LOCKPORT COMPANY CANAL BRIDGE HAER No. LA-32
(Bridge Recall No. 000930)
Carries Louisiana Highway 1 (LA 1) over Lockport Company Canal
Lockport
Lafourche Parish
Louisiana

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

REDUCED COPIES OF MEASURED & INTERPRETIVE DRAWINGS

FIELD RECORDS

HISTORIC AMERICAN ENGINEERING RECORD
National Park Service
U.S. Department of the Interior
1849 C Street, NW
Washington, DC 20240

HISTORIC AMERICAN ENGINEERING RECORD
LOCKPORT COMPANY CANAL BRIDGE
(Bridge Recall No. 000930)

HAER No. LA-32

Location: Carries Louisiana Highway 1 (LA 1) over Lockport Company Canal in Lockport, Lafourche Parish, Louisiana. At this location LA 1 is locally known as Crescent Avenue.

The Lockport Company Canal Bridge (Bridge Recall No. 000930) is located at latitude 29.644639 north, longitude -90.544389 west.[1] The coordinate represents the southeast corner of the bridge. It was obtained in 2016 by plotting its location in Google Earth. The location has no restriction on its release to the public.

Present Owner: State of Louisiana.

Present Use: Vehicular and pedestrian traffic. When in its open position, the bridge allows for marine traffic on the Lockport Company Canal.

Significance: The Lockport Company Canal Bridge is significant as an intact representative example of a tower-drive vertical lift bridge, a subtype within the vertical lift bridge subtype. The bridge's variation is demonstrated in the location of a separate motor and drive mechanism on each tower. The motor and drive mechanisms power the two sheaves on each tower. The Lockport Company Canal Bridge was determined eligible for listing in the National Register of Historic Places (National Register) in 2013 under *Criterion C: Design/Engineering* at the state level of significance.[2]

Historian: Timothy S. Smith, Cultural Resource Specialist; Mead & Hunt, Inc. (Mead & Hunt); 2017.

Project Information: This documentation was prepared to fulfill Stipulation IX.5 of 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*, dated August 18, 2015 and executed September 21, 2015. The Louisiana Department of Transportation and Development (LADOTD) retained Mead & Hunt to prepare this document. It was prepared by cultural resource specialist Timothy S. Smith of Mead & Hunt. Dietrich Floeter completed the photography.

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[1] The bridge is also known as Structure No. 02290640601401.

[2] Mead & Hunt, Inc*., National Register Eligibility Determination Report: Pre-1971 Louisiana Highway Bridges* (prepared for the Louisiana Department of Transportation and Development, September 2013).

Part I. Historical Information

A. Physical History:

1. Date(s) of construction: 1959.

2. Engineer: Bridge Design Section, State of Louisiana Department of Highways.

3. Builder/Contractor/Supplier: Available plans do not name a specific builder, contractor, or supplier for the construction of the bridge.

4. Original plans and construction: Plan sheets for the construction of the Lockport Company Canal Bridge are available in the General Files room at the LADOTD's Baton Rouge headquarters. State Project No. 64-06-16 consisted of constructing a 2.3-mile concrete-paved bypass roadway around the west side of Lockport, removing an existing bridge across the Company Canal, and building a new bridge over the Old Intracoastal at 5th Street (now Crescent Avenue). Plans for the new vertical lift span are dated May 3, 1957 (approved on November 7, 1957) and use the LDH's standard plan SL50-150-28 for a 150'-0" long vertical lift span and 28'-0" wide roadway. The SL50-150-28 standard plan included the general arrangement of the operating machinery.[3] Plans for the vertical lift span also include spans 6 and 8, which are located beneath the lift towers. Plans for the eight approach spans (1, 2, 3, 4, 5, 9, 10, and 11) are dated February 12, 1957, and based on the latest LDH standard specifications and American Association of State Highway Officials 1953 standard specifications for highway bridges, as amended to December 31, 1955. The names of those that designed, traced, and approved the plans are illegible.

5. Alterations and additions: In 2011 the LADOTD replaced the electrical conductors and conduit throughout the bridge structure. This work included the removal and replacement of all navigation lights on the bridge and fender system.[4] This work represents in-kind replacement of the bridge's original features. Unspecified repairs were made to the upper deck, tower structures, and the electrical and mechanical components in 2006 as a result of Hurricane Rita.[5] Subsequent work on the bridge included reconfiguration of electrical service at the bridge for a trailer-mounted generator in 2007, replacement of wire ropes in 2008, replacement of the grid floor in 2009, and repairs to limit switches, gate operators, and span locks in 2010.[6]

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[3] State of Louisiana Department of Highways, *Plans of Proposed State Highway, S-253(3) State Project No. 64-06-16*, plans for Lockport Relocation, Lafourche Parish, LA 1, November 7, 1957.

[4] "Drawbridge Operation Regulation; Company Canal, Lockport, LA, *The Federal Register*, April 15, 2011.

[5] Louisiana Department of Transportation and Development, "Projects 064-06-0041 and 064-06-0042," *trns.Port Systems Database*, available at the Louisiana Department of Transportation and Development, Baton Rouge, La.; Louisiana Department of Transportation and Development, "Project 064-06-0042," *trns.Port Systems Database*.

[6] Louisiana Department of Transportation and Development, "Project 064-06-0043," *trns.Port Systems Database*; Louisiana Department of Transportation and Development, "Project 064-06-0044," *trns.Port Systems Database*; Louisiana Department of Transportation and Development, "Project 064-06-0046," *trns.Port Systems Database*; Louisiana Department of Transportation and Development, "Project 064-06-0047," *trns.Port Systems Database*.

B. Historical Context:

Development of highways and bridges in Louisiana

Since the Louisiana Highway Commission's (LHC's) inception in 1921 (replacing the State Highway Department), the agency's Bridge Department was responsible for the design and construction of many of Louisiana's bridges, including some of the largest and most significant examples. The department originally operated within the agency's construction division. Projects with only bridges were handled by the Bridge Department and those with both roads and bridges were completed by the office engineer with assistance from the bridge engineer.[7] The Bridge Department designed and often served a supervisory role in projects, eliminating the need for a general contractor during construction of State-owned bridges. As the Bureau of Public Roads (BPR) created design standards at the national level, the LHC also created Louisiana standard plans developed to assist in bridge design.[8] The LHC was reorganized as the Louisiana Department of Highways (LDH) in the 1940s, which designed the Lockport Company Canal Bridge. LDH biennial reports from the 1950s and 1960s indicate that in the period following World War II economic growth and government funding combined to not only increase investment on a grand scale, but also improve and increase road and bridge construction statewide.[9]

Bridge engineering practices of the Bridge Department/Bridge Design Section in the 1950s and 1960s became an increasingly scientific discipline that stressed a calculated approach to the rapidly increasing demand for plentiful, affordable, and efficient bridge designs and construction methods. Standardization and cost analysis accompanied the use of early computer programs and automated work to aid engineers in new approaches and innovations.[10]

Making the work of the agency more complicated was the state's abundant waterways. Influenced by the need to create and facilitate a reliable transportation system, the agency looked to movable bridges to span these waterways while also allowing for marine navigation below. As a result, Louisiana has one of the largest collections of movable bridges in the nation. Few were constructed in the state prior to 1900; however, they gained popularity and a series of standard plans for movable bridges were developed by the LHC and LDH between 1924 and 1963. Standard plans were periodically revised with small adjustments to meet site-specific needs. Standard plans for tower-drive-with-independent-towers bridges such as the Lockport Company Canal Bridge were available by 1953. As of 2015 Louisiana had 31 vertical lift bridges constructed between 1914 and 1970 and only four known examples with the tower-drive-with-independent-tower structure design. In addition to the Lockport Company Canal Bridge,

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[7] Louisiana Highway Commission, *Biennial Report of the Louisiana Highway Commission of the State of Louisiana, 1922-1924* (Baton Rouge, La.: Louisiana Highway Commission, 1924), 93.

[8] Louisiana Highway Commission, *Biennial Report of the Louisiana Highway Commission of the State of Louisiana, 1922-1924*, 93 and 95; Mead & Hunt, Inc., *Historic Context for Louisiana Bridges* (prepared for the Louisiana Department of Transportation, 2013), 17.

[9] Mead & Hunt, Inc., *Historic Context for Louisiana Bridges,* 27.

[10] Mead & Hunt, Inc., *Historic Context for Louisiana Bridges*, 97.

examples of this type are the Intracoastal Waterway Bridge at Larose in Lafourche Parish (Bridge Recall No. 000920), the Judge Seeber Bridge (Bridge Recall No. 020375) in Orleans Parish, and the Intracoastal Waterway/W-J. Perez Bridge (Bridge Recall No. 002500) in Plaquemines, all in the southeast corner of the state.[11]

Construction of the Lockport Company Canal Bridge

A series of canals and locks constructed between approximately 1850 and 1880 in the vicinity of present-day Lockport facilitated shipping and steady economic growth. One of these was the Old Intracoastal Waterway (now known as Company Canal), which bisected Bayou Lafourche. Lockport was eventually established at the juncture of Bayou Lafourche and the Old Intracoastal Waterway and incorporated in 1899. Only two bridges are known to have been constructed at Lockport prior to the existing Lockport Company Canal Bridge: an iron bridge in 1900 across Bayou Lafourche, between Lockport and Rita, and a steel pontoon bridge across the Company Canal built ca. 1948.[12] Both of these bridges are nonextant.

By 1956 plans were underway to construct the existing Lockport Company Canal Bridge.[13] Plans were drawn up in 1957 by the LDH for State Project No. 64-06-16, which consisted of constructing a 2.3-mile concrete-paved bypass around the west side of Lockport to carry LA 1; removing the ca. 1948 steel pontoon bridge (located at 8th Street across the Company Canal); and building a new vertical lift bridge at 5th Street (now Crescent Avenue) across the Company Canal to carry the relocated LA 1. Plans for the 11-span vertical lift bridge are dated May 3, 1957, and plans for eight of the approach spans are dated February 12, 1957. Plans for the entire project were approved on November 7, 1957. Fiscal records for the LDH indicate a total expenditure of $1,087,566.64 for the project.[14]

Engineering background

The Lockport Company Canal Bridge is an example of a tower-drive-with-independent-towers vertical lift bridge. The oldest movable bridges in the U.S. date to the mid-to-late nineteenth century and most early examples were of the swing type. Small-scale vertical lift bridges consisting of girder spans of a maximum span length of 50 feet were first constructed across canals throughout Europe and the U.S. in the early nineteenth century. These early vertical lift bridges had very short lifts and included such

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[11] Mead & Hunt, Inc., *National Register Eligibility Determination Report: Pre-1971 Louisiana Highway Bridges*, 36, 44.

[12] Town of Lockport, Louisiana, *History, June 6, 2016,* http://townoflockport.com/?page_id=20 (accessed July 13, 2016); LaFourche Parish Game and Fish Commission, *Historic Habitat Changes*, June 16, 2016, http://www.lafourchegfc.org/habitathistory1.html (accessed July 12, 2016); Louisiana Department of Highways, "Highway Contracts Reach $4,653,274 Month of December: Year's Total is Over 24 Million," *Louisiana Highways* II, no. 1 (January 1948): 6.

[13] "Legislative Digest," *The Times-Picayune*, July 20, 1956, 14.

[14] State of Louisiana Department of Highways, *Financial & Statistical Report, Fiscal Year Ending June 30, 1958* (Baton Rouge, La.: State of Louisiana Department of Highways, 1958); State of Louisiana Department of Highways, *Financial & Statistical Report, Fiscal Year Ending June 30, 1959* (Baton Rouge, La.: State of Louisiana Department of Highways, 1959); State of Louisiana Department of Highways, *Plans of Proposed State Highway, S-253(3) State Project No. 64-06-16*.

features as cast-iron towers and hydraulically operated movable spans. In the U.S., movable bridges were constructed over the Erie Canal in the early nineteenth century. Toward the end of the nineteenth century a series of other movable bridge types were rapidly developed and brought into common use, including bascule variations and vertical lift examples.[15]

The design of modern vertical lift bridges can be attributed to John Alexander Low Waddell's 1894 South Halsted Street Bridge in Chicago. In vertical lift bridges, the main span consists of steel girders or a truss that is raised and lowered via cables. The cables are carried over large, grooved pulleys or wheels (termed sheaves) at the tops of the bridge towers and attached to the movable span at one end and large counterweights at the other end. The cables and counterweights balance the weight of the lift span so very little effort or power is required to move it up or down. The up and down movement is accomplished through a second and separate set of cables called up-haul and down-haul ropes.

The design of vertical lift bridges can vary slightly based on the location of the motor(s) and drive mechanisms that move the span up and down by controlling the up-haul and down-haul ropes. The three basic variations include span drive, tower drive with independent towers, and tower drive with connected towers.[16] Tower-drive vertical lift bridges have a series of operating ropes (typically two up-haul and two down-haul ropes at each corner of the span) attached to geared operating drums. To lift the span, the drum winds the up-haul ropes and simultaneously unwinds the down-haul ropes. The sheaves at the top of each tower carry the counterweight ropes and are free-spinning with no direct control over the movement of the span. Tower drive vertical lift bridges with independent towers are powered by a separate set of drive machinery located at the top of each lift tower. The movable span is raised and lowered by rotating the motorized sheaves by means of interconnected shafts and gears. A single motor operates two sheaves that enable the span to move.[17]

Part II. Structural/Design Information

A. General Statement:

1. Character: The Lockport Company Canal Bridge is a tower-drive-with-independent-towers vertical lift bridge with a steel plate girder movable span. It is a representative example of this uncommon vertical lift bridge subtype.

2. Condition of fabric: Good.

B. Description: The Lockport Company Canal Bridge is located in the Town of Lockport, Louisiana, and carries LA 1 (locally known as Crescent Avenue) over the Lockport Company Canal. The Town of

[15] Terry L. Coglin, *Movable Bridge Engineering* (Hoboken, N.J.: John Wiley & Sons, Inc., 2003), 55.

[16] Coglin, *Movable Bridge Engineering*, 6, 55; Mead & Hunt, Inc., *Crossing the Bayou: Louisiana's Historic Bridges* (prepared for the Louisiana Department of Transportation and Development, 2015), 14.

[17] Mead & Hunt, Inc., *Crossing the Bayou: Louisiana's Historic Bridges,* 14-17.

Lockport is located in Lafourche Parish, east of Houma, Louisiana. LA 1 extends north from Grand Isle, located along the Gulf of Mexico, for approximately 146 miles to Interstate Highway 190 in Baton Rouge.

The bridge is aligned on a nominal southeast-northwest axis. It has an overall structure length of 370’-0" and an out-to-out width of 33'-0". The 11-span structure has a 150'-0” steel vertical lift span (span 7) with a 125'-0" horizontal clearance over the waterway, plus 5'-0" on each side from centerline of the column to the centerline of the live load bearing for each lift span; eight concrete slab approach spans each with an individual length of 20'-0" (spans 1-5 and 9-11); two spans beneath the towers (spans 6 and 8), each with a 25'-0" length; an operator’s house mounted within the southernmost tower above the roadway; and machinery houses located at the tops of the two towers that shelter the sheaves and lift machinery.

Main vertical lift span
The vertical lift span of the Lockport Company Canal Bridge is a movable steel plate girder span with welded connections and stiffeners. The vertical-lift span generally has a roadway width of 28'-0" accommodating a two-lane roadway. Across both sides of its entire length the vertical lift span has a raised metal 5'-0" sidewalk with a pipe handrail mounted on a single reinforced-concrete rail, which is integrated with concrete posts. Each railing is integral with railings on approach spans that terminate at a stepped concrete endpost that features a design with rounded, protruding parallel panels and lettering with “1959” and “Company Canal.” The majority of the deck consists of a steel grid; portions under the towers within spans 6 and 8 have a concrete deck with asphalt overlay. The substructure for the vertical lift span consists of concrete pile bents that support two massive concrete platforms under each of the lift towers.

Lift towers
The vertical lift span is situated between two cross-braced, independent, steel I-beam lift towers and has a maximum vertical lift of 50'-0". Each tower is approximately 90' tall and comprised of three, vertically oriented outer panels with an approximate dimension of 25' by 25'. The steel cross-bracing in each tower and panel has a combination of riveted and bolted connections. Metal staircases mounted on the exterior of the tower structure provide access to the machinery houses located at the top of each tower. Portals integrated with the lift tower structure are located at either end of the movable span above the roadway. Adjacent to the portals, at the edge of the outermost panels of the lift tower structure, are vertical drop-bar traffic barriers that extend the full width of the roadway. These traffic barriers are raised and lowered via an electrically controlled shaft that rotates two grooved wheels, which carry metal chains attached to the barrier at one end and a concrete counterweight at the other. These original traffic barriers are still extant but may no longer operate.

Machinery
This bridge has a tower-drive-with-independent-towers configuration, meaning the electrically powered drive machinery used to raise and lower the main span is located at the top of each independent lift tower. Many of the movable components that enable the movement of the span are also housed within each independent tower structure. Components of the drive machinery include an electric motor, speed reducer, coupling, shafts, and sheaves (grooved steel wheels at the corner of each tower, two within each machinery house). The electric motor provides the power for simultaneously rotating the sheaves and the

speed reducer adjusts the torque of the motor based on rotations per minute. Two shafts extend from the motor to the sheaves. The coupling is a device that connects the ends of the two independent shafts for the purposes of transmitting power to the sheaves. Based on review of plans and field inspection, the machinery at the top of each lift tower generally retains its original configuration and components.

Each of the sheaves carries a heavy steel cable that moves up and down within the lift tower structure. One end is attached to the movable span below and the other end is attached to a large counterweight that consists of a steel beam encased in concrete and balance chains that are suspended within each tower structure. The combined weight of the two counterweights is equal to the weight of the lift span, thus giving the movable span minimal weight for ease of movement; the drive machinery needs to provide only enough force to overcome friction and wind resistance to operate the cables in the corresponding direction.

Each machinery house has an irregular form with small extensions to account for the rounded protrusion of the sheaves at the top of each corner of the lift tower. The metal-frame structures are clad in corrugated sheet metal and have small, metal, louvered vents on each end. A band of five, metal-frame, awning windows opens from the interior elevation (facing the movable span) for air circulation.

Other mechanical features on the vertical lift span include span locks that secure the span in place when in closed position as well as guide rollers at the end of the span for the purposes of proper span alignment.

Operator's house

The operator's house is mounted above the roadway within the south lift tower structure and is accessed by a metal stairway on the west side of the tower. The operator's house is important as the location of the switchboard or operator's console that controls the electrical and mechanical components of the movable span. Aerial electrical cables strung between the two lift towers provide electricity from the operator's house to the motors and machinery at the top of each lift tower.

The concrete-walled, box-like building features pairs of horizontal grooves beneath the flat roofline that gives the building a restrained Streamline Moderne appearance. Paired sets of aluminum-frame windows with louvered horizontal glass panels are located on the northwest and southeast facades; the windows on the northwest side of the operator's house wrap around the building corners. A round stylized emblem of a pelican is set into the wall between the windows on the northwest and southeast elevations. The house interior consists of a large rectangular room with a control desk and switchboard under the northwest-facing windows and small bathroom at the eastern end of the building.

Approach spans

The bridge has 10 total approach spans that are reinforced-concrete slab spans. Spans 1-5 are located on the southeast approach and are each 20'-0" long, spans 9-11 are on the northwest approach and are also each 20'-0" long, and spans 6 and 8 are located beneath the lift towers and are each 25'-0" long. The approach spans generally have a roadway width of 28'-0" accommodating two traffic lanes. The approach spans have a concrete deck and two 5'-0" concrete sidewalks with raised curb. Pipe handrails

mounted on single reinforced-concrete rails, which are integrated with concrete posts, extend along both sides of the approaches. The substructure consists of concrete pile bents with concrete bent caps. The end bents are concrete with small wingwalls that serve as bases for the ornamental endposts that feature raised parallel rounded panels. A single roadway approach slab is located at each end of the bridge structure and measures approximately 20' long. Metal drop-arm traffic barriers are located adjacent to the outermost approach span on each end of the bridge structure; a metal two-light signal is paired with each barrier.

Other features around the bridge include two concrete flood control structures under the south approach spans and timber fenders are located under both sides of the bridge to protect those portions of the bridge that are exposed to potential damage by marine traffic should there be a collision.

C. Site Information: The Lockport Company Canal Bridge spans the Lockport Company Canal in Lockport, Louisiana. The canal runs in a northeast-southwest direction, connecting Bayou Lafourche with Lake Fields. The landscape immediately surrounding the bridge and canal consists of mostly narrow banks of landscaped grass as the area is primarily commercial development. The bridge carries two lanes of vehicular traffic, one in each direction.

Part III. Sources of Information

A. Primary Sources:

Bridge Inspection Report, February 20, 2013. Available in Bridge Maintenance and Inspection Division, Louisiana Department of Transportation and Development, Baton Rouge, Louisiana.

"Drawbridge Operation Regulation; Company Canal, Lockport, LA." *The Federal Register*, April 15, 2011.

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B. Secondary Sources:

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Lafourche Parish
Louisiana

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Dietrich G. Floeter, photographer, February and March 2016
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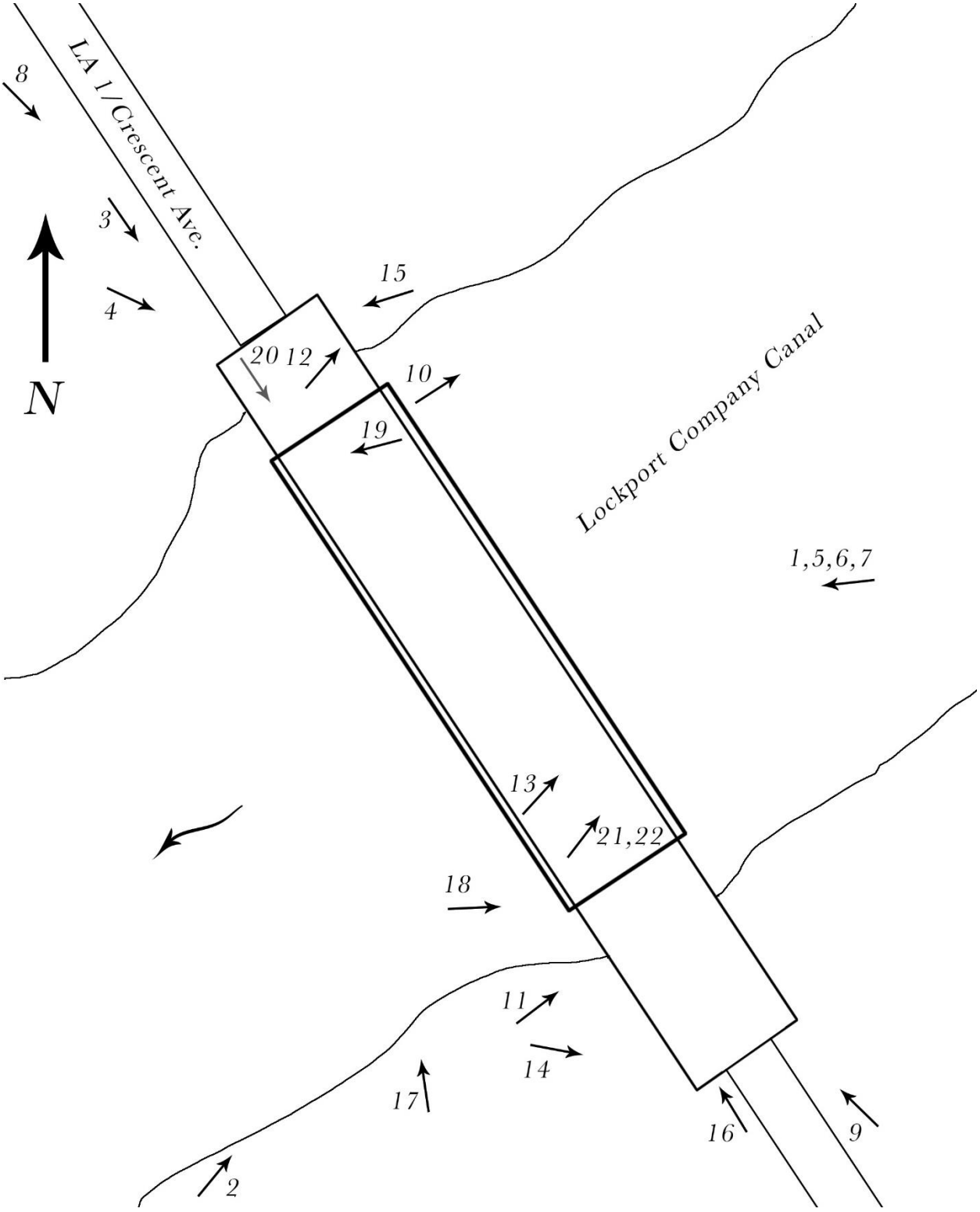
LA-32-20 Detail view of lifted bridge deck showing counterweight chain and underside, from northwest

LA-32-21 Detail view of lifting motor and drive train inside machinery house, from southwest

LA-32-22 Detail view of sheave and primary lifting gear in southeast tower, from southwest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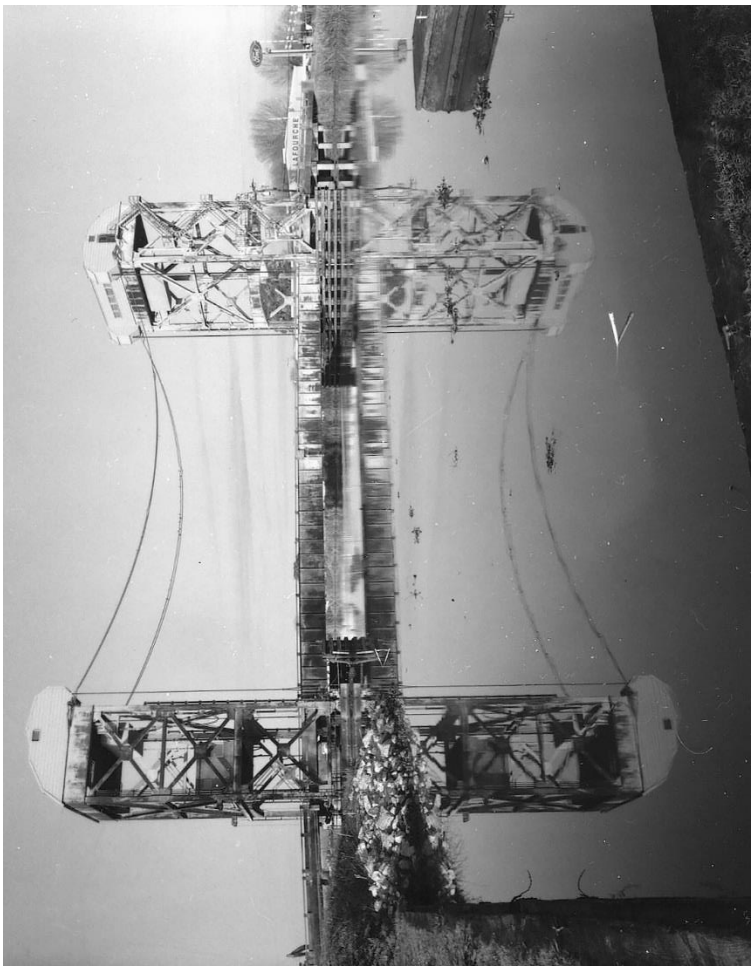

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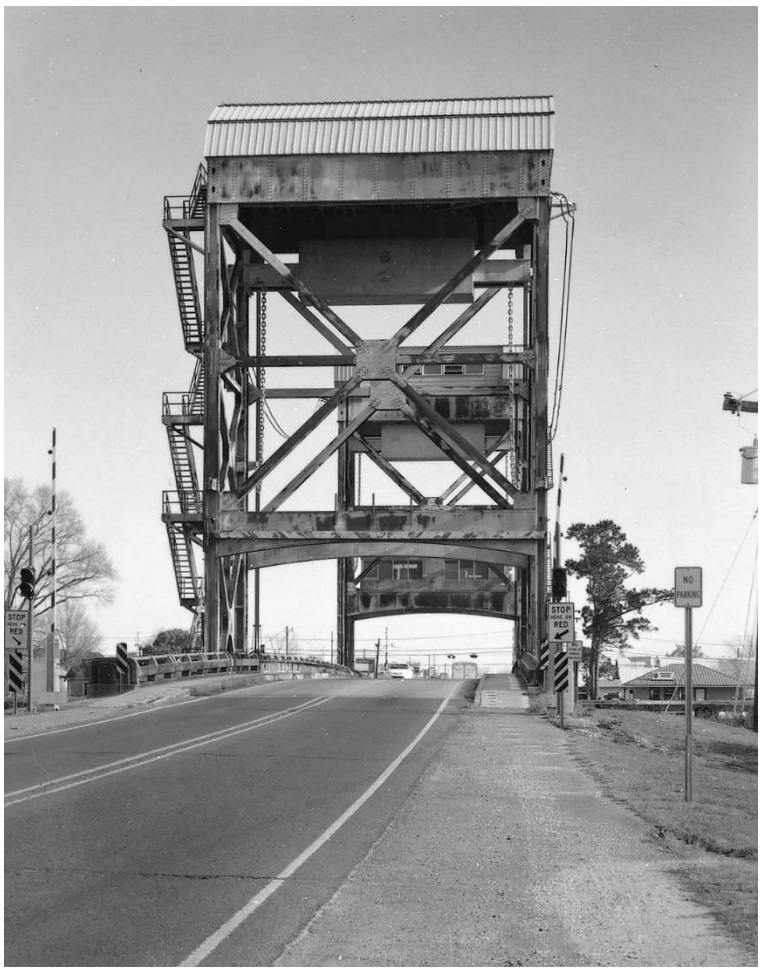

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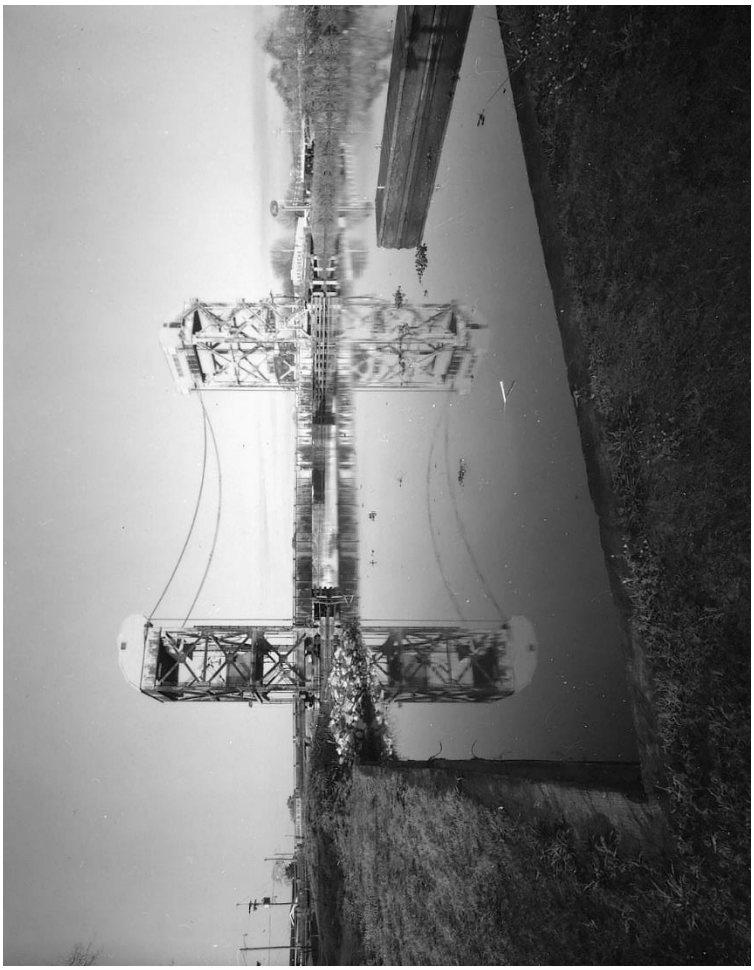

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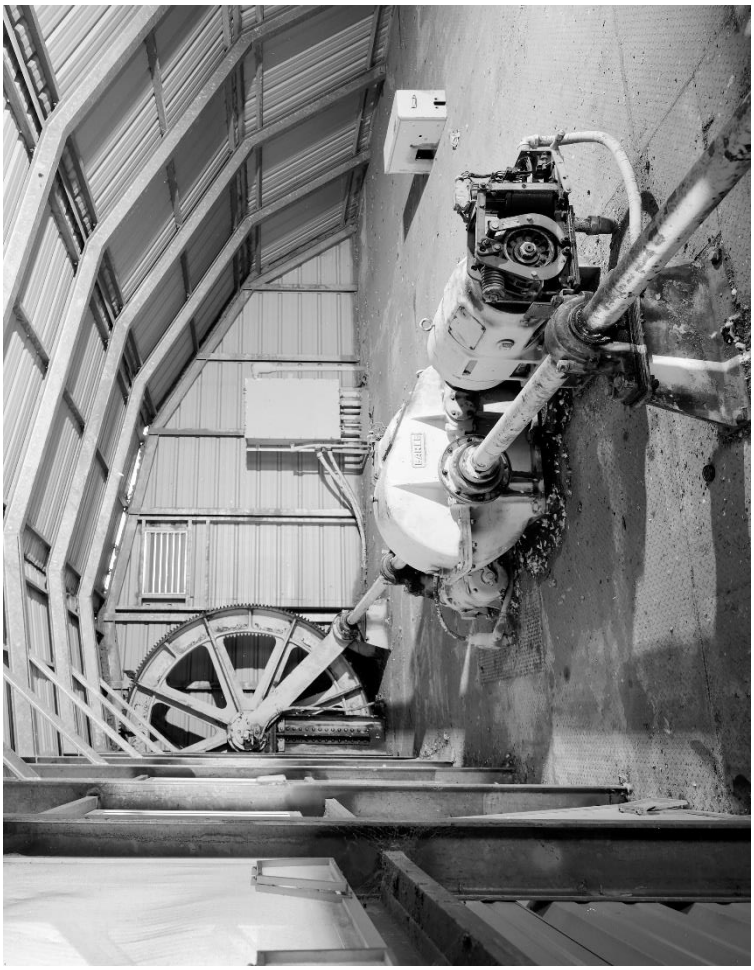

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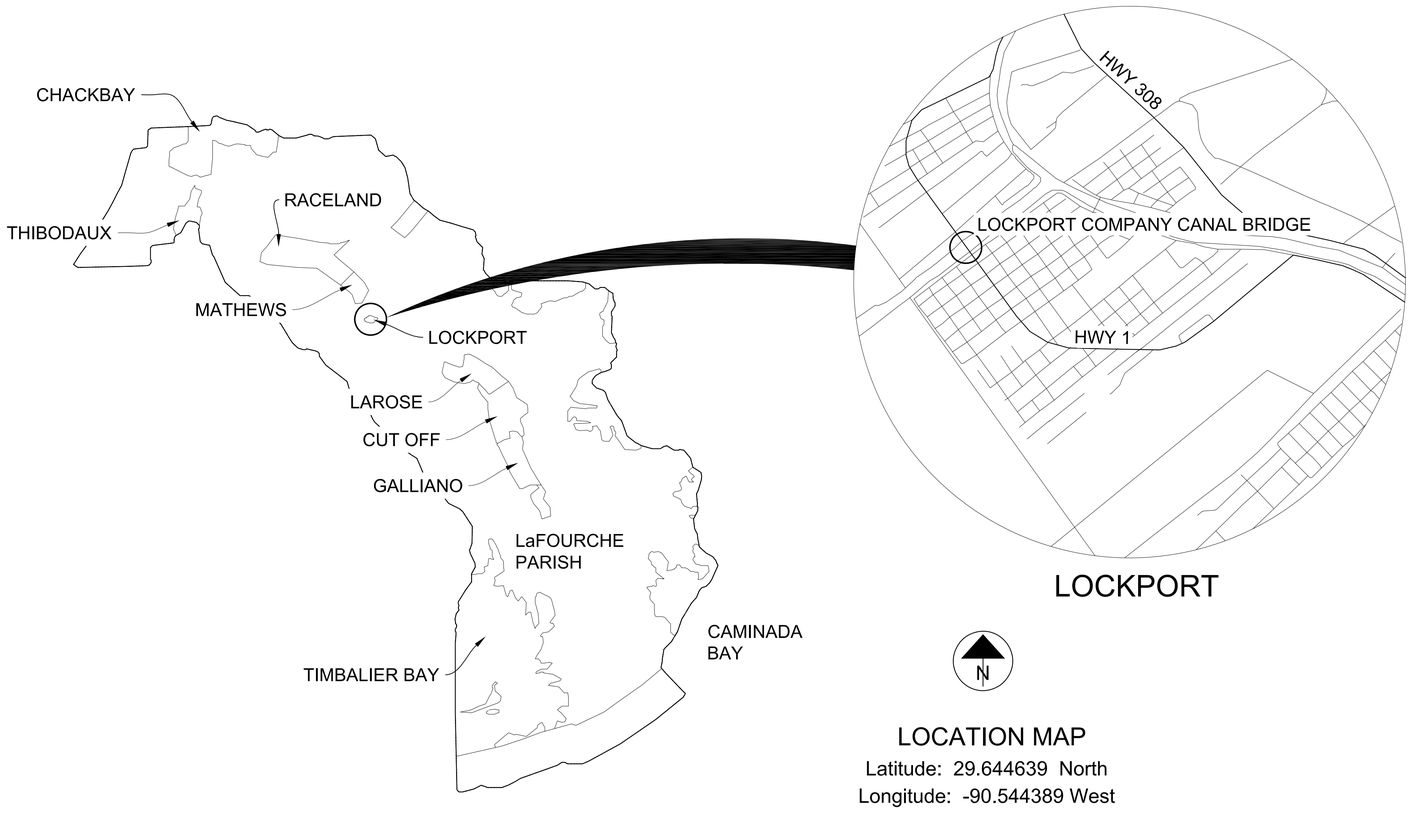
HAER NO. LA-32-22

LOCKPORT COMPANY CANAL BRIDGE



LOCATION MAP
Latitude: 29.644639 North
Longitude: -90.544389 West

The Lockport Company Canal Bridge (Bridge Recall No. 000930), designed by the Louisiana Department of Highways and constructed in 1959, is significant as an intact representative example of a tower-drive vertical lift bridge, a subtype within the vertical lift bridge subtype. The bridge's variation is demonstrated in the location of a separate motor and drive mechanism on each tower. The motor and drive mechanisms power the two sheaves on each tower. The Lockport Company Canal Bridge was determined eligible for listing in the National Register of Historic Places in 2013 under *Criterion C: Design/Engineering* at the state level of significance.

This documentation was prepared to fulfill Stipulation IX.5 of 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, dated August 18, 2015 and executed September 21, 2015. The Louisiana Department of Transportation and Development (LADOTD) retained Mead & Hunt to prepare this document. It was prepared by Timothy S. Smith, Cultural Resource Specialist, and Justin Duffie, Design Technician, of Mead & Hunt. Dietrich Floeter completed the photography.

The measured drawings were prepared based on a site visit to the bridge to confirm as-built plans and perform selective hand measuring in the field to verify measurements.

DELINEATED BY: J. DUFFIE, MEAD & HUNT, INC., 2017

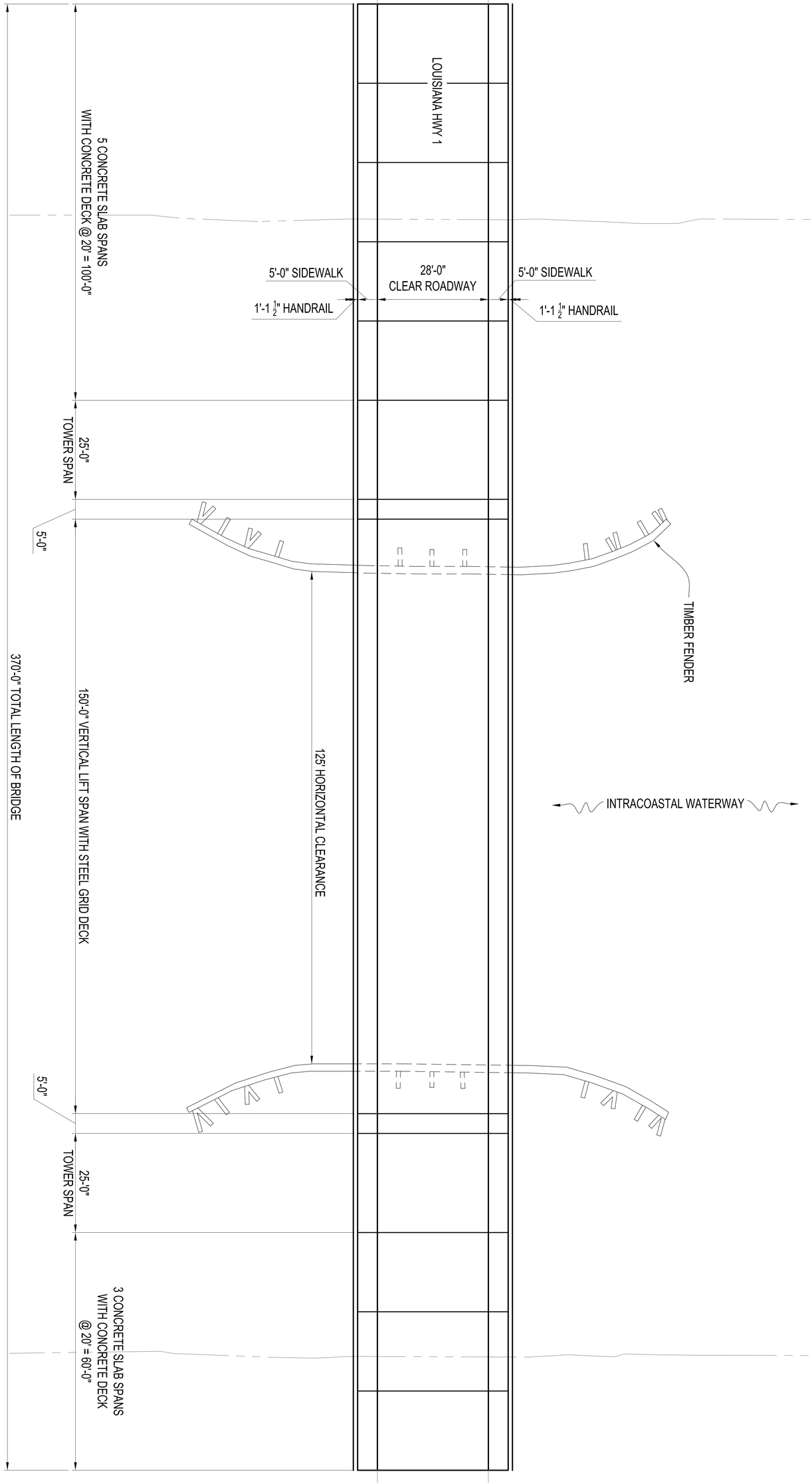
LOUISIANA HISTORIC BRIDGE INVENTORY
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

LOCKPORT COMPANY CANAL BRIDGE
CARRIES LOUISIANA HIGHWAY 1 (LA 1) OVER LOCKPORT CANAL
LAFOURCHE PARISH
LOCKPORT

LOUISIANA | SHEET 1 OF 4

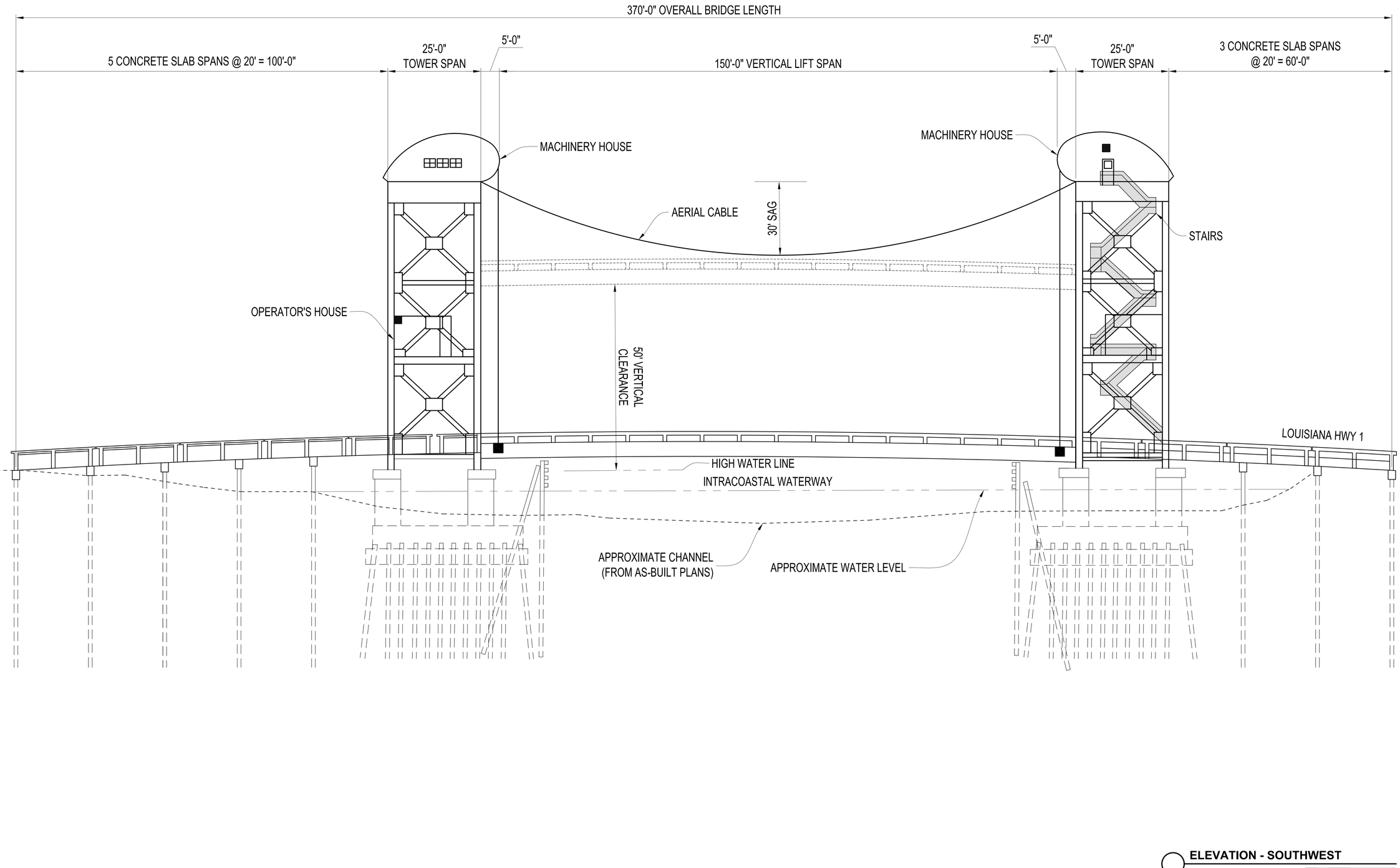
HISTORIC AMERICAN ENGINEERING RECORD
LA-32

LIBRARY OF CONGRESS INDEX NUMBER



DELINEATED BY: J. DUFFIE, MEAD & HUNT, INC., 2017

LOUISIANA HISTORIC BRIDGE INVENTORY NATIONAL PARK SERVICE UNITED STATES DEPARTMENT OF THE INTERIOR	LOCKPORT	LOCKPORT COMPANY CANAL BRIDGE CARRIES LOUISIANA HIGHWAY 1 (LA 1) OVER LOCKPORT CANAL LAFOURCHE PARISH	LOUISIANA	SHEET 2 OF 4	HISTORIC AMERICAN ENGINEERING RECORD LA-32	LIBRARY OF CONGRESS INDEX NUMBER



ELEVATION - SOUTHWEST

0 1/2" 1" 2"

DELINEATED BY: J. DUFFIE, MEAD & HUNT, INC., 2017

LOUISIANA HISTORIC BRIDGE INVENTORY
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

LOCKPORT

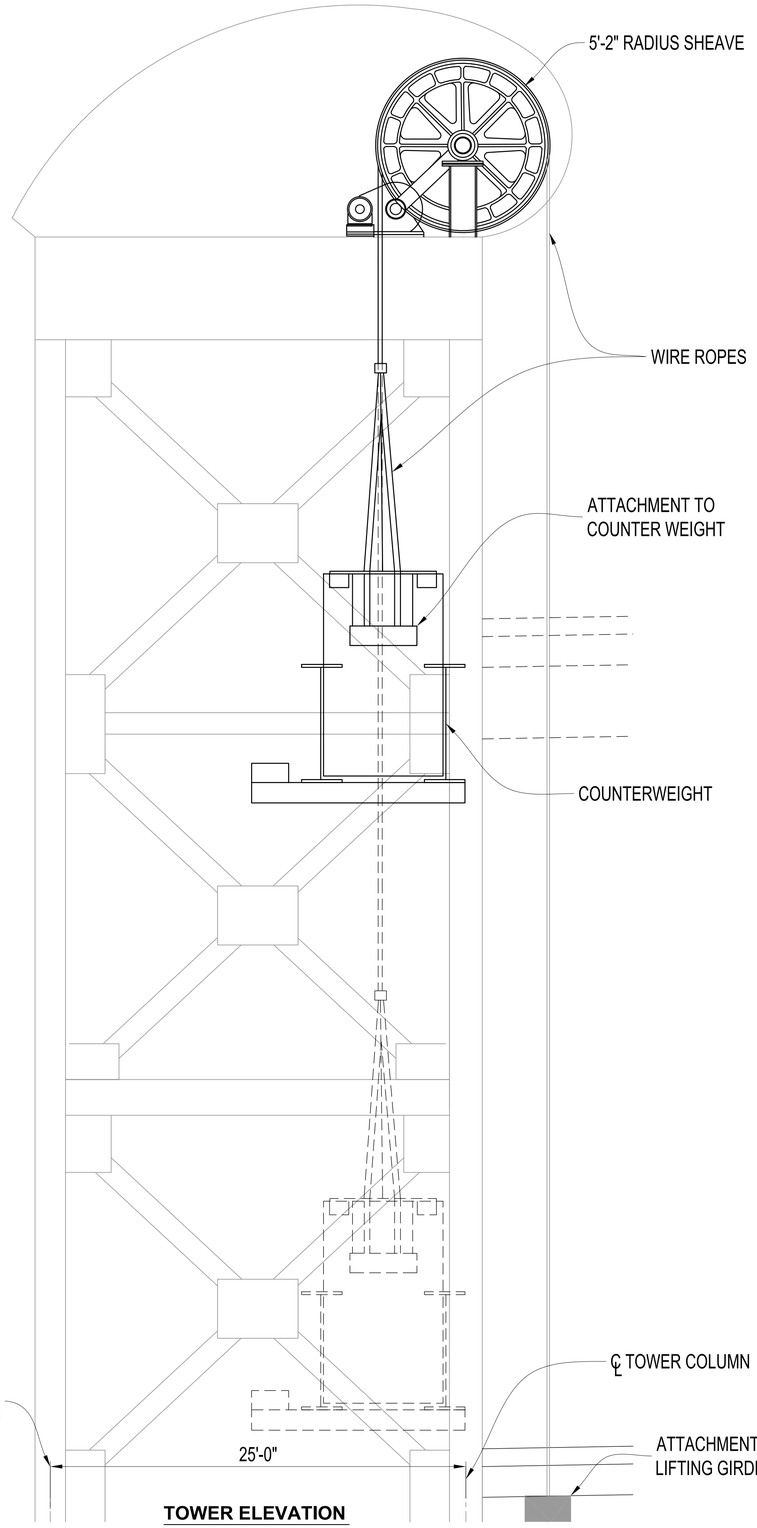
LOCKPORT COMPANY CANAL BRIDGE
CARRIES LOUISIANA HIGHWAY 1 (LA 1) OVER LOCKPORT CANAL
LAFOURCHE PARISH

LOUISIANA

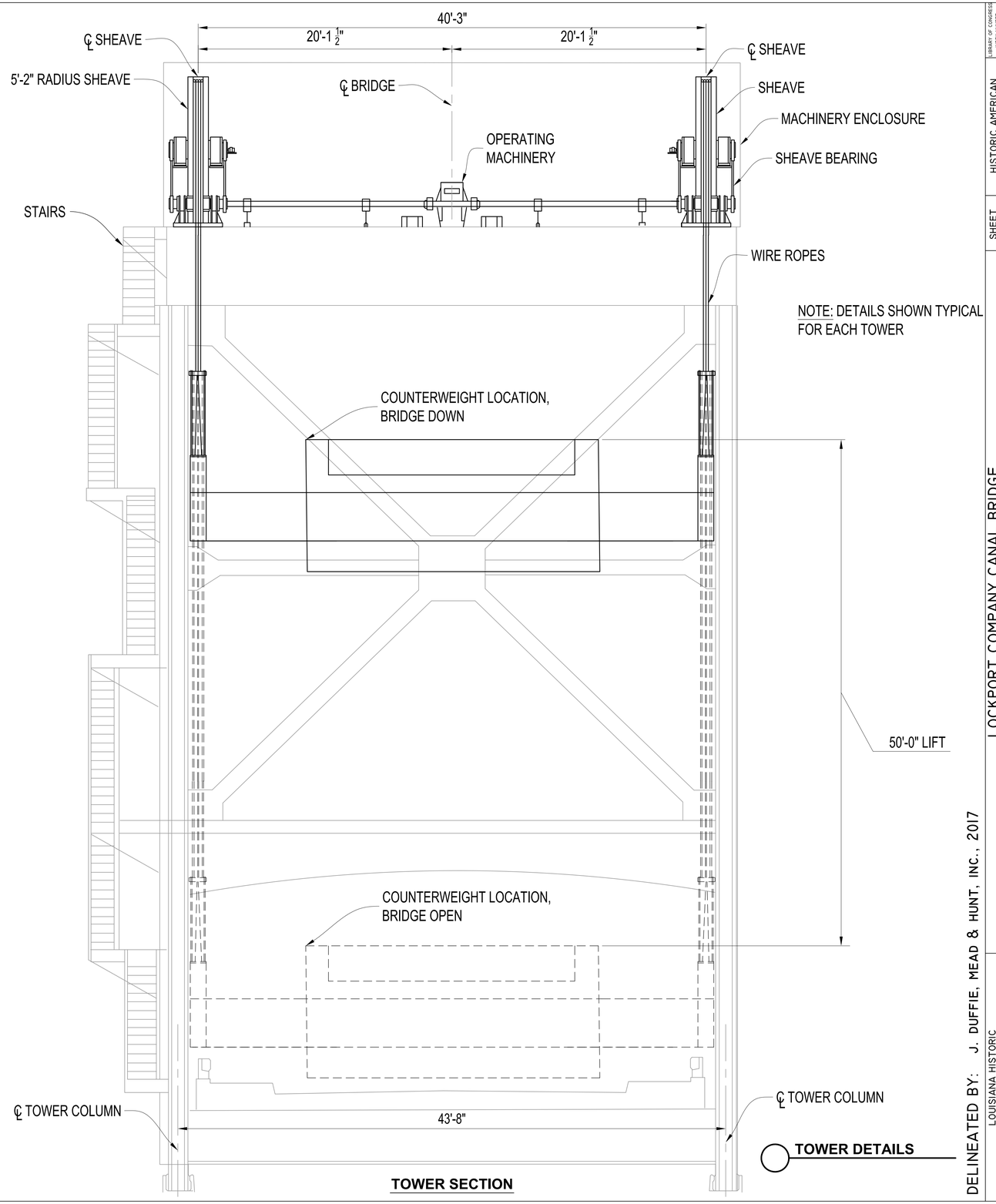
SHEET 3 OF 4

HISTORIC AMERICAN ENGINEERING RECORD LA-32

LIBRARY OF CONGRESS INDEX NUMBER



TOWER ELEVATION



TOWER SECTION

TOWER DETAILS

DELINEATED BY: J. DUFFIE, MEAD & HUNT, INC., 2017

LOUISIANA HISTORIC
BRIDGE INVENTORY
NATIONAL PARK SERVICE
UNITED STATES DEPARTMENT OF THE INTERIOR

LOCKPORT

LOCKPORT COMPANY CANAL BRIDGE
CARRIES LOUISIANA HIGHWAY 1 (LA 1) OVER LOCKPORT CANAL
LAFOURCHE PARISH

LOUISIANA

SHEET 4 OF 4

HISTORIC AMERICAN ENGINEERING RECORD
LA-32

LIBRARY OF CONGRESS INDEX NUMBER

83

INDEX TO SHEETS

SHEET No.	DESCRIPTION
1	Title, Plans and Layout Map
2-2a 2b 2c	General Sections & Details
3 13	Plan & Profile
14 15	Summary Sheets
16 17	Summary of Drainage Structures
18 19	Detail of Intersections & Turnouts
20	General Bridge Plan
21	Detail of Bents
22 23A	Detail of Piers
24	Detail of Spans
25 26	Detail of 150' Vertical Lift Span (Std. Plan St-50-150.0A)
26A	Welding Details for Aluminum Railings
27	Concrete Approach Slab
28	Fender System
29	Summary of Bridge Quantities and Camber Detail
30-69	Electrical System
70-71	Bridge Seepage

	Standard Plans	Rev. Date
201	C-30-05	11-30-53
202	[illegible]	8-8-39
204	[illegible]	6-15-42
206	[illegible]	6-15-42
208	[illegible]	5-28-56
209	C-2-170	1-28-58
209	[illegible]	
209	[illegible]	
209	[illegible]	
210	[illegible]	
211	[illegible]	
213	[illegible]	
213	[illegible]	
216	[illegible]	
218	R-CT-75	
[illegible]	Cross Sections	

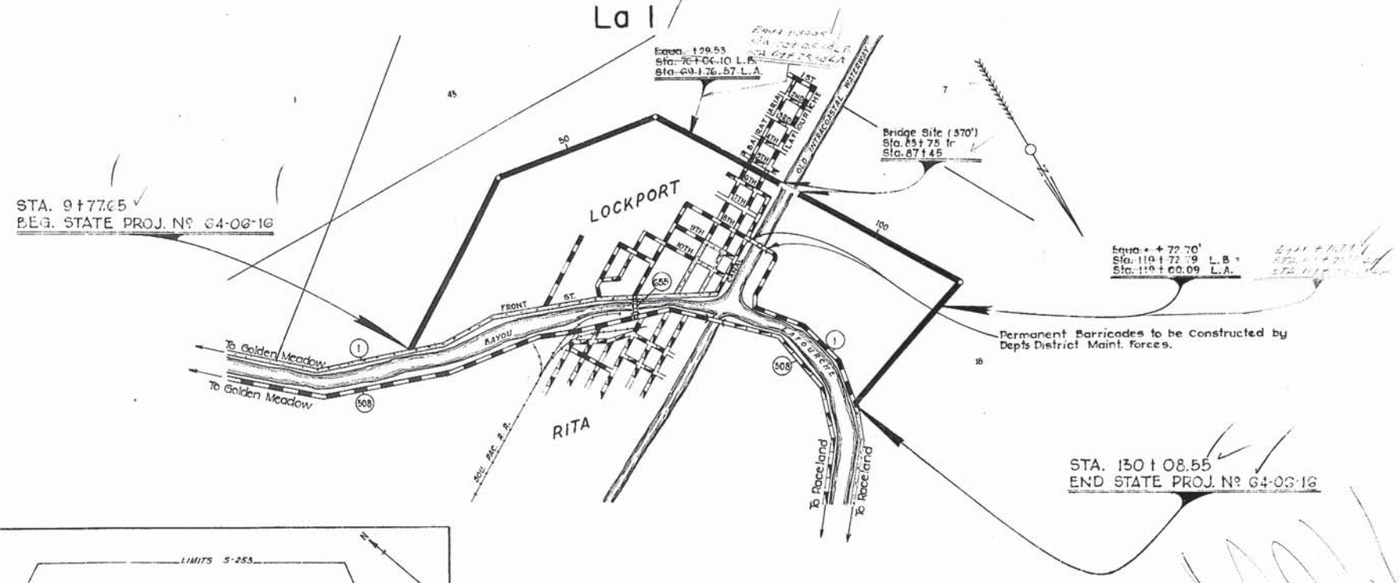
Total Sheets without X-Sections 69
Total Sheets with X-Sections 124

S	STATE PROJECT	PARISH	SHEET NO.
253(3)	64-06-16	Lafourche	1

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

PLANS OF PROPOSED
STATE HIGHWAY

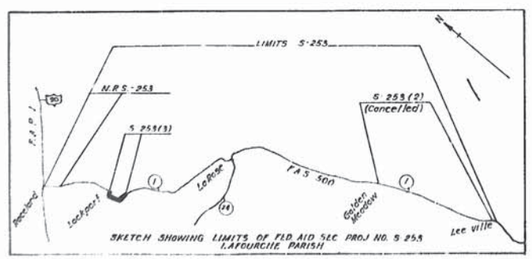
S-253(3)
STATE PROJECT NO. 64-06-16
LOCKPORT RELOCATION
LAFOURCHE PARISH
La 1



Permanent Barricades to be Constructed by Depts District Maint. Forces.

SCHEDULE OF REVISIONS

DATE	REVISION	DATE	RECOMMENDED	DATE	APPROVED
[illegible]					



DATUM USED:	U.S.G.S. (1932)
MAG. VAR.:	6°-40' E
BEARINGS ARE	True
TRANSIT BOOKS:	36-271
LEVEL BOOKS:	36-491
SCALES PLAN:	1" = 40'
PROFILE: HOR.	1" = 40'
VERT.	1" = 4'

TYPE OF CONSTRUCTION: Portland Cement Concrete Pavement

DELIVERY POINTS: [illegible]

LAYOUT MAP
SCALE: 1 INCH 1000 FEET

LENGTH OF PROJECT

DESCRIPTION	ALGEBRAIC SUM OF ALL EQUATIONS	GROSS LENGTH	EXCEPTION	BRIDGE LENGTH		ROADWAY LENGTH	
STA. TO STA.	FEET	FEET	FEET	FEET	MILES	FEET	MILES
9+77.65 - 130+08.55	+102.23	12353.13		370	0.070	11768.13	2.227
TOTAL LENGTH OF BRIDGES				370	0.070		
TOTAL LENGTH OF ROADWAY						11768.13	2.227
TOTAL MILES						2.297	

RECOMMENDED FOR APPROVAL
TRAFFIC & PLANNING ENGINEER

RECOMMENDED FOR APPROVAL
A. D. Jackson
ROAD DESIGN ENGINEER 11-7-57

RECOMMENDED FOR APPROVAL
J. B. Peters
BRIDGE DESIGN ENGINEER 11-7-57

APPROVED
C. H. Mills
CHIEF ENGINEER 11-7-57

RECOMMENDED FOR APPROVAL DATE
[redacted]
DISTRICT ENGINEER
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED DATE
[redacted]
DIVISION ENGINEER
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

AS BUILT PLANS

HAER No. LA-32

9f

STATE PROJECT	PARISH	SHEET NO
700-11	LAFOURCHE	9

PLAN	SURVEYED	DRAWN	ALIGNMENT CHECKED	NOTE BOOK	PROFILE CHECKED	NO. 16,227	PLANS BY
	DATE 7-55	K.L. SHIRLEY	M.S.				

PROFILE	SURVEYED	DRAWN	CHECKED	NOTE BOOK	PROFILE CHECKED	NO. 16,227	PLANS BY
	DATE 7-55	K.L. SHIRLEY	M.S.				

AS BUILT PLANS

HAER No. LA-32

109

State Project	Parish	Sheet No.
64-06-13	Lafourche	20

BORING No. 1
STA. 83 + 00
32' L.T. ℄

BORING No. 2
STA. 85 + 00
ON ℄

BORING No. 3
STA. 86 + 00
ON ℄

BORING No. 4
STA. 87 + 85
ON ℄

Sta. 83 + 55
℞ Traffic Gates

Sta. 83 + 50
℞ Warning Signal

Sta. 88 + 10
℞ Warning Signal

Sta. 88 + 05
℞ Traffic Gates

125'-0"
Horiz. Clearance

INTRACOASTAL

WATERWAY

TO GOLDEN MEADOW

TO RACELAND

N 32° 46' W.

25'-0"
Clear Roadway

END ROADWAY
BEG. BRIDGE
STA. 83 + 75

END BRIDGE
BEG. ROADWAY
STA. 87 + 45

370'-0"
Total Length of Bridge

100'-0"
5 @ 20' Conc. Slab Spans

2.5'-0"
Tower Span

150'-0"
Vertical Lift Span

2.5'-0"
Tower Span

60'-0"
3 @ 20' Conc. Slab Spans

Sta. 84 + 75
℞ Rear Cols.

Sta. 85 + 00
℞ Front Cols.

Sta. 86 + 00
℞ Front Cols.

Sta. 86 + 25
℞ Rear Cols.

400' V.C.
P.I. Sta. 85 + 80
P.I. El. 18.50
El. of G. 19' @ P.I. 14.50
Design Speed 40 M.P.H.
S.S.D. 275'

Machinery House

Aerial Cable

Position of Span
When Open ?

Operating House

Traffic Barrier

20'-0"
Conc.
Appr. Slab

+4.0% Grade

-4.0% Grade

50'
Vert. Clear

H.W. El. 3.07

L.W. El. 0.89

125'-0"
Horiz. Clearance

PIER No. 1

PIER No. 2

NOTE:
Name of Waterway and Date of Construction
Required Each End of Bridge.
Use Standard Plans C.M. 85 and C.M. 87.

NOTE:
Fill to be in place prior
to driving piles if required.

DATUM: MEAN SEA LEVEL.

M.J. PILES TO BE REMOVED:
Located Appox. 10.30' Northeast of
Proposed Bridge Axis. (At Elk Street)
7 @ 17'-0" Timber Trestle Approach Spans
1 @ 8'-0" and 6 @ 5'-0" Timber Aprons
1 @ 5' x 24' x 5' Steel Pontoon Barge
(Hull 2' Clear Roadway)
Salvagable Material and Steel Pontoon Barge
to be delivered to the Lafour Maintenance
Headquarters in Lafour.
Removal of Existing Bridge to be paid for
under Item 7.225, and Hauling of Salvaged
Material to be included in Pay Item 3 ℄

GENERAL BRIDGE PLAN

INTRACOASTAL WATERWAY BRIDGE
LOCKPORT
LA. ROUTE No. 1

DATED MAY 3 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED
CHECKED	CHECKED E.D.L.A.J.	CHECKED

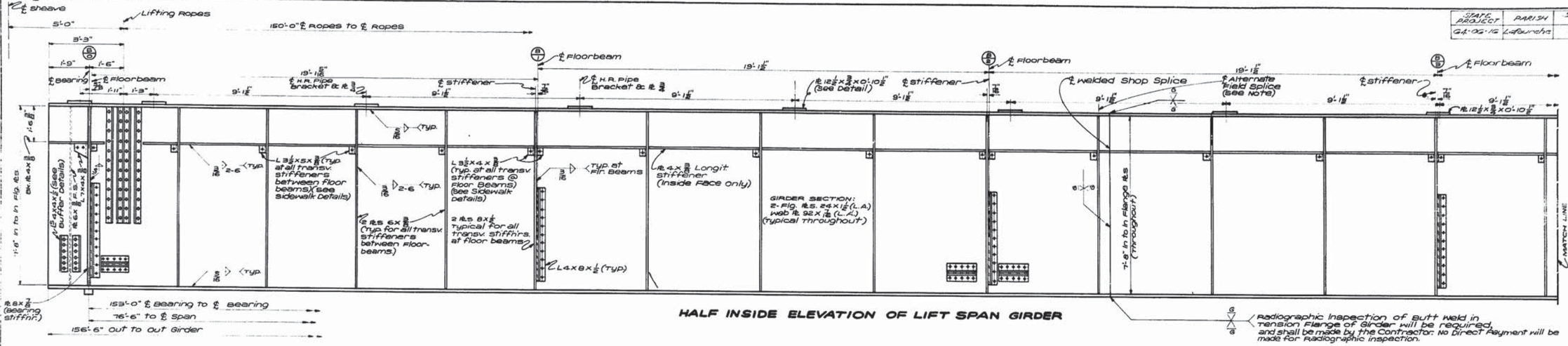
BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY
REVISIONS		

AS BUILT PLANS

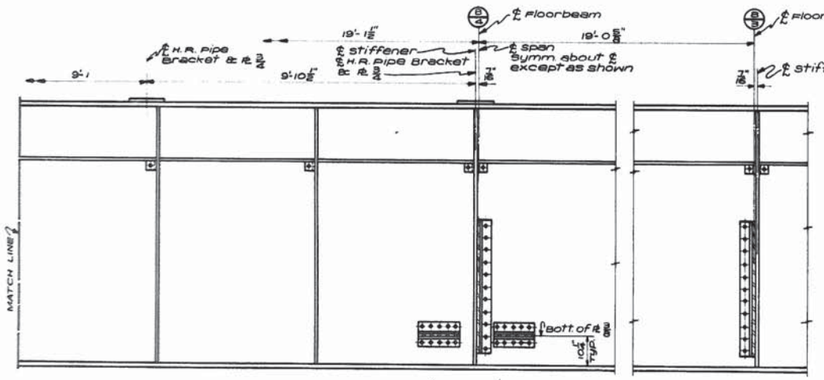
HAER No. LA-32

STATE PROJECT	PARISH	SHEET NO
64-02-12	Lafourche	45

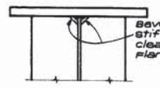


HALF INSIDE ELEVATION OF LIFT SPAN GIRDER

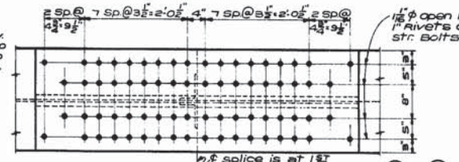
℄ Radiographic Inspection of butt weld in tension flange of girder will be required and shall be made by the Contractor. No Direct Payment will be made for radiographic inspection.

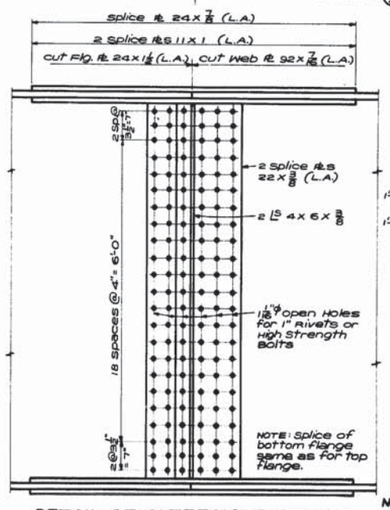


PLAN DECK FRAMING AND LATERAL SYSTEM

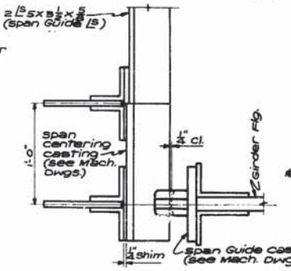


SECTION AT TRANSV. STIFFENERS
(TYPICAL THROUGHOUT)

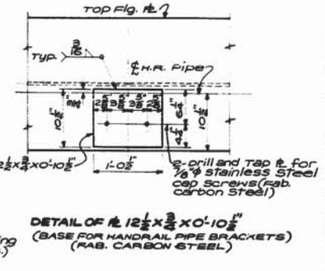




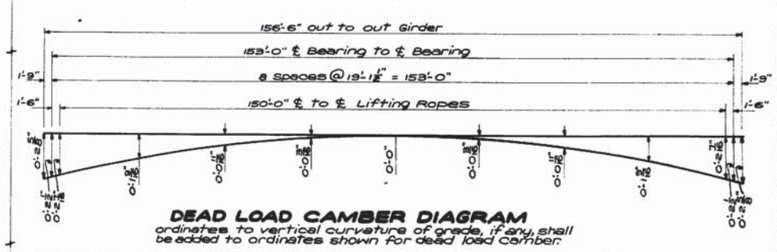
DETAIL OF ALTERNATE SPLICE



ELEVATION OF SPAN CENTERING DEVICE (LIFT SPAN SEATED)
DETAIL SHOWN IS FOR FIXED END)
(detail for Exp. End Similar)

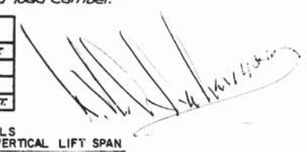


DETAIL OF PL 12 1/2 x 3/4 x 0'-10 5/8"
(BASE FOR HANDRAIL PIPE BRACKETS)
(RAB. CARBON STEEL)



DEAD LOAD CAMBER DIAGRAM
ordinates to vertical curvature of grade, if any, shall be added to ordinates shown for dead load camber.

ESTIMATED QUANTITIES (150' VERTICAL LIFT SPAN)		
OPEN GRID BRIDGE FLOORING	4950	SQ. FT.
STRUCTURAL LOW ALLOY STEEL	163,000	LBS.
FABRICATED CARBON STEEL	121,800	LBS.
PIPE HANDRAIL	308.67	LIN. FT.



DETAILS
150' VERTICAL LIFT SPAN

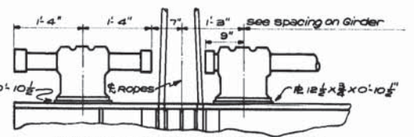
GIRDER DESIGN DATA

DESIGN SPAN FOR DEAD LOAD =	150'-0"	
DESIGN SPAN FOR S.W.L.L. & LIVE LOAD =	153'-0"	
DEAD LOAD CONCENTRATION AT PANEL POINTS:	13,488 LBS.	
UNIFORM DEAD LOAD:	468 LBS. PER FT.	
MAX. MOM. AT ℄: DL	3351 FT.-KIPS	
SWLL	755	
LL	2816	
I	513	
TOTAL	7435 FT.-KIPS	

DLR =	97.7 K	SWLL =	19.7 K
20% I =	19.5	LLR =	82.4
TOTAL =	117.2 K	I =	15.0
		TOTAL =	117.1 K

GIRDER PROPERTIES

I GROSS =	185,746 IN.⁴	MRC =	7622 I-K
I NET @ FLOORBEAM =	182,749	MRC =	7622
I NET @ ℄ ALT. SPLICE =	168,149	MRT =	6869



PART OUTSIDE ELEVATION OF PIPE HANDRAIL AT GIRDER ENDS

NOTE:
Contractor will be required to use alternate splice if he elects to splice girder in field. Weight of Splice material, estimated at 2600 lbs. per splice, will not be included in pay quantity for Structural Low Alloy Steel if the Contractor elects to use the alternate splice, but shall be included in the price bid on other items.

DATE	DESCRIPTION	BY
	REVISIONS	

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED MAR. 15 1957

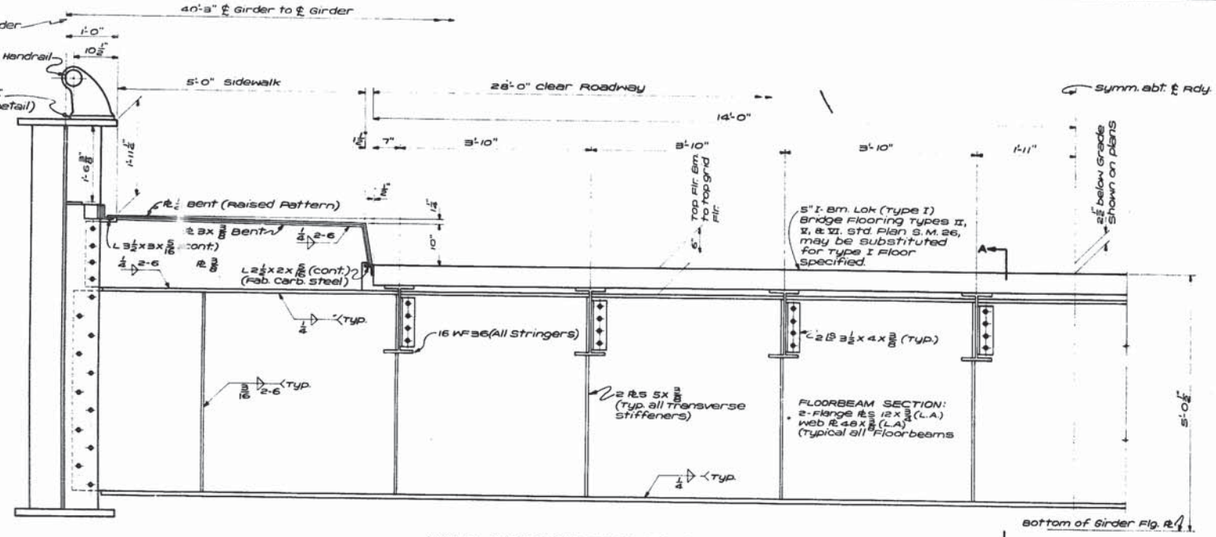
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
DESIGNED J.L.P. DETAILED J.L.P. TRACED O.C.M.
CHECKED S.L.B. CHECKED J.L.P. CHECKED S.L.B.
BRIDGE DESIGN SECTION

SHEET 1 OF 26

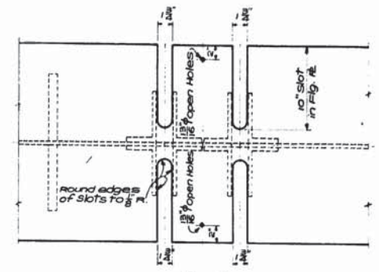
SL50-150-28

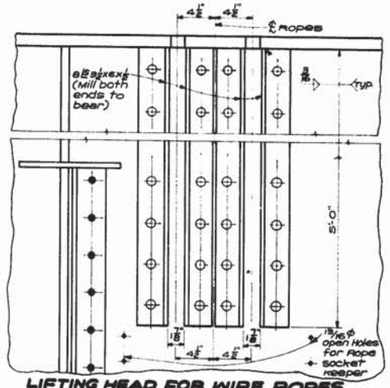
AS BUILT PLANS

STATE PROJECT	PARISH	SHEET
024-06-16	Lafourche	26

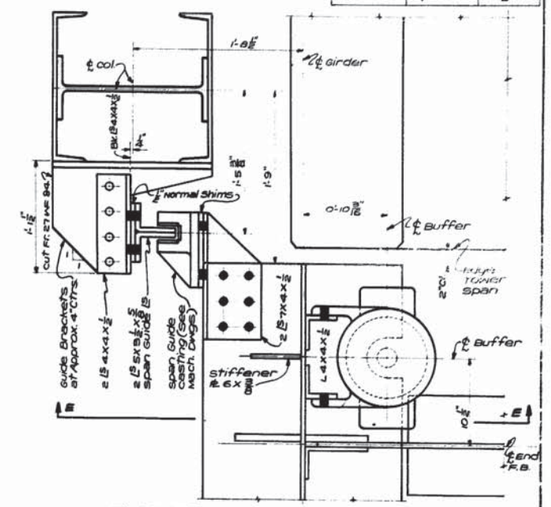


HALF SECTION THRU ROADWAY AT FLOORBEAM

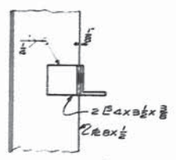




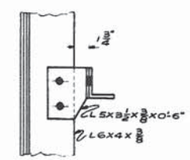
LIFTING HEAD FOR WIRE ROPES
For complete Assembly, See Machinery Drawings



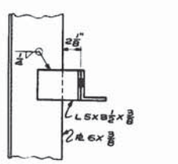
PLAN VIEW AT FIXED END OF SPAN SHOWING SPAN GUIDE AND BUFFER CONN.
(detail at Exp. end same except for Span Guide casting)



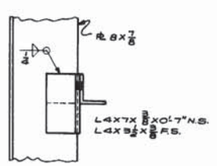
SIDEWALK CLIP L TYP. FOR ALL TRANSV. STIFF'N'R'S. AT INT. FLOORBEAMS



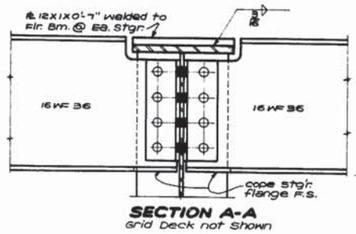
SIDEWALK CLIP L TYP. FOR TRANSV. STIFF'N'R. AT ALT. SPLICE



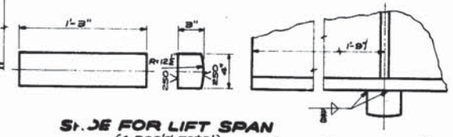
SIDEWALK CLIP L TYP. FOR ALL TRANSVERSE STIFF'N'R'S. BETWEEN FLOORBEAMS



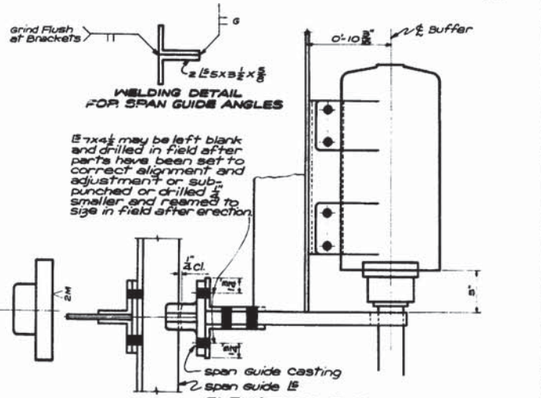
SIDEWALK CLIP L⁸ TYP. FOR TRANSVERSE STIFFENERS @ END FLOORBEAMS



SECTION A-A
Grid Deck not Shown



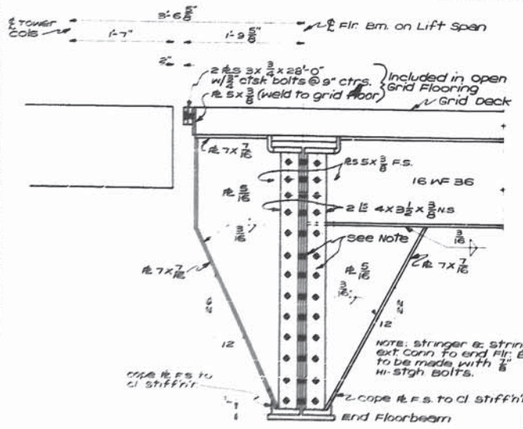
SHOE FOR LIFT SPAN
(4 Req'd Total)



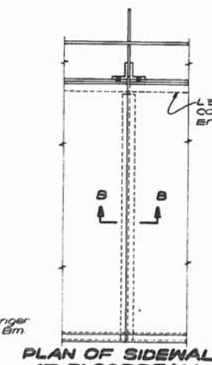
WELDING DETAIL FOR SPAN GUIDE ANGLES

℄ 7"x4½" may be left blank and drilled in field after parts have been set to correct alignment and adjustment or sub-punched or drilled ¾" smaller and reamed to size in field after erection.

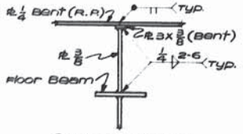
ELEVATION E-E



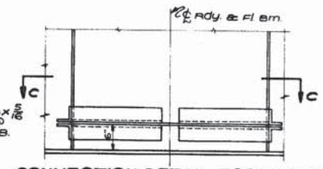
CONNECTION DETAIL AT TOWER



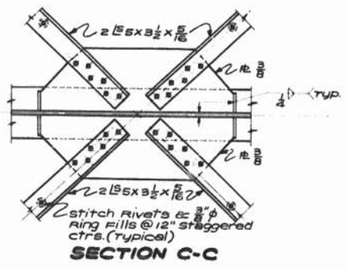
PLAN OF SIDEWALK AT FLOORBEAM



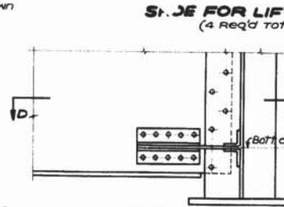
SECTION B-B



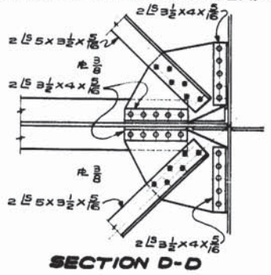
CONNECTION DETAIL FOR LATERAL BRACING AT ODD FLOORBEAMS



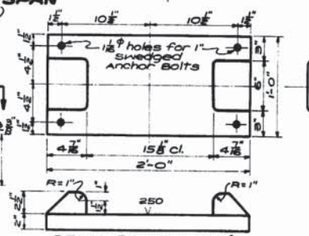
SECTION C-C



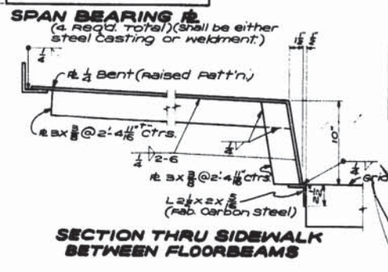
CONNECTION DETAIL FOR LAT'L. BRACING AT EVEN FLOORBEAMS



SECTION D-D



SPAN BEARING ⊕
(4 Req'd. Total) (Shall be either steel casting or weldment)



SECTION THRU SIDEWALK BETWEEN FLOORBEAMS

MOMENTS AND REACTIONS FOR STRINGERS & FLOORBEAMS						
	EXTERIOR STERS.		INTERIOR STGRS.		FLOORBEAMS	
	M(K-FT)	R (K)	M(K-FT)	R (K)	(M)(K-FT)	R (K)
D	6.9	1.4	5.1	1.1	155.6	13.0
SIWL	11.4	2.4	0.0	0.0	26.2	3.9
L	48.2	18.5	58.7	20.1	646.1	47.0
I	14.5	4.1	17.6	6.0	193.8	14.1
T	81.0	21.4	81.4	27.2	1021.7	78.0

DETAILS
150' VERTICAL LIFT SPAN

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATE MARCH 18 57

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
DESIGNED R. Swinger
DRAWN R. Swinger
CHECKED A. Chapman
S.L.P. S.L.P. S.L.P.
BRIDGE DESIGN SECTION

REVISIONS

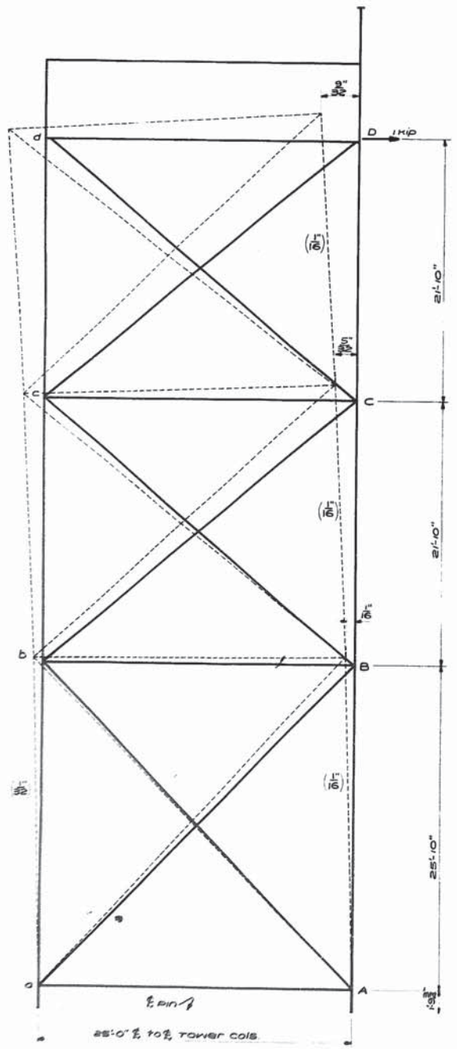
SHEET 2 OF 26

SL50-150-28

AS BUILT PLANS

116

STATE PROJECT	PARISH	SHEET NO
640-01-16	Lafourche	27

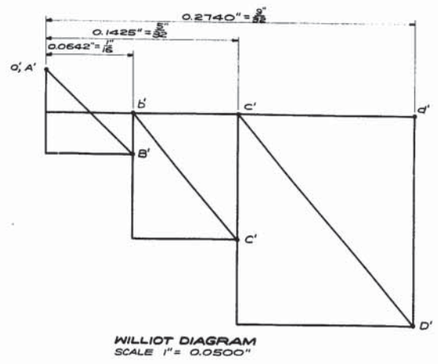


TOWER CAMBER DIAGRAM

LEGEND
——— Indicates uncambered position of tower
- - - - - Indicates cambered position of tower

MEMBER	DL. STRESS KIPS	LENGTH INS.	AREA SQ. INS.	SL/AE CALCULATED INS.	SL/AE ACTUAL INS.	"U" STRESS IKIP LD @ d	Δ_H = SUL/AE
DC	253.1	252	42.60	0.0516"	- 0.0626	- 0.8400	+0.0525
CB	269.1	252	42.60	0.0549"	- 0.0625	- 1.6800	+0.1050
BA	307.2	310	42.60	0.0771"	- 0.0625	- 2.7188	+0.1696
dc	29.3	252	42.60	0.0060"	0.0000	0.0000	0.0000
cb	42.7	252	42.60	0.0087"	0.0000	+0.8400	0.0000
ba	90.0	310	42.60	0.0226"	- 0.0313	+ 1.6800	-0.0525

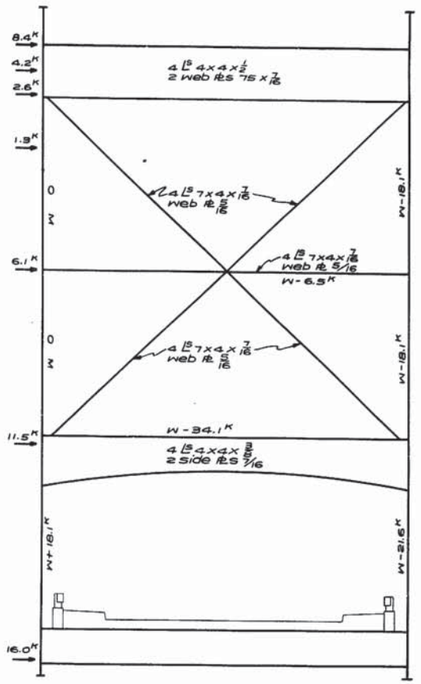
$\Sigma \frac{SU_d}{AE} = \Delta_H = +0.2746$

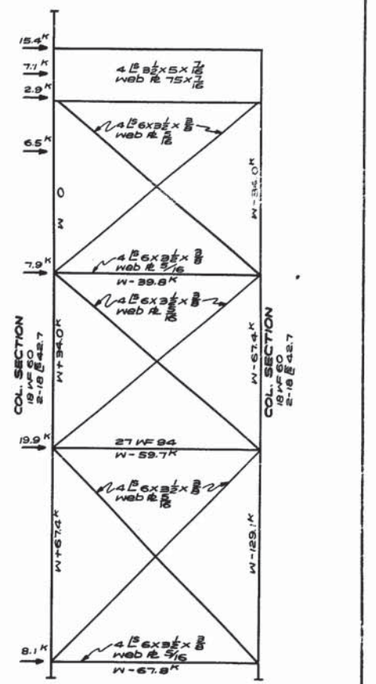


WILLIOT DIAGRAM
SCALE 1" = 0.0500"

GENERAL NOTES:

CONSTRUCTION SPECS: LA. DEPT. OF HIGHWAYS STD. SPECS. FOR ROADS AND BRIDGES, DATED JULY, 1955.
DESIGN SPECS: A.A.S.H.O. STD. SPECS. FOR HIGHWAY BRIDGES, 1953, AS AMENDED TO DEC., 1955.
WELDING SPECS: STD. SPECS. FOR WELDED HIGHWAY AND RAILWAY BRIDGES, 1956, AND L.A. DEPT. OF HWYS. SPECIAL PROVISIONS.
LIVE LOAD: H20-S16-44.
REINFORCING BARS SHALL BE INTERMEDIATE OR HARD GRADE A.S.T.M. A15, OR RAIL STEEL A.S.T.M. A16, AND SHALL CONFORM TO A.S.T.M. A-305. DIMENSIONS TO REINFORCING STEEL ARE TO BAR CENTERS. EXPOSED CONCRETE CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED. HANDRAIL AND HANDRAIL POSTS TO BE POURED IN ONE OPERATION. HANDRAIL POSTS TO BE CONSTRUCTED NORMAL TO GRADE. CONCRETE AND REINFORCING STEEL IN H.R. ABOVE TOP OF 4" SIDEWALK CURB TO BE PAID FOR PER LIN. FT. OF CONCRETE H.R., INCLUDING BARS L_1, L_1, L_2 AND L_3 THAT PROJECT INTO SAID 4" CURB. PIPE HANDRAIL AND BRACKETS, INCLUDING ANCHOR BOLTS FOR SAME, ON TOWER SPAN, ARE TO BE PAID FOR PER LIN. FT. OF PIPE HANDRAIL. NO DEDUCTION IN QUANTITY OF CLASS "A" CONCRETE WILL BE MADE FOR 3" x 5" DRAIN OPENINGS. SURFACE FINISHES, WHERE INDICATED, SHALL CONFORM TO THE AMERICAN STANDARDS FOR SURFACE ROUGHNESS, WAVINESS AND LAY, PART 1 A.S.A. B46.1-1947. SHOP CONNECTIONS 7/8" RIVETS, OPEN HOLES 13/16" UNLESS OTHERWISE NOTED. ALL RIVETS SHALL CONFORM TO A.S.T.M. A141. THE CONTRACTOR MAY SUBSTITUTE HIGH STRENGTH BOLTS FOR RIVETS FOR ALL FIELD CONNECTIONS. WELDED PLATE GIRDERS ARE TO BE CAMBERED FOR DEAD LOAD AND VERTICAL CURVATURE AS SHOWN ON PLANS. FLOORBEAMS AND STRINGERS NEED NOT BE CAMBERED BUT ARE TO BE FABRICATED WITH CONVEX FLANGE UP. MATERIAL MARKED "L.A." SHALL BE STRUCTURAL LOW ALLOY STEEL, A.S.T.M. DESIGNATION A242. THE CONTRACTOR'S ATTENTION IS CALLED TO THE ALTERNATE SPLICES, AND NOTE THEREON, FOR THE WELDED GIRDERS OF THE VERTICAL LIFT SPAN. TOWERS SHALL BE CAMBERED SO THAT FRONT LEGS WILL BE VERTICAL UNDER DEAD LOAD.
TOWER COLUMNS AND LONGITUDINAL BRACING SHALL BE SHOP ASSEMBLED, AND THE HOLES IN THE FIELD CONNECTIONS OF THE LONGITUDINAL BRACING MEMBERS AND COLUMN SPLICES SHALL BE REAMED AT ASSEMBLY. SHOP ASSEMBLY WILL NOT BE REQUIRED FOR THE TRANSVERSE BRACING, AND THE HOLES FOR THE FIELD CONNECTIONS OF THE TRANSVERSE BRACING MAY BE PUNCHED OR DRILLED FULL SIZE.





WIND LOADS AND STRESSES FOR 50#/0' WIND SPAN LOWERED

BASIS OF DESIGN FOR LATERAL STRESSES

SPAN LOWERED:	50#/0'	WIND @ 125 % OF BASIC STRESSES
SPAN RAISED:	30#/0'	WIND @ 150 % OF BASIC STRESSES
	15#/0'	WIND @ 125 % OF BASIC STRESSES

MAXIMUM REACTION PER SHOE

	FRONT COL.	REAR COL.
D.L.	375K	182K *
D.L.I.	75K	36K *
L.L.	91K	44K *
L.L.I.	18K	13K *
S.W.L.L.	25K	10K *

* Incl. 20' appr. span

TABLE OF ESTIMATED QUANTITIES

	2 TOWERS	2 COUNTERWEIGHTS
CLASS "A" CONCRETE	98.40 CU. YDS.	
RAIL CARBON STEEL	581,700 LBS.	41,440 LBS.
DEF. REINF. STEEL	17,872 LBS.	3460 LBS.
CONCRETE HANDRAIL	91.00 LIN. FT.	
PIPE HANDRAIL	91.00 LIN. FT.	
CLASS "A" CONCRETE IN COUNTERWEIGHTS		89.48 CU.YDS.
STRUCTURAL LOW ALLOY STEEL	36,600 LBS.	
BALANCE CHAINS		LUMP

TOWER DESIGN DATA

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY
45'-0" LIFT
5'-0" SIDEWALKS
OPEN STEEL GRID FLOOR
DATED MAY 9 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
DESIGNED [illegible] DETAILED [illegible] TRACED A. Broussard
CHECKED [illegible] CHECKED [illegible] CHECKED [illegible]
BRIDGE DESIGN SECTION

SIG-50 Struct. Low Alloy Steel Quantities
DATE DESCRIPTION
REVISIONS

SHEET 3 OF 26

SL50-150-28

AS BUILT PLANS

HAER No. LA-32

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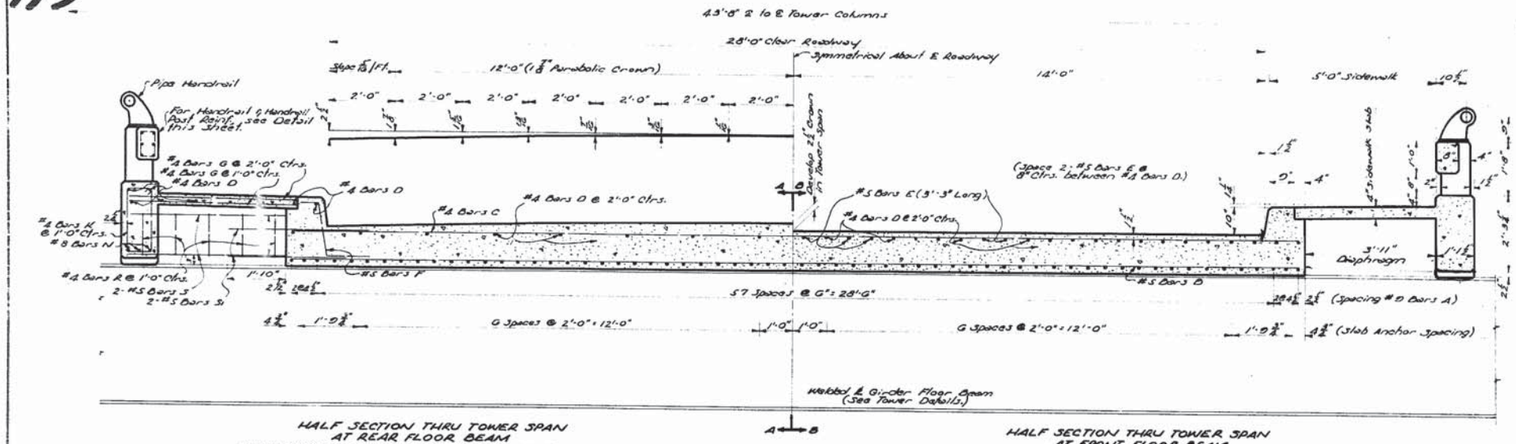
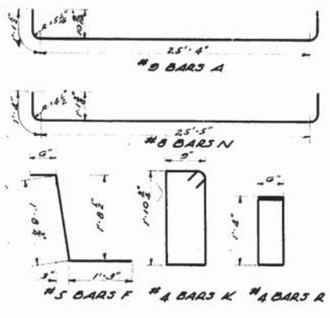
STATE PROJECT	PARISH	SHEET NO
64-00-116	Lafourche	28



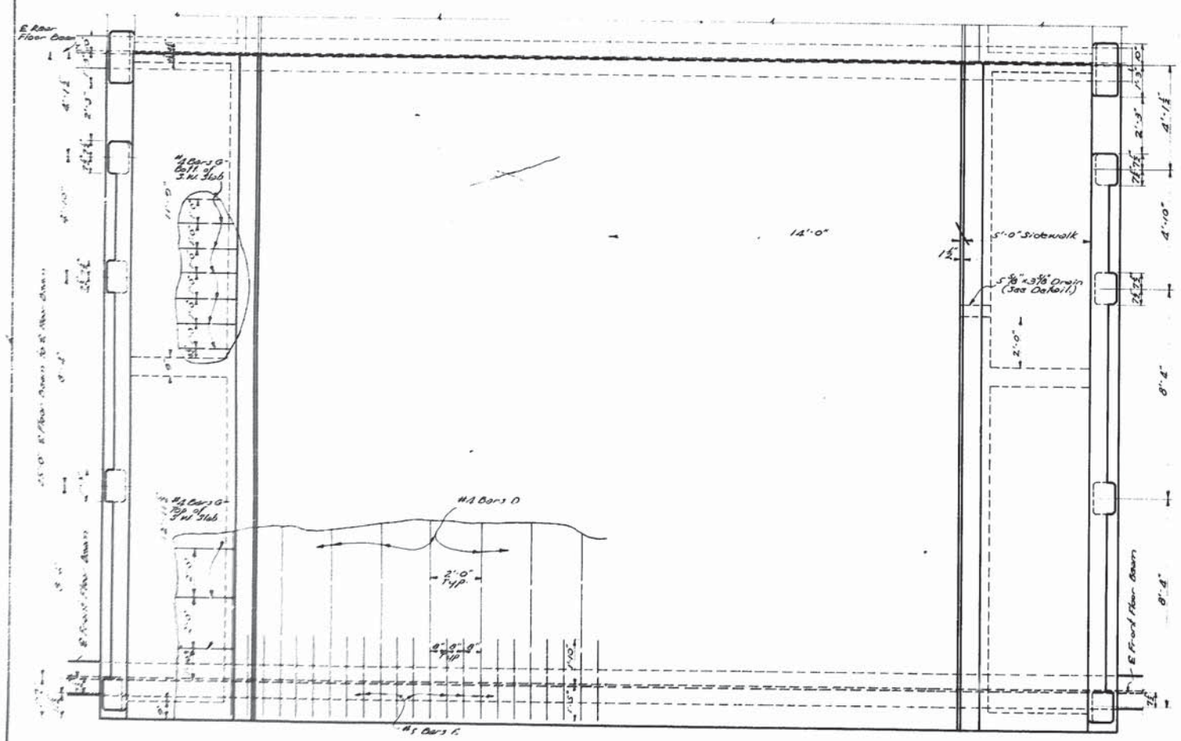
HALF SECTION THRU TOWER SPAN AT REAR FLOOR BEAM
SHOWING TYPICAL SIDEWALK AND HANDRAIL REINFORCEMENT

HALF SECTION THRU TOWER SPAN AT FRONT FLOOR BEAM
SHOWING TYPICAL SIDEWALK AND HANDRAIL DIMENSIONS



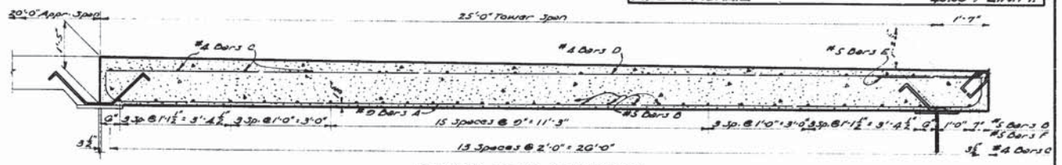
BILL OF MATERIAL (ONE SPAN)

BAR	SIZE	No	LENGTH	TOTAL LENGTH	LOCATION
A	#9	62	27'-4"	1694'-8"	Longit. in Slab
TOTAL No 9 BARS = 1694'-8" = 5702 LBS.					
N	#8	6	28'-1"	168'-6"	Longit. in S.W. Beam
TOTAL No 8 BARS = 168'-6" = 450 LBS.					
D	#5	20	30'-0"	870'-0"	Transv. Bott. of Slab
E	#5	30	3'-3"	97'-6"	Top of Slab @ Cont. End
F	#5	58	3'-6"	203'-0"	Curb
S	#5	8	4'-10"	38'-8"	Diaphragm
S1	#5	8	3'-8"	29'-4"	Diaph. to Slab Dowels
TOTAL No 5 BARS = 1298'-6" = 1202 LBS.					
C	#4	14	30'-0"	420'-0"	Transv. in Top of Slab
D	#4	34	26'-2"	889'-8"	Longit. Top Slab & S.W.
G	#4	72	5'-2"	372'-0"	Top & Bott. Transv. in S.W.
K	#4	54	6'-3"	337'-6"	Stirrups in S.W. Beam
R	#4	30	4'-2"	125'-0"	Stirrups in Diaph.
TOTAL No 4 BARS = 2164'-2" = 1432 LBS.					
TOTAL REINFORCING STEEL =				3033	LBS.
TOTAL CLASS "A" CONCRETE =				40.2	CU. YDS.
FABRICATED CARBON STEEL =				577	LBS.
CONCRETE HANDRAIL				45.90	LIN. FT.
PIPE HANDRAIL				45.90	LIN. FT.

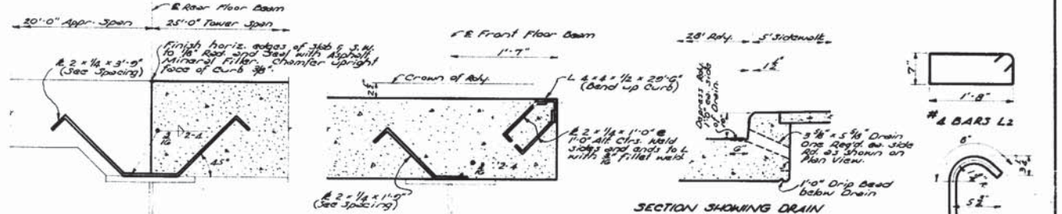


HALF PLAN
SHOWING HANDRAIL ON SIDE OPPOSITE STAIRS AND REINFORCEMENT AS NOTED

HALF PLAN
SHOWING HANDRAIL SPACING ON STAIR SIDE



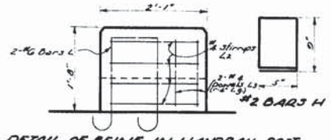
SECTION ALONG ℄ ROADWAY



SECTION A-A

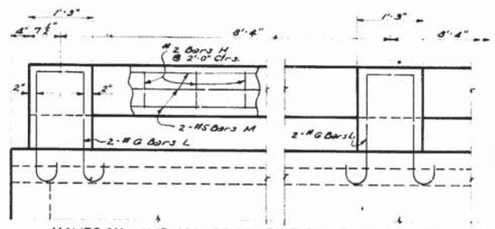
SECTION B-B

SECTION SHOWING DRAIN



DETAIL OF REINF. IN HANDRAIL POST AT CONSTRUCTION JOINT

HANDRAIL AND HANDRAIL POST ON STAIR SIDE
OTHER SIDE SIMILAR BUT OPPOSITE HAND



HANDRAIL AND HANDRAIL POST REINFORCEMENT

TOWER SPAN

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0 LIFT OPEN STEEL GRID FLOOR
DATED FEB. 28, 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED AS MODIFIED
CHECKED GLP	CHECKED GLP	CHECKED

BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY
	REVISIONS	

SHEET 4 OF 26

SL50-150-28

AS BUILT PLANS

HAER No. LA-32

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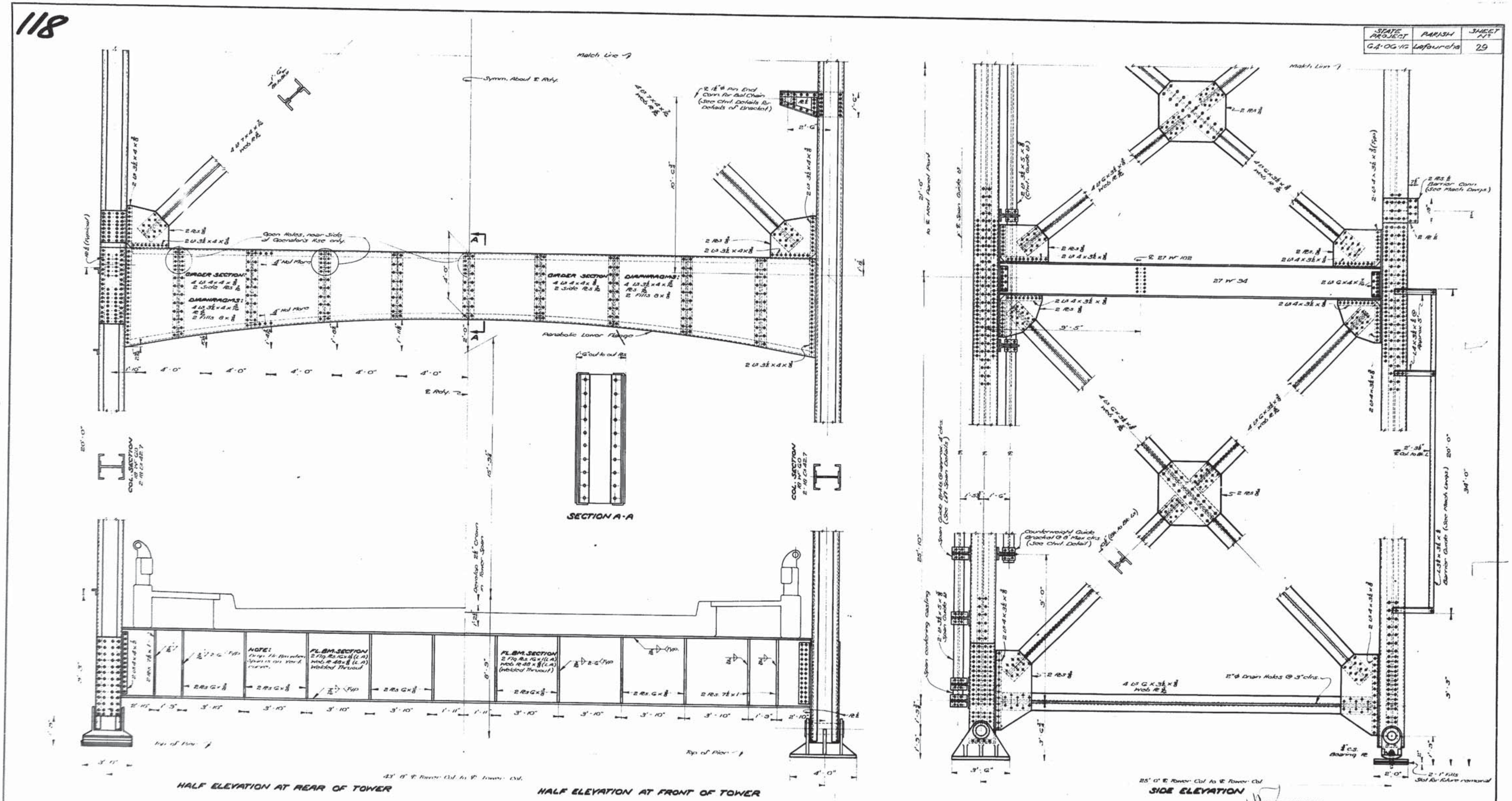
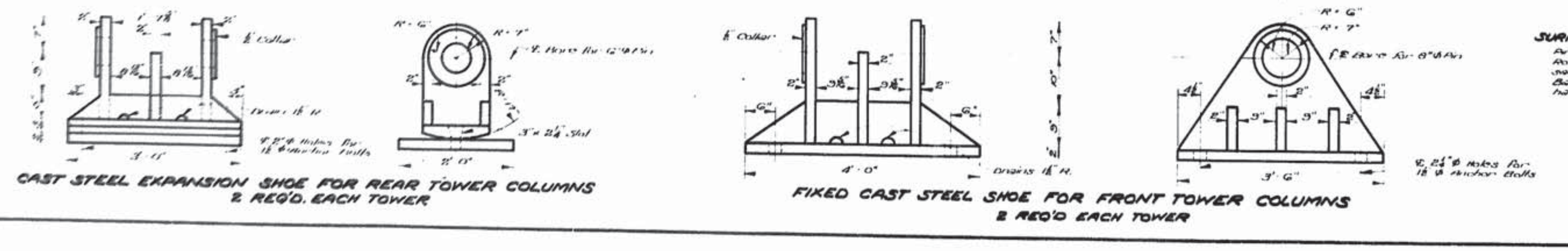
STATE PROJECT	PARISH	SHEET Nº
GA-OG-16	Lafourche	29



HALF ELEVATION AT REAR OF TOWER

HALF ELEVATION AT FRONT OF TOWER

SIDE ELEVATION



CAST STEEL EXPANSION SHOE FOR REAR TOWER COLUMNS
2 REQ'D. EACH TOWER

FIXED CAST STEEL SHOE FOR FRONT TOWER COLUMNS
2 REQ'D EACH TOWER

SURFACE FINISHES:
Pin and Pin holes to have A.S.A. 125 Fin.
Rocker shoes and parts in contact with same to have A.S.A. 250 Fin.
Base of Castings and bearing plates to have A.S.A. 2M Fin.

TOWER DETAILS

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY
45'-0" LIFT
5'-0" SIDEWALKS
OPEN STEEL GRID FLOOR
DATED April 30, 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED R. Juminge	DETAILED R. Juminge	TRACED O. Andens
CHECKED S.L.P.	CHECKED S.L.P.	CHECKED S.L.P.

BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY

REVISIONS

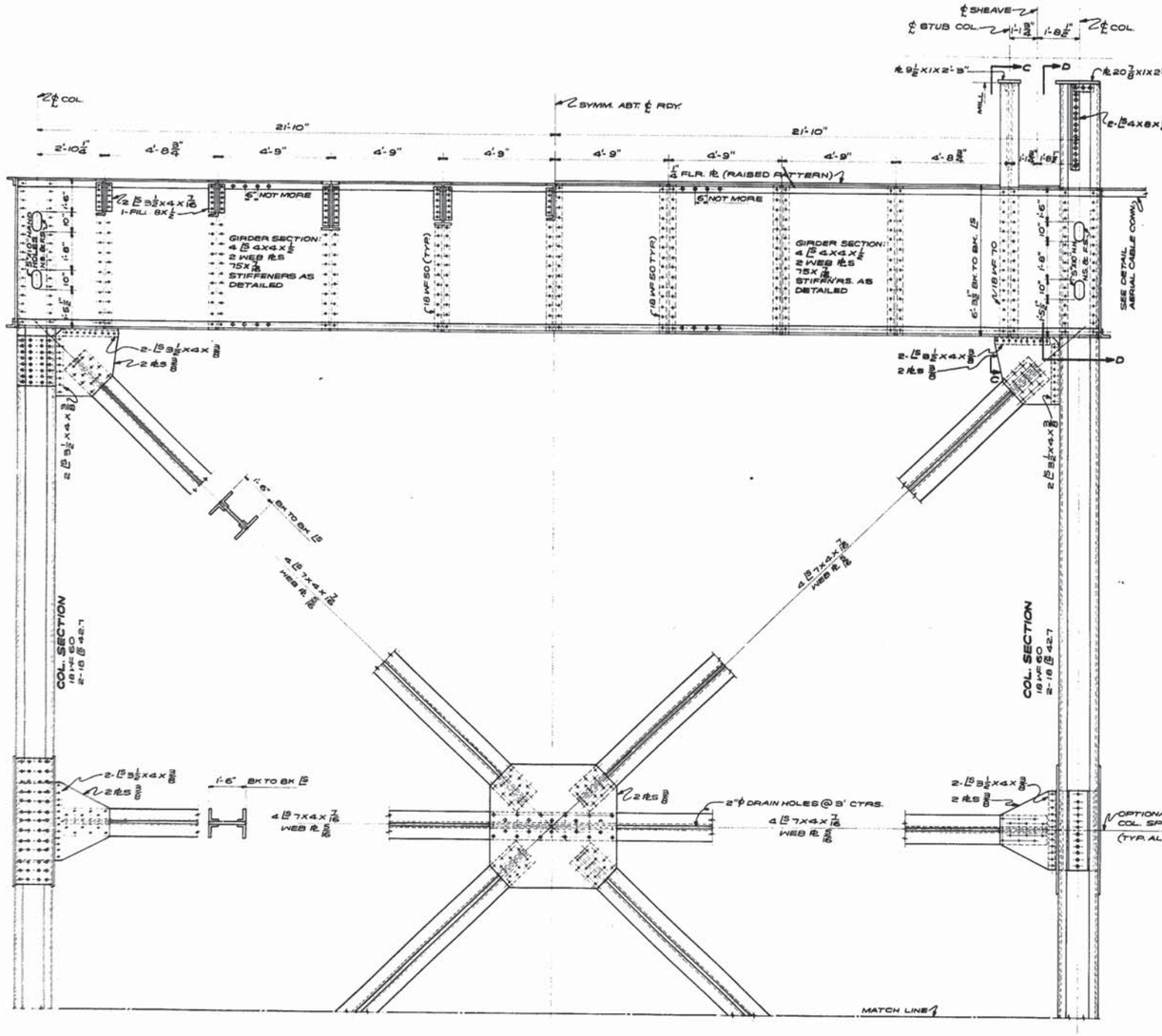
SHEET 5 OF 26

SL50-150-28

AS BUILT PLANS

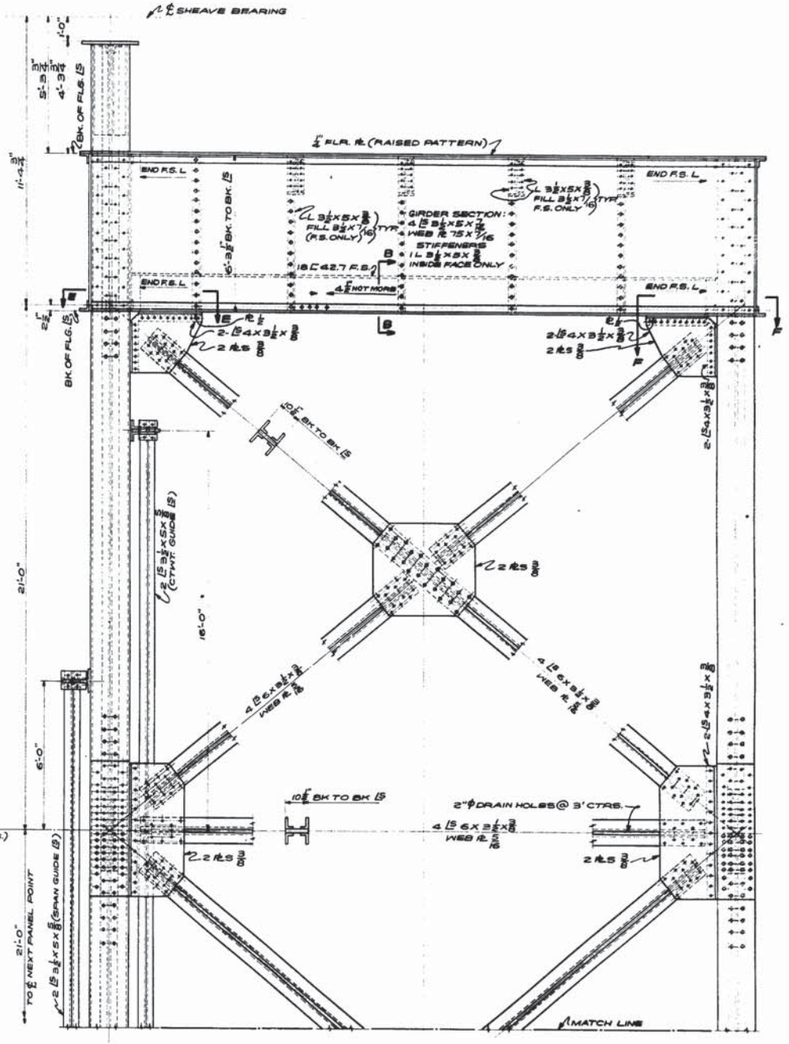
119

STATE PROJECT	PARISH	SHEET NO.
04-06-12	Lafourche	30

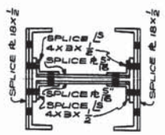


HALF ELEVATION AT REAR OF TOWER

HALF ELEVATION AT FRONT OF TOWER



SIDE ELEVATION



SECTION THRU TYPICAL OPTIONAL COLUMN SPLICE

NOTE: SEE SHEET N° 7 OF 26 FOR SECTION B-B, C-C, D-D, E-E AND F-F

TOWER DETAILS

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
APRIL 23 57

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
S.L.P. S.L.P. S.L.P.
BRIDGE DESIGN SECTION

REVISIONS

SHEET 6 OF 26

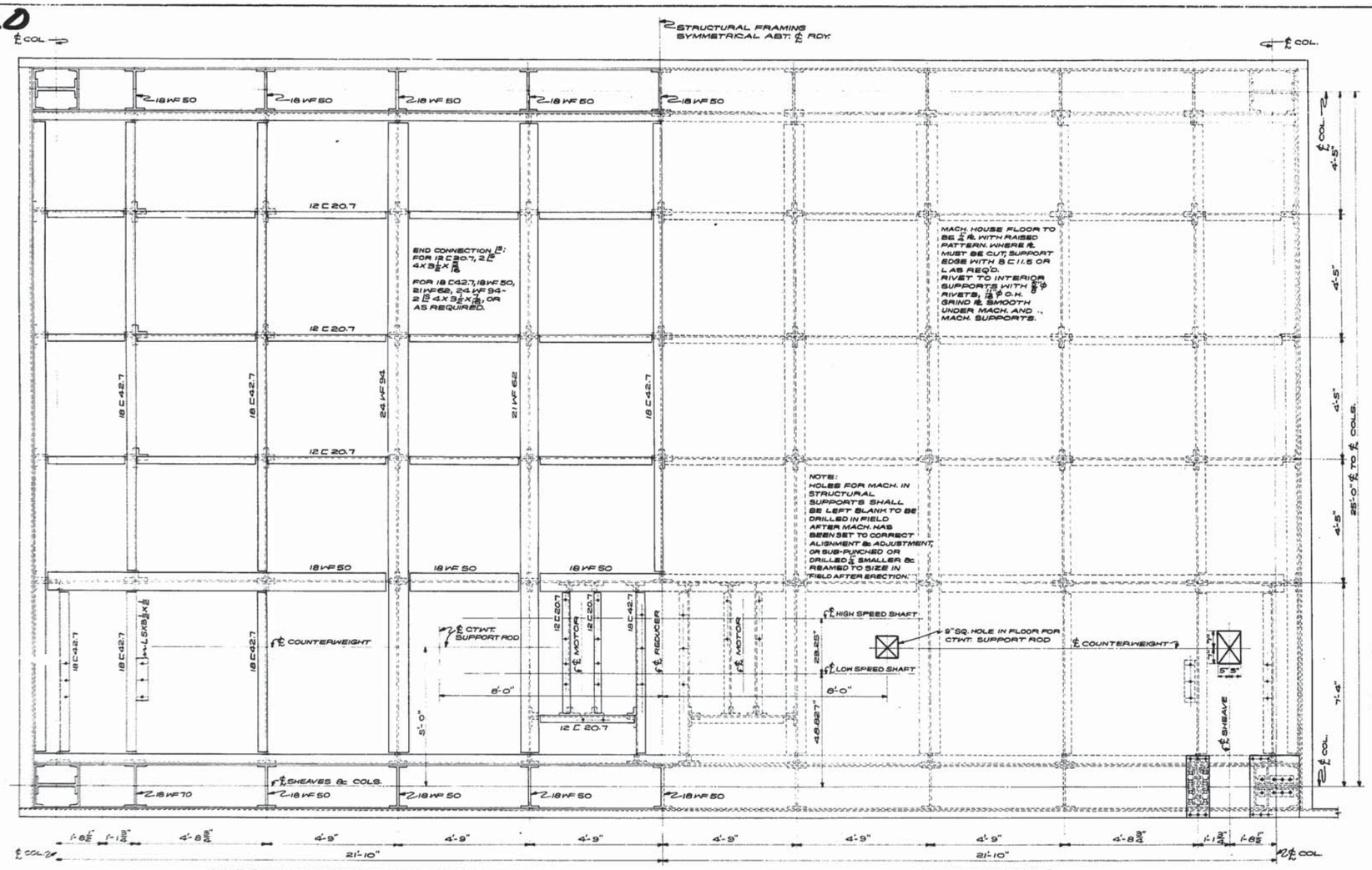
SL50-150-28

AS BUILT PLANS

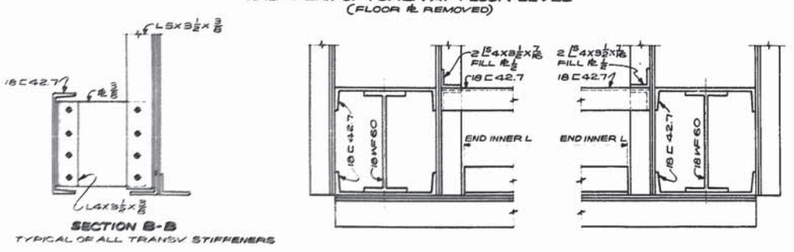
HAER No. LA-32

20

STATE PROJECT	PARISH	SHEET NO
61-02-19	Lafourche	31



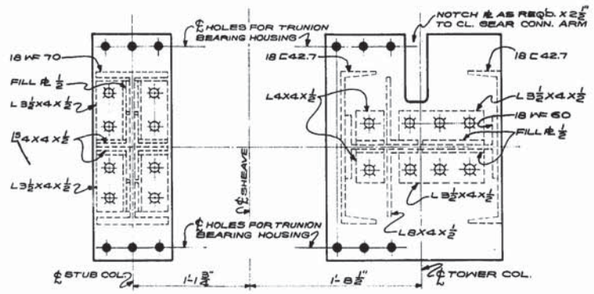
HALF PLAN OF TOWER AT FLOOR LEVEL
(FLOOR ℄ REMOVED)



SECTION B-B
TYPICAL OF ALL TRANSV STIFFENERS

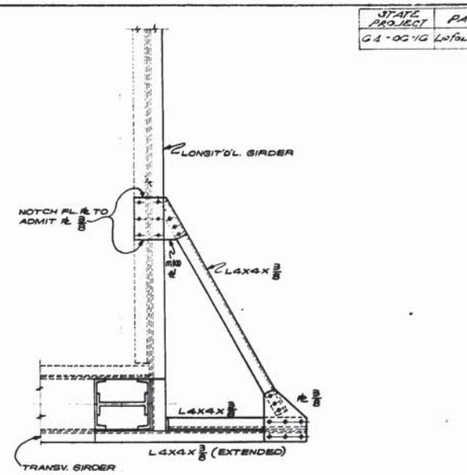
SECTION E-E

SECTION F-F



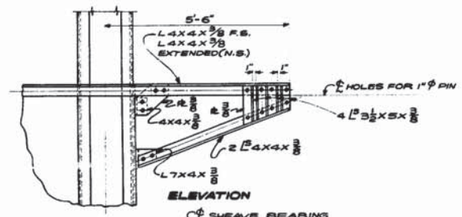
PLAN VIEW AT TOP OF STUB AND TOWER COLUMNS

HALF PLAN TOWER

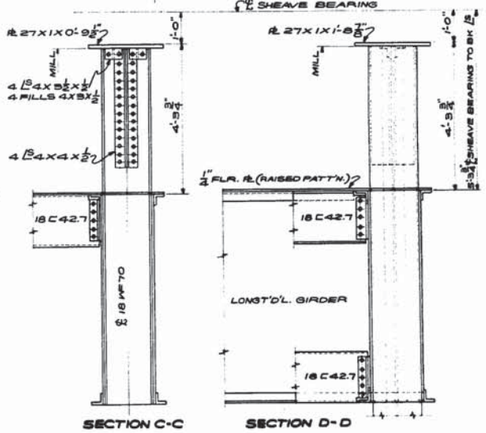


PLAN

DETAILS AERIAL CABLE BRACKET (4 REQ'D.)



ELEVATION



SECTION C-C

SECTION D-D

NOTE:
FOR DETAIL OF CHANNEL ℄ AROUND MACHINERY HOUSE, SEE DETAILS OF MACHINERY HOUSE.

TOWER DETAILS

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED APRIL 29 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
CHIEF ENGINEER S.E. | DIRECTOR OF PUBLIC WORKS S.E. | CHAIRMAN S.E.
BRIDGE DESIGN SECTION

DATE | DESIGNED | REVISIONS

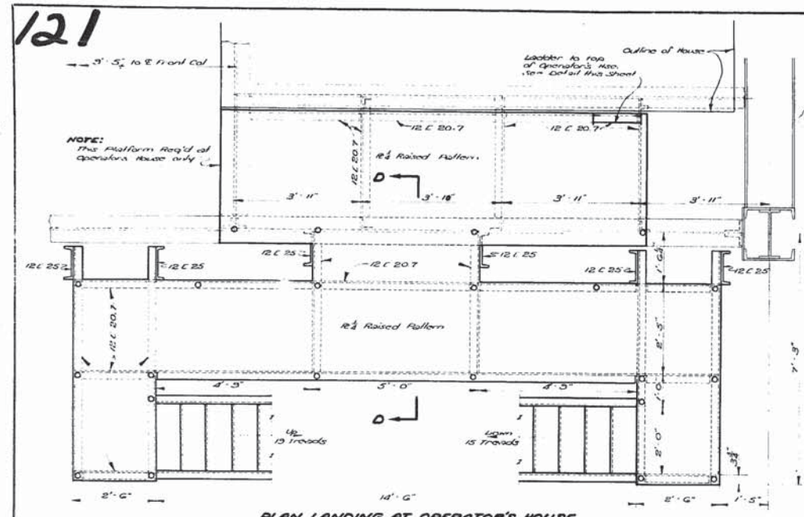
SHEET 7 OF 26

SL50-150-28

AS BUILT PLANS

121

STATE PROJECT	PARISH	SHEET No
62-06-16	Lafourche	32



PLAN LANDING AT OPERATOR'S HOUSE

SECTION B-B

SECTION D-D

TYPICAL BRACKET DETAIL AT INTERMEDIATE LANDINGS

TYPICAL CONN. DETAIL 12 ℄ TO BRACING

SIDE ELEVATION

REAR ELEVATION

NOTE: PIPE HR NOT SHOWN THIS VIEW

VIEW A-A

PLAN AT TOWER SPAN SIDEWALK

DETAIL OF TREAD SPACING

SECTION C-C

SECTION E-E

PLAN LANDING AT MACH. HOUSE

LADDER DETAIL

4 REQ'D. TOTAL FOR PIERS
1 REQ'D. AT OP. HSE

NOTES FOR STAIRWAYS & LANDINGS:

Frame all stairway landings with 12 B 20.7 unless otherwise shown. Conn. ∠s to be ∠s 4 x 3½ x ⅜ unless otherwise shown or required. All stair stringers to be 10 B 15.3. Stair treads to be Irving Type DD X Bar "Kablok S-Steps", 9⅝" wide with ⅜" bearing bars, or approved equal. Stair landings and platforms to have ¼" Floor ℞ with raised pattern.
All Pipe Handrail to be 1½" ⌀ Std Black Pipe. Use ⅞" rivets with 15/16" open holes for stairway conns. Use ⅝" rivets with 11/16" open holes for connecting floor ℞ to supports. Countersink all exposed rivets on walking surfaces. Pay't Handrail, stairways, landings, treads and floor plate to be classified and paid for as fabricated Carbon Steel.

TOWER STAIRWAY DETAILS

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED April 24, 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED D Anders
CHECKED S.L.R.	CHECKED S.L.R.	CHECKED S.L.R

BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY

REVISIONS

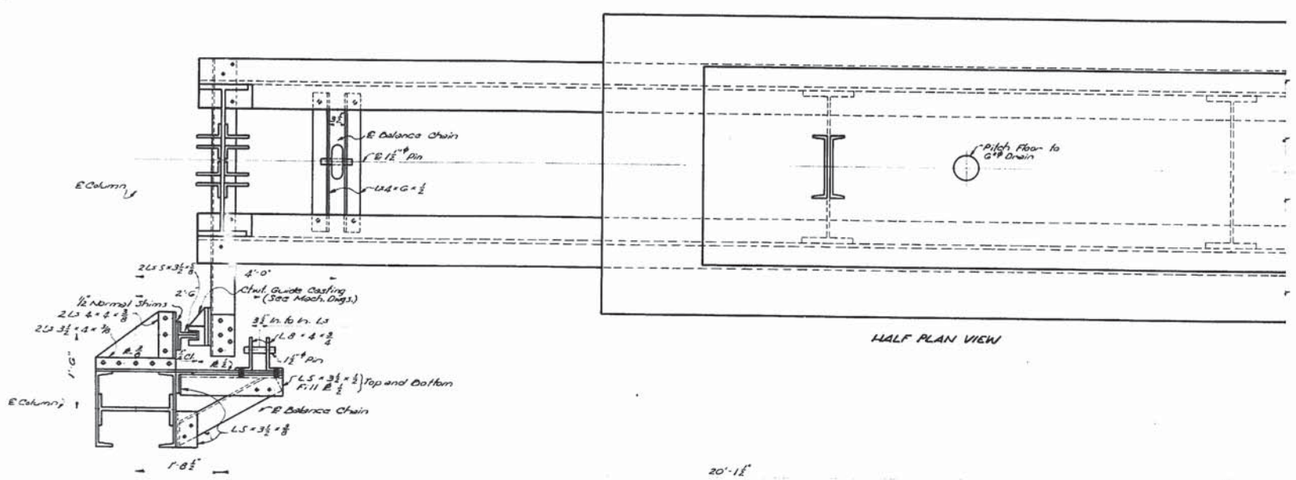
SHEET 8 OF 26

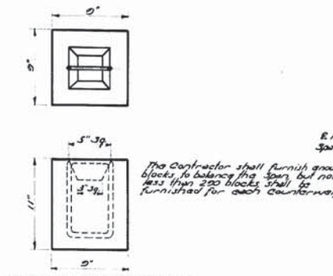
SL50-150-28

AS BUILT PLANS

122

STATE PROJECT	PARISH	SHEET NO.
GA-00-16	Lafourche	33





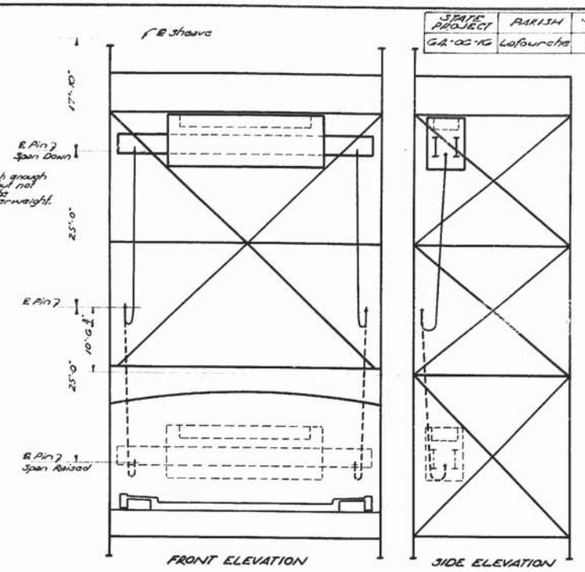
CONCRETE COUNTERWEIGHT ADJUSTING BLOCKS *

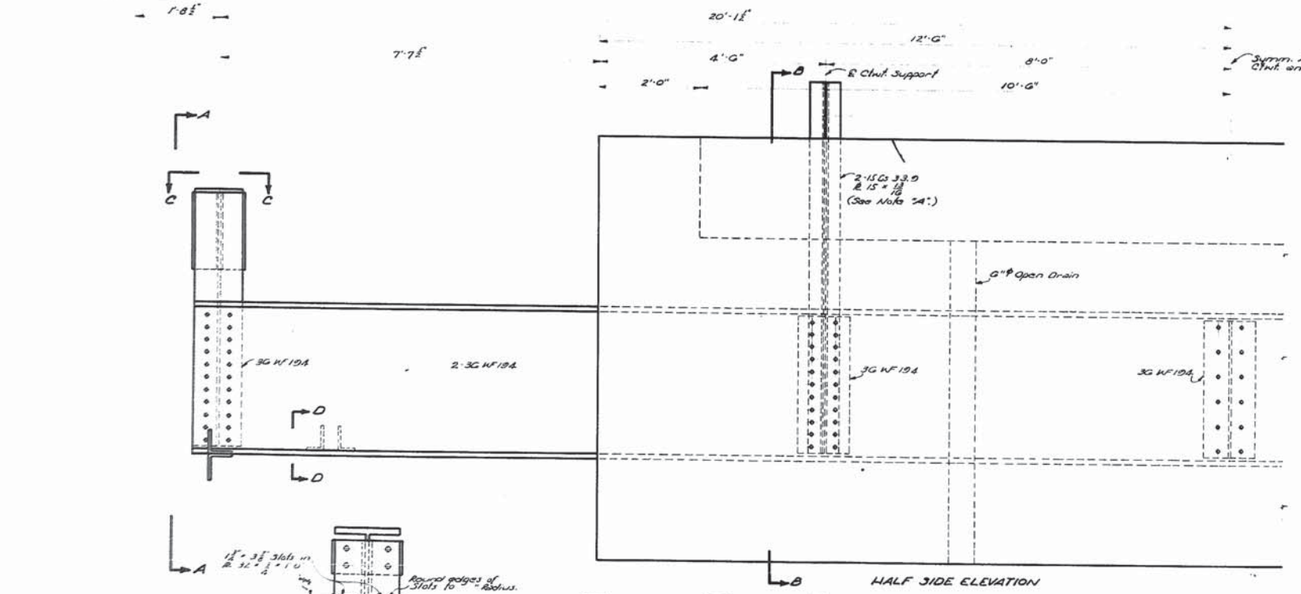
* To be included in Class "A" Concrete in Counterweight.

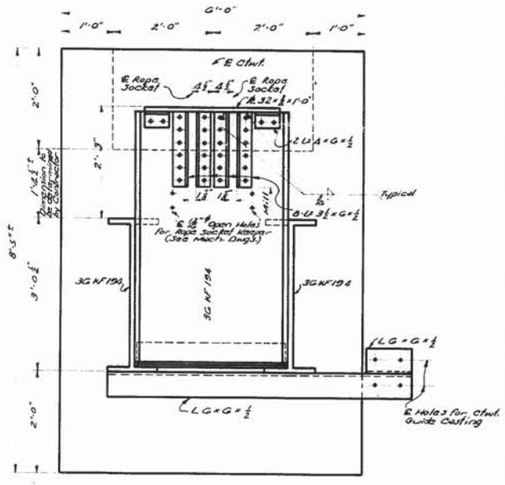
The Contractor shall furnish enough blocks to balance the span, but not less than 220 blocks, shall be furnished for each counterweight.

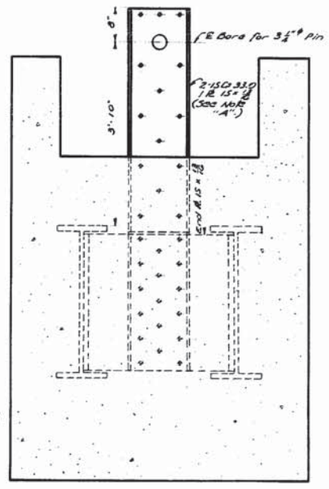
BALANCE CHAINS:
(4) Balance chains required, (2) per counterweight, each approx. 85' long. Balance Chains to be 2⅞" NS Alloy X-1 Grade Iron Chains as listed in Woodward, Wright & Co. Cat. N° 90, or approved equal. Desired weight of chain is 27.7 lbs. per ft. throughout; the weight per foot of chain shall be not more than 28 lbs. and not less than 26 lbs.
Balance chains are to be galvanized.

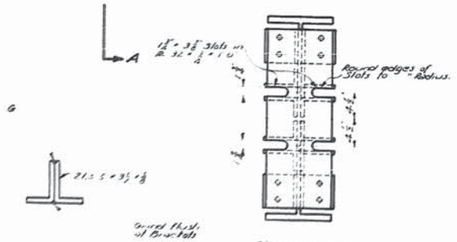
Approx. wt. of (4) chains = 9478 Lbs.
Balance Chains will be paid for per lump sum.



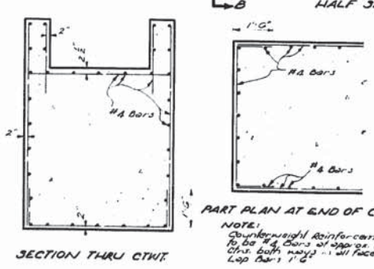




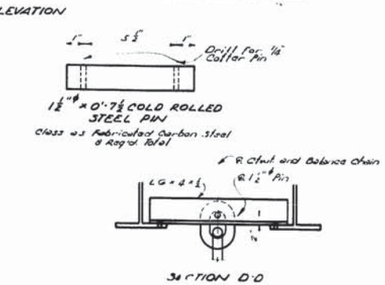




WELDING DETAIL FOR COUNTERWEIGHT GUIDE LS



NOTE:
Counterweight Reinforcement to be #4 Bars at spacing not to exceed 12" Ctwt. both ways in all faces. Lap Bars 1'-6"



	SPAN CLOSED	SPAN RAISED
Wt. of Span	385.5 Kips	385.5 Kips
Wt. of 50' of Ropes	3.4	3.4
	388.9 Kips	388.9 Kips
Wt. of 2 Ctwts.	380.2 Kips	380.2 Kips
Wt. of 50' of Ropes	3.4	3.4
Wt. of Balance Chains	6.8	6.8
	387.0 Kips	387.0 Kips

NOTE "A":
This material is classified as erection material and no direct payment will be made for same. See Sheet of Counterweight, Erection Details also.

COUNTERWEIGHT DETAILS

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED April 16 1951

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
DESIGNED [illegible] DETAILED [illegible] TRACED BY [illegible]
CHECKED J.L.P. CHECKED J.L.P. CHIEF ENG. J.L.P.
BRIDGE DESIGN SECTION

DATE DESIGNER REVISIONS

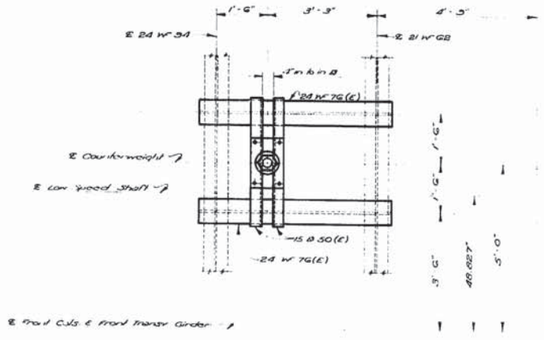
SHEET 9 OF 26

SL 50-150-28

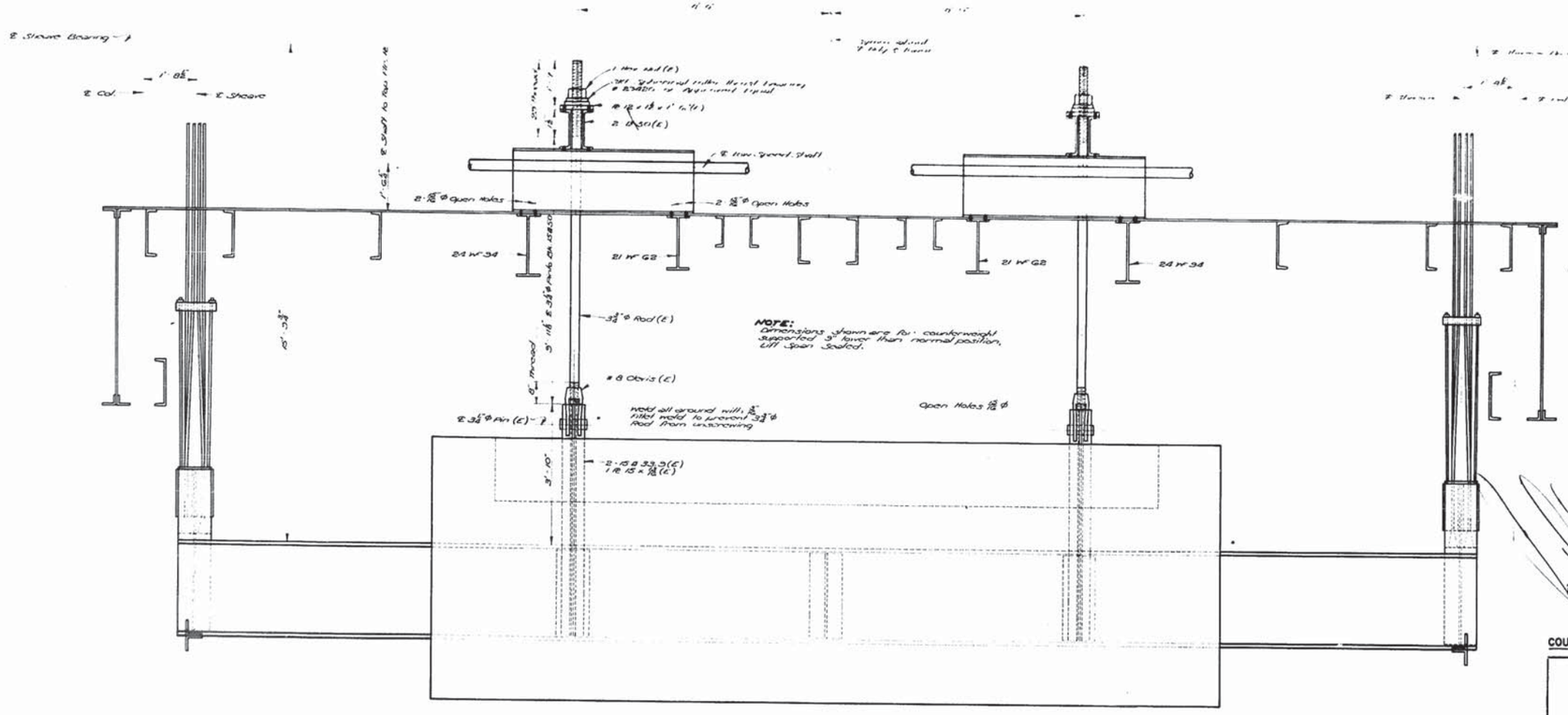
AS BUILT PLANS

123

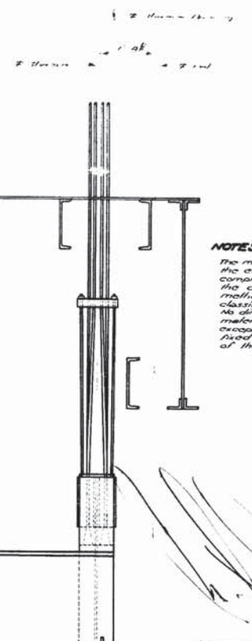
STATE PROJECT	PARISH	SHEET N°
64-00-16	Lafourche	34



PLAN VIEW AT SUPPORTING DEVICE



SUGGESTED METHOD OF SUPPORTING COUNTERWEIGHT DURING ERECTION



NOTES:

The method of supporting the counterweight in the event the contractor elects to float in the completed lift span is suggestive only, and the contractor may use any other satisfactory method of his choice. All items marked (E) are classified as erection material.

No direct payment will be made for erection material, and all material so classified, with the exception of E @ 33.3 and the 15 x ⅞ permanently fixed to counterweight, shall remain the property of the contractor.

COUNTERWEIGHT ERECTION DETAILS

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
26'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED May 3 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY

REVISIONS

SHEET 10 OF 26

SL50-150-28

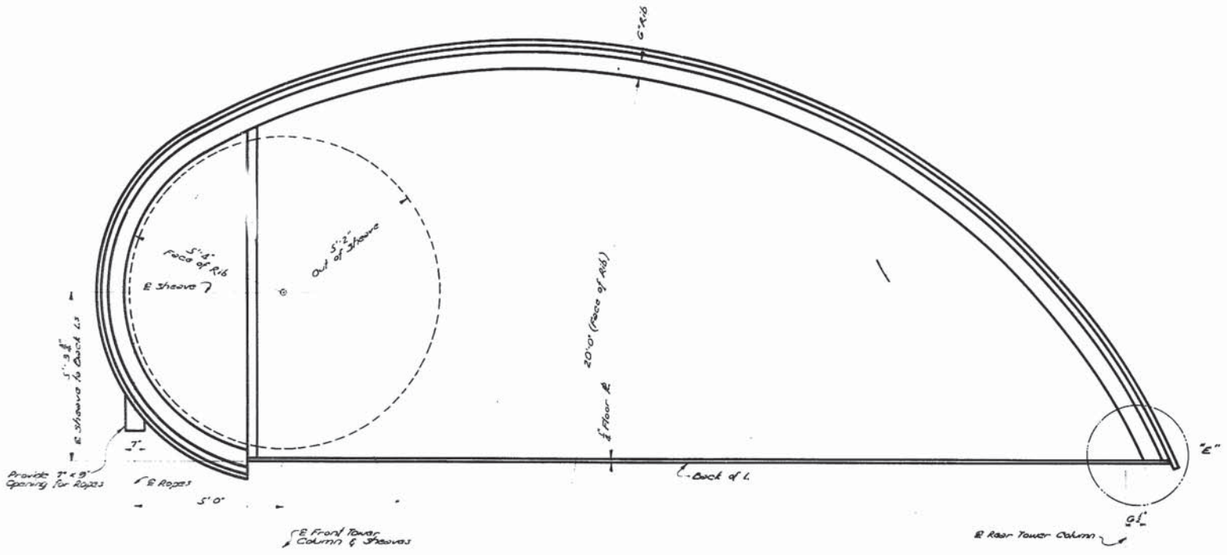
SIZE SHEET N. S. 15" x 22"

AS BUILT PLANS

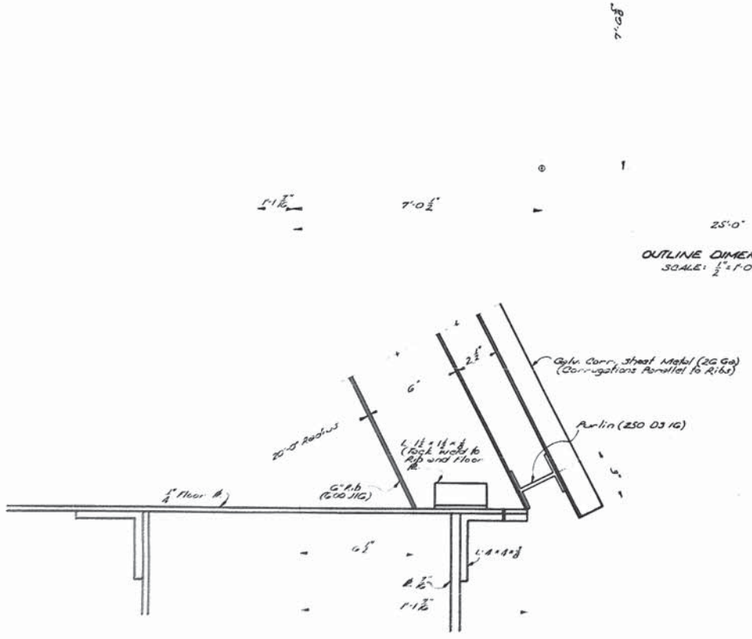
HAER No. LA-32

124

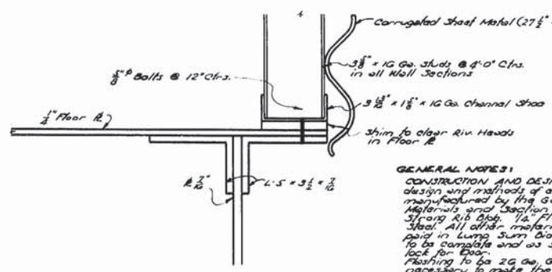
STATE PROJECT	PARISH	SHEET NO.
66-06-16	Lafourche	35



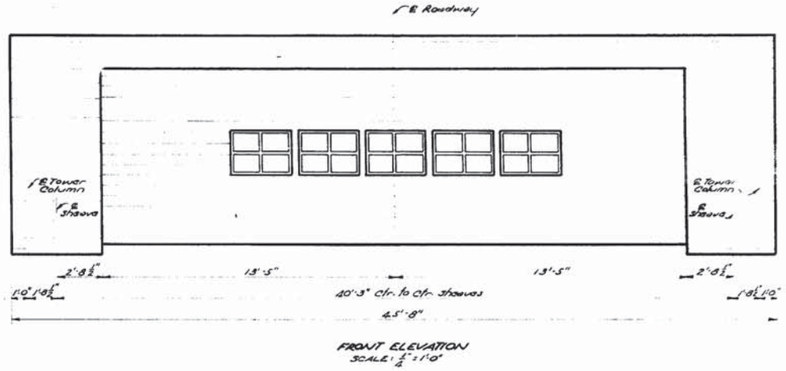
OUTLINE DIMENSIONS
SCALE: 1/2" = 1'-0"



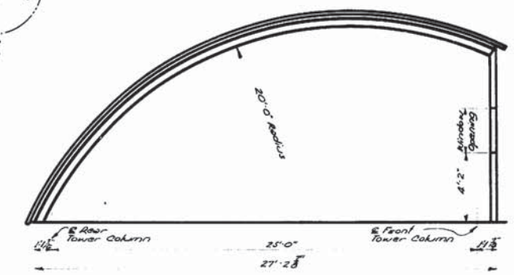
SECTION "E"



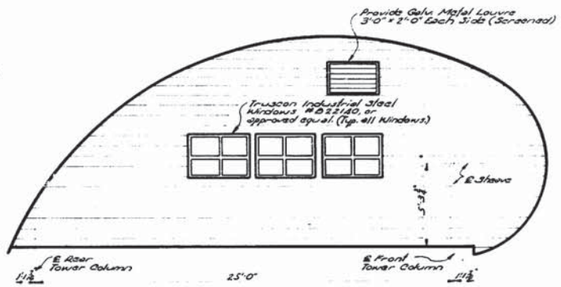
SIDE WALL CONNECTION DETAIL



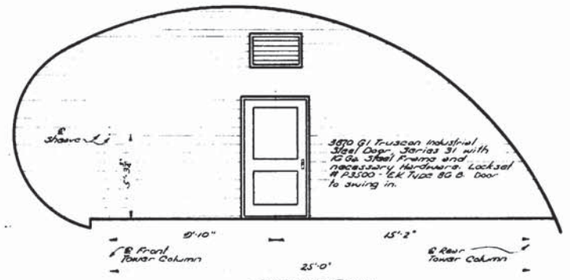
FRONT ELEVATION
SCALE: 1/4" = 1'-0"



SECTION ALONG E ROADWAY
SCALE: 1/4" = 1'-0"



SIDE ELEVATION
SCALE: 1/4" = 1'-0"



SIDE ELEVATION
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

CONSTRUCTION AND DESIGN SPECIFICATIONS: According to the latest design and methods of erection of the "40' STRONG RIB BLDG.", as manufactured by the Gordon-Taylor Steel Co. or an approved equal. Materials and Section to be the equivalent, or better, than the 40' Strong Rib Bldg. No. Floor & to be paint for as fabricated Carbon Steel. All other materials necessary to complete house are to be paid in Lump Sum Bid for "Machinery House". Door and windows to be complete and as specified, or an approved equal. Provide lock for Door.

Flashing to be 26 Ga. Galv. Sheet Metal, and provided where necessary to make the house substantially watertight.

Doors and Windows to be glazed with polished wire glass.

Provide necessary bracing in walls and ceiling.

Galv. Surfaces to receive two field coats of aluminum paint. All foreign material shall be removed from galv. Surfaces before painting. The Contractor will not be required to treat Galv. Surfaces with solution stipulated in Specifications "Painting of Metal Surfaces" Art. 4.13, Part 5, Div. II, 31st. Specs.

MACHINERY HOUSES

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED May 8 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED JMassenge	TRACED A.A.Mouricard
CHECKED	CHECKED Mann	CHECKED Mann

BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY
	REVISIONS	

SHEET 11 OF 26

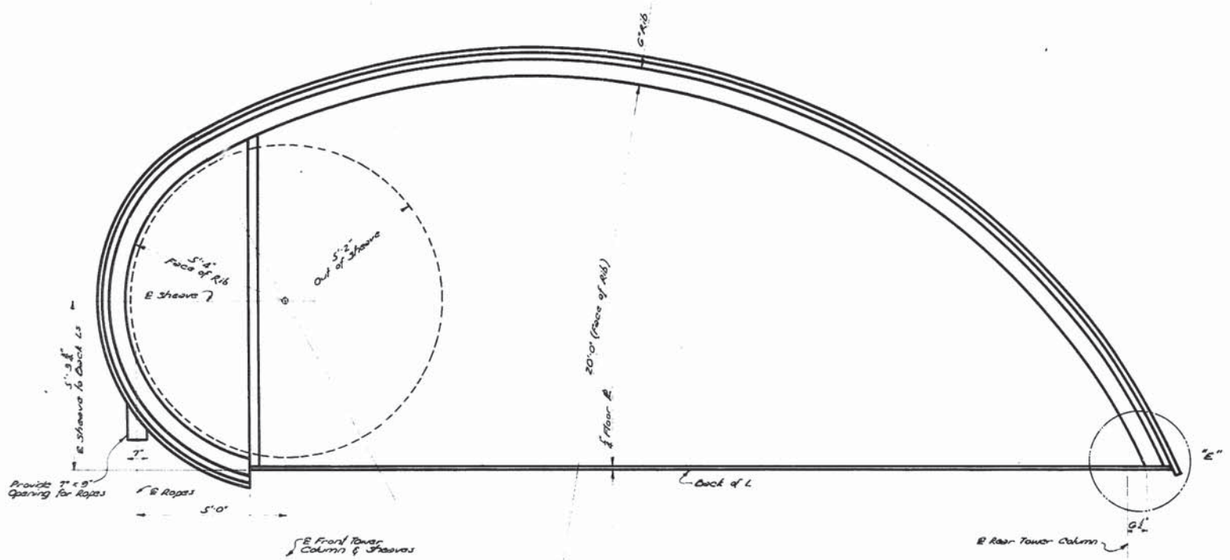
SL50-150-28

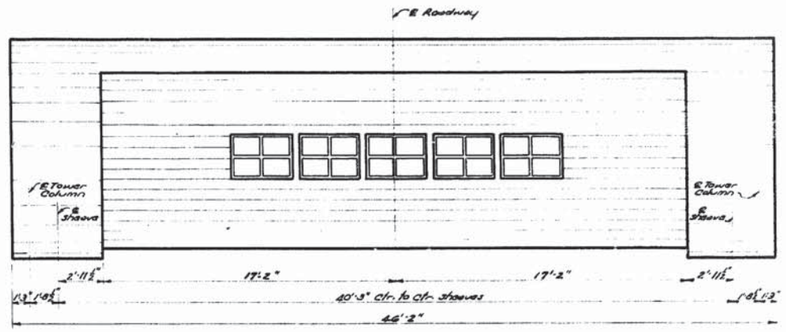
AS BUILT PLANS

HAER No. LA-32

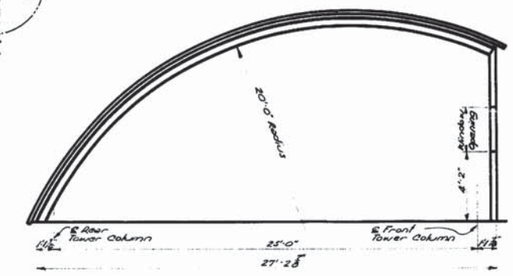
125

STATE PROJECT	PARISH	SHEET NO.
66-06-16	Lafourche	35

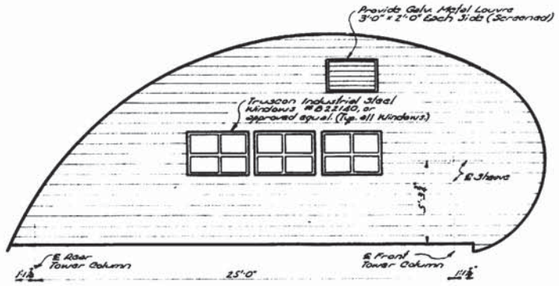




FRONT ELEVATION
SCALE: ½" = 1'-0"

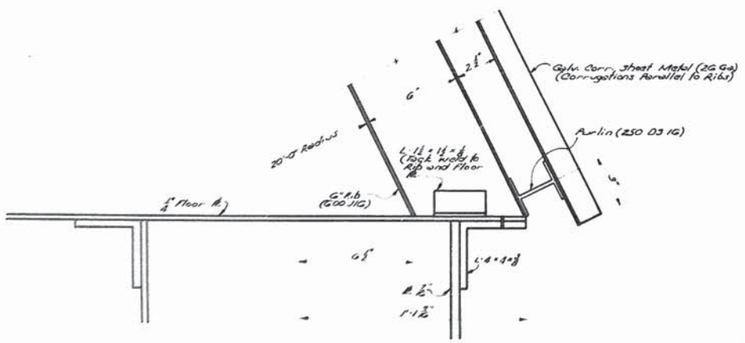


SECTION ALONG E ROADWAY
SCALE: ½" = 1'-0"

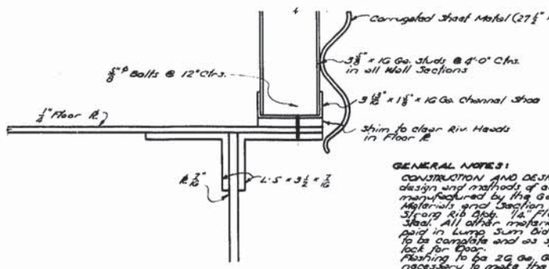


SIDE ELEVATION
SCALE: ½" = 1'-0"

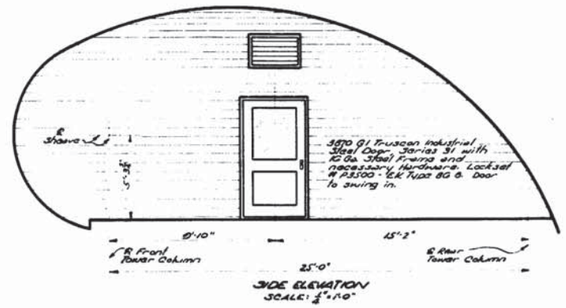
OUTLINE DIMENSIONS
SCALE: ½" = 1'-0"



SECTION "E"



SIDE WALL CONNECTION DETAIL



SIDE ELEVATION
SCALE: ½" = 1'-0"

GENERAL NOTES:
CONSTRUCTION AND DESIGN SPECIFICATIONS: According to the latest design and methods of erection of the "40' STRAND RIB BLDG.", as manufactured by the Gaston Taylor Steel Co. or an approved equal. Materials and section to be the equivalent of, or better than the 40' Strand Rib Bldg. ¼" floor ℄ to be paid for as Fabricated Carbon Steel. All other materials necessary to complete house are to be paid in Lump Sum bid for "Machinery House". Door and windows to be complete and as specified, or an approved equal. Provide lock for door.
Flashing to be 26 Ga. Galv. Sheet Metal, and provided where necessary to make the house substantially watertight.
Doors and Windows to be glazed with polished wire glass.
Provide necessary bracing in walls and ceiling.
Galv. Surfaces to receive two field coats of aluminum paint. All foreign material shall be removed from surface before painting. The Contractor will not be required to treat Galv. Surface with solution stipulated in "Specifications "Painting of Metal Surfaces" Art 4.13, Part 5, Div. II, 31st. Specs.

MACHINERY HOUSES

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED May 8, 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED M. MONCRIEF
CHECKED	CHECKED	CHECKED

BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY
3.5.59	Dimens. Front Elev.	RG/EN

REVISIONS

SHEET 11 OF 28

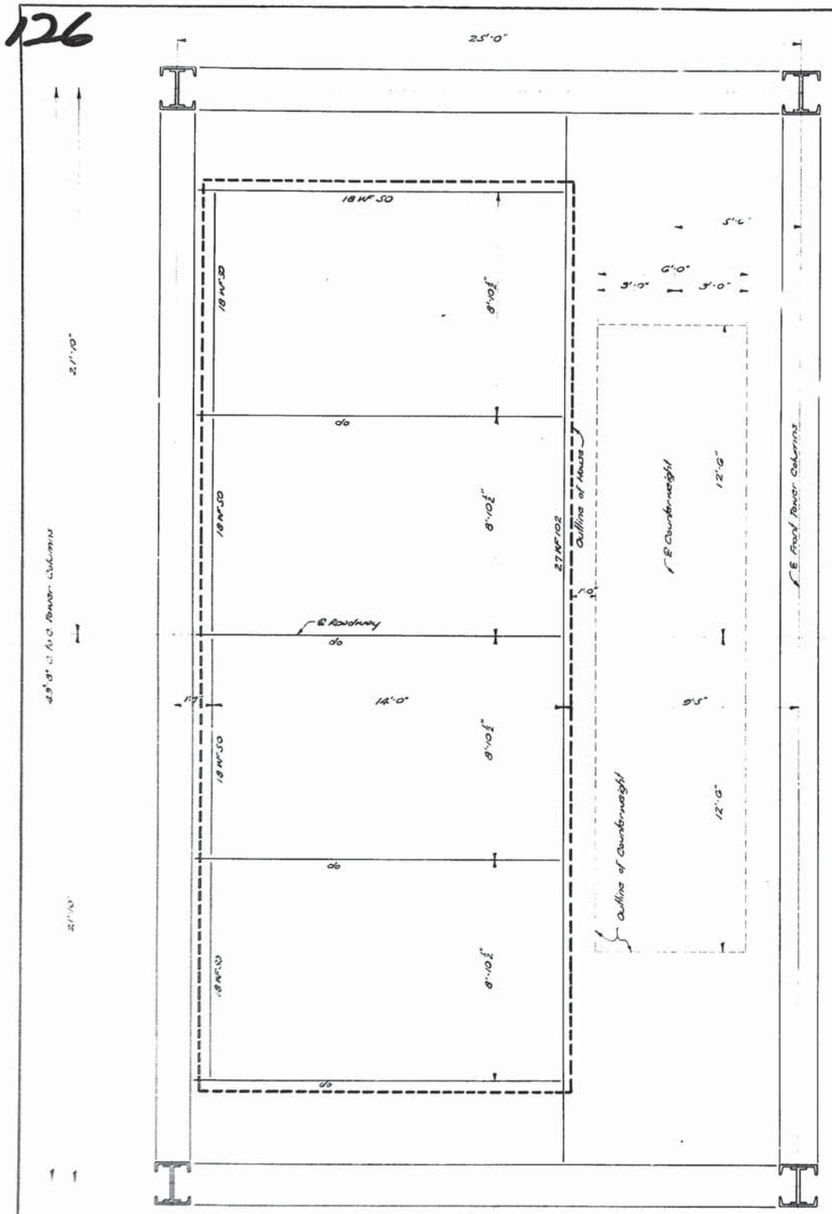
SI 50-150-28

AS BUILT PLANS

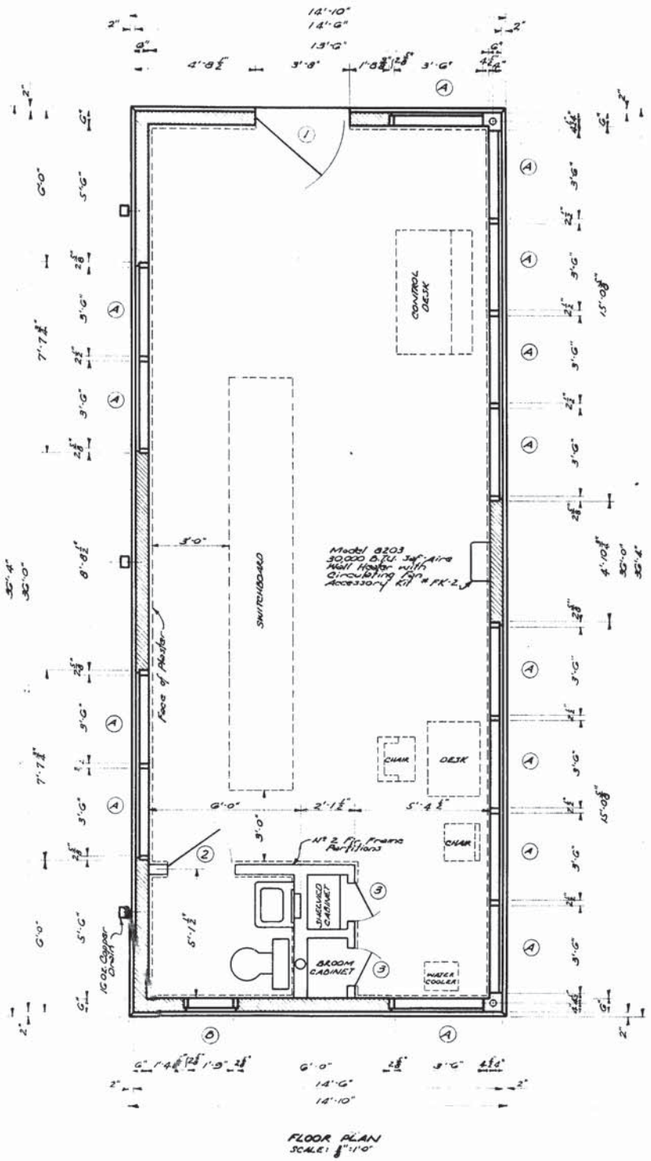
HAER No. LA-32

126

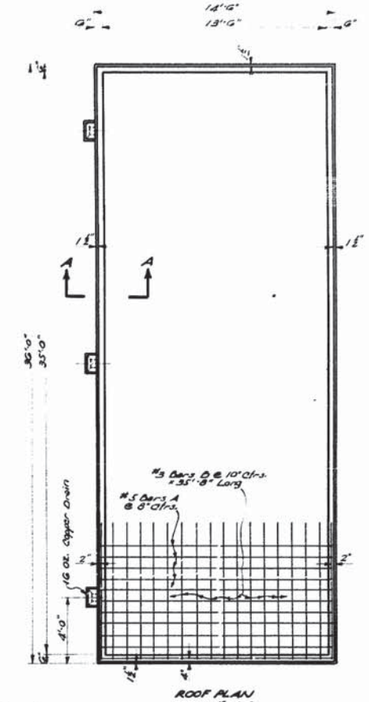
STATE PROJECT	PARISH	SHEET NO.
64-06-16	Lafourche	36



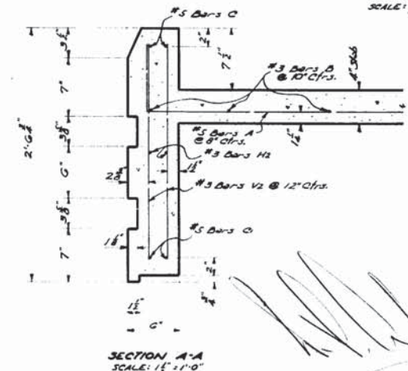
PLAN
SHOWING HOUSE LOCATION AND STRUCTURAL STEEL LOCATION
SCALE: 1/8" = 1'-0"



FLOOR PLAN
SCALE: 1/4" = 1'-0"



ROOF PLAN
SCALE: 1/4" = 1'-0"



SECTION A-A
SCALE: 1/4" = 1'-0"

DOOR AND WINDOW SCHEDULE

MARK	SIZE	TYPE	STYLE	REMARKS
1	3'-4" × 7'-0" × 1 3/4"	Jalousie	42 Glass	Aluminum Frame
2	2'-6" × 6'-8" × 1 3/8"	Flush	Steel	Steel Metal Frame
3	1'-6" × 6'-8" × 1 3/8"	Flush	Steel	Steel Metal Frame
A	3'-6" × 6'-1 3/8"	Jalousie	6 3/8 Glass	Aluminum Frame G33-T5
B	1'-9" × 2'-2 3/8"	Jalousie	6 3/8 Glass	Aluminum Frame G33-T5

FINISH SCHEDULE

ITEM	WALLS		CEILING	FLOOR	BASE	TRIM	ROOF	WAINSCOT
	OUTSIDE	INSIDE						
House	Rubbed	Tile & Plaster	Plaster	Tile	Tile	Metal	Tar & Gravel	38" Above Floor
Toilet	-	Tile & Plaster	Plaster	Tile	Tile	Metal	-	30 Above Floor
Cabinets	Plaster	3/8" Plywood	Plaster	Tile	-	Metal	-	

NOTE:
All Aluminum surfaces to be placed in contact with, or fastened to, steel members shall be thoroughly coated with an approved aluminum impregnated caulking compound. All Aluminum surfaces to be placed in contact with concrete shall be given a heavy coat of an approved alkali-resistant bituminous paint, or a coat of Zinc Chromate paint and allowed to dry before placing on the concrete.

OPERATING HOUSE

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED May 13 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED & MONCRIEF
CHECKED	CHECKED	CHECKED

BRIDGE DESIGN SECTION

DATE DESCRIPTION REVISIONS

SHEET 12 OF 26

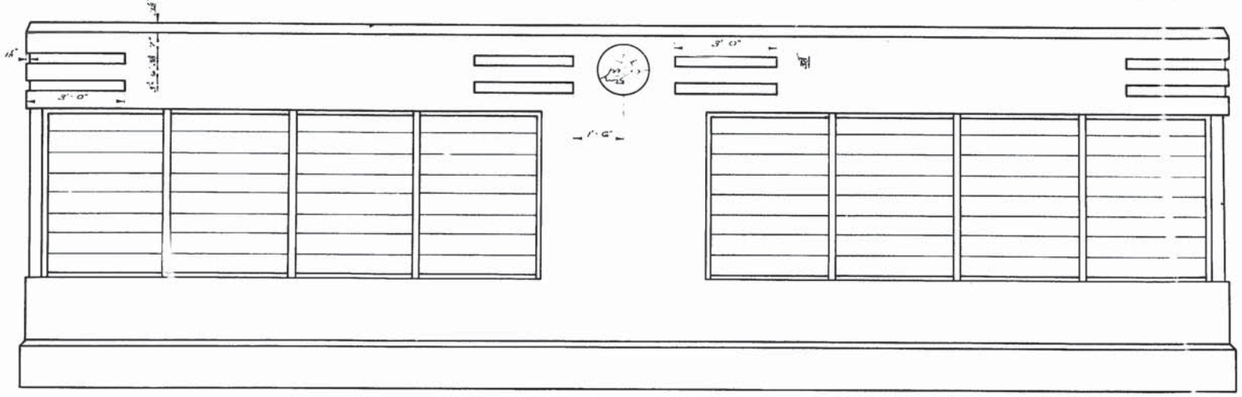
SL50-150-28

AS BUILT PLANS

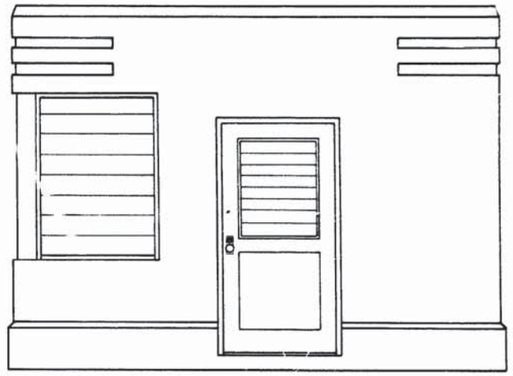
HAER No. LA-32

127

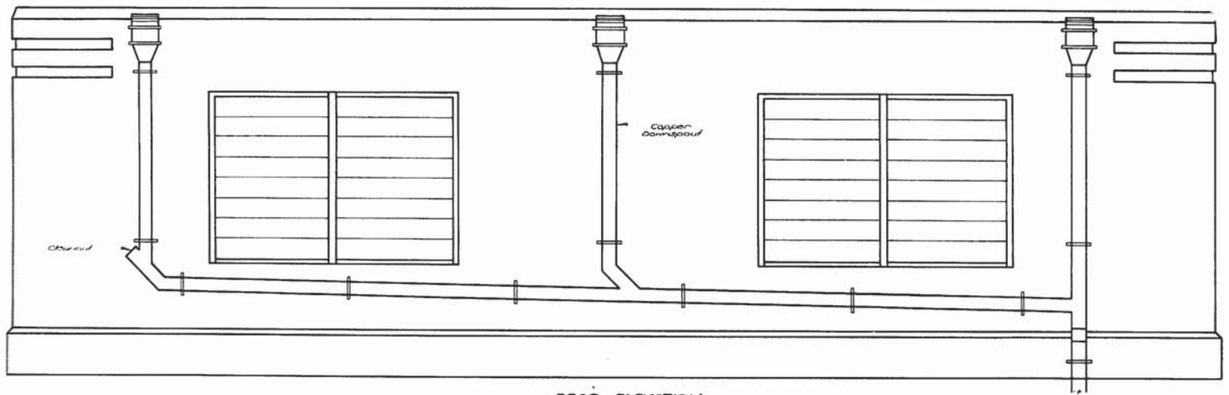
STATE PROJECT NO. 451314 SHEET NO. 37
CALCASIEU, LOUISIANA



FRONT ELEVATION
SCALE: 3/8" = 1'-0"



SIDE ELEVATION
SCALE: 3/8" = 1'-0"



REAR ELEVATION
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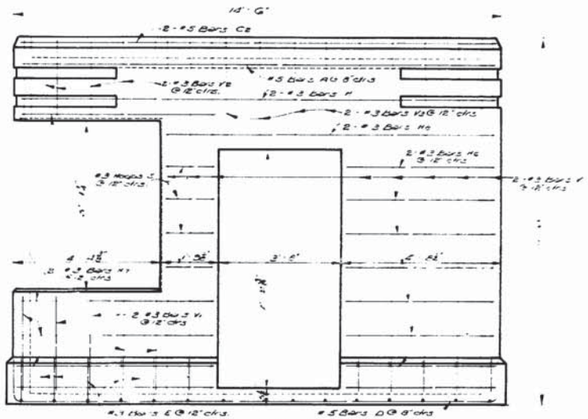
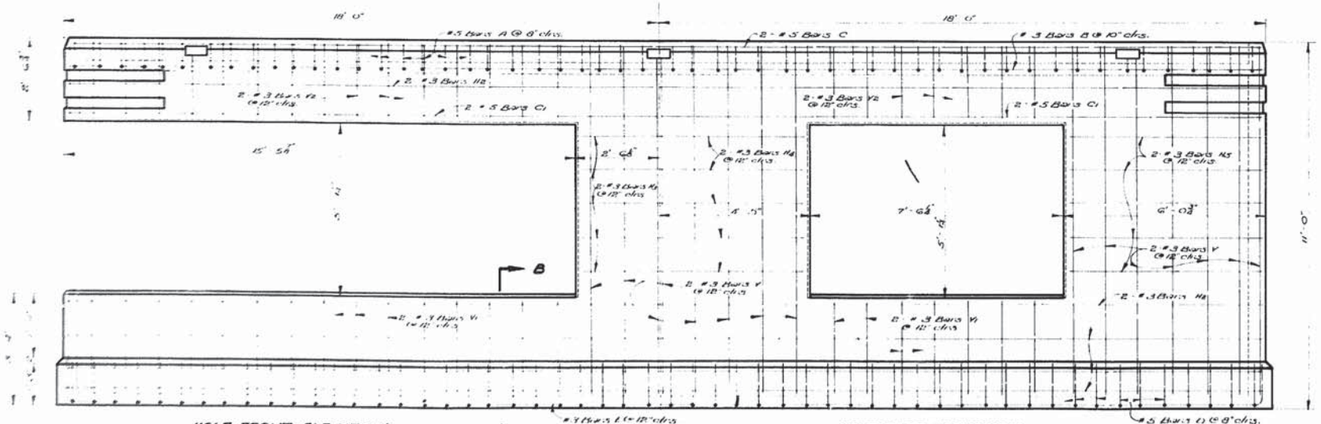
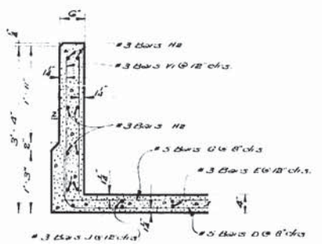


SIDE ELEVATION
SCALE: 3/8" = 1'-0"

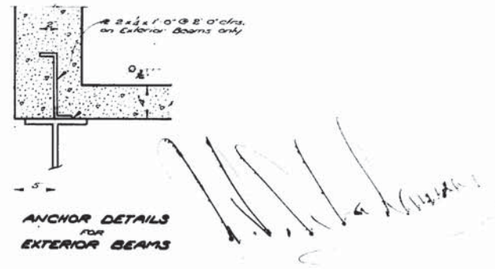


HALF FRONT ELEVATION
SHOWING REINFORCING
SCALE: 1/4" = 1'-0"

HALF REAR ELEVATION
SHOWING REINFORCING
SCALE: 1/4" = 1'-0"



SECTION B-B
SCALE: 1/4" = 1'-0"



ANCHOR DETAILS FOR EXTERIOR BEAMS

OPERATING HOUSE

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED May 13, 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED Mem	DETAILED Mem	TRACED O. Anders
CHECKED	CHECKED R. E. Land	CHECKED R. E. Land

BRIDGE DESIGN SECTION.

DATE	DESCRIPTION	BY

REVISIONS

SHEET 13 OF 26

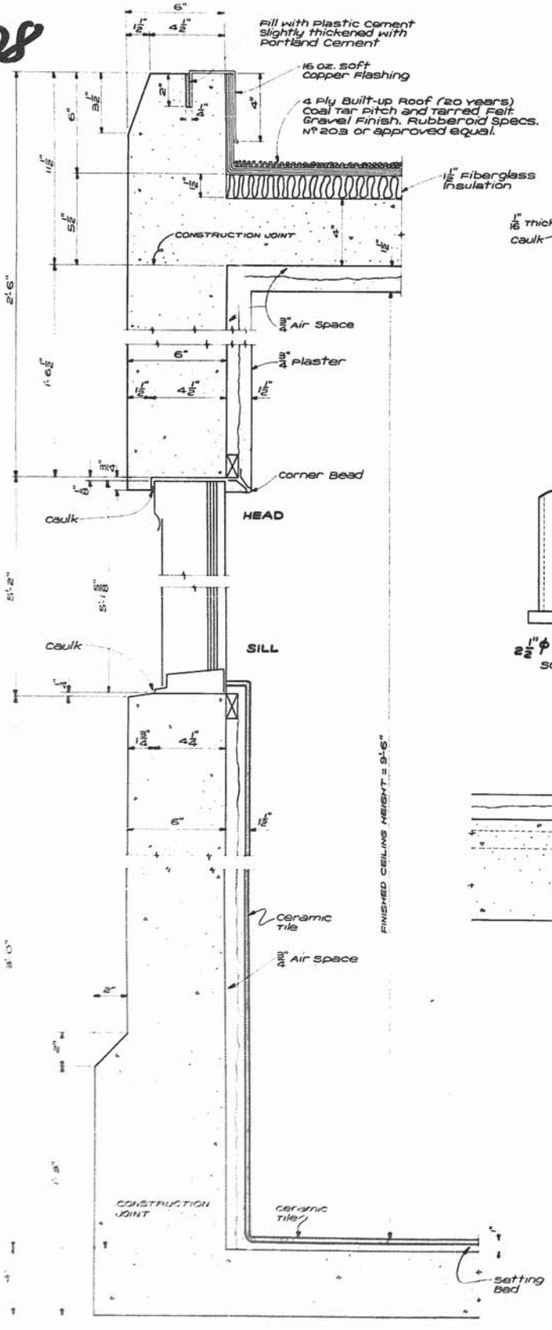
SL50-150-28

AS BUILT PLANS

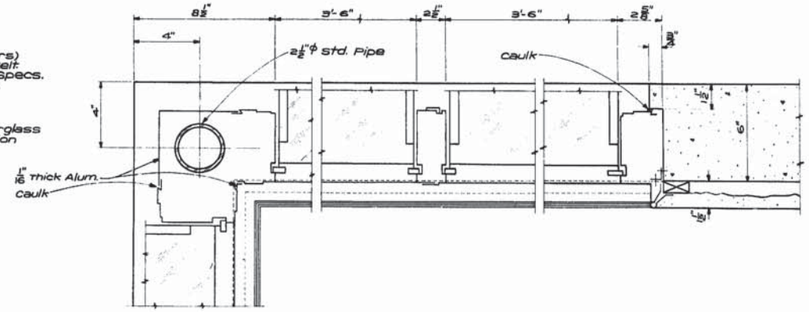
HAER No. LA-32

128

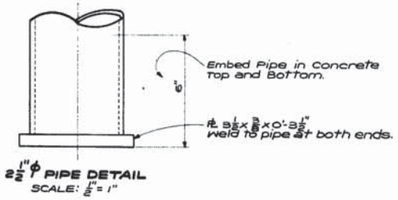
STATE PROJECT	PARISH	SHEET NO
041-06-16	Lafourche	38



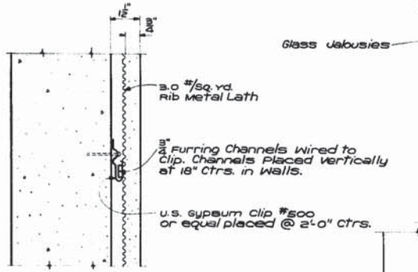
TYPICAL WALL SECTION
SCALE: ½" = 1'



WINDOW MULLION AND JAMB DETAILS
SCALE: ½" = 1"



2½" ϕ PIPE DETAIL
SCALE: ½" = 1"



LATHING DETAILS
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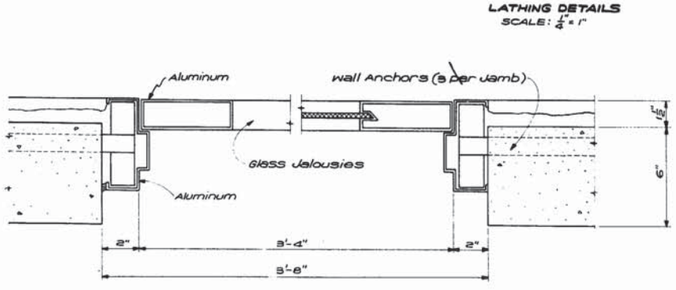

EXTERIOR DOOR JAMB DETAILS
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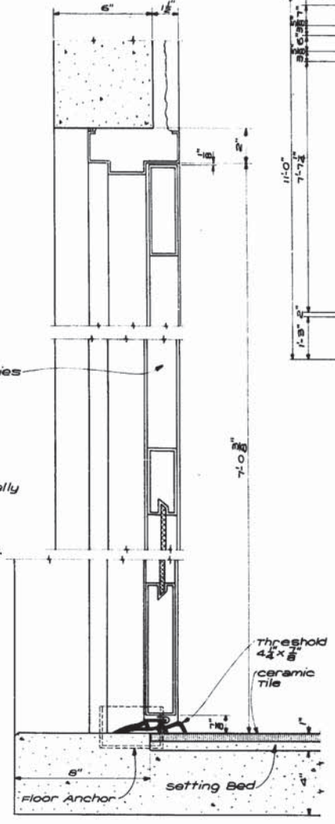
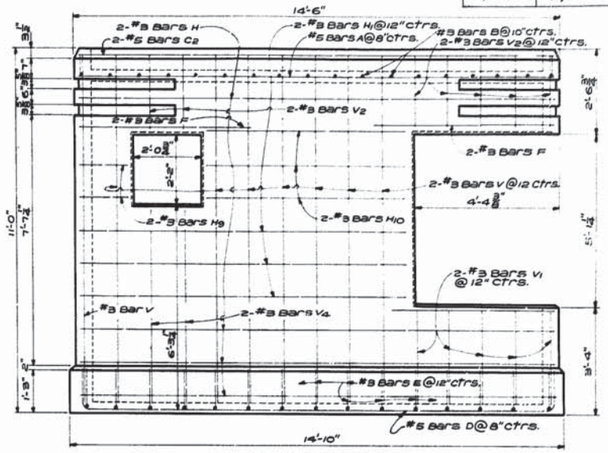
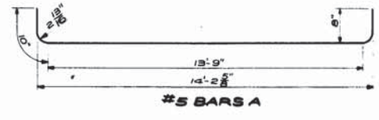


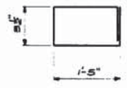
DOOR DETAILS
SCALE: ½" = 1"



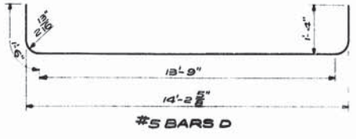
SIDE ELEVATION
SHOWING REINFORCING
SCALE: ½" = 1'-0"



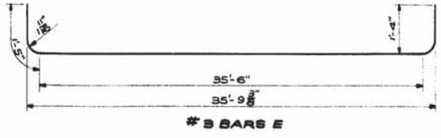
#5 BARS A



#8 BARS S



#5 BARS D



#8 BARS E

BILL OF REINFORCING STEEL

BAR	SIZE	Nº	UNIT LENGTH	TOTAL LENGTH	LOCATION
A	5	54	15'-6"	882'-6"	short Span in Roof Slab
C	5	4	35'-8"	142'-8"	Horiz. in Front and Rear Walls (TOP)
C1	5	4	35'-8"	142'-8"	Horiz. in Front & Rear Walls over Windows
C2	5	4	14'-2"	56'-8"	Horiz. in Side Walls (TOP)
D	5	54	16'-9"	904'-6"	short Span in Floor Slab (Bottom)
G	5	54	14'-6"	788'-0"	short Span in Floor Slab (TOP)
Total #5 bars = 2862'-0" = 2985 Lbs.					
B	8	18	35'-8"	642'-0"	Long Span in Roof Slab
E	8	15	38'-4"	575'-0"	Long Span in Floor Slab (Bottom)
F	8	2	5'-3"	10'-6"	Horiz. in Side Wall over Toilet Window
H	8	10	14'-2"	141'-8"	Horiz. in Side Walls
H1	8	6	5'-10"	59'-0"	Horiz. in Side Wall below Toilet Window
H2	8	20	35'-8"	713'-4"	Horiz. in Front and Rear Walls
H3	8	10	4'-8"	46'-8"	Horiz. in Front Wall between Windows
H4	8	10	8'-6"	85'-0"	Horiz. in Rear Wall between Windows
H5	8	20	5'-8"	113'-4"	Horiz. in Rear Wall at Ends
H6	8	14	4'-4"	60'-8"	Horiz. in Wall near door
H7	8	8	5'-9"	46'-0"	Horiz. in Wall near door
H8	8	2	9'-9"	19'-6"	Horiz. in Wall over door
H9	8	4	1'-6"	6'-0"	Horiz. in Side Wall near Toilet Window
H10	8	6	5'-9"	34'-6"	Horiz. in Side Wall near Toilet Window
J	8	18	36'-0"	468'-0"	Long Span in Floor Slab (TOP)
S	8	4	3'-8"	14'-8"	Hoops in Wall near door
V	8	84	10'-6"	882'-0"	vertical in Walls
V1	8	108	2'-10"	306'-0"	vertical in Walls below Windows
V2	8	112	2'-2"	242'-8"	vertical in Walls above Windows
V3	8	8	3'-0"	24'-0"	vertical in Walls above door
V4	8	4	5'-9"	23'-0"	vert in Side Wall below Toilet Window
Total #8 Bars = 4513'-6" = 1697 Lbs.					

OPERATING HOUSE

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED MAY 14 -57

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED
		A Chapman
CHECKED	CHECKED	SUBMITTED

BRIDGE DESIGN SECTION

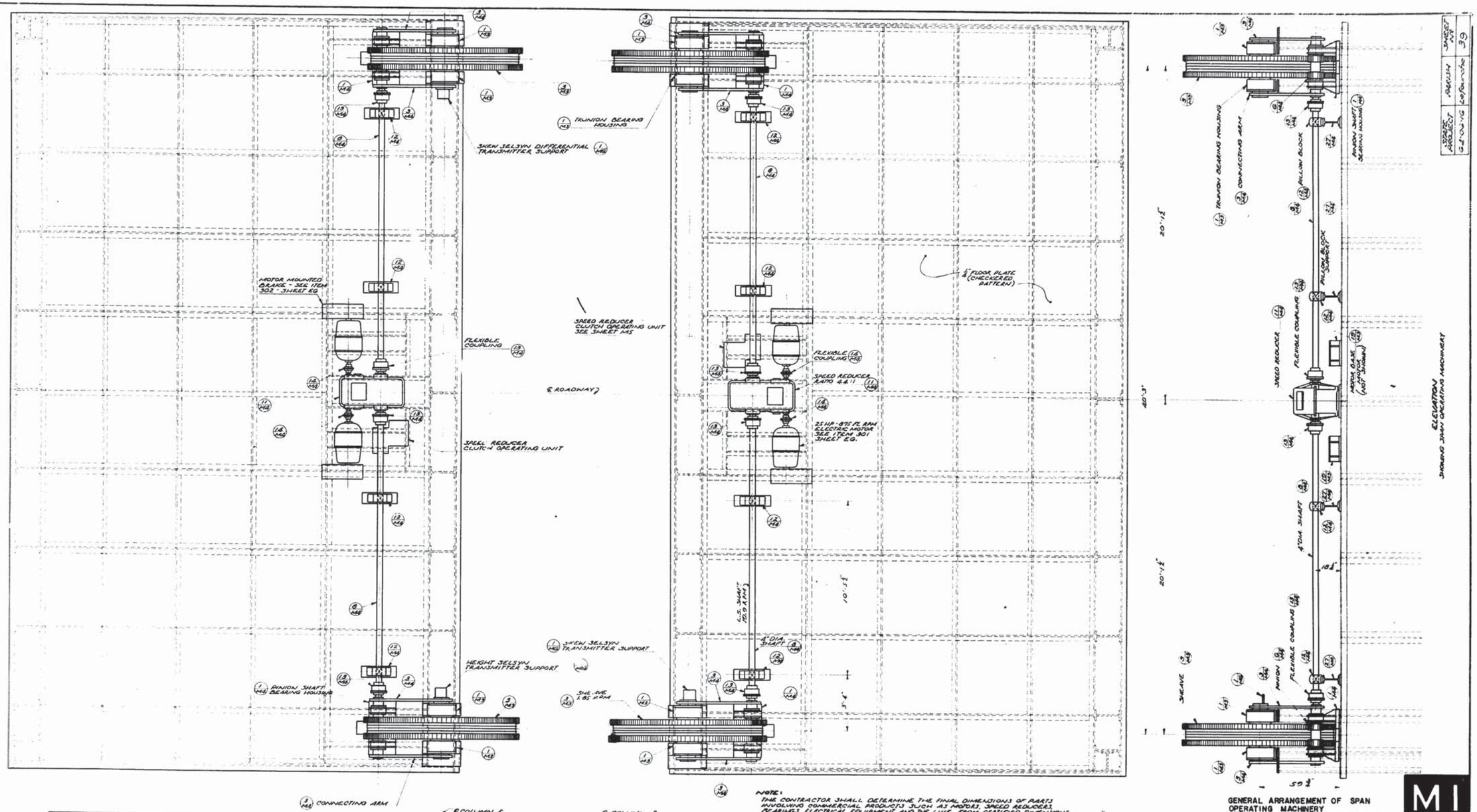
DATE	DESCRIPTION REVISIONS

SHEET 4 OF 26

SL50-150-28

AS BUILT PLANS

129



ELEVATION
SHOWING SKEW OPERATING MACHINERY

SPARE PARTS LIST	PARTS	SHEET NO.
	1 of 2 sheets	39

THICKNESS AND NO OF SHIMS TO BE FURNISHED			
THICKNESS / ONE WIDTH SHIM	1/32"	1/16"	1/8"
8"	2	2	3
5"	4	2	4
3"	6	5	5

NOTE:
THE CONTRACTOR SHALL DETERMINE THE FINAL DIMENSIONS OF PARTS INVOLVING COMMERCIAL PRODUCTS SUCH AS MOTORS, SPEED REDUCERS, BEARINGS, ELECTRICAL EQUIPMENT AND THE LIKE, FROM CERTIFIED DIMENSIONS OUTLINES OF THE COMMERCIAL PRODUCTS BEFORE MAKING SHOP DRAWINGS OF THE PARTS INVOLVED.

PAINTING NOTE:
ALL UNFINISHED SURFACES OF MACHINERY SHALL BE PAINTED ONE SHOP COAT OF RED LEAD AND OIL. ALL FINISHED SURFACES SHALL BE COATED WITH WHITE LEAD AND TALLOW BEFORE SHIPMENT AND SHALL BE PROTECTED BY WOODEN LAGGING.

LUBRICATION NOTE:
UNLESS OTHERWISE SHOWN ON DETAIL DRAWINGS
LUBRICANT SHALL BE AS FOLLOWS OR APPROVED EQUAL:
PILLOW BLOCKS, COUPLINGS & TRUNION BEARINGS - E330 FIBRE GREASE "O".
EXPOSED TEETH - MEDIUM HARD GREASE.
ENCLOSED SPEED REDUCERS - 310. OIL "TEXESSO 85" VIS. SAE 30.
WIRE ROPE - 310. OIL CO. "MARFAK COMPOUND NO 1500.

GENERAL ARRANGEMENT OF SPAN OPERATING MACHINERY

M1

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATE APRIL 25 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED KUZEL	DETAILED Brewer	TRACED MANCRIEF
CHECKED Brewer	CHECKED KUZEL	TRACED Brewer

BRIDGE DESIGN SECTION

NO.	DATE	DESCRIPTION
2457	August 3	Shim thickness W.A.R.

REVISIONS

SHEET 15 OF 26

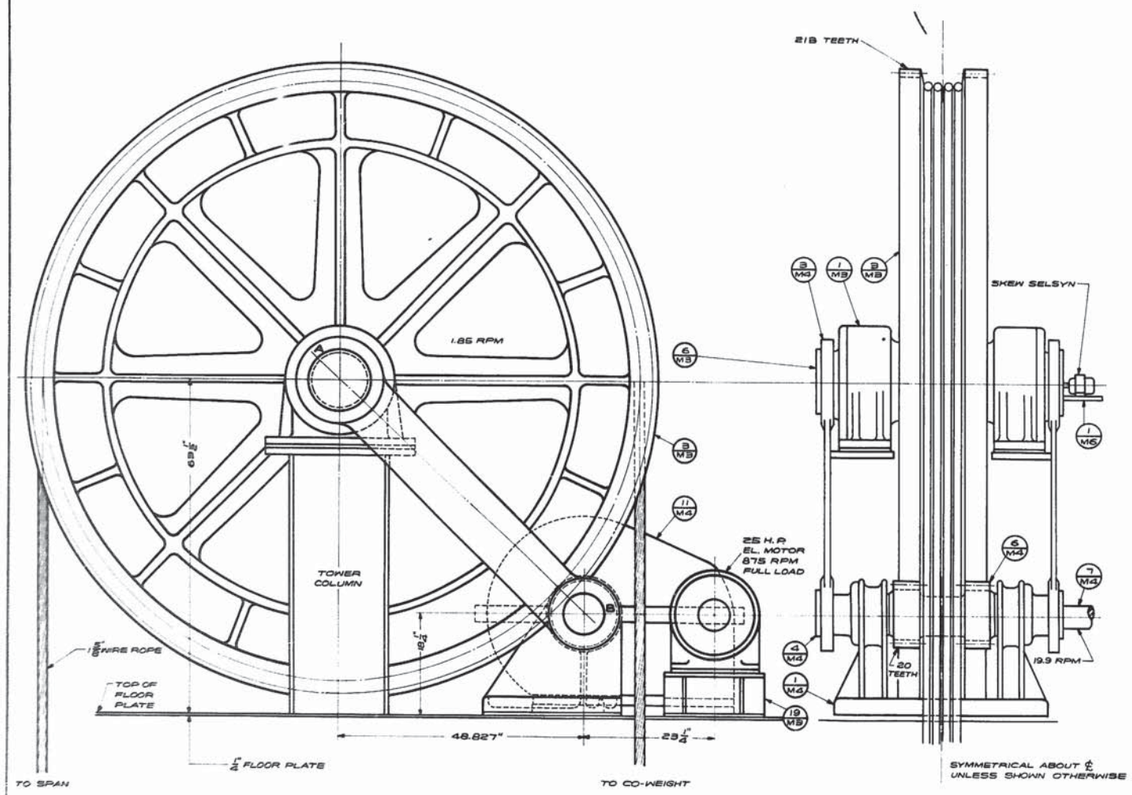
SL50-150-28

AS BUILT PLANS

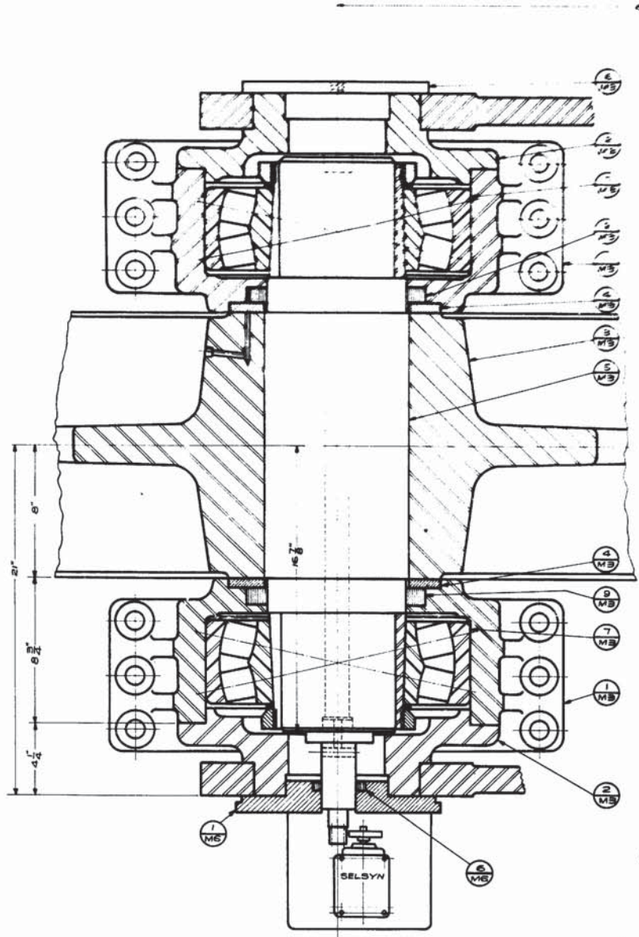
HAER No. LA-32

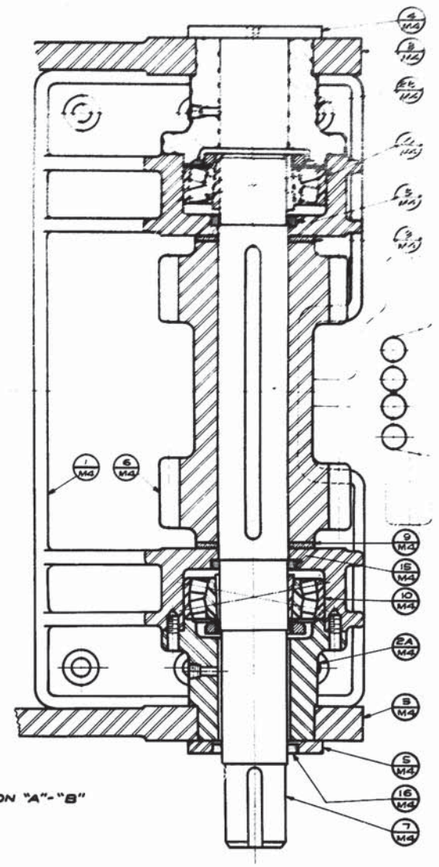
130

STATE PROJECT	PARISH	SHEET NO.
58-02-F	Lafourche	45

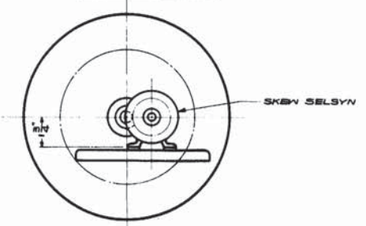


GENERAL ARRANGEMENT OF BRIDGE MACHINERY
ON DWG. # M1





SECTION "A"-"B"



SELSYN MOUNTINGS AND GEARS ON DWG. M6

NOTE:
FOR REMOVING PINION SHAFT (7 M4) REMOVE CAPS, BEARINGS AND GREASE SEALS FROM BOTH ENDS OF THE ASSEMBLY. ROTATE THE PINION SPACER (9 M4) NEAREST THE COUPLING END OF THE SHAFT UNTIL ITS KEY SLOT IS IN LINE WITH THE KEY SLOT IN THE BORE OF THE HOUSING (1 M4). ROTATE THE SHAFT UNTIL THE KEYS ARE STRAIGHT DOWN. LIFT IT UPWARD AGAINST THE TOP OF THE BORE AND PRESS IT OUT IN THE DIRECTION OF THE COUPLING END.

NOTE:
THE CONTRACTOR SHALL DETERMINE THE FINAL DIMENSIONS OF PARTS INVOLVING COMMERCIAL PRODUCTS SUCH AS MOTORS, SPEED REDUCERS, BEARINGS, ELECTRICAL EQUIPMENT AND THE LIKE, FROM CERTIFIED DIMENSIONS OUTLINES OF THE COMMERCIAL PRODUCTS BEFORE MAKING SHOP DRAWINGS OF THE PARTS INVOLVED.
UNLESS OTHERWISE SHOWN ON DETAIL DRAWING LUBRICANT SHALL BE AS FOLLOWS OR APPROVED EQUAL:
PILLOW BLOCKS, COUPLINGS & TRUNION BEARINGS - ESSO FIBRE GREASE "C"
EXPOSED TEETH - MEDIUM HARD GREASE.
ENCLOSED SPEED REDUCERS - STD. OIL "TERESSO 95" VISC SAE 90.
WIRE ROPE - STD. OIL CO. SURRETTE COMPOUND Nº 1600.
ALL UNFINISHED SURFACES OF MACHINERY SHALL BE PAINTED ONE SHOP COAT OF RED LEAD AND OIL.
ALL FINISHED SURFACES SHALL BE COATED WITH WHITE LEAD AND TALLOW BEFORE SHIPMENT AND SHALL BE PROTECTED BY WOODEN LAGGING.

ASSEMBLY OF GEAR TRAIN FOR SHEAVE DRIVE

M2

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED FEB. 22 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED Kuzel	DETAILED Kuzel	TRACED Q. Carlton
CHECKED Brewer	CHECKED Brewer	CHECKED Brewer

BRIDGE DESIGN SECTION

DATE	DESCRIPTION REVISIONS	BY
4-9-58	REV. PART Nº (illegible)	A.R.K.

SHEET 18 OF 26

SL50-150-28

AS BUILT PLANS

131

STATE PROJECT	PARISH	SHEET NO.
G.A. 06-16	Lafourche	41

BILL OF MATERIAL FOR ONE SPAN

PART NO.	QUAN.	DESCRIPTION		
1	8	TRUNION BEARING HOUSING	ST. CAST ASTM-A27-GR 65-35	
2	8	HOUSING COVER	ST. CAST ASTM-A27-GR 65-35	
3	4	SHEAVE	ST. CAST ASTM-A27-GR 65-115	
4	8	SHEAVE THRUSTWASHER	BRONZE	
5	4	TRUNION	ST. FORG'G. ASTM-A235-CL. G	
6	5	CONN. ARM RETAINER	STEEL	
7	8	TRUNION BEARING SKF #22338 CK+SNH/I OR TORR #190SD23A		COMM.
8	16	1" DIA. PIN - 4" LONG	STEEL	
9	8	GARLOCK SEAL #51-3510		COMM.
10	64	1"-10 NC. CAPSCREW - 2½" LG.	STEEL	
11	64	1" SHAKEPROOF LOCKWASHER		COMM.
12	32	1"-11 NC. CAPSCREW - 1½" LG.	STEEL	
13	32	1" SHAKEPROOF LOCKWASHER		COMM.
14	12	⅝"-16 NC. CAPSCREW - 1" LONG	STEEL	
15	12	⅝" SHAKEPROOF LOCKWASHER		COMM.
16	21	ALEMITE HYDRAULIC FITTING		COMM.
17	16	¼" COUNTERSUNK PLUG	BRASS	COMM.
18	48	TURNED BOLT COMPL.	STEEL	
19	4	MOTOR BASE	STEEL WELDM.	
20	16	MOTOR BOLT COMPL.	STEEL	
21	6	BASE FOR REDUCER	STEEL C.P. 1½" x 3"	
22	12	BOLT FOR REDUCER - COMPL.	STEEL	

GENERAL NOTES:

ALL PARTS FURNISHED BY THE CONTRACTOR SHALL BE AS SHOWN OR APPROVED EQUAL. ALL PARTS LISTED ON THIS SHEET TO BE INCLUDED IN ITEM 5:8:1 MOVABLE BRIDGE MACHINERY, INCLUDING ALL NECESSARY SHIMS. ALL BOLTS TO HAVE ONE NUT AND ONE HEAVY SAE LOCKWASHER, UNLESS NOTED, OR OTHER MEANS OF LOCKING NUT ARE SHOWN ON DETAILS. THE CONTRACTOR SHALL DETERMINE THE FINAL DIMENSIONS OF PARTS INVOLVING COMMERCIAL PRODUCTS SUCH AS MOTORS, SPEED REDUCERS, BEARINGS, ELECTRICAL EQUIPMENT AND THE LIKE, FROM CERTIFIED DIMENSIONS OUTLINES OF THE COMMERCIAL PRODUCTS BEFORE MAKING SHOP DRAWINGS OF THE PARTS INVOLVED.

DETAILS OF SHEAVE & SHEAVE DRIVE

M3

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
FEB. 16 56

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
Kuzel Kuzel A. Chapman
Brewer Brewer Kuzel
BRIDGE DESIGN SECTION

9-24-57 TRUNION BEARING HOUSING
DATE DESCRIPTION
REVISIONS

SHEET 17 OF 26

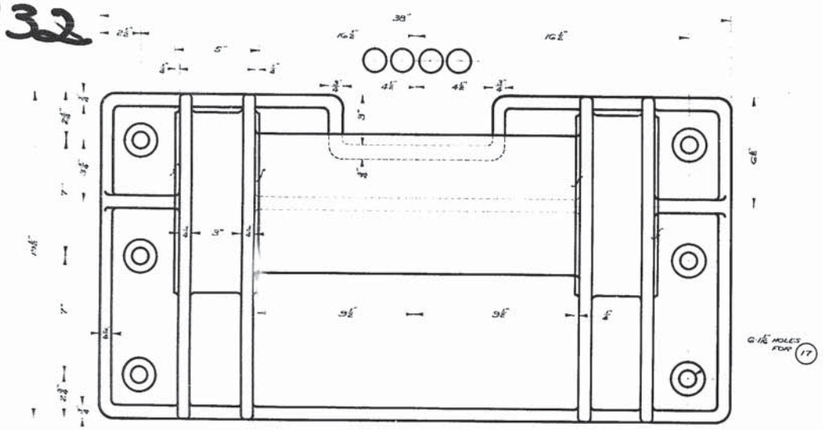
SL50-150-28

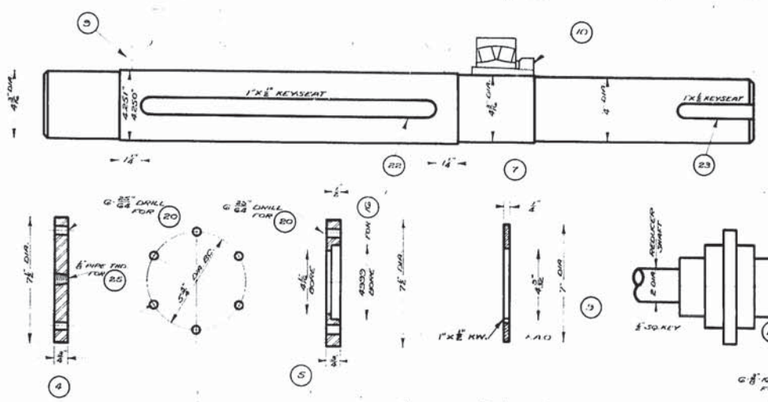
AS BUILT PLANS

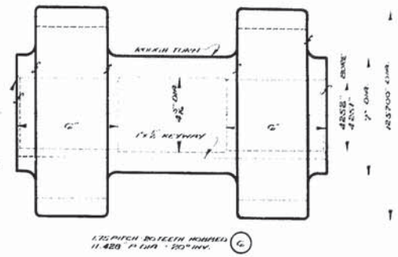
HAER No. LA-32

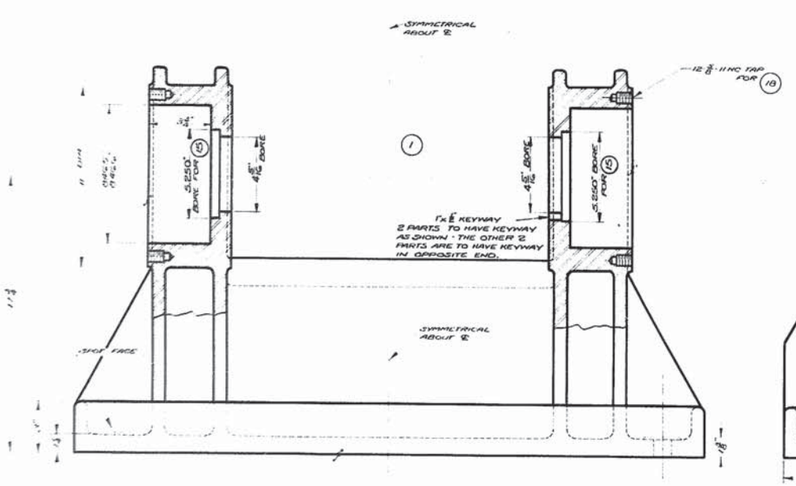
132

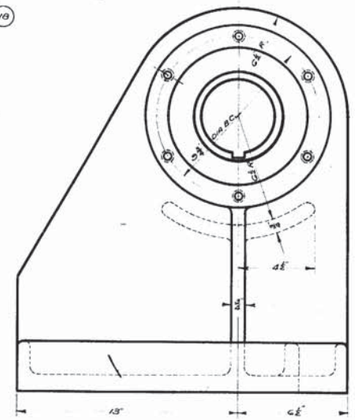
STATE PROJECT	PARISH	SHEET NO
64-06-16	Lafourche	42

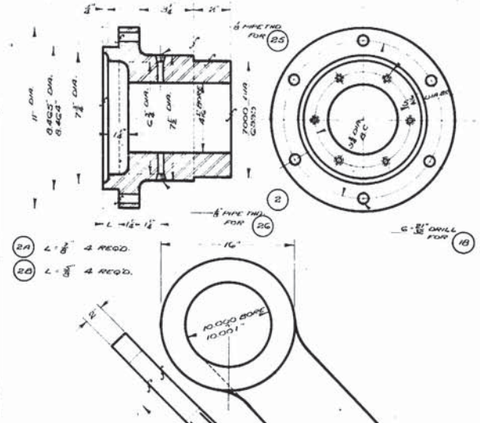


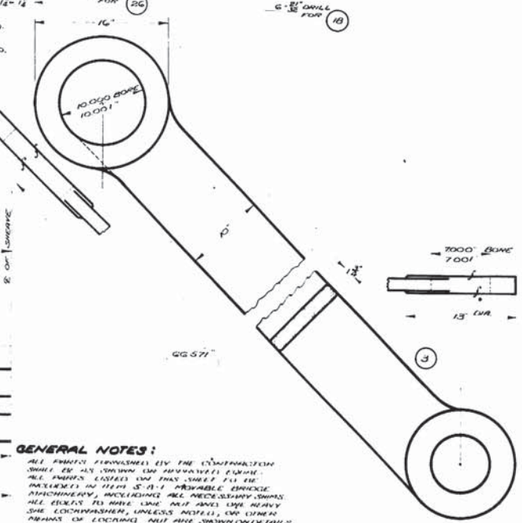


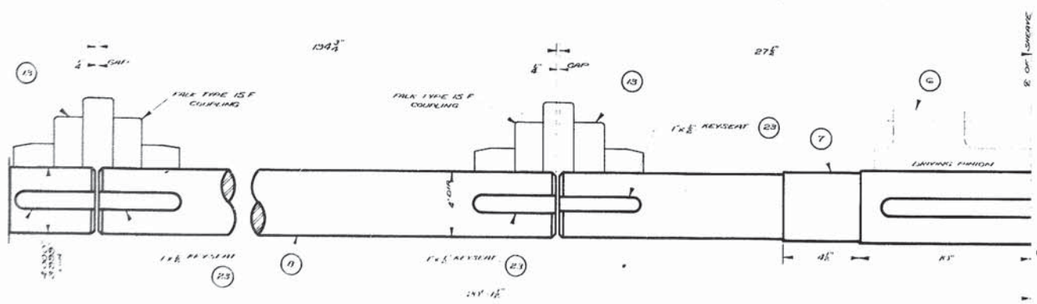


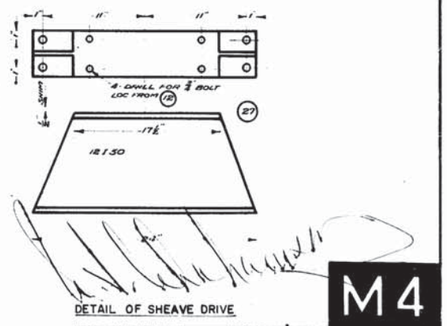












DETAIL OF SHEAVE DRIVE

BILL OF MATERIAL FOR ONE SPAN

PART	QUAN.	DESCRIPTION	MATERIAL
1	4	PINION SHAFT BEARING HOUSING	ST. CAST'G. ASTM A27 GR G.S.-35
2	8	HOUSING COVER	ST. CAST'G. ASTM A27 GR G.S.-35
3	8	CONNECTING ARM	ST. CAST'G. ASTM A27 GR G.S.-35
4	4	CONN. ARM RETAINER	STEEL
5	4	CONN. ARM RETAINER	STEEL
6	4	PINION	ST. FORG'G. ASTM-A235-CL.G
7	4	PINION SHAFT	STEEL ASTM-A107-GR 1045
8	4	INTERMEDIATE SHAFT	STEEL ASTM-A108
9	8	PINION SHAFT SPACER	BRASS
10	8	PINION SHAFT BEARING SKF #22224 CK (SPARE OR TIMKEN 3031122 A COMM)	
11	2	SPEED REDUCER EAGLE GEAR CO. GS 6.0 SPECIAL LG 6952 EBA COMM	
12	8	PILLOW BLOCK SKF - SAF 22522 A FOR 4" SHAFT	COMM.
13	8	COUPLING PALK # 15 F	COMM.
14	4	COUPLING PALK # 8 F	COMM.
15	8	GARLOCK SEAL # 53-2G30	COMM.
16	4	GARLOCK SEAL # 53-2537	COMM.
17	24	TURNED BOLT COMPL.	STEEL
18	48	⅞"-11 NC C SCREW - 2½ LONG	STEEL
19	48	⅞" SHAKEPROOF LOCKWASHER	COMM.
20	48	⅝"-11 NC C SCREW - 2½ LONG	STEEL COMM.
21	48	⅝" SHAKEPROOF LOCKWASHER	COMM.
22	4	1"-39 KEY - 17½ LONG	STEEL - KEYSTOCK
23	12	1"-39 KEY - 5" LONG	STEEL - KEYSTOCK
24	32	⅝"-11 NC HEX HEAD BOLT COMPL. 3½ LG.	STEEL
25	12	⅛" ALEMITE HYDRAULIC FITTING	COMM.
26	8	⅛" PIPE PLUG	BRASS COMM.
27	8	SUPPORT FOR PILLOW BLOCK	STEEL

GENERAL NOTES:

ALL PARTS FURNISHED BY THE CONTRACTOR SHALL BE AS SHOWN OR APPROVED EQUAL.
ALL PARTS LISTED ON THIS SHEET TO BE INCLUDED IN ITEM S.A.-1 MOVABLE BRIDGE MACHINERY, INCLUDING ALL NECESSARY SPARE BOLTS TO HAVE ONE NUT AND ONE HEAVY SHK LOCKWASHER, UNLESS NOTED, OR OTHER MEANS OF LOCKING NUT ARE SHOWN OTHERWISE. THE CONTRACTOR SHALL DETERMINE THE FINAL DIMENSIONS OF PARTS INVOLVING COMMERCIAL PRODUCTS SUCH AS MOTORS, SPEED REDUCERS, BEARINGS, ELECTRICAL EQUIPMENT AND THE LIKE, FROM CERTIFIED DIMENSIONS OUTLINES OF THE COMMERCIAL PRODUCTS BEFORE MAKING SHOP DRAWINGS OF THE PARTS INVOLVED.

M4

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY — 5'-0" SIDEWALKS
45'-0" LIFT — OPEN STEEL GRID FLOOR
1 May 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED
Kuzel	Kuzel	J.D. Landry
CHECKED	CHECKED	APPROVED
Brewer	Brewer	Kuzel

BRIDGE DESIGN SECTION

4-3-58 REV. MAST NOS. (15) (16) (17) (18) A.R.K.
DATE — REVISIONS

SHEET 18 OF 26

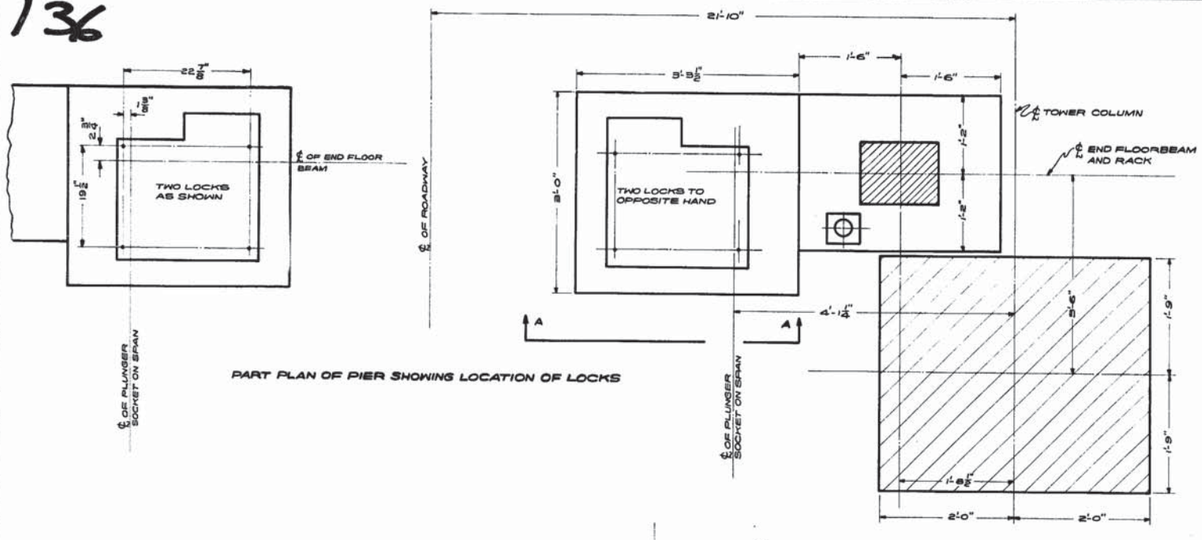
SL50-150-28

AS BUILT PLANS

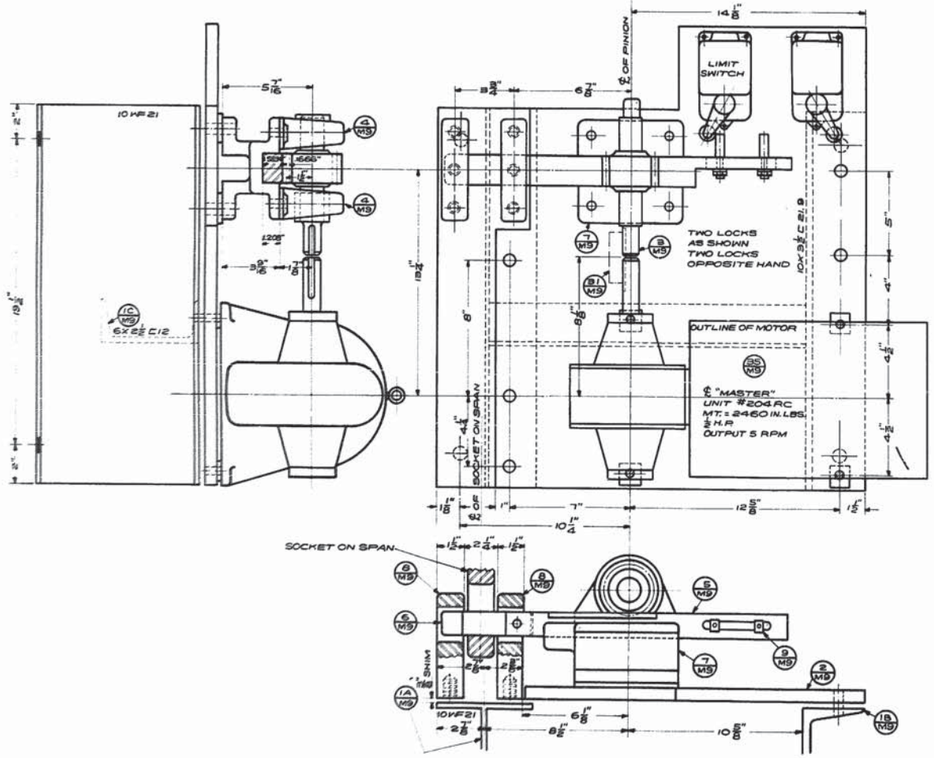
HAER No. LA-32

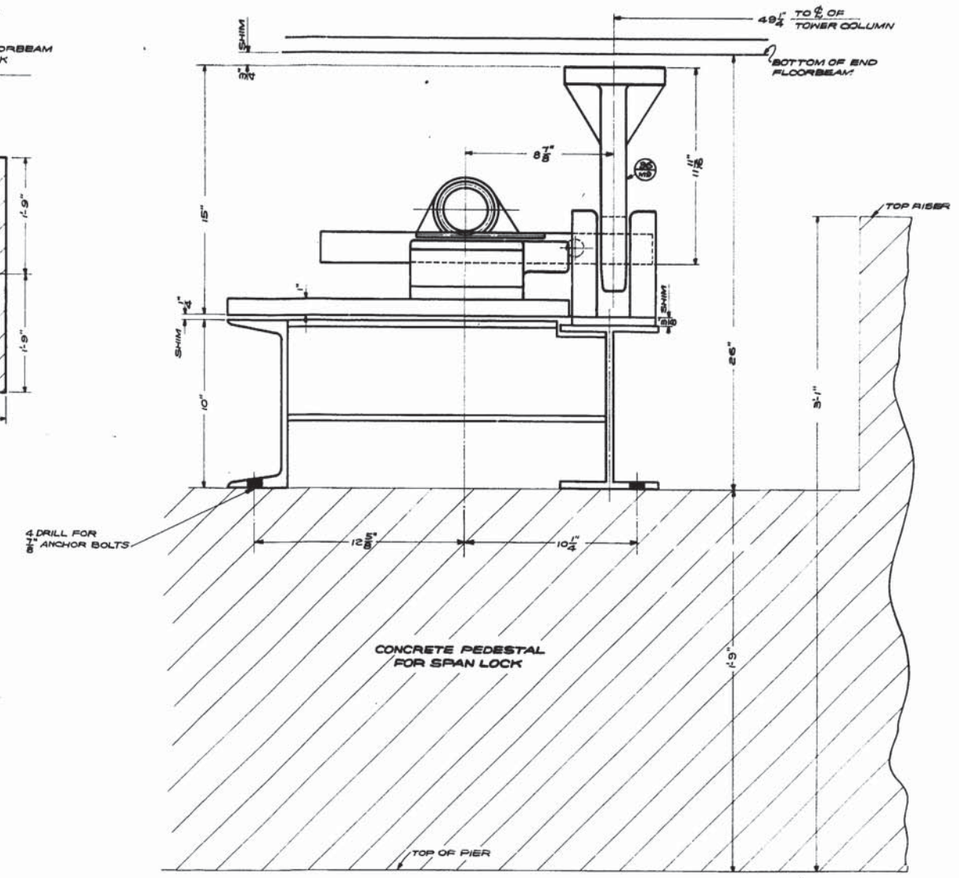
136

STATE PROJECT	PARISH	SHEET
C.A.-206-6	Lafourche	46



PART PLAN OF PIER SHOWING LOCATION OF LOCKS





VIEW A-A

NOTE:
THE CONTRACTOR SHALL DETERMINE THE FINAL DIMENSIONS OF PARTS INVOLVING COMMERCIAL PRODUCTS SUCH AS MOTORS, SPEED REDUCERS, BEARINGS, ELECTRICAL EQUIPMENT AND THE LIKE, FROM CERTIFIED DIMENSIONS, OUTLINES OF THE COMMERCIAL PRODUCTS BEFORE MAKING SHOP DRAWINGS OF THE PARTS INVOLVED.
ALL UNFINISHED SURFACES OF MACHINERY SHALL BE PAINTED ONE SHOP COAT OF RED LEAD AND OIL.
ALL FINISHED SURFACES SHALL BE COATED WITH WHITE LEAD AND TALLOW BEFORE SHIPMENT AND SHALL BE PROTECTED BY WOODEN LAGGING.
UNLESS OTHERWISE SHOWN ON DETAIL DRAWING LUBRICANT SHALL BE AS FOLLOWS OR APPROVED EQUAL:
PILLOW BLOCKS, COUPLINGS & TRUNION BEARINGS- ESSO FIBRE GREASE "C."
EXPOSED TEETH- MEDIUM HARD GREASE.
ENCLOSED SPEED REDUCERS- STD. OIL "TEREESSO 65" VISC SAE 30.
WIRE ROPE- STD. OIL CO. SURRETTE COMPOUND Nº 1500.

ASSEMBLY OF SPAN LOCK

M8

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-6" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED MAY 1 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED Kuzel	DETAILED Kuzel	TRACED A. Chapman
CHECKED Brewer	CHECKED Brewer	PITCHED Brewer

BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY
	REVISIONS	

SHEET 22 OF 26

SL50-150-28

AS BUILT PLANS

HAER No. LA-32

137

STATE PROJECT	PARISH	SHEET NO.
G.4.00.16	Lafourche	47

BILL OF MATERIAL FOR ONE SPAN LOCK

PART NO.	QUAN.	DESCRIPTION	MATERIAL	
1	1	SUPPORT FOR LOCK ASS'Y	STEEL WELDM.	
1A	1	10 WF 21 - 23½" LONG	STEEL	
1B	1	10 X 4½" C. 13.5" LONG	STEEL	
1C	1	6 X 2⅛" C. 13" LONG	STEEL	
2	1	BASE PLATE	STEEL	
3	1	PINION	STEEL	
4	2	PINION BEARING	SKF SY 107	COMM.
5	1	RACK	STEEL C.I.	
6	1	RACK EXTENSION	STEEL	
7	1	RACK HOUSING	C.I.	
8	2	SOCKET ON LOCK	STEEL	
9	2	LIMIT SWITCH ACTUATOR COMPL.	BRASS	
10	1	⅝" PIN - 13⅝" LONG	STEEL	
11	1	⅝" PIN - 1¾" LONG	STEEL	
12	3	⅝" - 16 NC MACH BOLT 2½" LONG	STEEL	
13	1	⅝" - 16 NC MACH BOLT - 1¾" LONG	STEEL	
14	3	⅝" BEVEL WASHER		COMM.
15	4	⅝" - 16 NC STD. NUT	STEEL	
16	4	⅝" SHAKEPROOF LOCKWASHER		COMM.
17	4	¾" - 10 NC MACH BOLT - 2½" LONG	STEEL	
18	4	¾" - 10 NC STD. NUT	STEEL	
19	4	¾" SHAKEPROOF LOCKWASHER		COMM.
20	2	¾" - 10 NC MACH BOLT - 2½" LONG	STEEL	
21	2	¾" -10 NC STD. NUT	STEEL	
22	2	¾" BEVEL WASHER		COMM.
23	2	¾" SHAKEPROOF LOCKWASHER		COMM.
24	3	¾" - 10 NC MACH. BOLT - 2½" LONG	STEEL	
25	3	¾" - 10 NC STD. NUT	STEEL	
26	3	¾" SHAKEPROOF LOCKWASHER		COMM.
27	6	¾" - 10 NC MACH BOLT - 1¾" LONG	STEEL	
28	6	¾" SHAKEPROOF LOCKWASHER		COMM.
29	4	⅝" 13 NC MACH BOLT - 1½" LONG	STEEL	
30	4	⅝" SHAKEPROOF LOCKWASHER		COMM.
31	1	COUPLING - MORSE DSC #4 - 1G		COMM.
32	1	⅜" SQ KEY - 1⅜" LONG	STEEL - KEYSTOCK	
33	6	SPACER	BRASS	
34	1	⅝" ALEMITE HYDR. FITTING		COMM.
35	1	MASTER ELECTRIC UNIT FR 7204 RC 2460 IN LBS TORQUE ⅓ HP - OUTPUT SHAFT 3 RPM		
36	1	SOCKET ON SPAN	STOCK ASTM A27 GR60/35	
37	4	TURNED BOLT COMPL	STEEL	

FOUR LOCKS REQUIRED FOR ONE SPAN
TWO LOCKS AS SHOWN
TWO LOCKS TO OPPOSITE HAND

GENERAL NOTES:

- ALL PARTS FURNISHED BY THE CONTRACTOR SHALL BE AS SHOWN OR APPROVED EQUAL.
- ALL PARTS LISTED ON THIS SHEET TO BE INCLUDED IN ITEM 3.18.1 MOVABLE BRIDGE MACHINERY, INCLUDING ALL NECESSARY SHIMS.
- ALL BOLTS TO HAVE ONE NUT AND ONE HEAVY SAE LOCKWASHER, UNLESS NOTED, OR OTHER MEANS OF LOCKING NUT ARE SHOWN ON DETAILS.
- THE CONTRACTOR SHALL DETERMINE THE FINAL DIMENSIONS OF PARTS INVOLVING COMMERCIAL PRODUCTS SUCH AS MOTORS, SPEED REDUCERS, BEARINGS, ELECTRICAL EQUIPMENT AND THE LIKE, FROM CERTIFIED DIMENSIONS OUTLINES OF THE COMMERCIAL PRODUCTS BEFORE MAKING SHOP DRAWING OF THE PARTS INVOLVED.

DETAIL OF SPAN LOCK

M9

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY — 5'-0" SIDEWALKS
45'-0" LIFT — OPEN STEEL GRID FLOOR
DATE May 1, -57

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	CHECKED	APPROVED
Ruzzell	Ruzzell	D. Hendricks	
Brewer	Brewer	Brewer	

BRIDGE DESIGN SECTION

DATE | DESCRIPTION | REVISIONS

SHEET 23 OF 26

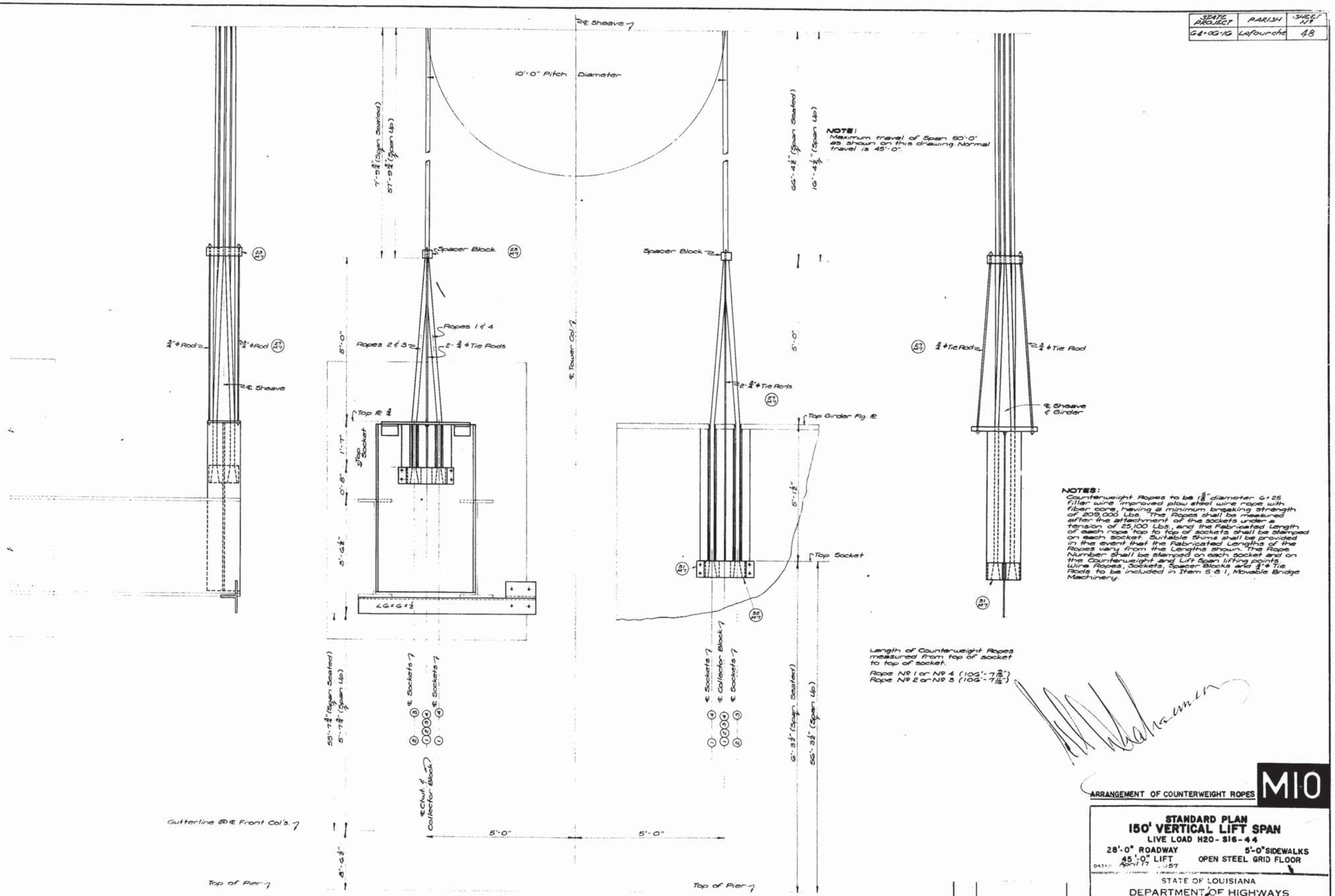
SL50-150-28

AS BUILT PLANS

HAER No. LA-32

138

STATE PROJECT	PARISH	SHEET NO
64-06-16	Lafourche	48



NOTE:
Maximum travel of Span 50'-0" as shown on this drawing. Normal travel is 45'-0".

NOTES:
Counterweight Ropes to be 1⅛" diameter 6 x 25 Filler wire improved plow steel wire rope with fiber core, having a minimum breaking strength of 209,000 Lbs. The Ropes shall be measured after the attachment of the sockets under a tension of 25,100 Lbs, and the Fabricated Length of each rope, top to top of sockets shall be stamped on each socket. Suitable Shims shall be provided in the event that the Fabricated Lengths of the Ropes vary from the Lengths shown. The Rope Number shall be stamped on each socket and on the Counterweight and Lift Span lifting points. Wire Ropes, Sockets, Spacer Blocks and ¾" Tie Rods to be included in Item 5:81, Movable Bridge Machinery.

Length of Counterweight Ropes measured from top of socket to top of socket.

Rope № 1 or № 4 (104'-7[illegible]")
Rope № 2 or № 3 (104'-7[illegible]")

ARRANGEMENT OF COUNTERWEIGHT ROPES

M10

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATE: April 77 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED
S.L.P.	S.L.P.	J. Saltman
CHECKED S.L.P.	CHECKED S.L.P.	CHECKED S.L.P.

BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY
	REVISIONS	

SHEET 24 OF 26

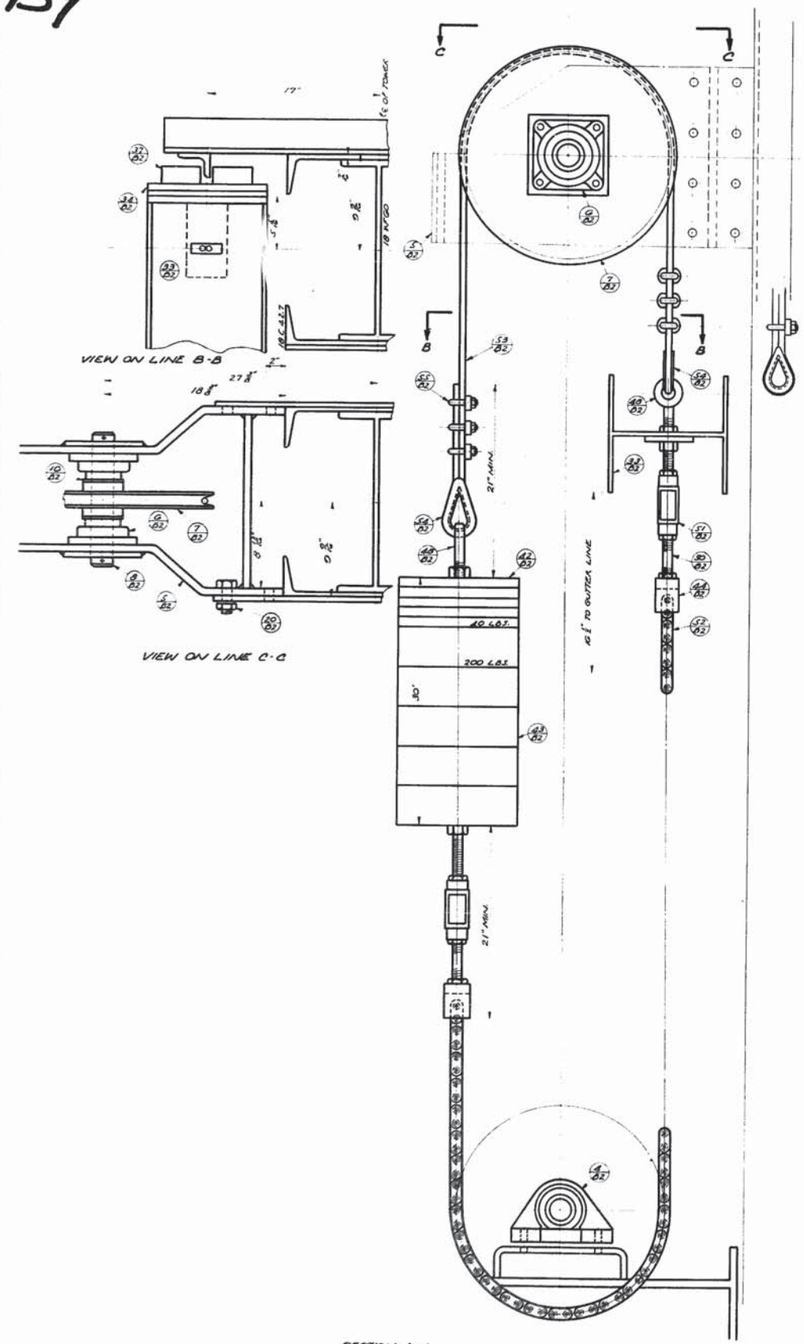
SL50-150-28

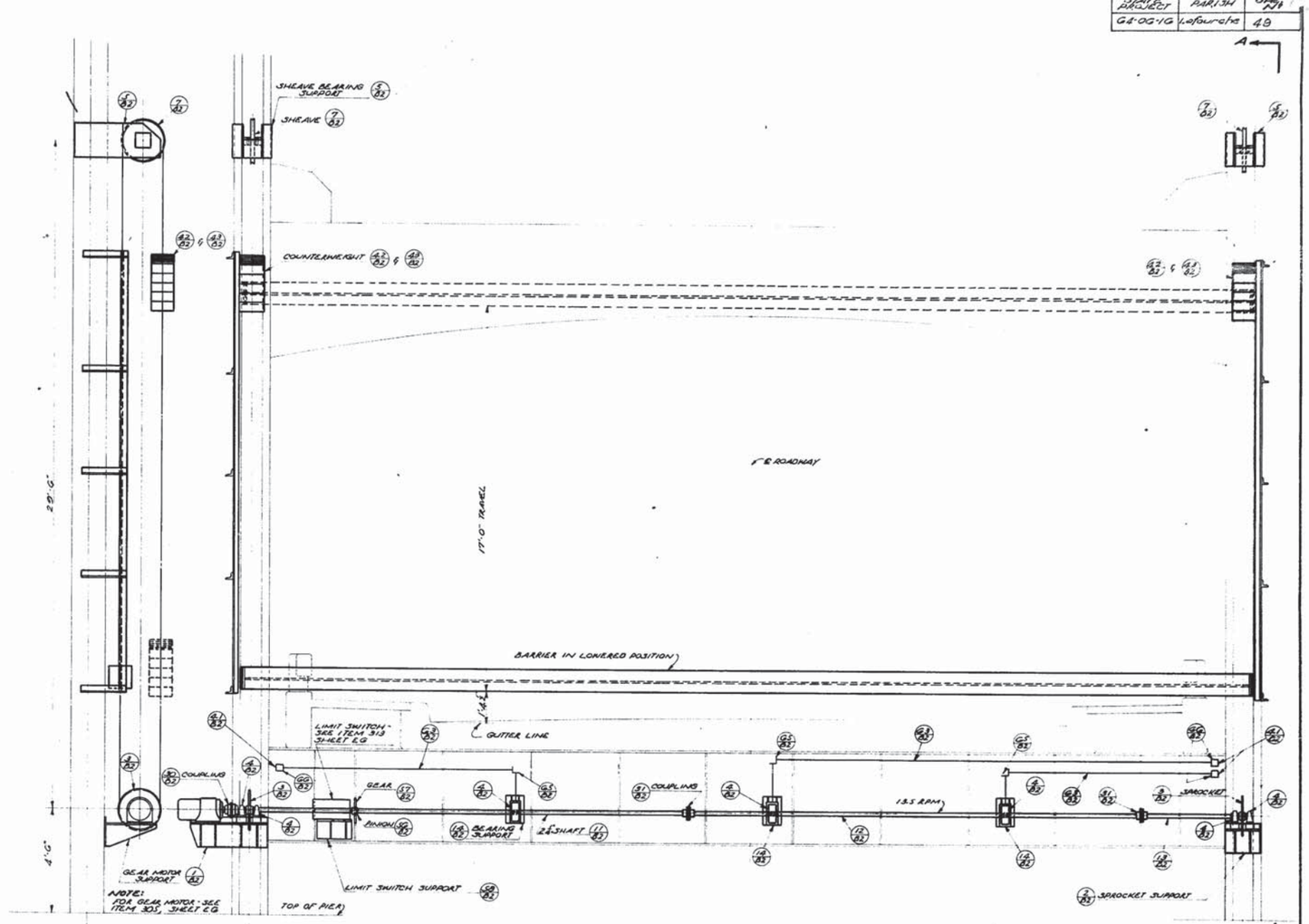
AS BUILT PLANS

HAER No. LA-32

139

STATE PROJECT	PARISH	SHEET NO.
66-00-16	Lafourche	48





PART SIDE ELEVATION OF TOWER SHOWING BARRIER

PART REAR ELEVATION OF TOWER SHOWING BARRIER OPERATING MACHINERY

THICKNESS / BOLT NORMAL SHIFT	½"	⅝"	¾"
½"	1	2	4

NOTE:
THE CONTRACTOR SHALL DETERMINE THE FINAL DIMENSIONS OF PARTS INVOLVING COMMERCIAL PRODUCTS SUCH AS MOTORS, SPEED REDUCERS, BEARINGS, ELECTRICAL EQUIPMENT AND THE LIKE, FROM CERTIFIED DIMENSIONS OUTLINES OF THE COMMERCIAL PRODUCTS BEFORE MAKING SHOP DRAWINGS OF THE PARTS INVOLVED.

PAINTING NOTE:
ALL UNFINISHED SURFACES OF MACHINERY SHALL BE PAINTED ONE SHOP COAT OF RED LEAD AND OIL. ALL FINISHED SURFACES SHALL BE COATED WITH WHITE LEAD AND TALLOW BEFORE SHIPMENT AND SHALL BE PROTECTED BY WOODEN LAGGING.

LUBRICATION NOTE:
UNLESS OTHERWISE SHOWN ON DETAIL DRAWING, LUBRICANT SHALL BE AS FOLLOWS OR APPROVED EQUAL:
PILLOW BLOCKS, COUPLINGS, & TRUNION BEARINGS - E330 FIBRE GREASE "O".
EXPOSED TEETH - MEDIUM HARD GREASE.
ENCLOSED SPEED REDUCERS - STD. OIL "TERESSO 95" VI.3C SAE 30.
WIRE ROPE - STD. OIL CO. "JUARETTE COMPOUND N° 1500.

DATE	DESCRIPTION	BY
	REVISIONS	

GENERAL ARRANGEMENT OF TRAFFIC BARRIER

BI

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED MAY 1 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED Kuzel	DETAILED Brewer	TRACED A.J. Mouchet
CHECKED Brewer	CHECKED Kuzel	CHECKED Brewer

BRIDGE DESIGN SECTION

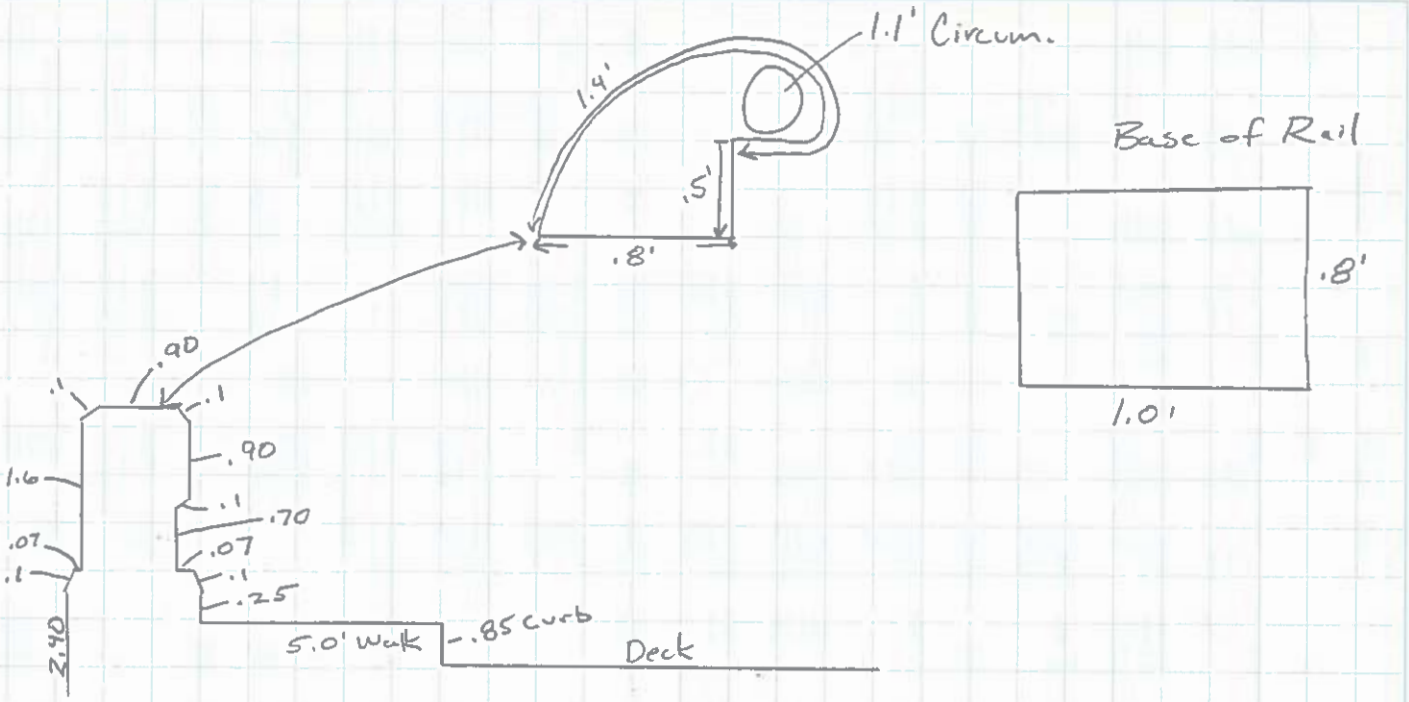
SHEET 25 OF 26

SL50-150-28

AS BUILT PLANS

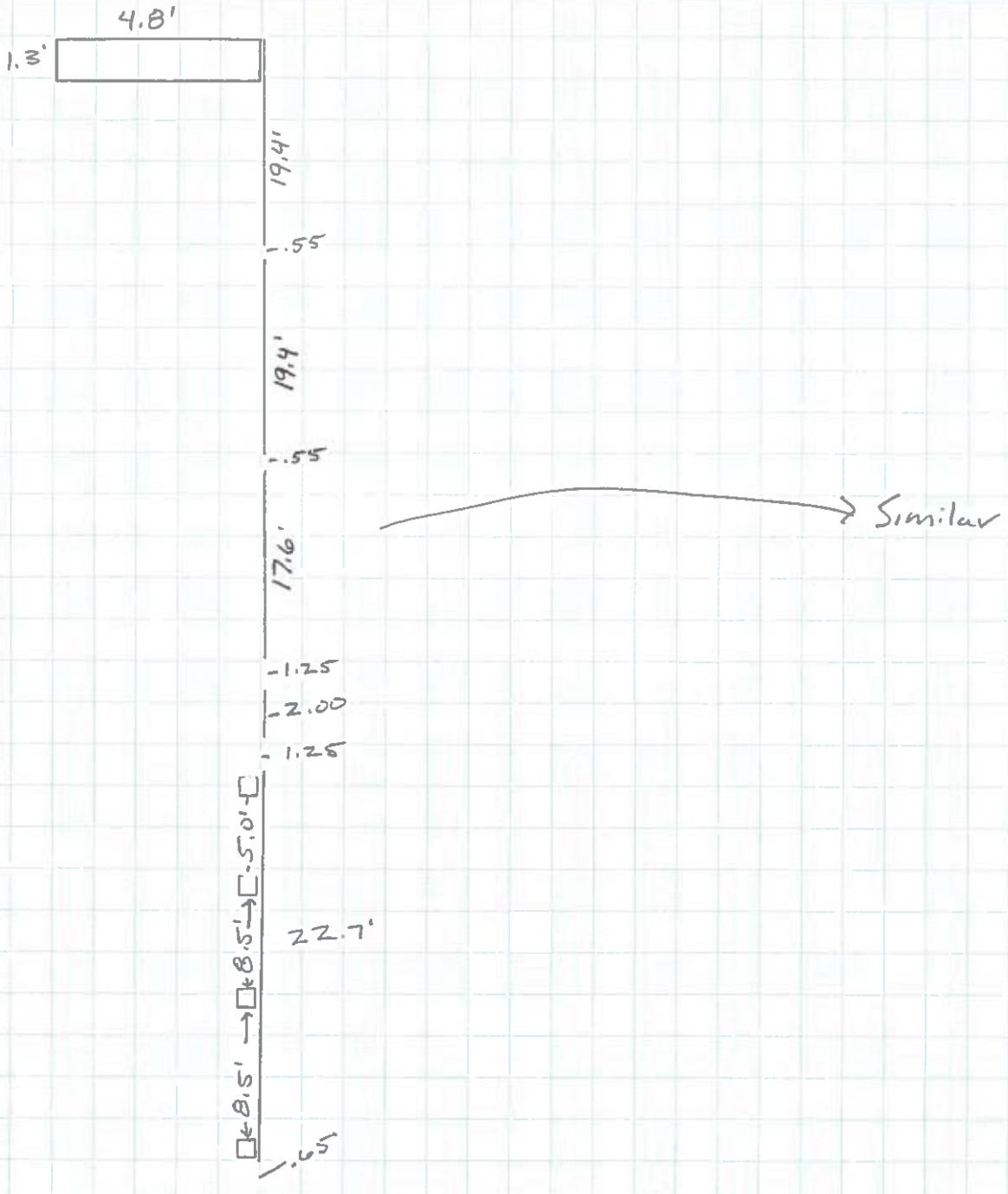
Mead & Hunt, Inc.

Job No. _____ Sheet _____ of _____
Job Name 000930
Task Rail Details
Calculated by _____ Date _____
Checked by _____ Date _____



Mead & Hunt, Inc.

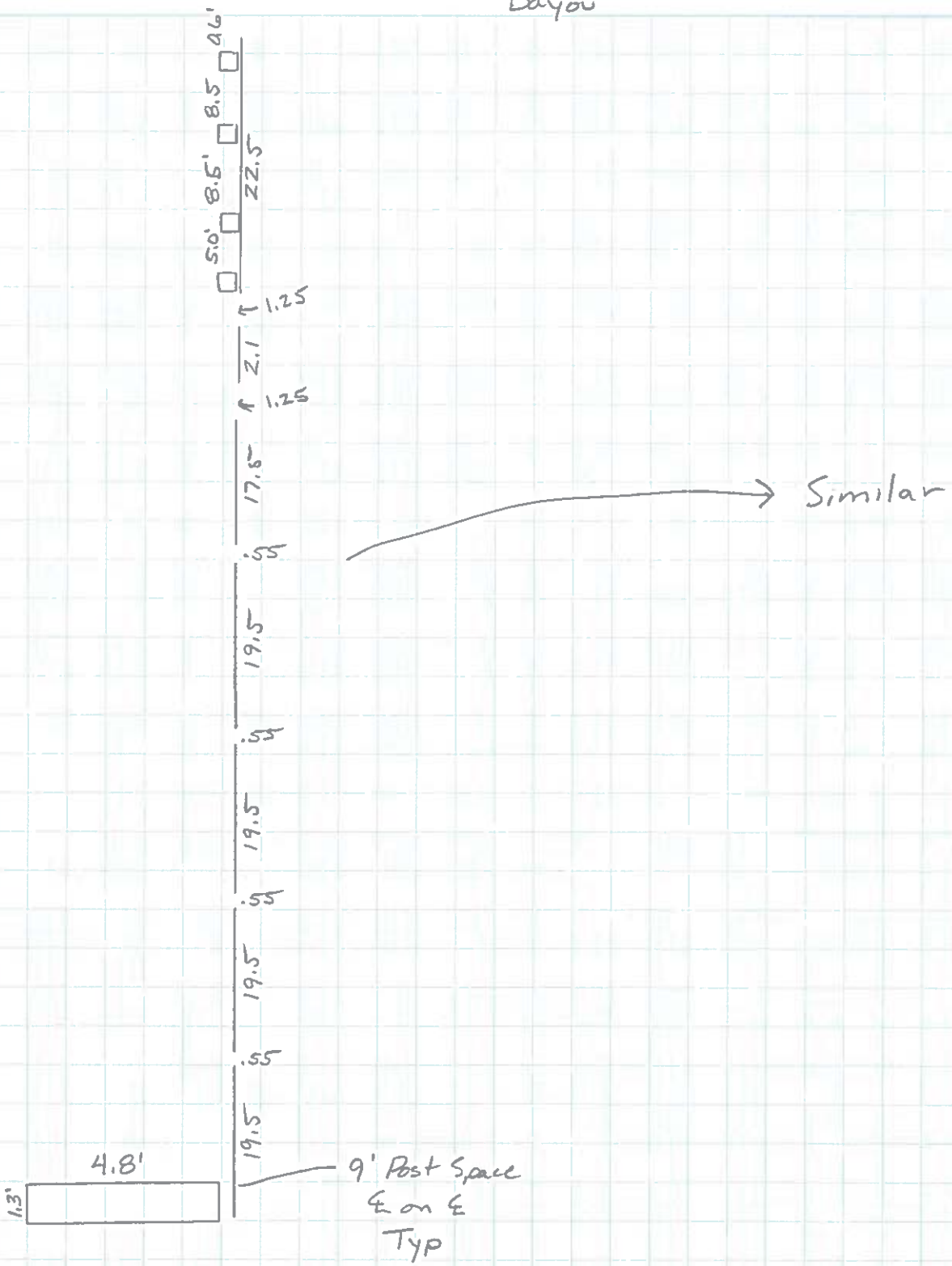
Job No. _____ Sheet _____ of _____
Job Name 000930
Task Rail Details
Calculated by _____ Date _____
Checked by _____ Date _____



Mead & Hunt, Inc.

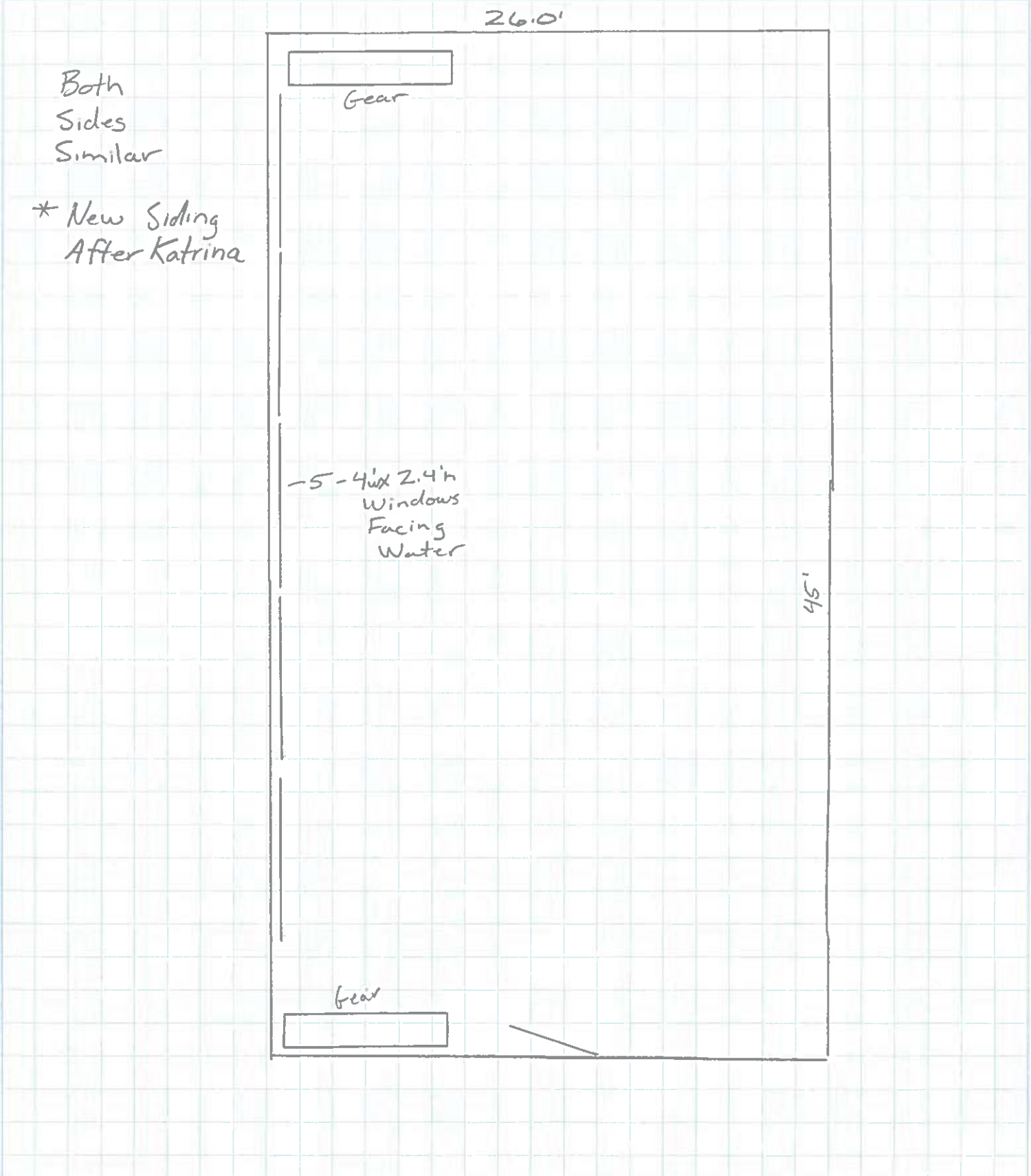
Job No. _____ Sheet _____ of _____
Job Name 000930
Task Rail Details
Calculated by _____ Date _____
Checked by _____ Date _____

Bayou



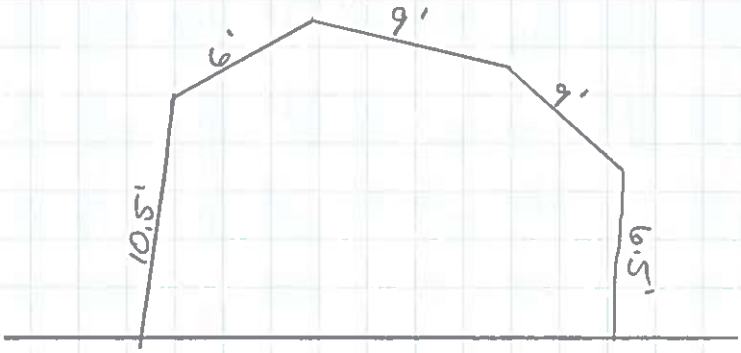
Mead & Hunt, Inc.

Job No. _____ Sheet _____ of _____
Job Name 000930
Task Equipment Room
Calculated by _____ Date _____
Checked by _____ Date _____



Mead & Hunt, Inc.

Job No. _____ Sheet _____ of _____
Job Name 000930
Task Equipment Room Roof Beams
Calculated by _____ Date _____
Checked by _____ Date _____



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INDEX TO SHEETS

STATE OF LOUISIANA

DEPARTMENT OF HIGHWAYS

PLANS OF PROPOSED

STATE HIGHWAY

S-253(3)

STATE PROJECT NO. 64-06-16

LOCKPORT RELOCATION

LAFOURCHE PARISH

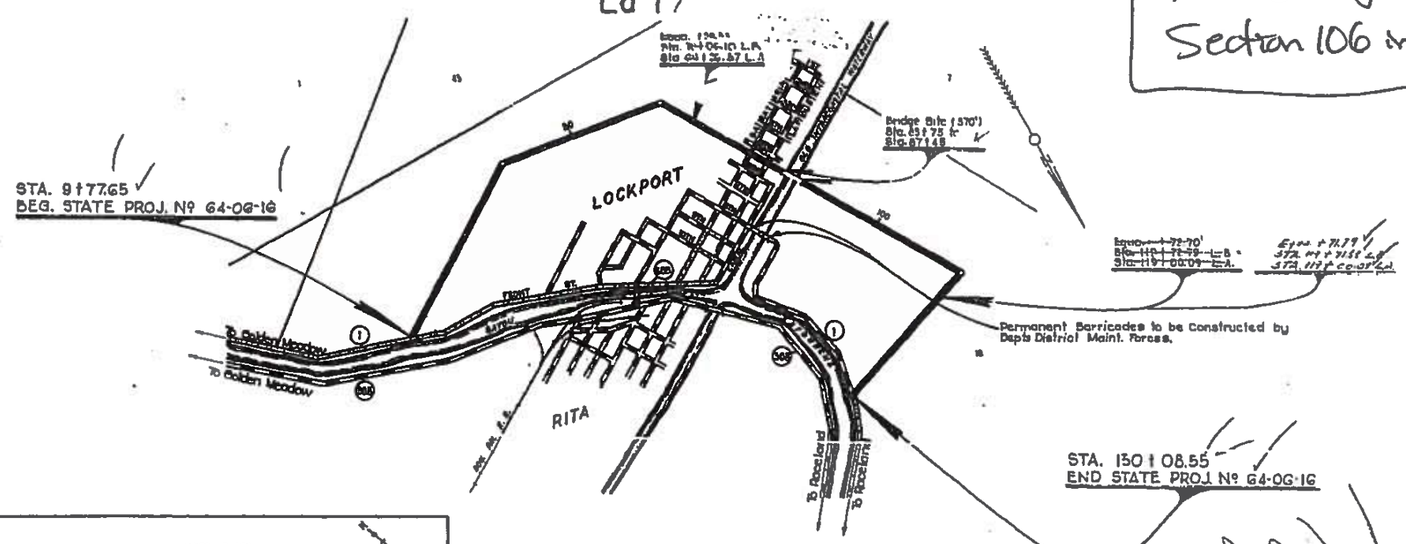
La 1

S	STATE PROJECT	PARISH	SHEET NO.
253(3)	64-06-16	Lafourche	1

LaFourche Parish
Bridge 000930
Tower Vertical Lift

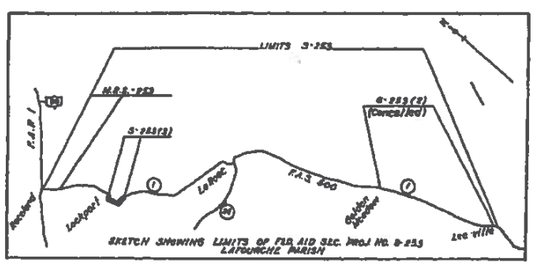
Sheet 1 of 17

Test Bridge
Section 106 in Process



SCHEDULE OF REVISIONS

DATE	REVISION	DATE	RECOMMENDED	DATE	APPROVED



DATUM USED: U. S. C. & G. S. (1932)
MAG. VAR.: 6°-46' E
BEARINGS ARE: True
TRANSIT BOOKS: 56-271
LEVEL BOOKS: 56-491
SCALES PLAN: 1" = 40'
PROFILE: HOR. 1" = 40'
VERT. 1" = 4'

TYPE OF CONSTRUCTION: Portland Cement Concrete Pavement

DELIVERY POINTS: Lockport on Sou. Pac. R. R. and by Barge.

LAYOUT MAP

SCALE: 1 INCH 1000 FEET

LENGTH OF PROJECT

DESCRIPTION	ALGEBRAIC SUM OF ALL EQUATIONS	GROSS LENGTH	EXCEPTION	BRIDGE LENGTH		ROADWAY LENGTH	
STA. TO STA.	FEET	FEET	FEET	FEET	MILES	FEET	MILES
9 + 77.65 - 150 + 08.55	+102.23	+13.15		370	0.070	+1703.15	2.227
	+1412	+1384				+1333	
TOTAL LENGTH OF BRIDGES				370	0.070		
TOTAL LENGTH OF ROADWAY						+1703.15	2.227
TOTAL MILES (Net + -)				2.297			

RECOMMENDED FOR APPROVAL
TRAFFIC & PLANNING ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER 11-7-57

RECOMMENDED FOR APPROVAL
BRIDGE DESIGN ENGINEER 11-7-57

APPROVED
CHIEF ENGINEER 11-7-57

RECOMMENDED FOR APPROVAL DATE
DISTRICT ENGINEER
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

APPROVED DATE
DIVISION ENGINEER
DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

109

000930
Sheet 2 of 17

OK

OK

5'0" Walk

Deck | Walk
.85 curb

measure all basic dimensions of superstructure: length, width, sidewalks, railings, curbs, etc.

26.7'

156'-5"

26.6'

60'

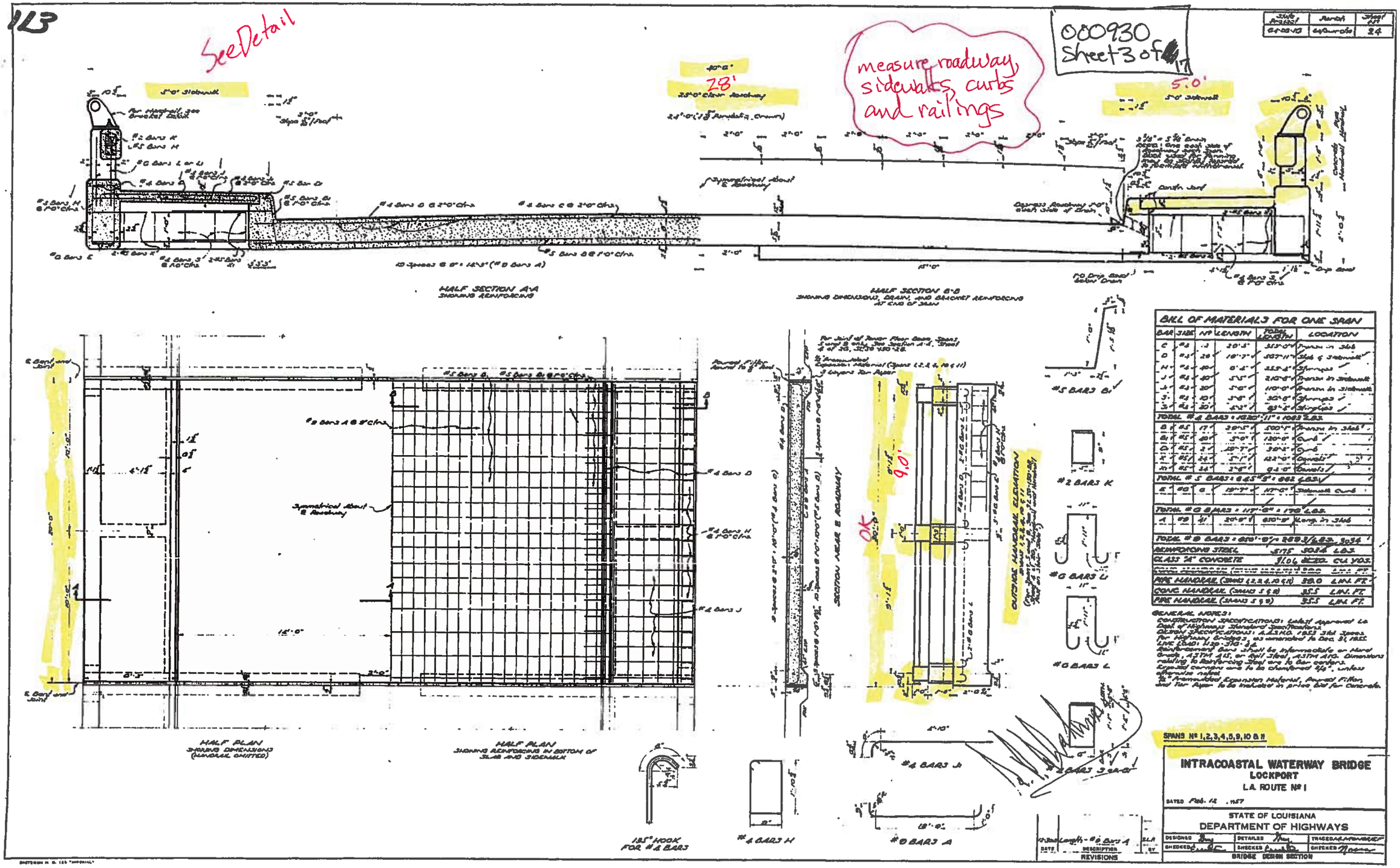
100.0'

55.29

GENERAL BRIDGE PLAN

INTRACOASTAL WATERWAY CROSSING
LOCKPORT
LA. ROUTE No. 1

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS


See Detail
measure roadway, sidewalks, curbs and railings
000930
Sheet 3 of 17
28'
5'-0"
HALF SECTION A-A
SHOWING REINFORCING
HALF SECTION B-B
SHOWING DIMENSIONS, DRAIN, AND BRACKET REINFORCING AT END OF SPAN
BILL OF MATERIALS FOR ONE SPAN
HALF PLAN
SHOWING DIMENSIONS
(HANDRAIL OMITTED)
HALF PLAN
SHOWING REINFORCING IN BOTTOM OF SLAB AND SIDEWALK
SECTION NEAR B ROADWAY
#2 BARS K
#6 BARS L
#5 BARS G
#4 BARS J
#4 BARS H
#6 BARS A
135° HOOK FOR #4 BARS
SPANS Nº 1, 2, 3, 4, 5, 9, 10 & 11
INTRACOASTAL WATERWAY BRIDGE
LOCKPORT
LA. ROUTE Nº 1
DATED Feb. 12, 1957
STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
BRIDGE DESIGN SECTION
REVISIONS

see notes on Sheet 3 of 6

000930 17
Sheet 4 of 16

HALF SECTION THRU ROADWAY AT FLOORBEAM

LIFTING HEAD FOR WIRE ROPES
For complete Assembly, See Machinery drawings

PLAN VIEW AT FIXED END OF SPAN SHOWING SPAN GUIDE AND BUFFER CONN.
(detail at exp. end same except for span guide casting)

WELDING DETAIL FOR SPAN GUIDE ANGLES

SIDEWALK CLIP ⅜ TYP. FOR ALL TRANSV. STIFFN'RS. AT INT. FLOORBEAMS

SIDEWALK CLIP L TYP. FOR TRANSV. STIFFN'R. AT ALT. SPLICE

SIDEWALK CLIP L TYP. FOR ALL TRANSVERSE STIFFN'RS. BETWEEN FLOORBEAMS

SIDEWALK CLIP ⅜ TYP. FOR TRANSVERSE STIFFENERS @ END FLOORBEAMS

SECTION A-A
Grid Deck not Shown

SHOE FOR LIFT SPAN
(4 reqd Total)

Bi-metal may be left blank and drilled in field after parts have been set to correct alignment and adjustment or subpunched or drilled ¾ smaller and reamed to size in field after erection

ELEVATION E-E

CONNECTION DETAIL AT TOWER

PLAN OF SIDEWALK AT FLOORBEAM

CONNECTION DETAIL FOR LATERAL BRACING AT ODD FLOORBEAMS

CONNECTION DETAIL FOR LAT'L BRACING AT EVEN FLOORBEAMS

SECTION B-B

SECTION C-C

SECTION D-D

SPAN BEARING B
(4 reqd. total)(shall be either steel casting or weldment)

SECTION THRU SIDEWALK BETWEEN FLOORBEAMS

MOMENTS AND REACTIONS FOR STRINGERS & FLOORBEAMS

	EXTERIOR STRS.		INTERIOR STRS.		FLOORBEAMS	
	M(K-FT)	R (K)	M(K-FT)	R (K)	M(K-FT)	R (K)
D	6.9	1.4	8.1	1.1	155.6	13.0
D+L	11.4	2.4	0.0	0.0	98.2	8.2
L	48.2	10.5	38.7	20.1	644.1	47.0
I	14.8	4.1	17.6	6.0	188.9	14.1
T	81.0	21.4	81.4	27.8	1081.7	74.0

DETAILS OF 150' VERTICAL LIFT SPAN

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
46'-0" LIFT OPEN STEEL GRID FLOOR
DATE MARCH 16 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
BRIDGE DESIGN SECTION

REVISIONS

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See notes on Sheet 3 of 6

0.85'

HALF SECTION THRU TOWER SPAN AT REAR FLOOR BEAM
SHOWING TYPICAL SIDEWALK AND HANDRAIL REINFORCEMENT

HALF SECTION THRU TOWER SPAN AT FRONT FLOOR BEAM
SHOWING TYPICAL SIDEWALK AND HANDRAIL DIMENSIONS

BILL OF MATERIAL (ONE SPAN)

BAR	SIZE	NO	LENGTH	TOTAL LENGTH	LOCATION
A	#8	92	42'-3"	4026'-6"	Length in Slab
TOTAL NO 8 BARS = 4026'-6" = 2682 LBS.					
N	#8	8	25'-1"	200'-0"	Length in Slab Beam
TOTAL NO 8 BARS = 200'-0" = 133 LBS.					
B	#5	28	30'-0"	840'-0"	Bottom Bolt of Slab
E	#5	30	31'-3"	937'-6"	Top of Slab & Curb Reinf.
F	#5	58	3'-0"	203'-0"	Curb
J	#5	8	4'-10"	38'-8"	Diaphragm
M	#5	8	3'-8"	29'-4"	Diaph. to Slab Dowels
TOTAL NO 5 BARS = 1248'-6" = 1282 LBS.					
C	#4	12	30'-0"	360'-0"	Bottom of Top of Slab
D	#4	30	29'-3"	877'-6"	Top of Slab & Curb Reinf.
G	#4	22	3'-1"	67'-10"	Top of Curb Reinf. in Slab
H	#4	24	6'-3"	150'-0"	Stirrups in Slab Beam
K	#4	30	4'-3"	127'-6"	Stirrups in Diaph.
TOTAL NO 4 BARS = 1282'-4" = 1282 LBS.					
TOTAL REINFORCING STEEL =				4098	LBS.
TOTAL CLASS 'A' CONCRETE =				49.2	CU. YDS.
GALVANIZED CARBON STEEL =				577	LBS.
CONCRETE HANDRAIL				41.20	LIN. FT.
PIPE HANDRAIL				41.20	LIN. FT.

#8 BARS A

#8 BARS N

#5 BARS F #4 BARS K #4 BARS R

SECTION ALONG E ROADWAY

SECTION A-A

SECTION B-B

SECTION SHOWING DRAIN

#4 BARS L2

HALF PLAN
SHOWING HANDRAIL ON SIDE OPPOSITE STAIRS AND REINFORCEMENT AS NOTED

HALF PLAN
SHOWING HANDRAIL SEATING ON STAIR SIDE

#2 BARS H

DETAIL OF REINF. IN HANDRAIL POST AT CONSTRUCTION JOINT

HANDRAIL AND HANDRAIL POST ON STAIR SIDE
OTHER SIDE SIMILAR BUT OPPOSITE HAND

#8 BARS L #8 BARS L

HANDRAIL AND HANDRAIL POST REINFORCEMENT

TOWER SPAN

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
25'-0" ROADWAY 5'-0" SIDEWALKS
45'-0 LIFT OPEN STEEL GRID FLOOR
DATED FEB. 26, 1947

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED AND CHECKED
CHECKED	CHECKED	CHECKED

BRIDGE DESIGN SECTION

REVISIONS

DATE	DESCRIPTION	BY

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THICKNESS AND Nº OF SHIMS TO BE FURNISHED			
SHIMS / BEARING SHIMS	1/16"	1/8"	1/4"
3/8"	2	2	2
1/2"	4	2	4
3/4"	6	5	5

check/measure whatever you can safely get to; take photos

NOTE:
THE CONTRACTOR SHALL DETERMINE THE FINAL DIMENSIONS OF PARTS INVOLVING COMMERCIAL PRODUCTS SUCH AS MOTORS, SPEED REDUCERS, BRAKES, ELECTRICAL EQUIPMENT AND THE LIKE, FROM CERTIFIED DIMENSIONAL OUTLINES OF THE COMMERCIAL PRODUCTS BEFORE MAKING SHOP DRAWINGS OF THE PARTS INVOLVED.

PAINTING NOTE:
ALL UNFINISHED SURFACES OF MACHINERY SHALL BE PAINTED ONE SHOP COAT OF RED LEAD AND OIL. ALL FINISHED SURFACES SHALL BE COATED WITH WHITE LEAD AND TALLOW BEFORE SHIPMENT AND SHALL BE PROTECTED BY WOODEN CASING.

LUBRICATION NOTE:
UNLESS OTHERWISE SHOWN ON DETAIL DRAWINGS
BEARINGS SHALL BE AS FOLLOWS OR APPROVED EQUAL:
PINION BLOCKS, COUPLINGS & PINIONS GEARINGS - E.330 FORK GREASE "O".
GROOVED TEETH - MEDIUM HARD GREASE.
ENCLOSED SPEED REDUCERS - STD. OIL TEXACO 81" VISC. SAE 30.
WIRE ROPE - STD. OIL CO. JUNIATTE COMPOUND Nº 1300.

GENERAL ARRANGEMENT OF SPAN
OPERATING MACHINERY

M1

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H 20-S16-44
28'-0" ROADWAY
45'-0" LIFT
6'-0" SIDEWALKS
OPEN STEEL GRID FLOOR
DATE APRIL 25, 1927

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
DESIGNED KUHEL | DETAILED Brewster | TRACED BY ARMENTROUT
CHECKED Brewster | APPROVED Kuhel | CHECKED Brewster
BRIDGE DESIGN SECTION

REVISIONS
DATE | DESCRIPTION | BY

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EAST ELEVATION

SECTIONAL SOUTH ELEVATION
LOOKING SOUTH

SECTIONAL WEST ELEVATION
LOOKING WEST

NORTH ELEVATION

SOUTH TOWER ELEVATIONS

ORLEANS MATERIALS & EQUIPMENT CO., INC.
NEW ORLEANS, LA.

PRINTS			
No.	DATE	PER	
1	7-10-58		
2	7-15-58		
3	7-16-58		
4	7-21-58		
5	7-24-58	C	

STRUCTURE INTRACOASTAL WATERWAY BRIDGE
LOCATION LAKESIDE CANAL LOUISIANA
ARCHITECT LABARRE, DEPT. OF HIGHWAYS
CONTRACTOR AMERICAN BRIDGE CO.
DETAIL OF ERECTION PLANS - TOWER LEGS
FINISH

DRAWN	DATE	DRAWING NO.
Q	7-10-58	5081
CHECKED	C.O. NO.	SHEET NO.
A		588

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EAST ELEVATION

SECTIONAL SOUTH ELEVATION
LOOKING SOUTH

SECTIONAL WEST ELEVATION
LOOKING WEST

NORTH ELEVATION

NORTH TOWER ELEVATIONS

ORLEANS MATERIALS & EQUIPMENT CO. INC.
NEW ORLEANS, LA.

PRINTS		
NO.	DATE	JOB
4	10-6-36	
3	9-30-36	
2	9-21-36	
1	9-16-36	B
0	9-16-36	C

STRUCTURE Approaches Mississippi River Bridge
LOCATION Algiers Side
ARCHITECT Louisiana Dept. of Highways
CONTRACTOR Walsh Bridge Co.
DETAIL OF Algiers Side (Main Bridge)
PERIOD

SHEET NO.		DATE	CONTRACT NO.
8		7-10-36	3081
DRAWING NO.		C.E.D. NO.	ORIGINAL NO.
3A			326

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No Vehicle Hits

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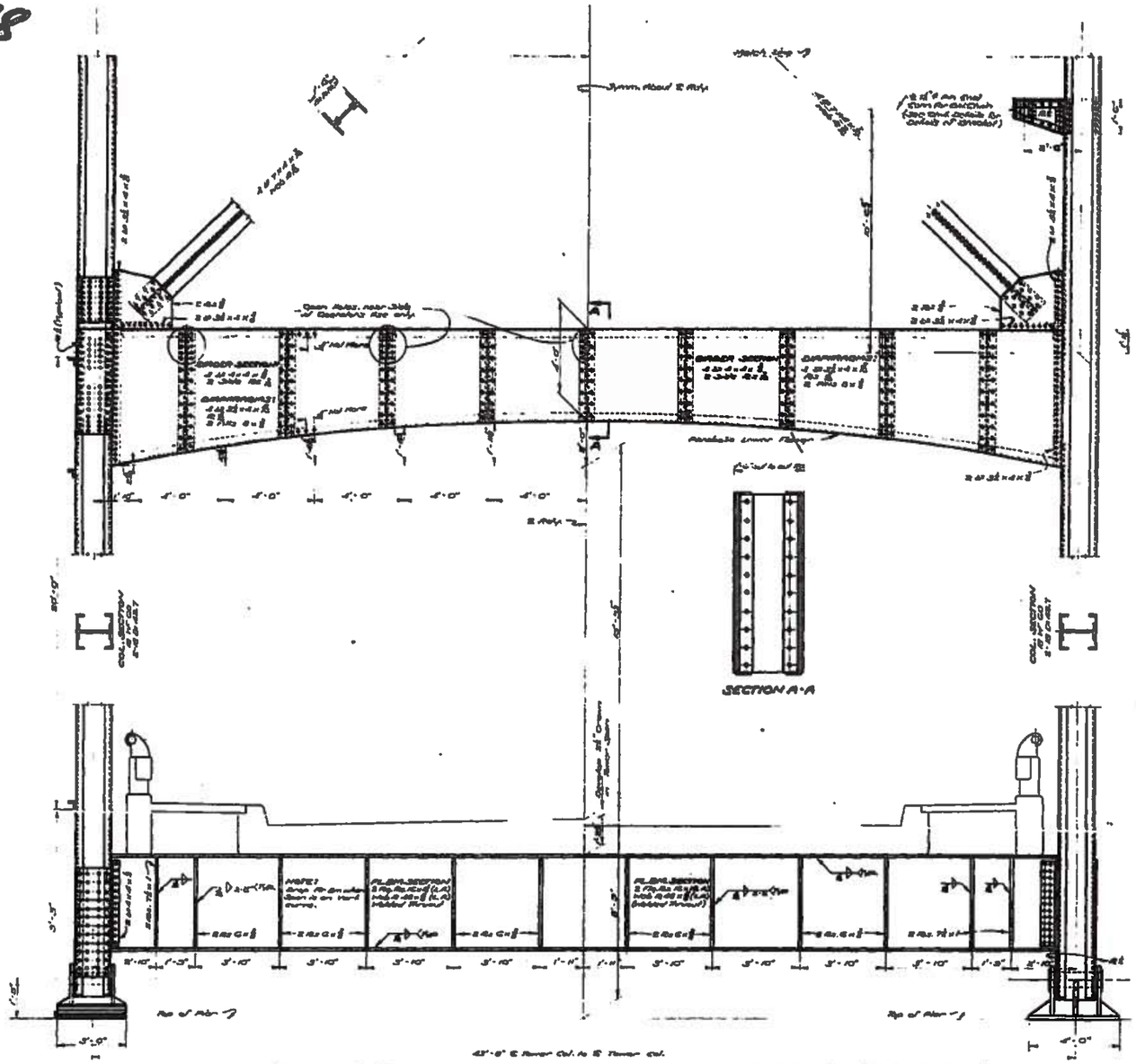
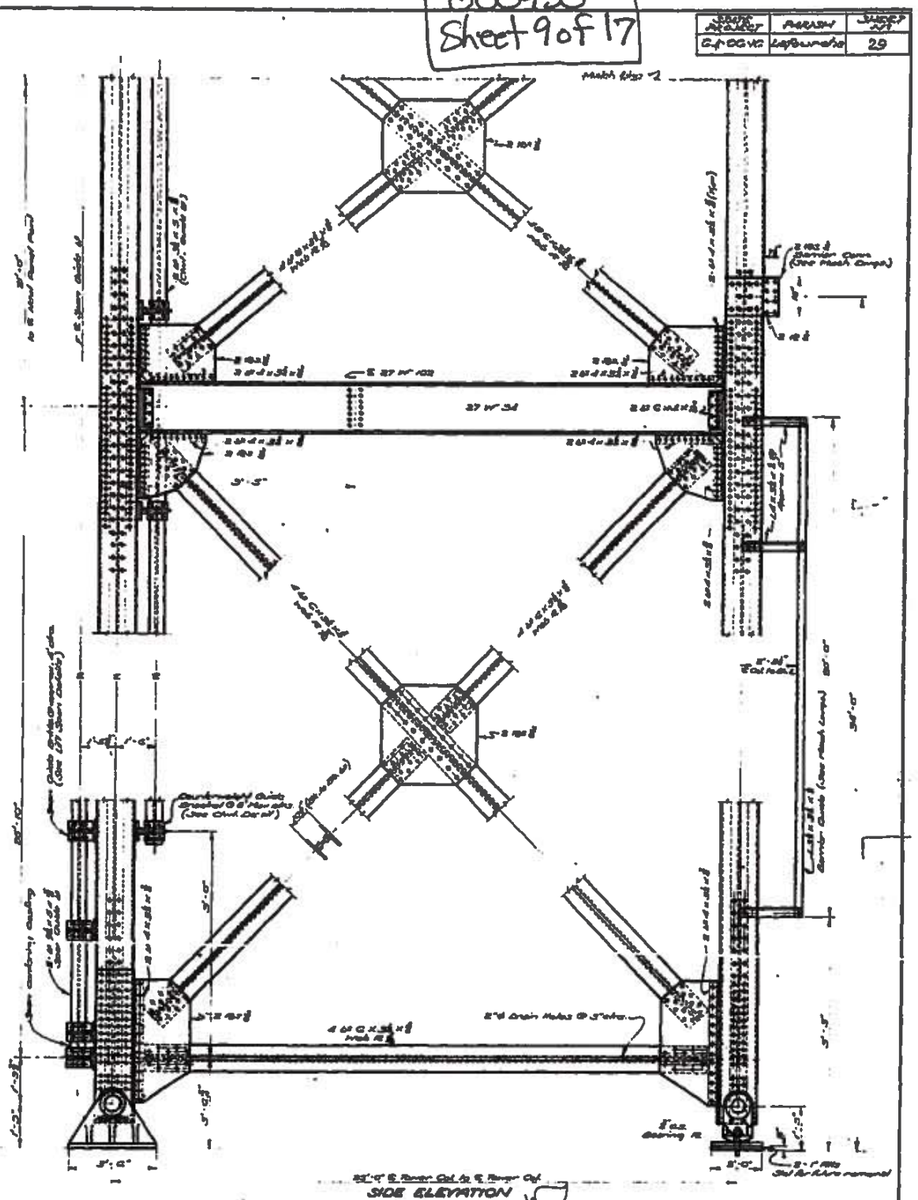
		Sheet No.
		29

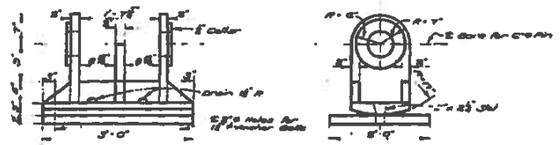


HALF ELEVATION AT REAR OF TOWER

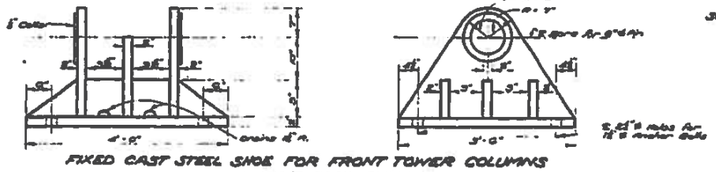
HALF ELEVATION AT FRONT OF TOWER



SIDE ELEVATION



CAST STEEL EXPANSION SHOE FOR REAR TOWER COLUMNS
2 REQ'D. EACH TOWER



FIXED CAST STEEL SHOE FOR FRONT TOWER COLUMNS
2 REQ'D EACH TOWER

SURFACE FINISHES:

TOWER DETAILS

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
46'-0" LIFT OPEN STEEL GRID FLOOR
DATED: April 1, 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED
CHECKED S.L.P.	CHECKED S.L.P.	CHECKED S.L.P.

BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY
	REVISIONS	

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HALF ELEVATION AT REAR OF TOWER

HALF ELEVATION AT FRONT OF TOWER

SIDE ELEVATION

SECTION THRU TYPICAL OPTIONAL COLUMN SPLICE

NOTE: SEE SHEET Nº 7 OF 26 FOR SECTION B-B, C-C, D-D, E-E AND F-F

TOWER DETAILS

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR

DATE APRIL 28 67

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

BRIDGE DESIGN SECTION

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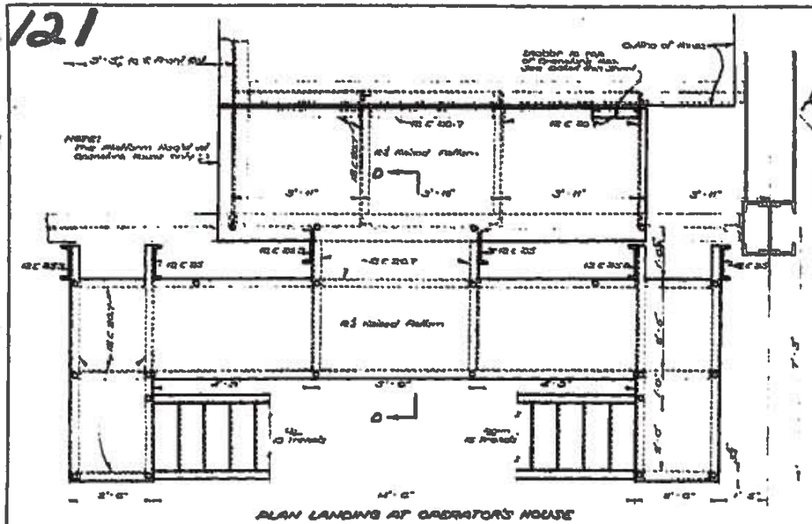
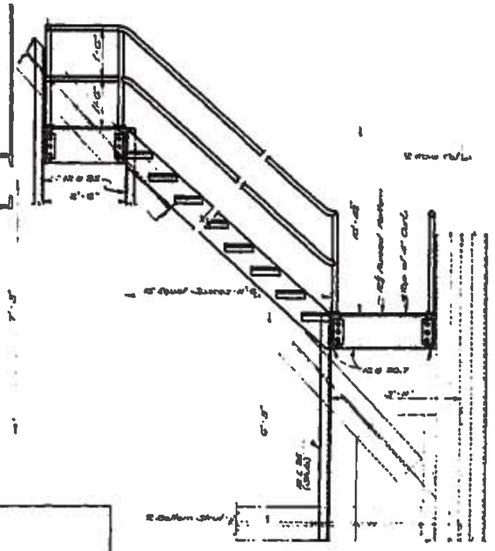
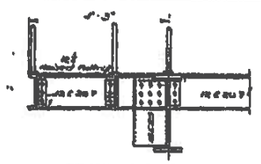


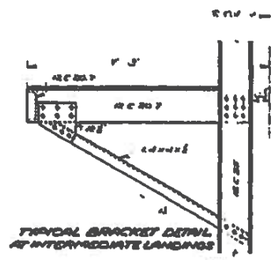
MAIN LANDING AT GENERATOR'S HOUSE



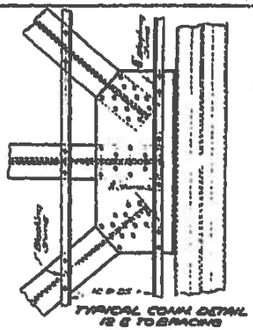
SECTION B-B



SECTION D-D



TYPICAL BRACKET DETAIL AT INTERMEDIATE LANDINGS



TYPICAL CONN. DETAIL I2 & T2 BRACING

SHEET NUMBER	PARISH	SHEET NO.
Ouachita	Ouachita	32

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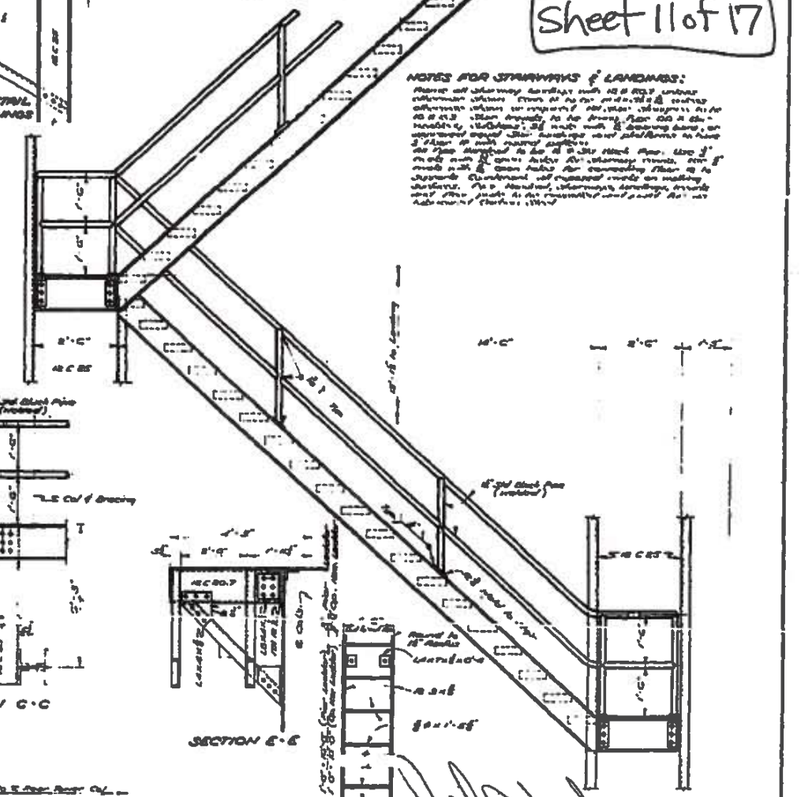
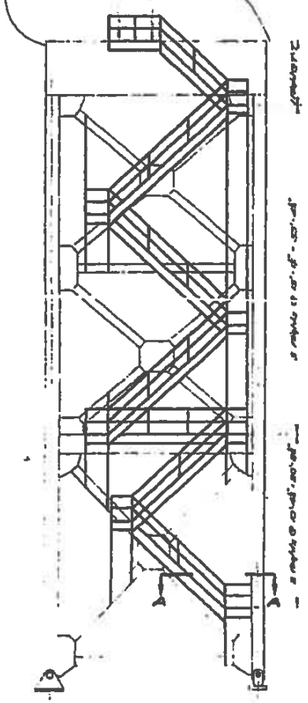
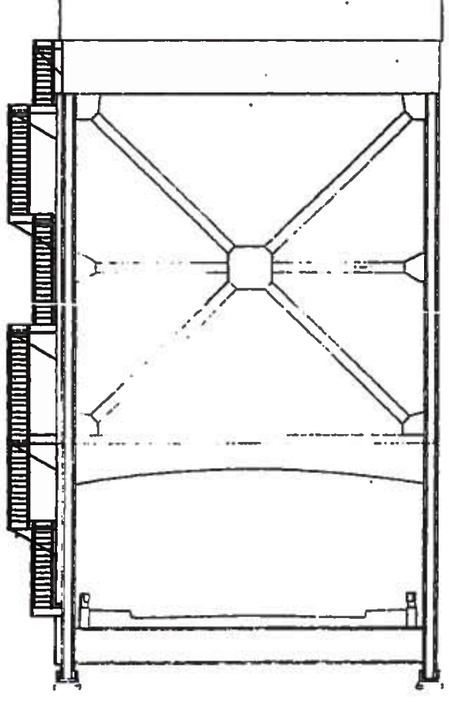
NOTES FOR STAIRWAYS & LANDINGS:



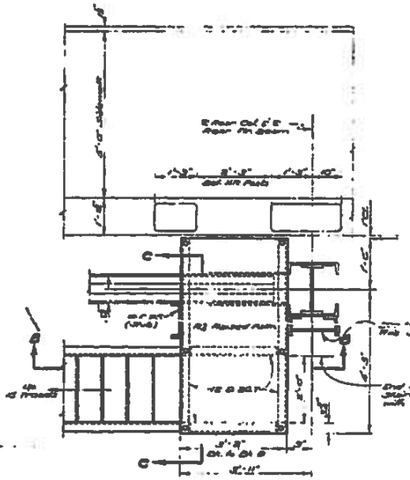


SIDE ELEVATION



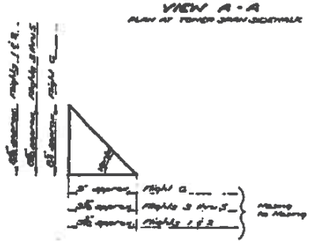
REAR ELEVATION

NOTE: FENCE NOT SHOWN THIS VIEW

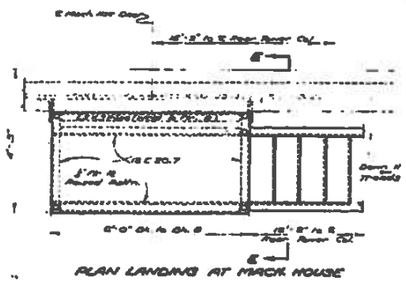


VIEW A-A

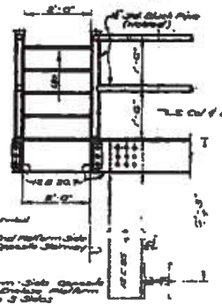
PLAN AT TOWER STAIRWAY SOUTHSIDE



DETAIL OF TREAD SPACING

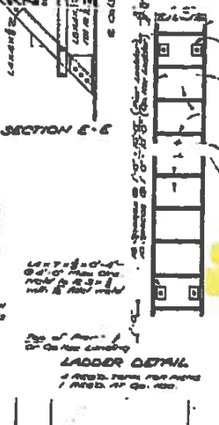


PLAN LANDING AT MACK HOUSE



SECTION C-C

SECTION E-E



LADDER DETAIL

TOWER STAIRWAY DETAILS

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
26'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED April 24, 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY

REVISIONS

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66-00 VG	Lafourche	33

HALF PLAN VIEW

CONCRETE COUNTERWEIGHT ADJUSTING BLOCKS *

* To be included in place "A" Concrete in Counterweight.

The Contractor shall furnish enough blocks to balance span, but not less than 350 blocks, shall be furnished for each counterweight.

BALANCE CHAINS:
(4) Balance Chains consist of (2) 2¼" dia. Carbon Steel Eyebar Chains 21'-0" long. Each chain shall be 2¼" nominal dia. Carbon steel as listed in specifications, ASTM A 29, Gr. 1018, or approved equal. Each eyebar shall have a 2¼" hole at each end. Holes shall be cut, not punched. Flame cut ends shall be cut more than 60 kts. from root face than 250 AA. Balance Chains are to be galvanized.

Approx. wt. of (4) Chains = 9470 Lbs. Balance Chains will be paid for per Lump Sum.

FRONT ELEVATION

SIDE ELEVATION

HALF SIDE ELEVATION

SECTION A-A

SECTION B-B

SECTION C-C

SECTION THRU CTWT.

PART PLAN AT END OF CTWT.

NOTE:
Counterweight Reinforcement to be #5 Bars at Approx. 12" Other Each Way) - All Bars Lap Bars 1'-0"

SECTION D-D

1⅛" x 0'-7½" COLD ROLLED STEEL PIN
Class 45 Heat-treated Carbon Steel
& Rayne Bolt

BELOW DETAIL FOR COUNTERWEIGHT GUIDE L2

	SPAN CLOSED	SPAN RAISED
wt. of Span	382.5 K/pa	382.5 K/pa
wt. of 20' of Apex	3.6	3.6
	386.0 K/pa	386.1 K/pa
wt. of 2 Chains	380.2 K/pa	380.2 K/pa
wt. of 20' of Apex	3.6	3.6
wt. of Balance Chains	6.8	3.6
	3870 K/pa	3436 K/pa

NOTE "A":
This material is classified as angular material and no direct payment will be made for same. See Sheet of Counterweight, Erection Details also.

COUNTERWEIGHT DETAILS

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
48'-0" LIFT OPEN STEEL GRID FLOOR
DATED April 18, 1977

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED BY
CHECKED	CHECKED	CHECKED

BRIDGE DESIGN SECTION

REVISIONS

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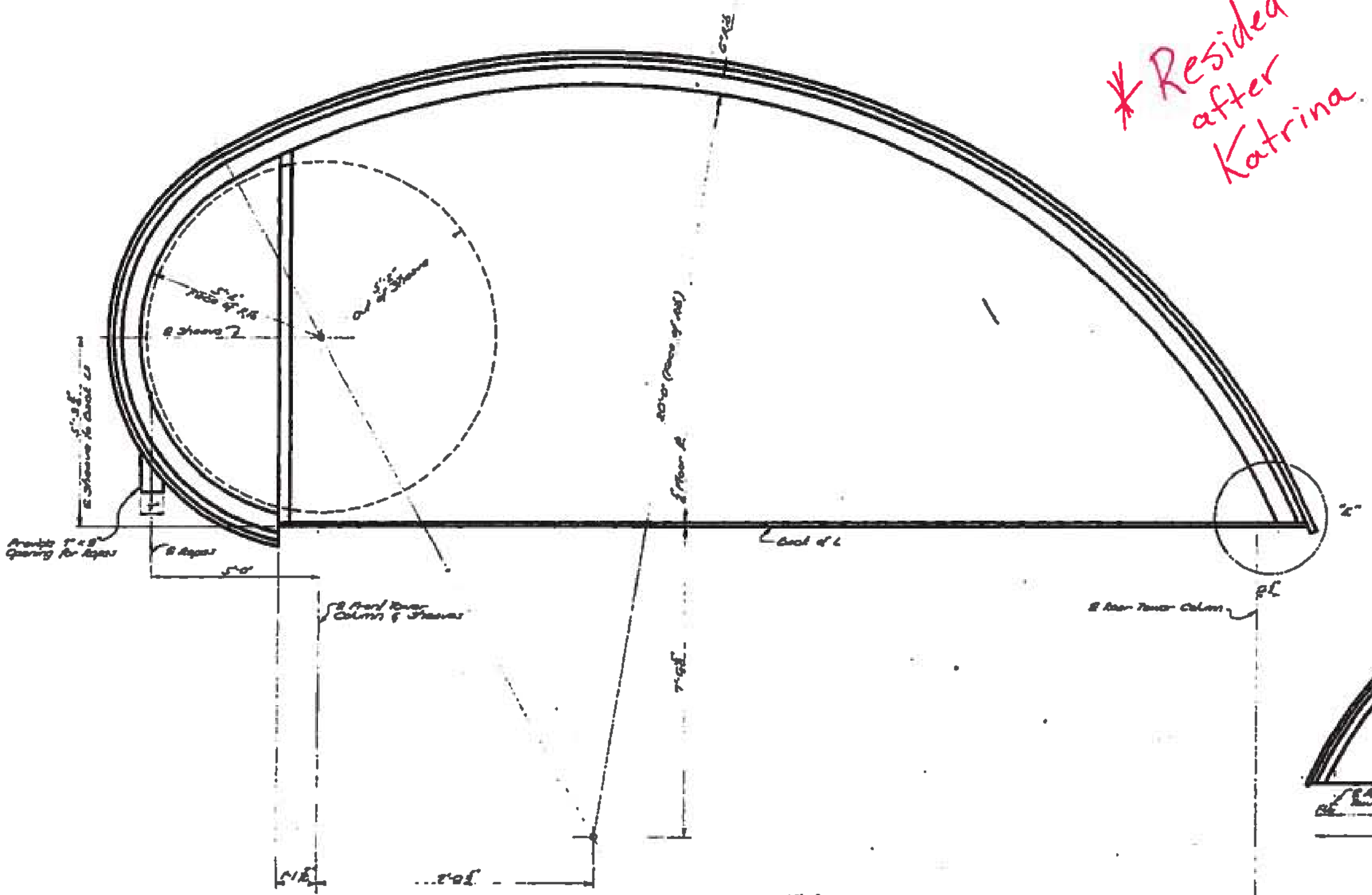
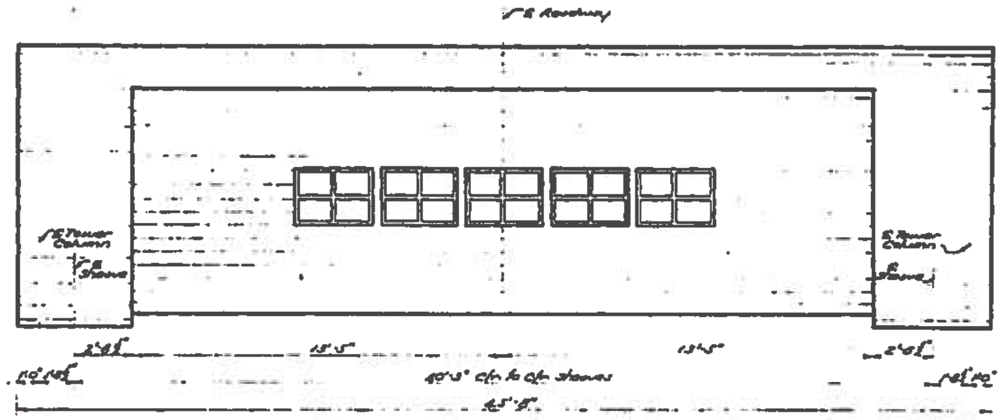
STATE PROJECT	PARISH	SHEET NO.
62-05-76	Lafourche	35

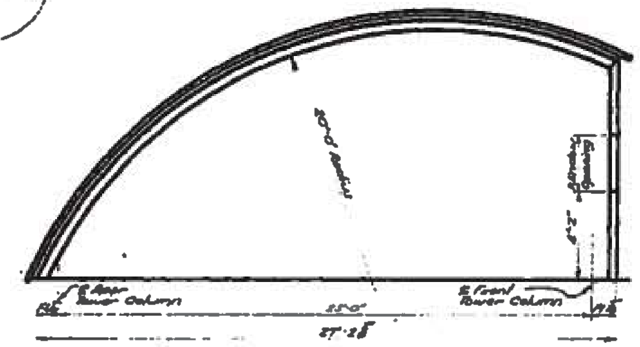
* Resided after Katrina



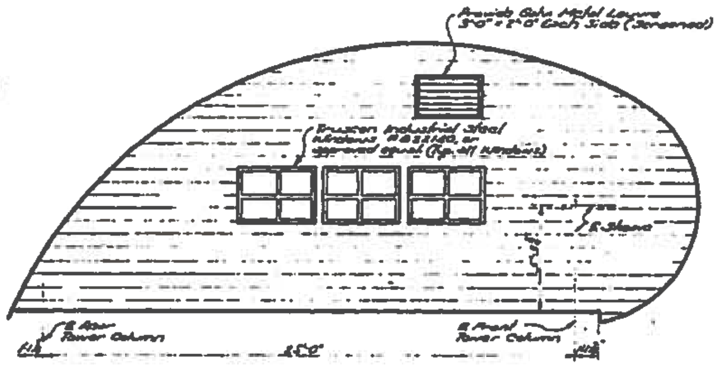
OUTLINE DIMENSIONS
SCALE: ½" = 1'-0"



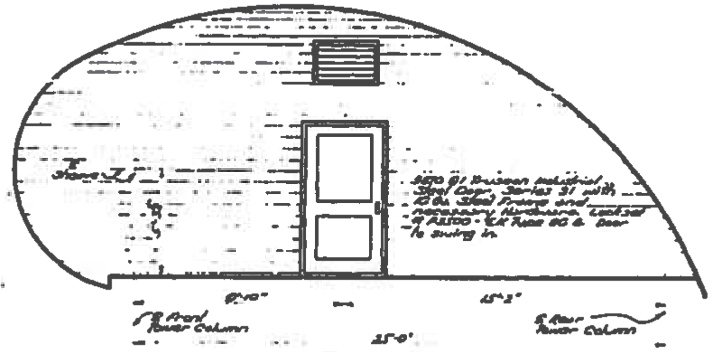
FRONT ELEVATION
SCALE: ⅛" = 1'-0"



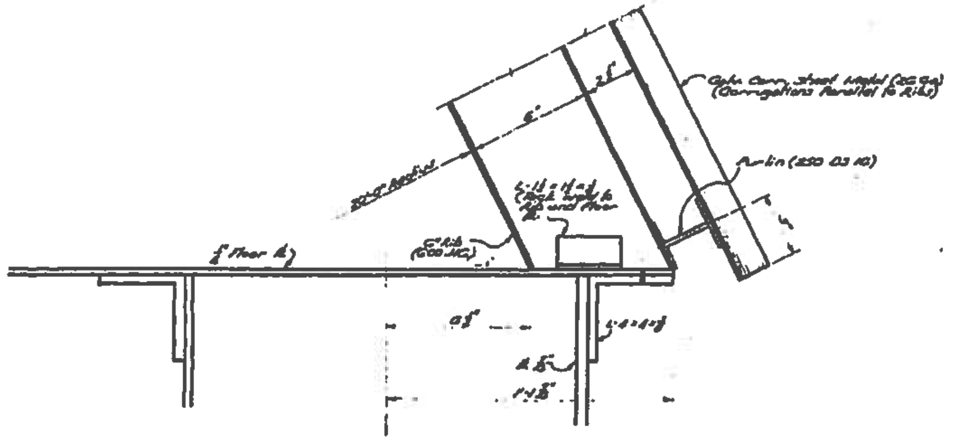
SECTION ALONG Ⱡ ROADWAY
SCALE: ⅛" = 1'-0"



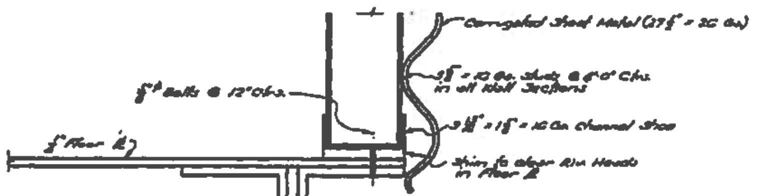
SIDE ELEVATION
SCALE: ⅛" = 1'-0"



SIDE ELEVATION
SCALE: ⅛" = 1'-0"



SECTION "E"



SIDE WALL CONNECTION DETAIL

GENERAL NOTES:

CONSTRUCTION AND DESIGN SPECIFICATIONS: According to the latest design and methods of erection of the "40' STRAN RIB BLDG.", as manufactured by the Stran-Steel Co. or an approved equal. Materials and design to be the equivalent, or better, than the 40' Stran Rib Bldg. ½" Floor Pl. to be paid for as Fabricated Carbon Steel. All other materials necessary to complete house are to be paid in Lump Sum bid for "Machinery House". Doors and windows to be complete and as specified, or an approved equal. Provide lock for door.
Flashing to be 20 Ga. Galv. sheet metal, and provided where necessary to make the house substantially watertight.
Doors and windows to be glazed with polished wire glass.
Provide necessary bracing in walls and ceiling.
Galv. surfaces to receive two field coats of aluminum paint. All foreign material shall be removed from surfaces before painting. The Contractor will not be required to treat Galv. surfaces with solution specified in Specifications "Painting of Metal Surfaces" Art. 4.13, Part 5, Div. II, Std. Specs.

DATE	DESCRIPTION	BY
	REVISIONS	

MACHINERY HOUSES

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED May 6, 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED
CHECKED	CHECKED	CHECKED

BRIDGE DESIGN SECTION

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15.0' O/O

34' inside

PLAN
SHOWING HOUSE LOCATION AND STRUCTURAL STEEL LOCATION
SCALE: 1/8"=1'-0"

FLOOR PLAN
SCALE: 1/4"=1'-0"

ROOF PLAN
SCALE: 1/4"=1'-0"

SECTION A-A
SCALE: 1/2"=1'-0"

OPERATING HOUSE

DOOR AND WINDOW SCHEDULE

MARK	SIZE	TYPE	STYLE	REMARKS
1	3'-5" x 7'-0" x 1 3/4"	Jalousie	41 Glass	Aluminum Frame
2	2'-0" x 6'-8" x 1 3/8"	Flush	Steel	Steel Metal Frame
3	1'-0" x 6'-8" x 1 3/8"	Flush	Steel	Steel Metal Frame
4	3'-0" x 5'-11"	Jalousie	8 Glass	Aluminum Frame GB3-15
5	1'-8" x 2'-3"	Jalousie	8 Glass	Aluminum Frame GB3-15

FINISH SCHEDULE

ITEM	WALLS OUTSIDE	WALLS INSIDE	CEILING	FLOOR	BASE	TRIM	ROOF	MEDICOT
House	Rubbed	Tile & Plaster	Plaster	Tile	Tile	Metal	Tar & Gravel	48" above Floor
Toilet	-	Tile & Plaster	Plaster	Tile	Tile	Metal	-	48" above Floor
Cabinets	Plaster	3/4 Plywood	Plaster	Tile	-	Metal	-	-

NOTE:
All aluminum surfaces to be placed in contact with or fastened to steel members shall be thoroughly coated with an approved aluminum impregnated coating compound. All aluminum surfaces to be placed in contact with concrete shall be given a heavy coat of an approved alkali resistant bituminous paint, or a coat of zinc chromate paint and allowed to dry before placing on the concrete.

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED May 13 1927

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
DRAWN Pearson DETAILED Pearson TRACED AS ABOVE
CHECKED E.C. LeJ CHECKED E.C. LeJ
BRIDGE DESIGN SECTION

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FRONT ELEVATION
SCALE: 1/8" = 1'-0"

SIDE ELEVATION
SCALE: 1/8" = 1'-0"

REAR ELEVATION
SCALE: 1/8" = 1'-0"

SIDE ELEVATION
SCALE: 1/8" = 1'-0"

HALF FRONT ELEVATION
SHOWING REINFORCING
SCALE: 1/8" = 1'-0"

HALF REAR ELEVATION
SHOWING REINFORCING
SCALE: 1/8" = 1'-0"

SECTION B-B
SCALE: 1/8" = 1'-0"

ANCHOR DETAILS
FOR
EXTERIOR BEAMS

OPERATING HOUSE

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
26'-0" ROADWAY 5'-0" SIDEWALKS
46'-0" LIFT OPEN STEEL GRID FLOOR
DATED May 13, 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
DESIGNED | DETAILED | TRACED
CHECKED | CHECKED | CHECKED
BRIDGE DESIGN SECTION

DATE | DESCRIPTION | BY
REVISIONS

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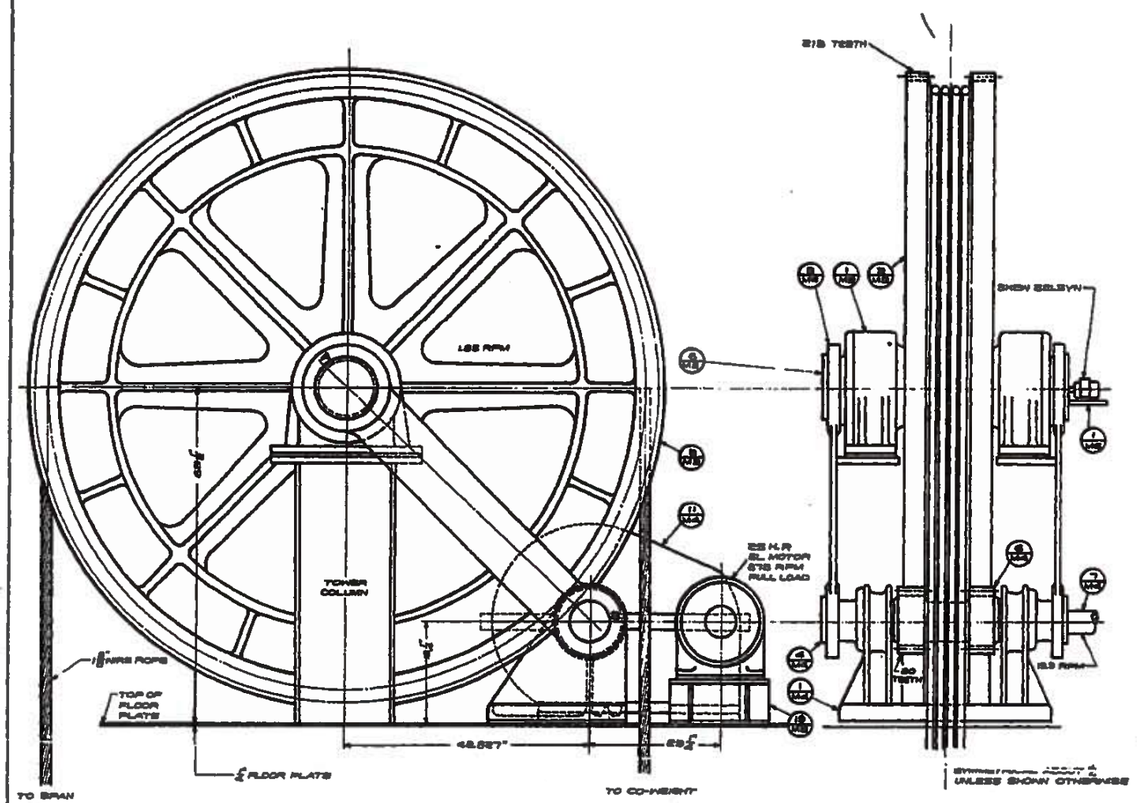
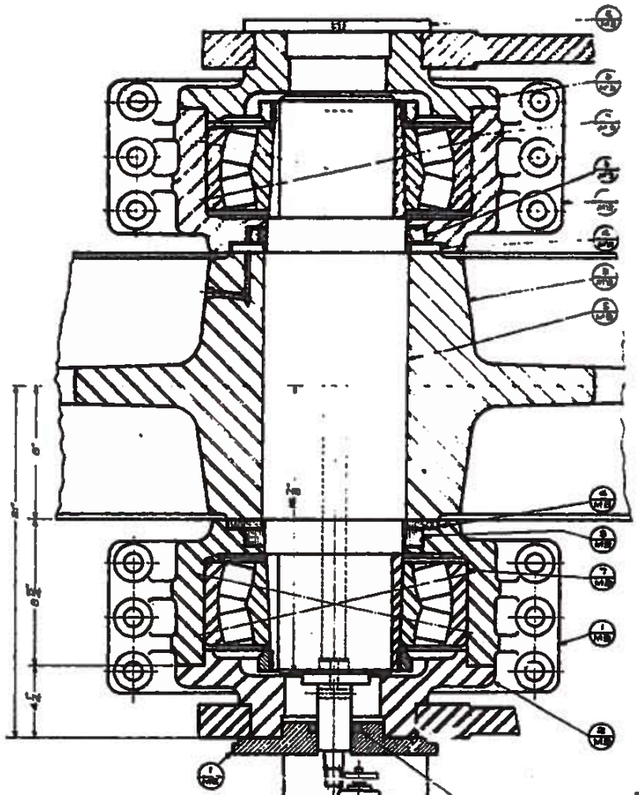
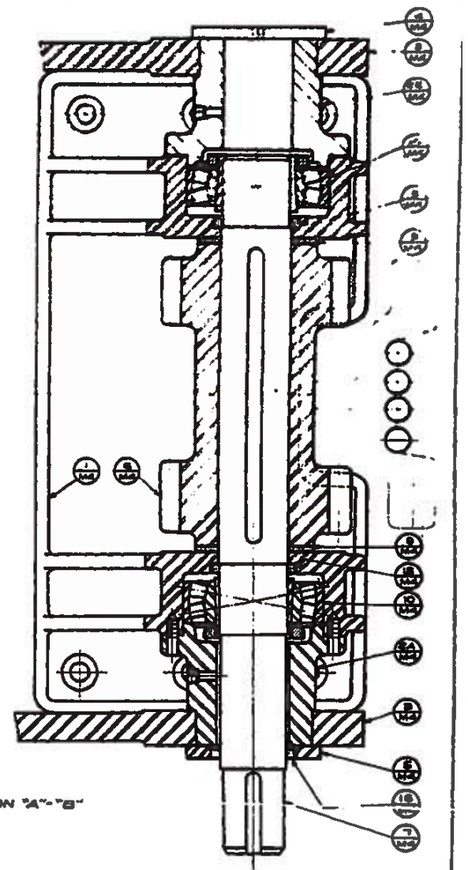


GENERAL ARRANGEMENT OF BRIDGE MACHINERY
ON DWG. # M1



SELSYN MOUNTING AND GEARS ON DWG. M6



SECTION "A"-"B"

NOTE:
FOR REMOVING PINION SHAFT (7) REMOVE CAPS, BEARINGS AND GREASE SEALS FROM BOTH ENDS OF THE ASSEMBLY.
ROTATE THE PINION SPACER (6) TO ALIGN THE COUPLING END OF THE SHAFT UNTIL ITS KEY SLOT IS IN LINE WITH THE KEY SLOT IN THE BORE OF THE HOUSING (1). ROTATE THE SHAFT UNTIL THE KEYS ARE STRAIGHT DOWN. LIFT IT UPWARD AGAINST THE TOP OF THE BORE AND PRESS IT OUT IN THE DIRECTION OF THE COUPLING END.

NOTE:
THE CONTRACTOR SHALL DETERMINE THE FINAL DIMENSIONS OF PARTS INVOLVING COMMERCIAL PRODUCTS SUCH AS MOTORS, SPEED REDUCERS, BEARINGS, ELECTRICAL EQUIPMENT AND THE LIKE, FROM CERTIFIED DIMENSIONS OUTLINES OF THE COMMERCIAL PRODUCTS BEFORE MAKING SHOP DRAWINGS OF THE PARTS INVOLVED.
UNLESS OTHERWISE SHOWN ON DETAIL DRAWING LUBRICANT SHALL BE AS FOLLOWS OR APPROVED EQUAL:
PILLOW BLOCKS, COUPLINGS & TRUNION BEARINGS- ESSO FIBRE GREASE "C"
EXPOSED TEETH- MEDIUM HARD GREASE.
ENCLOSED SPEED REDUCERS- STD. OIL "TERESSO 65" VISC SAE 90.
WIRE ROPE- STD. OIL CO. SURRETTE COMPOUND N° 1500.
ALL UNFINISHED SURFACES OF MACHINERY SHALL BE PAINTED ONE SHOP COAT OF RED LEAD AND OIL.
ALL FINISHED SURFACES SHALL BE COATED WITH WHITE LEAD AND TALLOW BEFORE SHIPMENT AND SHALL BE PROTECTED BY WOODEN LAGGING.

ASSEMBLY OF GEAR TRAIN FOR SHEAVE DRIVE

M2

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
45'-0" LIFT OPEN STEEL GRID FLOOR
DATED FEB. 22 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS
DESIGNED Kuzel DETAILED Kuzel TRACED O. Chatman
CHECKED Brewer CHECKED Brewer CHECKED Brewer
BRIDGE DESIGN SECTION

REVISIONS
DATE DESCRIPTION BY

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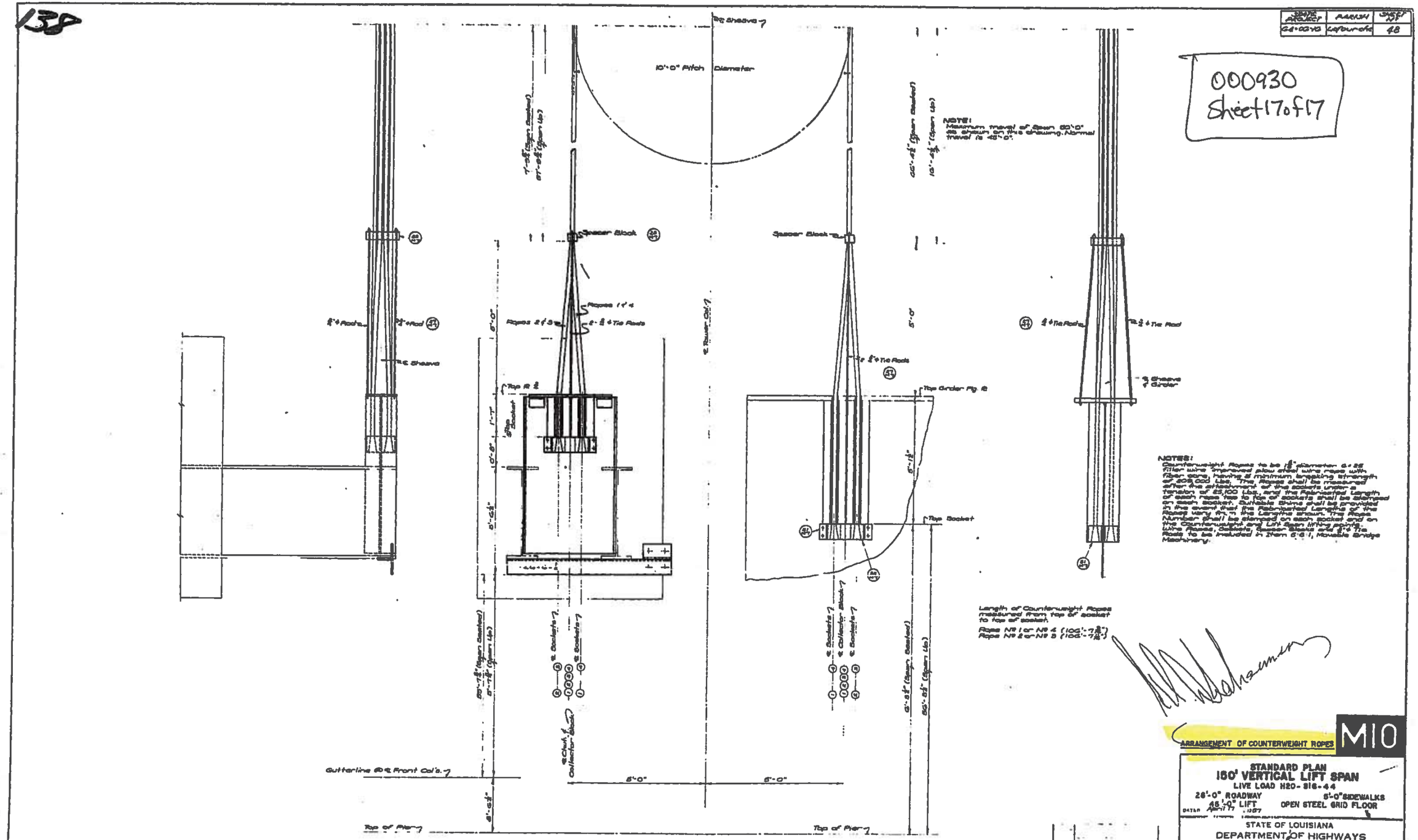

ARRANGEMENT OF COUNTERWEIGHT ROPES

M10

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
DATUM 45'-0" LIFT OPEN STEEL GRID FLOOR
April 17, 1927

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED	DETAILED	TRACED
CHECKED S.L.F.	CHECKED S.L.F.	CHECKED S.L.R.

BRIDGE DESIGN SECTION

DATE	DESCRIPTION

REVISIONS

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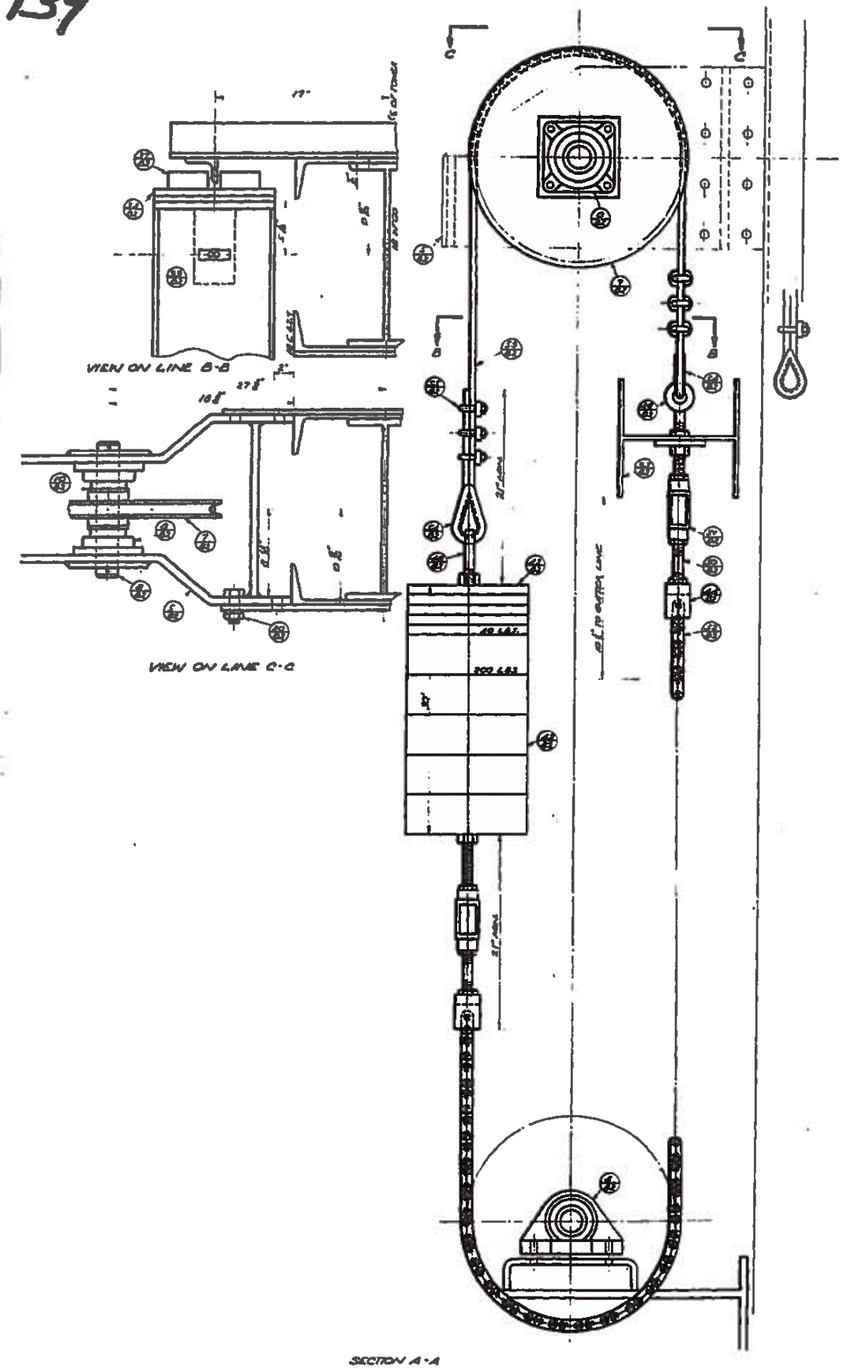

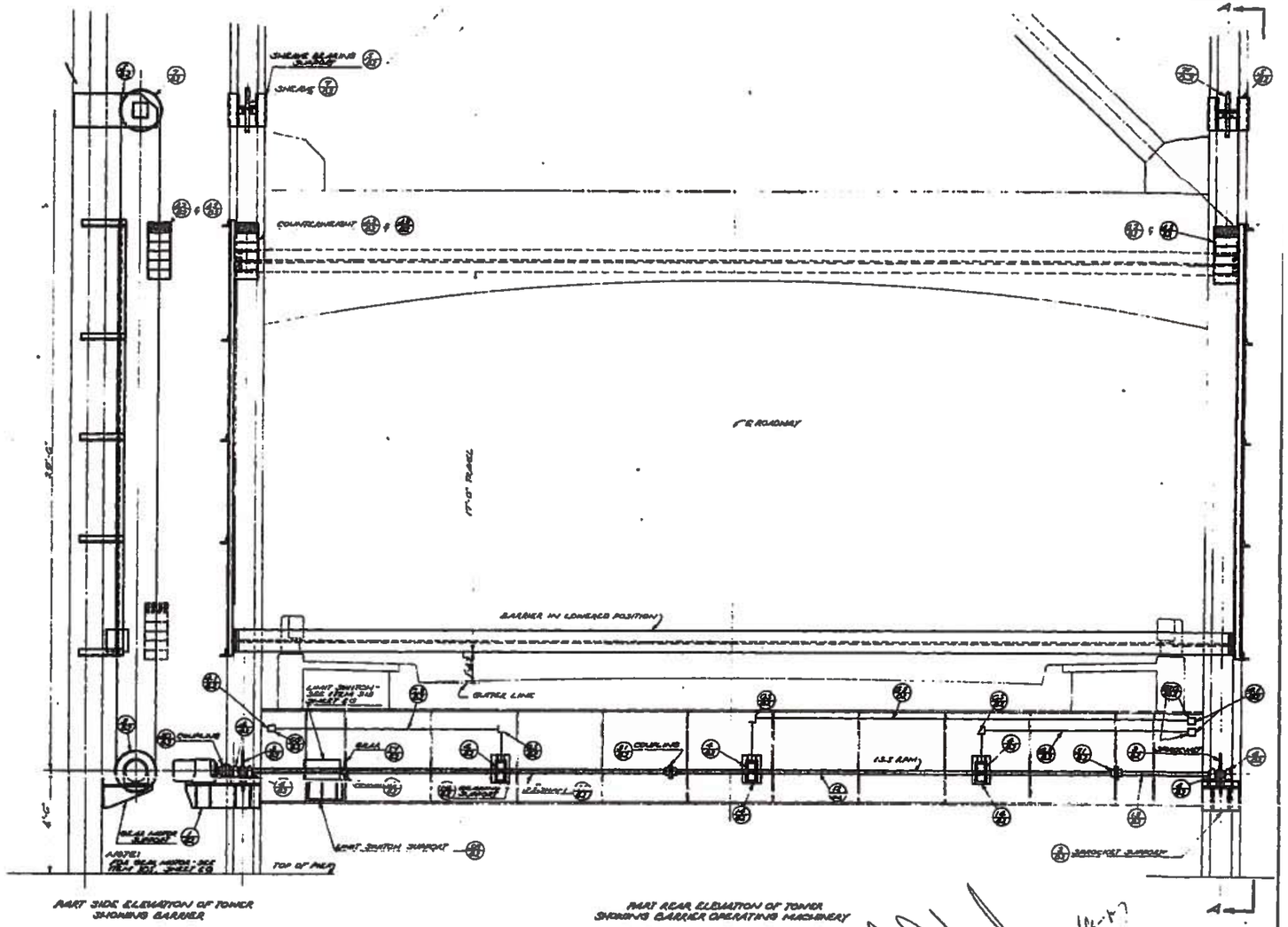

NOTE:
THE CONTRACTOR SHALL DETERMINE THE FINAL DIMENSIONS OF PARTS INVOLVING COMMERCIAL ARTICLES SUCH AS MOTORS, SPEED REDUCERS, BEARINGS, ELECTRICAL EQUIPMENT AND THE LIKE, FROM CERTIFIED DIMENSIONAL OUTLINES OF THE COMMERCIAL PRODUCTS BEFORE MAKING SHOP DRAWINGS OF THE PARTS INVOLVED.

PAINTING NOTE:
ALL UNFINISHED SURFACES OF MACHINERY SHALL BE PAINTED ONE SHOP COAT OF RED LEAD AND OIL. ALL FINISHED SURFACES SHALL BE COATED WITH WHITE LEAD AND TALLOW BEFORE SHIPMENT AND SHALL BE PROTECTED BY WOODEN CASINGS.

LUBRICATION NOTE:
UNLESS OTHERWISE SHOWN ON DETAIL DRAWINGS, LUBRICANT SHALL BE AS FOLLOWS OR APPROVED EQUAL:
PILLOW BLOCKS, COUPLINGS, & BUSHING BEARINGS - #220 FIBER GREASE "C".
ENCLOSED TEETH - MEDIUM MAD GREASE.
ENCLOSED SPEED REDUCERS - STD. OIL "TEXACO 97" VISC. SAE 90.
WIRE ROPE - STD. OIL CO. SUNNITE COMPOUND N°1709.

THICKNESS / BAR REINFORCING SIZE	#6	#7	#8
#4	4	3	4

GENERAL ARRANGEMENT OF TRAFFIC BARRIER

B1

STANDARD PLAN
150' VERTICAL LIFT SPAN
LIVE LOAD H20-S16-44
28'-0" ROADWAY 5'-0" SIDEWALKS
46'-0" LIFT OPEN STEEL GRID FLOOR
DATED MAY 1 1957

STATE OF LOUISIANA
DEPARTMENT OF HIGHWAYS

DESIGNED Rozell	DETAILED Brewer	TRACED M. Mouchet
CHECKED Brewer	CHECKED Rozell	CHECKED Brewer

BRIDGE DESIGN SECTION

DATE	DESCRIPTION	BY

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DIETZGEN N. O. 139 "IMPERIAL"