



SECTION 04233
PROTO II FENCE SYSTEM

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes: Material and labor requirements for Post-Tensioned concrete masonry construction using the Proto II Fence System.
- B. Products Furnished but Not Installed Under this Section:
 - 1. Section 03300 – Cast In Place Concrete: Installation of anchor bolts
- C. Products Installed But Not Furnished Under this Section:
 - 1. Section 04100 – Mortar and Grout
 - 2. Section 04150 – Masonry Accessories
 - 3. Section 04160 – Masonry Reinforcement
- D. Related Sections:
 - 1. Section 04220 – Concrete Unit Masonry

1.02 REFERENCES

- A. American Concrete Institute (ACI) 530.1 – Specification for Masonry Structures.
- B. American Society for Testing and Materials (ASTM): Concrete Masonry Units
 - 1. C 140 – Method of Sampling and Testing Concrete Masonry Units.
- C. 1994 Uniform Building Code (UBC) Standards:
 - 1. Standard 21-4 – Hollow and Solid Load-bearing Concrete Masonry Units
- D. ICBO ES Report 4845P – Current or most recent revision

1.03 SYSTEM DESCRIPTION

- A. The post-tension masonry fence system shall be the Proto II Fence System, an engineered, post-tensioned block fence system.

1.04 SUBMITTALS

- A. Samples: In accordance with Section 04220 – Concrete Masonry Units.

1.05 QUALITY ASSURANCE

- A. Standards, Regulatory Requirements and Mock-Ups: In accordance with Section 04220 – Concrete Masonry Units.
- B. Design and Construction: Conform to the requirements of ICBO ES Evaluation Report ER 4845-P including special inspection requirements and submittals of Proto II Fence System Application Manual to Building Official.
- C. Pre-Installation Conference: The purposes of this conference are:
 - 1. To review the specifications, materials lists, drawings, and material application requirements.
 - 2. To verify that all parties understand the meaning and intent of the contract documents.
 - 3. Attendees: As designated by Architect.
 - 4. See also Section 01200 – Project Meetings.

1.06 DELIVERY, STORAGE AND HANDLING

- A. In accordance with Section 04220 – Concrete Unit Masonry

1.07 PROJECT/SITE CONDITIONS

- A. Environmental requirements: In accordance with Section 04220 – Concrete Unit Masonry.

PART 2 PRODUCTS

2.01 MANUFACTURES

- A. Proto II Masonry Units and related materials shall be as manufactured or distributed by:
Basalite, 650 Industrial Way, Dixon, CA 95660 (707) 678-1901 facsimile (707) 678-6268.

2.02 MATERIALS

- A. Masonry Units:
 - 1. ASTM C90-02A except that minimum 28-day compressive strength on the net area shall be 2000 psi as determined by ASTM C 140.
 - 2. Sizes and Shapes: As indicated on drawings.
 - 3. Other specially molded units shall be supplied by the manufacture when required or as shown on Drawings.
- B. Mortar and Grout: In accordance with Section 04100.

- C. Steel: Post-tensioned rods, bottom anchor bolt, top nut and bottom coupler, washers and top steel plates shall be in accordance with ICBO ES Evaluation Report ER 4845-P.
- D. Direct Tension Indicator (DTI) Washers: In accordance with ICBO ES Evaluation Report 4845-P.

2.03 ACCESSORIES

- A. Horizontal and Vertical Reinforcing: See Section 04160.

PART 3 EXECUTION

3.01 ERECTION, INSTALLATION, APPLICATION

- A. General requirements for Concrete Masonry Walls: See Section 04200 Concrete Unit Masonry for other general requirements.
- B. Bonding:
 - 1. Bond pattern shall be regular running bond with fully mortared head and bed joints.
 - 2. Bond shall be plumb throughout face of wall.
- C. Mortar Joints: In accordance with Section 04220 – Concrete Unit Masonry.
- D. Control Joints:
 - 1. Provide control joints at locations indicated.
 - 2. Construct control joints as detailed on drawings.
- E. Horizontal Joint Reinforcing: As indicated on the wall system design drawings and in accordance with Section 2106 of the U.B.C.
- F. Vertical Reinforcing:
 - 1. Anchor bolts and reinforcing bars shall be installed in accordance with Proto II Fence System engineering specifications and approved drawings.
 - 2. Post-tensioning: In accordance with ICBO ES Evaluation Report ER 4845-P.
- G. Bond Beam Reinforcing: In accordance with Section 04220- Concrete Unit Masonry.
- H. Grouting: In accordance with Section 04220 – Concrete Unit Masonry.
 - 1. Tolerances: In accordance with ACI 530 1-88/ASCE 6-88.

3.03 QUALITY CONTROL

- A. Special Inspections: In accordance with ICBO ES Evaluation Report ER4845-P.

3.04 ADJUSTING

- A. In accordance with Section 04220 – Concrete Unit Masonry

3.05 CLEANING

- A. In accordance with Section 04220 – Concrete Unit Masonry

3.06 PROTECTION

- A. Furnish temporary protection for exposed masonry corners subject to injury.

END OF SECTION