

Specifications
Tennessee Wildlife Resource Agency (TWRA)
TWRA New Johnsonville Modular Courtesy Dock
ITB Event 32801-12911

All work shall be completed in accordance with the following work scope and specifications below.

A. General Specifications

1. Courtesy docks shall be bid as individual modular components so that multiple configurations can be made.
2. The system shall be able to be modified to include more dock sections and/or gangways in the future.
3. The concrete bulkhead will be installed by TWRA and shall not be included as part of this proposal.
4. All permits shall be obtained by TWRA.
5. Installation shall be performed by TWRA and not included as part of this proposal.
6. Dock shall use spud poles for anchoring system. Poles shall be provided by TWRA and are not part of this bid. Poles shall be four (4) inches with a canon of eight (8) inches long with a six (6) inches diameter.

B. ADA Compliance

1. See diagrams in the Appendix.
2. Shall be used for both courtesy docks gangways and floating docks.
3. The dock shall be ADA compliant, and the following link provides a checklist of requirements: <https://adachecklist.org/doc/rec/fishing/fishing.pdf>
4. Handrails shall be no more than thirty-four (34) inches above the ground or deck.
5. Guards shall be higher than thirty-four (34) inches if the higher portion is no less than forty-two (42) inches high and balusters or ornamental patterns do not allow a 4-inch diameter sphere to pass through up to a height of thirty-four (34) inches and do not allow an 8-inch diameter sphere to pass through between thirty-four (34) inches and forty-two (42) inches above the ground.
6. The 34-inch maximum high railings, guards, or handrails shall have a curb or barrier extending 2 inches minimum above the surface of the pier or platform.
7. The ground or deck shall extend at least twelve (12) inches beyond the inside face of the railing at a clear width of at least thirty (30) inches and clear height of at least nine (9) inches.

C. Fastening System

1. Shall be used for aluminum courtesy docks.
2. See Appendix for diagram.
3. Shall be TimberStrong Hidden Fastening System (or equal).
4. Shall provide attachment for the composite decking to the aluminum joist dock structure. The fastener shall be mechanically attached to each corresponding deck board, with embedment into the deck board, a minimum of 1-inch and located directly over each joist.
5. The spacing between deck boards shall be 3/8 inches.
6. The attachment at each joist shall be with one #10 stainless steel, self-tapping screw, placed through the black PVC TimberStrong fastener (or equal) and into the corresponding joist. The screw length embedment shall be a minimum ½" past the aluminum joist surface. No screws or any other type of fasteners shall be used in the deck surface as the attachment method for the decking.

D. Courtesy Dock Gangway Live Load

1. Vertical Design Loads
 - a. Dead load shall be the entire weight of the courtesy dock and access ramp.
 - b. Deck surface and structural frame loading shall be equal to a minimum of thirty (30) pounds per square foot applied to the full deck surface.
 - c. Access ramp shall be designed for thirty (30) pounds per square foot applied to the full surface area.
 - d. Flotation deck live load shall be designed for thirty (30) pounds per square foot to the full area of the deck.
2. Horizontal Design Loads
 - a. Uniform wind load of twenty (20) pounds per square foot on all projected surfaces.
 - b. Prevent torsion, racking and twisting by providing sufficient built-in rotational resistance to prevent no more than three (3) inches of rotation in normal freeboard per thirty (30) linear feet of dock under any combination of normal loads
3. Freeboard
 - a. Floating docks shall provide freeboard under the loading conditions listed below, with no more than 1" loss of freeboard after one year of service.
 1. Flotation shall maintain a minimum freeboard of 16" and maximum of 20" under combined dock dead load and supported gangway and utility load.
 2. Flotation shall maintain freeboard of 8" under the dead load condition plus the live load specified in section 3 D, uniformly distributed across the entire decking.
 - b. When the floating dock must support a gangway, special condition shall be given to ensure that adequate flotation is provided to the floating dock to support the tributary dead load of the gangway.

E. Courtesy Docks

1. Courtesy Dock Gangway - One (1) Item

- a. See images in the Appendix for a general diagram.
- b. The gangway shall be supplied with supplemental flotation at the bottom of the gangway.
- c. Supplemental flotation shall be provided at the bottom of the gangway to ensure no additional load is put on the floating dock system.
- d. Gangways shall be supplied and shall measure 5-feet by 40-feet.
- e. The gangway and all components shall be Grade 6061 aluminum.
- f. Decking shall be aluminum.
- g. The guardrail shall be located at 42-inches
- h. An intermediate handrail shall be located at a height of 34-inches.
- i. A Toe-Kick shall be included.
- j. A hinge shall be located at the top and bottom of the gangway.
- k. A hinged mounting angle shall be provided for the top mounting of the gangway.

2. Courtesy Dock Floating Dock - Two (2) Item

- a. An aluminum 8-foot, 6-inch by 30-foot floating dock or a galvanized steel 10-foot, 6-inch, by 20-foot floating dock shall be supplied.
- b. The dock shall be 50 series, Grade 6061 aluminum.
- c. Decking shall be composite.
- d. 16-inch plastic encapsulated flotation shall be provided (dock shall have a freeboard dimension of approximately 20-inches).
- e. A hinge shall be located at the gangway connection point.
- f. Rub rail shall be located along the front and two sides of the dock.
- g. Corner bumpers shall be located on the two outside corners
- h. Eight (8) adjustable cleats shall be provided.

3. Courtesy Dock Delivery

- a. 45 calendar days from receipt of Purchase Order
- b. Contractor shall ship the dock FOB Destination.
- c. Contractor shall call three (3) business days before shipping so that arrangements can be made.
- d. Delivery shall not be made on weekends or legal holidays as declared by the Commissioner of the Tennessee Department of Human Resources ("DOHR").
- e. Point of Contact: Jay McClellan at 615-351-6611
- f. Delivery shall be to TWRA Camden Wildlife Management Area, 190 Brooke Ln, Camden, TN 38320.

F. Warranties

1. Minimum of one (1) year standard manufacturer's warranty on components.

APPENDIX

ADA Compliance Diagrams



