SECTION 13 17 23.11
THERAPEUTIC POOL ACCESSORIES

SPEC WRITER NOTES: Delete between //_____// if not applicable to project.
Also delete any other item or paragraph not applicable in the section and renumber the paragraphs.

PART 1 - GENERAL

1.1 DESCRIPTION
A. This section specifies therapeutic pool accessories as follows:
   Railings
   Ladders
   Gratings and Frames
   Life Line Anchors

1.2 RELATED WORK
A. Other railings: Section 05 50 00, METAL FABRICATIONS.
B. Finishes: Section 09 06 00, SCHEDULE FOR FINISHES.

1.3 QUALITY ASSURANCE
A. Products of manufacturers regularly engaged in manufacturing items of type specified.
B. Installation by experienced mechanics capable of installing each item in accordance with shop and erection drawings.

1.4 SUBMITTALS
A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
B. Shop Drawings:
   1. Showing details of construction and installation of materials.
   2. Finish of each item.
C. Manufacturers Literature and Data:
   1. Brochures or catalog cuts.
   2. Manufacturer's installation procedures and instructions.

1.5 APPLICABLE PUBLICATIONS
A. Publications listed below form a part of this specification to the extent referenced. Publications are referenced in the text by the basic designation only.
B. American Society for Testing and Materials (ASTM):
   A167-99(R2009) ........... Stainless and Heat Resisting Chromium-Nickel Steel Plate, Sheet, and Strip
   A269-10 ................. Seamless and Welded Austenitic Stainless Steel Tubing for General Service
   B209/209M-10 .......... Aluminum and Aluminum - Alloy Sheet and Plate
PART 2 — PRODUCTS

SPEC WRITER NOTE: Make material requirements agree with applicable requirements specified in the referenced Applicable Publications. Update and specify only that which applies to the project.

2.1 MATERIALS

A. Stainless steel: ASTM A167, Type 302B.
B. Stainless steel Tubing: ASTM A269, Type 304.
C. Fasteners: ASTM F593.
D. Aluminum: ASTM B209 and B221, Alloy suitable for intended use.
E. Bronze: Manufacturers standard copper - zinc - lead alloy.
F. Non Shrink grout: Grout, free of ferrous metal or oxide.

2.2 FABRICATION

A. General:
1. Grind welds smooth and finish to match adjacent surface.
2. Ease sharp edges or round them smooth. Finish rough surfaces smooth and remove projections unless specified otherwise.
3. Weld in accordance with AWS.
4. Provide non-slip surface on walk surfaces.
5. Threaded connections: Do not expose threads.

B. Finishes on Metal:
1. NAAMM AMP 500-505
2. Unless specified otherwise, see Section 09 06 00, SCHEDULE FOR FINISHES.
   a. Stainless Steel: No. 4.
   b. Aluminum: Clear anodic coating, AA-C22A41.
   c. Bronze: Chromium plated.

2.3 RAILING

A. In addition to the dead load design railing assembly to support 200 pound in any direction at any point.
B. Fabrication General:
1. Comply with NAAMM AMP 521.
2. Fabricate from not less than 48 mm (1.9 inches) outside diameter tube ASTM A269, having a minimum wall thickness of 2 mm (0.065 inch).
3. Standard flush fittings, designed to be welded, may be used. Do not leave exposed threads.
4. Join sections by an internal connector to form hairline joints where removable.
5. Fabricate with continuous welded connections.
6. Space posts for railings not over 1800 mm (six feet) on centers between end posts.
7. Fabricate stainless steel post sleeves at least 150 mm (6 inches) deep having internal dimensions at least 38 mm (1/2 inch) greater than external dimensions of post with closed ends or plates. Option: Manufacturer's standard bronze anchor sockets with escutcheon plates, exposed surfaces chrome plated.
8. Provide sliding flange base plate with set screws at base of tube posts.

2.4 LADDERS
A. Ladders not less than 625 mm (25 inches) between rails with steps at 250 mm (10 inches) centers.
B. Steps approximately 100 mm (4 inches) wide.
C. Fabricate rails or frames from not less than 48 mm (1.9 inches) outside diameter tube ASTM A269, having a minimum wall thickness of 2 mm (0.065 inch) in accordance with NAAMM AMP 521.
D. Fabricate stainless steel rail sleeves at least 150 mm (6 inches) deep having internal dimensions at least 13 mm (1/2 inch) greater than external dimensions of ladder rail for deck. Option: Manufacturer's standard bronze anchor sockets with escutcheon plates; exposed surfaces chrome plate.
E. Fabricate wall anchor plates for anchorage to wall with expansion bolts:
   1. Weld or screw attaching flange to rails.
   2. Use 9 mm (3/8-inch) flat head stainless screws for securing flange to wall plate.
F. Fabricate steps of not less than 3 mm (1/8 inch) stainless sheet welded to rails:
   1. Reinforce connection to rail.
   2. Deform tread surface for non-slip surface.

2.5 GRATING AND FRAMES
A. Grating and frames for deck level gutter type drains.
B. Design gratings to support a live load of not less 500 Kg/m² (100 pounds per square foot) and a concentrated load as specified in NAAMM Metal Bar Grating Manual, MBG 531. Perform design calculations and make fabrication details in accordance with NAAMM Metal Bar Grating Manual, MBG 531.

C. Provide clearance at all sides to permit easy removal of grating.

D. Fabricate grating in sections not to exceed 3000 mm (10 feet) in length.

E. Fabricate gratings of stainless steel, polyvinyl chloride, or glass fiber.

F. Fabricate frames of stainless steel angles with strap anchors welded to angle frame.
   1. Angles of not less than 3 mm (1/8-inch) thickness, sized for not less than 25 mm (1 inch) grating bearing and depth for grating to finish flush with top of frame.
   2. Strap anchors not less than 3 mm by 100 mm (1/8 inch by 4 inches) spaced at 600 mm (24 inches) centers.

2.6 LIFE LINE ANCHORS

A. Recessed cup type to provide eye-bolt flush with wall of pool.

B. Cup insert approximately 75 mm (three inches) in diameter and 125 mm (five inches) over-all with concrete anchor.

C. Eye-bolt minimum 16 mm (5/8 inch) material, threaded and screwed into cup.

D. Insert and bolt of bronze with exposed surfaces dressed smooth and with chromium plated finish.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Set work accurately, in alignment and where shown, plumb, level, free of rack and twist, and set parallel or perpendicular as required to line and plane of surface.

B. Items set into concrete:
   1. Provide temporary bracing for such items until concrete is set.
   2. Place in accordance with setting drawings and instructions.

C. Set frames of gratings, life line anchors, sleeves and similar items flush with finish floor or wall surface and, where applicable, flush with side of opening.

D. Field weld in accordance with AWS.
   1. Finish as specified for shop welding.
   2. Use continuous weld unless specified otherwise.

E. Install anchoring devices and fasteners as shown and as necessary for securing pool accessories to building construction as specified.
F. Isolate aluminum from dissimilar metals and from contact with concrete and masonry materials as required to prevent electrolysis and corrosion.

G. Secure escutcheon plate with set screw.

H. Set posts in pipe sleeves with non shrink grout.

I. Secure flange to post at base with set screw.

J. Set wall plate for ladders flush with finish surface. Secure ladder to plate with screws specified.

3.2 CLEANING AND ADJUSTING

A. After installation, clean accessories as recommended by the manufacturer, and protected from damage until completion of the project.

B. Clean movable and removable parts and adjusted to operate as designed without binding or deformation of the members.

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