11:21

LOAD CAPACITY EVALUATION:

The load rating dated 4/8/85 applies to the current condition of this bridge.

This is a Interim 12 month Inspection. Only Elements 144/3 R/Conc Arch, 220/3 R/C Sub Cap/Ftg and 361/3 Scour Smart Flag

are included. For all other element comments refer to the last routine inspection report dated 2-2-12.

NOTE: Element 241/3 Concrete Culvert was removed and Element 144/3 R/Conc Arch was created during this current interim

inspection.

Inspection Date:

02/02/2012

Type: Regular NBI

Inspector: INACTIVE1343 - Clayton St.Clair

Inspection Notes: Sufficiency Rating Calculation Accepted by knicacs-P at 2012-02-21 08:15:57

LOAD CAPACITY EVALUATION:

The load rating dated 4/8/85 applies to the current condition of this bridge.

NON-STRUCTURAL ITEMS:

GRAFFITI:

There is graffiti on the wingwalls which is not visible to the general public. No repair recommendation will be issued for this

condition.

SURFACING:

The asphalt surfacing over the structure has numerous intermittent longitudinal cracks up to 20ft. long x 1/4in. wide throughout.

Inspection Date:

08/31/2011

Type: Interim

Inspector: INACTIVE1343 - Clayton St.Clair

Inspection Notes:

Sufficiency Rating Calculation Accepted by knicacs-P at 2011-09-29 13:50:49

LOAD CAPACITY EVALUATION:

The load rating dated 4/8/85 applies to the current condition of this bridge.

This is a Interim (6 month) Inspection. Only Elements 241 Concrete Culvert and 220 R/C Sub Cap/Ftg are included. For all other

element comments refer to the last routine inspection report dated 2-24-11.

Inspection Date:

02/24/2011

Type: Regular NBI

Inspector: KNICADQ - Dion Qualls

Page 30 of 33

FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

REPORT ID: INSP005 Structure ID: 060034

Inspection/CIDR Report CIDR

DATE PRINTED: 4/6/2018

Inspection Information

Inspection Notes:

Sufficiency Rating Calculation Accepted by knicavg-P at 2011-04-20 13:36:16

LOAD CAPACITY EVALUATION:

The load rating dated 4/8/85 applies to the current condition of this bridge.

NBIS Superstructure (59) and Substructure (60) rating have been lowered from 5 to 4 which more accurately reflects the condition of the structure.

Structure has been placed on a six month frequency inspection for Elements 220/3 R/C Sub Pile Cap/Ftg to monitor Pier 3 Footer exposure and 241/3 Concrete Culvert to monitor the cracking the north face of spandrel walls and arches.

NON-STRUCTURAL ITEMS:

GRAFFITI:

There is non-vulgar graffiti on the wingwalls visible to the general public. Refer to Photo 19, (previously listed in Element 475/3 R/Conc Walls). REPAIR

SURFACING:

The asphalt surfacing over the structure has numerous longitudinal cracks up to 20 ft. x 1/4 in. on all spans.

All spans, Lane 1, right wheel path has 1/2 in. wide x up to 20 in. L cracks.

CORRECTIVE ACTION TAKEN: Guardrails have been installed.

Type 3 Object Markers have been installed at each corner of the structure and the graffiti and gun shot damage has been repaired.

Eroded areas at southeast, northwest, and northeast wingwalls has been repaired by barrier wall installation.

Inspection Date:

03/24/2009

Type: Regular NBI

Inspector: KNVOLWW - Wade Wolfe

Inspection Notes:

Sufficiency Rating Calculation Accepted by knlpaan-P at 2009-12-08 09:33:24
Sufficiency Rating Calculation Accepted by KNVOLCW-P at 2009-04-16 13:31:53
Sufficiency Rating Calculation Accepted by KNVOLCW-P at 2009-04-14 16:51:40

LOAD CAPACITY EVALUATION:

The load rating dated 4/8/85 applies to the current condition of this bridge.

The NBI ratings for SIA Items 59 Superstructure, 60 Substructure and 61 Channel were lowered to a 5 due to deterioration of the concrete and scour at Pier 3.

NON-STRUCTURAL ITEMS:

GUARDRAILS:

Approach guardrails have not been provided for the structure. Refer to Photo 14. REPAIR

APPROACH SLOPES:

There are eroded areas up to 12 ft. x 6 ft. x 1.3 ft. at the ends of the southeast, northwest, and northeast wingwalls - INCREASE.

Refer to Photo 15. REPAIR

REFLECTORS:

The Type 3 Object Markers at each corner of the structure have graffiti and gun shot damage. Refer to Photo 16. REPAIR

SURFACING:

The asphalt surfacing over the structure has numerous longitudinal cracks up to 20 ft. x 1/4 in. on all spans.

CORRECTIVE ACTION:

The graffiti on the roadway has been painted over.

Inspection Date:

03/22/2007

Type: Regular NBI

Inspector: KNKCABA - Michael Betz





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DATE PRINTED: 4/6/2018

FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

REPORT ID: INSP005 Structure ID: 060034 Inspection/CIDR Report CIDR

Inspection Information

Inspection Notes:

Sufficiency Rating Calculation Accepted by KNVOLCW-P at 2008-04-07 16:24:05 Sufficiency Rating Calculation Accepted by kn738km-P at 2007-05-02 11:30:02

This report has an Addendum.

NONSTRUCTURAL ITEMS:

GUARDRAILS:

Approach guardrails have not been provided for the approaches to the structure. Refer to Photo 4. REPAIR

APPROACH SLOPES

There are run-off erosion channels on the approach slopes measuring up to 12 ft. L x 6 ft. W x 1.3 ft. D at the ends of the southeast and northeast wingwalls. PREVIOUS REPAIR RECOMMENDATION NEED NOT BE REPEATED. These areas are heavily vegetated and appear stable.

REFLECTORS:

The Type 3 Object Markers at each corner of the structure have graffiti and gun shot damage - NEW. Refer to Photo 5 - REPAIR.

SURFACING:

The asphalt surfacing over the structure has numerous longitudinal cracks up to 1/4 in. wide and areas of graffiti - NEW.

Inspection Date:

03/25/2005

Type: Regular NBI

Inspector:

Inspection Notes:

Sufficiency Rating Calculation Accepted by knhwlhn-P at 2005-04-13 11:17:24

This report has an Addendum.

NONSTRUCTURAL ITEMS:

GUARDRAILS:

Approach guardrails have not been provided for the approaches to the structure - REPAIR. Refer to Photo 7.

APPROACH SLOPES:

There are run-off erosion channels on the approach slopes measuring up to 12 ft. L x 6 ft. W x 1.3 ft. D at the ends of the

southeast and northeast wingwalls - INCREASE - REPAIR. Refer to Photo 8.

Inspection Date:

09/29/2004

Type: Special-Nat Disaster Dmg
Inspector: INACTIVE604 - Stanley McClurg

Inspection Notes:

This is a special natural disaster damage report due to Hurricane/Tropical Storm Jeanne. No elements are in this report.

This inspection concentrated on wind damage, scour, and object collision damage due to both wind and current. Hurricane Jeanne entered Florida's east coast as a Category 3 hurricane around 10:00 pm September 25, 2004 and exited as a tropical

storm on Florida's northern border September 27, 2004. This storm caused flooding and produced high winds.

The structure was closed after Hurricane Frances due to scour conditions noted by the underwater inspectors. The barricades used to close the structure had been removed by locals. The owner was notified of this and the barricades were put back in

place. Channel measurements were comparable to those taken after Frances.

Inspection Date:

09/10/2004

Type: Special-Nat Disaster Dmg Inspector: KNKCAGW - William Green

Inspection Notes:

This is a special natural disaster damage report due to Hurricane/Tropical Storm Frances. Only Elements 290 Channel and 361

Scour Smart Flag are included in this report.

This inspection concentrated on wind damage, scour, and object collision damage due to both wind and current. Hurricane Frances was an extremely slow moving Category 4 hurricane that entered Florida's east coast and exited as a tropical storm on

Florida's west coast on September 6, 2004. This storm caused flooding and produced high winds.

Based on the findings of the underwater inspection Hardee County decided to close the bridge until the recedes and repairs can

be made.

Inspection Date:

08/20/2004 Type: Special-Nat Disaster Dmg

Inspector: KNKCAGW - William Green

Page 32 of 33

FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM

REPORT ID: INSP005 Structure ID: 060034 Inspection/CIDR Report

DATE PRINTED: 4/6/2018

Inspection Information

Inspection Notes: This is a special natural disaster damage report due to Hurricane Charley. No elements are in this report.

This inspection concentrated on wind damage, scour, and object collision damage due to both wind and current. Hurricane Charley was a fast moving Category 4 hurricane that produced relatively low rainfall, low storm surge at low tide and high winds.

No storm damage was noted.

Inspection Date:

03/27/2003

Type: Regular NBI

Inspector: KN738RE - Robert Erickson

Inspection Notes:

Sufficiency Rating Calculation Accepted by kn738bm-P at 2003-04-18 13:30:32

KN738RE-P inspection comments -

Structure 060034 -Date 2003-03-27 -Previous comments >

Inspection Date:

04/30/2001

Type: Regular NBI

Inspector:

Inspection Notes:

Sufficiency Rating Calculation Accepted by kn738ds at 6/25/01 16:39:02

KN738JO inspection comments -

Structure 060034 -Date 4/30/01 -

APPROACH ROADWAY - CORRECTIVE ACTION TAKEN: The approach roadways have been asphalt resurfaced and restriped

since the 4/15/99 routine inspection.

APPROACH SLOPES - Minor erosion exists in the approach slopes at the ends of the southeast and northeast wingwalls - NO

CHANGE

REFLECTORS - CORRECTIVE ACTION TAKEN: Hazard markers have been installed at the northeast and southwest corners

since the 4/15/99 routine inspection.

STRIPING - CORRECTIVE ACTION TAKEN: New roadway striping has been provided since the 4/15/99 routine inspection.

Previous comments >

Inspection Date:

04/15/1999

Type: Regular NBI

Inspector:

Inspection Notes:

Sufficiency Rating Calculation Accepted by kn738jp at 5/31/00 14:46:52

KN738KU inspection comments -

Structure 060034 -

Date 4/15/99 - The structure was inventoried from west to east.

Non-PONTIS Items

Approach Slopes/shoulders - The northeast approach slope and shoulder has an area of runoff erosion measuring up to 610 mm W x 610 mm D (2' W x 2' D), that extends around the wing wall and into the channel. This erosion is encroaching on the approach roadway. The southeast approach slope has an area of runoff erosion measuring up to 610 mm W x 610 mm D (2' W x 2' D), that

extends around the wing wall and into the channel.

Fill the areas of runoff erosion around the northeast and southeast approach slopes

Guardrails - There are no guardrails provided for the structure.

Suggest providing guardrails which conform to Roadway and Design Standards Index 400 and 401.

Reflectors - Reflectors have been provided at the northwest and southeast corners of the structure. The reflector at the northeast

corner has gun shot related damage.

No corrective action recommended at this time.

Previous comments > (none)

Inspection Date: 04/01/1997

Type: Regular NBI

Inspector:

Inspection Notes:





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REPORT ID: INSP005 Structure ID: 060034

BRIDGE MANAGEMENT SYSTEM Inspection/CIDR Report CIDR

DATE PRINTED: 4/6/2018

Structure Notes

BRIDGE OWNER: HARDEE COUNTY

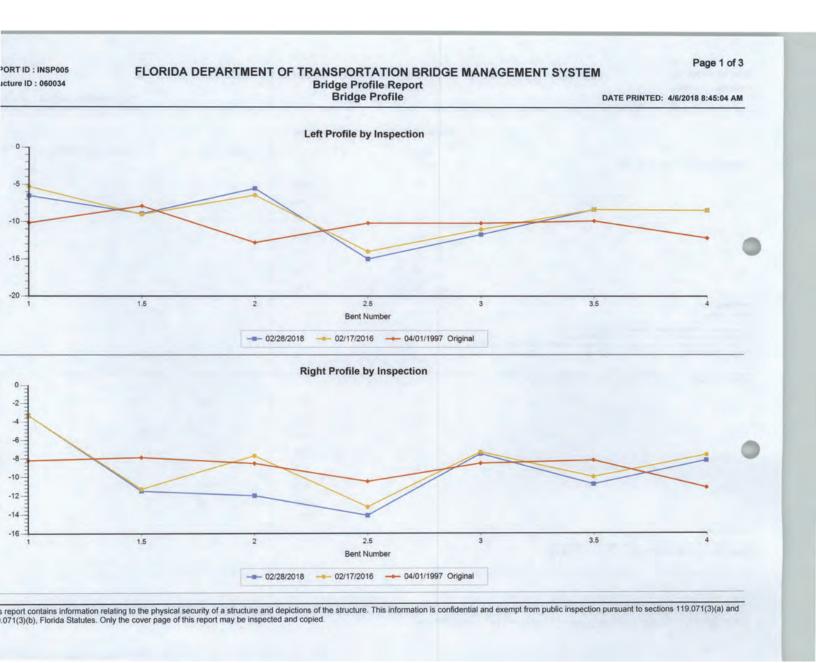
Structure inventoried from west to east.

TRAFFIC RESTRICTION: According to the load rating analysis dated 04/11/14, posting is not required. This structure is not posted.

This bridge is Scour Critical. SIA Item 113 is coded a 3 SC-Unstable. Refer to Table 1 for the 100ft. channel offset measurements.

This structure is on a 6 month inspection frequency due to the NBI rating for SIA Item 61 Channel being coded a 3.

This structure is on a 12 month inspection frequency due to the NBI rating for SIA Item 59 Superstructure and SIA Item 60 Substructure each being coded a 4.



Page 2 of 3 EPORT ID : INSP005 FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM Bridge Profile Report Bridge Profile tructure ID: 060034 DATE PRINTED: 4/6/2018 8:45:04 AM **Profile Data - Numerical Summary** Bent # Left Height **Right Height** (All Heights are in Feet) spection Date and Key: 2/28/2018 YIPJ 3.30 1.5 8.90 11.50 2 5.50 12.00 2.5 15.00 14.10 3 11.70 7.50 3.5 8.30 10.80 8.20 r Temp: ofile Notes: easurements referenced from the top of the concrete bridge rail. aterline taken at center of Arch 2: Left = 10.6ft. and Right = 11.0ft. e scour critical elevation has been exceeded. Refer to Elements 8290 Channel and 220 Conc Pile Cap/Fig. spection Date and Key: 2/17/2016 WBCG 1 5.30 3.30 9.00 11.30 2 6.40 7.70 2.5 14.00 13.20 3 11.00 7.30 3.5 8.30 10.00 8.40 7.60 r Temp: 1 ofile Notes: easurements referenced from the top of the concrete bridge rail. aterline taken at center of Arch 2; Left = 8.4ft. and Right = 8.6ft. is report contains information relating to the physical security of a structure and depictions of the structure. This information is confidential and exempt from public inspection pursuant to sections 119.071(3)(a) and 9.071(3)(b), Florida Statutes. Only the cover page of this report may be inspected and copied.

Page 3 of 3

ORT ID : INSP005 FLORIDA DEPARTMENT OF TRANSPORTATION BRIDGE MANAGEMENT SYSTEM icture ID: 060034 **Bridge Profile Report Bridge Profile** DATE PRINTED: 4/6/2018 8:45:04 AM **Profile Data - Numerical Summary** Bent # Left Height **Right Height** (All Heights are in Feet) ection Date and Key: 4/1/1997 STRT (Original Inspection) 10.17 8.20 1.5 7.87 7.87 2 12.80 8.53 2.5 10.17 10.50 3 10.17 8.53 3.5 9.84 8.20 12.14 11.15 file Notes: surements taken from top of bridgerail. nal measurements taken 11/84. s report contains information relating to the physical security of a structure and depictions of the structure. This information is confidential and exempt from public inspection pursuant to sections 119.071(3)(a) and .071(3)(b), Florida Statutes. Only the cover page of this report may be inspected and copied.

FLORIDA DEPARTMENT OF TRANSPORTATION **BRIDGE MANAGEMENT SYSTEM**

Bridge Inspection Report Addendum

BRIDGE ID: 060034

PAGE: A1 OF A1

DISTRICT:

07 TAMPA

INSPECTION DATE: 02/28/2018

Element Category:

8290 Channel

TABLE 1 SCOUR CRITICAL MEASUREMENTS

LEFT SIDE 100FT, OFFSETS

	04/01/97	02/17/16	02/28/18	CHANGE
Bent 1	Dry	11.9	12.1	- 0.2
Span 1	Dry	10.4	10.6	- 0.2
Bent 2	Dry	10.4	10.3	+ 0.1
Span 2	Dry	6.1	6.3	- 0.2
Bent 3	12.0	12.4	12.4	0.0
Span 3	12.4	13.2	13.0	+ 0.2
Bent 4	Dry	11.9	11.9	0.0

RIGHT SIDE 100FT. OFFSETS

	04/01/97	02/17/16	02/28/18	CHANGE
Bent 1	Dry	-1.2	-1.4	+ 0.2
Span 1	Dry	2.6	2.8	- 0.2
Bent 2	Dry	7.6	7.9	- 0.3
Span 2	Dry	8.4	8.3	+ 0.1
Bent 3	Dry	7.6	8.0	- 0.4
Span 3	12.7	10.9	10.7	+ 0.2
Bent 4	12.1	10.6	10.5	+ 0.1

Note: Offset measurements are referenced from the top of the concrete bridge rail.

Note: + = Aggradation

- = Degradation

Blank box = No previous measurements available.

The waterline and mudline measurements, in reference to the top of the concrete parapet, are provided for future comparison. All measurements are in feet.

Special Underwater Bridge Inspection Report BOLT UNDERWATER SERVICES, INC. for KISINGER CAMPO & ASSOCIATES, CORP.

NBI Structure ID. (8): 060034

Underwater Date (93): 03/13/18

Structure/Roadway Identification:

District (2): 01

County (3): Hardee

Feature Intersected (6): Little Payne Creek

Facility Carried (7): CR-664

AUBI

Underwater Inspection Details:

Special Crew Hours: 3.0

Max. Depth: 4ft. at Footing 3

Type of Dive Insp.: Level II (Snorkel)

Type of Boat Used: N/A

Water Type/Marine Growth: Fresh/Riverine - Algae

Inspection Personnel:

Fescina, Michael V.

Field Personnel: Title
Hoogland, Keith S. SUCBI
Goldman, Derek B. AUBI

C.B.I. No.: 00341/Lead Duty: Dive Dive Tend Signature:

8290 CHANNEL

1 EA. = CS-2: 1EA.

CS-2 9140 = There is drift and debris throughout the channel - NEW.

220 RE CONC PILE CAP/FTG

36 FT. = CS-1: 29FT.

CS-3: 7FT.

NOTE: Divers inspected Footing 2 east side and Footing 3 west side for scour.

CS-3 6000 = Footing 3: West side, starting at north end, undermined, 7ft. x 4in. x 3ft. 6in. of penetration. (7FT.)

Top of Footing 3 is irregular.

Top of footing to groundline measurement

Footing	2	Footing 3					
NE	Buried	NW	34in.				
East (Center)	34in.	West (Center)	3ft. 7in.				
SE	31in.	SW	24in.				

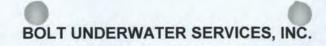
INSPECTION NOTES: Divers inspected Channel and Footings. STRUCTURE NOTES: Structure inventoried west to east.

PHOTO LOG:

No. 1: Structure ID. No. 2: North elevation

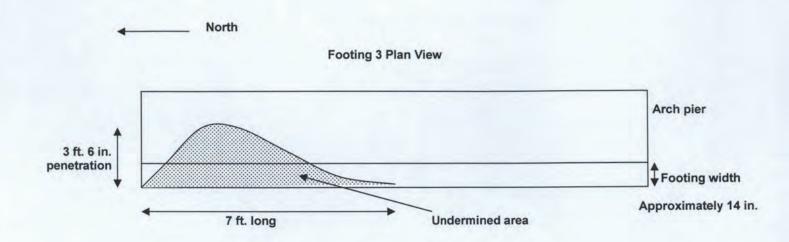
No. 3, 4: Footing 3, undermined area

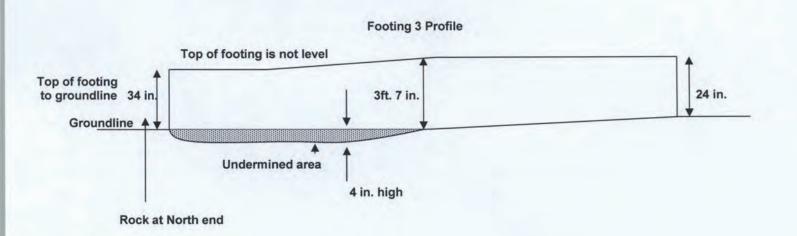
DRAFT DRAFT



Structure ID: 060034 District: 01

Inspection Date: 03/13/18



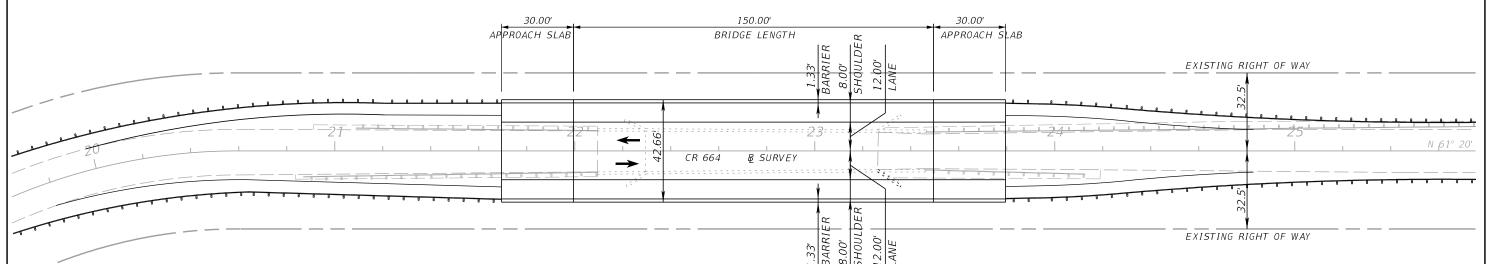


Not to Scale

APPENDIX C Bridge Alignment Plans

On Alignment Alternative





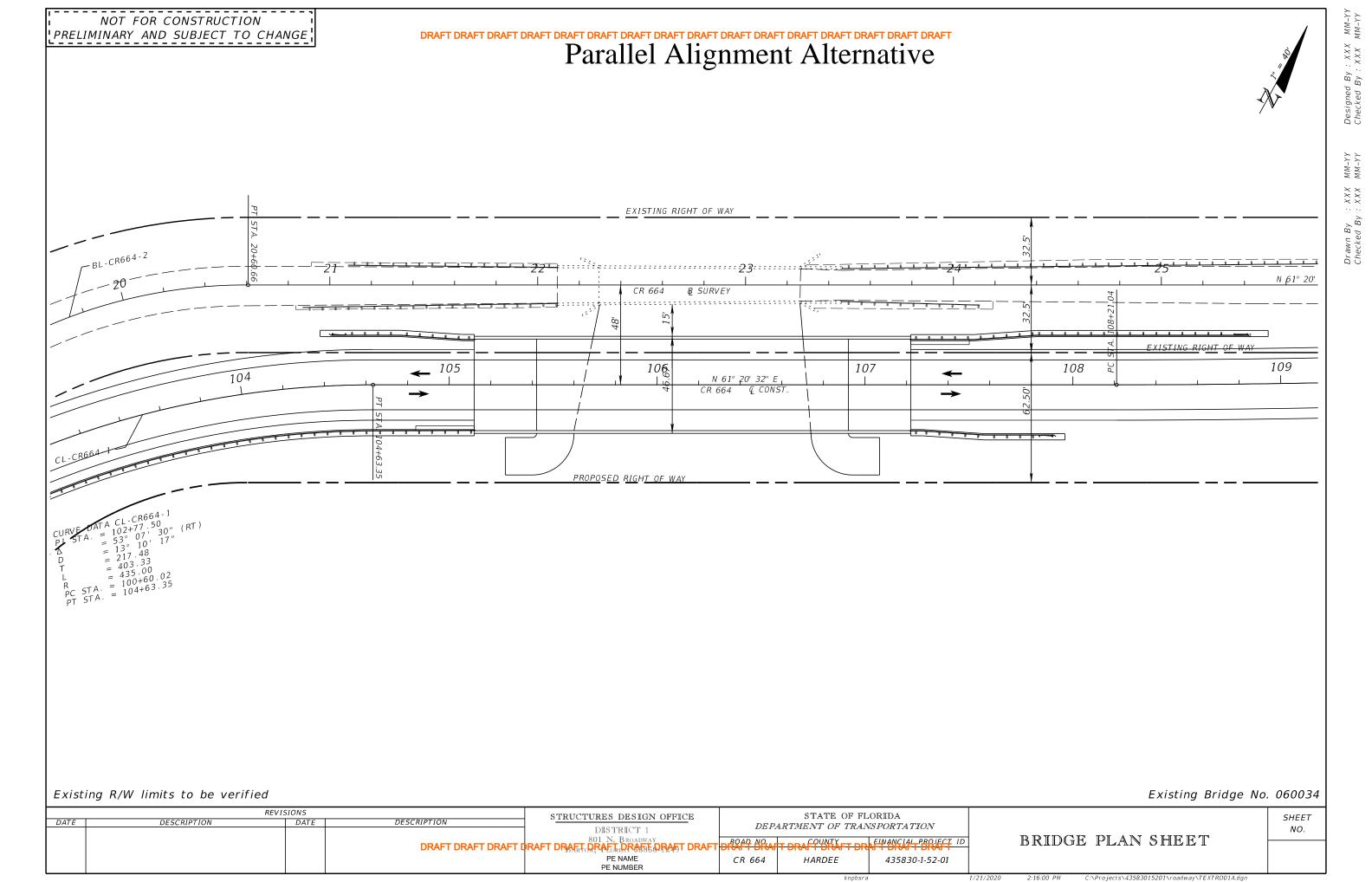
Notes:

Limts of slope protection not shown. Existing R/W limits to be verified

NOT FOR CONSTRUCTION PRELIMINARY AND SUBJECT TO CHANGE

Existing Bridge No. 060034

- 1	REVISIONS				STRUCTURES DESIGN OFFICE	STRUCTURES DESIGN OFFICE STATE OF FLORIDA			SHEET	1	
[DATE	DESCRIPTION	DATE	DESCRIPTION		DEPARTMENT OF TRANSPORTATION					1
- 1					DISTRICT 1					NO.	1
				DRAFT DRAFT DRAFT D	RAFT DRAFT DRAFT DRAFT DRAFT		T DRAFT DR AFT DR	AFT DRAFT DRAFT ID	BRIDGE PLAN SHEET		l
					PE NAME PE NUMBER	CR 664	HARDEE	435830-1-52-01			ĺ



APPENDIX D Florida Master Site File Form

DRAFT DRAFT

CHANGE OF STATUS, Version 3.1, 5/03 Site #8 TR 374 Florida Master Site File Date This Form Completed (date of status change is below) 124 DHR Staff Only ☐ Not DHR: Give organization, address, phone, email: ☑ Site File file number KNOWN (provide): HR 374 ☐ Site File file number NOT KNOWN (attach map and complete next three lines) Resource Name LIHIC BYING CREEK Bridge TRS: Township __ N/S Range __ E/W Section: __ Other location info: CHANGE IN PHYSICAL CONDITION (write date before each applicable change, omit day &/or month if exact date unknown; describe change as suggested; give DHR file number or attach documentation) / / Altered without reference to the Secretary's Standards--describe: / Correction of □address, □map, or □TRS (Give old & corrected info) Restored to historical condition as of (vear) /___ Moved to new site (attach map)--new address: Approved for demolition—by (authority): Demolished (structures/bridges only)-_____ Accidentally destroyed--cause: __/__ Disturbed (archaeological)—describe: Human remains—ANY evidence? Describe: DHR only-INVOLVEMENT IN PRESERVATION PROGRAMS (write earliest date this property involved) / / Ad valorem tax relief (Give CLG, BHP/CR file #): Section 106 review (BHP/CR file #): Chapter 267 FS review (BHP/CR file #): Federal investment tax credit (BHP/APS file #): Acquisition & development grant (BHP/Grants file #): / / FS 872, unmarked human remains encountered /___1A32, state lands permit (BAR/AR file #): / / CARL, conservation lands project (BAR/AR file #): DHR only--CHANGE IN EVALUATION (write date before each applicable change) Listed on National Register of Historic Places (Give NRIS#, federal id #) Officially removed from the National Register of Historic Places (NRIS#, federal id) Keeper: □ eligible □ ineligible 7124109 SHPO: Steligible Ineligible (SHPO office, file#) CRA+ 2009-5198 Opinion of technical DHR staff, not through 106 process—justification required per Director: □ eligible □ ineligible □ insufficient information -- Explanation: Rehabilitated to Secretary's Standards (SHPO office, file #) Local register or landmark commission: ☐ eligible ☐ ineligible ☐ ☐CLG ☐non-CLG Name, address of local register: DOCUMENTATION ☐ attached ☐ already in Site File, specify file no _____



FLORIDA DEPARTMENT Of STATE

RICK SCOTT Governor KEN DETZNER
Secretary of State

February 5, 2014

James Christian, P.E.
Division Administrator
Federal Highway Administration
Florida Division
545 John Knox Road, Suite 200
Tallahassee, FL 32303

ATTN: Mr. Benito Cunill

RE: DHR Project File No.: 2013-5826

Project: The Historic Highway Bridges of Florida

Dear Mr. Christian:

This office reviewed the referenced report in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended, and its implementing regulations in 36 CFR Part 800: Protection of Historic Properties.

In 2010 the Florida Department of Transportation completed its statewide survey of historic bridges. The final survey was provided to this office for review in 2013. Concurrently in 2012, The Advisory Council on Historic Preservation (ACHP) and the Federal Highway Administration (FHWA) published a Program Comment that relieved FHWA from assessing the impacts of proposed projects on post -1945 concrete and steel bridges (Federal Register, Vol. 77, No. 222). This Program Comment has resulted in a large number of bridges in Florida being exempted from review under Section 106.

The 2010 survey of historic bridges resulted in the identification of 166 significant bridges (FHWA Attachment 2). The survey also recommended that 244 bridges did not meet the eligibility requirement for listing in the National Register of Historic Places (NRHP). Some of the 244 identified non-eligible bridges are exempted from review as a result of the Program Comment agreement between ACHP and FHWA.

This office concurs with the determinations of eligibility for the 166 significant bridges identified in Attachment 2. However, at the present time this office is not prepared to concur on the recommendation for those bridges which were recommended as being not eligible for the NRHP.





DRAFT DRAFT

Mr. James Christian DHR No.: 2013-5826 February 5, 2014 HR 374

Page 2

This office looks forward to consulting on a Programmatic Agreement with your agency that will identify and plan for the preservation of significant bridges. At that time this office would be willing to concur on determinations of non-eligibility.

If you have any questions, please contact Ginny Jones, Transportation Compliance Architectural Historian, by email at Ginny. Jones@dos.myflorida.com, or by telephone at 850.245.6333.

Sincerely

Robert F. Bendus, Director

Division of Historical Resources & State Historic Preservation Officer

PC: Roy Jackson, FDOT CEMO, Tallahassee

Enclosure:

FHWA Attachment 2: List of Bridges Recommended as Significant Historic Highway Bridges

DRAFT DRAFT

FLORIDA HISTORIC BRIDGE SURVEY--INVENTORY FORM

PRIMARY DATA	PHOTOGRAPH	
Historic Name Little Payne Creek	Will will all as improve a distributions	Roll Frme
Current Name Little Payne Creek		5 21A to
FDOT Structure Number 060034		to to
FDOT District One		
County Hardee		Roll Frme
City or Town (in/near) Bowling Green		5 25A
Route Carried CR 664		3 25A
Feature Crossed Little Payne Creek	12112	
USGS Quad Map Name		Color Slides
		Yes_x No_
UTM Coordinates		Tes X NO
Zone		
E Range		SURVEY NO
E Range N Township E Section		3801
E Section		3001
N		
Prepared by the Center for Historic	Preservation and Technology	Toyac Toch
University. Date of survey: Summer	r 1989	rexas rech
oniversity: save or sarvey. Summer	1909.	
DESCRIPTIVE DATA		
Bridge Type concrete arch-deak		
Number of Spans 3	Total length occ	
Main Spans Number 3 Type sensus	Length and Wid	1+ h
Bridge Type <u>concrete arch-deck</u> Number of Spans 3 Main Spans Number 3 Type <u>concret</u> Roadway Width 16.3'	e arch Hengen 32.	17.6
Approach Spans Number o Type	I anoth Wi	A+h
Roadway Width 16.3' Approach Spans Number 0 Type Roadway Width	Dength Wi	dul
Roadway Width Superstructure Materials concrete		
Substructure Type concrete arch N	Material congrets	
Overall Condition Good Fair	Poor v Deteri	orated
Decorative Details		
Setting Rural x Suburban I	Irban Residential	
Commercial Industrial	Other	
Alterations Yes No v When	Extent	
Decorative Details Setting Rural x Suburban U Commercial Industrial Alterations Yes No x When	DACCIIC	
HISTORICAL DATA		
Date 1916 Original locati	ion Yes v No	
In use Yes v No		
National Register listed Yes Located within a historic district	No v	
Located within a historic district	Yes No "	
Florida Master Site File Number		
Original owner DeSoto County		
Present owner Hardee County (greated out of Desets Saustal	
Designer/Engineer Luten Bridge County (IIIDaliv, IOIK, PA	
Fabricator		
Builder Luten Bridge Con	mpany. York. PA	
	mpany, York, PA	
Information Sources	mpani, tota, in	
FDOT Structure Inventory and Appra	isal Form Ves No	
Bridge Plate Yes x No	res_x NO	
HO		

Bridge No. 060034

Hardee County

Assessment

This 96-foot, three span reinforced concrete arch deck bridge crosses Little Payne Creek, west of Bowling Green. Cantilevered floor beams support the deck which is wider than the arch substructure, a feature characteristic of many Luten concrete bridges. A cast-in recessed panel design appears on the solid concrete railings. The structure is in poor, though original, condition, with a broken end railing, and with a built-up pavement that causes water to run into the railings, leading to spalling and rebar damage.

The Luten Bridge Company of York, Pennsylvania, then emerging as the leading builder of concrete highway bridges in the nation, constructed the bridge in 1916 for DeSoto County; Hardee County would be created five years later. The bridge served on an improved road that connected with routes to Bradenton. One of the state's earliest arch deck bridges, showing examples of Luten's methods in building lower cost reinforced concrete structures, and dating from before World War One, the Little Payne Creek bridge ranks as historically important.

Bibliography

DeSoto County, "Commission Minutes." 4 (September 1915):

501; 5 (March 8, 1916): 49, and (December 4, 1917): 354.

Engineering News-Record. 75 (March 30, 1916): 199.

County Hardee Bridge Number 060034 I. Date of Construction (250 points maximum) 250 points x 1. Pre-1920 construction 2. 1921-1930 construction 225 points 3. 1931-1940 construction 150 points 4. 1941-1950 construction 100 points 5. 1951 to present 0 points Subtotal_ 250 II. Length of Bridge (100 points maximum) 25 points__ A. Overall length--250 feet or more B. Length of main span 75 points_ 1. 150 feet or more 2. 100 to 149 feet 50 points 3. 50 to 99 feet 25 points Subtotal III. Bridge type (250 points maximum) A. Fixed Bridges 1. Concrete Through-Arch 250 points 2. Concrete Deck-Arch 200 points x 200 points 3. Steel Through-Truss 4. Steel Pony-Truss 150 points 150 points 5. Steel Deck-Truss 250 points 6. Suspension Bridge Subtotal 200 B. Movable Bridges 1. Vertical lift 250 points 200 points 2. Swing bridge 150 points 3. Bascule bridge Subtotal IV. Integrity (100 points maximum) A. Structural Integrity 1. Original condition 75 points x 2. Minor alterations 40 points 0 points 3. Major alterations Subtotal B. Location and Setting 25 points x 1. Original setting 15 points 2. Changed setting or location Subtotal 25 V. Historical Significance (300 points maximum) A. Technical Significance (200 points maximum) 1. Notable builder/contractor 50 points x Known builder/contractor 25 points 50 points x Notable designer/engineer Known designer/engineer 25 points 30 points 3. Innovative design 30 points 4. Engineering challenge 40 points x 5. Uniqueness in Florida Subtotal 140 B. Cultural Significance (100 points maximum) 1. Historical association with a 20 points x major historical figure/event 20 points 2. Architectural features 3. Within a National Register Historic District 20 points Within an acknowledged or recognizable 10 points historical section of a city or town 4. Historical importance 40 points a. National level 30 points_ b. State level 20 points c. Regional level (within Florida) 10 points X d. Local level Subtotal

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FLORIDA MASTER SITE FILE

Form Date 8-7-2020

∐Original	Tana I II na an II laan	Version 5.0 3/19	Recorder #
⊠Update			EDOT D'IL III COOSA
		Consult Guide to the Historical Bridge Form for detailed instructions	1 DO1 Blidge #00034
Bridge Name(s	s) Little Payne Cr	eek Bridge	Multiple Listing (DHR only)
Project Name	CRAS CR 664 Bridge	eek Bridge over Little Payne Creek	Survey # (DHR only)
		□private-individual □private-nonspecific □city 区county □state □	
		LOCATION & MAPPING	
Pouto(s) Carrie	ad/Epatura/s) Crossed CR	664 / Little Payne Creek	
USGS 7.5 Mar	Name BOWLING GREEN	USGS Date 1955 Plat or Oth	er Man
City/Town (with	in 3 miles) Bowling Green	USGS Date 1955 Plat or Oth In City Limits? □yes □no ⊠unknown C □ 6 1⁄4 section: □NW □SW □SE □NE	nunty Hardee
Township 338	S Range 25E Section	n 6 1/4 section: NW SW SE NE	rregular-name:
Township	Range Sectio	n1/4 section: NW SW SE NE	
Landgrant		Tax Parcel #	
U TM Coordina	tes: Z one □16 🗵17 Ea	sting 4 1 6 1 9 6 Northing 3 0 5 7 2 3 8	
Other Coordinate	ates: X:	Y: Coordinate System & Datum _	
Name of Public	c Tract (e.g., park)		
		HISTORY	
Year Built	1915 X approximatel	y ☐year listed or earlier ☐year listed or later	
		use (describe)	
	erries, or Bridges at this Loca		
Dridge Heer or	iginal and ourrent with datas	Action developed the selection of the se	
		(standard descriptions: auto, railway, pedestrian, fishing pier, abandoned CR 664 over Little Payne Creek (Auto)	1)
Ownership hist		en out over little rayne creek (Adto)	
	ghway Agency		
	J <i>1</i>		
Designers/Eng	ineers Luten Bridge	Company	
		Company	
Text of Plaque			
		rict No. 1 County Commissioners. L.W. Wh	itehurst, John Hagan, W.G.
wells, will	. м. wnitten, D.L. X	Skipper, A.L. Durrance. Clerk.	
Narrative Histo	ory (How did bridge come to be buil	t? How was it financed? etc.)	
		s commissioned by Desoto County in 1915	in order to facilitate the
route bet	ween Bowling Green a	and Fort Green; however, ownership chang	
of Hardee	County during the	division of Desoto County.	
		DESCRIPTION	
<u>GENERAL</u>			
	e Design 1. ArchDecl		
	ition □excellent □good	☐fair ☑deteriorated ☐ruinous	
	corative Details		
		rete railings; decorative squared piers;	three solid concrete arches
with tant	cilevered floor bear	is that support the deck	
Tender Statio	n Description		
N/A			
Alterations: D	ates and Descriptions		
		oncrete barriers attached at wingwalls i	nstalled in 2009; evidence
of graff:	iti; vegetation on l	oriage rails	
	DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
ND III I D I	OUDO A	COLUMN TO THE TOTAL TO THE TOTAL TOT	D. 1.3

DHR USE ONLY		OFFICIAL E	VALUATION	DHR USE ONLY		
NR List Date	SHPO – Appears to meet criteria KEEPER – Determined eligible: NR Criteria for Evaluation: ☐a	□ye		Date Date n 15, p. 2)	Init	
			(-, 1- ,		

DESCRIPTION (continued)
Spans: Total Number 3 Total Length(ft) 96
Main Spans: Number 3 Length(ft) 32 Width(ft) 17 Roadway width(ft) 16 Main Span Design ArchDeck 2. 2.
Approach Spans: Number Length(ft) Width(ft) Roadway width(ft) Approach Span Materials 1 2
Deck Materials 1. Concrete 2.
SUBSTRUCTURE Abutment Materials 1. Concrete 2 Abutment Description Solid concrete continuation of arch
Pier Materials 1 2 Pier Description
RESEARCH METHODS (check all that apply)
□FDOT database search □Fla. Archives / photo collection □newspaper files □informal archaeological inspection □HABS/HAER record search □property appraiser / tax records □city directory □formal archaeological survey □FMSF record search (sites/surveys) □library research □Public Lands Survey (DEP) □cultural resource survey □CHPMSF methods (specify) □SPID References (give FMSF manuscript # if relevant, use separate sheet if needed) USDA historic aerial photographs (PALMM); BridgeReports.com; FMSF Manuscript No.03801 and No. 20006
OPINION OF RESOURCE SIGNIFICANCE
Potentially eligible individually for National Register of Historic Places? Potentially eligible as contributor to a National Register district? Explanation of Evaluation (required, use separate sheet if needed)
See continuation sheet.
Area(s) of historical significance (See National Register Bulletin 15, p. 8 for categories: e.g. "architecture", "ethnic heritage", "community planning & development", etc.) 1. Engineering 3 5 6
Z V U
DOCUMENTATION
Accessible Documentation Not Filed with the Site File - including field & analysis notes, photos, plans, other important documents
1) Document type All materials at one location Maintaining organization Archaeological Consultants Inc Document description Files, photos, research, document File or accession #'s P19143B
2) Document type Maintaining organization
Document description File or accession #'s
RECORDER INFORMATION
Recorder Name Savannah Young Affiliation Archaeological Consultants Inc Recorder Contact Information 8110 Blaikie Court, Ste. A / Sarasota, FL/ 34240 /aciflorida@comcast.net

Required Attachments

(address / phone / fax / e-mail)

1 USGS 7.5' TOPO MAP WITH BRIDGE LOCATION CLEARLY MARKED

2 PHOTO OF BRIDGE

When submitting an image, it must be included in digital <u>AND</u> hard copy format (plain paper grayscale acceptable). Digital image must be at least 1600 x 1200 pixels, 24-bit color, jpeg or tiff.

CONTINUATION SHEET

Narrative Description: This resource is located within unincorporated Hardee County, approximately 1.6 miles west of US 17 and the City of Bowling Green in Hardee County, Florida. The bridge carries CR 664 over Little Payne Creek in Section 6 of Township 33 South, Range 25 East (USGS Bowling Green 1955, Photorevised 1973). On a 1917 historic road map of Florida CR 664 is depicted as a graded road without hard surfacing connecting Bowling Green in the east to Fort Green in the west (FDOT 1917). Between November 1915 and March 1916 within the Wauchula district of then-Desoto County, a vote was cast by the County Commissioners, to construct twenty-five concrete bridges throughout the county. These improvements were undertaken throughout the county to further develop transportation routes. The vote approved a bond issue of \$30,000, approximately \$26,000 of which went toward the construction. Two of these bridges include the Little Payne Creek Bridge (Bridge No. 060034) – the longest of the twenty-five bridges constructed – and the Payne Creek Bridge (Bridge No. 064069), both of which were erected with the concrete arch design by the Luten Bridge Company for increased durability in the Florida climate (Plowden 1929; FDOT 2012).

The Luten Bridge Company of York, Pennsylvania – founded by Daniel B. Luten – was a prominent company known for its inexpensive and durable reinforced concrete bridges. Luten bridges were especially successful in Florida as they were well suited for the state's humid conditions and surrounding salt water and advertised as the more reliable and low maintenance alternative to "tin bridges" (FDOT 2012). Bridges constructed by the Luten Bridge Company, especially the Luten arch deck bridge, were also well-known for combining both structural integrity and architectural design. Daniel Luten established the National Bridge Company in 1902, which served as the parent company to several subsidiaries located across the United States (Harrington 2001). Advertisements promoted subsidiaries under the Luten Bridge Company name in Pennsylvania, West Virginia, Georgia, and Florida in 1921 (Carver 2008). By the mid-1920s, the Luten Bridge Company held fifty patents related to reinforced concrete bridges and had constructed over 14,000 bridges throughout the United States (Harrington 2001). Little Payne Creek Bridge was commissioned by Desoto County in 1915 in order to facilitate the route between Bowling Green and Fort Green; however, ownership changed in 1920 with the creation of Hardee County during the division of Desoto County (FMSF; Plowden 1929). The bridge is one of two known bridges in Hardee County built by the Luten Company with the distinct reinforced concrete arch deck bridge and solid concrete railings with decorative rectangular cast-in recessed panel design. The other bridge of similar design is the Payne Creek Bridge (Bridge No. 064069) that was previously recorded within the FMSF (8HR00375) and was determined eligible for listing in the NRHP by the SHPO in 2000 (FDOT 2012; FMSF 1989).

Structural Description: The Little Payne Creek Bridge (Bridge No. 060034) is a three span, reinforced concrete arch deck bridge constructed in ca. 1915. The bridge was constructed to carry CR 664 over Little Payne Creek connecting Bowling Green in the east to Fort Green in the west. The single lane bridge crossing Little Payne Creek measures 16-feet wide and is flanked by solid concrete railings with decorative rectangular cast-in recessed panel design, piers are present at each span, and wingwalls are present at the approach. A single span measures approximately 32-feet long with an overall length of 96-feet. The substructure is comprised of three solid concrete arches with structural steel as reinforcement and cantilevered floor beams that support the deck. The bridge deck is constructed of concrete and covered with an asphalt surface. A plaque is present on the interior of the parapet to the south and reads "DeSoto County, Florida. District No. 1 County Commissioners. L.W. Whitehurst, John Hagan, W.G. Wells, Wm. M. Whitten, D.L. Skipper, A.L. Durrance. Clerk.". In 2009, metal approach guardrails and solid concrete barriers were installed as well as resurfacing the deck. In addition, there is evidence of graffiti on the wingwalls and vegetation overgrowth is present on the railings and along the roadway.

Explanation of Evaluation: The Little Payne Creek Bridge is an early example of the Luten Bridge Company's reinforced concrete arch deck bridge in Florida. The bridge retains historic integrity of location, setting, material, workmanship, feeling, and design characteristics as featured on Luten bridges. While the deck and approach have been maintained with modern improvements, such as asphalt resurfacing and metal guardrails, the bridge remains as a single lane bridge over the Little Payne Creek. Under the previous evaluations, the bridge was determined significant under Criterion C in the area of Engineering as an early

CONTINUATION SHEET

example of a reinforced concrete arch deck bridge in Florida and for its historic association with the prominent Luten Bridge Company. The bridge remains NRHP-eligible under Criterion C, but also appears NRHP-eligible under Criterion A in the area of Transportation as a means to connect Bowling Green to Fort Green during improvement efforts undertaken throughout the county to further develop transportation routes. Furthermore, the resource meets the Property Type F.2: Arch Bridges registration requirements under Criteria A and C as described in the Florida's Historic Highway Bridges Multiple Property Listing (ACI 2013; Survey No. 20006).

REFERENCES:

Archaeological Consultants, Inc. (ACI)

Florida's Historic Highway Bridges – National Register of Historic Places Multiple Property Documentation Form. United State Department of the Interior, National Park Service. MS #20006.

Carver, Martha

2008 Tennessee's Survey Report for Historic Highway Bridges. Tennessee Department of Transportation, Nashville.

Florida Department of Transportation (FDOT)

Road Map State of Florida 1917. Electronic document, https://www.fdot.gov/docs/default-source/geospatial/past statemap/maps/FLStatemap1917.pdf, accessed August 19, 2020.

2012 Historic Highway Bridges of Florida. Florida Department of Transportation, Tallahassee.

Florida Master Site File (FMSF)

1989 Florida Historic Bridge Survey Inventory Form HR00375. Bridge No. 064069.

Harrington, Timothy

2001 Moores Creek Bridge – National Register of Historic Places Registration Form. United States Department of the Interior, National Park Service. FMSF No. 8SL01141.

Plowden, Jean

1929 History of Hardee County. Wauchula: The Florida Advocate.

United States Geographic Survey (USGS)

2018 Bowling Green, Fla. US TOPO.

PHOTOGRAPHS



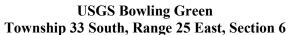


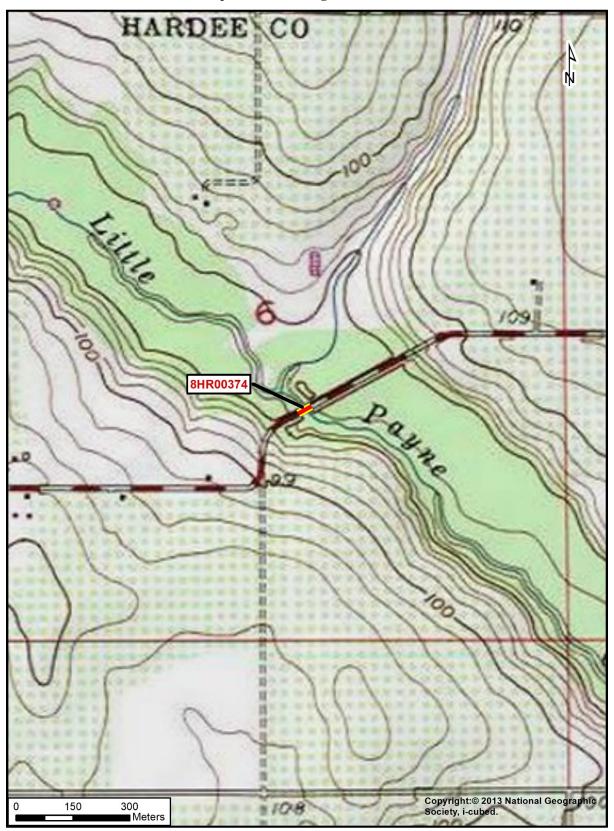




AERIAL MAP







APPENDIX E Public Outreach Information



RON DESANTIS GOVERNOR 801 N. Broadway Avenue Bartow, Florida 33830 KEVIN J. THIBAULT, P.E. SECRETARY

CR 664 Puente sobre Little Payne Creek - Estudio de Desarrollo y Medio Ambiente del Proyecto Condado de Hardee, Florida

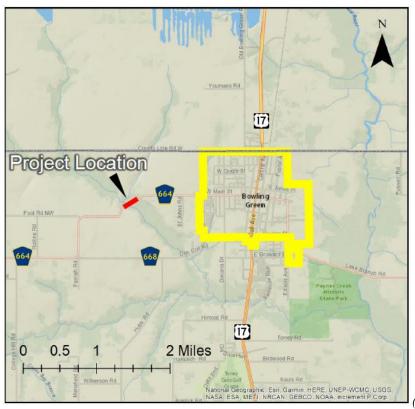
Número de Puente 060034

Número Financiero del Proyecto: 435830-1-21-01

Números de Ayuda Federal del Proyecto: D120-044-B, D119-077-B

Número ETDM: 14448

El Departamento de Transporte de Florida (FDOT) está llevando a cabo un estudio de Desarrollo y Medio Ambiente de Proyecto (PD&E) para las mejoras propuestas al puente CR 664 sobre Little Payne Creek en el condado de Hardee. Esta ubicación está a menos de una milla al oeste de los límites de la ciudad de Bowling Green. Estas mejoras pueden incluir reemplazar el puente o construir un nuevo puente paralelo al puente existente. El propósito de estas mejoras es abordar las deficiencias estructurales y la obsolescencia funcional del puente existente, que fue construido en 1915.



(cont)

El estudio PD&E evaluará los impactos de ingeniería, ambientales, naturales, físicos, socioeconómicos y culturales asociados con las mejoras propuestas. El FDOT está llevando a cabo el estudio PD&E de acuerdo con los requisitos de la Ley de Política Ambiental Nacional y otras leyes y regulaciones federales y estatales aplicables.

DRAFT DRAFT

El puente CR 664 sobre Little Payne Creek es elegible para ser incluido en el Registro Nacional de Lugares Históricos (NRHP) en el área de Ingeniería como un ejemplo de puente en arco de concreto armado en Florida y parece ser elegible en el área de Transportación por su conexión de Bowling Green a Fort Green. Los impactos a las propiedades del NRHP requieren un Estudio de Caso según la Sección 106 de la Ley Nacional de Preservación Histórica de 1966. Se solicita su opinión sobre los posibles impactos y mitigación.

Como parte del estudio PD&E, FDOT está implementando un programa de participación pública. Se enviará una segunda carta antes de la selección de la alternativa preferida y una tercera para anunciar la aprobación del estudio. Si tiene preguntas o comentarios sobre el proyecto, comuníquese con Lorraine Edwards, PE, FDOT, al (863) 519-2511 o Lorraine.Edwards@dot.state.fl.us. El cronograma actual del estudio PD&E se encuentra a continuación.

	2020				2021			
	Primavera	Verano	Otoño	Invierno	Primavera	Verano	Otoño	
Comienzo del Proyecto								
Boletín Informativo #1		\times						
Desarrollo de Alternativas								
Análisis Ingenieril/Ambiental								
Boletín Informativo #2					\times			
Audiencia Pública					屎			
Estudio Completo								
Boletín Informativo #3							\boxtimes	
Actividades de Diseño								

La Organización de Planificación del Transporte Regional de Heartland (HRTPO) incluye el proyecto del Puente CR 664 en su Plan de Mejoramiento del Transporte (TIP). El diseño se producirá al mismo tiempo que el estudio PD&E. Las necesidades de adquisición de derecho de vía se determinarán durante el estudio. Actualmente no hay fondos para la adquisición de derecho de vía, si fuese necesario. Los fondos para la construcción están programados en el año fiscal 2022 del Programa de Trabajo de Cinco Años del FDOT y el HRTPO TIP.

El FDOT solicita la participación pública sin distinción de raza, color, nacionalidad, edad, sexo, religión, discapacidad o estado familiar. Las personas que requieran acomodaciones especiales bajo el Acta de Americanos con Discapacidades "Americans with Disabilities Act" o que requieran servicios de traducción (sin cargo) deben comunicarse con Cynthia Sykes, Coordinadora del Título VI del Distrito Uno, al (863) 519-2287, o enviar un correo electrónico a Cynthia.Sykes@dot.state.fl.us.

La revisión ambiental, la consulta y otras acciones requeridas por las leyes ambientales federales aplicables para este proyecto están siendo, o han sido, realizadas por el Departamento de Transportación de la Florida (FDOT) en conformidad con 23 U.S.C. §327 y un Memorando de Entendimiento de fecha 14 de diciembre de 2016 y ejecutado por la Administración Federal de Carreteras y FDOT.

Sinceramente,

Patrick Bateman, PE

Patrick Bateman



RON DESANTIS GOVERNOR 801 N. Broadway Avenue Bartow, Florida 33830 KEVIN J. THIBAULT, P.E. SECRETARY

CR 664 Bridge over Little Payne Creek - Project Development and Environment Study

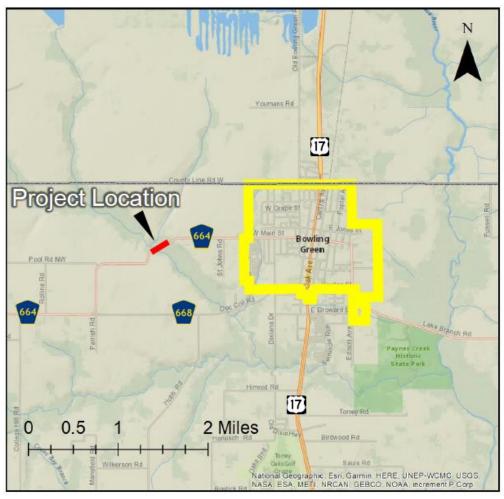
Hardee County, Florida Bridge Number 060034

Financial Project Number: 435830-1-21-01

Federal Aid Project Numbers: D120-044-B, D119-077-B

ETDM Number: 14448

The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) study for proposed improvements to the CR 664 Bridge over Little Payne Creek in Hardee County. This location is less than one mile west of the Bowling Green city limits. These improvements may include replacing the bridge or building a new bridge parallel to the existing bridge. The existing bridge was constructed in 1915 and is now functionally obsolete. The new structure will bring this facility up to current standards.



(cont.)

DRAFT DRAFT

The PD&E study will evaluate and document potential engineering and natural, physical, socioeconomic, and cultural environmental effects of the proposed improvements. FDOT is conducting the PD&E study in accordance with requirements of the National Environmental Policy Act and other applicable federal and state laws and regulations.

The CR 664 bridge over Little Payne Creek is eligible for listing in the National Register of Historic Places (NRHP) in the area of Engineering as an example of concrete arch deck bridge in Florida and appears eligible in the area of Transportation for its connection of Bowling Green to Fort Green. Impacts to NRHP properties require a Case Study following Section 106 of the National Historic Preservation Act of 1966. Your input is sought concerning potential impacts and mitigation.

As part of the PD&E study, FDOT is implementing a public involvement program. A second letter will be sent out prior to the selection of the preferred alternative, and a third to announce the approval of the study. If you have questions or comments about the project, please contact me, Patrick Bateman, PE, FDOT Project Manager, at (863) 519-2792 or Patrick.Bateman@dot.state.fl.us. The current schedule for the PD&E study is below.

	2020				2021			
	Spring	Summer	Fall	Winter	Spring	Summer	Fall	
Project Begins								
Newsletter #1		\times						
Alternatives Development								
Engineering/Environmental Analysis								
Newsletter #2					\bowtie			
Public Hearing								
Complete Study								
Newsletter #3							\searrow	
Design Activities								

The Heartland Regional Transportation Planning Organization (HRTPO) includes the CR 664 Bridge project in its Transportation Improvement Plan (TIP). Design will occur concurrently with the PD&E study. Right of Way needs will be determined during the study. Right of Way, if needed, is not funded at this time. Construction is funded in fiscal year 2022 of FDOT's Five-Year Work Program and the HRTPO TIP.

FDOT solicits public participation without regard to race, color, national origin, age, sex, religion, disability, or family status. People who require special accommodations under the Americans with Disabilities Act or who require translation services (free of charge) should contact Cynthia Sykes, District One Title VI Coordinator, at (863) 519-2287, or e-mail at Cynthia.Sykes@dot.state.fl.us.

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated December 14, 2016 and executed by the Federal Highway Administration and FDOT.

Sincerely,

Patrick Bateman, PE

Patrick Bateman