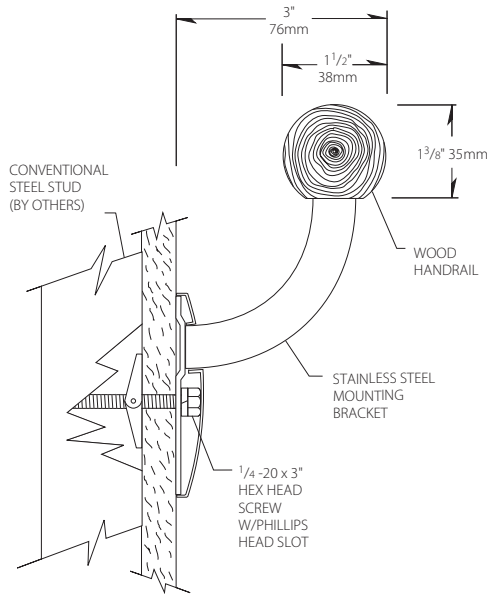
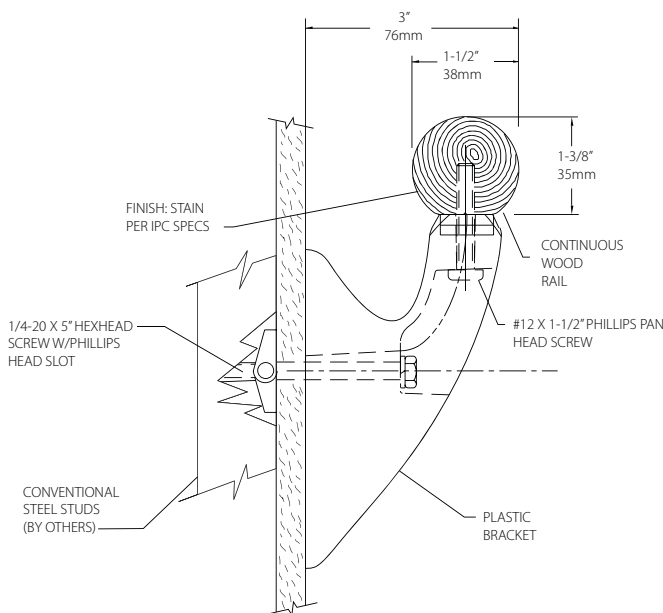


# HR9 Handrail



**STAINLESS STEEL BRACKET**



**MOLDED BRACKET**

- Order as stock lengths that require field cut returns and corners
- Design interiors with red oak or maple, each available in seven stain colors or unfinished poplar
- Coordinate with Northern Hardwoods chair rails, keepsake shelves and frames
- Meet safety codes with ADA and ANSI compliance

IPC.596/REV.10

# HR9 Handrail

## Suggested Specifications

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. Handrail system with a solid wood handrail and stainless steel components that provides pedestrian safety and wall protection.
- B. Handrail system with a solid bamboo handrail and stainless steel components that provides pedestrian safety and wall protection.

#### 1.02 SECTION INCLUDES

- A. HR9 Handrail System

#### 1.03 REFERENCES

- A. American National Standards Institute (ANSI)
- B. American with Disabilities Act (ADA)
- C. Environmental Protection Agency (EPA)
- D. Kitchen Cabinets Manufacturers Association (KCMA)
- E. National Emission Standards for Hazardous Air Pollutants (NESHAP)

#### 1.04 SYSTEM DESCRIPTION

- A. Performance Requirements: Provide wood handrail systems that conform to the following requirements of regulatory agencies and the quality control of InPro Corporation.
  1. Cold, heat and chemical resistance: Provide wood handrail with a finish that complies with the applicable provisions of ANSI/KCMA A161.1-1990 for cold check, heat and chemical resistance.
  2. Environmental compliance: Provide wood handrail and with a finish that does not off gas or emit any VOC, after a full cure, as tested in accordance to the EPA, NESHAP, Method 24, 40CFR, Volume 60, Appendix A.
  3. Code Compliance: Provide handrails that comply with all current ANSI and ADA requirements.

#### 1.05 SUBMITTALS

- A. Product Data: Manufacturer's printed product data for each type of handrail specified.
- B. Detail Drawings: Mounting details with the appropriate fasteners for specific project substrates.
- C. Samples: Verification samples of handrail, 8" (203mm) long, in full size profiles of each type and color indicated.
- D. Manufacturer's Installation Instruction: Printed installation instructions for each handrail.

#### 1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in unopened factory packaging to the jobsite
- B. Inspect materials at delivery to assure that specified products have been received.
- C. Store in original packaging in a climate controlled location away from direct sunlight.

#### 1.07 PROJECT CONDITIONS

- A. Environmental Requirements: Products must be installed in an interior climate controlled environment.

#### 1.08 WARRANTY

- A. Standard InPro Limited Lifetime Warranty against material and manufacturing defects.

### PART 2 - PRODUCTS

#### 2.01 MANUFACTURER

- A. Acceptable Manufacturer:  
InPro Corporation, PO Box 406  
Muskego, WI 53150 USA  
Telephone: 800.222.5556  
Fax: 888.715.8407  
www.inprocorp.com
- B. Substitutions: Not permitted
- C. Provide all handrails and wall protection from a single source.

#### 2.02 MANUFACTURED UNITS

- A. Handrail Profile
  1. HR9 Handrail, 1 1/2" (38mm) gripping diameter, extends 3" (76mm) from wall.

#### 2.03 MATERIALS

- A. Wood: Shall be FAS grade, kiln dried, solid maple or red oak with moisture content of 5-9%.
- B. Forest Stewardship Council (FSC) Wood: Shall be kiln dried solid FSC Ash.
- C. Bamboo: Shall be 100% bamboo, kiln dried, with a moisture content of 7-10%.

#### 2.04 COMPONENTS

- A. Returns, outside corners and inside corners shall be solid wood or bamboo and a finish to match handrails.
- B. Fasteners: All mounting systems accessories appropriate for substrates indicated on the drawings shall be provided.
- C. Stainless Steel: Stainless steel returns, corners, splices and brackets shall be made of type 201SS with type 304 stainless steel flange cover.
- D. Optional molded bracket: Molded bracket shall be made of injection molded thermoplastic. Bracket shall include a cover to conceal fasteners.

#### 2.05 FINISHES

- A. Wood/Bamboo Stain: Color of the handrail to be selected, by the architect, from the InPro stain selection. Bamboo color shall be natural or carbonized.
- B. Wood/Bamboo Finish: Handrail shall be finished with a water-based clear coat finish. Finish shall be a low luster satin finish.
- C. Optional Stainless Steel: Stainless steel returns, corner, splices and brackets shall have a satin finish.
- D. Optional molded bracket: Bracket shall have a pebble texture. Color to be selected by the Architect from the InPro color palette

### PART 3 - EXECUTION

#### 3.01 EXAMINATION

- A. Examine areas and conditions in which the handrail systems will be installed.
  1. Complete all finishing operations, including painting, before beginning installation of handrail system materials.
  2. Wall surface shall be dry and free from dirt, grease and loose paint.

#### 3.02 PREPARATION

- A. General: Prior to installation, clean substrate to remove dust, debris and loose particles.

#### 3.03 INSTALLATION

- A. General: Locate handrail as indicated on approved detail drawings for the appropriate substrate and in compliance with the InPro installation instructions. Install handrail level and plumb at the height indicated on the drawings.
- B. HR9 Handrail Installation Instructions:
  1. Cut the wood handrail to desired length, leaving appropriate allowance for the returns, inside corners, outside corners and splices. Allow 3" (76mm) for each return, 4.5" (114mm) for each inside corner, 0" (0mm) for each outside corner and 3" (76mm) for each splice.
  2. Drill holes in the centerline of the wood rail for threaded inserts, using a 1 1/32" drill bit. Holes should be 4" (102mm) from the ends and spaced a maximum of every 32" (813mm). Screw threaded inserts into each hole on the wood rail using a 6mm power bit or hex key.
  3. Attach splines to mount returns and corners to the wood rails. Slide the spline guide on the wood rail. Drill 5/32" holes using the two holes on the end of the guide for placement. Attach the spline to the wood with #10 x 1 3/4" pan head screw.
  4. Attach returns, inside corners, outside corners and splices to the wood rail by sliding the return, corner or splice over the spline. Tighten the return, corner or splice to the spline using a 3/32" hex key with #10-24" set screws. When joining rail sections without stainless steel splices use wood dowels to connect these sections. Slide the wood dowel guide on the end of the rail. Use the hole on the end of the guide and drill a 1 3/32" hole for the dowel. Do this on the other section of rail. When mounting the assembly to the wall, glue and clamp the two sections of rail.
  5. *Stainless Steel Brackets* - The posts on stainless steel brackets are threaded. Wrap Teflon tape around each threaded post. Slip the stainless steel bracket cover over the post and then turn each threaded post into the threaded inserts until the mounting bases are aligned on the correct side of the rail.  
*Optional molded bracket:* Attach bracket to the wood rail using a #12 x 1-1/2" screw. Attach the handrail assembly to the wall with the proper fastener for the substrate. When secure, snap bracket cover into the bracket.
  6. Position the handrail bracket assembly against the wall at the desired height. Level the retainer and transfer the locations of the bracket holes to the wall with a marker. Drill all marked holes on the wall with a 3/4" drill bit for toggle bolts or a 1/2" drill bit for lead anchors.
  7. Loosely attach the mounting bolts to the brackets. Use one 1/4-20 x 3" hex head screw with Phillips head slot, one 1/4" lock washer and one toggle wing or lead anchor. Mount the handrail/bracket assembly into the holes on the wall using the provided fasteners. Level and secure the retainer to the wall. After the handrail is level and the brackets are securely attached to the wall, snap the stainless steel bracket covers over each mounting base.

#### 3.04 CLEANING

- A. At completion of the installation, clean surfaces in accordance with the InPro clean-up and maintenance instructions.