

Materials

- 1 **Concrete Steel reinforced**, polypropylene fiber reinforced, 5000 PSI minimum 28 day compressive strength, air-entrained (ASTM C260)
- 2 **Reinforcing steel**: ASTM A615, grade 60 unless otherwise indicated
- 3 **Reinforcing fiber**: Polypropylene fiber, 1.6 pounds per cubic yard or equal

Codes and Standards

- 1 **The building shall meet the following codes and standards:**
 - A ACI-318 -02, "Building code requirements for reinforced concrete"
 - B Concrete Reinforcing Institute, "Manual for Standard Practice"
 - C ANSI "Building Code Requirements for Minimum Design Loads in Buildings and Other Structures"
 - D ANSI "Building Code Requirements for Minimum Design Loads in Buildings and Other Structures"
 - E Producer must be a producer member of the National Precast Concrete Association (NPCA)
 - F The engineer and/or owner shall charge the contractor either an hourly rate or a set fee for time and labor to review any proposed alternate structure, especially if the proposed alternate is not "or equal"
 - G The engineer and/or owner shall require a discount from the contractor if an alternate structure is used

Dimensions and Design Loads

- 1 **Standard Floor Load**: 100 psf
- 2 **Standard Snow Load**: 60 psf
- 3 **Standard Wind Load**: 27 psf
- 4 **Dimensions:**
 - A Benchmark I: 7'-4" wide x 7'-4" long x 8'-0" high (I.D.) 8'-0" wide x 8'-0" long x 11'-3" high (O.D.)
 - B Benchmark II: 7'-4" wide x 15'-4" long x 8'-0" high (I.D.) 8'-0" wide x 16'-0" long x 11'-3" high (O.D.)
 - C Benchmark Plus: 7'-4" wide x 20'-4" long x 8'-0" high (I.D.) 8'-0" wide x 21'-0" long x 11'-3" high (O.D.)
 - D Landmark I: 11'-4" wide x 23'-4" long x 8'-0" high (I.D.) 12'-0" wide x 24'-0" long x 11'-3" high (O.D.)
 - E Landmark II: 19'-4" wide x 23'-4" long x 8'-0" high (I.D.) 20'-0" wide x 24'-0" long x 11'-3" high (O.D.)

Roof Design

- 1 Roof shall be Hy-Grade Peak Construction, reinforced precast concrete
- 2 Roof shall have a pitch of 4:12
- 3 Roof finish shall be either smooth or simulated cedar shake, stained or unstained.
- 4 Roof thickness shall be 4" minimum to 9" maximum at peak

Finish

- 1 **Wall panels** shall have an exposed aggregate finish on all exterior walls (Other aesthetic finishes available as required and/or specified)
- 2 **Smooth steel form finish** on all interior surfaces
- 3 **Precast partition walls** shall have smooth trowel finish on one side and steel form finish on one side
- 4 **Panel Connections**: All panels shall be securely fastened together with ¼" thick steel connection plates. Steel is to be of structural quality, hot-rolled carbon complying with ASTM A283, Grade C. All fasteners to be ½" diameter bolts. Cast-in anchors used for panel connections to be Dayton-Superior #F-63 or equal.
- 5 **Doors and Frames**: As per spec, or as per quote: Shall comply with Steel Door Institute, "Recommended Specifications for Steel Doors and Frames" (SDI-100) and as herein specified. The building shall be equipped with 3'-0" x 7'-0" x 1 ¾", 18 gauge metal doors with lockseam construction and honeycomb insulation or equal. Door frames shall be 16 gauge wipe coat galvanized and painted on coat on Industrial Grey, unless color is specified.
- 6 **Standard Door Hardware**: (to be specified, or as per quote)
 - A Hinges: Stanley #1409, 4' ½" x 4" x NRP x PT with Non-removable pins
 - B Lockset: Ingersoll-Rand R160N x 626, or equal
 - C Threshold: K.N. Crowder CTG x 4" Aluminum
 - D Door Sweep: K.N. Crowder W13-S Aluminum with Neoprene inserts, or equal
- 7 **Standard Vents**: Alumavent or equal, extruded aluminum flanged vents 5" x 15 5/8" standard #204 clear finish with 8 x 8 mesh x .028 diameter aluminum insect screen
- 8 **Caulking**: All joints between panels shall be caulked on exterior and interior surfaces. Caulking shall be Tremco 830 or equal, elastomeric sealant, polyurethane-base.

Curing and Sealing

- 1 All precast concrete surfaces will be treated with Sealtite CS-309, non-yellowing curing compound.
- 2 All exposed aggregate exterior precast surfaces will be treated with Hydro-Tight invisible silicone coating
- 3 All non-exposed aggregate exterior surfaces will be treated with Externit #50 special gray coating.

Site Preparation and Installation

The Hy-Grade Restroom Building is easily transported and installed. No foundations or footings are required, site work and preparation is typically minimal. Requirements include a clear and level area approximately one foot larger than the building size, and 6" deep. Fill with Granular A, level and compact to 95% Standard Proctor Density. Top with 2" of screening and level. Building will be set on this prepared foundation.