PINELLAS COUNTY
HISTORIC PRESERVATION BOARD

AGENDA

9:30 A.M. – 11:30 A.M.

June 20, 2018

310 Court St., Clearwater, FL 33756

I. Call to Order and Introductions

II. Approval of Minutes
   • March 21, 2018 Historic Preservation Board Meeting

III. Work Plan Updates/Discussion
   • Countywide Historic Bridges Survey Grant Update & Presentation
   • Unincorporated Historic Resources Survey Grant Award
   • Downtown Palm Harbor Historic District Survey Update
   • Historical Marker Program
   • Next Preservation Summit

IV. Public Comments

V. Board Member Comments

VI. Chairman’s Comments

VII. Adjournment
Historic Preservation Board Agenda Item II.

Approval of March 21, 2018 Meeting Minutes

- The minutes of the March 21, 2018 Historic Preservation Board meeting are attached for review and approval.

Attachment(s):

- Historic Preservation Board minutes of March 21, 2018 meeting.

Action Required:

- Approval of minutes.
Call to Order and Introductions:
A regular meeting of the Historic Preservation Board was held in Clearwater, Florida on March 21, 2018. Chairman Justice called the meeting to order at 9:35 AM and reorganized the agenda to move Agenda Item III, Certificate of Appropriateness 2018-2, to the end of the agenda, as the applicant had notified staff he would be delayed in arriving at the public hearing.

Approval of Minutes
Minutes of the February 21, 2018 meeting of the Historic Preservation Board were approved unanimously.

Public Hearing: Certificate of Appropriateness Application 2018-2
Staff swore in the applicant and explained the process of how the public hearing will be conducted. The applicant, homeowner J. Scott Fisher, proposes to demolish a garage structure located on an individually designated historic landmark located in Palm Harbor. No new construction would result as a result of this application. The address of the subject
property is 507 11th St., Palm Harbor, FL 34683. The public hearing began with staff presenting on the work proposed, and recommended the Certificate of Appropriateness (COA) be approved due to the deteriorated condition of the garage, and the potential safety hazards it presented. Removal of the garage would not conflict with any of the applicable criteria required for consideration when reviewing COAs. Board Members had questions pertaining to the garage’s materials, the home’s construction date, and future plans for the property. The applicant explained the property ties back to the original plat of the Town of Sutherland, now present day Palm Harbor. The pole-barn structure was not original to the home, and had significant termite damage. Mr. Fisher also responded he may consider at some point applying for a separate COA to put a carport structure on the property. After discussion, Board Member Wally Clark motioned for approval, Vice Chairman Smith seconded, and the Board unanimously approved the COA.

IV. Work Plan Updates/Discussion
Agenda item 4 began with a discussion on the historical marker program. The City of St. Pete Beach is still pursuing the Merry Pier marker application, and would like to move forward with the Pass-a-Grille Historic District marker. After discussion, Vice Chairman Brian Smith made a motion to support both marker applications. Board Member Gina Clayton seconded the motion and it passed unanimously. Merry Pier will be on the third quarter State Historic Marker Council meeting agenda, as will the historic district marker if the City can take action on the application before the deadline. The Rheba Sutton White Chapel will be on the second quarter Council meeting agenda, on April 17.

A discussion on the next preservation summit followed. Board Member Barie plans to contact a representative from Stetson regarding locating the event on the campus in May. Chairman Charlie Justice informed the Board that the Board of County Commissioners had recently appointed Kathy Salustri to the Pinellas County Historical Commission, which oversees Heritage Village. The Chairman indicated Ms. Salustri serves on the Gulfport Historical Society’s Board and is an editor at Creative Loafing, so she would be a good resource to help plan an event in Gulfport. After a discussion, Board Member Barie stated that he would coordinate with Ms. Salustri and representatives from Stetson, with Staff’s assistance in reaching out to the City of Gulfport. May 16 was chosen as the date for the Summit, with the potential to have a meeting on that same day at Stetson’s facilities prior to the event starting.

Finally, staff gave an update on the web-based historic sites GIS application, with an announcement that Heritage Village has been added to the site, with museum photos and documents to be added over time. The Pinellas County Historical Commission took action to
support further expanding the outreach and planning tool by allowing the Museum’s historical photo archive and research to be used for any mapped historic resources.

V. Public Comments
No members of the public were present to provide comments.

VI. Board member comments:
No comments.

VII. Chairman’s comments
The Chairman thanked everyone for their continued efforts.

VIII. Adjournment
The March 21, 2018 meeting was adjourned at 10:54 a.m.
Historic Preservation Board Agenda Item III.

Work Plan Updates/Discussion

Staff will give an update on the following work plan-related items:

- Countywide Historic Bridges Survey Grant Update & Presentation. (Project consultants, Cardno, will present an overview of the project and the findings of the survey.)
- Unincorporated Historic Resources Survey Grant Award
- Downtown Palm Harbor Historic District Survey Update
- Historical Marker Program
- Next Preservation Summit

Attachment(s):

- Pinellas County Bridges Historic Resources Survey (report)
- Historic Marker application status table

Action Required:

- Review attached documents for discussion; provide feedback on historic bridges recommended next steps, future historical marker applications, and the next preservation summit.
Document Information

Prepared for: Pinellas County Planning Department
Project Name: Pinellas County Bridges Historic Resources Survey
Grant Number: 18.h.sm.200.065
Contract Number: 145-0342-CN (RW)
Cardno Project Number: 0002019707
Project Manager: Paul Jones
Date: June 20, 2018

This project has been financed in part with historic preservation grant assistance provided by the Bureau of Historic Preservation, Division of Historical Resources, Florida Department of State, assisted by the Florida Historical Commission.

Prepared for:
Christopher D. Moore, CFM, Project Supervisor
Pinellas County Planning Department
310 Court Street, Clearwater, FL 33756

Prepared by:
Kimberly Hinder, MHP
Cardno
3905 Crescent Park Drive, Riverview, FL 33578
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Acknowledgements

This project has been financed in part with historic preservation grant assistance provided by the Bureau of Historic Preservation, Division of Historical Resources, Florida Department of State, assisted by the Florida Historical Commission.

Christopher D. Moore, CFM, of the Pinellas County Planning Department served as project supervisor. He administered the grant, guided the survey, and coordinated project tasks with Cardno as well as the Pinellas County Engineering Department.

Special thanks go to Archivist Marta Jones with the St. Petersburg Museum of History, Museum Specialist Patricia Landon with Pinellas County Heritage Village, Rino Landa, Maker Studios Coordinator, Clearwater Public Library System, and Sally Yoder with the Gulf Beaches Historical Museum.
1 Introduction

The Pinellas County Planning Department hired Cardno to complete a Countywide Historic Bridge Survey for 40 historic bridges in October 2017. Cardno conducted the field survey and archival research between November 2017 and March 2018. This report describes the methods and results of the survey.

The Pinellas County Planning Department, which is a Certified Local Government, applied for and received a state survey and planning grant from the Bureau of Historic Preservation, Division of Historical Resources, to undertake a countywide historic bridge survey. The survey area includes all of Pinellas County, both incorporated and unincorporated areas (Figure 1). The goal of the project was to identify and document on Florida Master Site File (FMSF) forms 20 previously recorded bridges and 20 newly identified historic bridges. While adding to the existing bridge inventory, the purpose of the survey was to identify resources for planning and community education as well.

At the time of the survey, background research indicated that 55 bridges were listed in the FMSF as a result of prior surveys. Cardno resurveyed 20 of the bridges and completed FMSF forms for an additional 20 historic bridges. Project deliverables included 40 FMSF forms, Geographic Information Systems (GIS) data for the bridges, and a Final Survey Report summarizing the findings.

The Final Survey Report is divided into seven sections. Section 1 contains an introduction to the project as well as the scope of work. Section 2 discusses the archival and background research conducted as well as the prior surveys undertaken in Pinellas County concerning bridges. A list of previously recorded bridges is also included in this section. Section 3 presents an historical overview of Pinellas County with particular attention focused on bridge and road development in the county. In Section 4, the research design incorporates a discussion of the methodology employed during the survey, the anticipated results, and the criteria for evaluation. The survey results are explained in Section 5 along with a brief architectural analysis. Section 6 presents conclusions regarding eligibility for National Register of Historic Places (NRHP) designation including a list of potentially eligible bridges. Recommendations for future survey, planning, and preservation actions are also in this section. The sources consulted are in Section 7. A list of demolished bridges is in Appendix A. The FMSF are included in Appendix B.
Figure 1 Survey Area.
2 Summary of Background Research

A narrative history of the county was prepared to provide a context to identify significant events, people, institutions and organizations associated with bridge construction. To provide context and data to support the project, Cardno conducted archival and background research. Sources of information included:

- Florida Master Site File (FMSF)
- Florida Department of Transportation (FDOT) Bridge Management System Structure Inventory Detail Reports
- Pinellas County Public Works Department
- Pinellas County Clerk of the Court, Official Records and Plat Maps
- Clearwater Public Library System
- Hillsborough County Public Library System, Burgert Brothers Photographic Collection
- State of Florida Library and Archives, Florida Photographic Collection
- Gulf Beaches Historical Museum
- Heritage Village Archives and Library
- St. Petersburg Museum of History
- Historic aerials, United States Geological Survey (USGS) maps, and Sanborn Fire Insurance Maps
- Local residents, where available

Cardno used FDOT and Pinellas County Public Works Department records to generate a list of probable historic bridges to be verified during the field survey and to determine probable dates of construction for the identified resources. Only bridges constructed prior to 1974 were included in this survey. Research also involved a search for historic photographs of bridges in the Florida Photographic Collection of the Florida State Archives and local archives such as Heritage Village, the Gulf Beaches Historical Museum, and the St. Petersburg Museum of History. Local historical newspapers, such as the St. Petersburg Times, St. Petersburg Evening Independent, and Clearwater Sun, helped to provide background surrounding events prompting construction of each bridge and significant persons associated with the bridge including the designers, engineers, and contractors involved.

2.1 Previous Field Surveys

As this project entailed updating FMSF forms for 20 previously recorded bridges, verifying prior surveys and when they were conducted helped to focus the survey efforts for this project. The update of FMSF forms for this project was generally limited to those bridges which were last updated in the FMSF prior to 2012, unless the bridge was substantially altered or additional information was available since the completion of the FMSF form.

The FMSF, part of the Florida Division of Historical Resources, maintains records of previous archaeological and historical surveys completed statewide. As part of the background research for this project, a search of the FMSF database, in GIS format dated October 2017, was completed to identify previous surveys with some relevance to the current investigation of bridges in Pinellas County. Review of these reports provided background information for the current survey concerning the types of bridges that would be expected, relevant research questions, and previous findings.
Of particular interest were the prior statewide bridge surveys including the Historic Highway Bridges of Florida published in 2004 by the Environmental Management Office of the Florida Department of Transportation (FDOT) and the 2010 update of that survey prepared by Archaeological Consultants, Inc. (ACI). As a result of this update, ACI prepared an NRHP Multiple Property Documentation Form for Florida’s Historic Highway Bridges in 2013. The Countywide Cultural Resource Study for Pinellas County prepared by New South Associates in 2008 was also consulted to identify prior bridge survey efforts in the county and the potential for unrecorded resources. Research revealed that a number of surveys have been conducted to widen or replace the bridges across the Intracoastal Waterways (ICWW) and along the main arteries in the county.

A search of the FMSF database identified 21 previous cultural resources surveys that included bridges in the county (Table 1).

Table 1  Previous Cultural Resources Surveys in Pinellas County Involving Bridges.

<table>
<thead>
<tr>
<th>FMSF Survey No.</th>
<th>Title</th>
<th>Year</th>
<th>Author</th>
<th>Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>517</td>
<td>An Archaeological Survey of the Pass-a-Grille Beach and Oldsmar USGS Quadrangle Map Areas</td>
<td>1974</td>
<td>J. Raymond Williams</td>
<td>Pinellas County</td>
</tr>
<tr>
<td>3801</td>
<td>Florida Historic Highway Bridges</td>
<td>1992</td>
<td>C. Leroy Irwin, Joseph E. King, and Roy Adlai Jackson</td>
<td>FDOT Environmental Management Office</td>
</tr>
<tr>
<td>4793</td>
<td>Cultural Resource Assessment Survey of the SR 60 Memorial Causeway Bridge PD&amp;E Study, City of Clearwater</td>
<td>1997</td>
<td>HDR Engineering, Inc. and Stevenson Architects, Inc.</td>
<td>FDOT and the City of Clearwater</td>
</tr>
<tr>
<td>4817</td>
<td>Cultural Resource Assessment Survey for Proposed Interim and Traffic Improvements along US 19 (State Road 55) between Live Oak Street and the Pinellas/Pasco County Line and from South of State Road 60 to North of State Road 60, Pinellas County</td>
<td>1997</td>
<td>Janus Research</td>
<td>FDOT</td>
</tr>
<tr>
<td>5749</td>
<td>Cultural Resource Assessment Survey of the State Road 699 (Gulf Blvd) from south of Park Blvd to north of Walsingham Rd PD&amp;E Study, Pinellas County</td>
<td>1999</td>
<td>Janus Research</td>
<td>FDOT</td>
</tr>
<tr>
<td>6176</td>
<td>Cultural Resource Assessment Survey, Johns Pass Bridge Replacement PD&amp;E Study, Pinellas County</td>
<td>2000</td>
<td>Archaeological Consultants, Inc.</td>
<td>FDOT</td>
</tr>
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<td>6671</td>
<td>Cultural Resource Assessment Survey for the Treasure Island Causeway PD&amp;E Study, Pinellas County</td>
<td>2001</td>
<td>Janus Research</td>
<td>City of Treasure Island</td>
</tr>
<tr>
<td>9629</td>
<td>A Historic Structure Survey of the Belleair Beach Causeway Bridge Replacements, Pinellas County</td>
<td>2003</td>
<td>Southeastern Archaeological Research, Inc. (SEARCH)</td>
<td>HDR Engineering, Inc.</td>
</tr>
<tr>
<td>15356</td>
<td>Cultural Resource Assessment Survey Report for S.R. 679 (Pinellas Bayway Structure E) at Intracoastal Waterway PD&amp;E Study, Pinellas County</td>
<td>2005</td>
<td>Archaeological Consultants, Inc.</td>
<td>FDOT</td>
</tr>
<tr>
<td>FMSF Survey No.</td>
<td>Title</td>
<td>Year</td>
<td>Author</td>
<td>Sponsor</td>
</tr>
<tr>
<td>----------------</td>
<td>----------------------------------------------------------------------</td>
<td>-------</td>
<td>---------------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>16115</td>
<td>Countywide Cultural Resources Survey, Pinellas County</td>
<td>2008</td>
<td>New South Associates, Inc.</td>
<td>Pinellas County</td>
</tr>
<tr>
<td>18856</td>
<td>Historic Resources Survey Update Technical Memorandum SR 590/Drew Street from Alternate US 19/SR 595/N. Myrtle Avenue to East of Mariva Avenue, Pinellas County</td>
<td>2011</td>
<td>Archaeological Consultants, Inc.</td>
<td>FDOT</td>
</tr>
<tr>
<td>19102</td>
<td>Cultural Resource Assessment Survey of the 423080-1 I-275/SR 93 Southbound Bridge Replacement at Bunces Pass, Pinellas County</td>
<td>2011</td>
<td>Janus Research</td>
<td>FDOT</td>
</tr>
<tr>
<td>19901</td>
<td>Beckett Bridge PD&amp;E Study from Chesapeake Drive to Forest Avenue, Tarpon Springs, Pinellas County</td>
<td>2013</td>
<td>Janus Research</td>
<td>Pinellas County</td>
</tr>
<tr>
<td>20057</td>
<td>Florida's Historic Highway Bridges, 2010 Update</td>
<td>2012</td>
<td>Archaeological Consultants, Inc.</td>
<td>FDOT Environmental Management Office</td>
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<td>20006</td>
<td>Florida's Historic Highway Bridges 2013 Update (Multiple Property Submission)</td>
<td>2013</td>
<td>Archaeological Consultants, Inc.</td>
<td>FDOT Environmental Management Office</td>
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<td>20706</td>
<td>Cultural Resource Assessment Survey of SR 590/NE Coachman Road from West of Marilyn Street to East of Audrey Drive, Pinellas County</td>
<td>2013</td>
<td>Archaeological Consultants, Inc.</td>
<td>Volkert, Inc.</td>
</tr>
<tr>
<td>21218</td>
<td>Effects Determination Consultation Case Study Report SR 590 (NE Coachman Road) from West of Marilyn Street to East of Audrey Drive, Evaluation of Effects to the Rainbow Arch Bridge (8PI8730), FDOT Bridge No 150113, Pinellas County</td>
<td>2014</td>
<td>Archaeological Consultants, Inc.</td>
<td>FDOT</td>
</tr>
<tr>
<td>22605</td>
<td>Cultural Resource Assessment Survey Replacement of the Westwinds Drive Bridge (No. 154003) and the Crosswinds Drive Bridge (No. 154004), Pinellas County</td>
<td>2015</td>
<td>Archaeological Consultants, Inc.</td>
<td>Pinellas County</td>
</tr>
<tr>
<td>23256</td>
<td>Cultural Resource Assessment Survey, San Martin Boulevard Bridge over Riviera Bay PD&amp;E Study, Pinellas County</td>
<td>2015</td>
<td>Archaeological Consultants, Inc.</td>
<td>Pinellas County</td>
</tr>
<tr>
<td>22843</td>
<td>Cultural Resource Assessment Survey for the Dunedin Causeway from Ward Island to Honeymoon Island, Pinellas County</td>
<td>2016</td>
<td>SEARCH</td>
<td>AECOM and Pinellas County</td>
</tr>
</tbody>
</table>
2.2 Previously Recorded Historic Resources

At the same time that the FMSF GIS database was searched for previous surveys, records were sought for historic bridges already recorded with the survey area. Background research identified 55 bridges previously recorded in the FMSF. Thirty-four of these bridges are extant, while 21 are demolished or partially demolished (Table 2, Table 3). The Old Sunshine Skyway Bridge Fishing Piers/Old Sunshine Skyway Bridge (8PI135; FDOT #150037, 159008, 159007) and the Treasure Island Causeway (8PI10574; FDOT #157800, 157820, 157840) are listed in both tables because even though large sections have been demolished, some elements of the bridges remain. The SHPO only evaluates NRHP eligibility of particular resources when requested in compliance with state or federal statutes. Thirty-seven of the extant previously recorded structures have been evaluated by the SHPO in compliance with Section 106 projects (36 CFR Part 800). The SHPO considered eight to be eligible for the NRHP, and eight to be ineligible for listing. The Old Sunshine Skyway Bridge was determined ineligible, while the Treasure Island Causeway was identified as eligible by the SHPO prior to its partial demolition and relocation. Eighteen of the previously recorded structures have not been evaluated by the SHPO. None of the previously recorded bridges is listed in the NRHP.
### Extant Previously Recorded Historic Bridges within Pinellas County.

<table>
<thead>
<tr>
<th>Bridge No.</th>
<th>FMSF No.</th>
<th>Bridge Name</th>
<th>Roadway</th>
<th>Facility Crossed</th>
<th>Year Built</th>
<th>Ownership</th>
<th>Location</th>
<th>Design</th>
<th>Engineers/Builders</th>
<th>Surveyor's Evaluation (Individual/District)</th>
<th>SHPO's Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>150007</td>
<td>8PI12005</td>
<td>SR-590/Steveon Creek</td>
<td>SR-590 (Drew Street)</td>
<td>Stevenson Creek</td>
<td>1927; 1970</td>
<td>FDOT</td>
<td>Clearwater</td>
<td>Arch-Deck/Slab</td>
<td>W.L. Alley</td>
<td>Ineligible</td>
<td>Ineligible</td>
</tr>
<tr>
<td>150028</td>
<td>8PI12056</td>
<td>Welch Causeway Drawbridge/ Tom Stuart Causeway/ Madeira Beach Causeway</td>
<td>150th Avenue (SR 666)</td>
<td>ICWW</td>
<td>1962</td>
<td>FDOT</td>
<td>Madeira Beach</td>
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## Table 3  
Demolished or Partially Demolished Previously Recorded Historic Bridges within Pinellas County.

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<th>Bridge Name</th>
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<td>Davis Causeway/ Courtyard Campbell Causeway</td>
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<td>1927-33, 1974, 1933</td>
<td>1974</td>
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<td>1950</td>
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<td>Belleair Beach</td>
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<td>1963, 2005</td>
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<td>Safety Harbor Bay</td>
<td>1923</td>
<td>1968</td>
<td>Safety Harbor/Oldsmar</td>
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3 Narrative History

3.1 Early Settlement

Following the dissemination of the aboriginal inhabitants of Florida, Seminoles consisting of the migrating remnants of the Native American Creek nation and other Native American groups moved into Florida from Alabama, Georgia and South Carolina. Conflict between the Seminoles and the new American nation erupted with the First Seminole War which lasted from 1818 to 1823 resulting in a reservation for the Native Americans south of Ocala and north of Charlotte Harbor (Tebeau 1971:72; Mahon 1967:72). During this period, Florida became a United States territory in 1819, but settlement remained limited with only 5,077 white persons living east of the Suwannee River in the 1825 territorial census (Tebeau 1971:134).

The inadequacy of the Seminole reservation and growing demand by whites for their land soon led to clashes throughout central Florida. In 1824, the United States government established Fort Brooke at the mouth of the Hillsborough River in present-day downtown Tampa in order to monitor the rising tensions in the area. Following the outbreak of the Second Seminole War in 1835, Fort Brooke was designated the headquarters for the Army of the South and the main garrison for the Seminole wars. In April 1841, the Army established Fort Harrison in the present-day Clearwater area. Closed in November, the short-lived fort served as a medical center for injured soldiers. The war ended the following year when the federal government decided to withdraw troops from Florida (Dunn 1973:14). Although some Seminoles migrated west to established reservations, many decided to stay but were relegated to inhabit the Everglades and Big Cypress Swamp. The military roads and forts created throughout central Florida during the war laid a foundation for settlement after the war.

Hillsborough County was created in 1834 to encompass present-day Pinellas County along with portions of Pasco, Polk, Manatee, Sarasota, DeSoto, Charlotte, Highlands, and Hardee counties. In 1840, Hillsborough County held only 452 residents including 287 soldiers at Fort Brooke (Dunn 1973:22). Passed in 1842, the Armed Occupation Act encouraged settlement by opening 200,000 acres between Gainesville and the Peace River excluding those within a two mile radius of a fort or along the coast. Any single man or family able to bear arms, build a house, and cultivate five acres of land for five years could claim 160 acres. In effect for only nine months, 1,184 permits were issued totaling over 189,000 acres. In the area which would become Pinellas County, individuals or families filed 24 claims (Dunn 1973:15). The Union admitted Florida as a state in 1845, and, by 1850, the Pinellas peninsula boasted a population of 178 people from 35 families (Dunn 1973:22). Initial settlement focused around the plantation owned by Dr. Odet Philippe at the north end of Tampa Bay. Other early settlers included James Stevens, Samuel Stevenson, Elias Hart, Richard Booth, and Captain James Parramore McMullen, the first of the seven McMullen brothers who would settle in Pinellas County. In 1849, Hillsborough County approved the construction of the first road from Clearwater to Tampa (Sanders 1983:13). The Third Seminole War, which lasted from 1855 to 1858, again plunged the area into uncertainty although most of the skirmishes occurred in south Florida (Covington 1982:78-80).

Named for the natural, clear springs in its harbor, the first commercial building was constructed in Clearwater by William Campbell around 1858. A post office was established under the name Clear Water Harbor in 1859 (Bradbury and Hallock 1962:17). Once a week, supplies and mail to the Pinellas peninsula arrived by steamer or by foot from Cedar Keys, where the first railroad extending from the east to the west coast of Florida terminated. Prior to the Civil War, approximately 52 deeds were issued for lands on the Pinellas peninsula (Sanars 1983:12; Dunn 1973:15). Twenty-two houses were vacant during the 1860 census which counted 381 people from 82 families (Dunn 1973:22). The primary industries consisted of sea island cotton, fishing, and cattle, with a limited amount of citrus. Most homesteads were self-sufficient farms with limited surplus to send to market. A hurricane in 1848 destroyed many of the small enterprises (Sanders 1983:13; Woman’s Club 1917).

In 1861, Florida joined the other southern states in seceding from the Union prompting the outbreak of the Civil War. Salt from salt works along the coast and beef were the area’s major contributions to the
Confederate effort. Although the Union blockaded the coast, mainland Florida saw very little military action during the war. Union gunboats raided Clearwater and the small community of Pinellas south of present-day St. Petersburg taking supplies and destroying property of local residents. Many male residents abandoned their farms and joined the Union or Confederate armies with their families returning to their states of origin (Woman’s Club 1917).

Following the war, the state slowly rebounded officially rejoining the Union in 1868 (Tebeau 1971:251). The population of the Pinellas peninsula grew to 781 individuals from 164 families by 1870 (Dunn 1973:22). The first newspaper on the Pinellas peninsula, the Clear Water Times, was first published in 1873. The founding editor, Reverend C.S. Reynolds, described Clearwater in the August 23, 1873 edition,

> We have good schools, churches well attended, and the most orderly population I have ever known...Within five years more the young orange groves which have been planted with other fruits that will be bearing, will make the residents of this section independently rich (Dunn 1973:18).

In 1873, the first public school on the peninsula met in the first Baptist church which Reynolds helped organize in Clearwater. By 1880, 1,111 people living in 240 houses occupied the Pinellas peninsula with most in the vicinity of Clearwater (Dunn 1973:22). This growth was due in part to other southerners seeking to escape unrest in the neighboring states of the former Confederacy and in part by northerners in search of vacation homes with their newfound prosperity following the war. The construction of the Orange Bluff Hotel and the Sea View Hotel in the early 1880s opened the peninsula to tourism which was encouraged by Dr. W.C. Van Bibber’s endorsement of the Pinellas peninsula as the perfect location for a healthiest spot on earth at the 1885 American Medical Society Convention in New Orleans. North of Clearwater, Tarpon Springs was also first settled in the 1870s and 1880s (Arsenault 1996:62; Pinellas County Planning Department 1995:22).

### 3.2 Arrival of the Railroad

Development along the peninsula remained limited until the arrival of the Orange Belt Railroad in 1888. In 1850, the federal government conveyed approximately ten million acres of “swamp and overflow land” to the state of Florida. In order to manage the land as well as the 500,000 acres the state received upon joining the Union, the Florida legislature created the Internal Improvement Fund and a Board of Trustees to administer it. Mired in debt following the Civil War, state law mandated that no land could be sold until the debt was cleared. In 1881, Hamilton Disston, a member of a prominent saw manufacturing firm of Pennsylvania, purchased four million acres of the “swamp and overflow land” for one million dollars in exchange for his promise to drain and improve the land. Known as the Disston Purchase, this transaction eliminated the fund’s debt and allowed railroad companies to acquire land subsidies and construct new railroad lines through the state. Disston and railroad companies then sold smaller parcels of land to individual developers and investors. Disston first settled in Tarpon Springs in 1882 building a hotel and encouraging his northern visitors to enjoy the “medicinal waters of Spring Bayou. This early health center and winter resort incorporated as a city in 1887 (Tebeau 1965:252).

Arriving on the Pinellas peninsula in 1888, the Orange Belt Railroad extended from Sanford through Clearwater to St. Petersburg. When the narrow gauge railway reached Clearwater, only 18 families lived in the city, which had neither paved streets, nor other improvements. In anticipation of the railroad, the first plat in Clearwater was filed in 1887. Hamilton Disston had agreed to finance the completion of the Orange Belt Railroad to the south end of the peninsula under the assumption that the railroad would terminate in his newest development, Disston City (now Gulfport). Instead, Orange Belt owner, Peter Demens, built the narrow gauge railroad to a terminus on land situated northeast of Disston City owned by John C. Williams. The first train arrived in June 1888 to a settlement with little more than a store and a few residences. In return for Demens building the railroad to Williams’ land, Williams deeded 250 acres to the Orange Belt Railroad. Demens and Williams collaborated in their plans to build a new community around the terminus of the railroad complete with a depot, hotel, and city park. In exchange for naming the city after Demens’ birthplace, St. Petersburg, Demens named the hotel after Williams’ hometown, Detroit. With the city plat
filed in 1888, Williams and Demens started selling lots. By 1890, the town’s population grew from less than 50 to 273 residents with two hotels, two ice plants, two churches, a school, a pier, and a sawmill with an economy largely dependent on commercial fishing (Arsenault, 1996:52-61). Incorporated in 1892, the community received telephone, public water, and electric service by 1900 (Arsenault 1996:64, 81-82).

Although the Orange Belt Railway was completed, it was not successful in the short term. In an effort to boost profits, the Railway started offering seaside excursions to St. Petersburg in 1889. These excursions were one of the first concentrated efforts by the community and the development company to attract tourists (Grismer 1948: 70, 97, 111). In spite of these efforts, the railroad could not pay its debts, and a syndicate of Philadelphia financiers holding the debts took over the railroad and associated development company. By 1902, the Atlantic Coast Line railroad acquired the line which served the area until merged with Seaboard Air Line Railroad in 1967 to become the Seaboard Coast Line. The railroad transformed the state bringing new residents and tourists as well as opening northern markets to Florida grown citrus, naval stores, and fish among other industries (Grismer 1948:70, 97, 111; “Heavy Real Estate Deal” 1906:1; Covington 1957:182).

Citrus grew into a major industry on the Pinellas peninsula after the “Great Freeze” of the winter of 1894-95 destroyed ninety percent of the state’s citrus industry. Prior to the freeze, groves in the state produced over five million boxes of citrus, which dropped to only 150,000 boxes in the year following the freeze (Hatton 1987:29). Surrounded by water on three sides, the Pinellas peninsula was virtually unscathed by the freeze. Phillip J. Bayly, whose land occupied the area now known as Belleair Bluffs, remained almost untouched by the weather. He pioneered gift-wrapped and mail-order citrus. Oranges which survived the freeze brought in as much as $15 a crate compared to only $1.50 a crate before the freeze. With the frost line thus pushed south, the Pinellas peninsula saw a number of citrus groves installed during the late 1890s into the early twentieth century (Sanders 1980:9; Sanders 1983:25-26).

Incorporated in 1891, the Clear Water Harbor post office changed its name to Clearwater Harbor in 1895, and then dropped the word “Harbor” to become simply Clearwater in 1906 (Bradbury and Hallock 1962:17). In 1894, Reverend C.S. Reynolds founded the West Hillsboro Press, which eventually became the Clearwater News. Pioneers S.S. Coachman, who came to Clearwater in 1886, established a sawmill near the future site of the Belleview Hotel and built one of the first brick buildings in the county to house his general store in 1894. After acquiring James McMullen’s homestead in 1902, he became one of the largest citrus grove owners in Pinellas County with three paved roads, including the brick road connecting Tampa and Clearwater, eventually extending through his lands. He also became chairman of the first Pinellas County Board of County Commissioners and a Clearwater City Councilman (Atkins 1942; Straub 1929:234; Dunn 1973:49).

The first road improvements on the peninsula developed from the bicycle craze which swept the nation in the late 1890s. Soon, bicycle paths of clay or shell covered with pine straw radiated from Clearwater. In 1895, the only paved roads in Clearwater were Cleveland Street from the harbor to the railroad station and Fort Harrison Avenue from Cleveland Street to a point south of the original Methodist church. As was typical, the roads were paved with shell from an aboriginal site near Clearwater Harbor (Dunn 1973:23). In 1896, Cleveland Street was widened from 40 to 80 feet and a clay road was built from Fort Harrison Avenue to the entrance of the Belleview Hotel, which was under construction. On January 15, 1897, the Belleview Biltmore Hotel opened south of Clearwater on a bluff overlooking Clearwater Harbor. Built by railroad magnate Henry B. Plant, a railway line extended directly to the hotel. Plant, a railroad operator in Georgia and South Carolina, had expanded his lines into Florida and built the line between Kissimmee to Tampa in 1883. The Plant System, which eventually became the Atlantic Coast Line, acquired the Orange Belt Railroad while the hotel was under construction. As a popular destination resort for the wealthy, the hotel provided 600 rooms, an asphalt bicycle track and the first golf course with greens instead of sand. By 1915, the hotel boasted an 18-hole course designed by famous American golf course architect Donald J. Ross. The popularity of the hotel and the growth of the surrounding community of Belleair brought prosperity to Clearwater and other nearby settlements. The growth of automobile use led to the construction of a vehicular bridge to provide entrance to the hotel in 1915 (Figure 2). Designed by well-known bridge designer Daniel B. Luten, the bridge exhibited an unusual Half Arch Deck construction. In spite of some
alterations and the construction of an adjacent bridge in 1974, this significant bridge remains (Sanders 1983:27; Dunn 1973:24; Hatton 1987:29; Woman’s Club 1917).

Figure 2  Bellevue Bridge postcard, ca. 1915 (Heritage Village).

During the first two decades of the twentieth century, the Pinellas peninsula was introduced to electricity, telephone service, modern utilities, and automobile transportation. Clearwater’s population grew from 343 residents in 1900 to 1,171 in 1910 (Pinellas County Planning Department 1995:98). Telephone service started in 1903, while electric arrived in 1905 (Sanders 1983:47; Dunn 1973:25-26). Built in 1902 at the foot of Cleveland Street, the recreational pavilion and public dock served as the center of activity in the small city. The main business section extended along Cleveland Street from Osceola Avenue to Fort Harrison Avenue with little construction beyond the railroad tracks. Drew Street and Northeast Coachman Road were the principal roads connecting Clearwater with the surrounding communities. In 1910, fire swept through downtown destroying all of the buildings on the north side of Cleveland Street, but they were soon replaced with new brick buildings following the new fire code. The fire also prompted the creation of the Clearwater Fire Department (Straub 1929:94; Dunn 1973:55; Sanders 1983:64). Following the construction of the first ice factory in 1900, a water main was installed from the factory to the corner of Cleveland Street and Fort Harrison Avenue. A Board of Trade formed in 1905 to promote improvements in waterworks and sewers. In 1910, the City purchased the plant and voters approved bonds for expansion of the system. Congress appropriated $29,000 to dredge Clearwater and Boca Ciega Bays to Tampa Bay in 1910. The project provided a five foot channel at low tide when it was completed in 1915 (Dunn 1973:25-28).

Frank Davis, a prominent publisher from Philadelphia who arrived in St. Petersburg to alleviate his own health problems, utilized Dr. Van Bibber’s endorsement of the Pinellas peninsula as a healthy destination to heavily promote the benefits of St. Petersburg. Davis, along with other new residents including St. Petersburg Times editor William Straub and St. Petersburg Evening Independent editor Lew Brown, tirelessly promoted the community during the early 1900s (Arsenault 1996:82-85). The creation of St. Petersburg’s waterfront park system, the incorporation of a trolley system, and the construction of the Electric Pier drew additional tourists and new residents to the area (Arsenault 1996:87-89). The companies formed by Frank A. Davis played a significant role in the creation of this first real estate boom and in the future development of the city. In 1902, Frank A. Davis formed the St. Petersburg Investment Company, largely utilizing capital from former associates in Philadelphia. The Investment Company served as the holding company for both the city’s electric and streetcar companies (Grismer 1924, 67-79, 273; Grismer 1948, 119, 304-306).
The first trolley line in St. Petersburg was completed in 1904 along 9th Street South (present-day Dr. M.L. King Jr. Street) and extended to present-day Gulfport the following year. Construction of the line involved the replacement of a bridge carrying 9th Street South across Booker Creek which was mentioned in correspondence in 1902 but likely was built in the 1880s or 1890s (St. Petersburg Times 4/12/1902). In 1904, the St. Petersburg Investment Company completed a new 160 ft. long wooden replacement bridge across the ravine to provide trolley car service south (St. Petersburg Times 9/10/1904 and 12/31/1904). In 1913, the County Commission solicited for plans for the construction of a new bridge across Booker Creek on 9th Street South. In August, County Commissioner F.A. Wood, who lived near the bridge, presented the plans drawn by engineer C.C. Whitaker of Atlanta to the City Commission. The $18,750 cost of the bridge was split between the City, the County, and the St. Petersburg Investment Company. Measuring 160 ft. long, the concrete bridge would be 45 ft. wide incorporating a 24 ft. roadway, with six ft. sidewalks, and the trolley line along the west side. Edwards Construction Company secured the contract for its construction and started work in October. The bridge opened to traffic in March 1914. Within a week of its completion, developer C.M. Roser, who owned the land along the creek to the east of the bridge, hired the Edwards Construction Company to build two additional bridges in his new residential neighborhood to be called Roser Park. The two concrete bridges would cross Booker Creek at 6th Street and at 8th Street South. The brick boulevard along the south side of the creek, now known as Roser Park Drive, was to be started as soon as the bridges were complete. The Roser Park neighborhood would become one of the most desirable in the city over the following decade and would eventually be NRHP designated (St. Petersburg Times 8/20/1913, 10/8/1913, 10/11/1913, 10/28/1913, 11/6/1913, 2/17/1914, 2/21/1914, 3/19/1914, 3/19/1914, 3/25/1914, 2/21/1915).

### 3.3 Creation of a County

The effort to separate what was then known as West Hillsborough into a new county originated in 1906 and finally came to fruition in 1911. The Florida legislature approved the creation of Pinellas County out of the western portion of Hillsborough County on May 23, 1911. This separation was largely prompted by the demand for an improved road system on the Pinellas peninsula and Hillsborough County’s refusal to provide it (Straub 1929:67-68; Pinellas County Planning Department 1995:28). A bitter dispute between Clearwater and St. Petersburg followed over the selection of the county seat. According to historian Ralph Reed,

> The up-county Commissioners were served with an injunction, and, at a meeting on May 7, 1912, the Board, by a vote of three to two, awarded a contract to E.W. Parker, of Tampa, for a two-story frame courthouse, to cost $3,750. It was to be built within 30 days on lots given by the City of Clearwater on the present site of Peace Memorial Church (Dunn 1973:27).

Quickly constructed, the new courthouse solidified Clearwater’s selection, as according to law, the county seat could not be moved for twenty years (Sanders 1983:47; Turner 1989:106).

In 1912, the county approved a $370,000 bond issue for the construction of hard-surfed roads which provided for a piecemeal set of roads, not a network connecting the major cities. As the need for a cohesive system grew increasingly apparent, the Pinellas County Board of Trade established a road committee of ten members with representation for each community. The board initiated planning for a county-wide network conducting surveys and creating cost estimates for it. In 1915, voters approved $715,000 of bonds for the construction of 75 miles of nine ft. wide vitrified brick roads with concrete curbing which were completed in 1917 under the supervision of County Engineer Clement McMullen (Straub 1929:68). County efforts to improve roads also included new bridges across major waterways. In 1916, County Commissioners approved a $36,566 contract to the Converse Bridge & Steel Company of Chattanooga for the construction of two concrete bridges. One was the Tarpon Springs bridge across the Anclote River “with twin leaves and a series of rolling lifts.” The 1905 arrival of Greek sponge divers in Tarpon Springs had marked a shift in the local economy and culture of the city. Even though sponge beds had been discovered by turtle fishermen in 1873, the sponge industry grew into the state’s largest industry.
during the 1920s under the leadership of the Greek residents. An influx of year round residents, mostly Greek immigrants, replaced wealthy winter residents as the community's largest social group. Postcards and brochures encouraged tourists to visit “The Sponge Capital of the World.” The multitude of new residents and activity around the sponge docks prompted the need for the construction of the bridge. The other bridge funded as part of the 1916 contract to the Converse Bridge & Steel Company was for the construction of Clearwater’s Stephens Creek according to plans by the J.B. McCrary Company (St. Petersburg Times 11/22/1916). Also erected during this period, the first vehicular bridge spanning the Intracoastal waterway was the Indian Rocks Bridge built in 1916 (Figure 3). Only 14 ft. wide, the 400 ft. long bridge required the payment of 25 cents (Yoder 2014).

Figure 3 Indian Rocks Bridge, ca. 1924 postcard (St. Petersburg Museum of History).

A second railroad, the Tampa and Gulf Coast, enhanced the county’s transportation system in 1914 further connecting Clearwater, Largo, and St. Petersburg with Tampa (Pinellas County Planning Department 1995:28; Sanders 1983:49). This line eventually became part of the Seaboard Coastline Railroad. In 1914, Clearwater’s first daily newspaper, the Clearwater Evening Sun, was published by W.B. Powell. Morton Plant, Henry B. Plant’s son, funded the construction of a hospital in Clearwater which was named in his honor. Other improvements during this period in Clearwater included the construction of the Neoclassical style courthouse in 1917, a Carnegie public library in 1916, and a two-and-one-half-mile wooden bridge across the Clearwater Harbor to Clearwater Beach in 1917 (Figure 4).
The election to fund the construction of the bridge in 1916 was the first in which women could vote. Approximately 25 women voted in the election (Woman’s Club 1917). Organized in 1915, the Clearwater Golf Club (later renamed the Clearwater Country Club) constructed a course and club house approximately two-and-on-half miles east of town along Drew Street along the road to Safety Harbor. Situated in the midst of dense woods and citrus groves, the opening of the course drew development eastward from downtown Clearwater (No Author, ca. 1927; Woman’s Club 1917). Civic improvements, the railroad, the Belleview Hotel, and selection as the county seat continued to bring prosperity and development to Clearwater during the decade. According to *A History of Clearwater, Florida* produced by the Woman’s Club, the population of Clearwater totaled 3,000 year-round residents with the city’s inhabitants doubling during the tourist season. According to their description,

> Our town has excellent, up-to-date stores of all kinds; five hotels and many boarding houses; two well conducted picture shows and two garages. There are six citrus fruit packing houses, two banks, one cigar factory, two retail and wholesale fish houses; one bottling works, one novelty works, two lumber yards, one electric shop, and many other minor business concerns….There are a number of beautiful and luxurious homes in our city; many of the residences are situated on the Bay front with a view over the ever beautiful water of the Bay and Gulf. [The City] enjoyed more than a state-wide reputation for cleanliness and good health (Woman’s Club 1917).

The streets were cleaned, and garbage was collected daily. Pinellas County remained “one of the leading orange and grapefruit districts in Florida” with one million boxes of citrus shipped each year (Woman’s Club 1917).

In St. Petersburg, developers such as H. Walter Fuller, Noel Mitchell, Charles Hall, Charles Roser, and C. Perry Snell triggered the city’s first real estate land boom from 1911 to 1914 largely through the efforts of city boosters to attract businesses and residents (Arsenault 1996:136). Taking advantage of the local real estate boom starting in 1909, the St. Petersburg Investment Company, led by general manager H. Walter Fuller, acquired an option from Jacob Disston to purchase approximately 4,000 acres west of the city. The company subdivided several large tracts in 1911 and 1912, backing a plan to extend Central Avenue west to Boca Ceiga Bay. One of the subdivisions platted in 1912 was Davista, which was named in honor of
Frank A. Davis. Incorporating brick streets and paved sidewalks, lots were placed on the market during the winter of 1912-1913. As part of the Davista development, the company donated Sunset Park to the City of St. Petersburg in 1913. Advertisements for Davista, situated in an area now known as Pasadena, proclaimed the development as “The Gem of All Florida Developments.” The high-end residential neighborhood was supported by the extension of the trolley line and the brick paving of the western end of Central Avenue in 1913 and 1914. When constructed, Central Avenue came to a dead end at Sunset Park, which was situated along the shore of Boca Ciega Bay. Immediately north of Davista, the St. Petersburg Investment Company opened the Jungle Terrace subdivision which incorporated the Jungle Country Club and Golf Course, St. Petersburg’s first golf course (Grismer 1924, 67-79, 201, 273; Grismer 1948, 119, 304-306; PCCCC Plat Book 1, Pages 61-64 and Plat Book 4, Pages 18, 24).

Promotional efforts by the Atlantic Coast Line Railroad (formerly the Orange Belt Railroad and the Henry Plant’s South Florida Railroad) brought organized tourist trains to St. Petersburg from New York in 1909 and from the Midwest in 1913. Many of these tourists continued to winter or permanently moved to the city. Although the land boom collapsed during World War I, the development created a pattern for the growth of the city in the 1920s. The City’s administration also started to formally encourage tourism with promotional campaigns following the election of Al Lang as mayor in 1916. Lang was elected after he arranged to bring the Philadelphia Phillies to the city for spring training. Under his leadership, the City publicly encouraged tourism and made efforts to improve the physical appearance of the city. With approximately 83 real estate companies operating in the city in 1914, the focus turned increasingly to winter residents with the local population doubled during the season. These winter residents even formed tourist societies organized by state or region of origin which acted as booster clubs in their native states. With the growth of tourism and new seasonal and permanent residents, the demand for new houses, rental units, and hotels escalated (Arsenault 1996:143-146).

With the outbreak of World War I, the real estate market slowed and depression ensued. When F.A. Davis died in 1917, the St. Petersburg Investment Company, as well as the electric and trolley companies that he had founded, faltered and failed. The City eventually acquired the trolley line, and investors forced the sale of the electric plant and the mortgaged lands. Although the onset of World War I limited tourism, St. Petersburg quickly rebounded following the war with the winter season of 1918-1919 more profitable than before the war. Thanks in part to the efforts of John Lodwick, publicity agent for the Chamber of Commerce, the hotels and boarding houses were filled to capacity during the season. In spite of the fluctuations of the real estate market during the 1910s, St. Petersburg’s population grew from 4,127 in 1910 to 14,237 by 1920 (Grismer 1924, 67-79; Grismer 1948, 132-33, 305-306; Arsenault 1996: 124, 135-137, 190).

St. Petersburg undertook extensive improvements to the trolley lines, the water, gas, and sewer system, and the road and bridge network during this period. The first bridge along Central Avenue at Booker Creek was erected by the St. Petersburg Investment Company as a temporary wooden bridge when they opened the west end of Central Avenue to development in 1913. Efforts to improve the road started with additional paving and widening of Central Avenue to 60 ft. through this area in 1915. In 1918, W.J. Overman, the City’s Director of Public Works, started using dirt taken from nearby road grading to build a permanent fill and cement culvert at Booker Creek on Central Avenue. In 1920, the City Commission awarded the St. Petersburg Manufacturing and Construction Company the contract for the construction of a bridge carrying Central Avenue over Booker Creek based on plans prepared by local architect Edgar Ferdon. The $22,000 truss-girder plan bridge was to be a 60 ft. wide structure with two lanes of travel separated by the trolley line and flanked by ten ft. sidewalks on either side. The bridge was to be built of concrete in “a style of architecture very much similar to the concrete bridge spanning Booker Creek on Ninth Street South” (St. Petersburg Times 2/17/1920). The bridge was completed in March 1921 (St. Petersburg Times 2/10/1915, 6/26/1918, 1/6/1920, 4/6/1920, and 2/17/1920).

In 1918, developer W. D. McAdoo constructed a bridge superintended by engineer C.S. Boyd across Boca Ciega Bay as part of his resort on St. Petersburg Beach. Over 5,500 ft. long and 18 ft. wide, the bridge incorporated a 128 ft. long steel draw bridge. By 1920, the development on the beach only included some paved streets, a casino, a bath house, electric street lights, a water tower, a dock, a store, a warehouse, and three houses, but did connect to the larger community of Pass-a-Grille to the south (St. Petersburg Times 2/26/1920; Yoder 2014).
3.4 The Florida Land Boom

The Florida Land Boom of the early 1920s prompted widespread development in the state’s cities and towns. In spite of the damage caused by a hurricane in 1921, all of the Pinellas peninsula experienced exponential growth during the decade. The construction of a national, state, and local road system opened the county to an increasing number of middle-class vacationers and “tin-can tourists.” St. Petersburg’s shortage of hotel rooms led to the 1920 creation of Tent City, a municipal campground for the “tin-can tourists.” This type of vacationer typically came by car and generally favored campgrounds to hotels. They threatened the city’s established hotel industry and was not the class of visitor the leaders of the city were interested in attracting (Arsenault 1996:186-189). The lack of hotel space and the booming economy during the late 1910s and early 1920s led to the conversion of a number of private residences into boarding houses or small hotels. With only five major hotels providing fewer than 500 hotel rooms at the start of the boom, city leaders were encouraged by the construction of numerous hotels during the boom including the Hotel Cordova, Hotel Soreno, the Princess Martha Hotel, the Pennsylvania Hotel, and the Vinoy Park Hotel (Arsenault 1996: 201). Between 1924 and 1927, the number of hotels and boarding houses in St. Petersburg rose from 77 to 123 (Polk 1924, 1927). The Don Cesar Hotel was built in 1928 at the north end of the Pass-a-Grille community which was largely occupied by St. Petersburg residents arriving by boat and building small fishing cottages during the late-nineteenth and early twentieth centuries.

In 1922, County Engineer C.E. Burleson initiated planning for the creation and continued maintenance of a modern system of roads to serve the county. The plans incorporated rebuilding the existing brick roads by salvaging and reused the brick laid in 1916 and 1917. In 1923, voters approved a bond issue of $2,863,000 million for the construction of 60 miles of main brick highways and 57 miles of lateral asphalt roads. The main roads would be 16 ft. wide, while the laterals would vary from 10 ft. to 16 ft. wide. The main roads included the route from St. Petersburg to the Pasco County line, the highway from Sutherland (present-day Palm Harbor) to the Hillsborough County line, the road from Clearwater through Safety Harbor to Oldsmar, and Haines Road. Lateral roads to be improved included Lakeview Avenue (22nd Avenue South), 4th Street, Maximo Road (31st Street South), Indian Rocks Road, a connection from Clearwater to Haines Road, a road extending east from Belleair, a road from Dunedin to Drew Street, a shore road from Dunedin through Ozona to Sutherland, and a road along the shores of Lake Butler to Tarpon Springs. The accompanying 20 bridges for the roads would be built of reinforced concrete by the Luten Bridge Company of York, Pennsylvania, and the Pensacola Shipbuilding Company with some bulkheads and culverts contracted to Latham & Ward of Dade City. By May 10, 1924, County Engineer C.E. Burleson reported that the Luten Bridge Company had completed approximately 85% of the bridge structures and anticipated being finished as of June 1. In July, Burleson reported that American Bascule Company had practically completed construction of the steel lift span across Tarpon Bayou. Also, the Luten Bridge Company had completed all of the concrete bridges in their contract and “are now dredging embankments on the Bayside road” (Tampa Bay Times 7/4/1924). In January 1925, Burleson declared that all of the bridge work was for the $2.8 bond issue was completed except fills on Bayshore road and the bridge tender’s house on the bridge across Tarpon Bayou (Straub 1929:68-69; St. Petersburg Times 7/6/1922, 11/22/23, 5/10/1924, 9/4/1924, 11/8/1924, 1/3/1925).

Between 1924 and 1926, twelve Special Road and Bridge Districts were formed with additional bonds for over $6.2 million approved providing for an additional 167 miles of paved highways, more reinforced concrete bridges, and three causeways to connect the mainland with the Gulf beaches (Straub 1929:69). During this period, the state road department also initiated the construction of the Seminole Bridge and the Safety Harbor Bridge in 1922 (St. Petersburg Times 1/22/22 and 11/22/23). The opening of the Gandy Bridge to Tampa in 1924 encouraged widespread development and construction extending north of downtown St. Petersburg to the bridge and through inland Pinellas County to Clearwater. This route shortened the trip from St. Petersburg to Tampa from 43 to only 19 miles. At the time of its construction, it was hailed as “the longest over-water highway in the world” (Straub 1929:71). Extending six miles across Tampa Bay, the bridge was constructed by George S. Gandy who hired engineers to start the survey in 1915 and formed a company for its construction in 1917. Permits were granted in 1918, but construction was delayed by World War I. Planning resumed in 1920 with construction initiated on the $3 million bridge in 1922 and completed in 1924 (Figure 5; Arsenault 1996:199-200; Straub 1929:71). In 1927, Captain Ben T. Davis initiated construction of a causeway between Clearwater and Tampa across the northern end of

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Tampa Bay. This nine-and-one-half mile connector was finally completed in 1934 and named for its developer (Sanders 1983:83-84).

Figure 5  Gandy Bridge Toll Booth (St. Petersburg Museum of History).

The first free bridge across the Intracoastal waterway was the 150th Avenue Bridge built by David Sewell Welch, a wealthy entrepreneur from Iowa who spearheaded development on Madeira Beach. The bridge was named the Welch Causeway in his honor (Yoder 2014). Other Intracoastal waterway bridges completed during this period included the John’s Pass Bridge (Figure 6), the Corey Causeway, and the Blind Pass Bridge. In 1929, the federal government would take over maintenance of the Intracoastal waterway. City bridges completed included the Drew Street, Coachman Road, Old Coachman Road, Overbrook Avenue, Springtime Avenue, Sunset Point Road bridges in Clearwater, and the 3rd Street South, Central Avenue, 1st Avenue North, and 16th Street North bridges in St. Petersburg. The North Bayshore Drive and Philippe Parkway bridges in Safety Harbor, the Indian Rocks Road Bridge in Belleair, and the Shore Drive and Orange Street bridges in Ozona were all completed in the 1920s (Yoder 2014; St. Petersburg Times 2/19/1925, 10/26/1987).
The bridge connecting Clearwater with Clearwater Beach which was damaged in the 1921 hurricane was replaced with a new causeway in 1927. Dedicated to honor the casualties of World War I, the Memorial Causeway was constructed by the Luten Bridge Company to extend from Cleveland Street to the beach. When Daniel B. Luten was asked by the County to confer on its design, he recommended reinforced concrete “as it is particularly suited for under water construction, growing stronger with years instead of weaker as in wooden spans.” According to the newspaper article, “practically all bridges in the county have been designed and built by the Luten Bridge Co.” (St. Petersburg Times 10/21/1924). Although the 1902 Clearwater city pier was demolished, a portion of the Bayfront was filled to provide for a public park with room for a bandstand and gazebo north of Cleveland Street. An auditorium was built south of Cleveland Street in the 1930s. According to the Federal Writer’s Project description in 1939, the bridge was “landscaped with petunias, marigolds, and date, cabbage, and Washingtonian palms” extending to the island “with miles of white sand beaches” (Federal Writers’ Project 1939:425). This scenic route soon graced brochures, postcards, and advertisements promoting the city. By 1929, the county road system incorporated 600 miles of public road of which 325 miles were paved (not including the city streets). The network also incorporated 58 bridges built of reinforced concrete totaling 11,695 lineal feet of structure (Straub 1929:69-70).

3.5 Depression and Recovery

Like most Florida cities, Clearwater experienced a population boom during the decade with 2,427 residents in 1920 expanding to 7,607 by 1930 (Pinellas County Planning Department 1995:98). Two attached Model T Fords provided bus service between Clearwater, Dunedin, and St. Petersburg (Sanders 1983:82). Noteworthy construction in the city during the decade included the Calvary Baptist Church, the Capitol Theater, the Guaranty Title and Trust Building, and the Fort Harrison Hotel. Built by developer Ed Haley and designed by New York architect Robert F. Smallwood, the 12-story Fort Harrison Hotel cost an estimated $1 million to build. R.E. Olds of Lansing, Michigan, operated the hotel until 1953. Olds, who had invented the Oldsmobile and founded the town of Oldsmar, exchanged his Oldsmar Race Track for the
hotel (*Clearwater Sun* 2/15/1988). Brooklyn Field was established in 1923 and served the Dodgers as spring training quarters during the 1930s (*Clearwater Sun* 5/1/1939).

Initially, a relatively healthy tourist trade kept the local economy afloat following the downturn of the real estate market in 1926 and the devastating hurricanes which damaged south Florida in 1926 and 1928. With the crash of the stock market in 1929, however, Pinellas County suffered an economic loss due to the lack of tourist traffic during the ensuing national depression. A dismal tourist season during the winter of 1929-1930 led to business failures, mortgage foreclosures, and unemployment. Every bank in St. Petersburg failed and closed by April 1931. The Clearwater Bank closed for four months, while there was a run on the People’s Bank which halted only when local philanthropist Donald Roebling deposed $25,000 in cash to stop the run (Cadwell 1977:46). The citrus industry was also hard hit with the invasion of the Mediterranean fruit fly creating quarantines and inspections. Citrus packing plants closed leaving workers unemployed, while growers sprayed arsenic on trees to save their crop (*Clearwater Sun* 5/11/1984; Sanders 1983:84).

By the mid-1930s, federal relief projects helped revive the local economy through the construction of parks, bridges, and public buildings. Projects, such as the construction of Bay Pines Veterans' Hospital, impacted the entire county. In Clearwater, the Mediterranean Revival style Cleveland Street Post Office was completed in 1933, a new City Hall was built, the sewage system was expanded, and the public library was enlarged to three times its original size (*Clearwater Sun* 5/1/1939, 5/6/1980, and 1/12/1990). Projects in St. Petersburg included a new City Hall, an addition to Albert Whitted Airport, Bartlett Park, an addition to Mound Park City Hospital, a beach water system, the construction of the U.S. Coast Guard Air Station near Bayboro Harbor, a National Guard armory, and a new campus for the St. Petersburg Junior College. By providing these kinds of projects throughout the nation, the New Deal agencies brought partial economic recovery to Pinellas residents. With an improved financial outlook, tourists returned to the county during the late-1930s (Arsenault 1996:253-260).

One of the most far-reaching local projects undertaken during this period was the construction of the Treasure Island Causeway. The causeway, built to connect St. Petersburg’s Central Avenue to Treasure Island, was initially proposed when Central Avenue was built to Boca Ciega Bay in 1914. However, the idea was rejected when the economy slowed following the onset of World War I. As a result, limited development occurred on the island from the 1910s through the 1930s. Realizing that growth would only continue with a direct link to the mainland, the City of Treasure Island financed construction of a causeway designed by Kunde, Driver, Simpson, and Associates. Completed at a cost of over $1 million, the 1.8 mile causeway consisting of three bridges formally opened on November 15, 1939 (Figure 7; Grismer 1948, 188; Reed 1926, 3; Jackson 2004, 66-67). The causeway opened Treasure Island not only to tourists and facilities to accommodate them, but also to day trips by local residents. Now accessible by a short drive, these beaches were previously reachable only by boat.
Figure 7  Treasure Island Causeway, ca. 1938, under construction (St. Petersburg Museum of History).

3.6 World War II

Although tourism had rebounded to some extent by 1940, the activation of the military, rationing, and travel restrictions of World War II severely curtailed the area’s tourism based economy after the United States entered the war in 1941. Most of the St. Petersburg’s hotels and boarding houses remained empty during the winter of 1941-42. Realizing that the empty rooms could be an asset as military housing, city leaders successfully lobbied the War Department for a military base. The opening of a technical services training center for the Army Air Corps brought over ten thousand soldiers to the St. Petersburg during the summer of 1942. The military leased almost every major hotel and many of the smaller hotels in the city. Only the Suwannee Hotel and some of the smaller hotels and boarding houses were open to civilian use. By the time the training center closed in July 1943, over 100,000 soldiers had visited St. Petersburg. Although the training center closed, the United States Maritime Service Bayboro Harbor Base, which trained merchant seamen, continued to grow eventually leasing four of the downtown hotels abandoned by the Army Air Corps. In Clearwater, the Fort Harrison Hotel and the Gray Moss Inn as well as the Belleview Hotel in Belleview were leased to the Army Air Force for use as auxiliary barracks for soldiers stationed at MacDill and Drew Fields in Tampa (Dunn 1973:31; Sanders 1983:149). The military purchased the Don Cesar Hotel on St. Pete Beach to serve as a hospital during the war and converted it to the regional office for the Veteran’s Administration after the war. During the war, the federal government forced the sale of the Gandy Bridge and the Davis Causeway to eliminate tolls for soldiers who trained in Tampa and lived in Pinellas County (Sanders 1983:84). Clearwater philanthropist Donald Roebling, invented the Alligator, an amphibian vehicle heavily used in the Pacific during the war, for which he was honored with a Medal of Merit in 1948 (Dunn 1973:31). Other bases and support facilities throughout the area brought thousands of soldiers to the Tampa Bay area (Arsenault 1996:298-301).

During the war, Clinton Mosely Washburn acquired Caladesi Island, also known as Hog Island. Unable to resell it, he offered the island to honeymooners from the north, calling it Honeymoon Island. Pathe News, Paramount, and the Associated and United Presses all picked up the advertising gimmick leading to a return of tourists to the Clearwater area (Sanders 1983:149). The selection of Clearwater by the Philadelphia Phillies as their spring training home in the 1940s drew fans to the city during the annual
season. After the Phillies won the National League Pennant in 1950, Jack Russell Stadium was constructed in 1955 opposite Brooklyn Field on North Greenwood Avenue and Brooklyn Field was renamed Green Field (Sanders 1983:150).

3.7 Post-World War II Boom

Pinellas County rapidly demilitarized following the war with many veterans returning with their families to the region. Clearwater’s population grew from 10,136 in 1940 to 15,581 in 1950 (Pinellas County Planning Department 1995:98). The Great Depression and governmental restrictions during the war led to a housing shortage following World War II. Many hotels and boarding houses were again filled with tourists and new residents awaiting the construction of new homes. New houses filled the subdivisions platted during the 1920s but left vacant by the real estate decline and depression. The trend in new housing focused on the construction of small tract homes in new subdivisions. Developments such as Skycrest drew residents from downtown. Built on a former gladiolus farm, Skycrest boasted an elevation of 76 feet and was located within a five minute ride to downtown Clearwater. Advertised as the “Top of the Town,” the subdivision held small tract homes located along Cleveland and Drew Streets between Duncan Avenue and Starcrest Drive (Sanders 1983:172). New residents, as well older occupants, of the city migrated to the suburbs.

Improvements to the existing road systems opened new areas of the county for development. Initially undertaken to provide for the transport of military vehicles during the war, civilians benefited from the improvements after the war. In Pinellas County, the final segment of the Gulf Coast Highway, now known as U.S. Highway 19, opened a north-south route through the middle of the county providing a direct route between St. Petersburg and Tallahassee. The construction of motels, restaurants, stores, and trailer parks along this route flourished in the 1950s and 1960s. As development spread, the introduction of shopping centers, such as Tyrone Gardens Shopping Center and Central Plaza in St. Petersburg and Cleveland Plaza in Clearwater, drew new residents and tourists away from downtown (Pinellas County Planning Department 1995:4). In St. Petersburg, Tyrone Mall opened in 1972. In Clearwater, the Sunshine Mall opened on South Missouri Avenue in 1968 and was followed by the Clearwater Mall at U.S. 19 in 1972, and Gulf-to-Bay Boulevard in 1974. When the Countryside Mall opened further north on U.S. 19 in 1975, it was in an area virtually uninhabited in 1970. In 1972, Clearwater annexed 1,400 acres in the area and by 1977, more than 1,000 home sites had sold with planners anticipating to eventually have 7,000 units on 1,800 acres housing a population of 20,000 (Clearwater Sun 1/1/80).

The automobile changed the traditional downtown. During the 1960s and 1970s, downtowns and the neighborhoods surrounding the central core of many of the county’s cities entered a period of decline and abandonment. Many of the buildings associated with the early history of the county slowly deteriorated. With the development of the coastal beaches and motels, mainland hotels suffered and declined. The longer, sleeker lines of automobiles, as well as the increase in traffic in the 1950s, led to the elimination of diagonal parking to parallel parking along Cleveland Street in Clearwater as well as the construction of new parking lots. Streets were converted to one-way traffic in order to ease congestion. Inexpensive automobiles meant cheaper and easier vacations available to middle-class Americans. Promotional brochures touted the county’s beaches with the coast adopting the “Holiday Isles” moniker (Figure 8). Dredging in Boca Ciega Bay and along the Intracoastal waterway created finger islands filled with new subdivisions. In 1954, the Clearwater Chamber of Commerce held the first annual Fun N’ Sun parade and coined the phrase “Sparkling Clearwater and its Sparkling Beaches.” Roy Caldwell provided the following description of Clearwater in “Clearwater: A Sparkling City,”

There were only a few ripples in the water. When these were ruffled by the wind they lit up like a thousand fireflies. Clearwater sparkles in the sunshine and as the sun shines almost every day, it sparkles most of the time (Caldwell 1977:95).

By 1957, Clearwater was the second fastest growing city in the nation with tourists arriving throughout the year, not just in winter (Sanders 1983:150).
By 1960, Clearwater’s population included 34,653 residents which grew to 52,074 by 1970 (Pinellas County Planning Department 1995:98). Tourism remained the largest industry in the 1960s and 1970s, although light manufacturing plants, such as those constructing mobile homes, increased in number. Once a primary crop in the county, the citrus industry did not rebound following a freeze in 1962. Land was too valuable to replant with citrus. Subdivisions, shopping centers, trailer parks, and roads replaced the groves (Sanders 1983:189).

Roads were widened, and early bridges were replaced during the 1950s and 1960s. An additional span was added to the Gandy Bridge in 1956. Davis Causeway was widened, improved, and renamed the Courtney Campbell Parkway in honor of a prominent member of the state road board who lived in Clearwater. The Memorial Causeway in Clearwater was replaced between 1960 and 1962, and again between 2001 and 2005. The US 19A bridge adjacent to the sponge diving enterprises over the Anclote River was replaced in 1956. The Indian Rocks Bridge was replaced in 1958. The Sunshine Skyway Bridge connecting St. Petersburg and the Pinellas peninsula with Manatee County opened in 1954 as a modern engineering feat. Another span was added in 1971, but the bridge was extensively damaged in 1980 when a tanker hit a pier killing 35 people. A portion of the original approach spans remain as fishing piers, but the bridge was replaced in 1987 with a new cable-stayed structure designed by Figg & Muller and Parsons Brinckerhoff. The Howard Franklin Bridge opened between Pinellas and Hillsborough Counties in 1960 bringing the interstate system to Pinellas County. The other major bridge construction project of the 1960s was the Pinellas Bayway connecting south St. Petersburg to the southern end of St. Pete Beach. Constructed using a $16.8 million bond issue the network of bridges and dredging allowed developers to constructed houses and commercial enterprises on Tierra Verde, Isla Del Sol, and on the approach to the newly opened Ft. Desoto Park (Yoder 2014; Dunn 1973:32; Pinellas County Planning Department 1995:5).

In 1975, the Church of Scientology selected Clearwater as their worldwide headquarters. Initially purchasing the Fort Harrison Hotel and the former Bank of Clearwater, the Scientologists owned eight buildings assessed at $8 million with a resident membership totaling 1,400 by 1980. By 1991, more than 600 Scientologists worked in Clearwater and church officials reported that 12,000 members visited the city each year (Clearwater Sun 2/15/1988, and 1/1/1980). The church helped revive downtown Clearwater. In St. Petersburg, reinvestment and preservation including the rehabilitation of the Vinoy Hotel revived downtown and surrounding neighborhoods during the 1990s (Arsenault 1996:307-313).

Figure 8 Holiday Isles Map (St. Petersburg Times, 2/22/1952).
By 1993, the county population totaled 864,953 residents, making it the fifth largest county in the state with 70% of residents living in incorporated areas. The largest employers were in the fields of medicine, health and business services, retail, electrical manufacturing, and printing and publishing. Only 124 farms remained in the county amounting to only two percent of the land use (Purdum 1994:104). Between 1994 and 1996, the County and FDOT spent $25 million on improvements to ten bridges in Pinellas including the Dunedin Causeway, Clearwater Pass, Clearwater Memorial Causeway, Belleair Causeway, Indian Rocks Bridge, Park Boulevard Bridge, Welch Causeway, Jon’s Pass Bridge, Corey Causeway and Pinellas Bayway (St. Petersburg Times 10/19/1994).

Figure 9 Brochure published by the State Road Department of Florida, ca. 1954, author’s collection.
4 Research Design

The objective of this survey was to add to the existing historic bridge inventory and identify opportunities for preservation of historic bridges and community education as well. The research and methodology utilized for the historical survey of 40 Historic Bridges in Pinellas County complied with the Guidelines for Survey Projects published by the Division of Historical Resources, Chapter 1A-46 Florida Administrative Code, the National Historic Preservation Act of 1966 (PL 89-665), as amended, and the Archaeological and Historic Preservation Act of 1974 (PL 93-291). Architectural Historians met the Secretary of the Interior’s Professional Qualification Standards (48 FR 44716).

Prior to field work, bridge information from the Pinellas County Public Works Department, as well as the current FDOT Bridge Management System Structure Inventory Detail Report, were used to make a list of historic bridges in Pinellas County. This information was combined with the FMSF data for previously recorded bridges to create a complete list of all historic bridges in the county, their design, and engineers, if known.

Conducted between November 2017 and March 2018, field survey for this project was limited to those bridges constructed before 1974. Bridges that are part of the Interstate Highway System or which are not on public roads (i.e. on military lands, tribal lands, or in state parks) were eliminated from this survey. At the request of State Historic Preservation Officer (SHPO), some bridges which were previously identified as NRHP-listed or determined NRHP eligible were resurveyed for this project to make sure that they still retained sufficient integrity for listing. If any lost historic bridges were found, those elements would also be considered for recordation. Priority for survey for this project was determined based on an earlier date of construction, unusual bridge type or construction methods, and potential for reconstruction or replacement.

The initial phase of fieldwork included a reconnaissance survey utilizing the background research and GIS data to determine if any previously recorded bridges have been demolished and to determine which bridges would be recorded as part of this survey. The preliminary list of historic bridges obtained through FDOT and the Pinellas County Engineering Department was used to guide this survey.

The second phase of fieldwork involved an in-depth study of each identified resource. Fieldwork was completed by a team of two, consisting of an architectural historian and a technician. The team was equipped with maps and aerial photographs of the project area, blank FMSF Historical Bridge Forms, a digital camera, photographic log sheets, and a Trimble GeoXT and R-1 GNSS system paired with an iPad.

4.1 Florida Master Site File Forms

The FMSF is not a state historic register, but an inventory which is intended as a planning tool and as a central repository of archival data for Florida’s built environment. Administered by the Division of Historical Resources, the FMSF incorporates all historic resources regardless of NRHP eligibility which allows for the recordation of more properties of state and local significance than would normally be included in the NRHP.

Florida Master Site File forms, either an original or an updated form, were completed electronically for each historic resource identified in this survey as well as a Survey Log Sheet. A FMSF Historical Bridge Form was completed which included information about design, construction details, and setting. Structures were identified on the forms by their FDOT bridge numbers, unless they were previously recorded with another specific site name. Pertinent identifying information was included on each form. The technician recorded UTM coordinates for each structure using a Trimble GeoXT and R-1 GNSS system paired with an iPad to record GPS locations with sub-meter accuracy. Location data were collected in UTM 17N, NAD 83.
Bridge files at the FDOT District Bridge Maintenance Office were consulted for information concerning the selected bridges including bridge inspection reports, photo inventories, bridge histories, and documentation regarding alterations. Additional research in local historical newspapers helped to provide background surrounding the construction including the designers, engineers, and contractors involved. Each bridge was assessed for eligibility for listing in the NRHP utilizing the standard criteria published by the National Park Service contained in National Register Bulletin 15A: How to Apply the National Register Criteria for Evaluation (NPS 1990) and National Register Bulletin 16A: How to Complete the National Register Registration Form (NPS 1991a). Digital copies of these forms along with photographs and GIS data have been provided on disk to both Pinellas County and the FMSF.

4.2 Photographs

Digital photographs, incorporating at least side elevations and road views where possible, were taken and saved in a format that meets the photographic standards of both the FMSF and the NRHP. The architectural historian maintained a photographic log for all photographs. At least two photographs for each bridge were submitted with each FMSF form. Photographs were labeled with FMSF numbers and were at least 1600 x 1200 pixels at 300 ppi or larger and saved as a jpeg file.

4.3 Criteria for Evaluation

The standard criteria used by architectural historians and preservationists across the country to evaluate the significance of historic properties are those criteria specified by the Secretary of the Interior and the National Park Service for determining whether properties qualify for listing in the National Register of Historic Places. Contained in National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation, these criteria were developed by the National Park Service as authorized by the National Historic Preservation Act of 1966 (NPS 1990). For this survey, only bridges were recorded. For NRHP purposes, bridges are defined as structures, which are distinguished from buildings in that they are not intended as human shelter.

A property is eligible for inclusion in the NRHP if it meets one or more of the following criteria:

- The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association; and
  - A. That are associated with events that have made a significant contribution to broad patterns of our history; or
  - B. That are associated with lives of persons significant in the past; or
  - C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
  - D. That have yielded, or may be likely to yield, information important in prehistory or history.

Certain properties are not ordinarily considered for inclusion in the NRHP. They include cemeteries, birthplaces or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years. While most of these Criteria Considerations do not apply to bridges, a bridge may still be considered eligible if it is an integral part of a district that does meet the criteria or if it meets one of the following two Criteria Considerations:
• A building or structure moved from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or

• A property achieving significance within the past fifty years if it is of exceptional importance.

In addition to meeting one or more of the NRHP eligibility criteria, a property must have maintained its historic integrity. Historic integrity is defined as the authenticity of a property’s historic identity, evidence by the survival of physical characteristics that existed during the property’s historic period. Historic integrity enables a property to illustrate significant aspects of its past. The National Register criteria recognizes seven aspects or qualities that, in various combinations, define integrity.

The seven aspects of integrity are location, design, setting, materials, workmanship, feeling, and association. Location is the place where the historic property was constructed or where the historic event occurred. Design is the combination of elements that create the form, plan, space, structure, and style of a property. Setting is the physical environment of a historic property. Materials are the physical elements that were combined during a particular period of time and in a particular pattern or configuration to form a historic property. Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory. Feeling is a property’s expression of the aesthetic or historic sense of a particular period of time. Association is the direct link between a historic event or person and a historic property. All seven qualities do not need to be present for eligibility as long as the overall sense of past time and place is evident. Integrity does not relate to the resource’s state of repair or functional obsolescence (e.g. not up to current codes) (NPS 1990).

For a bridge, retaining integrity involves maintaining its historic appearance, materials, and function sufficient to convey its significant properties. Recognizing the overall intent and projected use of the survey, Cardno used a liberal approach in considering the aspects of integrity. Most of the bridges have undergone some alterations for maintenance and safety. For example, the original deck or travel surface has likely been replaced on most bridges over 50 years of age. Replacement of such elements does not eliminate its NRHP eligibility as such work is common and necessary and does not affect the structure’s character defining elements. The question is whether or not the alterations change the appearance, design, or function of the bridge in a way that would compromise its historic, architectural, or engineering significance. In general, although the use of a structure can be changed, such as from automobile to pedestrian use, the way in which the bridge functioned should be maintained. For example, a bascule bridge should still be able to function as a bascule. Thus, the altered condition of some of the bridges was regarded fairly leniently. In considering bridges, some aspects of integrity had more importance than others, but the bridge needed to retain the identity for which it was significant whether it was engineering, architecture, or history.

4.4 Expected Results

Based on prior survey efforts, it was anticipated that the majority of bridges spanning the Intracoastal Waterway (ICWW) and Tampa Bay have been replaced or are scheduled to be replaced in the near future. It was also likely that a number of bridges on major arteries within the county had been replaced or extensively altered due to road widening and the large amount of traffic that the bridges serviced. Secondary and neighborhood roads were anticipated to have the earliest and most intact bridges. A number of these were expected to be designed and built by the Luten Bridge Company or associated with early county engineer C.E. Burleson. It was expected that most of the previously unrecorded bridges would have been constructed in the 1950s and 1960s.

Most of the bridges in this survey have been updated to meet current traffic standards. Like scientific and military-related resources, some modifications are necessary for bridges to continue to function safely and serve the demands of present-day cars and traffic loads. Therefore, it was anticipated that many bridges
may lack some of their original materials and workmanship. Similarly, extensive development in Pinellas County has altered the setting of many of the bridges along major roadways. However, the location, design, feeling, and association were considered necessary for a bridge to be eligible for NRHP listing in this survey. Background research indicated that a few of the bridges would exhibit a rare design but more bridges may be good examples of their type and may be associated with significant engineers or construction companies. History and architecture would play a major role in determining eligibility for the bridges surveyed as part of this project.
5 Survey Results

5.1 Architectural and Historical Analysis

The Pinellas County Bridges Historic Resources Survey resulted in the recordation and evaluation of 40 historic bridges located in Pinellas County. Of these, 20 bridges were previously recorded, while 20 were newly recorded structures (Figure 10). The period of historic and architectural significance encompassed 1914, (the earliest date of construction identified for any extant bridge in the county) and 1974. The date of 1974 was selected as an end date in order to satisfy the fifty-year criterion established by the National Park Service as a basis for listing in the NRHP and to provide information for future planning efforts. In this way, the County could use this data to identify any bridges which may become significant in the next five years. Fifty years is the general estimate of the time needed to develop historical perspective and to evaluate significance.

Most of the bridges inventoried in this survey were constructed in the early to mid-twentieth century and were associated with the overall development of Pinellas County. The design of the bridges and materials used in their construction are generally in keeping with statewide and national engineering and architectural trends. Many of the earliest bridges, including the two built in the 1910s and 16 constructed in the 1920s, exhibit decorative features with classical detailing. The two bridges constructed in the 1930s and the three built in the 1940s have streamline detailing or a basic, functional design. The more modern bridges are modest, utilitarian structures built to serve as a transportation route largely unnoticed by the general public. As part of this survey, seven bridges built in the 1950s and ten constructed in the 1960s were evaluated. Of the 40 bridges surveyed, 14 are of arch-deck design, while three exhibit moveable bascule technology. Five are simple slab structures, and six are tee beam. Eleven of the bridges are stringer/multi-beam or girder, but only one was a culvert.

The history of bridge construction in the county followed the overall development trends of Pinellas County and the west coast of Florida. As shown in the background research and survey, few of the earliest bridges built prior to 1920 survive. The Florida land boom of the 1920s saw the greatest expansion of the road system and construction of bridges in the state. The number of extant 1920s bridges attest to this growth and the popularity of St. Petersburg, Clearwater, Safety Harbor, Dunedin and the other communities in the county as a vacation destination and retirement locale. With the downturn of the real estate market and onset of the Great Depression few road improvements or new bridges were built until the implementation of the New Deal programs of the late 1930s and early 1920s. Correspondingly few extant bridges from this period were identified in the overall background research and during this survey. Like the rest of Florida, Pinellas County rebounded following World War II with new development and investment focused increasingly on the barrier islands. Many of the 1950s and 1960s bridges identified in this survey reflect this development trend along the beaches or arterial roads leading to the beaches. Likewise, many of the earliest bridges to the beaches were replaced during this period due to development pressure and population growth.
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<th>Ownership</th>
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<td>Eligible</td>
</tr>
<tr>
<td>1550835</td>
<td>Clearwater Memorial Causeway West End Bridge</td>
<td>SR-80</td>
<td>1960</td>
<td>FDOT</td>
<td>Clearwater</td>
<td>Slab</td>
<td>Armstrong Construction Company and Burnell Piling Company</td>
<td>Ineligible</td>
</tr>
<tr>
<td>1550635</td>
<td>Island Way NB/Clearwater Harbor Canal</td>
<td>Island Way NB</td>
<td>1965</td>
<td>City</td>
<td>Clearwater</td>
<td>Tee Beam</td>
<td>Ineligible</td>
<td></td>
</tr>
<tr>
<td>1550635</td>
<td>Island Way SB/Clearwater Harbor Canal</td>
<td>Island Way SB</td>
<td>1965</td>
<td>City</td>
<td>Clearwater</td>
<td>Tee Beam</td>
<td>Ineligible</td>
<td></td>
</tr>
<tr>
<td>1550635</td>
<td>US-19 34th Street N; SR-595/CIBS Rail Road</td>
<td>US-19 34th Street N; SR-595</td>
<td>1965</td>
<td>FDOT</td>
<td>Indian Rocks/Largo</td>
<td>Moveable/Bascule</td>
<td>Ineligible</td>
<td></td>
</tr>
<tr>
<td>1550835</td>
<td>SR-580A (St. Pete Drive)/Moccasin Branch</td>
<td>SR-580A (St. Pete Drive)</td>
<td>1941</td>
<td>FDOT</td>
<td>Oldsmar</td>
<td>Moveable/Bascule</td>
<td>Bay Dredging and Construction Company</td>
<td>Ineligible</td>
</tr>
<tr>
<td>1541001</td>
<td>Shore Drive/Shore Drive Canal</td>
<td>Shore Drive</td>
<td>1923</td>
<td>County</td>
<td>Ozona</td>
<td>Arch/Deck</td>
<td>Luten Bridge Company</td>
<td>Eligible</td>
</tr>
<tr>
<td>1541001</td>
<td>Orange Street/Minnecook Creek</td>
<td>Orange Street</td>
<td>1923</td>
<td>County</td>
<td>Ozona</td>
<td>Arch/Deck</td>
<td>Luten Bridge Company</td>
<td>Eligible</td>
</tr>
<tr>
<td>1550635</td>
<td>Corey Causeway Drawbridge SB – West Bridge</td>
<td>Corey Avenue (SR-693)</td>
<td>1966</td>
<td>FDOT</td>
<td>Pasadena/ST. Pete Beach</td>
<td>Moveable/Bascule</td>
<td>Bay Dredging and Construction Company</td>
<td>Ineligible</td>
</tr>
<tr>
<td>1550635</td>
<td>Corey Causeway Structure B – SB – Midway Bridge</td>
<td>Corey Avenue (SR-693)</td>
<td>1966</td>
<td>FDOT</td>
<td>Pasadena/ST. Pete Beach</td>
<td>Moveable/Bascule</td>
<td>Bay Dredging and Construction Company</td>
<td>Ineligible</td>
</tr>
<tr>
<td>1550635</td>
<td>Corey Causeway Structure C – SB – East Bridge</td>
<td>Corey Avenue (SR-693)</td>
<td>1966</td>
<td>FDOT</td>
<td>Pasadena/ST. Pete Beach</td>
<td>Moveable/Bascule</td>
<td>Bay Dredging and Construction Company</td>
<td>Ineligible</td>
</tr>
<tr>
<td>1550635</td>
<td>Mill Creek Bridge</td>
<td>Mill Creek</td>
<td>1926</td>
<td>City</td>
<td>Safety Harbor</td>
<td>Arch/Deck</td>
<td>Luten Bridge Company</td>
<td>Eligible</td>
</tr>
<tr>
<td>1501001</td>
<td>North Bayshore Drive</td>
<td>North Bayshore Drive</td>
<td>1926</td>
<td>City</td>
<td>Safety Harbor</td>
<td>Arch/Deck</td>
<td>Luten Bridge Company</td>
<td>Eligible</td>
</tr>
<tr>
<td>1550635</td>
<td>SR-580A (St. Pete Drive)/Moccasin Branch</td>
<td>SR-580A (St. Pete Drive)</td>
<td>1941</td>
<td>FDOT</td>
<td>Oldsmar</td>
<td>Moveable/Bascule</td>
<td>Bay Dredging and Construction Company</td>
<td>Ineligible</td>
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<tr>
<td>1550635</td>
<td>Orange Street/Minnecook Creek</td>
<td>Orange Street</td>
<td>1923</td>
<td>County</td>
<td>Ozona</td>
<td>Arch/Deck</td>
<td>Luten Bridge Company</td>
<td>Eligible</td>
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<tr>
<td>1520635</td>
<td>Corey Causeway Drawbridge SB – West Bridge</td>
<td>Corey Avenue (SR-693)</td>
<td>1966</td>
<td>FDOT</td>
<td>Pasadena/ST. Pete Beach</td>
<td>Moveable/Bascule</td>
<td>Bay Dredging and Construction Company</td>
<td>Ineligible</td>
</tr>
<tr>
<td>1550635</td>
<td>Corey Causeway Structure B – SB – Midway Bridge</td>
<td>Corey Avenue (SR-693)</td>
<td>1966</td>
<td>FDOT</td>
<td>Pasadena/ST. Pete Beach</td>
<td>Moveable/Bascule</td>
<td>Bay Dredging and Construction Company</td>
<td>Ineligible</td>
</tr>
<tr>
<td>1550635</td>
<td>Corey Causeway Structure C – SB – East Bridge</td>
<td>Corey Avenue (SR-693)</td>
<td>1966</td>
<td>FDOT</td>
<td>Pasadena/ST. Pete Beach</td>
<td>Moveable/Bascule</td>
<td>Bay Dredging and Construction Company</td>
<td>Ineligible</td>
</tr>
<tr>
<td>1550835</td>
<td>Mill Creek Bridge</td>
<td>Mill Creek</td>
<td>1926</td>
<td>City</td>
<td>Safety Harbor</td>
<td>Arch/Deck</td>
<td>Luten Bridge Company</td>
<td>Eligible</td>
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<td>North Bayshore Drive</td>
<td>1926</td>
<td>City</td>
<td>Safety Harbor</td>
<td>Arch/Deck</td>
<td>Luten Bridge Company</td>
<td>Eligible</td>
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<td>1570001</td>
<td>Mill Creek Bridge</td>
<td>Mill Creek</td>
<td>1926</td>
<td>City</td>
<td>Safety Harbor</td>
<td>Arch/Deck</td>
<td>Luten Bridge Company</td>
<td>Eligible</td>
</tr>
</tbody>
</table>

**Table 4** Bridges Recorded for the Pinellas County Bridges Historic Resource Survey.
5.2 Bridge Designs in Survey Area

Books, articles, and manuscripts concerning bridge history, design, and construction were consulted to identify bridges significant for their architecture or engineering. *A Context for Common Historic Bridge Types*, prepared by Parsons Brinkerhoff and Engineering and Industrial Heritage for the National Cooperative Highway Research Program, Transportation Research Council in 2005, as well as the two prior statewide surveys of Florida bridges proved especially useful. The Florida Department of Transportation’s publications on the Bridge Inspection Process and Bridge Management System Coding Guide provided additional assistance with terminology and types. Figure 11 provides a visual example of bridge terminology.

![Bridge Terminology Diagram](image)

**Figure 11** Bridge Terminology (Bridge Inspection Process 2018).

5.2.1 Cast-in-Place Reinforced Concrete vs. Precast Concrete vs. Prestressed Concrete

Concrete is composed of a cementitious material, usually Portland cement, mixed with water to create a paste that binds with sand, gravel, or crushed stone to harden or cure. Portland cement was created by bricklayer Joseph Aspdin of Leeds, England in the early nineteenth century by burning powdered limestone and clay. The first un-reinforced concrete bridge built in the United States was a 31 ft. footbridge constructed in 1871 in Prospect Park, Brooklyn, New York. However, concrete has little tensile strength on its own, so its usefulness for bridge construction was limited until combined with reinforcing metal (Slaton,
Initially, concrete was cast-in-place, which refers to the method of building forms at the construction site and pouring wet concrete into the forms. Once the concrete cures, the forms are removed. Precast concrete is a piece of concrete cast at a different location than the building site and transported to the building site after it is cured (hardened). Both now use steel reinforcement to strengthen the concrete (Radue 2017).

Although S.T. Fowler first patented a reinforced concrete wall in 1860, Ernest L. Ransome is considered the “father” of reinforced concrete construction. He immigrated to the United States in the 1860s after apprenticing under his father, Frederick Ransome, at their family concrete factory in England. Using his father’s concrete formula for which he had received a patent in 1856, Ransome operated the Pacific Stone and Concrete Company of San Francisco by 1870, where he developed the first practical commercial application of reinforced concrete in 1874. The oldest reinforced concrete bridge in the United States is the Alvord Lake Bridge constructed in 1889 in San Francisco’s Golden Gate Park. Designed by Ransome, it was reinforced with twisted rods or bars in a design which he patented in 1884. Ransome subsequently moved to New York City to focus on building construction instead of bridges, but other engineers utilized his technology to create new methods for designing reinforced concrete for use in bridges during the 1890s into the twentieth century. Engineer Thaddeus Hyatt helped bring widespread acceptance to the technology when he published An Account of Some Experiments with Portland Cement Concrete, Combined with Iron as a Building Material in 1877 (Cowden and Wessel 1995:87; Slaton, et al. 1995:94; Parsons Brinckerhoff and Engineering and Industrial Heritage 2005:3-53).

Although patented by San Francisco engineer P.H. Jackson in 1886, early efforts at developing prestressed concrete were not successful long-term due to low prestress levels and shrinkage of the concrete. Although R.E. Dill of Nebraska developed a method to account for shrinkage using coated steel reinforcement bars in 1923, French engineer Eugene Freyssinet, who utilized high-strength steel wires for his design in 1928, is considered the “father” of modern prestressed concrete. However, his first bridges using the technology were not built until the 1940s in Europe. Prestressed concrete did not emerge as a common construction material until after World War II. Steel shortages in Europe following the war combined with technological advancements in high-strength concrete and steel led to its growing popularity. In the United States, the passage of the Interstate Highway Act in 1956, steel shortages during the Korean War, and the post-World War building boom dramatically increased its use in the 1950s. The first prestressed concrete bridges built in the United States were the Duffy’s Creek Bridge, completed in 1950, and the Walnut Lane Memorial Bridge in Philadelphia, Pennsylvania built between 1948 and 1951 (Newlon 1995:115-116; Radue 2017; Portland Cement Association 2018; Parsons Brinckerhoff and Engineering and Industrial Heritage 2005:3-101).

Prestressed concrete is a form of precast concrete. Prestressed pretensioned concrete is created by stretching woven steel strands inside of a form, then pouring concrete into the form to cure and bond to the cables. Once the concrete hardens sufficiently, the steel cables are cut from the supports holding them in the stretched position. As the steel cables are determined to return to their original position, the tension squishes the concrete together in compression. In post-tensioned prestressed concrete, the concrete is cast around, but not in contact with, the unstretched steel. Once the concrete hardens, the steel is inserted into the concrete through conduits or sleeves, stretched against the ends of the unit, and anchored externally, placing the concrete into compression. Prestressing removes design limitations on length and load allowing longer unsupported spans than regular reinforced concrete. Thus designs can be lighter utilizing less concrete without sacrificing strength (Newlon 1995:116; Radue 2017; Portland Cement Association 2018; Parsons Brinckerhoff and Engineering and Industrial Heritage 2005:3-101).
5.2.2 **Moveable-Bascule**

A Bascule Bridge has a moveable span, referred to as a leaf, which rotates on a horizontal hinged axis, known as the trunnion, to vertically raise one end. A large counterweight is used to offset the weight of the raised leaf. The bridge may have a single leaf which raises or two which meet in the center when closed. There are three types of bascule bridges: the Simple (Milwaukee, Chicago) Trunnion, the Multiple (Strauss) Trunnion, and the Rolling Lift (Scherzer) Bascule. The first bascule bridges were built in the 1890s in New York and Chicago based on a design created by Bernard Forest de Belidor in France around 1729. This design, however, was difficult to control and balance (Cridlebaugh 2008; Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-123-124).

In 1899, the Chicago Department of Public Works undertook a study to determine the best type of bridge to span the Chicago River. City Engineer John Erickson won the juried competition by developing a simple trunnion bascule bridge. His first bascule bridge was completed in May 1902. Simultaneously, the Wisconsin Bridge Company designed their version of the simple trunnion bascule bridge and finished their first bascule design, the Grand Avenue Bridge in Milwaukee, in March 1902. The bascule design quickly replaced the earlier moveable swing span bridge design in popularity. By eliminating the central pier from the waterway, the bascule blocked less of the channel and was faster to open. In general, single trunnion bascule bridges are considered significant if they retain integrity. The most significant would be early examples built before 1930 and bridges associated with well-known bridge construction companies Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-123-124.

Joseph B. Strauss, who later built the Golden Gate Bridge, designed another type of bascule bridge after forming his own company in 1902. In his design which he patented in 1905 and 1906, the counterweight pivots at the end of the short arm and he used concrete instead of iron for the counterweight (Figure 12). Although built throughout the United States, this design is now rare and would be considered highly significant (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-126-127).

Developed and patented by William Scherzer in 1893, the patent for the Rolling Lift Bascule was obtained by his brother, Albert, following William’s death in that year. Albert formed the Scherzer Rolling Lift Bridge Company and the design became popular in the early 1900s through the mid-twentieth century. In place of a trunnion, a rolling lift utilizes a curved track at the end of the leaf that is mated with a horizontal track on the pier. The piers are generally large to allow for the counterweight, the leaf is steel, and the counterweight is a concrete-filled steel structure. A favorite of railroad companies, the design was simple, quick to open, and required little power. However, the design could weaken if the bridge was not securely fastened to a solid foundation because the piers could shift position. The design was not commonly used for vehicular bridges so intact examples are rare and highly significant (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-129; Lund and Deming 2013:F-36).

Bascule bridges are the most common moveable bridge in Florida with most built in the 1950s and 1960s across the Intracoastal Waterway. Character-defining features of bascule bridges would include the rotating leafs, the trunnions, the integral counterweight, cables, pulleys, and piers. Depending on the type, the control house and mechanical equipment, the steel truss or girders, the large steel rollers or rockers are significant as well (Lund and Deming 2013:F-37; Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-123-129).
5.2.3 Reinforced Concrete Closed Spandrel Arch Deck

The Reinforced Concrete Closed Spandrel Arch Deck Bridge is the most basic arch design mimicking the appearance of the early full masonry arch bridges. This is a bridge in which the road surface, also known as the deck, rests atop the arch which spans the waterway or feature to be crossed (Figure 13). The closed spandrel indicates that the area between the deck and the arch is filled in serving as a retaining wall holding the fill material. The arch may consist of a single barrel arch or separate parallel longitudinal ribs braced with cross ties. The rib design requires less material, but more formwork in order to construct it. The barrel arch is more likely on older and smaller bridges, while the rib design is more commonly utilized for larger bridges (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005:3-65).

Figure 12 Elevation of a Multiple Trunnion Bascule bridge (Parsons Brinckerhoff and Engineering and Industrial Heritage, 2005: 3-127).

Figure 13 Closed Spandrel Arch Deck Bridge (Parsons Brinckerhoff and Engineering and Industrial Heritage, 2005: 3-66).

Found throughout the United States, the Closed Spandrel Arch Bridge was utilized generally for shorter spans built between 1890 and 1930. This period corresponds to the development of reinforced concrete through the creation of the Open Spandrel Arch Bridge which required less construction material and cost. The Closed Spandrel Arch Bridge was usually not one of the standardized bridge designs developed by state departments of transportation in their early years. This design is not as common as the concrete slab and girder which were standardized. As such, Closed Spandrel Arch Bridges are generally considered significant if they have good integrity because they represent the evolution of concrete technology and bridge design. Character-defining features include the arch, the barrel or ribs, the spandrel wall, the railing or parapet, the end posts, piers and/or abutments and wing walls (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005:3-65).
5.2.4 Reinforced Concrete Cast-in-Place and Precast Slab

The Reinforced Concrete Cast-in-Place Slab Bridge is one of the earliest and simplest reinforced concrete bridge designs. Although initially developed in the late 1800s, the design started to be widely used around 1905. The technology involved in this design underwent a rapid transformation between 1905 and 1909 allowing it to be used for longer spans due to the work of Claude A.P. (C.A.P.) Turner. Graduating from Lehigh University School of Engineering in 1890, Turner established his own company in 1901 and was at the forefront of developing flat-slab floors for buildings. He utilized his method of reinforcement to design bridges starting in 1909. By the 1910s, the federal Office of Public Roads supported the use of slab bridges, and many state road departments adopted it as a standardized design by the early 1920s (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005:3-84). During the 1930s and early 1940s, slab bridge designs were very popular for small highway bridges throughout the United States. Promoted by bridge companies and engineers, the design was considered economical, resistant to temperature cycles, strong, and easy to build. The Reinforced Concrete Precast Slab is the modern replacement of the cast-in-place slab. It gained popularity following World War II and was heavily favored in the southeast starting in the mid-1940s (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-83-85, 3-99).

In a slab design, the traffic-carrying deck rests on a slab superstructure, which is supported by abutments, bents, piers, or columns (Figure 14). The earliest bridges of this design are usually less than 30 ft. in length in which the horizontal slab rests on abutments or piers. Continuous, multi-span flat slab bridges were built from the 1910s through the 1940s although the increase in length led to a corresponding increase in depth, weight, and cost. Eventually, the Tee Beam Bridge bypassed the Slab in popularity. Cast-in-Place Concrete slabs built prior to 1955 may possess significance if they retain good integrity. Earlier bridges of this type are more significant as they represent the improvements of technology and the use of standardized designs by state road departments. The later Precast Slab has a low to moderate significance. Significant character-defining elements include the slab, parapet or railing, abutments, wing walls, and piers (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-83-85).

![Figure 14](image)

**Figure 14** Drawings of a Reinforced Concrete Slab bridge adapted from the Maryland State Road Commission’s 1930 “Standard Slab Bridge Plans” (Parsons Brinckerhoff and Engineering and Industrial Heritage, 2005: 3-86).
5.2.5  **Reinforced Concrete Tee Beam**

Like the Slab, the Cast-in-Place Reinforced Concrete Tee Beam (or T-Beam) bridge was one of the most common bridge designs utilized in the twentieth century with thousands built from the early twentieth century into the 1960s. This bridge was among the first to be adopted as a standardized design by state road departments. When viewed in section, the traffic-carrying deck rests on a slab which composes the top of the “T,” while a lower vertical support is the stem of the “T” (Figure 15). Steel rods tied together by U-shaped hangers make the slab and stem unified structural components (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-88-89).

![Diagram of Tee Beam Bridge](image)

**Figure 15**  **Section of a Tee Beam Bridge (Parsons Brinckerhoff and Engineering and Industrial Heritage, 2005: 3-89).**

Designed during the same period as the Slab, the Tee Beam was more economical for bridges over 25 ft. in length. However, their length was more limited than arches or trusses; the tee-beam required more supporting elements for longer spans, making it less economical. Generally used for bridges less than 50 ft. long, the Tee Beam could be built as a simple or continuous span. Used from around 1900 into the early 1960s, the most prolific period of construction was during the 1920s and 1930s. Prestressed Tee Beam bridges date to the late 1950s or later. Earlier examples of Tee Beam bridges may be significant if they retain a high degree of integrity. Spans extending greater than 30 ft. or which incorporate decorative railings may also be significant. Character-defining elements include the slab integrated with longitudinal beams, the parapet or railing when integrated, and abutments, wingwalls, or piers (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-88-89).

5.2.6  **Prestressed Concrete I-Beam**

The earliest plan for a Prestressed Concrete I-Beam Bridge in the United States was developed by Belgian engineer Gustave Magnel during a competition for the design of the Walnut Lane Bridge in Philadelphia in 1947. Magnel, who had established the Laboratory for Reinforced Concrete at the University of Ghent in 1926, experimented with prestressing methods and authored works on the subject into the 1940s. His construction of the Walnut Lane Bridge was a collaborative effort with the Preload Corporation, a Philadelphia-based company that built prestressed sewage tanks, and John A. Roebling Sons, a well-known bridge company who designed a high-strength cable for use in prestressed bridges in 1948. Completed in 1951, the bridge drew widespread interest and led to the use of prestressed concrete in numerous bridges. By 1954, the Bureau of Public Roads in conjunction with the concrete industry published their *Criteria for Prestressed Concrete Bridges*. In 1956, the American Association of State Highway Officials (later AASHTO) developed four standard I-beam sections for use in prestressed concrete bridges (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-100).

Early applications of the prestressed technology usually involved the use of precast, pretensioned I-beams like those used in the Walnut Lane Bridge. The technology allowed for spans to extend up to 150 ft. in length. The passage of the Federal Aid Highway Act in 1956 prompted its widespread use for
highway construction throughout the United States. Because of its influence, early examples of this design may be highly significant if they retain integrity. Character-defining elements include the slab, longitudinal beams, floor beams, the parapet or railing, abutments, piers, and wingwalls, when present (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-100-102).

5.2.7 **Metal Rolled Multi-Beam**

Although iron I-beams were available prior to the Civil War, iron mills had a limited capacity to produce them so they were usually used in short spans to replace timber stringers. By the 1890s, steel replaced iron as technology enhanced consistency, increased production, and lowered costs. Steel plants improved their ability to roll steel I-beams of any length and depth leading to the creation of the steel beam (stringer) bridge. Although often used interchangeably, beam refers to a rolled shape, while girder indicates a fabricated member. Stringer is a type of bridge in which parallel longitudinal beams (generally I-beams) support the traffic-carrying deck (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-107-108).

Even though rolled beams existed by the Civil War, they were not generally used on highway bridges until the 1920s and 1930s. The earliest bridges were I-beam spans with timber decks, but wood was soon replaced by reinforced concrete. Prepared by the federal Bureau of Public Roads, the oldest extant standard drawings for a rolled beam bridge date to 1917. Generally, the design fell out of favor by the early 1960s due to increasing steel prices and the prestressed concrete industry (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-107-108).

The Steel Rolled Multi-Beam Bridge is composed of three or more parallel rolled beams supporting the deck above (Figure 16). Due to the east of construction and relatively low cost combined with the long span of popularity, this bridge is common throughout the United States and has a lower significance compared to other types of bridges identified in this study. An early construction date, high degree of integrity, and the use of early fabrication techniques would increase the significance of this design. Character-defining features include rolled longitudinal I-beams or wide flange beams, floor beams, and original railings, piers, wingwalls, and abutments (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005: 3-107-108).

![Elevation of a Metal Rolled Beam Bridge](image)

**Figure 16** Elevation of a Metal Rolled Beam Bridge (Parsons Brinckerhoff and Engineering and Industrial Heritage, 2005: 3-109).

5.2.8 **Culvert**

Although often considered a type of small bridge, a culvert is a design largely built to span a feature for hydraulic control allowing water to pass under a road, railroad, or embankment, whereas a bridge is built to carry traffic over an obstruction. The culvert is usually a drain, pipe, or channel that is continuous around the waterway, even covering the stream bed. The openings are called barrels. Built entirely below and separate from the roadway, the culvert does not have a deck, superstructure, or substructure. Rigid materials such as reinforced concrete or masonry are used in the construction of arch, box, or frame.
culverts, while flexible materials such as aluminum or steel are used for circular or elliptical pipe culverts. Culverts are found throughout the United States. Generally, earlier culverts or unusual designs are more significant and should possess a high degree of integrity in order to be eligible (Cridlebaugh 2008; Lund and Deming 2013: F-27-30).

5.3 Significant Bridge Engineers and Contractors

This survey identified several significant companies and individuals associated with bridge design and construction in Pinellas County.

5.3.1 Daniel B. Luten and the Luten Bridge Company

Daniel B. Luten was one of the most prolific and important bridge designers and builders in the early twentieth century. Born in 1869, Daniel B. Luten graduated with a Bachelor of Science in civil engineering from the University of Michigan in 1894. After teaching engineering and surveying there for a year, he taught architectural and sanitary engineering at Purdue University from 1896 to 1900. In that year, he left the university and acquired a patent for a reinforced concrete bridge, publishing a catalog for the Timber-Tie Concrete Arch Company. Although he only received one contract from the catalog, he formed the National Bridge Company the following year and started marketing reinforced concrete bridges throughout the Midwest. Submitting numerous articles to Engineering News-Record and the Railroad Gazette raised his profile as an expert in bridge design and construction (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005:3-58-60).

Although he designed and built open spandrel deck arches and open spandrel through arches, his most popular design was the filled spandrel “timber” tied deck arch (Figure 17). By the early 1920s, Luten held nearly fifty patents for his bridge designs. According to him, it was almost impossible to build a reinforced concrete arch bridge without infringing on one of his patents. Eventually, the royalty costs and legal costs of battling Luten in court led to an organized resistance, and, in 1918, some of his patents were invalidated. In spite of this, Luten claimed to have designed at least 17,000 bridges in all but three states. Even though the claim may be inflated, “he did more than any other designer or builder to encourage the construction of reinforced concrete arches by county and municipal governments” according to one source (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005:3-59). By the 1930s, his designs fell out of popularity due to the patent issues and because his designs were not an efficient use of steel and concrete. Although his bridges remain in sufficient numbers to still be considered common, they are considered significant if they retain their character defining features including the arch, spandrels, ribs or barrel, railing or parapet, and abutments and wing walls (Parsons Brinckerhoff and Engineering and Industrial Heritage 2005:3-58-60).
5.3.2 **Edwards Construction Company**

H.C. Edwards and Baisden Mickler formed a partnership on January 1, 1907 to establish the Edwards Construction Company. The company, which started by constructing docks and bulkheads, soon turned to paving and building infrastructure, buildings, and bridges. Employing more than 400 men at times, the company had built a $1 million a year business by 1915. Their most well-known contract involved the construction of the Lafayette Street Bridge (now the Kennedy Street Bridge). They built the first reinforced concrete building in Tampa, the I.W. Phillips warehouse, in 1910. In addition to the 9th Street South bridge across Booker Creek and the Roser Park bridges, the company also built a bridge across Long Bayou in Pinellas County and the Garcia Avenue Bridge in Tampa. Hillsborough and Pasco counties hired the company to pave a number of their early roads with brick. Other projects included the large sections of the Tampa sewage system with two compression and ejector plants, quarantine stations at Pensacola and Mobile, and a coal elevator on Seddon Island (*Tampa Tribune* 1/28/1915).

5.3.3 **C.E. Burleson**

Engineer Carl E. Burleson oversaw the planning and construction of Pinellas County’s first comprehensive road and bridge network in the 1920s (Figure 18). Born in 1887 in Tennessee, Burleson was the son of a building contractor who retired to St. Petersburg. He studied engineering at Milligan College before working with the Norfolk and Western Railroad and the C.C. & O. Railroad building tunnels through the Blue Ridge Mountains. He came to Pinellas County in 1910 where conducted several surveying projects before joining the St. Petersburg Investment Company as their Chief Engineer. While in that position for almost five years, he was “loaned” to George Gandy to conduct the preliminary work on the construction of the Gandy Bridge. In 1917, Burleson was appointed the Pinellas County Engineer.
He oversaw the rapid expansion of the county’s road network during the 1920s and supervised the use of federal aid through federal relief projects during the 1930s. According to him, he personally designed the plans for the John’s Pass Bridge, Corey Avenue Causeway, the Welch Causeway, the Blind Pass Bridge, and the Clearwater Causeway. When he started as county engineer, the county had only 75 miles of brick roads. Upon his resignation in 1937, the county had approximately 620 miles of highways including 326 miles of paved roads, 219 miles of graded roads, and 75 miles of unimproved roads. After serving Pinellas County for 20 years, he became the DeLand District Maintenance Engineer for the State Road Department. After retiring in 1949, he died in 1961. He was a charter member of the Florida Engineering Society, southeastern president of The American Society of Civil Engineers, a member of the American Society of Military Engineers, and was a director of the County Highway Officials Division of the American Roadbuilders’ Association (Staub 1929:216-221; St. Petersburg Times 5/30/1937 and 4/24/1961).

Figure 18 County road engineers with C.E. Burleson in center of bottom row (St. Petersburg Times, 5/21/1926).
6 Conclusions and Recommendations

6.1 Conclusions

6.1.1 National Register of Historic Places

One of the purposes for this survey was to identify bridges which may be eligible for nomination to the NRHP. The NRHP is a federal program with well-established criteria for evaluating the significance of buildings, sites, structures, objects, and districts. These criteria were used in determining the possible significance for the bridges in Pinellas County. While the NRHP is the “official” list of significant properties in the United States, it does not indicate protection or control over properties which are listed, unless federal funds, actions, or permitting is used or required. Properties may be nominated to the NRHP in one of three categories: as an individual property, as a historic district which has a concentration of significant resources within a contiguous boundary, or as a multiple property which encompasses a number of historically or thematically related resources which are not geographically contiguous.

6.1.1.1 Potentially Eligible Individual Bridges

The majority of bridges identified as potentially eligible during this survey would be considered individually eligible. A brief description and assessment of each bridge follows.

6.1.1.1.1 9th Street South (Dr. M.L. King Jr. Street South) over Booker Creek (FDOT 157117; 8PI8746)

The 9th Street South (Dr. M.L. King Jr. Street South) Bridge over Booker Creek in St. Petersburg was constructed in 1914 replacing two earlier wooden bridges across this ravine. This route was one of the earliest roads between the Pinellas settlement along Big Bayou and the new community which grew around the terminus of the Orange Belt Railway when it arrived in 1888. The first trolley line built in St. Petersburg extended south to Gulfport at this crossing in 1904. In 1913, County Commissioner F.A. Wood, who lived along 9th Street South, spearheaded the effort to replace the wooden bridge with a concrete one. Designed by engineer C.C. Whitaker of Atlanta, the Edwards Construction Company built the bridge with the $18,750 cost split by the City, the County, and the St. Petersburg Investment Company. In addition to this bridge, the Edwards Construction Company also erected the Lafayette Street (now Kennedy Street) Bridge in Tampa among other numerous public improvements during the early twentieth century (St. Petersburg Times 8/20/1913, 10/8/1913, 10/11/1913, 10/28/1913, 11/6/1913, 2/17/1914, 2/21/1914, 3/19/1914, 3/19/1914).

Measuring 160 ft. long, the concrete bridge would be 45 ft. wide incorporating a 24 ft. roadway, with six ft. sidewalks, and the trolley line along the west side when constructed. This concrete Tee Beam bridge now has two lanes of southbound traffic flanked by pedestrian walkways lined with low concrete walls with square columns, pipe handrails, and cast decorative globe lamps. With an integral abutment, the bridge incorporates six spans measuring 36 ft. in length supported by open piles and piles set on walls. The bridge opened to traffic in March 1914 (Figure 19). Within a week of its completion, developer C.M. Roser, who owned the land along the creek to the east of the bridge, hired the Edwards Construction Company to build two additional bridges at 6th Street and 8th Avenue in his new residential neighborhood to be called Roser Park.
Roser Park is now a locally designated historic district, as well as a district listed in the NRHP. As one of the main routes into the city serving trolley, pedestrian, and automobile traffic, this bridge is historically significant at the local level and for its association with the Edwards Construction Company. The two smaller bridges as well as the 9th Street South Bridge spanning Booker Creek should be considered contributing elements in these districts. As the oldest extant bridge in the county, the bridge may also be individually eligible for NRHP listing (Figure 20; St. Petersburg Times 8/20/1913, 10/8/1913, 10/11/1913, 10/28/1913, 11/6/1913, 2/17/1914, 2/21/1914, 3/19/1914, 3/19/1914, 3/25/1914, 2/21/1915).
6.1.1.1.2  Belleview Bridge (FDOT 159901; 8PI8749)

Located in Belleair, the Belleview Bridge (FDOT 159901; 8PI8749) was constructed as the automotive and pedestrian entrance to the Belleview Hotel developed by Henry B. Plant (Figure 21, Figure 22, and Figure 23). This bridge was originally constructed in 1915, and historic photographs indicate that it incorporated stores into the arches leading to the bridge structure. Exhibiting a significant Half Arch Deck construction, it was designed by Daniel B. Luten and built by the Luten Bridge Company. The bridge has a 46 ft. main span and two half spans of 23 ft. The half arches appear cantilevered, but Luten made them true arches supported by abutments. He used this bridge to promote and explain the benefits of half arch construction. It is one of the few, if not the only, half arch bridge designed and constructed by Luten. The structure was altered ca. 1974 when it was converted to carry one-way inbound traffic and the classical balustrade and light fixtures were removed. A new bridge was constructed to the east in 1974 to carry outbound traffic. In spite of these alterations, the historic bridge is highly significant under engineering and the substructure remains intact. It was determined potentially eligible by the SHPO as a result of the 2010 update of the statewide survey of historic bridges, and should remain eligible.
Figure 21  Historic Postcard depicting entrance to the Belleview Hotel, ca. 1920 (St. Petersburg Museum of History).

Figure 22  The Belleview Bridge (FDOT 159901; 8PI8749), east elevation of 1915 bridge, looking northwest.
6.1.1.3 Central Avenue over Booker Creek (FDOT 157123; 8PI12063)

The Central Avenue Bridge over Booker Creek in St. Petersburg was constructed in 1920 to replace an earlier wooden bridge erected to carry the first trolley and vehicular traffic when Central Avenue opened to Boca Ciega Bay in 1913 (Figure 24). Efforts to improve the road started with additional paving and widening of Central Avenue to 60 ft. through this area in 1915. In 1918, W.J. Overman, the City’s Director of Public Works, used dirt from nearby road grading to build a permanent fill and cement culvert at Booker Creek on Central Avenue. In 1920, the City Commission awarded the St. Petersburg Manufacturing and Construction Company the contract for the construction of a bridge carrying Central Avenue over Booker Creek based on plans prepared by local architect Edgar Ferdon. Considered St. Petersburg’s first professional architect, Ferdon designed numerous buildings in the city from 1892 until his death in 1932 including the American Bank and Trust Building, the First National Bank, the First Congregational Church, the Rex Theater, the Crislip Arcade, and the American Maid Ice Cream Building. The $22,000 truss-girder plan bridge was to be a 60 ft. wide structure with two lanes of travel separated by the trolley line and flanked by ten ft. sidewalks on either side. The bridge was to be built of concrete in “a style of architecture very much similar to the concrete bridge spanning Booker Creek on Ninth Street South” (St. Petersburg Times 2/17/1920). The bridge was completed in March 1921 (St. Petersburg Times 2/10/1915, 6/26/1918, 1/6/1920, 4/6/1920, and 2/17/1920; St. Petersburg Division of Urban Planning and Historic Preservation 2014).

Figure 23 The Belleview Bridge (FDOT 159901; 8PI8749), on right and 1974 bridge on left, looking south.
This 30 ft. long concrete Tee Beam bridge measures 81 ft. in width and features an arched structural façade on the north elevation supporting the sidewalk. The walkway is lined with slotted concrete handrail on the north and scored bands are apparent in the railing piers. The bridge has a skew angle of 25 degrees. Although the Central Avenue Bridge was rehabilitated in 2002, newspaper accounts indicate that this bridge may have changed little through the years. The research available did not reveal any historic photographs of the bridge. Although the bridge might not be individually eligible, it was designed by noted St. Petersburg architect Edgar Ferdon and may contribute to a local district if one is formed comprising the Edge Main Street community.

Figure 24  FDOT Bridge 157123, Central Avenue Bridge over Booker Creek, 8PI12063, looking southwest.
6.1.1.4 North Bayshore Drive over Mullet Creek Bridge (FDOT 157001; 8PI8742)

Located in Safety Harbor, this concrete arch deck bridge carries North Bayshore Boulevard over Mullet Creek (Figure 25, Figure 26, and Figure 27). The limited historical data available on the 1989 survey form indicated that a bridge was built over Mullet Creek at this location in 1916 by the J.B. McCrary Co. of Atlanta, which was widened in 1922 by Pinellas County. However, this bridge was given a construction date of 1927 (8PI8742, Center for Historic Preservation and Technology, Texas Tech University, 1989). Research identified in this survey found that the September 4, 1924 edition of the *St. Petersburg Times* indicated that this bridge on “Bayshore Road” in Safety Harbor was under construction by the Luten Bridge Company. By the January 3, 1925 edition of the newspaper, it was nearing completion as part of the 1920s era effort to improve the county’s road network (*St. Petersburg Times*, 9/4/1924, 1/3/1925).

![Mullet Creek, Looking Toward Tampa Bay](image)

Figure 25 Historic Postcard of Safety Harbor, ca. 1935 (St. Petersburg Museum of History).

Consisting of a single span measuring 49 ft. in length and 19 ft. wide, this arch deck is constructed of concrete. Notable features include the projecting arch rib, smooth spandrel walls, and pilasters which extend from the abutments to support the ends of the concrete railings. The railing system consists of a post and beam design set between concrete piers, which may have been a replacement. A modern pedestrian bridge with matching railings was constructed east of the automobile bridge. In spite of possible alterations, this bridge appears largely intact as a good example of arch deck construction produced by the Luten Bridge Company in the 1920s and may be NRHP eligible.

The 2010 bridge survey combined the listing for this bridge with the following one when it included FMSF 8PI8742 as Bridge 150009 carrying Philippe Parkway over Mullet Creek on the list of potentially eligible bridges. The SHPO concurred on the eligibility. These two bridges were included in this survey to verify the existence of two separate structures.
Figure 26  FDOT Bridge 150001, North Bayshore Drive over Mullet Creek, 8PI8742, looking south.

Figure 27  FDOT Bridge 150001, North Bayshore Drive over Mullet Creek, 8PI8742, concrete arch deck substructure, looking south.
6.1.1.1.5 Philippe Parkway over Mullet Creek (FDOT 150009; 8PI12833)

 Constructed by the Luten Bridge Company for the City of Safety Harbor in 1926, this bridge carries Philippe Parkway over Mullet Creek (Figure 28 and Figure 29). This concrete arch deck extends 57 ft. long by 58 ft. wide with brackets extending from under the arch to support the cantilevered pedestrian walkways. The west balustrade has Neoclassical urn-shaped balusters, while the east balustrade has panels of square balusters which are possibly replacement. Bronze plaques in the southeast corner and the northwest corners of the bridge railings commemorate the builders and financiers. Replacement light fixtures were removed and a timber bridge railing was added to separate auto and pedestrian traffic in 2016. In spite of some alteration to the east balustrade, this bridge appears largely intact as a good example of arch deck construction produced by the Luten Bridge Company in the 1920s.

 The 2010 bridge survey combined the listing for this bridge with the above one when it included FMSF 8PI8742 as Bridge 150009 carrying Philippe Parkway over Mullet Creek on the list of potentially eligible bridges. The SHPO concurred on the eligibility. These two bridges were included in this survey to verify the existence of two separate structures.

Figure 28  FDOT Bridge 150009, Philippe Parkway over Mullet Creek, 8PI12833, looking south.
Figure 29   Plaque noting construction by the City of Safety Harbor in 1926. FDOT Bridge 150009, Phillippe Parkway over Mullet Creek, 8PI12833, looking southwest.

6.1.1.6   Indian Rocks Road over Ikes Creek (FDOT 150062; 8PI8729)

Located in Belleair, FDOT Bridge 150062 carries Indian Rocks Road over Ike’s Creek (now Golf Course Creek; Figure 30 and Figure 31). Originally built in 1926-27, the original engineer or builder remains unclear although the design and materials are indicative of the Luten Bridge Company, who designed and built a number of bridges in the county during that decade. In 1933-34, County Engineer C.E. Burleson used Federal Emergency Relief Funds to widen the bridge and replace the railings. The changes were constructed by the Gulf Construction Company. This Closed Spandrel Arch Deck is built of reinforced concrete and has a post and beam railing. Consisting of one span, the bridge measures 57 ft. long by 31 ft. wide. Brackets support a cantilevered pedestrian walkway with a pipe railing on the east. This bridge appears significant under Criteria A and C in the fields of engineering and public works. The original arch design and possible association with the Luten Bridge Company are important in terms of engineering. The bridge is also notable as a Great Depression era project funded by Federal Emergency Relief Funds and for its connection to C.E. Burleson. As the alterations were completed during the historic period, they are now considered significant in their own right and the bridge retains good integrity.
Figure 30  FDOT Bridge 150062, Indian Rocks Road over Ike’s Creek (now Golf Course Creek; 8PI8729). West railing, looking northwest.

Figure 31  FDOT Bridge 150062, Indian Rocks Road over Ike’s Creek (now Golf Course Creek; 8PI8729). East elevation, looking northwest.
6.1.1.1.7 Overbrook Avenue over Stevenson Creek (155509; 8PI8741)

Located in the Sunset Point neighborhood in Clearwater, the Overbrook Avenue Bridge spanning Stevenson Creek was constructed in 1926 by the Luten Bridge Company (Figure 32). A bronze plaque on the southwest endpost commemorates their involvement, while a similar plaque on the northeast endpost notes the Clearwater Mayor, Commissioners, and City Engineer in office at the time of its construction. The two bronze plaques are on endposts of the Neoclassical style balustrades which are composed of urn-shaped concrete balusters. Extending 20 ft. in length, this single span bridge is 37 ft. wide with a 24 ft. wide roadway. The closed spandrel arch bridge is skewed 49 degrees. This concrete bridge was part of the Sunset Point neighborhood developed by J.B. Paine of the Bayshore Building Company. Platted in 1923, the area, encompassing the residential streets of Sunset Point Drive at Springtime Avenue and Overbrook Avenue, was incorporated into the city in 1925. However, the lack of bridges to transport building materials limited development in the area. In 1926, Clearwater announced that the contract had been let for the construction of the bridge on Overbrook Avenue. The second bridge in the neighborhood carrying Springtime Avenue over Stevenson Creek followed soon thereafter (St. Petersburg Times 2/11/1925, 4/22/1925, 5/26/1926, 8/14/1926). This bridge retains excellent integrity. Combined with its design and association with the Luten Bridge Company, this bridge appears eligible for NRHP listing and may contribute to a district if further survey deems that one could be formed in this area.

Figure 32 Overbrook Avenue Bridge spanning Stevenson Creek Bridge (FDOT 155509; 8PI8741), looking southeast.

6.1.1.1.8 Springtime Avenue over Stevenson Creek (no FDOT number; 8PI12835)

Also located in the Sunset Point neighborhood in Clearwater, the Springtime Avenue over Stevenson Creek Bridge was constructed as part of the same effort as the Overbrook Avenue Bridge discussed above (Figure 33). This closed spandrel arch deck bridge is inscribed with plaques noting construction by the Luten Bridge Company of York, Pennsylvania in 1926 on the southeast corner. The northwest corner denotes the Clearwater Mayor, Commissioners, and City Engineer in office at the time of its construction.
The simple concrete railings feature inscribed rectangular panels. The single span measures 16 ft. in length with a width of 25 ft. carrying a travel surface of 17 ft. A sidewalk borders the east side of the road. This bridge retains very good integrity. Although of simple design, the arch deck construction is indicative of the period and its association with the Luten Bridge Company indicate that it may be NRHP eligible. The bridge would also be considered contributing if further survey of the neighborhood indicated a district could be formed.

Figure 33  Springtime Avenue over Stevenson Creek (no FDOT number; 8PI12835), looking northeast.

6.1.1.1.9  CR 576 (Sunset Point Road) over Stevenson Creek (no FDOT number; 8PI12834)

Located in Clearwater, the CR 576 (Sunset Point Road) over Stevenson Creek Bridge is a 19 ft. long concrete arch deck with one span measuring 23 ft. in width (Figure 34). It is a closed spandrel arch with simple concrete railings featuring a few of the inscribed rectangular panels evident on the south railing. The South Binghamton Park plat, the subdivision to the north, was filed with the Pinellas County Clerk in 1925 and this bridge was likely constructed soon after in 1926. The design is typical of the Luten Bridge Company and would correspond to the 1920s county-wide road construction effort. The Luten Bridge Company also designed the nearby Overbrook Avenue and Springtime Avenue bridges within one mile of this small structure. Although modest, it still retains the majority of its historic design. As such, it is a good example representing the major effort to improve the road network during the 1920s.
Figure 34  CR 576 (Sunset Point Road) over Stevenson Creek Bridge (no FDOT number; 8PI12834), looking northeast.

6.1.1.1.10  3rd Street South over Salt Creek (FDOT 157101; 8PI8743)

Constructed in 1926, this small concrete arch deck bridge was designed by St. Petersburg City Engineer Emil Nordstrom and constructed by the Nichols Construction Company. It carried the Big Bayou trolley car route and was described as of “unusually heavy construction” when built (Figure 35; St. Petersburg Times 10/30/1926). Extending 50 ft. in length, the single span provides 60 ft. of roadway carrying two lanes with ten ft. sidewalks on either side. The railings are constructed of solid concrete with rectangular inset panels which have been altered on the inside with sculptural reliefs showing the City’s history. In spite of this change, the bridge retains good integrity overall, and, as a historically significant route into the city which spurred the development of the Old Southeast neighborhood, it is locally significant. It appears NRHP eligible.
On December 17, 1941, the local newspaper reported that the Department of Public Works of the City of St. Petersburg was authorized to proceed with installation of a new bulkhead and piers for a new bridge across Booker Creek at Burlington Avenue North for a cost of $5,100 (Figure 36; *St. Petersburg Times* 12/17/1941). The concrete Tee Beam design features two spans of 25 ft. each extending to a width of 42 ft. Of notable design are the concrete railings which have a central pilaster flanked by panels with horizontal lines ending in curved ends. It has a skew angle of 45 degrees. This Art Moderne design retains excellent integrity and may have been built using WPA funds. It was determined potentially eligible by the SHPO as a result of the 2010 update of the statewide survey of historic bridges. Although the Tee Beam design is typical of the time period, the Art Moderne style and few alterations makes it unique and indicates that it would still be considered NRHP eligible.
6.1.1.1.12 Welch Causeway (FDOT 150028; 8PI12056)

The existing Welch Causeway, which carries 150th Avenue over the Intracoastal waterway, was constructed in 1962 to replace the 1926 bridge which was situated 65 ft. to the south. The 1926 structure was the first free bridge across the Intracoastal waterway and was built by David Sewell Welch, a wealthy entrepreneur from Iowa who spearheaded development on Madeira Beach. Also named in his honor, the existing four-lane bridge was constructed by the Bay Dredging and Construction Company of Tampa for $1.2 million (St. Petersburg Times, 5/20/1961; Yoder 2014). Interestingly, this bridge was constructed as a result of a grass roots effort by local mothers who feared for the safety of their children crossing the old bridge on school buses (Figure 37). Their efforts started in 1957 when the Madiera Beach Elementary School opened. Many of the students lived on the mainland and crossed the bridge twice daily to attend school. In 1959, mothers started halting traffic to let school buses travel alone across the old bridge. At the time, 15 buses made two trips a day across the bridge transporting about 1,500 students. They maintained the voluntary traffic control until the County Commission and Madiera Beach approved hiring school guards and using police to monitor the bridge. In 1960, the bridge closed to traffic when two seven inch cracks appeared in the decking. Although reopened after the emergency repairs, the mothers grew increasingly concerned and the local Parent-Teacher Association appealed to the governor. In response, the State Road Board cut the load limit to 50,000 pounds, but that was still well over the 22,000 pounds of a loaded school bus. Finally, in 1961, the mothers attended the County Commission meeting demanding a new bridge or they would keep their children out of school and submitted a petition with nearly 5,000 signatures collected over two days calling for a new bridge. Finally, the County Commission assigned part of its road fund, and in May, the state road board let the contract for a new bridge. According to the newspaper announcing the planned construction, “the promise of the new bridge is a shining example of how effective women’s groups can be in ‘getting things done’” (St. Petersburg Times, 5/20/1961).
Inscribed with “Boca Ciega Bay; Welch Causeway” on the curved railing at the southeastern end of the bridge, this bridge is also known as the Tom Stuart Causeway (Figure 38 and Figure 39). The 752 ft. long bridge is composed of a 141 ft. long steel bascule flanked by 14 concrete girder spans. It has a sloped gravity wall abutment and open pile bents with precast concrete caps. The bridge was remodeled ca. 2000 with alterations to the tender station and safety improvements to the deck, and railings. Although this bridge is of a common design for spanning intracoastal waterways in the 1960s and has endured some alterations, it is the most intact of the remaining historic intracoastal bridges in the county which were highly significant to the post World War II development of the county. Combined with the grassroots effort to construct the bridge, it appears historically significant at the local level and may be NRHP eligible.
Figure 38  Historic Postcard of Welch Causeway, ca. 1965 (St. Petersburg Museum of History).

Figure 39  FDOT Bridge 150028, Welch Causeway over the Intracoastal waterway, 8PI12056, looking northeast.
6.1.1.2 National Register Historic Districts

Historic districts generally contain a cohesive collection of buildings, sites, structures, and objects which are historically or physically related. The district's significance and integrity help to determine boundaries which are generally defined by visual barriers, visual changes, historical legal limits, or clearly differentiated patterns of development. Most of the bridges included in this survey would not be considered part of a district due to a lack of concentration of historic resources or due to alteration of the surrounding historic resources. However, the bridges located in the Roser Park neighborhood in St. Petersburg and the Sunset Point neighborhood in Clearwater may be eligible as contributing elements of a district.

6.1.1.2.1 Roser Park

Listed in the NRHP in 1998, the Roser Park Historic District is a recognized local landmark historic district roughly bounded by 9th Street South (now Dr. M.L. King Jr. Street South), 5th Street South, 6th Avenue South, and 11th Avenue South. According to the NRHP nomination, the district incorporated 146 contributing buildings and 22 noncontributing buildings representing the Bungalow, Prairie, Mediterranean Revival, Colonial Revival, Neoclassical Revival, and Tudor Revival styles when it was established. It was significant in the areas of Community Planning and Development, Architecture, and Landscape Architecture with a period of significance extending from 1914 to 1947. Although not included in the count of contributing resources, the narrative description in the nomination indicates that Booker Creek, Roser Park, two road bridges at 8th and 6th Street, hexagonal paver sidewalks, brick paved streets, and rough dressed granite curbs all contribute to the significance of the district creating a sense of continuity throughout the district (Anderson et. al 1998:7,2).

Built in 1914, the 9th Street South (Dr. M.L. King Jr. Street South) Bridge over Booker Creek borders the district on the west and its completion led to the development of this residential neighborhood. As such, it should be considered one of the contributing structures in the district. Although not surveyed for this project, the bridges at 8th Avenue (Figure 40) and 6th Street South (Figure 41) also appear to retain good integrity and should be considered contributing to this historic district.
Figure 40  Bridge 157115, 8th Avenue South over Booker Creek Bridge.

Figure 41  Bridge 157113, 6th Street South over Booker Creek Bridge.
6.1.1.2.2 Sunset Point

Overbrook Avenue over Stevenson Creek Bridge (155509; 8PI8741) and the Springtime Avenue over Stevenson Creek Bridge (no FDOT number; 8PI12835) were constructed as part of the Sunset Point neighborhood platted in 1923 (Figure 42). Developed by J.B. Paine of the Bayshore Building Company, this residential area encompassed the present-day streets of Sunset Point Drive at Springtime Avenue and Overbrook Avenue. Due to petition by the first residents, the area was incorporated into the city in 1925. However, the lack of bridges to transport building materials limited development in the area. In 1926, Paine asserted that “he believed the territory north of Sunset Harbor had been discriminated against in the matter of road building. He asserted that streets in the subdivision he had put on the market were in deplorable condition and requested that the authorities place the roadways in passable shape, not waiting for bridges to be built” (St. Petersburg Times 5/26/1926). The Mayor agreed that road construction had been delayed awaiting building of the necessary bridges and that work on Overbrook would start soon. In August 1926, Clearwater announced that the contract had been let for the construction of the bridge on Overbrook Avenue. The second bridge in the neighborhood carrying Springtime Avenue over Stevenson Creek followed soon thereafter (St. Petersburg Times 2/11/1925, 4/22/1925, 5/26/1926, 8/14/1926). Both of the bridges retain good integrity and were designed by the Luten Bridge Company during the same period. When combined with the historic streetscape elements, Overbrook Park, and the surrounding historic residences, this area may for a cohesive district if an architectural survey is performed.

Figure 42 First Addition to Sunset Point Plat (Pinellas County Clerk of Court, Plat Book 5, Page 95).
6.1.1.3 **Multiple Property Submission**

The Multiple Property Submission (MPS) is a cover document, not a nomination, which provides a basis for evaluating NRHP eligibility of related properties. The MPS provides registration requirements and a context for thematically-related historic properties to be nominated in the future. Submission of an MPS streamlines future designations and facilitates evaluation by comparing resources that share similar physical characteristics and historical associations. Unlike districts, properties nominated under an MPS are not situated in a cohesive cluster. Individual buildings, structures, sites, districts, and objects can be designated under the umbrella of the MPS registration form and each would need to meet NRHP criteria. Following completion of the statewide bridge survey update prepared by ACI in 2010, an MPS for Florida’s Historic Highway Bridges was prepared and submitted to the NRHP. It was approved by the National Park Service on September 25, 2017. Any of the bridges identified as eligible in this survey could be nominated for the NRHP under this cover document. As the MPS provides the historical context and property types with evaluation criteria, the amount of work involved in preparing a nomination is substantially decreased (NPS 1991b).

6.2 **Recommendations**

The following recommendations are offered to assist Pinellas County in identifying ways to preserve their historic bridges and capitalize on their rich history in spanning the county’s waterways. This survey was intended to provide historical information and documentation of the existing historical bridges in the county which can serve as a basis for future preservation and heritage education efforts. The documents produced by this survey, including the FMSF forms and this report, should be maintained at the Pinellas County Planning Department as well as submitted to SHPO. Future preservation planning efforts should include provisions to re-evaluate the county’s bridges every five to ten years.

6.2.1 **National Register of Historic Places and Local Designation**

Although well-known as the nation’s official listing of significant historic properties, inclusion in the National Register of Historic Places provides protection only in the case of a federally funded or permitted project through the Section 106 Process of the National Historic Preservation Act. In terms of historic bridges, this will most often apply to bridges owned by FDOT. City and county-owned bridges may not be subject to this review. The most effective legal tool available for the protection of historic resources is the local historic preservation ordinance. Once designated, the Pinellas County Historic Preservation Board can exercise some authority in the review of alterations or demolition of historic bridges through the permitting process. Although this may not prevent alterations or demolition, this additional review may provide the opportunity for project changes to improve compatibility or for documentation prior to demolition.

6.2.2 **Heritage Education – Driving Tour Brochure and Markers**

Pinellas County should consider developing a heritage education program for both adults and children. This could be a cooperative program between the Pinellas County Historic Preservation Board, the Pinellas Public Library Cooperative, Pinellas County School Board, or a community service organization. Each community has special places from the natural and built environments which document how those before us lived, and struggled, and influence who we have become. Through heritage education people can learn to value the significance of the historic places and artifacts remaining in their community, and become responsible stewards for their environment. Interactive methods such as walking tours, interpretive markers, museum activities, and restoration projects involve students and citizens in physically learning about their heritage.

In regard to this project, the County could create both a driving tour brochure and a series of interpretive markers. Both of these projects could be funded through historic preservation grants. The driving tour
brochure could highlight the more significant extant historic bridges such as the Marsh Rainbow Arch Bridge (Figure 43) and those described in Table 5.

![Figure 43](image.png)

**Figure 43** FDOT Bridge 150113, Marsh Rainbow Arch Bridge carrying SR 590 (Coachman Road) over Alligator Creek, 8PI8730, looking north.

**Table 5** Potential Driving Tour Bridges.

<table>
<thead>
<tr>
<th>Bridge No.</th>
<th>FMSF No.</th>
<th>Bridge Name</th>
<th>Facility Crossed</th>
<th>Year Built</th>
<th>Location</th>
<th>Historical Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>150062</td>
<td>8PI8729</td>
<td>Indian Rocks Road</td>
<td>Ike's Creek</td>
<td>1927; 1933-1934</td>
<td>Belleair</td>
<td>Originally built in 1926-27, the arch deck design and materials are indicative of the Luten Bridge Company, who designed and built a number of bridges in the county during that decade. In 1933-34, County Engineer C.E. Burleson used Federal Emergency Relief Funds to widen the bridge and replace the railings.</td>
</tr>
<tr>
<td>159901</td>
<td>8PI8749</td>
<td>Belleview Bridge</td>
<td>Ike's Creek</td>
<td>1915</td>
<td>Belleair</td>
<td>Exhibiting a significant Half Arch Deck construction, this bridge was designed by Daniel B. Luten and built by the Luten Bridge Company as the automotive and pedestrian entrance to the Belleview Hotel developed by Henry B. Plant. Luten used this bridge to promote and explain the benefits of half arch construction and is one of the few, if not the only, such extant bridges designed by Luten.</td>
</tr>
<tr>
<td>150113</td>
<td>8PI8730</td>
<td>Marsh Rainbow Arch Bridge</td>
<td>Alligator Creek</td>
<td>1927</td>
<td>Clearwater</td>
<td>This Pony Through Arch is the only one of its kind in Florida. Although built by the Luten Bridge Company, the design utilized a bridge form contributed to Luten’s competitor engineer James Marsh.</td>
</tr>
<tr>
<td>155509</td>
<td>8PI8741</td>
<td>Overbrook Avenue</td>
<td>Stevenson Creek</td>
<td>1926</td>
<td>Clearwater</td>
<td>This Neoclassical style arch deck bridge built by the Luten Bridge Company is one of the few extant bridges in the county during the 1920s.</td>
</tr>
</tbody>
</table>

Cardno 66

Pinellas Bridges historic resources survey_draft.docx
| No number | 8PI12835 | Springtime Avenue | Stevenson Creek | 1926 | Clearwater | Company retains excellent integrity located in the historic Sunset Point neighborhood. Built in conjunction with the bridge on Overbrook Avenue, this simple arch deck bridge has rectangular designs in the railings. It retains integrity as a typical design of the Luten Bridge Company. |
| No number | 8PI12834 | CR 576 (Sunset Point Road) | Stevenson Creek | 1926 | Clearwater | Although the builder remains unknown, the design of this arch deck bridge is typical of the Luten Bridge Company and indicative of the 1920s road network expansion. |
| 150009 | 8PI12833 | Philippe Parkway | Mullet Creek | 1926 | Safety Harbor | This arch deck bridge was constructed by the Luten Bridge Company in 1926 exhibiting some Neoclassical Revival elements in spite of some alterations. |
| 157001 | 8PI8742 | North Bayshore Drive | Mullet Creek | 1924-1925 | Safety Harbor | Built in 1924-1925 by the Luten Bridge Company, this bridge was part of a scenic route extending from Safety Harbor to Oldsmar. |

In addition to the specific history of the bridges, a brochure could highlight the overall history of bridge construction in the county as well as the various types of bridges. In the example above, local history of the communities and neighborhoods of Belleair, Clearwater, and Safety Harbor could be included as well. An additional driving tour could focus on the bridges in the St. Petersburg area.

Another type of heritage education project could involve the installation of a series of interpretive markers. Although a variety of themes could be utilized, one of the most interesting may involve the evolution of the bridges accessing the beach communities. These communities already benefit from a high rate of visitation from both tourists and county residents which would improve marker visibility and educational opportunities. A marker could be installed in each of the beach communities with photographs and maps depicting the historic and current bridges and detailing the builders and developers of the bridge and beach settlements. For example, a marker in St. Pete Beach could provide images of the McAdoo Bridge (Figure 44) and both the 1928 (Figure 45) and 1966 (Figure 46) editions of the Corey Avenue Causeway while highlighting the development of Corey Avenue as a historic downtown largely developed by the Upham Company during the 1930s. The markers could draw attention to the current bridges and commemorate those which have been lost. Table 6 lists additional bridges spanning the Intracoastal waterway and Tampa Bay.
Figure 44  McAdoo Bridge, ca. 1919 postcard (St. Petersburg Museum of History).

Figure 45  Corey Avenue Causeway, postcard (St. Petersburg Museum of History).
Figure 46  FDOT Bridge 150030, Corey Avenue Causeway over the Intracoastal Waterway, 8PI12057, looking southeast.
## Table 6  Construction and Demolition of Bridges Spanning the Intracoastal Waterway and Tampa Bay.

<table>
<thead>
<tr>
<th>Bridge No.</th>
<th>FMSF No.</th>
<th>Bridge Name</th>
<th>Roadway</th>
<th>Facility Crossed</th>
<th>Year Built</th>
<th>Year Demolished</th>
<th>Location</th>
<th>Design</th>
<th>Engineer/Contractor</th>
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<tbody>
<tr>
<td>150028</td>
<td>8P112056</td>
<td>Walsh Causeway Drawbridge/ Tom Stuart Causeway/ Madeira Beach Causeway</td>
<td>152° Avenue (SR 696)</td>
<td>ICWW</td>
<td>1926, 1962</td>
<td>1982</td>
<td>Madeira Beach</td>
<td>Moveable-Bascule</td>
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<td>150030</td>
<td>8P112057</td>
<td>Corey Avenue Causeway Drawbridge</td>
<td>Corey Avenue (SR 693)</td>
<td>ICWW</td>
<td>1928, 1966, 1975</td>
<td>1975</td>
<td>Pasadena/St. Pete Beach</td>
<td>Moveable-Bascule</td>
<td>Unknown</td>
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<td>150037, 150007, 150008</td>
<td>8P1135</td>
<td>Old Sunny Side Skyway Bridge</td>
<td>I-275 (US 19)</td>
<td>Tampa Bay</td>
<td>1954</td>
<td>1980 (partially)</td>
<td>St. Petersburg</td>
<td>Warren Through Truss, Girder</td>
<td>Freeman Horton, Parsons, Brinckerhoff, Hall, and MacDonald, U.S. Steel, Virginia Bridge Company</td>
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<td>150138, 1500064</td>
<td>BHI1658 (No Pinellas County number assigned to this bridge which spans Tampa Bay)</td>
<td>Davis Causeway/Courtney Campbell Causeway</td>
<td>SR 60</td>
<td>Tampa Bay</td>
<td>1927-33, 1974</td>
<td>1974</td>
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<td>Moveable-Bascule</td>
<td>Unknown</td>
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<td>154209</td>
<td>8P12728</td>
<td>Belleair Causeway Drawbridge</td>
<td>CR416</td>
<td>ICWW</td>
<td>1950</td>
<td>2009</td>
<td>Belleair Beach</td>
<td>Moveable-Bascule</td>
<td>C.E. Burleson, Lutlan Bridge Company</td>
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<td>150044</td>
<td>8P11904</td>
<td>Terra Verde Bridge (Pinellas Bayway Structure E)</td>
<td>SR 679</td>
<td>Boca Ciega Bay, ICWW</td>
<td>1961</td>
<td>St. Petersburg/Tierra Verde</td>
<td>Moveable-Bascule</td>
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<td>150026</td>
<td>8P18728</td>
<td>Blind Pass Bridge</td>
<td>SR 660</td>
<td>Blind Pass</td>
<td>1927</td>
<td>1997</td>
<td>St. Petersburg Beach/Treasure Island</td>
<td>Stringer/Multi-beam or Girder</td>
<td>C.E. Burleson, Raymond Concrete Pile Company</td>
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<tr>
<td>150068</td>
<td>8P12090</td>
<td>Dunedin Causeway Drawbridge</td>
<td>Causeway Boulevard</td>
<td>St. Joseph Sound (ICWW)</td>
<td>1963</td>
<td>Dunedin</td>
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<td>150107</td>
<td>8P12056</td>
<td>Howard Frankland Bridge</td>
<td>I-275 NB (BR 93)</td>
<td>Tampa Bay</td>
<td>1959</td>
<td>St. Petersburg</td>
<td>Beam &amp; Girder</td>
<td>Hardaway Contracting, Brison-Allen Construction; W.H. Armstrong Co.</td>
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<td>150112</td>
<td>8P12061</td>
<td>Indian Rocks (Walsingham Road) Drawbridge EB</td>
<td>SR 688 (Walsingham Road)</td>
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<td>1916, 1958</td>
<td>1958</td>
<td>Indian Rocks Beach/Largo</td>
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<td>150189</td>
<td>8P11182, 8MI1204, 8MA1798</td>
<td>Bob Graham Sunshine Skyway Bridge</td>
<td>I-275 (US 19)</td>
<td>Tampa Bay</td>
<td>1987</td>
<td>St. Petersburg</td>
<td>Cable-stayed</td>
<td>Figg &amp; Muller and Parsons Brinckerhoff, Engineers; American Bridge Company, Contractors</td>
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<td>157800, 157820, 157840</td>
<td>8P10574</td>
<td>Treasure Island Causeway</td>
<td>Boca Ciega Way/ Central Avenue/ 107° Avenue</td>
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<td>1939</td>
<td>2004 - 2007 - Partially demolished, partially relocated</td>
<td>St. Petersburg/ Treasure Island</td>
<td>Bascule, Girder</td>
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<td>150005</td>
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<td>Bayway Bridge</td>
<td>39° Avenue (SR-682)</td>
<td>ICWW</td>
<td>1962</td>
<td>2013-14</td>
<td>St. Petersburg Beach/St. Petersburg</td>
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<td>150049</td>
<td>8MI1104</td>
<td>Blind Pass Bridge</td>
<td>Gulf Boulevard</td>
<td>ICWW</td>
<td>1918</td>
<td>St. Petersburg, St. Pete Beach</td>
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<td>150119</td>
<td>8P12080</td>
<td>Old Safety Harbor Bay Bridge</td>
<td>Old Safety Harbor Bay Bridge</td>
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<td>ICWW</td>
<td>1923, 1961</td>
<td>Safety Harbor/Oldsmar</td>
<td>Frame</td>
<td>Bob Graham, Wife/Reynolds, Engineers</td>
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<td>150125</td>
<td>8P12086</td>
<td>Old Safety Harbor Bay Bridge</td>
<td>John's Pass Bridge</td>
<td>Gulf Boulevard</td>
<td>ICWW</td>
<td>1923, 1961</td>
<td>Safety Harbor/Oldsmar</td>
<td>Frame</td>
<td>Bob Graham, Wife/Reynolds, Engineers</td>
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</table>
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1904 "To Build Bridge at Once." September 10.
1904 "Railway to the Cemetery." December 31.
1913 "City Funds Placed in American Bank; Plans are Laid for Fine Bridge over Brooker Creek on Ninth St." August 20.
1913 "Bridge Contract on Former Plan." October 9.
1913 "Contract Signed for New Bridge." October 11.
1913 "Start Work on Booker Creek Bridge This Morning." October 28.
1913 "Booker Creek Bridge Going." November 6.
1914 "Finish the Booker Bridge in Two Weeks." February 17.
1914 "Booker Bridge Open March 15." February 21.
1914 "Lets Contract for Two Bridges." March 19.
1914 "Booker Creek Bridge." March 25.
1915 "Notice to Contractors." February 10.
1915 "Type of Waiting-Room for Patrons of Trolley Lines and Very Pretty View of Booker Creek Bridge." February 21.
1916 "Commissioners Award Contracts for Bridges." November 22.
1918 "Boozer Creek Fill Begun at Central Ave." June 26.
1920 "Bridge Bids to Get Once Over by Committee." January 6.
1920 "West Central Gets Some Attention." February 17.
1921 "To End Bridge Job This Week." March 8.
1922 "Seminole and Safety Harbor Contracts to be Awarded This Week." January 22.
1923 "Begin Work in January." November 22.
1924 "Four New County Roads Will be Finished by Next Winter." May 10.
1924  “Gandy Bridge Road Will Be Open by October 1.” July 4.
1924  “Main Road Projects to be Finished Soon.” September 4.
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1924  “Road Material Shipments are Best in Weeks.” November 8.
1925  “Bids on Bridge Are Due Monday.” February 19.
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## Appendix A
### Demolished Bridges

<table>
<thead>
<tr>
<th>Bridge No.</th>
<th>FMSF No.</th>
<th>Bridge Name</th>
<th>Roadway</th>
<th>Facility Crossed</th>
<th>Year Built</th>
<th>Year Demolished</th>
<th>Location</th>
<th>Design</th>
<th>Engineer/Contractor</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>150037, 159007, 159008</td>
<td>8PI135</td>
<td>Old Sunshine Skyway Bridge</td>
<td>1-275 (US 19)</td>
<td>Tampa Bay</td>
<td>1954</td>
<td>1980 (partially)</td>
<td>St. Petersburg</td>
<td>Warren Through Truss, Girder</td>
<td>Freeman Horton, Parsons, Brinckerhoff, Hall, and MacDonald, U.S. Steel, Virginia Bridge Company</td>
<td>Portion of approaches remain as fishing piers</td>
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<td>150138</td>
<td>8PI122/8HI5758</td>
<td>Gandy Bridge</td>
<td>Gandy Blvd. (SR-694)</td>
<td>Tampa Bay</td>
<td>1924; 1979</td>
<td>1975-1976</td>
<td>St. Petersburg/Tampa</td>
<td>Moveable-Bascule</td>
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<td>Belleair Causeway Drawbridge</td>
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<td>ICWW</td>
<td>1950</td>
<td>2009</td>
<td>Belleair Beach</td>
<td>Stringer/Multi-beam or Girder</td>
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<td>150044</td>
<td>8PI8025</td>
<td>Clearwater Memorial Causeway</td>
<td>SR 60</td>
<td>ICWW</td>
<td>1926, 1963</td>
<td>1963, 2005</td>
<td>Clearwater</td>
<td>Arch-Deck</td>
<td>C.E. Burleson, Luten Bridge Company</td>
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<td>150012</td>
<td>8PI8724</td>
<td>SR-580</td>
<td>Moccasin Branch</td>
<td>1926</td>
<td>1997</td>
<td>Oldsmar</td>
<td>Arch-Deck</td>
<td>Luten Bridge Company</td>
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<td>150019</td>
<td>8PI8725</td>
<td>McMullen-Booth Road (CR-593)</td>
<td>4th Street S</td>
<td>Alligator Creek</td>
<td>1927</td>
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<td>Safety Harbor</td>
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<td>4th Street S</td>
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<td>2013</td>
<td>St. Petersburg</td>
<td>Arch-Deck</td>
<td>City of St. Petersburg</td>
<td>WPA funded; potentially eligible in 2000</td>
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<td>2011</td>
<td>St. Petersburg</td>
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<td>Blind Pass Bridge</td>
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<td>Blind Pass</td>
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<td>1997</td>
<td>St. Petersburg Beach/Treasure Island</td>
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<td>1928</td>
<td>1995</td>
<td>Clearwater</td>
<td>Girder/Tee Beam</td>
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<td>Arch-Deck</td>
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<td>2007</td>
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<td>Bridge No.</td>
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<td>Roadway</td>
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<td>Year Demolished</td>
<td>Location</td>
<td>Design</td>
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<td>Frame</td>
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<td>1928/1971</td>
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<td>Rheba Sutton White Chapel</td>
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<td>Crystal Beach Historic Path/Parkway (1 of 2 installed)</td>
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