Historic Bridge Management Plan for the Judge Seeber Bridge

Recall Number: 020375
Structure Number: 02360463102341
Parish: Orleans
Route: LA 39
Crossing Description: Inner Harbor Navigation Canal (Industrial Canal)

Prepared for

Louisiana Department of Transportation and Development

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Executive Summary

The Judge William Seeber (Judge Seeber) Bridge (Recall No. 020375, also known as the Claiborne Avenue Bridge) crosses over the Inner Harbor Navigation Canal (commonly called the Industrial Canal) in New Orleans, Orleans Parish, Louisiana, and is owned by the State of Louisiana. The bridge was constructed in 1955-1957, rehabilitated in 2009-2011, painted in 2012-2014, and retains nearly all of the elements from its original construction. It was determined to be eligible for the National Register of Historic Places (National Register) in 2013. It is significant as an important example of the lift-tower subtype of the vertical lift movable bridge type, with drive machinery to raise and lower the span located at the top of each lift tower.

This bridge carries four roadway lanes, two lanes each direction separated by a median barrier, of Louisiana Highway (LA) 39, locally called North Claiborne Avenue, over the Industrial Canal, including flood walls on each side of the canal, over two spur line tracks of the New Orleans Public Belt Railroad (NOPB RR) on the west side of the canal, and over Jourdan Avenue on the east side of the canal. The bridge is contiguous to the west with Recall No. 001610 (south approach for eastbound traffic) and Recall No. 020377 (north approach for westbound traffic). It is contiguous to the east with Recall No. 020376 (south approach for eastbound traffic) and Recall No. 020378 (north approach for westbound traffic). These four bridges with separate recall numbers are not part of this management plan. Because of the movable span, this bridge is classified as a complex structure. This bridge is also classified as a fracture critical bridge. The total length of this bridge is approximately 1,534 feet. The main span of this bridge is a 360-foot-long tower drive vertical lift bridge. On the west end of the main span there are four approach spans including a flared steel girder span consisting of a north approach and a south approach, two steel girder spans, and a steel tower span. On the east end of the main span there are 18 approach spans including 15 steel I-beam spans, two steel girder spans, and a steel tower span.

This bridge is opened four or five times per day, according to Louisiana Department of Transportation and Development (LADOTD) staff, and most vessels can pass under without the need for opening.

The bridge is in good condition overall and appears to adequately serve its purpose of carrying vehicular traffic, with the ability to allow larger, taller water navigation traffic to pass under the bridge when it is in the open position, and smaller, shorter navigation traffic to pass under it when in the closed position. There are no major structural deficiencies for this bridge because of the 2009-2011 and 2012-2014 rehabilitation projects. The operation of the bridge is also good, as observed in two opening-closing cycles during the field visit, and the machinery and electrical systems are adequately maintained. With proper maintenance and rehabilitation, the Judge Seeber Bridge can continue to serve in its present capacity for 20 years or longer.

Any work on the bridge should proceed according to recommendations in this Historic Bridge Management Plan (Plan), which adhere to the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (Secretary's Standards), the *Management Plan for Historic Bridges Statewide* (Statewide Historic Bridge Plan), and the *Programmatic Agreement among the Federal Highway Administration, the Louisiana Department of Transportation And Development, the Advisory Council on Historic Preservation, and the Louisiana State Historic Preservation Officer Regarding Management of Historic Bridges in Louisiana* (PA).

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1. Introduction

This Plan, used in conjunction with the Statewide Historic Bridge Plan, provides guidance on the approach to preservation activities for the Judge Seeber Bridge (Recall No. 020375), identified as a Preservation Priority Bridge. There are four contiguous bridges to Bridge 020375 with separate recall numbers that are not part of this management plan. Completion of individual management plans for Preservation Priority Bridges and the Statewide Historic Bridge Plan fulfills terms of the PA, which was executed on September 21, 2015.

The PA provides the basis and procedures for the management of historic bridges in Louisiana and outlines the procedures for the treatment of historic bridges, including Preservation Priority Bridges. In accordance with the PA, an owner seeking state or federal funding for Preservation Priority Bridges will be required by the LADOTD, in cooperation with the Louisiana State Historic Preservation Office (LASHPO) and the Federal Highway Administration (FHWA), to follow the procedures outlined in this Plan and the Statewide Historic Bridge Plan.

The Statewide Historic Bridge Plan outlines the overall approach to bridge preservation through a discussion of the collaboration of the historian and engineer, guidance on assessing preservation needs, and resources and technical guidance on maintenance and rehabilitation activities that are broadly applicable to historic bridges. A glossary of common engineering and historical terms is included in the Statewide Historic Bridge Plan.

This Plan for the Judge Seeber Bridge compiles and summarizes the specific historic and engineering information for this Preservation Priority Bridge. It documents the existing use and condition of the bridge, along with assessments of the preservation needs, including cost estimates. Preservation can be accomplished in two manners: preventative maintenance and rehabilitation. Maintenance includes cyclical or condition-based activities that, along with regular structural inspections, are directed toward continued structure serviceability. Rehabilitation activities are near- or long-term steps that need to be taken to preserve and in some cases restore a bridge's structural condition and serviceability. In assessing preservation activities for each Preservation Priority Bridge, a design life of 20 years was considered, which is consistent with the duration of the PA. This Plan provides the bridge owner, and other interested parties, with detailed information related to the historic nature of the bridge and the necessary background to make an informed planning decision. Recommendations within this Plan should be reviewed in 10 years following completion of the Plan to identify any needed updates or revisions.

Existing bridge data sources typically available for Louisiana bridges were gathered for this Plan and field investigation confirmed general structural condition and character-defining features of the subject bridge. These sources include:

- The current LADOTD Bridge Inspection Report, and any other similar inspection reports
- Original bridge construction plans, any rehabilitation plans, and record as-built plans, as available
- Existing historical and documentary material related to the historic bridges

Recommendations within this Plan are consistent with the Secretary's Standards. The Secretary's Standards are basic principles created to help preserve the distinct character of a historic property and its site, while allowing for reasonable change to meet new engineering standards and codes. The Secretary's Standards recommend repairing, rather than replacing, deteriorated features whenever possible. A version of the Secretary's Standards that is specific to historic bridges is included in the Statewide Historic Bridge Plan. Following these standards is a requirement of the PA.

A bridge historian and bridge engineer from Mead & Hunt, Inc. (Mead & Hunt) jointly prepared this Plan under contract to the LADOTD. The LADOTD, FHWA, and LASHPO reviewed and provided input into the final Plan.

2. Location Map

PROJECT LOCATION
Bridge Number: 020375
Stucture Number: 02360463102341
Orleans Parish
Route: LA 39
Crossing Description: Inner Harbor Navigation Canal

Map showing location of five contiguous bridges at LA 39/N. Claiborne Avenue crossing of the Industrial Canal. Additional pages from the 2007 inspection report of the bridge are provided in Appendix C.

3. Historic Data

A. Identifying information

Structure Number: 02360463102341

Recall Number: 020375

LASHPO Number: 36-01803

Bridge Name: Judge Seeber Bridge (also known as the Claiborne Avenue Bridge)

Date of Construction: 1955-1957; rehabilitated in 2009-2011; painted in 2012-2014

Main Span Type: Steel Vertical Lift Span (Lift-tower subtype)

Contractor: Boh Brothers Construction Company, New Orleans, Louisiana.

Designer/Engineer: Sidney Poleynard of the Louisiana Department of Highways' Bridge Design Section designed the vertical lift span. Other Bridge Design Section engineers were responsible for design of approach spans and other bridge elements. Drive machinery was designed by Digert Bancroft & Ross Co., Ltd. of New Orleans.

B. Description of bridge

This bridge carries four roadway lanes, two lanes in each direction separated by a median barrier, of LA 39 / N. Claiborne Avenue over the Industrial Canal, including flood walls on each side of the canal, over two spur line tracks of the NOPB RR on the west side of the canal, and over Jourdan Avenue on the east side of the canal, in the city of New Orleans, Orleans Parish. The bridge construction was completed in 1957, and retains nearly all elements of its original construction. The bridge was significantly rehabilitated from 2009 to 2011 and was fully repainted from 2012 to 2014. Because of the movable span, this bridge is classified as a complex structure. This bridge is also classified as a fracture critical bridge because of the two-truss with floorbeams configuration of the movable span and two-girder system of the westerly approach spans.

The Judge Seeber Bridge is contiguous to the west with Recall No. 001610 (south approach for eastbound traffic) and Recall No. 020377 (north approach for westbound traffic). The Judge Seeber Bridge is also contiguous to the east with Recall No. 020376 (south approach for eastbound traffic) and Recall No. 020378 (north approach for westbound traffic). The five bridges were built as part of a single construction project and were completed in 1957. Only Bridge 020375 is a Preservation Priority Bridge and subject to this management plan. The four contiguous bridges with separate recall numbers are not part of this management plan. A map in Section 2 of this Plan illustrates the location of the five structures.

The total length of the Judge Seeber Bridge is approximately 1,534 feet, as measured from Pier 18 common with Recall No. 001610 and Recall No. 020377 to the west, and Piers No. 37A and 37B common with Recall No. 020376 and Recall No. 020378 to the east. The main span of this bridge is a 360-foot-long tower drive vertical lift bridge. The description of this bridge begins at the west end and proceeds to the east end. The westerly most steel girder span is flared and consists of a north approach 120 feet, 9 inches long and a south approach 120 feet, 8 inches long. This span flares to match the geometry of the split roadway on Recall No. 001610 and Recall No. 020377 to the west. The next two spans are steel girder spans, each 121 feet long. The west steel tower span is 30 feet long, plus 3 feet, 3 inches from centerline of the column to the centerline of the live load bearing for the lift span. The steel truss movable span is 360 feet long. The east steel tower span is 30 feet long, plus 3 feet, 3 inches from centerline of the column to the centerline of the live load bearing for the lift span. The two steel girder spans immediately to the east of the east tower span are 72 feet, 11 inches long and 72 feet, 0 inches long, respectively. Then there are 15 steel I-beam spans each 40 feet long, for a length of 600 feet. The easterly end of the bridge is contiguous with Recall No. 020376 and Recall No. 020378.

The clear roadway width for each direction of traffic is 26 feet, with a steel median barrier on the lift span, and a concrete median barrier on the approach spans, separating the two lanes of traffic in each direction. The total median width is 4 feet. There are no sidewalks or walkways on this bridge. The deck on the approach spans is cast-in-place reinforced concrete, and the deck on the lift span is steel metal grid. The outside barriers on the approach spans are cast-in-place concrete “Jersey” style barriers. The outside barriers on the lift span are vertical-shaped steel barriers, which match into the concrete barriers on the approach spans.

The approach spans superstructures are supported on braced steel columns, which are supported on cast-in-place concrete pedestals, which are founded on piles. The lift span towers are supported on cast-in-pace concrete piers, which are founded on concrete footings, concrete seals, and then piles.

When the bridge is in the closed position the vertical clearance is 44 feet above normal water elevation, and 40 feet above high water elevation. When the bridge is in the opened position the vertical clearance is 160 feet above normal water elevation and 156 feet above high water elevation. This bridge is opened four or five times per day, according to LADOTD staff, and most vessels can pass under without the need for opening. The bridge is opened for larger, taller vessels to pass through.

The bridge is protected by a timber fender system and two circular sheet pile dolphins on the east side of the navigation channel. The horizontal navigation clearance through the structure is 305 feet.

The lift span is controlled from an operator’s house that is supported in the center of the west tower span. The lift span is driven by machinery and electrical systems located in enclosures on the top of the west and east towers.

The Judge Seeber Bridge itself is not load (weight) posted; however, the contiguous approach bridge (Bridge Recall No. 020378) is currently load (weight) posted at 15 to 25 tons (15T–25T). Signs indicating this posting are located at the east end and the west end of the five contiguous bridges. Thus, the entire group of contiguous bridges is load (weight) posted as noted, based on the structural condition of Bridge Recall No. 020378. It is noted that the LADOTD has a future rehabilitation project for the approach spans. The LADOTD will try to remove or increase the posting limit under that project, depending on the deficiencies. The average daily traffic (ADT) across the bridge is about 54,200 vehicles, which includes trucks and emergency response vehicles within the posted weight limit. The posted speed limit on the bridge is 35 miles per hour.

The minimum vertical clearance for vehicular traffic through the bridge is 15 feet, 1 inch based on recorded information for this bridge. Signs located at each end of the bridge list the vertical clearance as 15 feet, 0 inches.

C. History and significance

The Judge Seeber Bridge, also known as the Claiborne Avenue Bridge, spans the Industrial Canal in New Orleans, Louisiana. The Judge Seeber Bridge is one of several vehicular and rail crossings of the Industrial Canal. The bridge provides a vehicular connection between the city's Upper Ninth Ward to the west (or "upriver") and the Lower Ninth Ward to the east (or "downriver").

The 5.5-mile-long Industrial Canal connects the Mississippi River with Lake Pontchartrain and also links to the Gulf Intracoastal Waterway. Built and operated by the Port of New Orleans, the canal opened for marine traffic in 1923. As part of the canal's initial construction, the Port of New Orleans built four movable-span bridges to carry rail traffic over the waterway, including the St. Claude Avenue Bascule Bridge about 0.25 of a mile south of Claiborne Avenue, and the Florida Avenue Bridge about 0.85 of a mile north of Claiborne Avenue. With the growth of railroad and shipping industries along the Industrial Canal, residential development in the Lower Ninth Ward also expanded in the early and mid-twentieth century. The Judge Seeber Bridge was constructed as an important vehicular link between central New Orleans and the Lower Ninth Ward and downriver St. Bernard Parish. While Claiborne Avenue was a major street in New Orleans, the roadway ended at the NOPB RR railyards, with no bridge spanning across the Industrial Canal until the Judge Seeber Bridge was dedicated in 1957.[1]

Planning for a bridge at the Claiborne Avenue site began in the early 1950s, as a way to relieve congestion on the St. Claude Avenue Bascule Bridge, which had been converted to handle vehicular traffic. The Louisiana Department of Highways (LDH) prepared construction plans for a new vertical lift bridge in 1954. Sidney Poleynard, an influential LDH bridge engineer in the post-World War II era, designed the bridge's vertical lift main span. Other portions of the bridge, such as approach spans and substructures, were designed by various other LDH bridge engineers. Specialized bridge components such as the lift-tower drive machinery and the operator's house were designed by private contractors

[1] Levees.org, "Inner Harbor Navigation Canal (Industrial Canal) and the Lower Ninth Ward," http://www.neworleanshistorical.org/items/show/289, accessed March 11, 2016.

within the general concept of the overall bridge design. The drive machinery was designed locally by Digert Bancroft & Ross Co., Ltd. of New Orleans, with additional subcontractors for various electrical and hydraulic systems. Louis Duclos, another important LDH bridge designer of the period, reviewed and approved many of the contractor drawings on behalf of J.B. Carter, the LDH's Bridge Design Engineer.[2]

Construction work began on the bridge and its approaches in January 1955, as State Project No. 46-02-02. Boh Brothers Construction Company, a longtime New Orleans firm, was general contractor for the project. Initial project tasks in early and mid-1955 focused on construction of the concrete foundation piles, substructure bents, and retaining walls. At the same time, the American Bridge Company (a division of United States Steel Corporation) prepared shop drawings for fabrication of the bridge's steel elements. Main span members were designed and fabricated in the company's Ambridge, Pennsylvania plant. Steel approach span and substructure members were produced in American Bridge's Birmingham, Alabama, plant and in Jones & Laughlin Steel Company's J&L plant in Aliquippa, Pennsylvania. Steel members were made of typical A7 carbon steel or A242 "ManTen" high-strength steel with improved corrosion resistance. Work on the vertical lift span and approach spans took place in late 1955 and much of 1956, followed by roadway approach work and lift machinery installation in late 1956 and early 1957.[3] The bridge was dedicated and opened to traffic on May 31, 1957.[4] The total construction cost for the 0.46-mile-long project was $4,543,817.[5]

The bridge was listed in the LDH's July 1958 list of Louisiana's major bridge crossings, one of 13 such bridges in Orleans Parish.[6] The bridge's construction led to further improvements to the Claiborne Avenue corridor. In the mid-1960s Claiborne Avenue was expanded to a four-lane roadway from central New Orleans to Chalmette. East of the Judge Seeber Bridge, Claiborne Street and adjacent Robertson Street were converted to a one-way couplet, each street handling two lanes of one-way traffic. When improvements were completed in 1967, Claiborne Avenue was redesignated as LA 39, forming an important artery between central New Orleans and St. Bernard Parish.[7]

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[2] "Plans of Proposed State Highway: Bridge over Inner Harbor – Navigation Canal at North Claiborne Avenue in New Orleans," Baton Rouge, La.: State of Louisiana Department of Highways (1954).

[3] "Plans of Proposed State Highway: Bridge over Inner Harbor – Navigation Canal at North Claiborne Avenue in New Orleans."

[4] "Dedication of new bridge set Friday in New Orleans," *Baton Rouge Morning Advocate*, May 30, 1957, 2.

[5] State of Louisiana Department of Highways, *Financial and Statistical Report: Fiscal Year Ended June 30, 1955*, 26; State of Louisiana Department of Highways, *Financial and Statistical Report: Fiscal Year Ended June 30, 1956*, 26; State of Louisiana Department of Highways, *Financial and Statistical Report: Fiscal Year Ended June 30, 1957*, 28.

[6] State of Louisiana Department of Highways, *Major Bridge Locations*, Baton Rouge, La.: State of Louisiana Department of Highways, (May 1959, revised November 1965), 12.

[7] *New Orleans Street Map*, Published for the Gulf Oil Corporation by Rand McNally & Co., (1964); *Arkansas, Louisiana, Mississippi*. Published for the Phillips Petroleum Company by Rand McNally & Co. (1970).

The bridge has undergone several alterations since the original construction. The original aluminum picket railings on the bridge's approach spans were replaced with the current concrete barriers. Minor alterations to the operator's house include replacement of original windows. On May 28, 1993, a towboat struck the steel bent—Bent 21—supporting the steel girder approach spans just east of the vertical lift span. The collision resulted in the collapse of two approach spans and the bent itself, as well as damage to the adjacent approach span bent.[8] The damaged approach spans and substructure were generally reconstructed in-kind. The north column and footing of the bent were placed on a rectangular concrete and earthen platform slightly above water level. In addition, several creosoted timber posts were placed in the channel between the east lift tower and reconstructed Bent 21 to prevent potential direct collisions from marine traffic. A 2009-2011 rehabilitation project replaced in-kind the bridge's steel stringers, steel open-grid deck, and lift cables. The electrical system used for lift span operation was also refurbished and upgraded. In 2012-2014 the bridge was fully repainted.[9]

The Judge Seeber Bridge is eligible for listing in the National Register under *Criterion C: Engineering*. It has significance as a movable bridge and as an important variation within the vertical lift bridge type. This variation is demonstrated in the location of two separate motor and drive mechanisms, which power two sheaves on each tower. Repairs and rehabilitation work have generally resulted in in-kind replacement of original elements. Alterations to approach span railings and the operator's house do not impact the bridge's significant design features and result in only a minor loss of integrity.

D. Character-defining features

Character-defining features are prominent or distinctive aspects, qualities, or characteristics of a historic property that contribute significantly to its physical character. Features may include materials, engineering design, and structural and decorative details. Elements of the bridge that are not identified as character-defining features may be historic fabric. Historic fabric is material in a bridge that was part of original construction. It is important to consider both character-defining features and the bridge's historic fabric when planning any work.

The Judge Seeber Bridge has one character-defining feature: its central vertical lift span (described below). Other elements that represent historic fabric but are not considered to be character-defining are the approach spans (excluding the railings, which are not original to the bridge), the bridge's operator's house located on the west lift tower, substructure elements, and traffic barrier gates.

[8] National Transportation Safety Board, "Highway Accident Report: U.S. Towboat Chris Collision With the Judge William Seeber Bridge, New Orleans, Louisiana, May 28, 1993," NTSB Report No. HAR-94/03. Washington, D.C.: National Transportation Safety Board, 1994.

[9] "Nearly 3 months behind schedule, Judge Seeber Bridge finally is back open," *NOLA.com/The Times-Picayune*, November 13, 2013, http://blog.nola.com/traffic/print.html?entry=/2013/11/nearly_three_months_behind_sch.html.

The following item is the character-defining feature of this bridge:

Feature 1: Design and construction of a vertical lift span with lift-tower drive machinery
This feature includes the entire main span, comprised of a vertical lift span with operating drive machinery located in enclosed platforms at the top of each lift tower, with one tower on each end of the bridge. Each motor and drive mechanism powers two sheaves that raise and lower the lift span. The lift span's primary structural members are arranged in a Warren through truss configuration.

Character-defining Feature Photo 1: Design and construction of a vertical lift span with lift-tower drive machinery. A set of motor and drive machinery is located at the top of each lift tower. Each machinery set drives two sheaves to raise and lower the lift span.

Character-defining Feature Photo 2: Enclosed platform showing sheave and drive machinery in enclosed platform at top of lift tower.

The following images illustrate other bridge features that are of historic fabric, meaning they are part of original construction but are not considered to be character-defining features:

Historic Fabric Photo 1: Steel plate girder approach span on west approach to vertical lift span.

Historic Fabric Photo 2: Typical steel beam approach span and substructure.

Historic Fabric Photo 3: Concrete main-span substructure.

Historic Fabric Photo 4: Bridge operator's house on west lift tower. Minor alterations to historic fabric include replacement windows within original window openings.

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4. Engineering Data

A. Existing conditions

(1) Structural observations

The Judge Seeber Bridge is in good condition overall and appears to adequately serve its purpose of carrying vehicular traffic over the Industrial Canal, two railroad spur line tracks, an industrial yard, and a city street. There are no major structural deficiencies for this bridge, but there are several minor deficiencies as described below. This bridge, including the lift span, the westerly approach spans, and the easterly approach spans, was significantly rehabilitated under several construction contracts between 2009 and 2014.

The bridge itself is not load (weight) posted; however, the contiguous approach bridge (Bridge Recall No. 020378) is currently load (weight) posted at 15 to 25 tons (15T–25T). Signs indicating this posting are located at the east end and the west end of the five contiguous bridges. Thus, the entire group of contiguous bridges is load (weight) posted as noted, based on the structural condition of the Bridge Recall No. 020378.

Superstructure

Lift span and towers – The superstructure of the lift span and superstructure of both tower spans are in good condition, with only minor deficiencies. The metal grid deck on the lift span is in good condition; the concrete deck on the tower spans is in fair condition. The joints between the lift spans and tower spans are in good condition. The parapets in the median and on the outside of the roadway on the lift span and towers spans are in good condition. The stringer and floorbeam floor system for the lift span is in fair condition, with some corrosion and section loss; these deteriorated areas were painted during the latest painting project. The steel beam and girder floor systems for the tower spans are in good condition. The right side bottom chord of the lift span at Floorbeam 7 has collision damage and is missing two rivets. The left side also has collision damage.

Machinery and electrical systems – These systems are both in good condition, with components functioning properly, as demonstrated during two opening-closing cycles during the site visit. The operator's house is in good condition. Although the emergency generator under the west tower span was not operated during the site visit, LADOTD staff stated that it was in good operating condition. The machinery enclosures on top of each tower are in good condition.

Approach spans – The superstructure of the approach spans is in fair condition. The steel beams and girders are in good condition. The concrete decks have minor transverse cracking with efflorescence in all spans, and are in fair condition. Spans 17 to 20 have spalls with exposed rebar in the middle of the deck on the underside. The expansion joints in the decks are in poor condition; joint seals are failing and minor spalls are developing at the joints.

Substructure

Lift span and towers – The two piers supporting the lift span and towers are in satisfactory condition, with only minor deficiencies. On the north side of the east pier, in the northeast corner, there is a large spall with exposed reinforcing steel.

Approach spans – The substructure units for the approach spans are in good condition. There is minor collision damage to the north column on Pier 16 at Jourdan Street.

Pier protection and timber fender system
The two circular pier protection cells, one upstream and one downstream of the bridge on the east side of the navigation channel, are in good condition. The timber fender system on the east side of the navigation channel is in fair condition.

(2) Non-Structural observations
Traffic control devices, including traffic signal lights, gates, warning lights and horns, and signage, are in place and functioning properly at each end of the bridge.

(3) Serviceability observations
The latest bridge inspection report indicates that the ADT across the bridge is about 54,200 vehicles. This traffic is a mixture of cars, trucks, school buses, and emergency response vehicles, all of which were observed during the field visit. This bridge does not have accommodations for pedestrians.

Based on information provided by LADOTD staff during the site visit, the average number of openings for this bridge is four or five times per day. The majority of the vessels that use the waterway can pass under the bridge without it needing to be opened. The depth of the lock limits deep draft vessels from using this waterway.

The number of trains per day that pass under the bridge is not known. Two trains passed under the bridge during the four-hour duration of the field visit.

The easterly and westerly approach spans to this bridge are different Recall Numbers, and are not covered under this Plan. The roadway approaches at the easterly and westerly ends of this overall structure are also not covered under this Plan.

B. Sources of information

Plans available:	Yes, available at the LADOTD Bridge Section office
Inspection report date:	February 26, 2014
Fracture critical report date:	(included as part of routine inspection)
Underwater inspection report:	(not known)
Date of site visit:	December 17, 2015

Condition Photo 1: Operator's house, including electrical conduit and access platform on west tower.

Condition Photo 2: West tower span, stairs, platforms, and pier.

Condition Photo 3: Emergency generator under west tower.

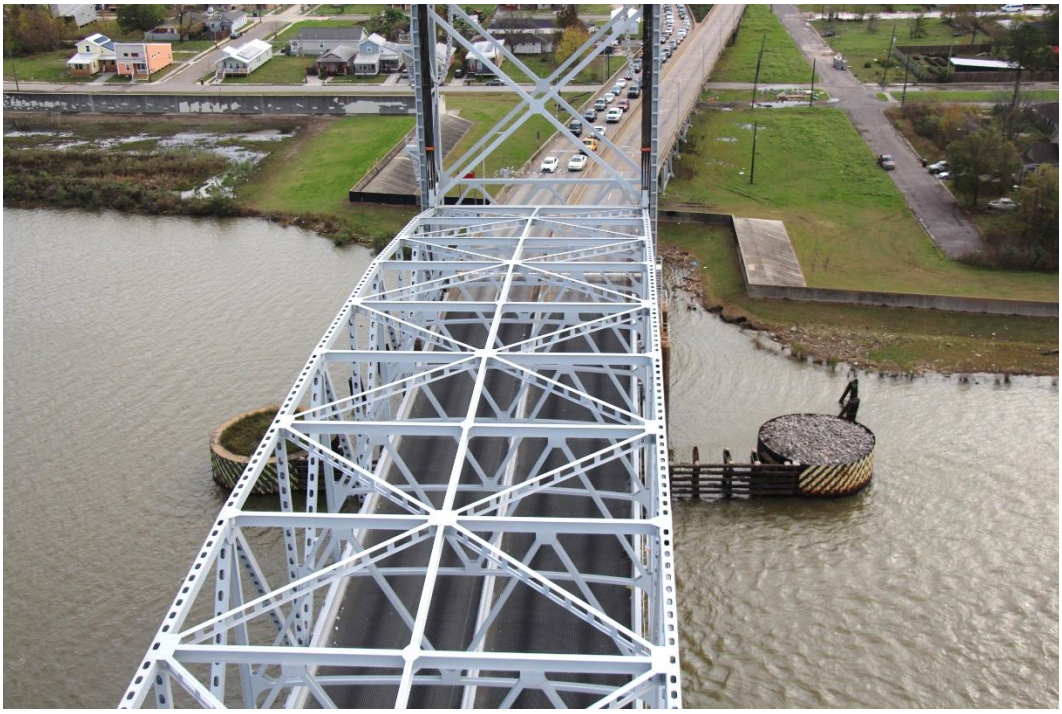
Condition Photo 4: General condition of lift span open steel grid deck, barriers, and painted steel members.

Condition Photo 5: Aerial view of westerly approach spans; bridge is contiguous with Recall No. 001610 (south approach, at left) and Recall No. 020377 (north approach, at right) to the west.

Condition Photo 6: Easterly approach spans, timber fender system, east tower, and east pier.

Condition Photo 7: East tower machinery enclosure (west tower is similar).

Condition Photo 8: Cables and attachment sockets to counterweight.



Condition Photo 9: Top of lift span, pier protection system, and easterly approach spans, looking east.

Condition Photo 10: Inside machinery enclosure on west tower.

Condition Photo 11: Vessel passing under bridge; bridge does not need to be raised for all vessels.

Condition Photo 12: Overview of bridge looking west at west tower.

Condition Photo 13: Westerly approach spans superstructure and substructure, looking northwest.

Condition Photo 14: Westerly approach spans overview, looking east.

Condition Photo 15: Westerly approach spans of Recall No. 001610, leading up to Recall No. 020375 (Judge Seeber Bridge), looking east.

Condition Photo 16: Easterly approach spans superstructure and bents.

Condition Photo 17: Easterly approach spans superstructure and bents.

Condition Photo 18: Signalized intersection at east end of bridge, looking west. Note weight limit sign 15T-25T, and note signals, signing, and traffic control devices, all in good condition. The approach roadway is to Recall No. 020378, which is not covered under this Plan, but is contiguous with Recall No. 020375.

Condition Photo 19: Spalled concrete and exposed rebar at northeast corner of east tower pier.

Condition Photo 20: Bent 16, north Column 1 at Jourdan Avenue has collision damage.

Condition Photo 21: Right side of lift span bottom chord at Floorbeam 7 has collision damage and is missing two rivets. Photo courtesy of the LADOTD.

Condition Photo 22: Floorbeam 7 of the lift span left and right side has collision damage. Photo courtesy of the LADOTD.

Condition Photo 23: Spalls with exposed rebar in middle of concrete deck on the underside, typical in Spans 17 to 20.

Condition Photo 24: Deck joint seals are failing and minor spalls are developing at the joints in the easterly approach spans.

5. Recommendations

This Preservation Priority Bridge should remain in use and can meet current and projected transportation needs for the next 20 years or more. Maintenance and rehabilitation activities should be completed in a manner consistent with the long-term preservation of this historic bridge. The Statewide Historic Bridge Plan provides additional guidance and approaches to completing maintenance and rehabilitation activities that adhere to the Secretary's Standards. Work should be conducted under the supervision of a qualified professional historian, as defined in the PA. The bridge engineer, or the bridge engineer's supervising engineer, should have demonstrated expertise in historic bridge projects and must have completed the LADOTD's historic bridge training. When developing plans and specifications for a project, the bridge engineer should follow the recommendations below.

Under the terms agreed upon in the PA, the bridge owner may undertake certain activities that are considered to be best practices without additional consultation or public notification. These activities are documented in Attachment 5 of the PA and are limited to the activities specifically noted. All recommended preventative maintenance and rehabilitation activities for this bridge are included in Attachment 5 and are not expected to alter character-defining features or historic fabric of the bridge. Some cyclical or condition-based maintenance items are noted below under Rehabilitation because they are expected to be completed as part of an overall rehabilitation project for this bridge. These activities may need to be completed as conditions dictate to promote long-term preservation of this historic bridge. Recommendations within this Plan should be reviewed in 10 years following completion of the Plan to identify any needed updates or revisions.

The opinions of probable costs provided below are in 2016 dollars. The costs were developed without benefit of preliminary rehabilitation plans and are based on the above identified tasks using engineering judgment and/or gross estimates of quantities and historic unit prices and are intended to provide a programming level of estimated costs. Refinement of the probable costs is recommended once preliminary plans have been developed. The estimated preservation costs include a 10 percent contingency and 7 percent mobilization allowance of the preservation activities, excluding soft costs. Actual costs may vary significantly from those opinions of cost provided herein. Engineering design, historical consultation, and construction administration costs are not included as these may be provided by the owner or consultants.

The following items noted in Section 4.A, Existing conditions, are not addressed in the recommendations based on the following assumptions:

1. Truss lower chord member damaged by vessel impact – Because this damage appears to have occurred before the last rehabilitation and painting of this bridge, it is assumed that a structural load rating has been performed on the lift span due to this deficiency. If such load rating has not been performed, it is recommended to perform a structural load rating to determine if any repairs are necessary.

2. Truss floorbeam 7 damaged by vessel impact – Because this damage appears to have occurred before the last rehabilitation and painting of this bridge, it is assumed that a structural load rating has been performed on the lift span due to this deficiency. If such load rating has not been performed, it is recommended to perform a structural load rating to determine if any repairs are necessary.

3. North steel column for pier 16 at Jourdan Street damaged by vehicle impact – Because this damage appears to have occurred before the last rehabilitation and painting of this bridge, it is assumed that a structural load rating has been performed on the lift span due to this deficiency. If such load rating has not been performed, it is recommended to perform a structural load rating to determine if any repairs are necessary.

A. Preventative maintenance

The following are recommendations for cyclical maintenance. There are no condition-based maintenance recommendations at this time, based on the bridge condition as observed during the site visit and as documented in available information.

1. Clean out debris accumulation on the vertical lift steel span members and bearings and apply bearing lubrication. The cost for these activities are not included in the cost estimate.

B. Rehabilitation

The following are recommendations for rehabilitation:

1. Repair the spalled concrete with exposed rebar in the northeast corner of the east tower pier. Thoroughly clean the exposed rebar to bare metal and coat with a rust-inhibiting product. The replacement concrete material should be selected to be compatible in composition with the adjacent concrete and should be formed and finished to match the surrounding historic concrete in color and texture (including any necessary exposed aggregate). Consult National Park Service *Preservation Brief 15: Preservation of Historic Concrete* to identify the appropriate methods for concrete patch repairs. Visual appearance should be carefully reviewed by a bridge historian to confirm the results conform to the Secretary's Standards. This activity should be performed when necessary (estimated to be within the next five years).

2. Seal expansion joints in the easterly approach spans, and repair the spalled concrete in the deck at these joints, in accordance with LADOTD specifications for this work. This activity should be performed when necessary (estimated to be within the next two years).

Bridge Recall No. 020375		Date:	3/24/2016	
Judge Seeber Bridge				
Opinion of Probable Costs				
Rehabilitation				
Item	**Quantity**	**Unit**	**Unit Cost**	**Total**
Repair spalled concrete and exposed rebar in northeast corner of east tower pier	1	LS	$5,000	$5,000
Seal expansion joints and repair spalled concrete for all easterly approach spans concrete deck	450	LF	$75	$33,750
Temporary signs and barricades; temporary traffic control for staged construction for work on deck	1	LS	$50,000	$50,000
Item Subtotal				$88,750
Contingency			10.00%	$8,875
Mobilization			7.00%	$6,834
TOTAL ESTIMATED CONSTRUCTION COST				**$104,459**
			Round to:	**$104,000**

C. Identification of any anticipated design exceptions

No design exceptions were noted, nor are any design exceptions recommended.

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Appendix A. Historic Inventory Form

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Louisiana Historic Bridge Inventory

Recall Number: 020375 **Structure Number:** 02360463102341 **SHPO Number:** 36-01803

Bridge Name: JUDGE SEEBER BRIDGE

Location Data:

District: 02

Parish: Orleans

Feature Crossed: CLAIBORNE BRIDGE

Facility Carried: LA0039

Location: LA 39 @ POLAND AVENUE

City, Village or Town (if applicable): New Orleans

Status: Open

Bridge Owner: State of Louisiana

Latitude: 29.969093

Longitude: -90.025723

Structural Data:

Bridge Type: Steel Vertical Lift Span

Year Built: 1957

Main Span Configuration (if applicable): Tower drive

Maximum Span Length (feet): 362

Number of Spans: 3

Overall Structure Length (feet): 1240

Approach Span Type (if applicable): Steel stringer/multi-beam or girder

Posted Load:

Current ADT: 032300

Design and Construction Data:

Engineer or Builder:

Unknown

Bridge Plaque:

None

National Register of Historic Places Evaluation:

This tower drive vertical lift bridge with Warren through truss main span has significance as a movable bridge and as an important variation within the vertical lift bridge type. Distinctive engineering features that convey this variation include the location of two separate motor and drive mechanisms, which power the two sheaves on each tower. The bridge exhibits in-kind replacement of stringers and the grid deck and alterations to the operator's house that result in a minor loss of integrity, but continues to convey significant design features of this variation within the vertical lift type. This bridge is eligible for listing in the National Register under Criterion C: Design/Engineering.

No evidence was found during research or data collection activities to indicate that this bridge possesses a direct and important association with historical events or trends. This bridge does not possess significance under Criterion A.

Within/Adjacent to Known Historic District: N/A

National Register Historic District Name: N/A

National Register Determination: Eligible

National Register Determination Date: 2013

Surveyor: Mead & Hunt, Inc.

Date Surveyed: 2013

Louisiana Historic Bridge Inventory

Recall Number: 020375 **Structure Number:** 02360463102341 **Bridge Name:** JUDGE SEEBER BRIDGE

Parish: Orleans Bridge Owner: State of Louisiana

Feature Crossed: CLAIBORNE BRIDGE Facility Carried: LA0039

Photographs:

Appendix B. Select Plan Sheets

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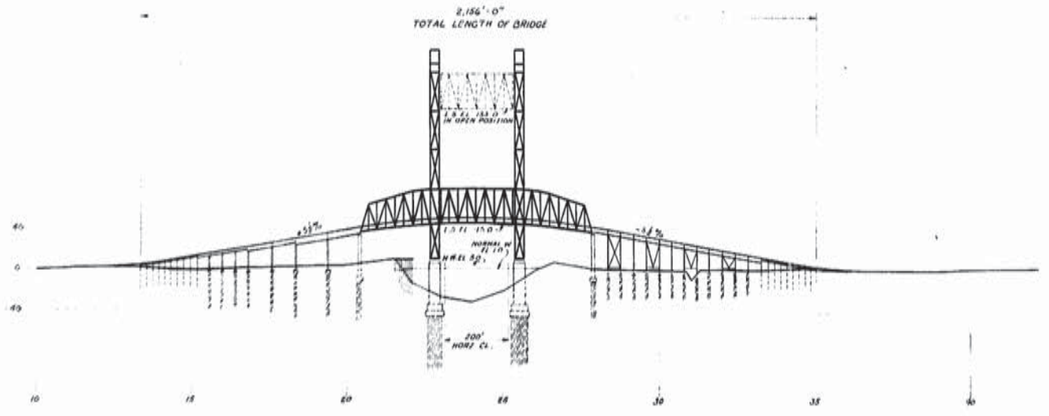
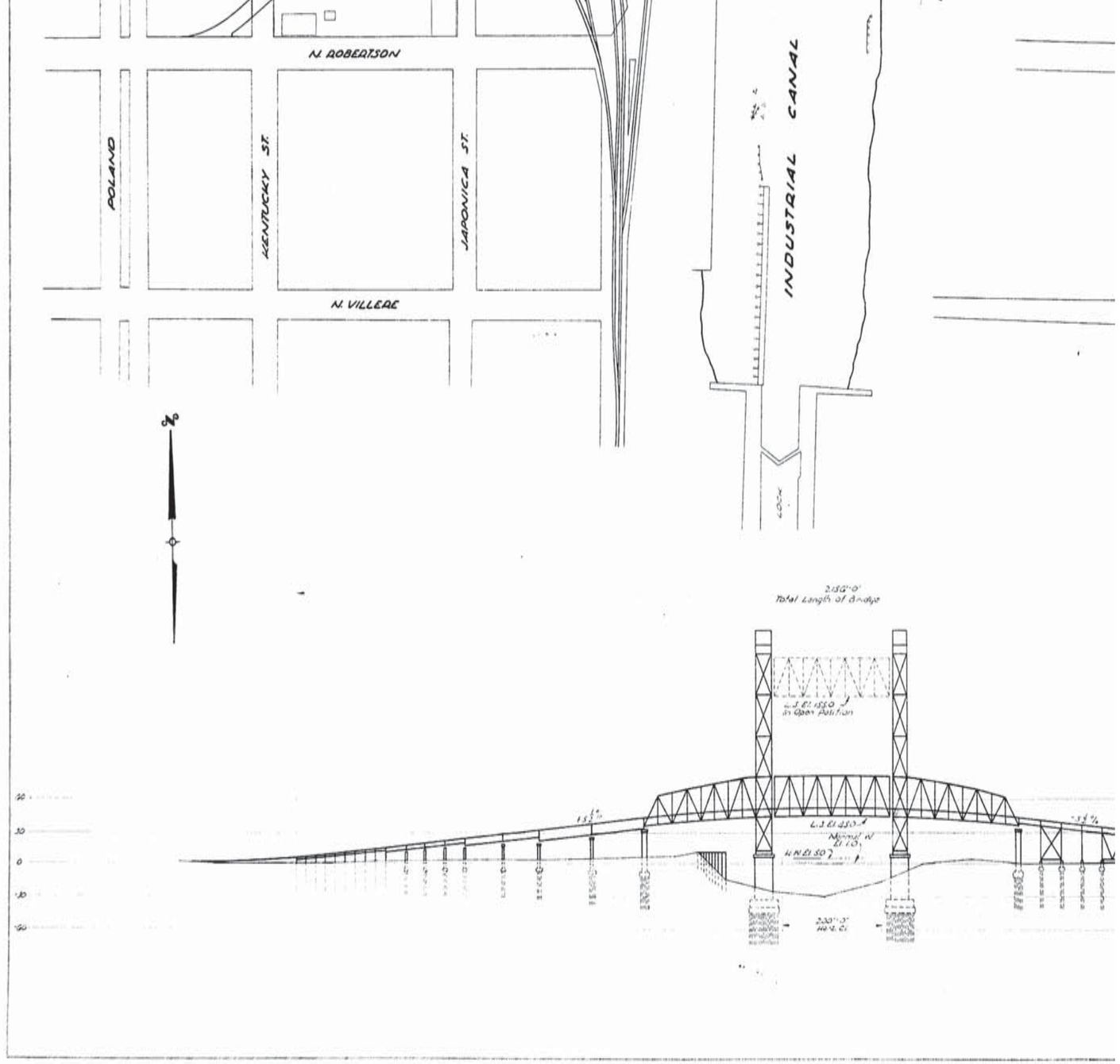
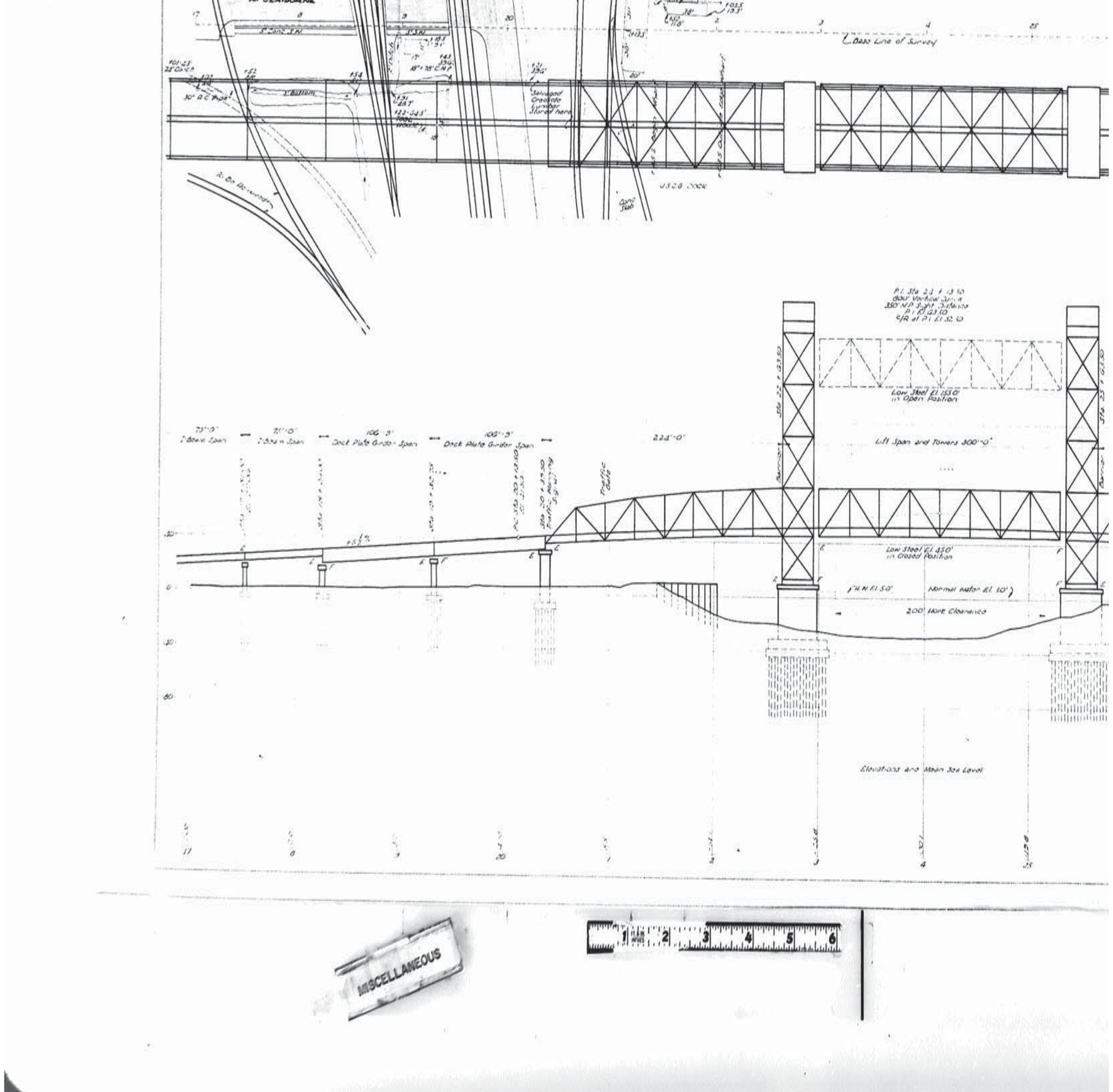
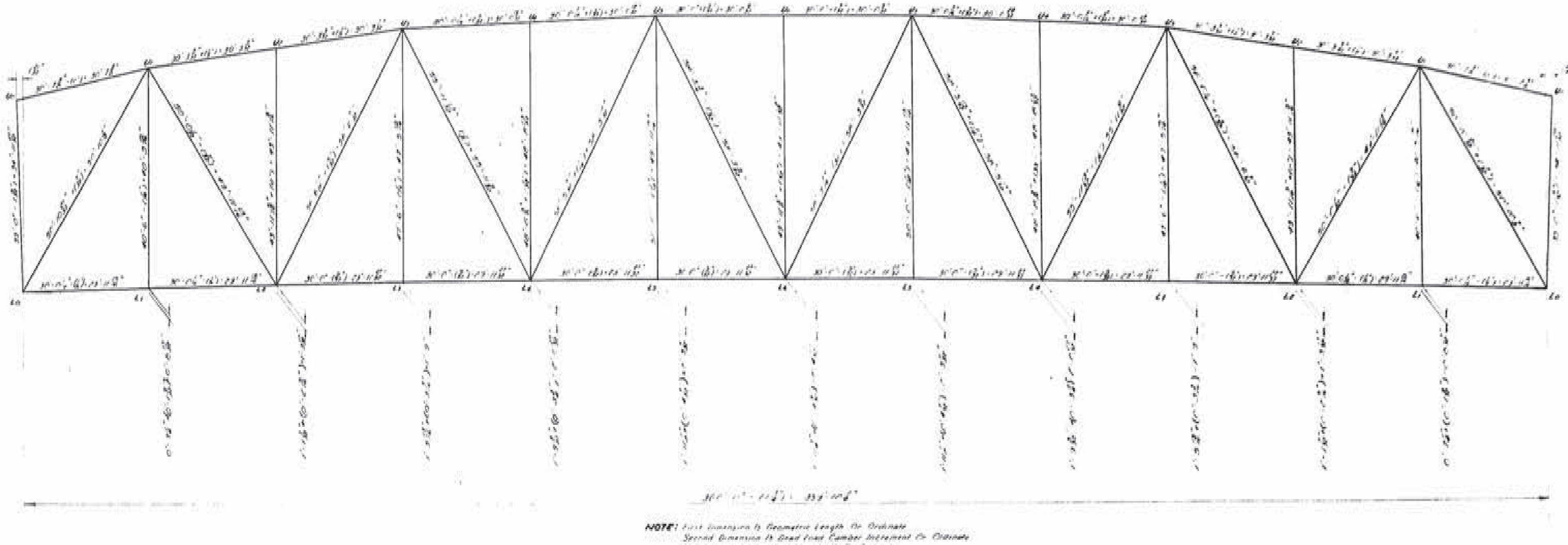



N. ROBERTSON
POLAND
KENTUCKY ST.
JAPONICA ST.
N. VILLERE
INDUSTRIAL CANAL
2.858'-0"
Total Length of Bridge
MISCELLANEOUS

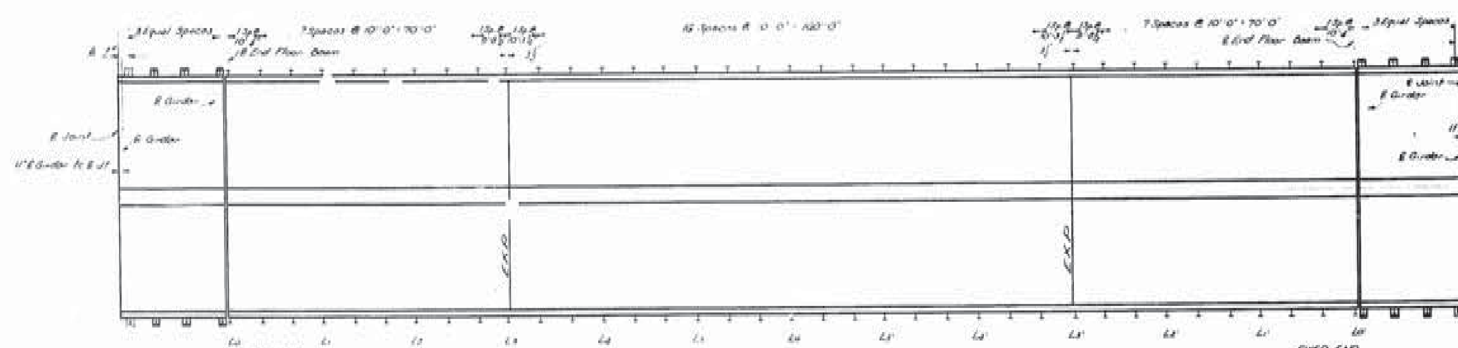


302

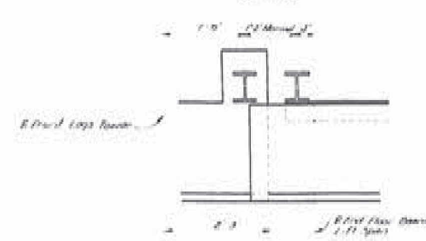
STATE PROJECT	PARISH	SHEET No.
41-12-12	ORLEANS	113



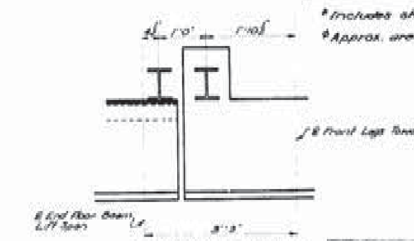
CAMBER DIAGRAM 360' VERTICAL LIFT SPAN



PLAN
HANDRAIL SPACING FOR TOWERS & LIFT SPAN



HANDRAIL POST SPACING AT EXP. END LIFT SPAN



HANDRAIL POST SPACING AT FIXED END LIFT SPAN

SUMMARY OF QUANTITIES			
ITEM	360' VERT. LIFT SPAN	* TWO TOWERS	COUNTERWEIGHTS
FAB. SILICON STEEL	688,061 LBS.	316,665 LBS.	
FAB. CARBON STEEL	1,078,357 LBS.	1,773,878 LBS.	186,407 LBS.
CLASS "A" CONCRETE		~~[illegible]~~	~~[illegible]~~ CU. YDS.
DEF. REIN STEEL		~~[illegible] LBS.~~	~~[illegible] LBS.~~
OPEN STEEL GRID FLOOR	‡ LUMP SUM		
HANDRAIL	~~[illegible] L.F.~~	~~120.58 L.F.~~	[illegible]

* Includes steel platforms, pipe handrails, and stairways
‡ Approx. area of grid floor 20,348 □'.

W. M. Pogler
PROJ. ENGR.

CAMBER DIAGRAM 360' VERTICAL LIFT SPAN

BRIDGE OVER
INNER HARBOR – NAVIGATION CANAL
AT NORTH CLAIBORNE AVENUE
IN NEW ORLEANS

DATED Aug. 3 1954

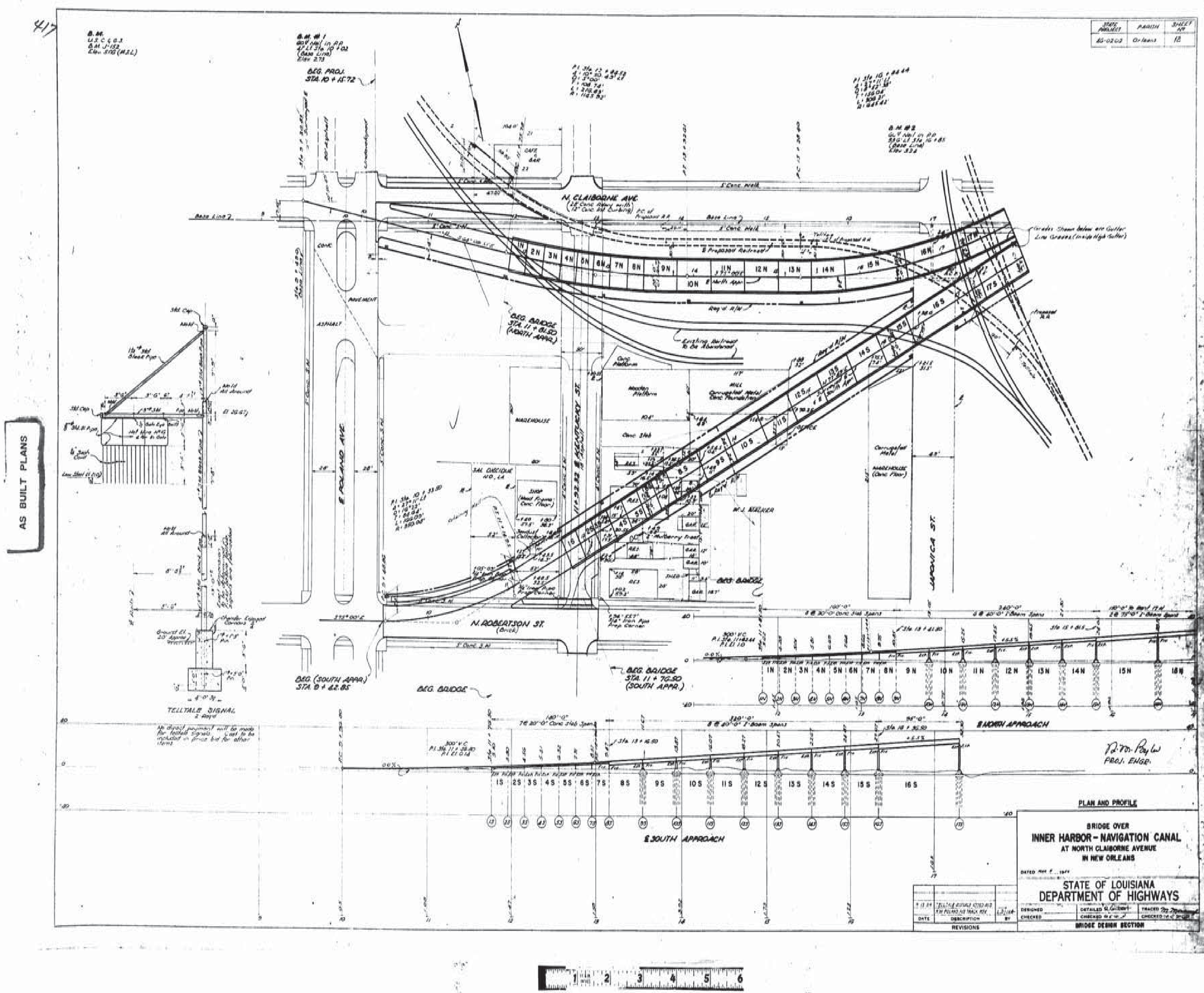
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DATE	DESCRIPTION	BY
12-21-54	General	[illegible]

REVISIONS

DESIGNED P. Leonard | DETAILED P. Leonard | TRACED [illegible]
CHECKED Huey | CHECKED Huey | CHECKED Huey

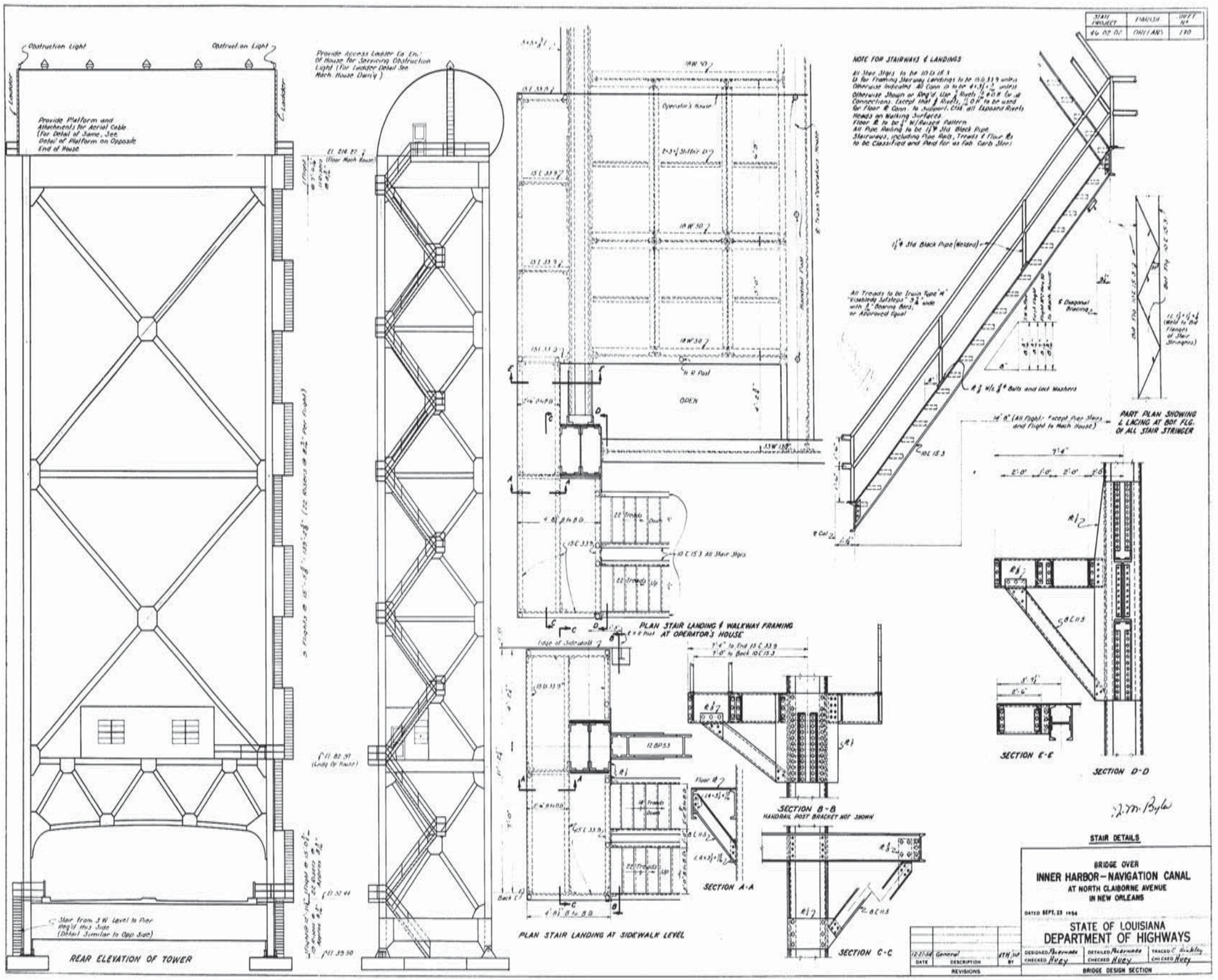
BRIDGE DESIGN SECTION



417
AS BUILT PLANS
B.M.
B.M. #1
B.M. #2
BEG. PROJ. STA. 10 + 15.72
N. CLAIBORNE AVE.
Base Line
5' Conc. Walk
Proposed Railroad
North Appr.
Req'd R/W
Existing Railroad To Be Abandoned
BEG. BRIDGE STA. 11 + 61.50 (NORTH APPR.)
PAVEMENT
ASPHALT
POLAND AVE.
KENTUCKY ST.
JOURDAN ST.
WAREHOUSE
Wooden Platform
Conc. Slab
SHOP
N. ROBERTSON ST.
BEG. (SOUTH APPR.) STA. 9 + 22.85
BEG. BRIDGE
BEG. BRIDGE STA. 11 + 76.50 (SOUTH APPR.)
TELLTALE SIGNAL
1N
2N
3N
4N
5N
6N
7N
8N
9N
10N
11N
12N
13N
14N
15N
16N
17N
1S
2S
3S
4S
5S
6S
7S
8S
9S
10S
11S
12S
13S
14S
15S
16S
17S
NORTH APPROACH
SOUTH APPROACH
PROJ. ENGR.
STATE PROJECT
PARISH
SHEET NO.
Orleans
12
PLAN AND PROFILE
BRIDGE OVER
INNER HARBOR - NAVIGATION CANAL
AT NORTH CLAIBORNE AVENUE
IN NEW ORLEANS
DATED
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
DESIGNED
CHECKED
DETAILED
CHECKED
TRACED
CHECKED
DATE
DESCRIPTION
BY
REVISIONS
BRIDGE DESIGN SECTION

321

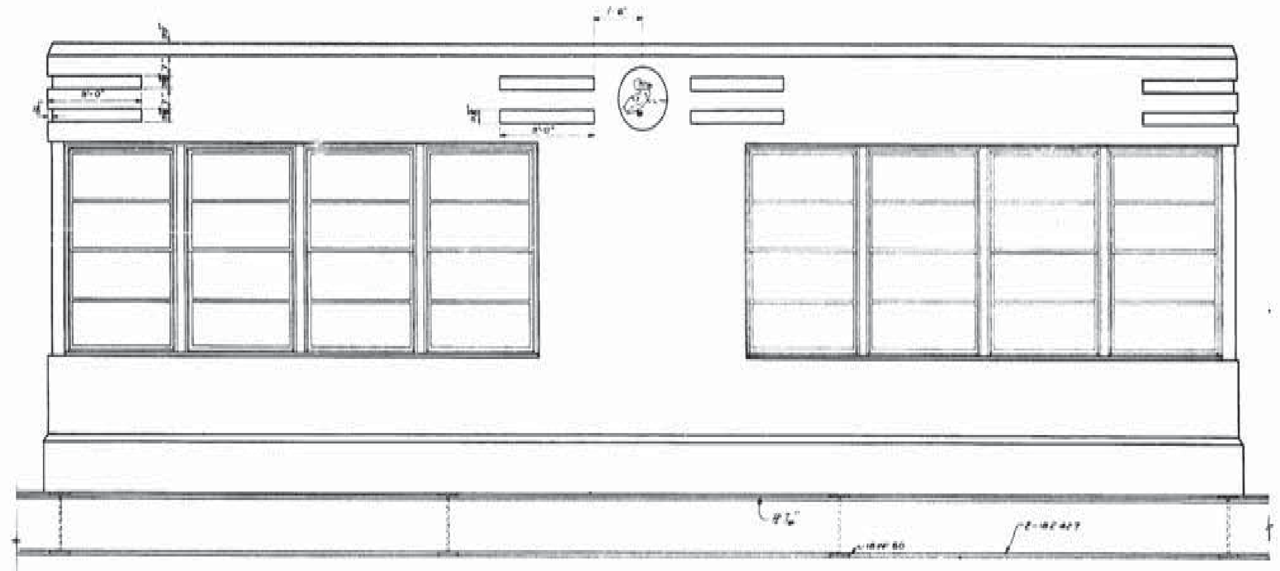
STATE PROJECT	PARISH	SHEET NO.
46-07-02	ORLEANS	190



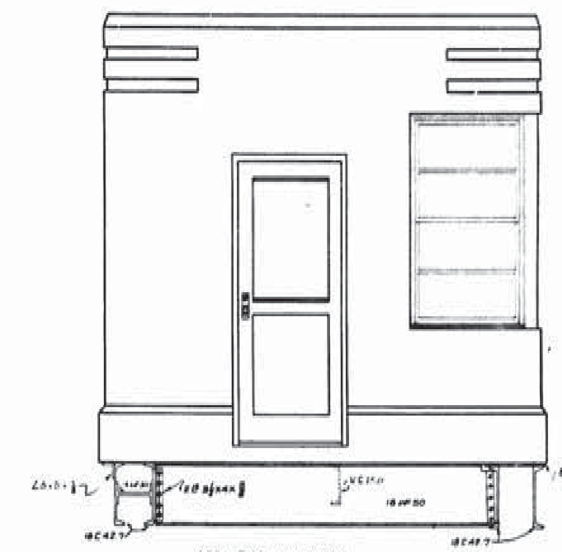
AS BUILT PLANS

324

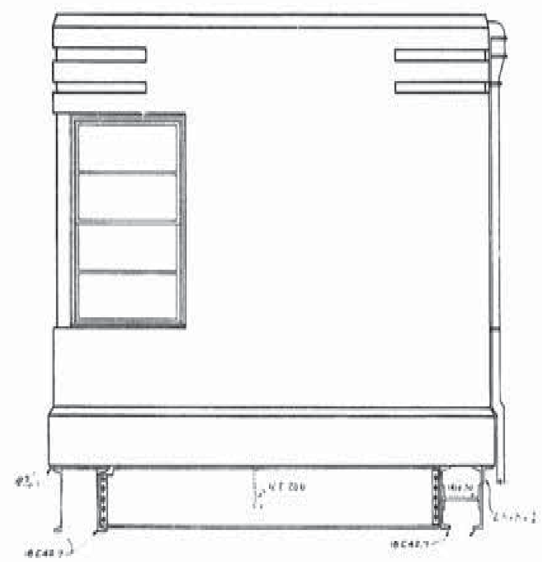
STATE PROJECT	PARISH	SHEET NO.
46-13-02	ORLEANS	134



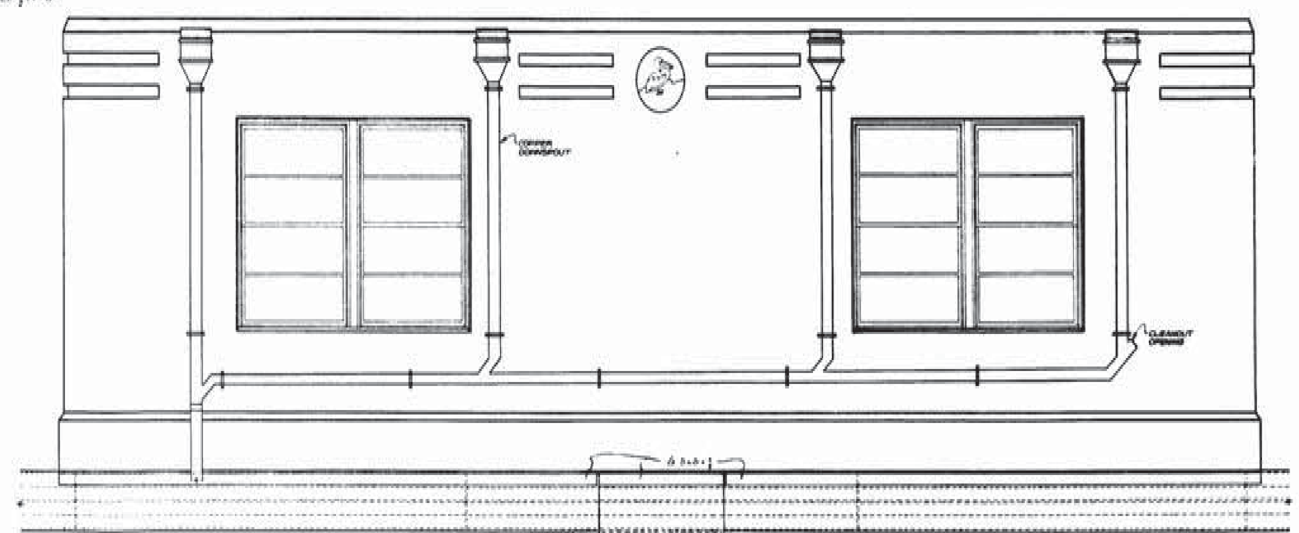
FRONT ELEVATION
(CHANNEL SIDE)
SCALE: ¼" = 1'-0"



LEFT SIDE ELEVATION
SCALE: ¼" = 1'-0"



RIGHT SIDE ELEVATION
SCALE: ¼" = 1'-0"



REAR ELEVATION
SCALE: ¼" = 1'-0"

R.M. Boyle

DOOR AND WINDOW SCHEDULE				
MARK	SIZE	TYPE	STYLE	REMARKS
1	3'-4" x 7'-0" x 1¾"	F-8470-S	METAL	SEE GENERAL NOTES
2	2'-6" x 6'-8" x 1⅜"	N.D.102	2 PANEL FIR	" " "
A	3'-6" x 5'-1½"	188-B	METAL D.H.	" " "
S	3'-4" x 7'-0½" x ⅞"	SCREEN	METAL FRAME [illegible]	" " "

FINISH SCHEDULE								
ITEM	WALLS		CEILING	ROOF	FLOOR	BASE	TRIM	REMARKS
	OUTSIDE	INSIDE						
HOUSE	RUBBED	PLASTER	PLASTER	TAR AND GRAVEL	TILE	TILE	METAL	SEE DETAILS
TOILET PARTITION	½" PLYWOOD	½" PLYWOOD	PLASTER	TAR AND GRAVEL	TILE	WOOD	WOOD	SEE DETAILS

OPERATOR'S HOUSE

BRIDGE OVER
INNER HARBOR - NAVIGATION CANAL
AT NORTH CLAIBORNE AVENUE
IN NEW ORLEANS

DATED JULY, 1954

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED
CHECKED Huey	CHECKED Huey	CHECKED Huey

BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY

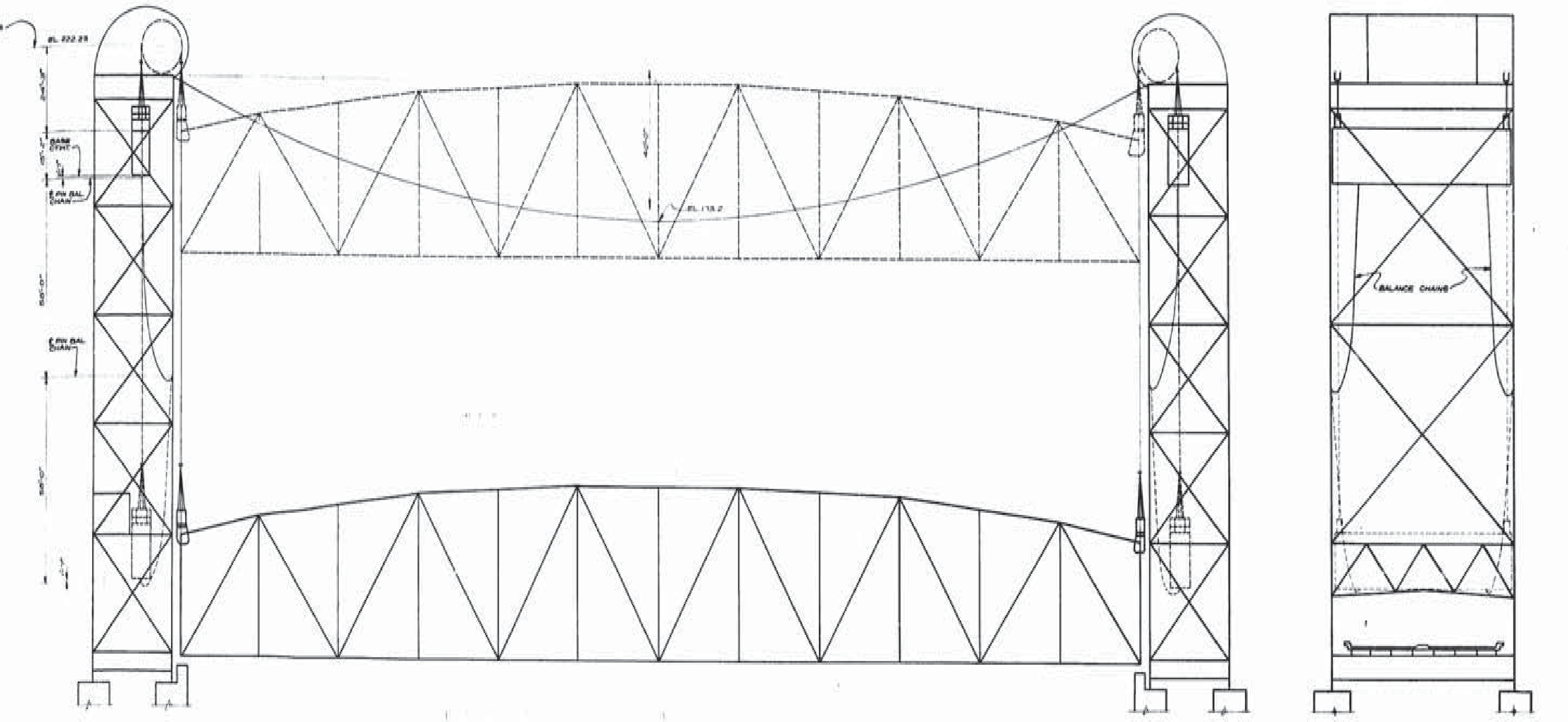
REVISIONS

Sheet 2 of 4

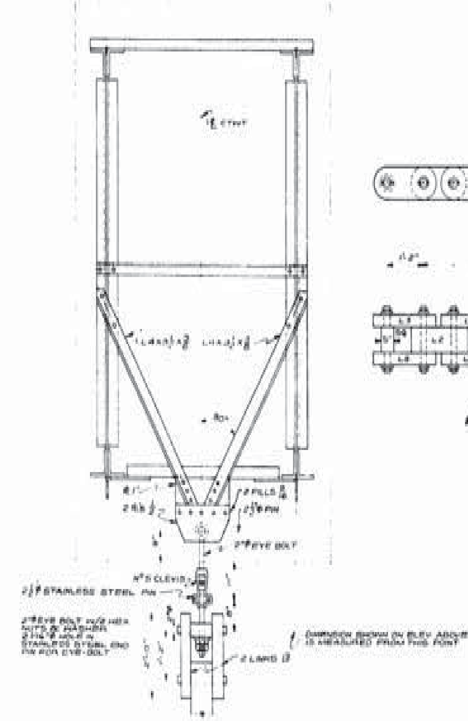
AS BUILT PLANS

341

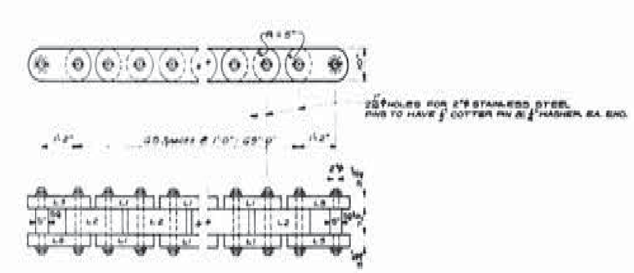
STATE PROJECT	PARISH	SHEET Nº
46-02-01	ORLEANS	150



	SPAN CLOSED	SPAN RAISED
WEIGHT OF LIFT SPAN	$2,028^{K}$	$2,028^{K}$
WEIGHT OF UNBALANCED COUNTERWEIGHT ROPES	45^{K}	–
TOTAL	$2,073^{K}$	$2,028^{K}$
WEIGHT OF COUNTERWEIGHT	$1,980^{K}$	$1,980^{K}$
WEIGHT OF UNBALANCED COUNTERWEIGHT ROPES	–	45^{K}
WEIGHT OF BALANCE CHAINS	90^{K}	–
TOTAL	$2,070^{K}$	$2,025^{K}$



CONN. DETAIL FOR BAL. CHAINS AT PANEL PTS. L1 & L1' OF COUNTERWEIGHT TRUSSES

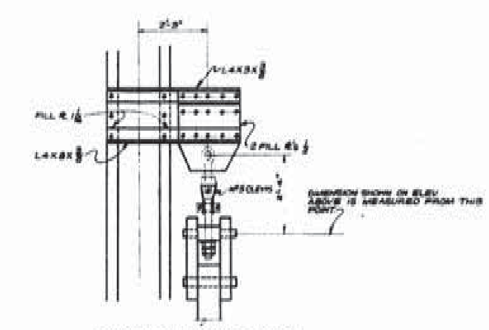


DETAIL OF BALANCE CHAIN
FOUR COMPLETE CHAINS REQ'D.

REQUIRED FOR 4 COMPLETE CHAINS
16 LINKS L3 - CAST IRON
140 LINKS L2 - CAST IRON
272 LINKS L1 - CAST IRON

BALANCE CHAINS, COMPLETE, WILL BE PAID FOR BY THE LUMP
CAST IRON TO BE ASTM A-48 CLASS 30

ESTIMATED WEIGHT
OF (4) COMPLETE CHAINS 111,000 LBS.



CONN. DETAIL AT INNER FACE FRONT COL. FOR BAL. CHAIN

OTHER DETAILS SIMILAR TO THAT AT COUNTERWEIGHT

REQUIRED AVERAGE WEIGHT PER FOOT OF CHAIN TO BE ... LBS. ACTUAL WEIGHT OF COMPLETED CHAIN MUST NOT BE MORE THAN 2% OVER OR UNDER THIS WEIGHT, AND DIMENSIONS SHOWN FOR CHAIN LINKS SHALL BE VARIED AS NEED TO OBTAIN CHAIN OF REQ'D AVE. WT. PER FOOT. CHAINS TO BE LUBRICATED AT ASSEMBLY.
WORKING DRAWINGS OF CHAINS MUST BE SUBMITTED FOR APPROVAL BEFORE CHAINS ARE MANUFACTURED.
EYE BOLT, CLEVISES AND PINS REQ'D FOR CONNECTING CHAINS TO COUNTERWEIGHT AND TOWER COL. ARE TO BE INCLUDED IN LUMP SUM BID FOR CHAINS.
SHOP COAT RED LEAD AND OIL.
FINISHED SURFACES COATED WITH HEAVY GREASE.

R. M. Boyle

BALANCE CHAINS AND MISCELLANEOUS

BRIDGE OVER
INNER HARBOR – NAVIGATION CANAL
AT NORTH CLAIBORNE AVENUE
IN NEW ORLEANS

DATED Sept 14 1954

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DATE	DESCRIPTION	BY
12-21-56	Balance Chain	JTR/SLP

REVISIONS

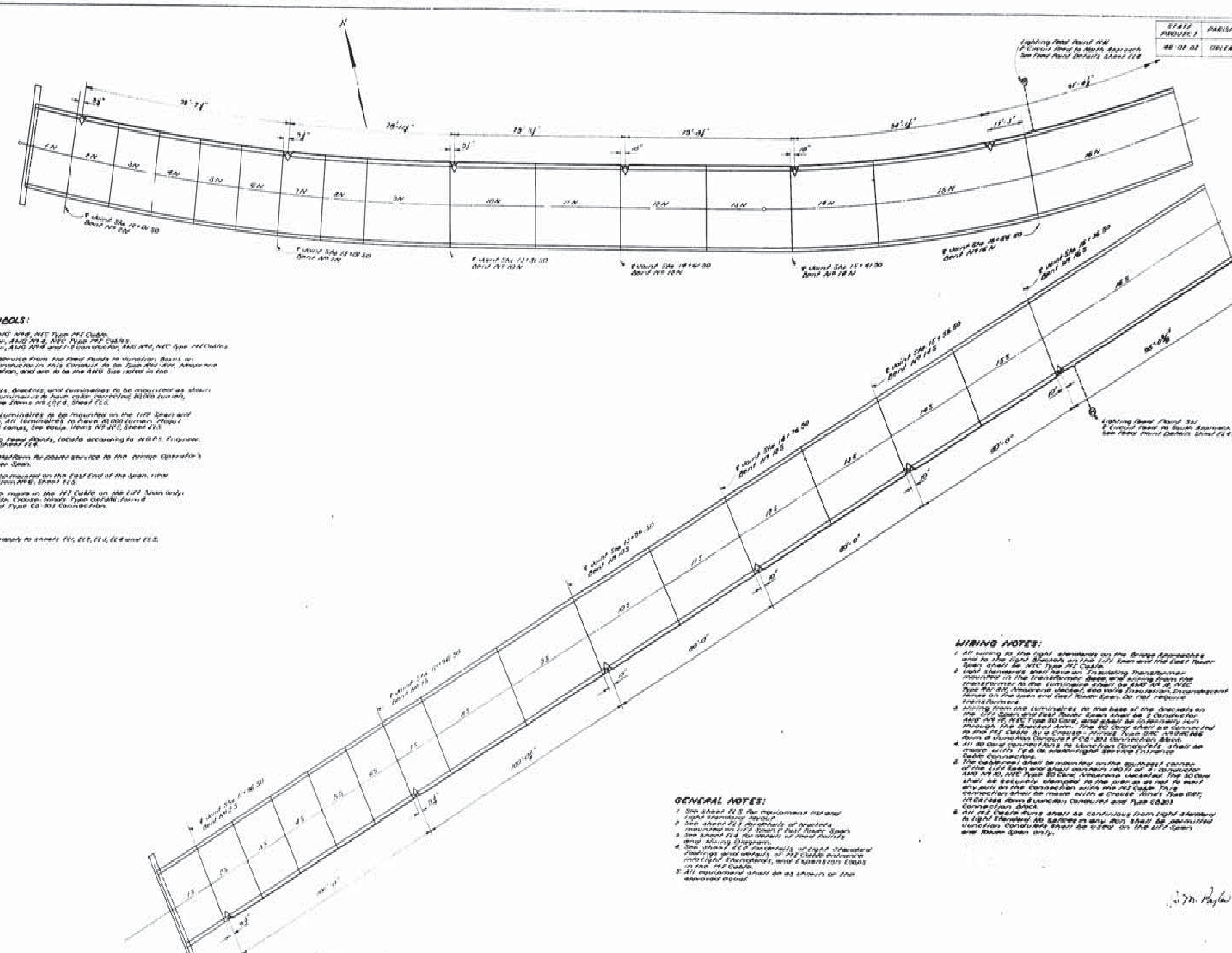
DESIGNED Filsinger · DETAILED Filsinger · TRACED L.E.W.A.G.
CHECKED · CHECKED · CHECKED

BRIDGE DESIGN SECTION

AS BUILT PLANS

356

STATE PROJECT	PARISH	SHEET NO.
46-02-02	ORLEANS	165



EXPLANATION OF SYMBOLS:

- Denotes 2-Conductor, AWG No 8, NEC Type MI Cable.
- Denotes 3-2 Conductor, AWG No 4, NEC Type MI Cables.
- Denotes 3-2 Conductor, AWG No 4 and 1-2 Conductor, AWG No 8, NEC Type MI Cables.
- Denotes underground service from the Feed Points to Junction Boxes on the bridge structure. Conductor in this Conduit to be Type ... Neoprene Sheath, 600 volts insulation, and are to be the AWG Size called in the details on Sheet EL4.
- Denotes Light Standards, Brackets, and Luminaires to be mounted as shown on the approaches. All luminaires to have color corrected 20,000 lumen Mercury Vapor lamps. See Items No 1, 2 & 4, Sheet EL5.
- Denotes Brackets and Luminaires to be mounted on the Lift Span and on the East Tower Span. All luminaires to have 10,000 lumen ... Incandescent lamps. See Equip. Items No 3, Sheet EL5.
- Denotes Bridge Lighting Feed Points, locate according to N.O.P.S. Engineer. See Feed Point Details, Sheet EL4.
- Denotes transformer platform for power service to the Bridge Operator's house in the West Tower Span.
- Denotes Cable Reel to be mounted on the East End of the Span, near the South Corner. See Item No 6, Sheet EL5.
- Denotes Junction to be made in the MI Cable on the Lift Span only. Junction to be made with Crouse-Hinds Type ... Junction Conduit and Type CB-301 Connection.

NOTE:

Symbols explained above apply to sheets EL1, EL2, EL3, EL4 and EL5.

WIRING NOTES:

1. All wiring to the light standards on the Bridge Approaches and to the light Brackets on the Lift Span and the East Tower Span shall be NEC Type MI Cable.
2. Light Standards shall have an Insulating Transformer mounted in the transformer base, and wiring from the transformer to the luminaire shall be AWG No 12, NEC Type ..., Neoprene Jacket, 600 Volts Insulation. Incandescent lamps on the Span and East Tower Span do not require transformers.
3. Wiring from the luminaires to the base of the Brackets on the Lift Span and East Tower Span shall be 2 Conductor AWG No 12, NEC Type SO Cord, and shall be internally run through the Bracket Arm. The SO Cord shall be connected to the MI Cable by a Crouse-Hinds Type ... Junction Conduit ... Connection Block.
4. All SO Cord connections to Junction Conduits shall be made with ... Service Entrance Cable Connectors.
5. The cable reel shall be mounted on the southeast corner of the Lift Span and shall contain ... of 2-Conductor AWG No 10, NEC Type SO Cord, Neoprene Jacketed. The SO Cord shall be securely clamped to the pier so as not to exert any pull on the connection with the MI Cable. This connection shall be made with a Crouse-Hinds Type ... Junction Conduit and Type CB301 Connection Block.
6. All MI Cable Runs shall be continuous from light standard to light standard. No splices in any Run shall be permitted. Junction Conduits shall be used on the Lift Span and Tower Span only.

GENERAL NOTES:

1. See sheet EL5 for equipment list and light standard layout.
2. See sheet EL3 for details of brackets mounted on Lift Span & East Tower Span.
3. See sheet EL4 for details of Feed Points and Wiring Diagram.
4. See sheet EL2 for details of Light Standard footings and details of MI Cable entrance into Light Standards, and Expansion Loops in the MI Cable.
5. All equipment shall be as shown on the approved layout.

EXPANSION JOINT NOTE:

At every expansion joint in the bridge structure that the MI Cable crosses, an expansion loop shall be made up in the MI Cable large enough to allow for full expansion of the joint. See sheet EL2 for details.

CABLE CLAMPING NOTES:

The MI Cable shall be securely clamped to the underside of the concrete Slabs and to the steel on the Lift Span and East Tower Span at a maximum of 5'-0" intervals with 1-hole Malleable Iron Galvanized Conduit Clamps and Clamp-Backs.

JUNCTION BOX NOTE:

Junction boxes shall be used where the underground conduit from the feed points join the MI cable on the bridge structure. All junction boxes shall be 14"x10"x6" and are shown as Junction Box "A" on sheet E3.

BRIDGE LIGHTING — **EL1**

BRIDGE OVER
INNER HARBOR—NAVIGATION CANAL
AT NORTH CLAIBORNE AVENUE
IN NEW ORLEANS

DATED Sept 11 1956

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

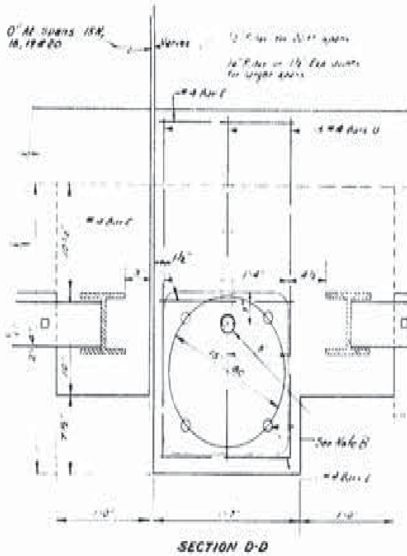
DATE	DESCRIPTION	BY
REVISIONS		

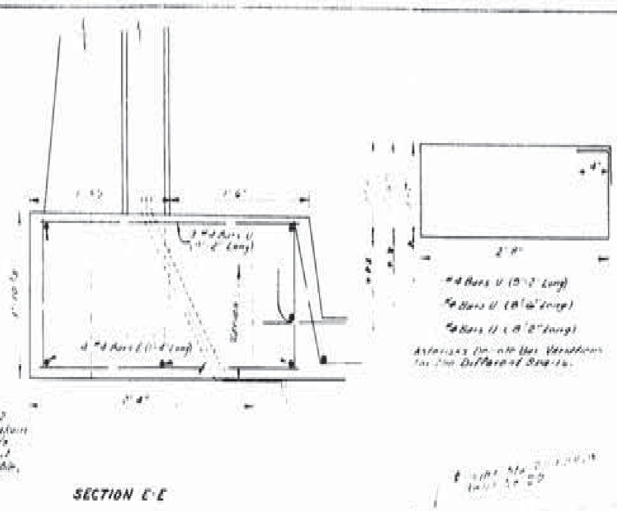
DESIGNED [signature] · DETAILED [signature] · TRACED [signature]
CHECKED [signature] · CHECKED [signature] · CHECKED [signature]

BRIDGE DESIGN SECTION

AS BUILT PLANS

357



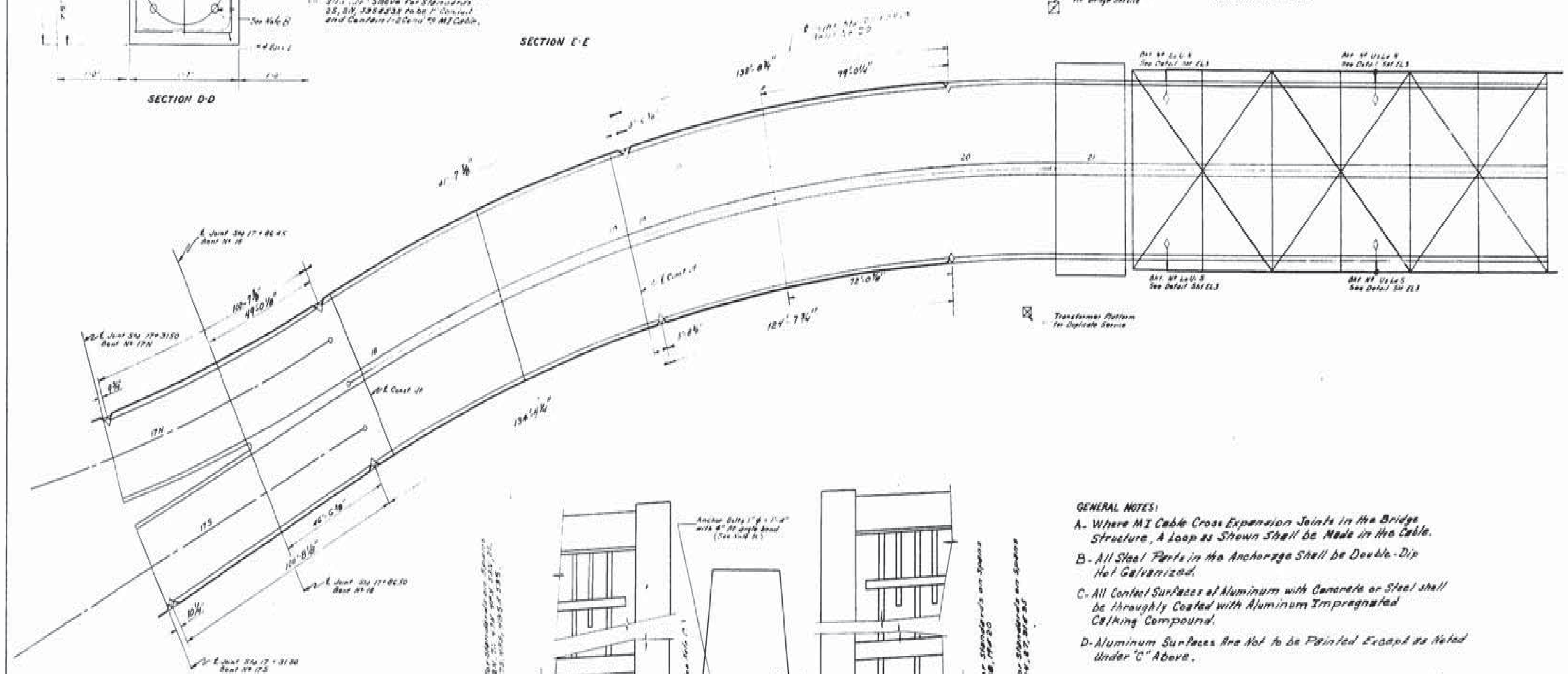


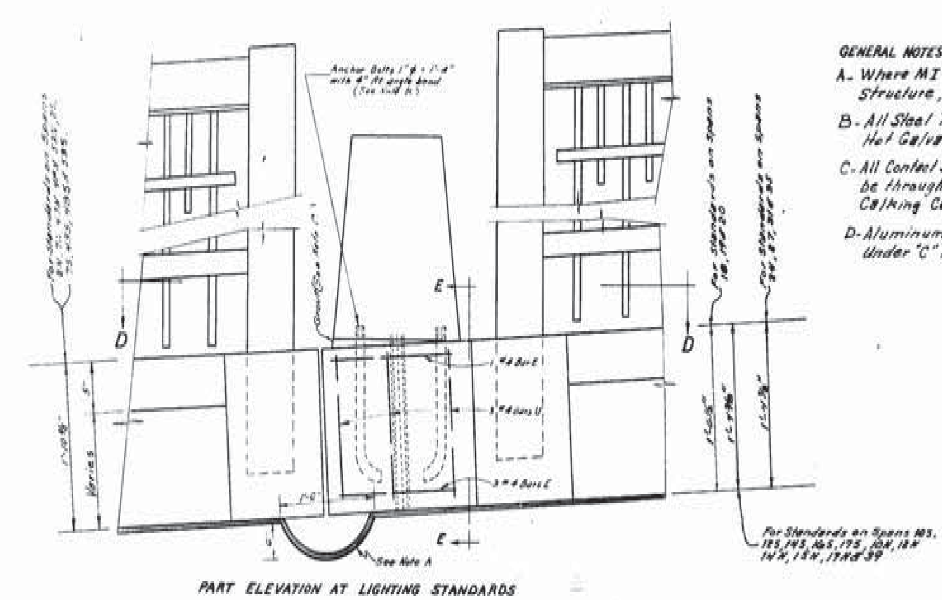
QUANTITIES FOR LIGHTING STANDARDS

ITEM		QUAN. PER STANDARD
Spans 2-7-42-48-52 North and South		
CLASS "A" CONCRETE	ADD	0.234 Cu. yds.
DEFORMED REINFORCING STEEL	ADD *	21.93 Lbs.
HANDRAIL	DEDUCT ✓	1.383 Lin. ft. ✓
Spans 18, 19 & 20		
CLASS "A" CONCRETE	ADD	[illegible] Cu. Yds.
DEFORMED REINFORCING STEEL	ADD **	20.00 Lbs.
Spans 24, 27, 31, 35		
CLASS "A" CONCRETE	ADD	0.171 Cu. Yds.
DEFORMED REINFORCING STEEL	ADD ***	19.93 Lbs.
Spans 10-12-14-17 North & South, 15N, 16S & 39		
CLASS "A" CONCRETE	ADD	[illegible] Cu. Yds.
DEFORMED REINFORCING STEEL	ADD ***	19.93 Lbs.

Transformer Platform for Bridge Service

✓ Handrail Quantities Constant for All Spans.





GENERAL NOTES:

A. Where MI Cable Cross Expansion Joints in the Bridge Structure, A Loop as Shown Shall be Made in the Cable.

B. All Steel Parts in the Anchorage Shall be Double-Dip Hot Galvanized.

C. All Contact Surfaces of Aluminum with Concrete or Steel shall be throughly Coated with Aluminum Impregnated Calking Compound.

D. Aluminum Surfaces Are Not to be Painted Except as Noted Under "C" Above.

PROJ. ENGR.

EL2

BRIDGE LIGHTING

BRIDGE OVER
INNER HARBOR—NAVIGATION CANAL
AT NORTH CLAIBORNE AVENUE
IN NEW ORLEANS

DATED SEPT. 19, 19 64

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DATE	DESCRIPTION	BY
	REVISIONS	

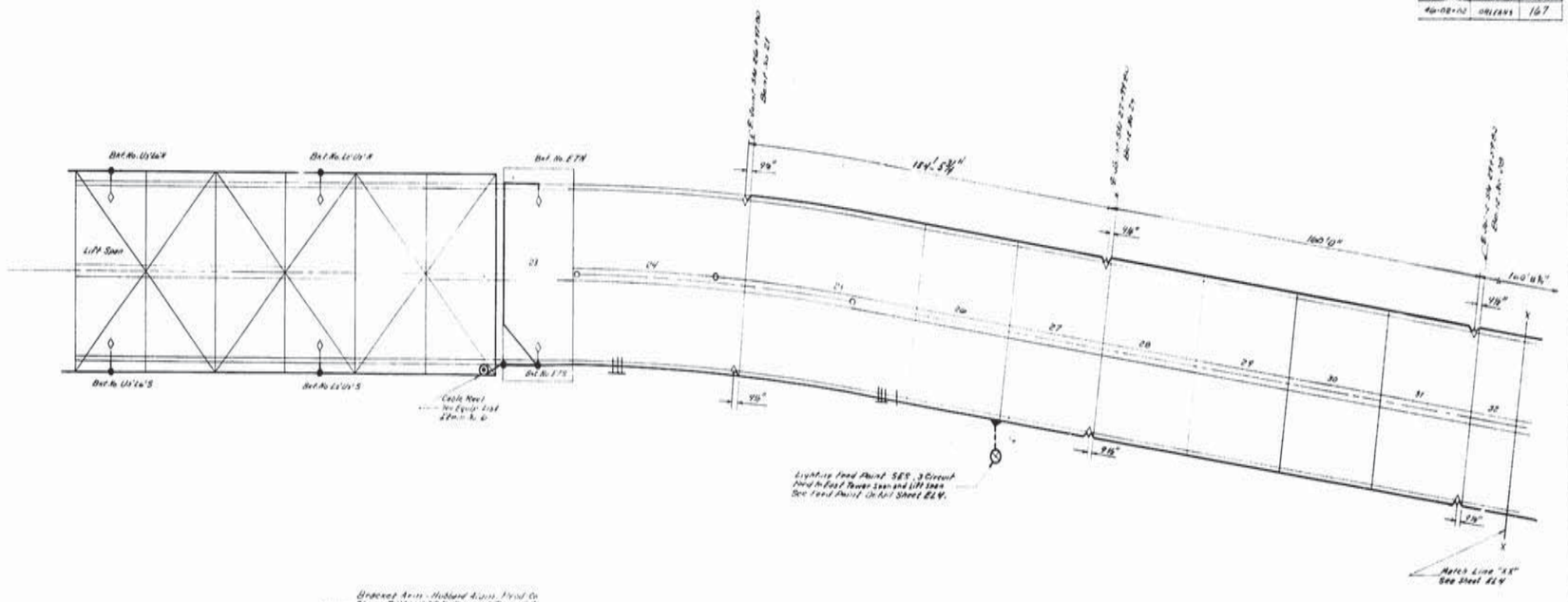
DESIGNED W.T.F. CHECKED W.T.F. DETAILED W.T.F. CHECKED W.T.F. TRACED G. Bateman CHECKED W.T.F.

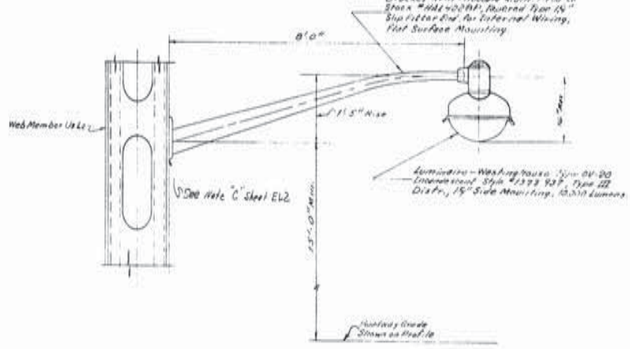
BRIDGE DESIGN SECTION

AS BUILT PLANS

358

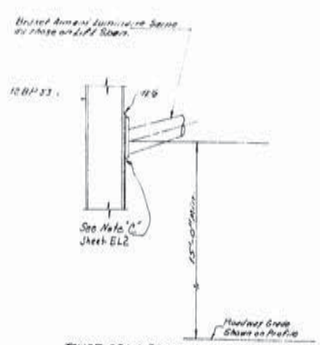
STATE PROJECT	PARISH	SHEET No.
40-08-00	ORLEANS	167





LIFT SPAN LIGHTING BRACKET DETAIL

Attach Assy. U1 at the North and South Sides of the Lift Span.



TOWER SPAN BRACKET MOUNTING DETAIL

2 Assy's. Each on North and South Sides of East Tower Span

CABLE NOTES:

1. The Denotes 3 - 2 Conductor, ANG #4, N.E.C. Type MI Cables from Feed Point SES Junction Box to the Lift and East Tower Spans.
2. ~~---~~ Denotes 3-2 Conductor, ANG #4, and 1-2 Conductor, ANG #8, NEC. Type MI Cables. The 2 Cond. ANG #8 Cable Feeds the Lighting Standard on the South Side of Span 24.
3. The MI Cables Feeding the Lift and East Tower Spans from Feed Point SES Shall be Run as Follows:
   - a - 1-2 Cond. ANG #4 Cable from the Junction Box to a Junction Conduit at Brkt. No. E7S, From this Conduit to the Conduits at Brkt. No. E7A Shall be 2 Cond. ANG #8 MI Cable.
   - b - 2-2 Cond. ANG #4 Cables From the Junction Box to a Junction Conduit (C.T.) on the Pier. Then 1-4 Cond. ANG #10, MTC Type SO Cord from the Junction Conduit on the Pier to the Cable Reel Mounted on the Lift Span.
   - c - From the Cable Reel on the Lift Span, the Luminaires Shall be Fed by a 2 Cond. ANG #4 MI Cables, One Each Feeding the North and South Sides of the Lift Span.

DATE	DESCRIPTION	BY
	REVISIONS	

BRIDGE LIGHTING

EL3

BRIDGE OVER
INNER HARBOR - NAVIGATION CANAL
AT NORTH CLAIBORNE AVENUE
IN NEW ORLEANS

DATED Sept. 8 1954

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

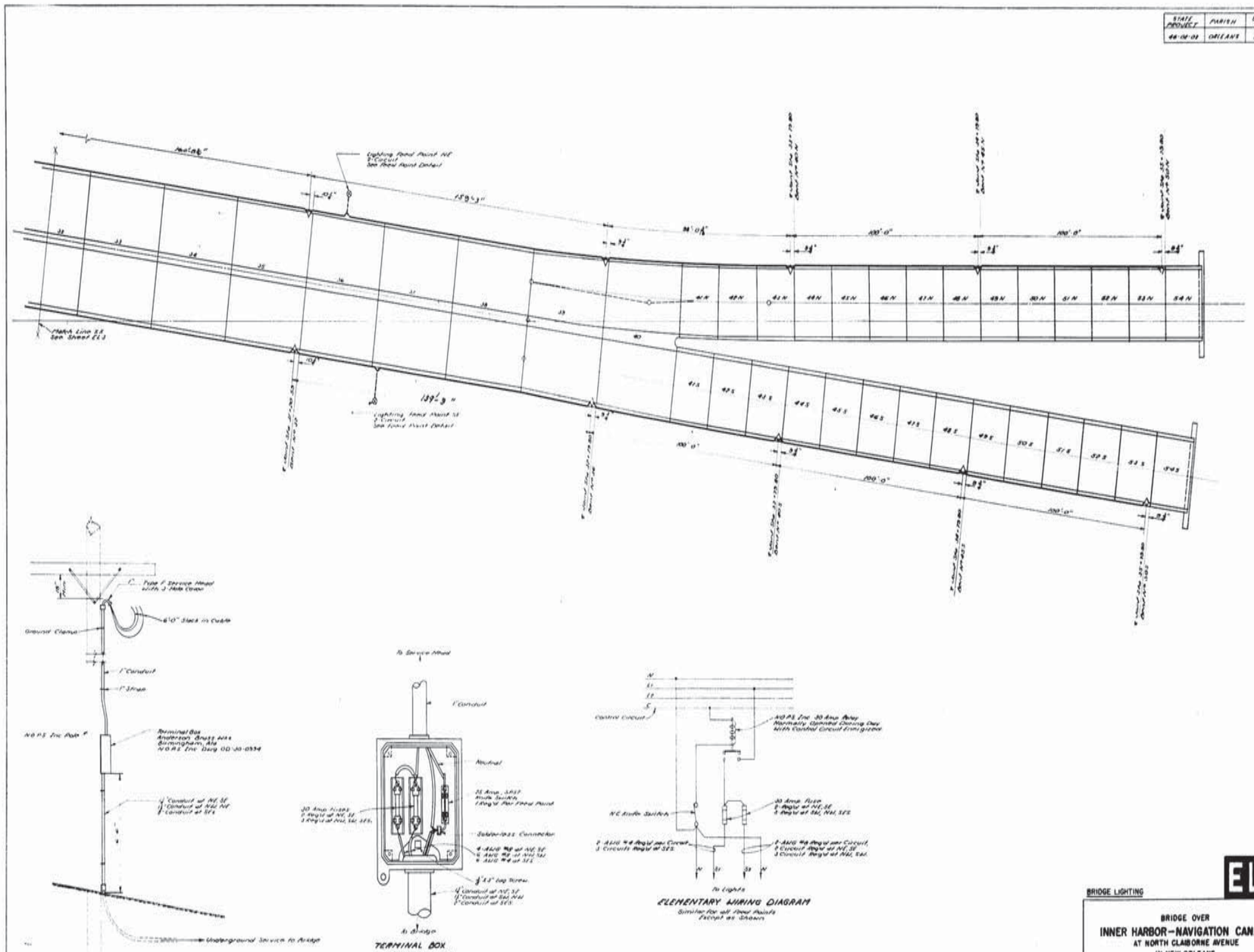
DESIGNED [illegible] DETAILED [illegible] TRACED W.T.C.
CHECKED [illegible] CHECKED [illegible] CHECKED [illegible]

BRIDGE DESIGN SECTION

AS BUILT PLANS

359

STATE PROJECT	PARISH	SHEET NO.
66-06-03	ORLEANS	168



LIGHTING FEED POINT DETAIL
Similar for all Feed Points Except as Shown
Locate According to N.O.P.S. Inc.
Engineer in Charge of Lighting

TERMINAL BOX
(Cover Removed)
Similar for all Feed Points
Except as Shown

ELEMENTARY WIRING DIAGRAM
Similar for all Feed Points
Except as Shown

BRIDGE LIGHTING

EL4

BRIDGE OVER
INNER HARBOR—NAVIGATION CANAL
AT NORTH CLAIBORNE AVENUE
IN NEW ORLEANS

DATED Sept. 19, 1958

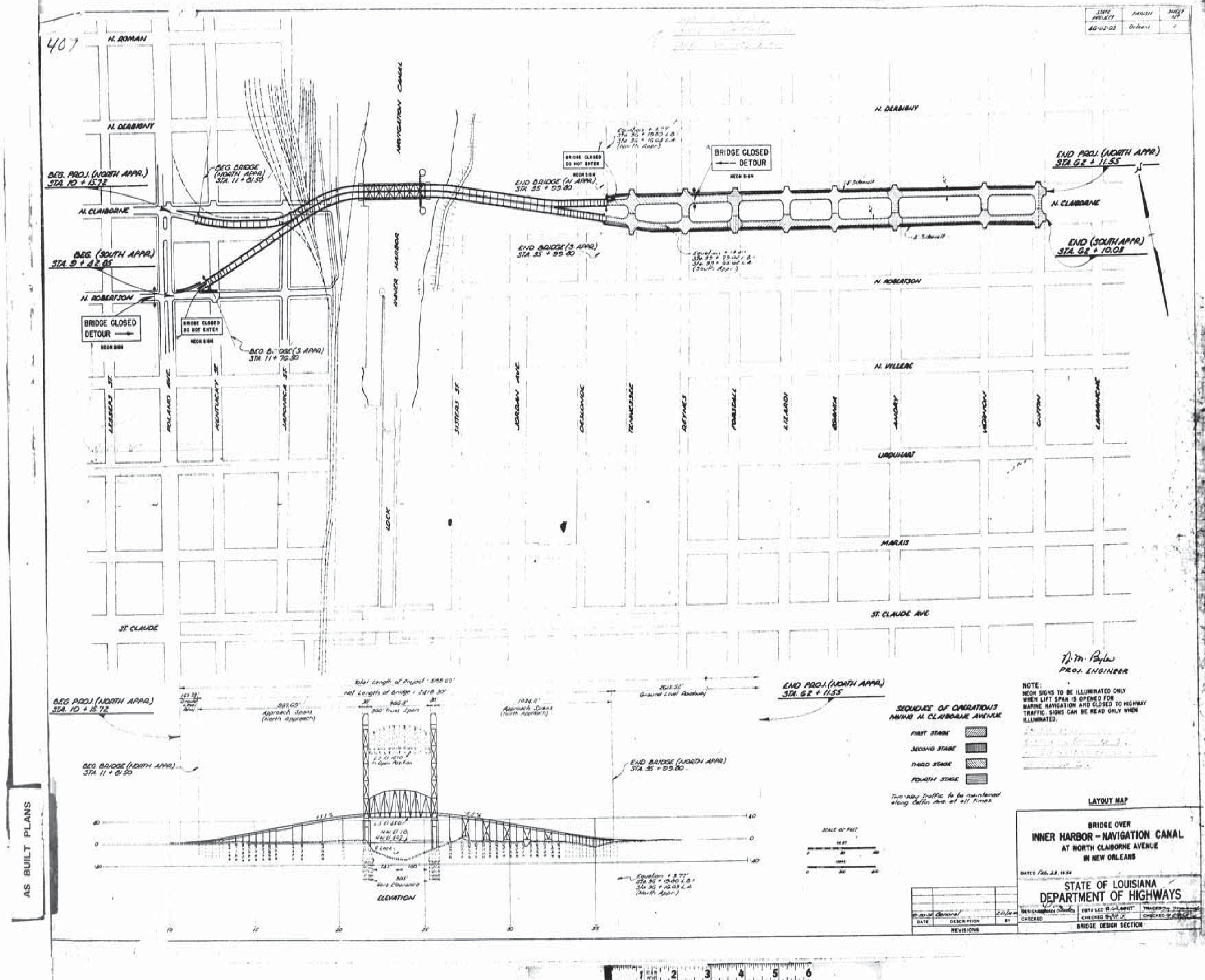
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

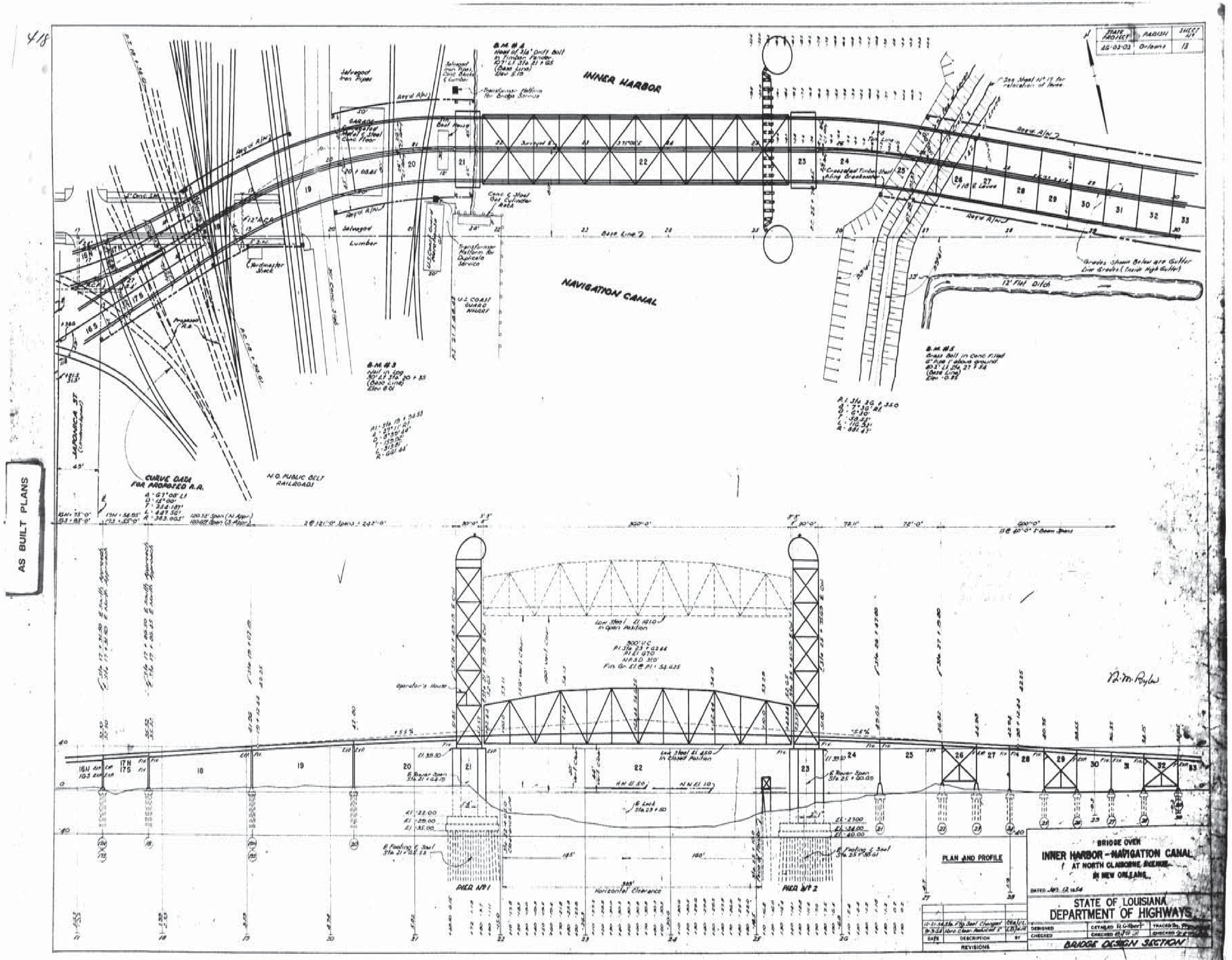
DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY
REVISIONS		

AS BUILT PLANS

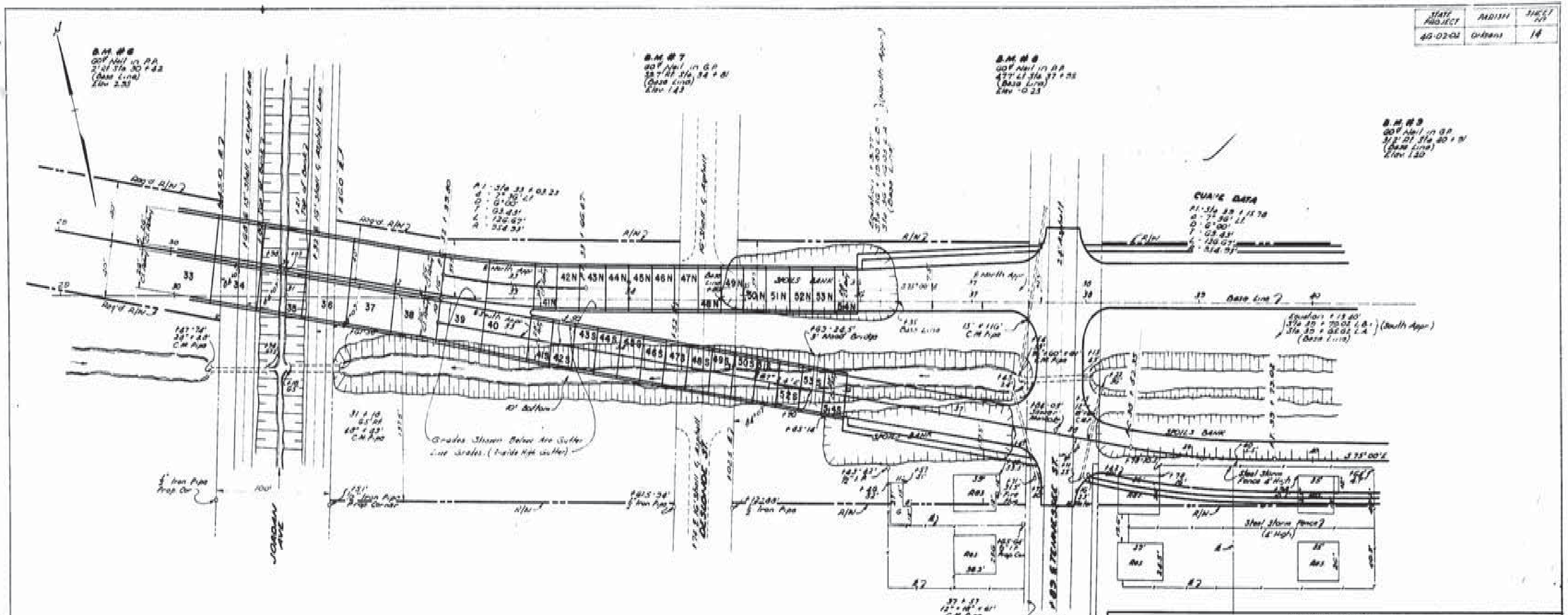

407
H. ROMAN
N. DERBIGNY
N. CLAIBORNE
N. ROBERTSON
N. VILLERE
URQUHART
MARAIS
ST. CLAUDE AVE.
ST. CLAUDE
NAVIGATION CANAL
INNER HARBOR
LOCK
LESSEPS ST.
POLAND AVE.
KENTUCKY ST.
JAPONICA ST.
SISTERS ST.
JORDAN AVE.
DESLONDE
TENNESSEE
REYNES
FORSTALL
LIZARDI
EGANIA
ANDRY
VERNON
CAFFIN
LAMANCHE
BEG. PROJ. (NORTH APPR.) STA. 10 + 15.72
BEG. (SOUTH APPR.) STA. 9 + 42.05
BEG. BRIDGE (NORTH APPR.) STA. 11 + 81.50
BEG. BRIDGE (S. APPR.) STA. 11 + 76.50
END BRIDGE (N. APPR.) STA. 35 + 99.80
END BRIDGE (S. APPR.) STA. 35 + 99.80
END PROJ. (NORTH APPR.) STA. 62 + 11.55
END (SOUTH APPR.) STA. 62 + 10.08
BRIDGE CLOSED DETOUR
BRIDGE CLOSED DO NOT ENTER
NEON SIGN
ELEVATION
Total Length of Project : 5155.60'
Net Length of Bridge : 2418.30'
300' Truss Span
Approach Spans (North Approach)
Approach Spans (South Approach)
Ground Level Roadway
END BRIDGE (NORTH APPR.) STA. 35 + 99.80
SCALE OF FEET
SEQUENCE OF OPERATIONS PAVING N. CLAIBORNE AVENUE
FIRST STAGE
SECOND STAGE
THIRD STAGE
FOURTH STAGE
Two-way traffic to be maintained along Caffin Ave. at all times.
PROJ. ENGINEER
NOTE:
NEON SIGNS TO BE ILLUMINATED ONLY WHEN LIFT SPAN IS OPENED FOR MARINE NAVIGATION AND CLOSED TO HIGHWAY TRAFFIC. SIGNS CAN BE READ ONLY WHEN ILLUMINATED.
LAYOUT MAP
BRIDGE OVER
INNER HARBOR - NAVIGATION CANAL
AT NORTH CLAIBORNE AVENUE
IN NEW ORLEANS
DATED Feb. 23. 1954
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
DESIGNED
DETAILED
TRACED
CHECKED
BRIDGE DESIGN SECTION
DATE
DESCRIPTION
BY
REVISIONS
AS BUILT PLANS

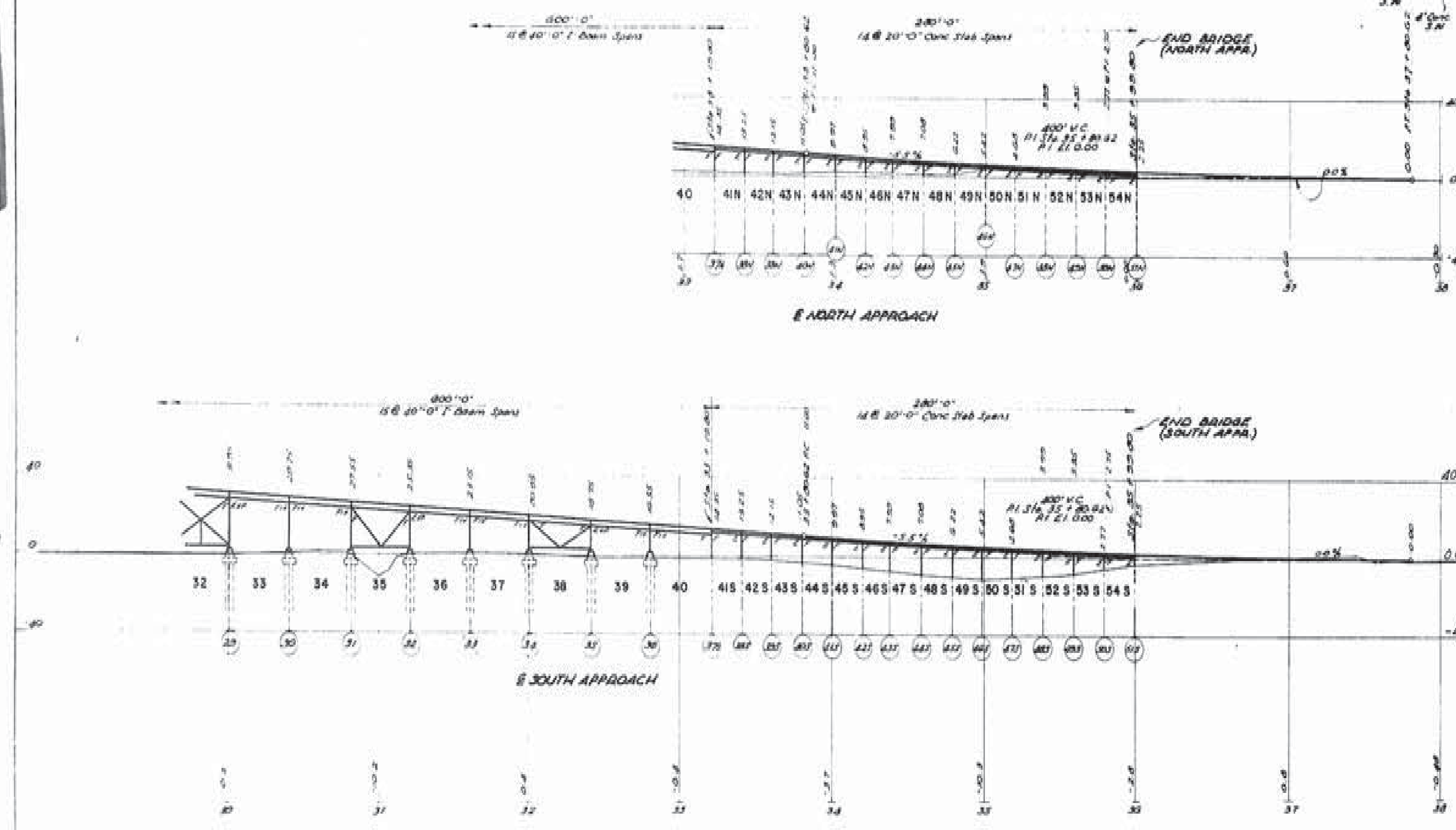


418
AS BUILT PLANS
STATE PROJECT
PARISH
SHEET NO.
Orleans
13
INNER HARBOR
NAVIGATION CANAL
Base Line
12' Flat Ditch
CURVE DATA FOR PROPOSED R.R.
N.O. PUBLIC BELT RAILROADS
Operator's House
Horizontal Clearance
PIER No. 1
PIER No. 2
PLAN AND PROFILE
BRIDGE OVER
INNER HARBOR - NAVIGATION CANAL
AT NORTH CLAIBORNE AVENUE
IN NEW ORLEANS
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
DESIGNED
CHECKED
DATE
DESCRIPTION
BY
REVISIONS
BRIDGE DESIGN SECTION

.419

STATE PROJECT	PARISH	SHEET NO.
45-02-02	Orleans	14





GENERAL NOTES

Construction Specifications: Louisiana Department of Highways.
Design Specifications: A.A.S.H.O. Standard Specifications for Highway Bridges, Sixth Edition 1953, and A.A.S.H.O. Standard Specifications for Movable Highway Bridges Second Edition 1953.
Live Load: H20-S16-44.
Reinforcing bars shall be intermediate or hard grade, ASTM A15, or rail steel, ASTM A16, conforming with ASTM A305.
Dimensions relating to Reinforcing Steel are to bar centers.
Exposed corners of concrete to be chamfered ¾" unless noted except for piers and bents where the minimum chamfer shall be 1½" unless noted.
Shop and field connections ⅞" ⌀ rivets unless noted.
Holes 15/16" unless noted.
Three layers red lead and canvas under all base plates unless shown otherwise.
Fabreeka pads ¼" thick may be substituted for red lead and canvas.
Welding shall conform with latest Standard Specifications for Welded Highway and Railway Bridges, Design, Construction and Repair of the American Welding Society.
No deductions in quantities of Class A Concrete will be made for 3½" x 5½" drain openings.
Surface finishes, where indicated, shall conform to the American Standard for Surface Roughness, Waviness, and Lay, Part 1, ASA B46.1-1947.
Girders and beams to be cambered for dead load and vertical curvature as shown on plans.
Floorbeams and stringers for plate girder spans and for lift span and beams for 40' spans are not to be cambered, but shall be so fabricated that any curved beams will be placed with the convex flange up.
Material marked (S) shall be Fabricated Silicon Steel.
The Contractor will be permitted to substitute steel conforming with the Tentative Specifications for Low-Alloy Structural Steel ASTM Designation: A242-52 T, modified as stated in the Special Provisions for Fabricated Silicon Steel.
Aluminum surfaces are not to be painted.
In computing concrete quantities untreated timber piles and creosoted timber piles shall be assumed to be 12" diameter and cast in place piles to be 14" diameter.
Deck for spans 35 feet and under to be poured in one continuous operation.

N. M. Boyle

PLAN AND PROFILE

BRIDGE OVER
INNER HARBOR - NAVIGATION CANAL
AT NORTH CLAIBORNE AVENUE
IN NEW ORLEANS

DATED Jan. 12 1954

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED D. Gilbert	TRACED [illegible]
CHECKED	CHECKED [illegible]	CHECKED [illegible]

BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY
REVISIONS		

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Appendix C. Inspection Report Sketches

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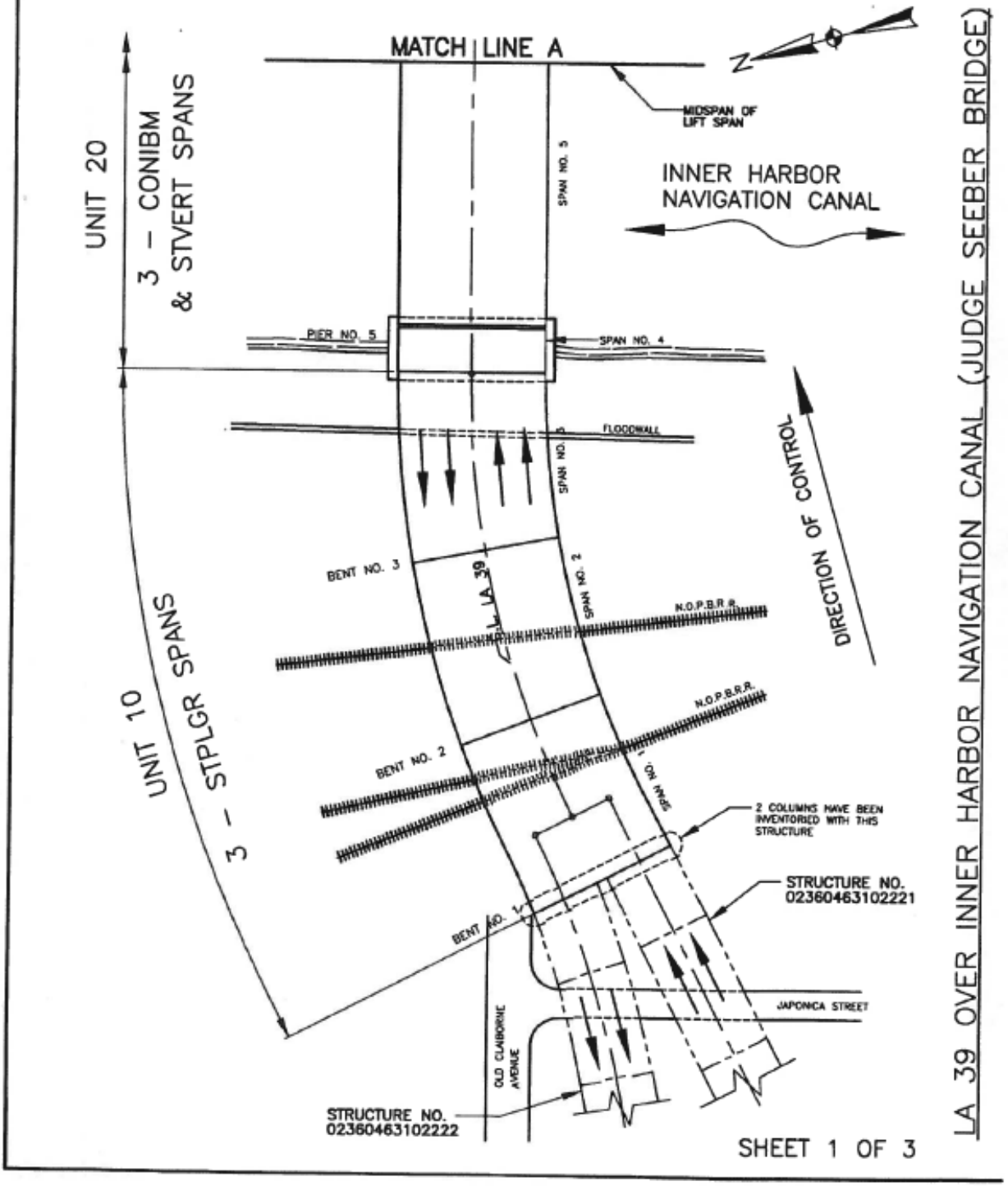
PONTIS INVENTORY SKETCHES

STRUCTURE NUMBER: 02360463102341 INSPECTION DATE: 04/24/07

RECALL NUMBER: 020375

INSPECTORS: JTS, FC, PJW



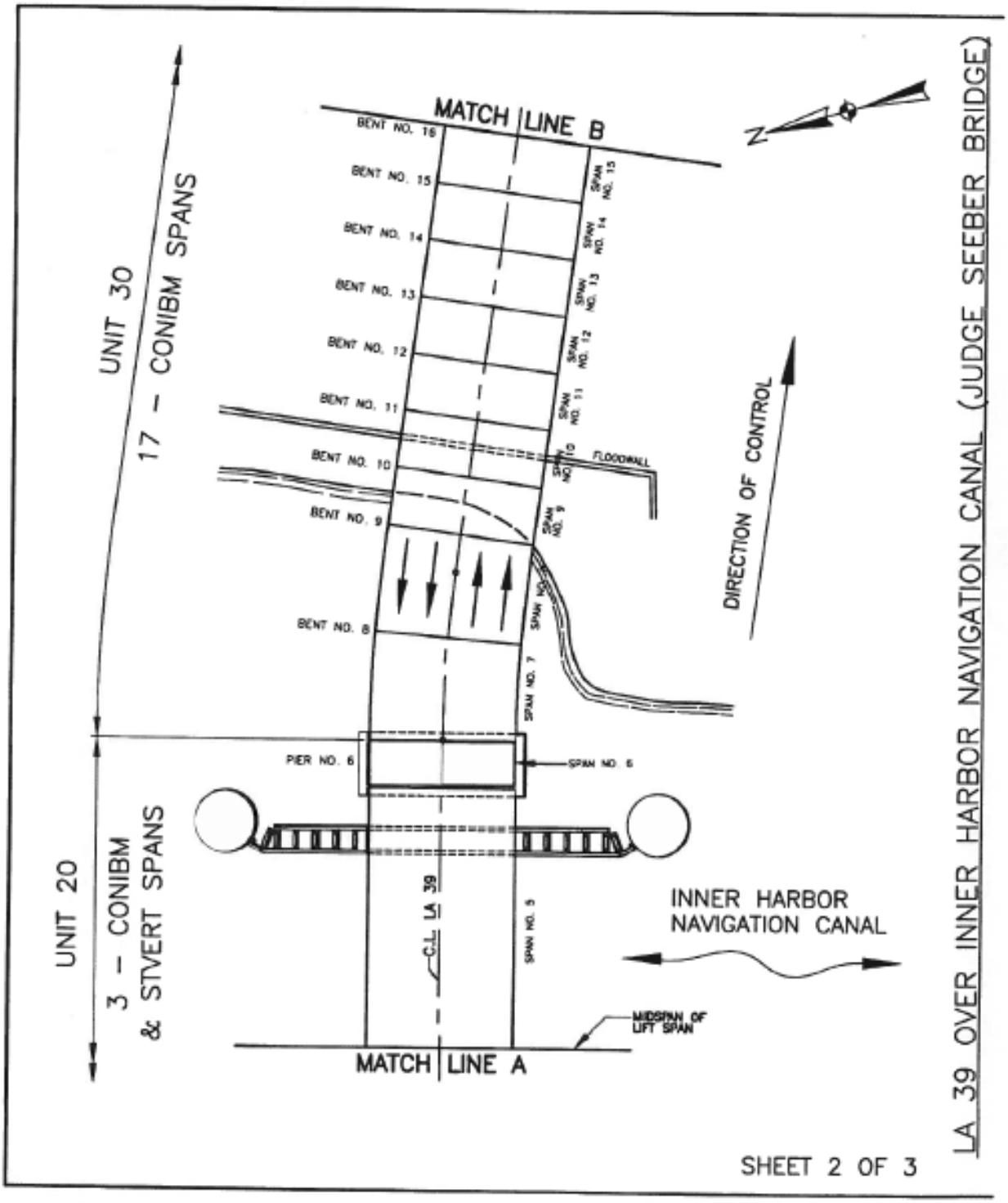
SHEET 1 OF 3

PONTIS INVENTORY SKETCHES

STRUCTURE NUMBER: 02360463102341 INSPECTION DATE: 04/24/07

RECALL NUMBER: 020375

INSPECTORS: JTS, FC, PJW



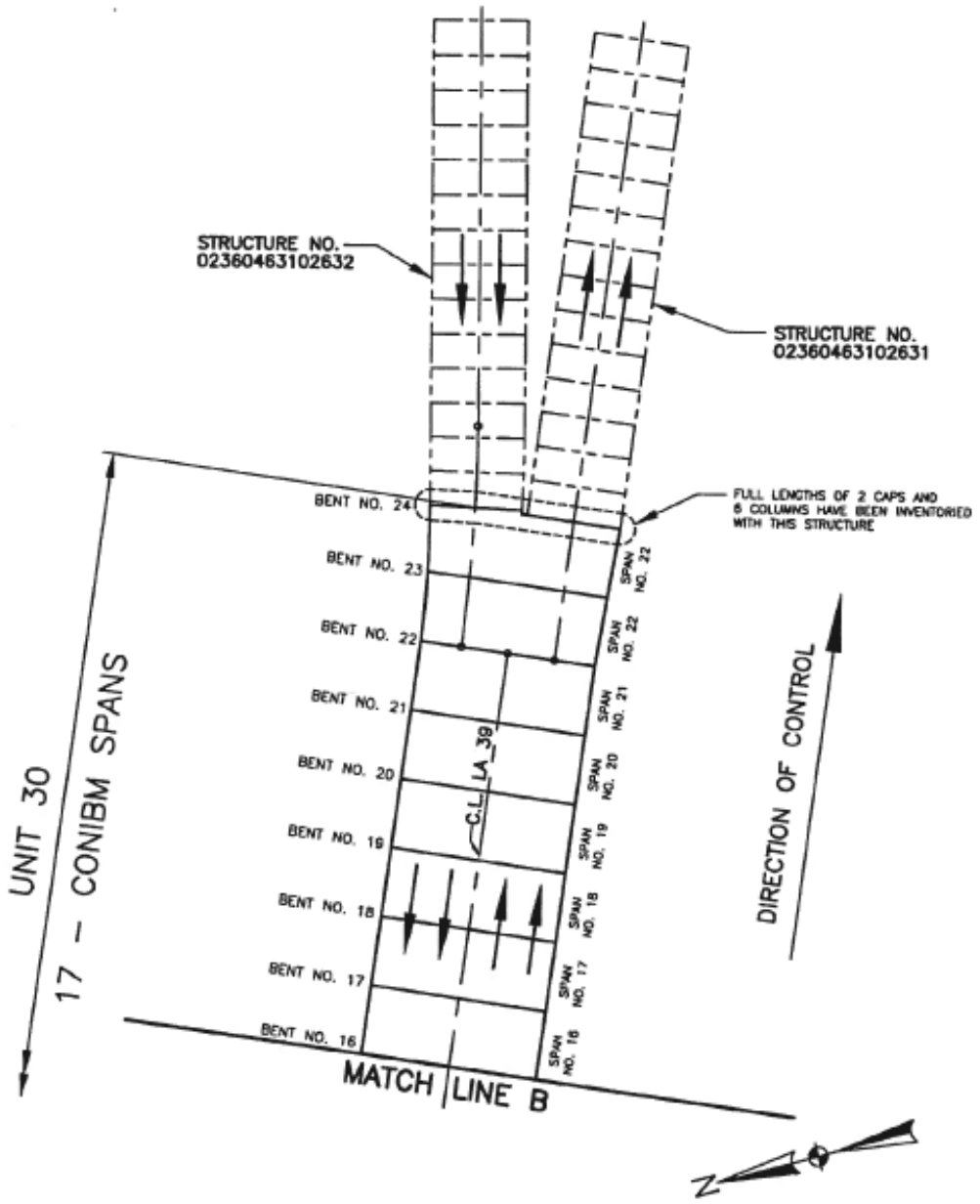
SHEET 2 OF 3

PONTIS INVENTORY SKETCHES

STRUCTURE NUMBER: 02360463102341 INSPECTION DATE: 04/24/07

RECALL NUMBER: 020375

INSPECTORS: JTS, FC, PJW



LA 39 OVER INNER HARBOR NAVIGATION CANAL (JUDGE SEEBER BRIDGE)

SHEET 3 OF 3

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