SCI

SPAULDING CRAFT INC.

FLORIDA COLUMNS

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INNOVATIVE AND RELIABLE SOURCE FOR ARCHITECTURAL FIBERGLASS COMPONENTS

FLORIDA COLUMNS
MANUFACTURED BY SPAULDING CRAFT INC.

SCI is a full service company, all phases of production are kept in-house, including: Shop drawings with C.A.D. (computer assisted design), patterns, tooling, steel fabrication, production and shipping. Installation assistance is also available. For more information on the design and use of architectural composites, please call or write for a comprehensive guidelines manual.

Florida Columns is your innovative and reliable source for both custom and stock columns, column covers, cornice and domes. We have gained a reputation for excellence in design, engineering and product quality. Spaulding Craft Inc. (SCI), manufacturer of Florida Columns, has supplied architectural components to some of the most prestigious building projects in recent years, both commercial and residential.

While most of our competition still uses wood and precast concrete, SCI works exclusively with composites (commonly known as FRP). A revolution in the use of composites is currently underway in the aviation and auto industries. SCI has been, and continues to be a driving force in the use of composites for the building industry.

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INTRODUCTION TO FRP

Spaulding Craft Inc. is pleased to provide this information to Architects, Specifiers, and Contractors for use in the design stages, specifications and installation of FRP on your project.

FRP is a tough, long lasting, and economical way to present architectural components for your project. Architects and construction professionals prefer it to cast stone and wood because it weathers much better than wood, and is more cost effective and lighter than stone. FRP maintains it's aesthetic integrity for the life of the building.

The other exciting fact about FRP is the Architects ability to bring interior millwork detail to the exterior of the structure. What we can achieve with FRP is limited only to your imagination.

FRP (Fiberglass Reinforced Polyester) is a composite material. Composite materials are thermo set resins (liquid to solid) that are combined with fibers (usually glass type) to create an extremely tough, lightweight, and weather resistant component. Combining the fibers (glass, Kevlar, or carbon) with the resin is what gives the composite its tremendous strength, and long term durability.

Spaulding Craft was formed in 1976, actively engaged in the design and manufacturing of composite tooling and components for the marine and aviation industries. In 1980 SCI was awarded a contract by Walt Disney World in Orlando, FL to build 200 rental boats, after a highly successful contract we were invited to be a partner in there next FRP project EPCOT Center. Two years of working hands on with the staff shop at Disney World and EPCOT was finished, since then SCI has been a trend setter in the Architectural FRP market. Our plant is located in Safety Harbor, FL (20 Minutes from Tampa). Over the years SCI has produced and delivered hundreds of projects. In 1988 SCI designed and fabricated thousands of composite components on the prestigious multi use Market Square Buildings in Washington DC. Since then has worked on many upscale projects including Burdines, Saks 5th Ave, and numerous banks, colleges, and hospitals.

Pound for pound FRP is stronger than concrete, steel, and aluminum. This translates to great cost savings in the overall design. Wall sections can be engineered to support decorative elements that only weigh an average of

2.5 pounds per square foot! Installation is also fast and cost effective because cranes and heavy equipment are rarely needed. Most any shape imaginable can be built with FRP: ornate highly detailed carvings, column covers, spheres, domes, spires, special displays, and most notably Cornice and Entablature.

All molded FRP components have an integral surface called gel-coat. Typical thickness is 20-30 mills and it is this gel-coat that provides the U-V protection for the laminate, and gives a pin-hole free base for painting. Unique stone textures have been developed by SCI. Our applied Fiberstone texture is most popular texture and can be matched to virtually any color. Also available are flat, matte, white paintable, and even factory applied automotive polyurethane. Colors can range form white to metallic like silver, gold, bronze, and copper.

In design and construction of commercial or residential structures, the desire for a unique architectural image is a top priority. SCI's attention to detail, product quality, experience, coupled with timely production can be your edge in creating a truly unique architectural image. Weather classical architecture, art deco or special displays, SCI is ready to assist you from conception through design and installation.


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SECTION 06610

FIBERGLASS REINFORCED PLASTIC FABRICATIONS

SPAULDING CRAFT INC.
FLORIDA COLUMNS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Glass fiber reinforced polyester (FRP) as indicated on the drawings.

1.2 RELATED SECTIONS

A. Section 03490 – Glass Fiber Reinforced Concrete.
B. Section 06100 – Rough Carpentry: Supplementary supports for large items.
C. Section 09235 – Glass Fiber Reinforced Gypsum Fabrications.
D. Section 06050 – Basic Materials and Methods: Wood and Plastics.
E. Section 09900 – Paints and Coatings: Field painting and sealing prior to painting
F. Section 05500 – Metal Fabrications: Supplementary supports for large items.

1.3 REFRENCES

A. ASTM E 84 – Standard Test Method for Surface Burning Charteristics of Building Materials; 1999 ***(ONLY FOR FIRE RATED MATERIALS)***
B. ASTM D 790 – Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials; 1999
C. ASTM D 638 – Standard Test Method for Tensile Properties of Plastics; 1999

D. ASTM D 695 – Standard Test Method for Compressive Properties of Rigid Plastics; 1996

1.4 SUBMITTALS

A. Product Data: Manufacturer's data sheets on each prefabricated product to be used, including dimensions, finishes, storage and handling requirements and recommendations, and installation recommendations.
B. Shop Drawings: For custom fabrication, provide drawings showing dimensions, layout, joints, details, and interface with adjacent work; include field dimensions of the spaces where items are to be installed, if critical to proper installation. Fabrication to begin only after Architects final review stamp.
C. Samples: For each custom color and texture specified, two samples, minimum size 6 inches (150mm) square, representing the custom color and texture specified.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Transport, lift, and handle units with care, avoiding excessive stress and preventing damage; use appropriate equipment.
B. Store products in manufacturer's unopened packaging until ready for installation, in a clean dry area off the ground and protected from the weather, moisture and damage; store units upright and not stacked unless permitted by manufacturer. The contractor shall not be required to move until installation.

1.6 QUALITY ASSURANCE

A. Manufacturer: A firm with not less then 10 years successful experience in producing the type of prefabricated components for project applications equivalent to the requirements for this project.
B. Installer Qualifications: Shall have a minimum of 5 years experience with the type of prefabricated components specified and shall be technically instructed by the manufacturer.

1.7 WARRANTY

A. The manufacturer of the fiberglass reinforced polyester (FRP) products and the Contractor shall jointly warrant FRP products to be free from defects in materials and workmanship for a period of one year from date of substantial completion of the project and if defects in materials and / or workmanship should appear within the stated period of warranty, the manufacturer and Contractor shall same without additional cost to the Owner. Manufacturer's warranty shall be limited to replacement of defective materials and the General Contractor shall remove defective units and install replacement items without additional cost to the Owner or / Manufacturer.

B. Warranty shall be based on installation methods in conformance with manufacturer's recommendations and instructions. Manufacturer's warranty shall not cover damage to FRP caused by acts of God or structural, mechanical, electrical defects and defects of adjacent materials furnished and installed by other trades.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer: **SPAULDING CRAFT Inc.** manufacturers of **FLORIDA COLUMNS; 1053 HARBOR LAKE DR. SAFETY HARBOR, FL 34695 ; Tel. (727)726-2316 Fax (727) 725-2897 E-mail: scott.columns@verizon.net Web site: www.spauldingcraft.com**
B. Request for substitutions may be submitted to Architect in writing a minimum of 7 calendar days prior to bid date. Request must include test and data sample submittals.
C. The manufacturer of any proposed substitutions shall have completed at least (5) projects of the scope and quality required by the contract documents for this project.

2.2 MATERIALS

A. Fabrication of Fiberglass reinforced polyester products shall be manufactured using specified resins, and reinforced chopped glass fibers, and exposed surfaces will be colored gel-coat. Structural reinforcing will be added where necessary. Materials are as follows.
    1. Surface Coat: Ultraviolet inhibited NPG-ISO polyester gel-coat, 20 mils (0.5mm) thick nominal.
    2. Polyester Resin: Class A resin will meet or exceed the requirements of ASTM E 84, Class I flame spread rating.
    3. Glass Fiber: Glass cloth, matte and chop: random chopped fibers shall be "E" type.
    4. Reinforcement: Use of structural reinforcers where necessary for product rigidness.
B. Typical Glass Reinforced Laminate Material Specifications
    1. Mat Laminate Flexural Strength at 77 degrees F (25C), 20,000 psi (186158 N/m2) when tested in accordance with ASTM D 790.
    2. Flexural Modulus at 77 degrees F (25 C) at 10 (6) 1.5 psi (10.34 N/m2) when tested in accordance with ASTM D 790.
    3. Tensile Strength at 77 degrees F (25C), 12,000 psi when tested in accordance with ASTM D 638.
    4. Comprehensive Strength at 77 degrees F (25C) Edgewise, 17,000 psi (186158 N/SM) ASTM D 695.

5. 24 Hr. Water absorption at 77 degrees F (25C) 0.05 percent change in weight when tested in accordance with ASTM D 570.
6. Barcol Hardness 45 when tested in accordance with ASTM D 2583.
7. Glass content, 30 percent.

C. Finishes: Provide integrally colored units with an approved texture for a consistent appearance to match the architectural requirements. Color and surface finish and texture shall be as follows:

1. Color:
    a. As selected from the manufacturers standard color range.
    b. Color shall be a custom color as selected by the Architect.

2. Finish:
    a. High Gloss.
    b. Matt.
    c. Flat.
    d. Simulated Limestone
    e. Custom _____.

2.3 FABRICATION

A. Prior to fabrication verify, by measurement at the Project Site, all dimensions affecting work of this section.
B. Fabricate materials to the required size and thickness to produce adequate strength and durability in the finished product and for the intended use. Work to the dimensions shown or accepted on the shop drawings using proven details of fabrication and support.
C. Thickness of FRP parts: Nominal total thickness is ¼ inch (6mm) to 3/16 inch (5mm) including gel-coat, or as specified in approved shop drawings. Gel-coat thickness 25 mils nominal.
D. Remove all units that are cracked, bent, chipped, scratched, or otherwise unsuitable for installation and replace with new, approved items.

PART 3 EXECUTION

3.1 EXAMINATION

A. Prior to installation verify that all conditions are plumb and true, and that any previously installed work under other sections is acceptable for installation of FRP items.
B. Any unsatisfactory conditions shall be noted and brought to the Architect's attention immediately before proceeding.
C. All field dimensions should be checked and if not in allowable range the Architect should be notified and wait for installation instructions before proceeding.

3.2 PREPARATION

A. All surfaces where FRP products are to be installed should be clean and free of debris.\
B. Prepare substrates for connection devices carefully, using approved shop drawings and preparation methods provided by manufacturer.
C. Install all supplementary support; wood blocking, metal studs, or any other supports specified by manufacturer.

3.3 INSTALLATION

A. Install in accordance with manufacturers instructions, making sure that units are plumb, true to line and shim whenever necessary.
B. Use tools and hardware approved by manufacturer.
C. Connect FRP components in accordance with approved shop drawings. Use only Stainless Steel fasteners permitted for use in all connections. Allowing no more than ¼ inch in 10feet variation from approved shop drawings, also align all vertical and horizontal seams.
D. Secure individual units as indicated, accurately fitted true to line and slopes as indicated and required for proper alignment with adjacent work.
E. Caulk joints as indicated in the approved shop drawings.

3.4 CLEAN-UP AND PROTECTION

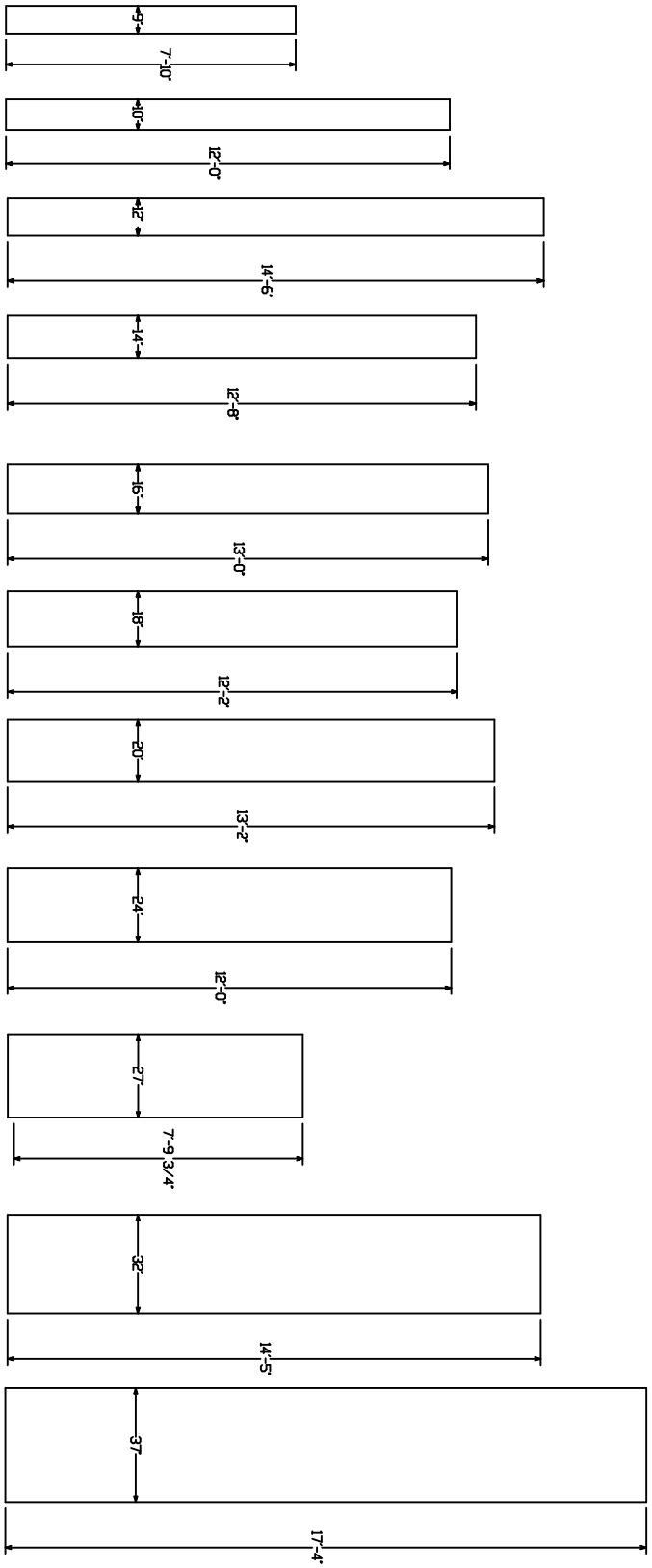
A. Clean surfaces of FRP; comply with manufacturer's instructions. Repair or replace units damaged during installation.
B. Protect FRP products from damage or deterioration until acceptance of the work. Touch-up, repair or replace damaged products before Substantial Completion.
C. Clean and properly dispose of misplaced adhesives, shavings, and trimmings from the area.

END OF SECTION

STOCK COLUMNS

Model	Style	Height Range	Base Size	Shaft at Base	Throat D	Inside Clearance	Capital Size
S-08-0-D	Doric	6'-6" to 16'-2"	16"	12"	10 1/2"	10"	15"
S-10-0-D	Doric	7'-7" to 12'-3"	20"	15"	12 3/4"	12 1/4"	18"
S-09-0-T	Tuscan	7'-0" to 9'-0"	21"	15 3/4"	13 1/2"	13"	19 1/2"
S-10-0-T1	Tuscan	7'-7" to 20'-0"	21 5/8"	17"	14 1/2"	14"	21"
S-11-0-D	Doric	6'-8" to 10'-2"	24"	18"	15"	14 1/2"	22 3/4"
S-11-9-T	Tuscan	11'-91/2" fixed	25 5/8"	19 1/2"	16 1/4"	15 7/8"	24 1/4"
S-14-0-D	Doric	8'-6" to 21'-2"	27"	21"	18"	17 1/2"	26 1/2"
S-14-6-T	Tuscan	10'-4" to 13'-6"	30 7/16"	23"	19 3/8"	18 1/4"	28 3/4"
S-18-0-D	Doric	13'-3" to 21'-0"	35 1/2"	27"	22 1/2"	22"	34 1/2"
S-20-0-D	Doric	16'-10" to 26"-6"	46 9/16"	35"	28 1/2"	28"	41 5/8"
S-08-8-DF	Fluted Doric	8'-0" to 8'-4"	15 5/8"	12"	10"	9 1/2"	15 5/8"
S-10-8-DF	Fluted Doric	10'-0" to 10'-5"	19 1/2"	15"	12 7/16"	12"	19 1/2"
S-12-8-DF	Fluted Doric	12'-8" fixed	26"	20"	16 1/2"	16"	26"
S-06-0-W	Temple of Winds	4'-6" to 8'-6"	12"	9"	7 1/2"	7"	12"
S-09-3-C	Corinthian	7'-0" to 9'-3"	14 1/2"	11"	9"	8 1/2"	16 1/2"
S-12-0-C	Corinthian	10'-0" to 14'-3"	19"	14"	11 3/4"	11 1/4"	22"
S-18-0-C	Corinthian	18'-0" to 20'-6"	29"	21 3/4"	18"	17 1/2"	33"
S-18-0-CF	Fluted Corinthian	18'-10" fixed	29"	23"	19"	17 1/2"	33"
S-18-0-I	Fluted Ionic	18'-4" fixed	29"	23"	19"	17 1/2"	24"
S-08-10-P	Square Doric	8' 10 1/8" fixed	18 1/2"	12 3/8"	12 3/8"	11 1/2"	17 1/2"

TUBES PROVIDED IN SPLIT HALVES



STOCK TUBE MOLDS

FLORIDA COLUMNS

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