

## PART 1 – GENERAL

### 1.1 DESCRIPTION OF WORK

A. The scope of this specification is for fiberglass reinforced plastic beams as shown on the drawings.

### 1.2 PERFORMANCE TESTING

A. Materials shall comply with Federal and Local laws or ordinances, applicable codes, standards, and regulatory agency requirements including:

1. ASTM D638, Standard Test Method for Tensile Properties of Plastics
2. ASTM D790, Standard Test Method for Flexural Properties of Plastics
3. ASTM D695, Standard Test Method for Compressive Strength of Plastics
4. ASTM E84, Standard Test Method for Surface Burning Characteristics of Plastics

B. Structural framing without lateral bracing shall meet performance and design criteria listed herein for spans and conditions indicated on the drawings.

C. Beams shall demonstrate compliance with design criteria by full scale, 3 Point Load Bend Test.

### 1.3 DESIGN CRITERIA

A. Uniform Design Loads: Live or Snow \_\_\_\_ psf    Wind \_\_\_\_ psf    Dead \_\_\_\_ psf

B. Deflection Limit (L/D) and Factor of Safety (FOS)

**\*\* Note to Specifier \*\* Indicate if Deflection Limit (L/D) shall be 120, 180, or other value.**

1. Roof Purlins:    L/D = \_\_\_\_    Positive Load FOS = 2.5, Wind Load FOS = 1.88
2. Wall Girts:    L/D = \_\_\_\_    FOS = 1.88

## PART 2 – PRODUCTS

### 2.1 MATERIALS

A. Purlins and Girts shall be Tuff Span as manufactured by Enduro Composites, Inc., located at 16602 Central Green Blvd., Houston, TX 77032; Tel: 713-358-4000, 800-231-7271; Email: sales@endurocomposites.com; Web: [www.endurocomposites.com](http://www.endurocomposites.com); or approved equal conforming to these specifications.

1. Section shall be Tuff Span 8F6, Flanged Tube Beam.

2. Resin type shall be:

**\*\* Note to Specifier \*\* Indicate resin type.**

\_\_\_\_ Isophthalic Polyester (Gray Color)

\_\_\_\_ Vinyl Ester (Beige Color)

3. Glass Fiber Reinforcements shall be continuous, multi-directional with glass content of 55% (minimum) of the beam weight.

4. Materials shall be fire retardant with Class 1 Flame Spread Rating of 25 or less per ASTM E-84.

## PART 3 – EXECUTION

### 3.1 INSTALLATION

A. Verify alignment of primary support beams.

B. Position 8F6 beam on primary support beams with flanges upward.

C. Fasten 8F6 beam to primary frame with two, 5/8" x 2" bolt and nut assemblies at each support. Access holes, which may be factory or field cut, shall be located near fastening points.