



COMPTON ENGINEERING, INC.

ENGINEERING, SURVEYING & ENVIRONMENTAL SERVICES

TRANSMITTAL

Date: December 22, 2016

Total No. of Pages: 22
(including this cover)

To: All Planholders

From: Joey Duggan *JD*
Senior Project Manager

Re: Boat Lifts at the Ocean Springs Harbor

Attached herewith is Addendum No. 1 for the above referenced project.

PLEASE ACKNOWLEDGE YOUR RECEIPT OF THIS ADDENDUM BY COMPLETING THE ACKNOWLEDGEMENT BELOW AND FAXING THIS PAGE ONLY TO (228) 769-9079.
Acknowledgement of this addendum on Page 8 of Division 0, Section 00300 Proposal Form is also required.

If you have any questions regarding this addendum, please call me at (228) 762-3970.

ACKNOWLEDGEMENT FORM

ADDENDUM NO. 1

FOR

BOAT LIFTS AT THE OCEAN SPRINGS HARBOR

TO: Compton Engineering, Inc.
1706 Convent Avenue
Pascagoula, MS 39567

Telephone: (228) 762-3970
Facsimile: (228) 769-9079

We hereby acknowledge receipt of Addendum No. 1 for the above referenced project. We will ensure that Addendum No. 1 is acknowledged in the bid submitted by our company.

Print name of company: _____

Print name of person acknowledging receipt of addendum: _____

Signature of person acknowledging receipt of addendum: _____

Date of acknowledgement: _____

PASCAGOULA

BILOXI

BAY ST. LOUIS

SECTION 00901-01
ADDENDUM NO. 1

Date: December 22, 2016

Project: Boat Lifts at the Ocean Springs Harbor	Owner: Mississippi Department of Marine Resources	Engineer's Project No.: 216-015
----------------------------------------------------	------------------------------------------------------	------------------------------------

The following changes, additions, and/or deletions are hereby made a part of the Project Manual for the Boat Lifts at the Ocean Springs Harbor for the Mississippi Department of Marine Resources dated July 2016 as fully and completely as if the same were fully and completely set forth therein:

VOLUME 1 – PROJECT MANUAL

The Pre-Bid Conference Minutes are hereby **ADDED** as **Attachment No. 1 to Addendum No. 1**, and are now considered a part of this project manual.

Part 1 – Bidding Requirements and Contract Forms

1. SECTION 00300 PROPOSAL FORM: **REPLACE** this section in its entirety with **Attachment No. 2 to Addendum No. 1**.

Part 2 – Contract Forms

1. SECTION 00500 STANDARD FORM OF AGREEMENT BETWEEN THE OWNER AND THE CONTRACTOR: **REPLACE** this section in its entirety with **Attachment No. 3 to Addendum No. 1**.

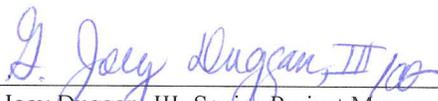
Part 4 – Technical Specifications

1. SECTION 02361 TEST PILES: **DELETE** this section in its entirety. Test piles will not be used.
2. SECTION 02454 PRESTRESSED CONCRETE PILES: **REPLACE** this section in its entirety with **Attachment No. 4 to Addendum No. 1**. All references to test piles have been struck through. Pile capacities have been updated.
3. SECTION 14550 BOAT LIFTS: **ADD** this section in its entirety as **Attachment No. 5 to Addendum No. 1**. Boat lifts to be GatorVator 4 post, 4 motor beamless lifts manufactured by Golden Manufacturing or equal.

All bidders shall acknowledge receipt and acceptance of this Addendum No. 1 consisting of one (1) page plus attachments by signing the acknowledgement form preceding this addendum and also acknowledging the addendum on Page 8 of Division 0, Section 00300 Proposal Form. Bids submitted without acknowledging receipt of the addendum may be considered non-responsive.

Sincerely,

MISSISSIPPI DEPARTMENT OF MARINE RESOURCES

By: 
G. Joey Duggan, III, Senior Project Manager



COMPTON ENGINEERING, INC.

ENGINEERING, SURVEYING & ENVIRONMENTAL SERVICES

156 Nixon Street
Biloxi, MS 39530

Phone: 228.432.2133
Fax: 228.432.8149

comptonengineering.com

ATTACHMENT NO. 1 TO ADDENDUM NO. 1

MEMORANDUM

TO: All Attendees

FROM: Joey Duggan
Senior Project Manager

SUBJECT: **PRE-BID CONFERENCE**
Boat Lifts at the Ocean Springs Harbor
for Mississippi Department of Marine Resources (MDMR)
(CE Project Number 216-015)

DATE: December 22, 2016

MEETING DATE: December 13, 2016

PLACE: Mississippi Department of Marine Resources
Dock at Ocean Springs Harbor
Ocean Springs, Mississippi

ATTENDEES: Michelle Williams, MS Department of Marine Resources
Vandy Mitchell, MS Department of Marine Resources
Casey Vice, M&D Construction
Bob Hodges, J. E. Borries
Jay Schmidt, K & G Crane
AFC, Inc.
Joey Duggan, Compton Engineering

ATTACHMENTS: Agenda
Meeting Minutes
List of Attendees

PASCAGOULA

BILOXI

BAY ST. LOUIS

AGENDA
PRE-BID CONFERENCE

Date: December 13, 2016 Time: 1:00 P.M.

Project: Boat Lifts at the Ocean Springs Harbor	Location: Ocean Springs, MS	MDMR Project No.: 1450-17-R-IFBD-00003
Contract: Boat Lifts at the Ocean Springs Harbor		Engineer's Project No.: 216-015

1. **OPENING REMARKS**
2. **INTRODUCTION**
3. **FUNDING**
4. **BID**
5. **CONTRACT PERIOD**
6. **QUESTIONS FROM THE FLOOR**
7. **CLOSING REMARKS**

MINUTES PRE-BID CONFERENCE

Date: December 13, 2016 Time: 1:00 P.M.

Project: Boat Lifts at the Ocean Springs Harbor	Location: Ocean Springs, MS	MDMR Project No.: 1450-17-R-IFBD-00003
Contract: Boat Lifts at the Ocean Springs Harbor		Engineer's Project No.: 216-015

1. OPENING REMARKS

The meeting began at approximately 1:00 P.M. The List of Attendees is attached.

2. INTRODUCTION

The project consists of selective demolition of an existing pier, driving 14" square concrete piles, constructing finger piers, installing one (1) 24,000 pound boat lift and two (2) 20,000 pound boat lifts, constructing a wood frame canopy over the boat lifts and finger piers, and ADA compliant parking and ramp to the existing dock.

3. FUNDING

This project is funded by Mississippi Department of Marine Resources.

4. BID

The bid is a unit price bid. The bid form is broken out into base bid, plus Alternate #1 – providing Pier 4 complete, and Alternate #2 – providing wood shelter over the boat lifts.

5. CONTRACT PERIOD

The time of beginning, rate of progress, and time of completion of the work is the essence of the contract and is the responsibility of the Contractor. The work shall be executed as required by the Contract Documents. The completion date will be **120** calendar days from the Notice to Proceed date. If the Contractor fails to complete the project within the time limit, liquidated damages in the amount of **\$795.00** per calendar day will apply.

6. QUESTIONS FROM THE FLOOR

Q1. What grade of lumber are we using?

A1. The lumber grades and sizes are stated in the drawings and specs. All lumber except roof decking, pier decking and glulam material to be southern pine select structural. Roof and pier decking to be Southern Pine #1. Glulam to be 24F-1.8E Balanced. All lumber to be treated.

Q2. What type and size are the boat lifts?

A2. Boat lifts to be 24,000 lb and 20,000 lb Gatorvator 4 Post, 4 Motor Lift by Golden Manufacturing or equal. We will have a spec out shortly for the boat lifts. The pile layout and pier arrangement is based on the Golden Manufacturing boat lift.

Q3. What are the pile lengths?

A3. The pile lengths are 41 feet long with about 27 feet driven as stated in the project drawings.

Q4. Will there be any pile testing?

A4. There will not be any pile testing. Pile capacity will be adequate at the tip elevation shown in the project drawings.

7. **CLOSING REMARKS**

The meeting adjourned at approximately 1:30 P.M.

ATTACHMENT NO. 1 TO ADDENDUM NO. 1

PRE-BID CONFERENCE
 LIST OF ATTENDEES
 BOAT LIFTS AT THE OCEAN SPRINGS HARBOR
 FOR
 MISSISSIPPI DEPARTMENT OF MARINE RESOURCES
 TUESDAY, DECEMBER 13, 2016 AT 1:00 P.M.

Representative/ Company Name	Address	Phone Numbers and Email Address
Michelle Williams MS Dept of Marine Resources	1141 Bayview Ave. Biloxi MS 39530	Office: (228) 523-4146 Fax: () - Cell: () - Email: michelle.williams@dmr.ms.gov
VANDY MITCHELL MS DEPT MARINE RESOURCES	1141 BAYVIEW AVE. BILLOXI MS 39530	Office: (228) 523-1222 Fax: () - Cell: () - Email: VANDY.MITCHELL@DMR.MS.GOV
Casey Vice M+D Const	4006 Krotke Ave Moss Point, MS 39562	Office: (228) 475-1571 Fax: () - Cell: () - Email: CVice@M-Dconst.net
Bob Hodges J.E. Borries	16701 Hwy 57 Vancleave, MS 39565	Office: (228) 826-4947 Fax: (228) 826-2251 Cell: (228) 669-2626 Email:
Jay Schmiot	K&G CRANE	Office: (228) 381-1601 Fax: () - Cell: () - Email: JAY.Schmiot@hotmail.com
AFC INC	2510 HWY 53 PERKINSTON MS 39573	Office: (228) 697-1924 Fax: () - Cell: () - Email: ELADNER@AFC-CONTRACTORS.COM
		Office: () - Fax: () - Cell: () - Email:
		Office: () - Fax: () - Cell: () - Email:
		Office: () - Fax: () - Cell: () - Email:
		Office: () - Fax: () - Cell: () - Email:

PROPOSAL FORM
SECTION 00300

To: Mississippi Department of Marine Resources
1141 Bayview Avenue
Biloxi, MS 39530

Re: Project # MDMR Project No. 1450-17-R-IFBD-00003
Project Title Boat Lifts at the Ocean Springs Harbor
Location Ocean Springs Harbor, Ocean Springs, Jackson County, MS

I propose to complete all work in accordance with the Project Manual and Drawings within 120 consecutive calendar days for the sum of: (Professional must specify number of days)

BASE BID: (Write in the amount of the base bid in words and numbers. The written word shall govern.)
_____ Dollars (\$ _____)

ALTERNATES: (Write in the amount of all of the alternates in words and numbers. The written word shall govern.)

Alternate #1 () Adds () Deducts

Dollars (\$ _____)
Description Pier 4: This alternate includes providing Pier 4 complete. See Section 01900 for a detailed scope.

Alternate #2 () Adds () Deducts

Dollars (\$ _____)
Description Boat Shelter: This alternate includes providing the wood shelter over the boat lifts. See Section 01900 detailed scope.

Alternate #3 () Adds () Deducts

Dollars (\$ _____)
Description _____

Alternate #4 () Adds () Deducts

Dollars (\$ _____)
Description _____

Alternate #5 () Adds () Deducts

Dollars (\$ _____)
Description _____

ADDENDA ACKNOWLEDGMENT: (modified dates August 2016)

No. _____ No. _____ No. _____
 No. _____ No. _____ No. _____

ACCEPTANCE:

I certify that I am authorized to enter into a binding contract, if this Proposal is accepted.

Signature _____ Date _____
 Name and Title _____
 Name of Business _____

Complete spelling of bidder's name and address - **exact as recorded at the Secretary of State**

[<http://www.sos.state.ms.us/busserv/corp/soskb/csearch.asp>] which should be the same as you applied for at the Mississippi State Board of

Contractors [<http://www.msdoc.us/Search2.CFM>] (see 2.07, 3.01, 5.01) **PLEASE LOOK IT UP at SoS. SoS rules when the 2 are different.**

Address _____ (mailing)
 Address _____ (physical)
 City/State/Zip Code _____ County _____
 Phone _____ Fax _____ Email _____

■ **Bidder's Certificate of Responsibility Numbers(s):** _____

■ **MINORITY BUSINESS ENTERPRISE?** Yes _____ No _____ (to assist with Code 57-1-57)

■ **Attach copy of Non-Resident Bidder's Preference Law (5.04 of Bidder's Checklist)**

■ **Mechanical / Plumbing / Electrical Contractors:** (modified Dec 2013 SoS per 10/17/12 Addendum 1 & Feb 2014)

Regarding said Divisions of the Specifications of the BoB Standard Form of Agreement Between The Owner and The Contractor

List any Mechanical/Plumbing and/or Electrical Sub-Contractors that will perform work of this contract. COR must be included where sub-contract exceeds \$50,000.00. If no sub-contractor is listed, and such work is within scope of contract, bidder's own COR classification(s) must be sufficient to self-perform any such work. If no sub-contractor is listed, then use of sub-contractor to perform such scope will not be permitted. This is in accordance with 5.05 and 5.06 of the Bidder's Checklist revised below.

Mechanical Contractor: _____ Certificate of Responsibility No. _____
 Plumbing Contractor: _____ Certificate of Responsibility No. _____
 Electrical Contractor: _____ Certificate of Responsibility No. _____

■ **Mississippi Department of Agriculture & Commerce**
Bureau of Plant Industry
 Landscape License Number _____ MS Code 69-19-1 – 69-19-15
 ↑ Complete for prime landscaping projects

**STANDARD FORM OF AGREEMENT BETWEEN
THE OWNER AND THE CONTRACTOR
SECTION 00500**

This Agreement made the _____ day of _____, 20_____ between the Owner,

Mississippi Department of Marine Resources
1141 Bayview Avenue
Biloxi, MS 39530

created by Section 7-1-451 et seq., and Section 31-11-1, et seq., **Mississippi Code of 1972, Annotated**, and acting for the State of Mississippi;

and between the Contractor:

Business Name _____
Address _____
City/State/Zip _____ Fax: _____ Email: _____

The Contractor is a (check and complete one of the following):

_____ CORPORATION or LLC solely organized and existing under the laws of the State of _____
and having its principal office in _____,
(City) (County) (State)

_____ PARTNERSHIP of the following (list all partners):

_____ SOLE PROPRIETORSHIP

For the following Project:

GS#

This Agreement entered into as of the day and year first written above:

OWNER: MISSISSIPPI DEPARTMENT OF MARINE
RESOURCES

CONTRACTOR:

By: _____
(Signature)

By: _____
(Signature)

Jamie Miller, Executive Director
(Name and Title)

(Name and Title)

APPROVED AS TO FORM:

By: _____
(Signature of Attorney)

THE OWNER AND THE CONTRACTOR AGREE AS SET FORTH IN PAGES ONE THROUGH THREE, ARTICLES ONE THROUGH FIVE, AS FOLLOWS:

ARTICLE 1: THE WORK AND CONTRACT DOCUMENTS
THE WORK

1.1.1 The Contractor will perform all the work required by the Contract Documents for the Project indicated above.

1.2 THE CONTRACT DOCUMENTS

1.2.1 The Contract Documents which constitute the entire Agreement between the Owner and the Contractor, are enumerated as follows:

1.2.2 Project Manual dated 12/1/16

BIDDING REQUIREMENTS

- Advertisement for Bids
- Instructions to Bidders
- Proposal Form

STANDARD FORM OF AGREEMENT BETWEEN THE OWNER AND THE CONTRACTOR

CONTRACT BOND

POWER OF ATTORNEY

CERTIFICATE OF INSURANCE

CONDITIONS OF THE CONTRACT

- General Conditions
- Supplementary Conditions
- Labor Requirements
- Addenda

SPECIFICATIONS (check the specs listed on the contents and included in the manual)

- Division One: General Requirements
- Division One Supplements
- Division Two: Site Work
- Division Three: Concrete
- Division Four: Masonry
- Division Five: Metals
- Division Six: Wood and Plastics
- Division Seven: Thermal and Moisture Protection
- Division Eight: Doors and Windows
- Division Nine: Finishes
- Division Ten: Specialties
- Division Eleven: Equipment
- Division Twelve: Furnishings
- Division Thirteen: Special Construction
- Division Fourteen: Conveying Systems
- Division Fifteen: Mechanical
- Division Sixteen: Electrical
- Division Seventeen: Commissioning

1.2.3 Addenda

- Addendum No. 1, dated _____
- Addendum No. 2, dated _____
- Addendum No. 3, dated _____
- Addendum No. 4, dated _____
- Addendum No. 5, dated _____

1.2.4 Drawings dated 12/1/16

- Sheets No. G0.0, G1.0, and G2.0
- Sheets No. C1.0 and C2.0
- Sheets No. D1.0, D1.1, and D1.2
- Sheets No. S1.0, S1.1, S1.2, S2.1, S2.2, S2.3, S3.1, & S3.2
- Sheets No. E1.1, E1.2, and E1.3

1.2.5.1 Other documents, dated

ARTICLE 2: CONTRACT SUM

2.1 CONTRACT SUM

2.1.1 The Owner will pay the Contractor in current funds for the performance of the work, subject to additions and deductions by Change Order as provided in the Contract Documents, the Contract sum of _____ Dollars

(\$ _____). The Contract sum is determined as follows:

Base Bid		\$ _____
Modifications	() Adds () Deducts	\$ _____
Negotiations		\$ _____
Alternate No. _____	() Adds () Deducts	\$ _____
Alternate No. _____	() Adds () Deducts	\$ _____
Alternate No. _____	() Adds () Deducts	\$ _____
Alternate No. _____	() Adds () Deducts	\$ _____
Alternate No. _____	() Adds () Deducts	\$ _____
Total Contract Sum		\$ _____

2.2 LIQUIDATED DAMAGES

2.2.1 The stipulated liquidated damages described in Paragraph 9.11 of the *Supplementary Conditions* are in the amount of Seven hundred ninety-five Dollars (\$ 795.00) for each calendar day.

ARTICLE 3: CONTRACT TIME

3.1 TIME

3.1.1 The work to be performed under this Contract shall be commenced upon the date stated in the *Notice to Proceed*. The work is to be substantially complete, subject to approved Change Orders, no later than 120 calendar days from the date stated in the *Notice to Proceed*.

ARTICLE 4: PAYMENTS AND FINAL PAYMENTS

4.1 PROGRESS PAYMENTS

4.1.1 Based upon applications for payment submitted to the Professional by the Contractor and *Certificates for Payment* issued by the Professional, the Owner will make progress payments on account of the Contract sum to the Contractor as provided in the Contract Documents.

4.2 FINAL PAYMENT

4.2.1 Final payment constituting the entire balance of the Contract sum will be paid by the Owner to the Contractor when the work has been completed, the Contract fully performed and a final Certificate for Payment has been issued by the Professional and approved by the Owner.

ARTICLE 5: MISCELLANEOUS PROVISION

5.1 DEFINITION OF TERMS

5.1.1 Terms used in this Agreement which are defined in the Conditions of the Contract will have the meanings designated in those Conditions.

5.2 CONTRACTOR'S INTEREST IN AGREEMENT

5.2.1 The Contractor will not assign, sublet, or transfer the interest in this Contract agreement without the written consent of the Owner. The Owner and Contractor hereby agree to the full performance of the covenants contained herein.

5.3 PROFESSIONAL

5.3.1 The Professional assigned to this Project is as follows:

Name _____
 Address _____
 Telephone _____ Fax Number _____ E-Mail Address _____

*** END OF SECTION ***

SECTION 02454
PRESTRESSED CONCRETE PILES

1.0 **GENERAL**

1.1 Section Includes:

- A. Prestressed precast concrete piles.

1.2 Related Sections

Section 03300 - Concrete: Requirements for concrete.

1.3 References

- A. ASTM A416 - Uncoated Seven-Wire Stress-Relieved Strand for Prestressed Concrete.
- B. ASTM A615 - Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
- C. PCI MNL-116 – Manual for Quality Control for Plants and Production of Precast and Prestressed Concrete Products.

1.4 Quality Assurance

- A. Perform Work in accordance with PCI MNL-116.

2.0 **PRODUCTS**

2.1 Materials

- A. Concrete: Minimum 5,000 psi, 28 day strength, Normal Portland cement; aggregates and sand as recommended by pile manufacturer.
- B. Tensioning Steel Tendons: ASTM A416 Grade 270, of sufficient strength commensurate with member design.
- C. Reinforcing Steel: ASTM A615 Grade M, deformed steel bars.

2.2 Fabrication

- A. Pile Connectors: Fabricated of steel angles, fitted to outside dimensions of square pile ends.
- B. Shop fabricate pile in maximum practical lengths to meet design requirements.

3.0 **EXECUTION**

3.1 Preparation

- A. Obtain prior approval of hammer type to be used.
- B. Use driving method which will not cause damage to nearby structures.
- C. Notify adjacent and affected land owners and building occupants with 5 days notice before proceeding with the Work.
- D. Protect structures near the Work from damage.

ATTACHMENT NO. 4 TO ADDENDUM NO. 1

E. ~~No production piles shall be driven until test reports of test piles, as requires by ASTM D1143 and ASTM D3689, are received and written approval is given by the engineer.~~

3.2 Installation

- A. Protect pile head during driving, using cushion cap with full bearing on pile butt for even distribution of hammer blow.
- B. Deliver hammer blows to central axis of pile.
- C. Do not damage piles during driving operations.
- D. If driving is interrupted before refusal, drive an additional 12 inches before resuming recording of performance data.
- E. Re-drive piles which have lifted due to driving adjacent piles, or by soil uplift.

3.3 Tolerances

- A. Maximum Variation From Vertical For Plumb Piles: 1 in 48.
- B. Maximum Variation From Required Angle For Batter Piles: 1 in 24.
- C. Maximum Variation From Pile Cut-off Elevation: 1 inches.
- D. Maximum Out-of-Position: 1 inch.

3.4 Project Record Documents

- A. Accurately record the following:
 - 1. Sizes, lengths, and locations of piles.
 - 2. Sequence of driving.
 - 3. Number of blows per foot for entire length of piles and measured set for last 10 blows.
 - 4. Final base and top elevations.
 - 5. Driving force of each hammer blow.

3.6 Unacceptable Piles

- A. Unacceptable Piles: Piles that fail tests, are placed out of position, are below planned top elevations, above planned top elevation or are damaged.
- B. Provide additional piles or replace piles to conform to specified requirements.

3.7 Allowable Load on Piles

- ~~A. The load test of a single pile shall be triple the design load.~~
- B. Capacity of single piles not in clusters shall be not less than:
 - Axial compression: 74,000 lbs
 - Axial Tension: 8,000 lbs
 - Lateral: 3,000 lbs
 - Moment: 60,000 ft-lbs

- C. ~~Maximum allowable capacity of foundation piles shall be considered to be one half of test load that causes a settlement determined by the formula listed below:~~

$s = 0.15 + d/120 + \Delta$
where d = diameter of piles (inches)
Δ = elastic deformation of the pile (inches) as determined by test pile for that area of foundation, when driven, using equivalent make and model of pile hammer and same operation of hammer, with regard to speed, height or fall, stroke, and pressure.

4.0 **PAYMENT**

- 4.1 Payment for work in this section shall be included in the unit price/lump sum price as outlined in the Bid. Bid price shall include all cost of labor, materials, and incidentals complete.

SECTION 14550 BOAT LIFTS

1.0 SCOPE

1.1 Work Included:

1.1.1 This section covers the work necessary to furnish and install, complete, the boat lift specified herein.

1.2 General:

1.2.1 Like items of material provided hereunder shall be the end products of one manufacturer.

1.2.2 See CONDITIONS OF THE CONTRACT and Division 1, GENERAL REQUIREMENTS, which contain information and requirements that apply to the work specified herein and are mandatory for this project.

1.3 Submittals during Construction: See SUBMITTALS DURING CONSTRUCTION, Division 1, GENERAL REQUIREMENTS. Additionally, all material shall be certified by the manufacturer indicating that it is in accordance with all provisions of these specifications.

1.4 Related Sections: Other work related to this specification and covered under other specifications may include:

1. Section 01000 General Requirements
2. Section 02454 Prestressed Concrete Piles

2.0 PRODUCTS

2.1 Manufacturers

2.1.1 For design purposes, the boat lift configuration is driven by the GatorVator 4 post, 4 motor lift manufactured by Golden Manufacturing. (Contact: Joe DuBois, EZ Dock Gulf Coast, Ph. 225-394-9479, Email: joe@ezdockgulfcoast.com)

2.1.2 Contractor may submit equal equipment by other manufacturers for approval by Engineer, provided the product is a true equal and conforms to the requirement of the specifications, the pile design, and pier design and layout.

2.2 Materials shall include the following:

1. Golden GatorVator beamless lift
2. (4) – SS motors & (4) Seadrives
3. Rubber covered aluminum 12”x20’ bunks
4. 4 motor remote control
5. SS marina boxes, to mount to square pilings
6. Delivery and installation in Ocean Springs Harbor
7. Lifts based on piling spacing at 16’ on center for width, and 14’ center to center for front to back.
8. Each motor will require a 220V, 30 amp dedicated circuit, minimum for each.
9. 3.5” Winder
10. Safety covers for spools
11. Stainless steel equalizer brackets
12. CE approved

2.2.1 No electric wiring under water will be permitted.

2.2.2 All aluminum and/or stainless steel construction.

3.0 EXECUTION

3.1 Coordinate bolt locations with prestress concrete pile manufacturer. Coring and drilling through the piles will not be allowed.

- 3.2 Install boat lifts per the manufacturer's recommendations.
- 3.3 The pile configuration and bolt locations shown in the project drawings are based on Golden Manufacturing's data sheets attached to this specification. Reconfiguring the pile layout and top elevation to accommodate an equal product will not be allowed.

4.0 WARRANTY

- 4.1 Structural parts: 15 year manufacturer's warranty
- 4.2 Gear Components: 10 year manufacturer's warranty
- 4.3 All other parts: 2 year warranty

4.0 PAYMENT

Payment for work in this section shall be included in the unit price / lump sum price as outlined in the Bid. Bid price shall include all cost of labor, materials and incidentals complete.

GATORVATOR 4 POST, 4 MOTOR LIFT

STRUCTURAL ENGINEERING REVIEW

THIS CONSTRUCTION HAS BEEN DESIGNED AS A MAIN WIND FORCE RESISTING SYSTEM, WITH CALCULATED GRAVITY AND WIND LOADS IN COMPLIANCE WITH THE FLORIDA BUILDING CODE 2014, CHAPTERS 16 AND 20, ADM 2010, AND ASCE/SEI 7-10 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES" TO WITHSTAND THE WIND LOADS ASSOCIATED WITH AN ULTIMATE WIND SPEED OF 180 MPH, EXPOSURE "D", RISK CATEGORY I. ARNOLD/SANDERS CONSULTING ENGINEERS HAS NO CONTROL OF THE MANUFACTURING, PERFORMANCE, OR INSTALLATION OF THIS PRODUCT. THESE GENERIC DESIGN FEATURES WERE ENGINEERED IN ACCORDANCE WITH ACCEPTED ENGINEERING PRACTICES BASED ON DATA PROVIDED BY THE MANUFACTURER. THIS STRUCTURAL REVIEW IS LIMITED TO THE PRIMARY FRAMING AND CONNECTIONS AND IS NOT INTENDED TO COVER MECHANICAL AND ELECTRICAL COMPONENTS. THESE DESIGN FEATURES ARE BASED ON STRUCTURAL CALCULATIONS, TITLED "STRUCTURAL CALCULATIONS FOR ELEVATOR", WHICH CONTAIN ADDITIONAL DESIGN REQUIREMENTS AND CRITERIA AND ARE AVAILABLE UPON REQUEST. THE BOAT LIFTS DEPICTED BY THESE DESIGN FEATURES AND RELATED CALCULATIONS WERE ENGINEERED AS MANUFACTURED PRODUCT FOR NON-SITE SPECIFIC USE AND NOT INTENDED TO COVER SITE SPECIFIC CONDITIONS.

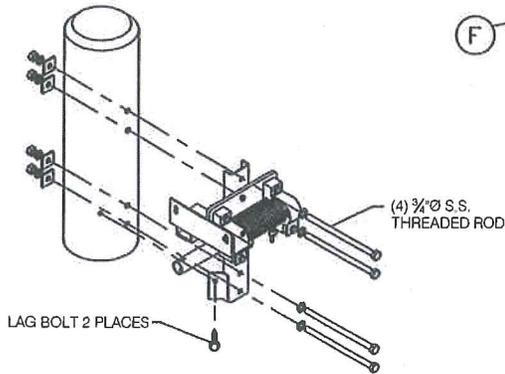
J. L. Sanders
2-21-15

Arnold/Sanders Consulting Engineers, Inc.
Certificate of Authorization 9451
12651 McGregor Blvd., Suite 103,
Fort Myers, FL 33919 Bus: 239-267-3666

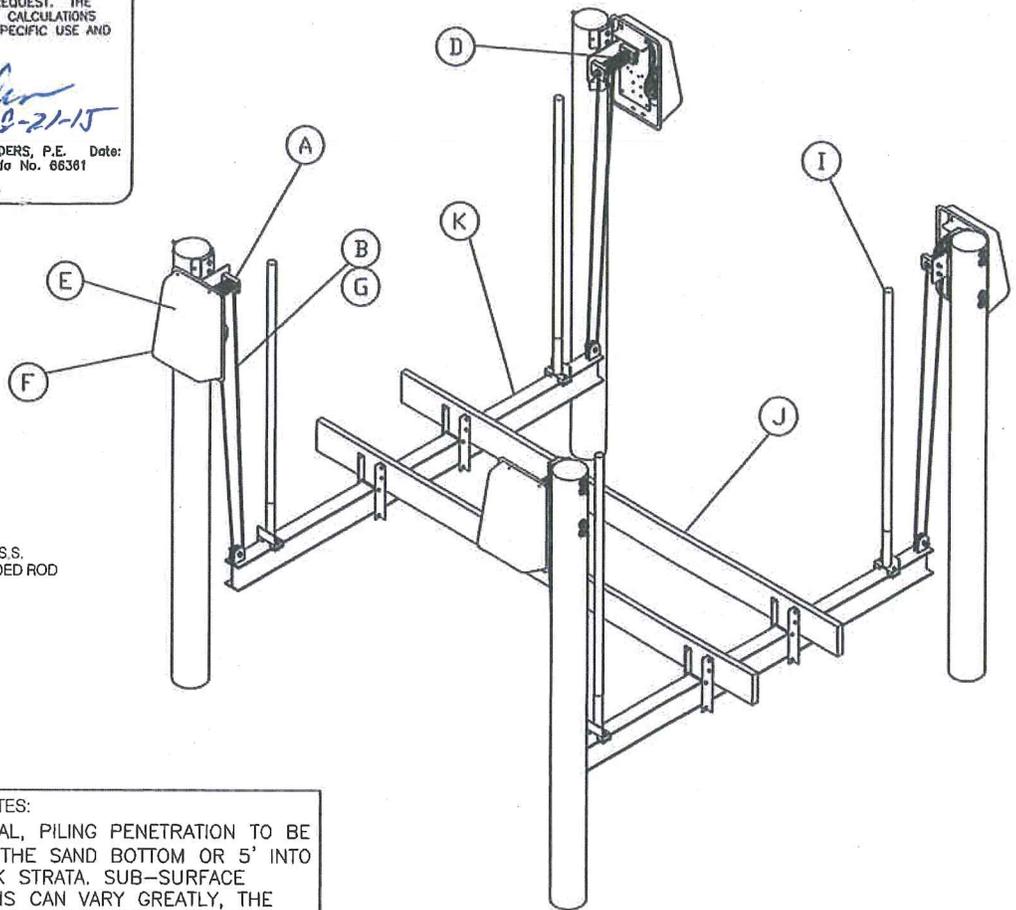
J. L. SANDERS, P.E. Date:
Reg. Florida No. 66361

SIGNATURE NOT VALID WITHOUT RAISED SEAL

NOTE:
BOATS SHALL NOT BE
STORED ON LIFT DURING
HIGH WIND EVENTS.

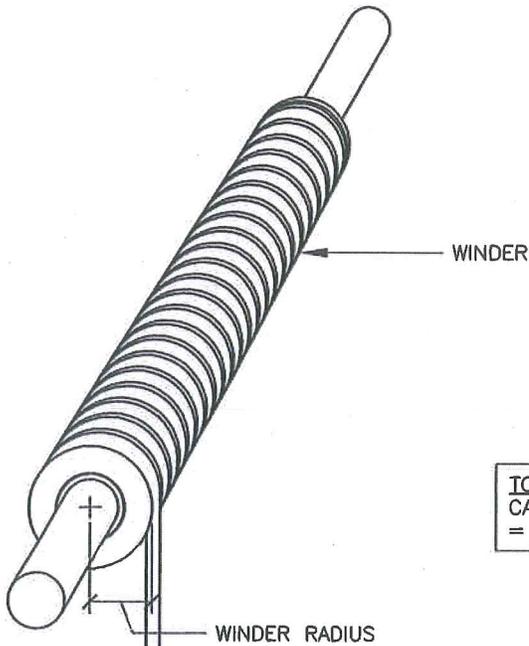


CABLE WINDER PILE
MOUNTING DETAIL



NOTES:
IN GENERAL, PILING PENETRATION TO BE
10' INTO THE SAND BOTTOM OR 5' INTO
THE ROCK STRATA. SUB-SURFACE
CONDITIONS CAN VARY GREATLY, THE
CONTRACTOR SHALL VERIFY ALL PILE
CAPACITIES. ALL WOOD PILINGS TO BE
2.5 C.C.A. TREATED.

LIFT CAPACITY LBS.	NO. OF BROS.	CABLE CONFIG.	GROOVED WINDERS IN.	DRIVE SHAFT IN.	DRIVE	NO. OF MOTORS & H.P.	LIFTING CABLE IN.	LIFT PER MIN. /IN.	GUIDE POST HEIGHT IN.	BOAT BUNK IN.	CRADLE BEAM/ "1" BEAM SIZE IN.		Recomm. Min Piling Sizes IN.
											H	W	
7,000	8	30' S.S. 2 PART	3 ϕ X 12"	1.905 O.D. 8 GA. GALV. STEEL PIPE	FLAT PLATE 3,000 IPT	(4) 3/4 HP	(4) .3125 ϕ	19"/MIN.	80"	2 x 8 X 144	6 x .21 H	144" LGTH	8" ϕ
10,000											4 x .35 W		
14,000											8 x .25 H		
16,000											5 x .35 W		
(2EA) 20,000											8 x .25 H		
(1EA) 24,000											5 x .41 W		
30,000	10 x .25 H	168" LGTH	10" ϕ										
	6 x .41 W												
	10 x .25 H			168" LGTH	12" ϕ								
	6 x .41 W												
	10 x .29 H	192" LGTH	12" ϕ										
	6 x .50 W												
	12 x .31 H	192" LGTH	12" ϕ										
	7 x .62 W												



TORQUE CALCULATIONS
 CABLE LOAD x WINDER RADIUS
 = ACTUAL TORQUE

CABLE LOADS	
5/16"	9,000 LBS
3/8"	12,000 LBS
7/16"	16,300 LBS
1/2"	22,800 LBS

LIFT CAPACITY	CABLE SIZE & PART	WINDER DIAMETER	ACTUAL TORQUE (IN-LBS)	GEAR BOX RATED TORQUE (IN-LBS)	CABLE LOAD (LL + DL)	CABLE CAPACITY	WINDER LENGTH	**WINDER LOAD CAPACITY (IN-LBS)	PULLEY ASSEMBLY CAPACITY
7,000#	(4) .3125" ϕ 2 PART	3" ϕ	1,361	* 3,000	907	9,000#	12"	31,292	12,900#
10,000#			1,931		1,287#				
14,000#			2,684		1,789#				
16,000#	(4) .375" ϕ 2 PART	3.5" ϕ	3,589	* 8,000	2,051#	12,000#	16"	23,469	12,900#
20,000#			4,468		2,553#				
24,000#			3,574		2,042#				
30,000#	(4) .375" ϕ 3 PART		4,473		2,556#				

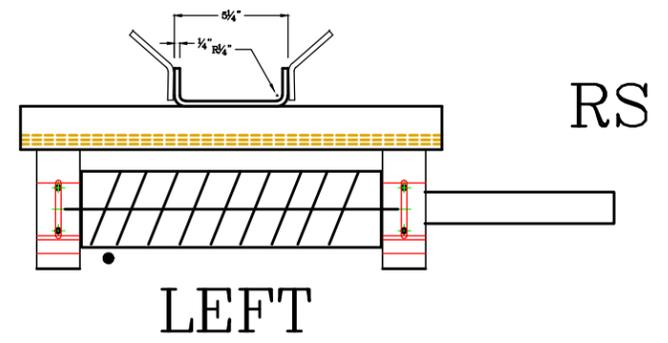
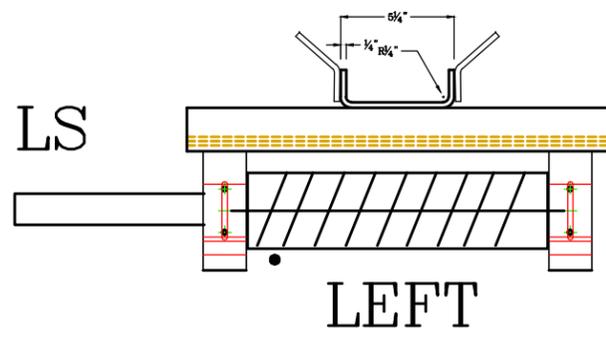
(2ea)
(1ea)

4" ϕ
PULLEY

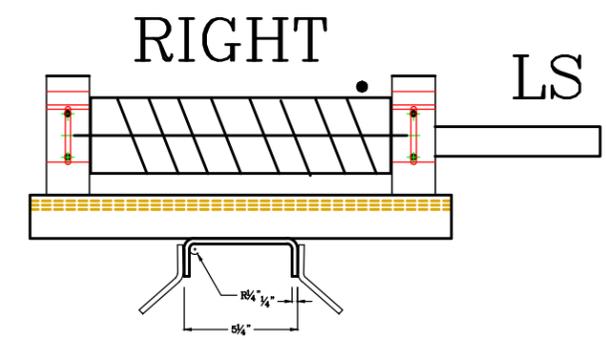
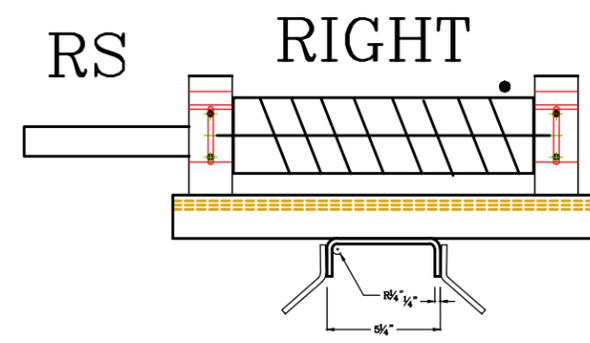
* FLAT PLATE = 3,000 IPT
 SEA DRIVE = 8,000 IPT

** BASED ON $G=10.9 \times 10^6$

REVISIONS		
LTR	DESCRIPTION	DATE
A	INITIAL DRAWING	9/6/16

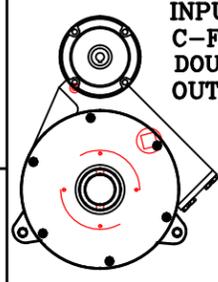


LEFT AND RIGHT WINDERS



PRODUCT	LIFT CAPACITY	CRADLE I-BEAM	WINDERS	CABLE SIZE	MOTOR HP VOLTAGE	INCHES LIFT/MIN	MIN PILE
4-POST SEA DRIVE	20,000	10X6X.41/.25 168 AOL	3.5" X 12"	3/8" 2 PART	4-3/4 HP 120/240	19"	12"
4-POST SEA DRIVE	24,000	10X6X.41/.25 192 AOL	3.5" X 16"	3/8" 3 PART	4-1 HP 120/240	13"	12"

GOLDEN SEA DRIVE
 OUTPUT: 8000 IN-LBS
 INPUT .98 HP
 C-FACE MOTOR MOUNT
 DOUBLE WORM REDUCER
 OUTPUT: 8000 IN-LBS



17611 EAST STREET
 N. FORT MYERS, FL. 33917
 Ph. 239-337-4141
 Sales@goldenboatlifts.com

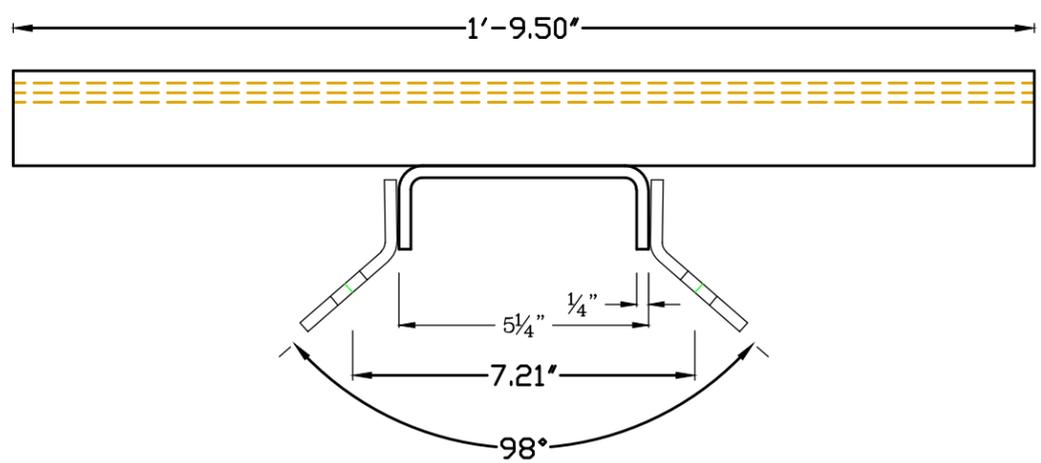
TITLE
GATORVATOR
 MOST COMMON LAYOUT

GV2044 30K WINDER BASE

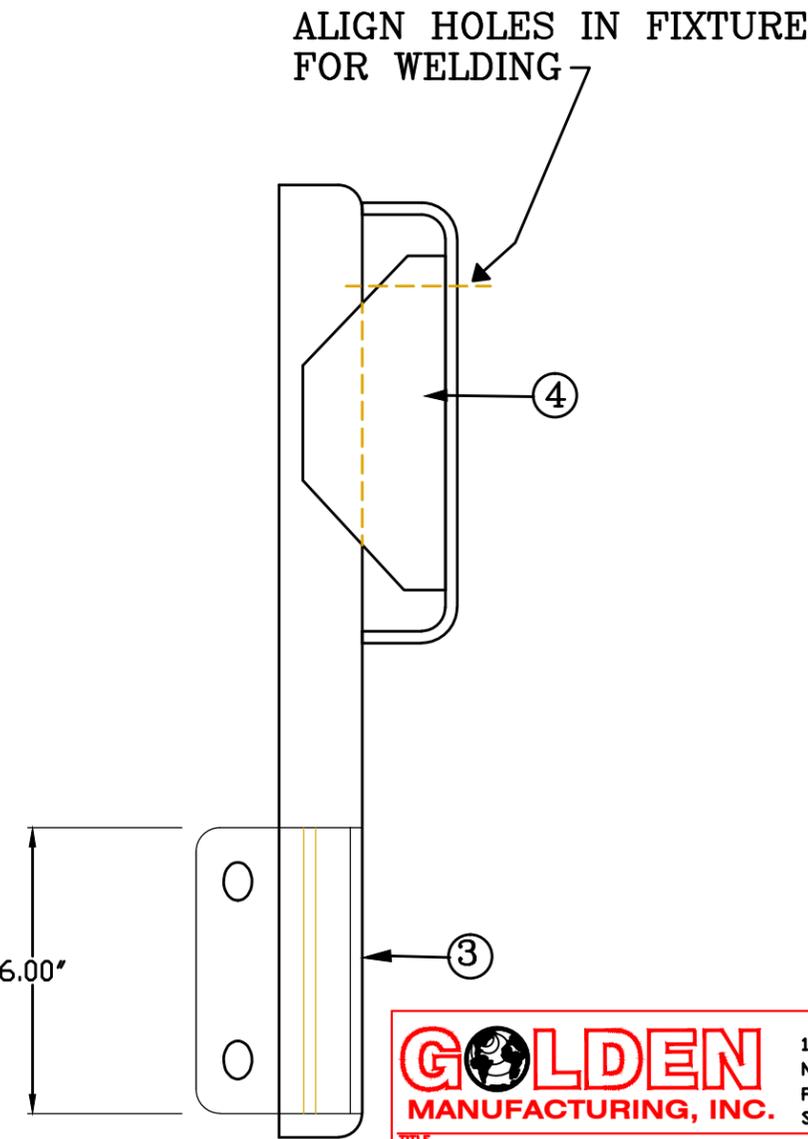
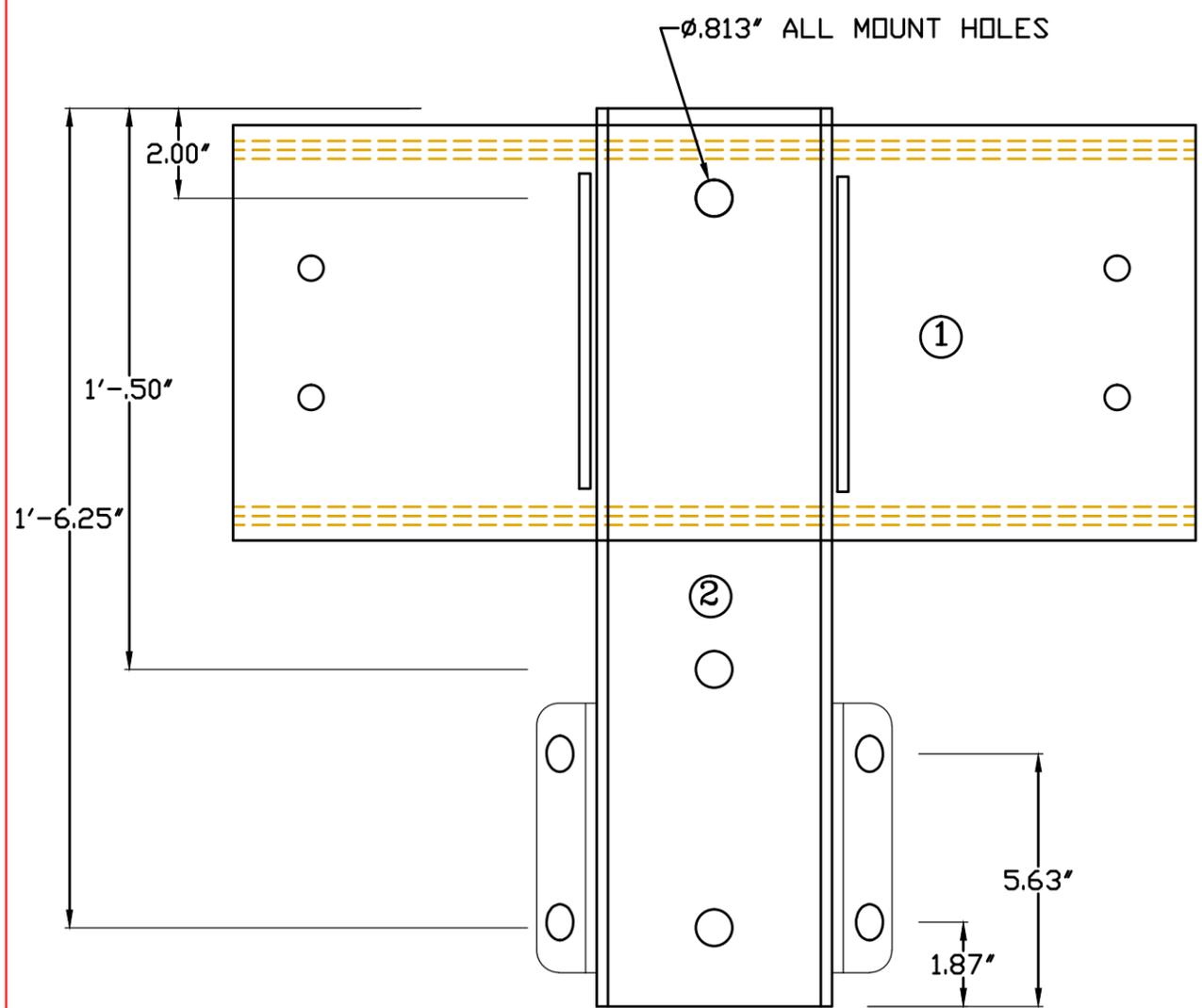
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SCALE NTS FILE NUMBER: GV

REVISIONS		
LTR	DESCRIPTION	DATE
A	INITIAL DRAWING	10/15/14
B	DIMENSIONED HOLES FOR COMPTON ENG.	9/6/16



THIS IS A STRUCTURAL WELDMENT
WELD ALL FEATURES MIN 1/4" FILLET
ALL AROUND TO THE FULLEST EXTENT POSSIBLE



NOTE FOR COMPTON ENGINEERING:
THIS PART IS HAND MADE, BENT BY
HAND AND HOLES PUNCHED BY HAND.
AFTER WELDING THE DIMENSIONS WILL VARY
± 1/8".

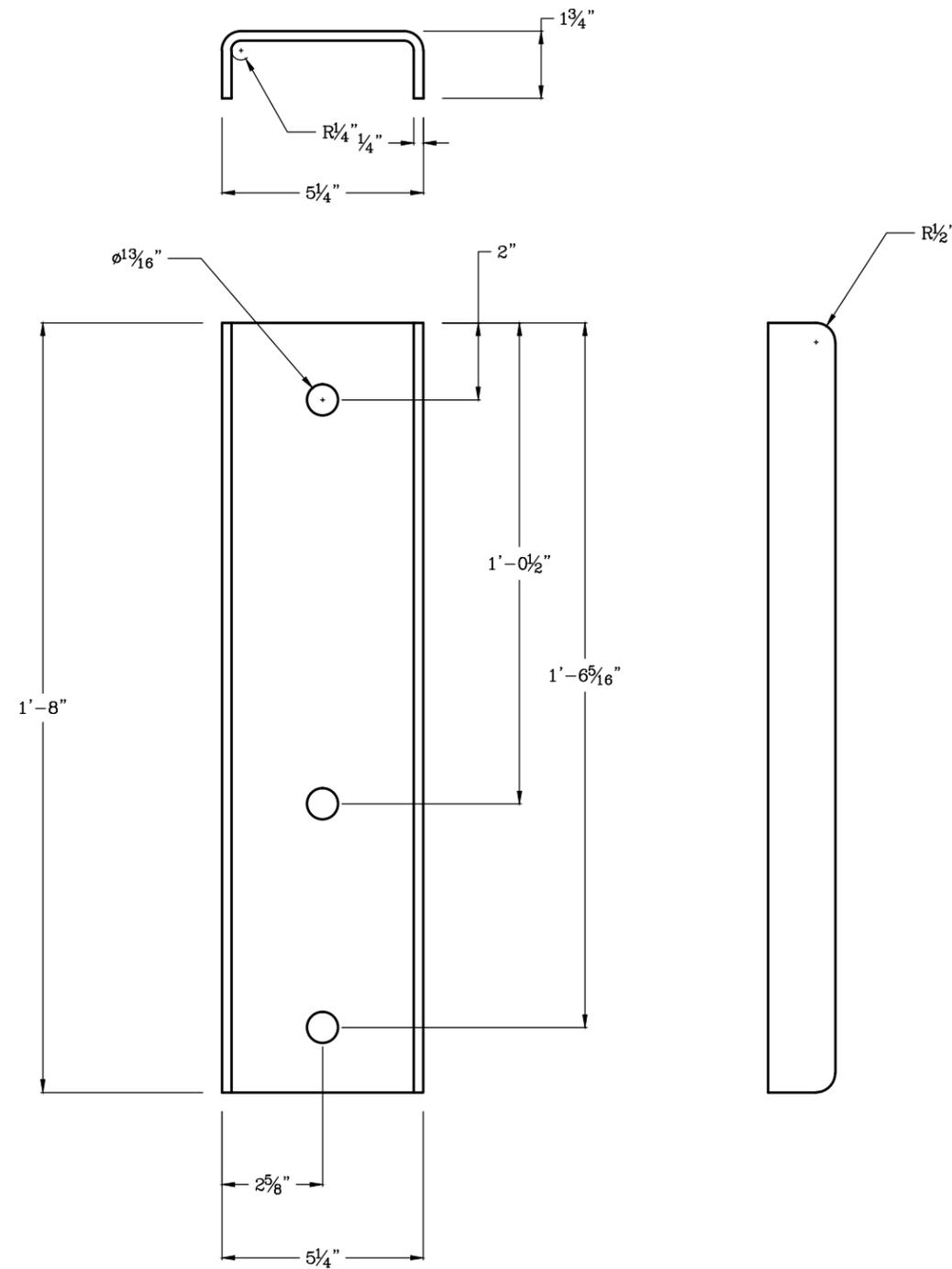
4	2	GV 2034	ANGLED SUPPORT GUSSETT
3	2	GV 2028	BENT MOUNT EAR
2	1	GV 2021	20" WINDER MOUNT BASE
1	1	GV2040	WINDER MOUNT PLATE
NO.	QTY	P/N	DESCRIPTION

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TITLE
WINDER BASE WELDMENT
GV 30K WINDER HEAD
GV 2044 WINDER BASE WELDMENT

REVISIONS		
LTR	DESCRIPTION	DATE
A	INITIAL DRAWING	10/15/14
B	REVISED HOLE LOCATIONS	9/6/16

DEVELOPED



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TITLE
 PILE MOUNT WINDER BASE
 30K GV 20 BASE

GV 2021 PILE MOUNT 20

NO.	QTY	P/N	DESCRIPTION
1	1	COMMON	1/4" S.S. PLATE

SCALE NTS FILE NUMBER: GV