# **|** **Suggested Specifications | Section 10 26 00**

# **CS Acrovyn® Models HRW-20, HRW-20S, HRW-20V, HRW-20CM, HRW-20SCM and HRW-20VCM**

**Part 1 - General**

1. **Summary**
   1. This section includes the following types of wall protection systems:
      1. Handrails
   2. Related sections: The following sections contain requirements related to this section:
      1. Corner Guards, Bumper Guards, Crash Rails, Accent Rails, Wall Covering, Wall Panels, Door Protection; refer to section 10 26 00 “Wall and Door Protection”
      2. Blocking in walls for fasteners; refer to section 09 22 00 “Supports for Plaster and Gypsum Board”
2. **References**
   1. National codes (IBC, UBC, SBCCI, BOCA, OSHA, Life Safety, OSHPD and ADA)
   2. American Society for Testing and Materials (ASTM)
   3. California 01350 specification
3. **Submittals**

General: Submit the following in accordance with conditions of contract and Division 1 specification section 01 33 00 “Submittal Procedures”:

* 1. Product data and detailed specifications for each system component and installation accessory required, including installation methods for each type of substrate.
  2. Shop drawings showing locations, extent, and installation details of handrails. Show methods of attachment to adjoining construction.
  3. Samples for verification purposes: Submit the following samples, as proposed for this work, for verification of color, finish and end cap attachment and alignment:
     1. 12" (304.8mm) long sample of each model specified including end cap.
  4. Product test reports from a qualified independent testing laboratory showing compliance of each component with requirements indicated.
  5. Maintenance data for wall protection system components for inclusion in the operating and maintenance manuals specified in Division 1.

1. **Quality Assurance** 
   1. Installer qualifications: Engage an installer who has no less than 3 years’ experience in installation of systems similar in complexity to those required for this project.
   2. Manufacturer’s qualifications: Not less than 5 years’ experience in the production of specified products and a record of successful in-service performance.
   3. Code compliance: Assemblies should conform to all applicable codes including IBC, UBC, SBCCI, BOCA, OSHA, Life Safety, OSHPD, ADA and CA 01350.
   4. Fire performance characteristics: Provide wood components tested in accordance with ASTM E84 for Class A/1 fire characteristics.
   5. Single source responsibility: Provide all components of the wall protection system manufactured by the same company to ensure compatibility of color, texture and physical properties.
2. **Delivery, Storage and Handling**
   1. Deliver materials to the project site in unopened original factory packaging clearly labeled to show manufacturer.
   2. Store materials in original, undamaged packaging in a cool, dry place out of direct sunlight and exposure to the elements. A minimum room temperature of 40°F (4°C) and a maximum of 100°F (38°C) should be maintained.
   3. Material must be stored flat.
3. **Project Conditions**
   1. Materials must be acclimated in an environment of 65°-75°F (18°-24°C) for at least 24 hours prior to beginning the installation.
   2. Installation areas must be enclosed and weatherproofed before installation commences.
4. **Warranty**
   1. **Acrovyn 5-year Limited Warranty**

* Applies to Interior Wall Protection orders that do not include recommended components or accessories
  + Assemblies = Brackets, Hardware
  + Accessories = Primer, Adhesive, Caulk, Trims & Moldings
  1. **Limited Lifetime Systems Warranty**
* Applies to CS Interior Wall Protection projects that include all recommended components and accessories related to CS Interior Wall Protection Products.
  + Assemblies = Brackets, Hardware
  + Accessories = Primer, Adhesive, Caulk, Trims & Moldings

**Part 2 - Products**

1. **Manufacturers**
   1. Interior surface protection products specified herein and included on the submittal drawings shall be manufactured by Construction Specialties, Inc., 3 Werner Way, Lebanon, NJ 08833 USA 800-233-8493; email: [cet@c-sgroup.com](mailto:cet@c-sgroup.com)
   2. Drawings and specifications are based on manufacturer’s literature from Construction Specialties, Inc. drawings and specifications unless otherwise indicated. Other manufacturers must be approved equal by Architect/Owner.
2. **Materials**
   1. Solid Wood Components: Shall be manufactured from plain sawn, FAS grade hardwood, kiln dried to a moisture content of 6% to 10%.
   2. **Aluminum: Extruded aluminum should be 6063-T6 alloy with nominal .075" (1.90mm) thickness for models HRW-20, HRW-20S and HRW-20V or 6105-T5 alloy with nominal .075" (1.90mm) thickness for models HRW-20CM, HRW-20SCM and HRW-20VCM. Minimum strength and durability properties as specified in ASTM B221.**
   3. **Stainless Steel: Shall be fabricated from type 304 stainless steel with a #4 satin finish for models HRW-20S and HRW-20SCM.**
   4. Fasteners: All fasteners to be non-corrosive and compatible with wood. All necessary fasteners to be supplied by the manufacturer.
3. **Handrails** 
   1. Wood Handrails to be CS Acrovyn: Surface mounted assembly consisting of wood handrail mounted to wall with matching wood blocks. Attachment hardware shall be appropriate for wall construction.
      1. **Model HRW-20 4-1/2" (114.3mm) high solid wood handrail with field mitered ends. Rail mounted on matching wood brackets with concealed, patented Acrovyn Quick Lock™ fasteners for easy installation. Specify HRW-20S for optional 1/8" (3.2mm) wide stainless-steel strip; supplied to field verified dimensions with factory-installed end caps only. Specify HRW-20V for optional feature insert, select from Acrovyn solid colors (limited options). Specify HRW-20CM, HRW-20SCM or HRW-20VCM for optional ligature resistant mounting bracket. Select from Renaissance™ Wood species and finishes. Optional factory mitered ends available.**
4. **Finishes**
   1. All wood components shall be factory finished. Wood components to be final coated with water based, high solids, clear lacquer using a two-coat process. Finish shall be in accordance with specified AWI finish system. Coverage shall be a minimum of 3-5 mils. Gloss shall be measured on 60° gloss meter as per ASTM D523.
5. **Fabrication**
   1. General: Fabricate wall protection systems to comply with requirements indicated for design, dimensions, detail, finish, and member sizes.
   2. Preassemble components in shop as much as possible to minimize field assembly.
   3. Fabricate components with wood joints lightly chamfered. Provide surfaces free of chipping, dents, and other imperfections.

**Part 3 - Execution**

1. **Examination**
   1. Verification of conditions: Examine areas and conditions under which work is to be performed and identify conditions detrimental to proper or timely completion.
      1. Do not proceed until unsatisfactory conditions have been corrected.
2. **Preparation**
   1. Surface preparation: Prior to installation, clean substrate to remove dirt, debris, and loose particles. Perform additional preparation procedures as required by manufacturer's instructions.
   2. Protection: Take all necessary steps to prevent damage to material during installation as required in manufacturer’s installation instructions.
3. **Installation**
   1. Install the work of this section in strict accordance with the manufacturer's recommendations, using only approved mounting hardware, and locating all components firmly into position, level and plumb.
   2. Temperature at the time of installation must be between 65°-75°F (18°-24°C) and be maintained for at least 48 hours after the installation.
4. **Cleaning**
   1. General: Immediately upon completion of installation, clean rails, and accessories in accordance with manufacturer’s recommended cleaning method.
   2. Remove surplus materials, rubbish and debris resulting from installation as work progresses and upon completion of work.
5. **Protection**
   1. Protect installed materials to prevent damage by other trades. Use materials that may be easily removed without leaving residue or permanent stains.