ALUMINUM GANGWAY SPECIFICATIONS

(PLACE AN "X" IN THE BOX
NEXT TO ALL APPLICABLE ITEMS)

PART 1 – SCOPE OF WORK

- 1.1 Provide aluminum gangway(s) according to the following specifications: 50 ft length X 8 ft inside width. Prefabricated gangways shall be manufactured by G&A manufacturing, Inc., or approved equal. The following specifications shall be regarded as minimum standards for design and construction.
- 1.2 Engineering: Provide sealed professional engineering drawings upon request.

PART 2 – QUALITY ASSURANCE

- Manufacturer: G&A manufacturing, Inc., 6587, Keystone Heights, Florida 32656. Phone: (352) 473-6882
 Fax: (352) 473-0720. Find our web site at: <u>www.gamanufacturing.com</u> or e-mail us at <u>Sales@gamanufacturing.net</u>.
- 2.2 Design of the aluminum members shall conform to the Current Edition of <u>The Aluminum Association</u> <u>Specifications and Guidelines for Aluminum Structures</u>.
- 2.3 Gangway railings shall be constructed as a free span truss design.
- 2.4 Aluminum welding shall be in accordance with the ANSI/AWS D1.2-97 GMAW/GTAW process and shall be performed by experienced operators. Each shall demonstrate satisfactory evidence of experience and ability to perform the type and quality of welding required.
- 2.5 All exposed surfaces shall be smooth and free of sharp or jagged edges.
- 2.6 Warranty: G&A manufacturing, Inc., warrants its products to be free from defects in material and workmanship for a period of (1) one year beginning at date of delivery of product. This warranty excludes any defects resulting from abnormal use in installation or service, accidental or intentional damage or any occurrences beyond the manufacturer's control.

PART 3 – ENGINEERING

- 3.1 Uniform Live Load Selection
- A. Gangways 4 feet wide and less shall be designed for a uniform live load of 50 pounds per square foot.
- X B. Gangways over 4 feet wide shall be designed for a uniform live load of 85 pounds per square foot.
- 3.2 Maximum deflection of structure shall be calculated using L/180 where "L" is the length of the gangway in inches.
- 3.3 Deck material shall be designed for a concentrated vertical load of 300 pounds distributed over a one square foot area.
- 3.4 Handrails shall be designed for a horizontal load of 20 pounds per linear foot.

PART 4 – MATERIAL

- 4.1 Aluminum extrusions for gangway structures shall be aluminum alloy 6061-T6, 6063-T5 and 6063-T6 and shall be extruded in accordance with the requirements of applicable sections of Federal Specification QQ-A-200.
- 4.2 Stainless Steel Fasteners shall be grade 304.
- 4.3 Rollers used at the end of the gangway shall be ultra-high molecular weight polyethylene (UHMW)



American Quality/American Pride Self Certified WDSB

PART 5 – DESIGN

- 5.1 Hinged end of gangway shall be designed by the gangway manufacturer to adapt to existing mounting surface (i.e.: Concrete bulkhead, wood dock, concrete abutment, etc.)
- 5.3 X Top Rail (Top Chord Member) shall extend 18 inches beyond end(s) of walking surface.
- A. Top rail shall extend past upper (hinge) end of gangway
- B. Top rail shall extend past lower (roller) end of gangway
- C. Top rail shall extend past both ends of gangway
- 5.4 Continuous Safety Guard Rails:
- A. Continuous 1.25 inch O.D. round tube with a maximum clear opening of ______ inches.
- B. Continuous 1.25 inch X 1.25 inch X 0.125 inch aluminum angle with a maximum clear opening of ______ inches.
- C. ¾" square aluminum tube vertical pickets spaces such that a sphere with a diameter of 4 inches cannot pass through any opening.
- 5.5 Deck Material Selection: 8 5/8" Aluminum decking with 5/8" gap spacing between planks.
- A. Decking material shall be 1 inch X 12 inches slip-resistant knurled extruded aluminum planks with no gaps with a minimum coefficient of friction of 0.93 as determined by an independent testing facility.
- B. Wood Decking: Various wood products are available upon request (CCA treatment not available).
- C. Wood polymer composite.

PART 6 – ACCESSORIES SELECTION

- 6.1 X Aluminum transition plate on roller end of gangway 0.25 inch thick X _____ inches wide X 24 inches long with slip resistant surface.
- 6.2 Continuous 1.5 inch round tube grab rails 34 inches from finished deck surface.
- 6.3 Continuous rub rail shall be 0.25 inch X 3 inch aluminum flat bar midway on inside of railing.
- 6.4 Decking cleats shall be 18 inches on center and shall be 0.25 inch X 1.5 inch X _____ inch long aluminum flat bar with slip resistant surface. (Weld cleats to aluminum deck, use stainless steel screws for wood deck.)
- 6.5 Continuous kick plate shall be 0.25 inch X 3 inch aluminum flat bar along the edge of the walking surface on the inside of the railing.

Cribb Philbeck Weav Oviedo-Tampa, Engineer's Project No. 190040 Date Received: 01/29/2021 Date Returned: 01/29/2021	ver Group ^{Florida} No. Copies email No. Copies email	
NO EXCEPTION TAKEN REJECTED SUBMIT SPEC	MAKE CORRECTIONS NOTED REVISE AND RESUBMIT	
Checking is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of his work with that of all other trades; and the satisfactory performance of his work.		
Cribb Philbeck Weave2Group		
Reviewed By:Yaima Ballester	Date: 01/29/2021	

Rev: 1/2020

G&A Manufacturing, Inc. • 6587 State Road 21, Keystone Heights, FL 32656 Phone: 1-352-473-6882 • Email: <u>Sales@gamanufacturing.net</u> • Fax: 1-352-473-0720







ALUMINUM FLOATING DOCK SPECIFICATIONS

(PLACE AN "X" IN THE BOX □ NEXT TO ALL APPLICABLE ITEMS)

PART 1 – SCOPE OF WORK

- 1.1 Provide prefabricated Aluminum floating dock(s) according to project specifications.
- 1.2 Floating dock(s) shall be manufactured by G&A manufacturing, Inc., or approved equal. The following specifications shall be regarded as minimum standards for design and construction of the floating dock(s) and the related components mentioned herein.
- 1.3 Engineering: Provide sealed professional engineering drawings upon request.



PART 2 – QUALITY ASSURANCE

- Manufacturer: G&A manufacturing, Inc., 6587, Keystone Heights, Florida 32656. Phone: (352) 473-6882
 Fax: (352) 473-0720. Visit our web site at: <u>www.gamanufacturing.com</u> or e-mail us at <u>Sales@gamanufacturing.net</u>.
- 2.2 Design of the aluminum members shall conform to the Current Edition of <u>The Aluminum Association</u> <u>Specifications and Guidelines for Aluminum Structures</u>.
- 2.3 Aluminum welding shall be in accordance with the ANSI/AWS D1.2-97 GMAW/GTAW process and shall be performed by experienced operators. Each shall demonstrate satisfactory evidence of experience and ability to perform the type and quality of welding required.
- 2.4 All exposed surfaces shall be smooth and free of sharp or jagged edges.
- 2.5 Warranty: G&A manufacturing, Inc., warrants its products to be free from defects in material and workmanship for a period of (1) one year beginning at date of delivery of product. This warranty excludes any defects resulting from abnormal use in installation or service, accidental or intentional damage or any occurrences beyond the manufacturer's control.

PART 3 – ENGINEERING

- 3.1 Floating dock(s) shall be engineered to support a uniform live load of 30 lbs. / sq. ft.
- 3.2 Deck materials shall be designed for a concentrated vertical load of 300 pounds distributed over a one square foot area.
- 3.3 Maximal deflection of structures shall be calculated using L/180 where "L" is the span length in decimal inches. (Example: 144 in. span/180 = 0.8 inches of deflection) _____16" to 18"
- 3.4 Flotation devices shall be sized and placed to provide a minimum freeboard of eight (8) inches under dead load plus a concentrated load of 400 lbs., applied evenly over a one (1) square foot area, at any location on the walking surface. Flotation shall also provide a minimum of 12 inches freeboard under dead load only. Additional flotation may be added to support the additional loading caused by gangways and to alleviate unnecessary distortion of the dock.

PART 4 – MATERIAL

4.1 Aluminum extrusions for dock structures shall be aluminum alloy 6061-T6, 6063-T5 and 6063-T6 and shall be extruded in accordance with the requirements of applicable sections of Federal Specification QQ-A-200.

- 4.2 All aluminum welding shall be done using 5356 series aluminum filler wire and in accordance with the ANSI/AWS D1.2-97 GMAW/GTAW process.
- 4.3 DECKING
- X A. Decking material shall be continuous, without gaps, and shall be 1" X 12" slip-resistant knurled extruded aluminum deck. Minimum walking surface coefficient of friction shall be 0.75 wet / 0.93 dry as determined by an independent testing facility.
- B. Wood decking: Various wood products are available upon request (CCA treatment is not available)
- C. Wood polymer composite.
- D. Tru-Flow Other
- 4.4 Stainless Steel Fasteners shall be grade 304.
- 4.5 Rollers used in pile guides shall be ultra-high molecular weight polyethylene (hereafter referred to as UHMW)
- 4.6 Flotation devices shall be rotationally molded, heavy wall polyethylene float shell, with black ultraviolet light inhibitor, and shall be filled with modified polystyrene, expanded in place.

PART 5 – FINISHING

5.1 Aluminum floating docks shall be mill finish.

PART 6 – ACCESSORIES SELECTION

- 6.1 PILE GUIDES
- A. Floating dock(s) shall incorporate inboard pile guides capable of accepting round or square wooden piles, which are ______ inches in diameter. Inboard pile guides shall have four (4) 3" O.D. UHMW rollers (one per side). Roller axles shall be minimum 1/2" solid stainless steel rod with 1/2" stainless steel retaining washers and 1/8" stainless steel keeper pins at each end. Inboard pile guides shall be an integral, unmovable part of the dock sub-framing.
- B. Floating dock(s) shall incorporate outboard pile guides capable of accepting round wooden piles, which are ____10____ inches in diameter. Outboard pile guides shall have one (1) 3" O.D. UHMW roller. Roller axle shall be 1/2" O.D. stainless steel rod with 1/2" stainless steel retaining washers and 1/8" stainless steel keeper pins at each end. Outboard pile guides shall be externally mounted with min. 1/2" S.S. hex head bolts and shall be placed prior to shipping. Outboard pile guides shall be removable and can be relocated by the owner at his or her own expense.
- 6.2 DOCK EDGING
- A. Floating dock(s) shall have wood fendering that contains no CCA. Fendering shall be a minimum of 2" X 8" boards and shall be secured to the docksides with a minimum of two (2) No. 14 X 2-1/2" S.S. oval head screws located at 4'-0" maximum on center. Bolt heads shall be recessed into the fendering to provide a smooth dock edge. Wood fendering shall be placed according to the buyer's specifications.
- B. Floating dock(s) shall have wood polymer composite fendering that contains no CCA. Fendering shall be minimum 2" X 8" boards and shall be secured to the docksides with a minimum of two (2) No. 14 X 2-1/2" S.S. hex head bolts located at 2'-0" maximum on center. Screw heads shall be recessed into the fendering to provide a smooth dock edge. Wood fendering shall be placed according to the buyer's specifications.

- C. Dock edging shall be non-marring, extruded marine grade black vinyl dock bumper. Dock bumper shall be "Single-P" profile and shall be secured to the dock with broad head aluminum pop rivets located along the top and sides at a maximum of 12" on center. Dock bumper(s) shall be installed prior to shipping and shall be placed according to the buyer's specifications.
- D. Dock(s) shall incorporate both wood fendering that contains no CCA or wood polymer composite fendering and vinyl bumper. Wood fendering or wood polymer composite fendering shall be installed according to Section 6.2 paragraph a. Vinyl dock bumper shall be secured to the fendering using S.S. roofing nails along the top and sides at a maximum of 12" on center.
- 6.3 CLEATS
 - A. Cleats shall be ALMAG cast aluminum alloy meeting the requirements of Federal Specification QQ-A-571F and QQ-A-601E.
 - B. Cleats shall be through bolted to the dock framing and shall withstand a mooring line load of 1500 lbs. in any direction.

PART 7 – DOCK CONNECTIONS

7.1

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No cleats

- A. Floating dock(s) shall have pre-fabricated rigid connections.
- B. Floating dock(s) shall have hinged connections.

PART 8 – STRUCTURES

8.1 Floating dock(s) connections shall be sequentially numbered and shall be pre-fitted at the fabrication facility to assure a quality fit as well as ease of assembly. External pile guides may be removed for shipping purposes. If this is necessary, they shall be numbered and their hardware shall be inspected, packed, and shipped with them. All Wood Piles are responsibility of others.

Cribb Philbeck Weav Oviedo-Tampa, Engineer's Project No. <u>19000</u> Date Received: 01/28/2021	ver Group Florida No. Copies _ email	
Date Returned:01/20/2021	No. Copies _ email	
NO EXCEPTION TAKEN REJECTED SUBMIT SPEC	X MAKE CORRECTIONS NOTED	
Checking is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Contractor is responsible for dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of his work with that of all other trades; and the satisfactory performance of his work.		
Cribb Philbeck Weaver Group		
Reviewed By: Yaima Ballester	Date: 01/28/2021	









