Specifications for the Galleon Drive Bridge Rail Timber Cladding and HardiePlank Replacement

The Galleon Drive Bridge is in the Port Royal neighborhood and carries traffic over a manmade, landlocked lake. The bridge was constructed in 2005 and aesthetic treatments were installed on the railing and exterior of the bridge which have deteriorated and in need of replacement. The existing stucco coating on the bottom concrete portion of the bridge rail will be removed under separate contract. Applicable plan sheets from the 2005 replacement are included as Attachment B for informational purposes only. Replacement will per the below specifications and field dimensions will need to be verified by the prospective bidders.

As indicated in the Scope of Work, all demolition materials will be removed from site daily and the site left in a clean and orderly fashion. New materials may be stored on-site in an orderly fashion and any damage to the sod or landscaping will be replaced by the Contractor at no additional cost to the City.

MATERIAL SPECIFICATIONS

All dimensional lumber shall be pressure treated # 1 MCA GC KDAT (# 1 grade lumber, Micronized Copper Azole preservative system, Ground Contact, Kiln Dried After Treatment) which is not available at the local hardware stores. One local supplier is Decks and Docks Lumber.

All fasteners into steel tubing, lumber and HardiePlank siding shall be #316 grade stainless steel. Fasteners into concrete shall be White Tapcon which are recommended for use in pressure treated lumber. Screws are required for the HardiePlank siding and all 2" dimensional lumber. No substitutions will be allowed. All fasteners shall be countersunk, filled and sanded smooth prior to painting.

Wood glue for the half lap joints in the lattice shall be a polyurethane grade wood glue for exterior applications.

HardiePlank siding shall be factory primed 7 $\frac{1}{4}$ " Artisan smooth lap siding installed at 1 $\frac{1}{4}$ " overlap.

Paint shall be per Sherwin Williams Product Submittal included under Attachment C. Lumber shall not be painted until the moisture level is < 15%. Contractor shall be required use a moisture meter to verify moisture levels.

TIMBER CLADDING AND HARDIEPLANK DETAILS WITH PHOTOS OF EXISTING

Top rail consist of a 2" \times 10" bolted to the 2" \times 8" \times 3/16" steel tube and is mounted flush with the tube on the front side and overhangs tube on the rear side and has 1" \times 4" attached flush with the top of 2" \times 10" on both sides and ends. The top edges of all 1" \times 4" shall be corner rounded and sanded smooth. The existing holes in tube will be used

for the bolted connections. A Memorial Plaque is installed on the south rail at the midpoint of the bridge and shall be salvaged and reinstalled in the new 2" x 10".

Columns consist of 4 EA 1" x 6" installed around the 4" x 4" x $\frac{1}{2}$ " steel tube with front and sides installed tight to the column with self-tapping fasteners and the rear side is fastened to the 1" edge of the side pieces. Nails per the above specification may be used on the rear side 1" x 6" and top of 1" x 6" on the rear side shall be cut bevel. Nails may also be used on the front side as needed. The 2 "NO FISHING" signs installed on the columns at the beginning of the bridge shall be salvaged and reinstalled on the new 1" x 4".

Lattice consist of 2" x 4" uprights and diagonal pieces equally spaced in between the column uprights. The connection for the diagonal pieces shall be half lap joints secured together with polyurethane grade wood glue and one fastener on the rear side of the joint.

Bottom rail consist of a 2" x 12" mounted to the top of the concrete wall flush with the top of the chamfer strip on the front side and has a 2" x 2" attached to the 2" x 12" on the ends and rear side. From exploratory work at the base of **one** of the columns, both 2" x 12" stops on either side of the 9" x 9" x $\frac{1}{2}$ " column base plate in the rear. On the front side, one 2" x 12" stops at the 9" x 9" x $\frac{1}{2}$ " column base plate. The other 2" x 12" is notched to fit around the side and front of the 9" x 9" x $\frac{1}{2}$ " column base plate. The top of the base plates and anchor bolts are covered with 1" x 4" cut at diagonals and the bottom of the 1" x 4" have been notched out at the anchor bolt locations. A trim piece is installed at the base on the front side of the column. Trim piece shall be diagonal cut at the ends to match the cuts of the 1" x 4" and be Colonial Series 1 $\frac{1}{4}$ " x 3/8" Cellular Vinyl Stop Moulding or approved equal. Nails per the above specification may be used for the trim piece. After the bottom rails have been painted, the bridge number (035252) will be stenciled in black to the bottom rail at the beginning of the bridge on the SW and NW corners. Photo of bridge number shown in the Lattice photos.

HardiePlank shall installed to the exterior concrete bridge barrier in accordance with the Manufacturer's Specification. New 1" x 4" furring strips shall be fastened to the exterior of the concrete bridge barrier and no water resistant barrier will be required. At the four corners of the bridge, the bottom of the HardiePlank siding shall be stair-stepped up to maintain +/- 6" clearance from ground to siding. The exposed concrete from the stair-stepping shall be cleaned and painted.

Top Rail













<u>Columns</u>













<u>Lattice</u>













1" x 4" shown for informational purposes. 2" x 4" shall be used for diagonal piece half lap joint

Bottom Rail
(Page 1 of 2)













Bottom Rail

(Page 2 of 2)



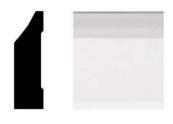








Royal Mouldings Colonial Series 12 ft. x 1-1/4 in. x 3/8 in. Cellular Vinyl Stop Moulding



Hardie Plank Siding











