

## SECTION 10 28 00.10

### GRAB BARS

#### PART 1 GENERAL

##### 1.01 SECTION INCLUDES

- A. Requirements for grab bars as shown on Drawings and as specified herein.

##### 1.02 REFERENCE STANDARDS

- A. References and industry standards listed in this Section are applicable to the Work. Unless more restrictive criteria or differing requirements are explicitly stated in the Specifications, or mandated by governing codes or regulations, the recommendations, suggestions, and requirements described in the referenced standards shall be deemed mandatory and applicable to the Work.
- B. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- C. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2015.

##### 1.03 SUBMITTALS

- A. Product Data: Manufacturer's specifications and catalog sheets indicating compliance with specified requirements.
- B. Submit Shop Drawings showing installation details and locations.
- C. Prior to installation of adjacent drywall work, submit elevations, details, and templates for locations of concealed anchor plates. Furnish anchor plates for installation on metal studs prior to application of wall board.
- D. Submit samples of grab bar, flange and anchoring devices.

##### 1.04 QUALITY ASSURANCE

- A. Comply with ANSI-A117.1 requirements for size, spacing and structural strength for grab bars.

##### 1.05 DELIVERY, STORAGE AND HANDLING

- A. Protect grab bars during delivery, storage, handling, and installation, until Work of Contract is completed.

#### PART 2 PRODUCTS

##### 2.01 MANUFACTURERS

- A. American Specialties Inc., Yonkers, NY: Series 3400.
- B. Bradley Corp., Menomonee Falls, WI: Series 837.
- C. AJ Washroom Accessories, New Windsor, NY: Series UG 120.
- D. Bobrick Washroom Accessories, Clifton Park, NY: Series B490.

##### 2.02 MATERIALS

- A. Grab Bars
  1. Materials: Type 304 stainless steel, 18 gage, 1½" O.D., Satin finish, exposed mounting.
  2. Sizes and Configurations: As shown on Drawings and in accordance with ANSI requirements.
  3. Provide 1½" clearance between grab bar and wall surface.
  4. Flanges: Type 304 stainless steel, 11 gage, minimum diameter 3", continuous welded to grab bar.
  5. Exposed Anchorage Components: Type 304 stainless steel.
- B. Plates and Anchoring Devices: See Part 3. Provide mounting templates, plates, and fasteners as required for indicated installations.

## PART 3 EXECUTION

### 3.01 INSTALLATION

#### A. Grab Bar Anchorage

1. Grab bars, fasteners, and anchors shall be capable of sustaining a force of at least 250 pounds at any point and from any direction as per Section BC 1607.7.2 of the 2014 NYC Building Code.
2. Meet requirements of ANSI, latest edition, for "Structural Strength" for grab bars.
3. For New Masonry Structural Walls and Existing Masonry Structural Walls (unless indicated otherwise on the Drawings):
  - a. Where face of wall opposite grab bar side is concealed (e.g., chase):
    - 1) Provide hot-dip galvanized steel fish plate (minimum size: 6"x 6"x 1/8" thick).
    - 2) At grab bar side: Provide stainless steel through-bolts (1/4" diameter minimum) through flange of grab bar and extending through fish plates. Provide washers and nuts. Bolts shall be as recommended by grab bar manufacturer.
    - 3) At grab bar side (Option): Provide 1/4" thick stainless steel (18-8, Type 304) base plate, with exposed surface edges rounded, either 6" diameter or 6" square with 1" radius corners. Provide 1/4" diameter threaded studs welded to base plate for attachment of grab bar flange. Secure base plate to fish plate with two 3/8" diameter stainless steel through-bolts (with nuts and washers), aligned vertically, spaced at 4½" on centers. Provide tamper-proof stainless steel cap nuts. Secure grab bar flange to base plate threaded studs with tamper-proof stainless steel cap nuts.
  - b. For Hollow Concrete block walls, where not possible to use fish plates (unless indicated otherwise on the Drawings):
    - 1) Anchorage of Grab Bar Flange at Block Core: Provide two (2) 1/4" diameter stainless steel toggle bolts (threaded stud) through flange of grab bar, with tamper-proof stainless steel cap nuts.
    - 2) Anchorage of Grab Bar Flange at Block Web: Provide two (2) Hilti Standard Hit Anchors, adhesive type with screen tube 5/16" diameter zinc-plated carbon steel studs. Use tamper-proof stainless steel cap nuts.
    - 3) Option: At grab bar side, provide a 1/4" thick stainless steel (18-8, Type 304) base plate, with exposed surface edges rounded, either 6" diameter or 6" square with 1" radius corners. Provide 1/4" diameter threaded studs welded to base plate for attachment of grab bar flange.
    - 4) Anchor base plate to wall:
      - (a) At Block Core: Two (2) 3/8" diameter stainless steel toggle bolts (threaded studs), with tamper-proof stainless steel cap nuts.
      - (b) At Block Web: Two (2) Hilti Standard Hit Anchors, adhesive type with screen tube, 3/8" diameter zinc-plated carbon steel stud. Use tamper-proof stainless steel cap nuts.
      - (c) Align toggle bolts (or anchor studs) vertically, at 4½" on centers.
    - 5) Attach grab bar flange to base plate; secure with tamper-proof stainless steel cap nuts.
  - c. For solid masonry, where not possible to use fish plate: provide as in paragraphs 3b(2) or in 3b(3)(b), above.
  - d. For clay tile walls: Where not possible to use fish plate, attachment to be as detailed on Drawings.
4. For Existing or New Drywall/Metal Stud Walls: Attachment shall be as detailed on the Drawings and in compliance with paragraphs 1. and 2., above.
5. For new metal stud walls provide concealed hot-dip galvanized steel anchor plates (minimum size 4" x 1/8" thick). Secure anchor plate to studs on both sides of grab bar attachment points before wallboard is applied (2 fasteners per stud, minimum). Recess plate as required for flush wallboard application. Drill pilot holes through wallboard and

finish material. Secure grab bar to anchor plate with tamper-proof stainless steel fasteners.

6. For Existing Toilet Compartment Panel: Attachment shall be as detailed, and in compliance with paragraphs 1. and 2., above.
  7. For New Toilet Compartment and Shower Compartment Panel: Reinforce panels as required to sustain the design forces specified in paragraphs 1. and 2. above.
  8. No plastic or lead expansion shields shall be used for attachment of grab bars.
- B. Install grab bars at heights above floor, and in locations related to plumbing fixtures as shown on Drawings and in accordance with ANSI requirements. Install true and plumb.
- C. Clean grab bars and exposed anchorage components thoroughly.

**END OF SECTION**

SAMPLE