

**Division 04 - Masonry
SECTION 04 05 19
MASONRY ANCHORAGE AND REINFORCING**

PART 1 - GENERAL

A. The Contractor is referred to the Instructions to Bidders and General Conditions, NYCHA Contracts; the Special Notice to Contractors; the Form of Proposal; the Form of Bid Bond; Division 01 - General Requirements of the Contract Specifications; the Contract Drawings and all Amendments and Addenda thereto; all of which govern the Work of this Section.

1.01 Summary

A. This Section includes anchors and fastening systems for masonry.

1.02 Submittals

A. Product Data: For each product specified in Part 2 - Products.

B. Samples: Anchors and Fasteners: For each type to be incorporated in the Work.

C. Pre-construction Test Reports: Anchorage Pull-out Test Reports.

1.03 Tests and Inspections

A. Pre-construction Testing:

1. Anchorage Pull-out Testing:

- a. Performance Models: Construct performance models of anchorage into existing substrate material. Individual models shall be constructed for each anchor and substrate material configuration required for the Work, at locations determined by Architect.
- b. Testing: Perform pull-out tests on each anchorage performance model.
 - 1) Arrange for Architect to be present at testing, provide five (5) business days' notice.
 - 2) Retest as necessary until satisfactory results are obtained.
- c. Test Reports: Reports shall include date of test, location, products used, test method, and test results stating whether anchorage complies, or does not comply with the manufacturer's listed allowable load capacity, times a factor of safety of four (4), for the applicable substrate material.
- d. Acceptance: Obtain Architect's written acceptance of test results before proceeding with installation Work.

PART 2 - PRODUCTS

2.01 General

A. Components of anchoring systems shall be stainless steel conforming to ASTM A276, ASTM A493 or ASTM F 593 with chemical composition of either AISI 304 or AISI 316, as indicated on Drawings.

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1. Stainless steel wedges shall be of the same material grade as the bolts or superior.
2. Stainless steel nuts shall conform to ASTM F 594 and be of the same material grade as the bolts or superior. Nuts shall be furnished with the bolt and meet the dimensional requirements of ANSI to conform with the bolt.
3. Washers shall conform to ASTM A 240 and be also of the same material grade as the bolts.

2.02 Anchors and Fasteners: Concrete

A. Expansion Anchor

1. Kwik Bolt 3 Expansion Anchor Stainless steel by Hilti, Inc.
2. Or equal.

B. Adhesive Anchor: Capsule / Threaded Rod

1. HIT RE-500SD Adhesive Capsule by Hilti, Inc.
2. Or equal.

2.03 Anchors and Fasteners: Hollow CMU

A. Adhesive Anchor: Dispenser Injected / Threaded Rod / Hollow CMU

1. Adhesive: HIT HY 20 Injection Adhesive by Hilti, Inc.
2. Screen Tube: Screen Tube by Hilti, Inc.
3. Anchor: HIT or HAS-E Anchor Rod, by Hilti, Inc.
4. Or equal.

2.04 Horizontal Joint Reinforcement

A. Horizontal Joint Reinforcement (Truss Type / 2 side rods)

1. DA3100 Truss Stainless Steel, 9 Gauge wire, 2" wide, by Dur-O-Wal.
2. #120 Truss Mesh, Stainless Steel, 9-Gauge wire, 2" wide, by Hohmann & Barnard.
3. Or equal.

B. Prefabricated Corner Truss: Prefabricated corner to match horizontal joint reinforcement, 32" each direction.

2.05 Veneer Ties and Anchoring Devices

A. Veneer Anchor (Adjustable with Rod)

1. T-Lok Tie Stainless steel with pencil rod by Hohmann & Barnard.
2. Veneer Tie Assembly Series 5213S 12 gauge 304 Stainless steel with 9 gauge pencil rod installed with DA5410 expansion anchor by Dur-O-Wal.
3. Or equal.

B. Veneer Anchor

1. 345SV Seismic-Notch Veneer Anchor Stainless steel with pencil rod by Hohmann & Barnard.

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2. Veneer Tie Assembly Series 5431 12 gauge 304 Stainless steel with 9 gauge pencil rod installed with DA5410 expansion anchor by Dur-O-Wal.

3. Or equal.

2.06 Fasteners

A. Metal Hit Anchor

1. Metal HIT stainless steel 1/4" x 1-1/2" nail with expandable casing by Hilti Inc.

2. Or equal.

B. Powder Actuated Fasteners: As shown on the Drawings.

2.07 Askew Head Bolt

A. Stainless Steel, 3/4" diameter or 5/8" diameter as required, with washer, nut and shimming washer as required.

2.08 Steel Reinforcing Bars, Dowels, Eye bolts

A. Deformed Steel Reinforcing Bar: Epoxy Coated, ASTM A 775, Grade 60, unless otherwise indicated.

B. Threaded Rod: Stainless Steel (Type AISI 304).

C. Eye Bolt

1. 408 Stone Anchor (stainless steel) by Hohmann & Barnard.

2. Or equal.

D. Dowel: Fabricate from AISI Type 302/304 stainless steel.

2.09 Grout and Expansive Cement

A. Cementitious Grout (Non-shrink)

1. Sika Grout 212 by Sika Corporation.

2. Sono Grout 10K by Sonneborn (BASF).

3. Or equal.

B. Epoxy Adhesive

1. HIT RE 500SD by Hilti, Inc.

2. Or equal.

PART 3 - EXECUTION

3.01 General

A. Install anchors of type and diameter indicated, at locations shown on the Drawings.

B. Where length of anchor is not indicated on the Drawings, follow manufacturer's recommendations and obtain approval in writing from Architect prior to proceeding.

END OF SECTION