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**6587 SR 21 - Keystone Heights, Florida 32656**

## **Gangway Specifications**

### **1. SCOPE OF WORK**

- 1.1 Provide prefabricated Aluminum Gangway(s) according to the following specifications:  
Prefabricated gangways shall be manufactured by G & A Manufacturing.

### **2. QUALITY ASSURANCE**

- 2.1 Manufacturer: G & A Manufacturing, 6587 State Road 21, Keystone Heights, FL 32656.  
Phone: (352)473-6882, Fax: (352)473-0720. E-mail us at [gamanufacturing@bellsouth.net](mailto:gamanufacturing@bellsouth.net).
- 2.2 Design of the aluminum members shall conform to the current edition of the The Aluminum Association Specification and Guidelines for Aluminum Structures.
- 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 gas metal arc welding process and shall be performed by experienced operators.
- 2.5 All exposed surfaces and their welded joints shall be smooth and free of sharp or jagged edges.

### **3. MATERIALS**

- 3.1 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.
- 3.2 Stainless Steel Fasteners shall be grade 18-8.
- 3.3 Rollers used at the end of the gangway shall be ultra high molecular weight polyethylene (UHMW) with black ultra violet light inhibitor added.

### **4. ENGINEERING**

- 4.1 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.
  - b. Gangways over 4 foot wide shall be designed for a uniform live load of 85 pounds per square foot.
- 4.2 Maximum deflection of structure shall be calculated using  $L/180$  where "L" is the length of the gangway in inches.
- 4.3 Deck Material designed for a concentrated vertical load of 300 pounds distributed over a one square foot area.
- 4.4 Handrails shall be designed for a horizontal load of 20 pounds per linear foot.

### **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.)
- 5.2 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
- 5.3 Top Rail (Top Chord Member) Selection
  - a. G & A Manufacturing Top Cap. (Up to 30' in Length)
  - b. Square Top Cap. (Over 30' in Length) Size of tube is dependent upon length & width.
- 5.4 Deck Material Selection
  - a. Decking material shall be 1 inch X 12 inches slip-resistant, "Knurled", extruded Aluminum