



# Barn Structure

## <u>Slides</u>



**Desert Sand** 



Tigerwood



Walnut



Corrugated Galvanized Steel



Forest Green







Cast Aluminum 'Icons' shown on Scavenger Hunt Sign hidden











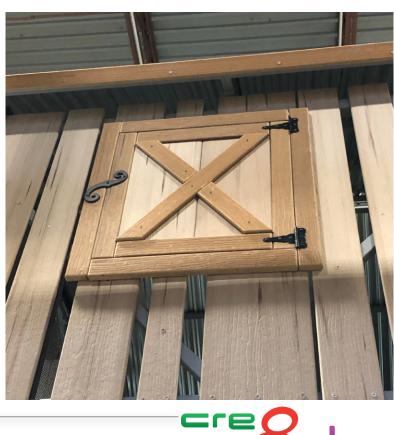
### Lime

## Tropical Yellow



Gears Panel (Inside Barn)

play



#### 1.0 MATERIALS

- Material: All materials shall have a demonstrated record of Α. durability in the playground or similar outdoor setting. All metals shall be painted, galvanized, or otherwise treated to prevent rust. Black steel is not acceptable.
- Glass Fiber Reinforced Concrete (GFRC): A concrete mix B. reinforced throughout with chopped glass fibers. Cement used shall be Federal White Type 1 Portland cement, meeting the requirement of ASTM C-150. Granusil 5020 silica sand able to pass a No. 40 sieve, free of contaminants or deleterious matter and meeting ASTM C-29 composition requirements and ASTM C-566 for moisture content. Glass Fibers specially designed for use in concrete; shall be alkali-resistant, (AR), fiber and chopped to 18mm lengths, with 3-5mm mix lengths in all topical coat. Concrete shall have integral color that meets or exceeds ASTM C-979 including water wettability, alkali resistance, curing stability and lightfastness. Integral color shall not exceed 10% of amount of cement. Acrylic co-polymer dispersion with 51% solids specifically formulated for GFRC production process. Formulated to be stable and durable in high pH Portland cement- based GFRC composite.
- Sherwin Williams SuperPaint Exterior Flat shall be used for C. painted surfaces with Loxon concrete and masonry primer. Protective marine coating shall be applied to finished painted surface. Coating shall be satin finished Sherthane 2K Urethane, a low VOC aliphatic acrylic modified polyurethane designed for industrial environments.
- D.
- Hardware: All required hardware for assembly of the structure E. shall be included. All fasteners shall be yellow zinc di-chromate plated steel or 18-8 grade stainless steel (300 series). Capped lock nuts, which cover bolts ends, shall be included. Tamperresistant hardware is utilized on principle clamping mechanisms. Special tools are provided for assembly and maintenance. Clamp connection disassembly and use of drive rivets eliminates slippage. Physical locking devices are used on all exposed and accessible connection points, such as lock nuts. A nylon thread locking patch is applied to certain hardware.

- Composite Wood: Composite shall be a solid profile reversible F. board with a natural wood grain texture on both sides. No capped wood plastic composite or capped PVC. 1. Composition: Reclaimed wood and polyethylene plastic with additives for coloring and inhibiting fungal/algal growth; free from toxic chemicals. 2. Profiles: (5/4x6) (1x5) (2x6) inches x (12) (16) (20) feet long 3. Surface texture: Deep wood grain accents, textures and multi-dimensional color shading. 4. Characteristics: a. Hardness: 1,352 lbf/6.01kN; ASTM D143 b. Self ignition temperature: 741°F/394°C; ASTM D1929 c. Flash ignition temperature: 729°F/387°C; ASTM D1929 d. Flame spread rating: 100; ASTM E84 e. Smoke Developed Index: 350; ASTME84 f. Thermal expansion coefficient: 2.0 x 10<sup>-5</sup> in/in/°F (3.6x10<sup>-5</sup> cm/ cm/°C); Samples of product must be submitted with submittal of proposal.
- Rotationally Molded Plastic Parts: Shall be rotationally molded G. from color-compounded, first quality, linear low density, Exxon CP-812 polyethylene. Dry-blended or molded-in resins are not acceptable. Color-compounded polyethylene is 23 times stronger than dry blended resins providing better-bonded strength with greater surface contact. Compounded color provides superior colorfastness, UV resistance, and impact resistance with solid color molecules. Polyethylene shall be ultraviolet (UV) stabilized to UV-8 and have anti-static additives. Cross-sectional design shall be .25" (6 mm) nominal thickness, double wall construction. ASTM Specifications: D-1238 (Melt Index), D-1505 (Material Density), D-638 (Tensile Strength), D-648 (Heat Distortion Temperature) D-790 (Flexural Modulus), D-1693 (Environmental Stress Crack Resistance), D-2565 (Ultraviolet). Dry-blended or molded-in color resins are not acceptable.
- H. Climbing Netting: Rope shall be 16mm in diameter and is constructed of six high strength strands of steel wire and synthetic rope fiber laid over a three strand fiber core to form a durable yet flexible rope suitable for a range of applications. Increased strength and stability of each strand is achieved with an adhesion of the inner fibers by heating the steel core during the manufacturing process to form a thermo-fixed bond between the steel strands and surrounding fibers.