

SECTION 085653 - SECURITY WINDOWS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Security transaction windows with pass-through device.

1.2 RELATED REQUIREMENTS

- A. Section 079200 - Joint Sealants: Sealing joints between frames and adjacent construction.
- B. Section 092116 - Gypsum Board Assemblies: Bullet-resistant sheathing and wallboard for bullet-resistant partitions and walls.

1.3 REFERENCE STANDARDS

- A. ASTM A666/A666M - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.
- B. ASTM E329 - Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.
- C. SSPC-Paint 33 - Coal Tar Mastic Coating, Cold-Applied.
- D. UL 752 - Standard for Bullet-Resisting Equipment.

1.4 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Furnish anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, to be embedded into concrete or masonry, with setting diagrams and installation, to applicable installer in time for installation.
- B. Preinstallation Meeting: Prior to start of installation arrange a meeting on site to familiarize installer and installers of related work with requirements relating to this work.

1.5 SUBMITTALS

- A. See Section 013300 - Submittal Procedures for submittal procedures.
- B. Product Data: Manufacturer's published data showing materials, construction details, dimensions of components, and finishes.
- C. Shop Drawings: Drawings prepared specifically for this project, showing plans, elevations, sections, details of construction, anchorage to other work, hardware, and glazing.
 - 1. For new work show required opening dimensions and allowance for field deviation.

- D. Test Reports: Test reports for specific window model and glazing to be furnished, showing compliance with specified requirements; window and glazing may be tested separately, provided window test sample adequately simulates the glazing to be used.
 - 1. Include testing agency qualifications.
 - 2. For structural, forced entry, and ballistic tests, provide details on method of anchorage to test frame.
- E. Coordination Drawings: For each window opening, show locations and details of items necessary to anchor windows that must be installed by others, in sufficient detail that installer of those items can do so correctly without reference to the actual window itself.
- F. Manufacturer's Qualification Statement.
- G. Installer's Qualification Statement.
- H. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements for additional provisions.
 - 2. Extra Security Fasteners: At least one box for every 50 boxes, or fraction thereof, of each type and size installed; provide products matching those installed, packaged and labeled.
 - 3. Tool Kit: 6 sets of tools for security fasteners.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Firm with at least 5 years experience in the manufacture of windows of the type specified and able to provide test reports showing that their standard manufactured products meet the specified requirements; custom designed products not acceptable.
- B. Testing Agency Qualifications: Independent testing agency able to show experience in conducting tests of the type specified and:
 - 1. Qualified according to ASTM E329 for testing tool-resisting steel.
- C. Installer Qualifications: Company specializing in performing work of the type specified and with at least three years of documented experience.
- D. Welder Qualifications: Qualified in accordance with AWS procedures for type of welding required.

1.7 WARRANTY

- A. See Section 017700 - Closeout Procedures for additional warranty requirements.
- B. Provide manufacturer's warranty agreeing to repair or replace windows and window components that fail within three years after Date of Substantial Completion due to, but not limited to, the following:
 - 1. Structural failure, failure of welds, and deterioration of metals and finishes beyond that expected under detention use and normal weathering.
 - 2. Failure of glazing due to excessive deflection of supporting members under wind load.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Security Transaction Windows with Pass-Through Device:
1. Basis of Design: Total Security Solutions: www.tssbulletproff.com.
 2. Substitutions: See Section 016000 - Product Requirements.

2.2 ASSEMBLIES

- A. Security and Detention Windows:
1. Dimensions, profiles, features, and performance specified and indicated on drawings are required; do not deviate unless specifically approved by Architect under substitution procedures; see Section 016000.
 2. Design to fit openings indicated on drawings; design to accommodate deviation of actual construction from dimensions indicated on drawings.
 3. Fabricate frames and sash with corners mitered or coped full depth with concealed welded joints.
 4. Design anchorages to provide performance equivalent to that required for window unit; provide anchorages at least equivalent to those by which the tested units were anchored to the test frame.
 5. Separate dissimilar metals to prevent corrosion by galvanic action by painting contact surfaces with primer or with sealant or tape recommended by manufacturer for the purpose.
 6. Weld components before finishing and in concealed locations, to greatest extent possible; minimize distortion and discoloration of finish; remove residue of welding; grind exposed welds smooth and finish to match.
 7. Label units to indicate which side is which, such as inside/outside or secure/non-secure; use labels that are removable after installation but durable enough not to be lost during delivery, storage, handling, and installation.

2.3 SECURITY TRANSACTION WINDOWS WITH PASS-THROUGH DEVICE

- A. Security Transaction Windows with Pass-Through Device:
1. Location: Built within interior wall, as indicated on drawings.
 2. Type of Use: Walk-up.
 3. Ballistic Resistance: Tested to meet UL 752, Level 7.
 4. Window Type: Fixed.
 - a. Overall Window Frame Size: 60 inch wide by 60 inch high.
 - b. Frame Material: Stainless steel.
 5. Glazing: Single (monolithic), clear, and ballistic resistant.
 6. Pass-Through Device: Deal tray built into window sill.
 - a. Material: Corrosion resistant.
 7. Communication: Offset glazing.
 8. Products:
 - a. Basis of Design: Total Security Solutions; TW_BAFFLE: www.tssbulletproff.com.
 - b. Substitutions: See Section 016000 - Product Requirements.

2.4 ASSEMBLY COMPONENTS

- A. Stainless Steel Framing: ASTM A666/A666M, Type 304; 14 gauge, 0.0781 inch minimum thickness.
- B. Frame Anchors: Mild steel plates, shapes, or bars, concealed in completed construction; provide anchorage devices as necessary to securely fasten windows to adjacent construction; use security fasteners for exposed anchors.
 - 1. Provide minimum of two anchors per side of window plus one additional anchor for each 18 inches or fraction thereof more than 36 inches in height or width.
- C. Glazing Seals: Factory installed; molded EPDM or neoprene compressible gaskets and compression strips.
- D. Security Fasteners: Operable only by tools produced by fastener manufacturer or manufacturer's licensee; head style appropriate to installation conditions, strength, and finish of materials being fastened; use countersunk heads wherever possible.
 - 1. Drive System: Use not more than one of the following:
 - a. 5-lobe Torx Plus socket head with security pin.
 - b. Standard Torx socket head with security pin.
 - c. Hex socket head with security pin.
 - d. Phillips head with security pin.
 - e. Two-hole drilled spanner head.
 - f. Notched spanner head.
 - g. One-way screw head.
- E. Deal Trays: Formed stainless steel, recessed into counter or sill for mounting under glazing frame.
 - 1. Style: Plain curved recess with exposed flanges for flush mounting in counter or sill.
 - 2. Clear Opening Height: 1-1/2 inches.
 - 3. Tray Dimensions: 12 by 8 inches, wide by deep.
- F. Bituminous Paint: Cold-applied asbestos-free asphalt mastic, complying with SSPC-Paint 33; 30 mils, 0.030 inch minimum thickness per coat.
- G. Sealant for Setting Sills and Sill Flashing: Non-curing butyl type.

2.5 FINISHES

- A. Polished Stainless Steel Finish:
 - 1. Polished as specified, without tool or die marks, stretch lines, or scratches, with grain running in long dimension of each piece.
 - 2. Passivated, rinsed, and chemically clean.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that window openings are ready for installation of windows.
- B. Verify that correct embedded anchors are in place and in proper location; repair or replace anchors as required to achieve satisfactory installation.

- C. Notify Architect if conditions are not suitable for installation of windows; do not proceed until conditions are satisfactory.

3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions and drawing details.
- B. Install windows in correct orientation (inside/outside or secure/non-secure).
- C. Anchor windows securely in manner so as to achieve performance specified.
- D. Separate metal members from concrete and masonry using bituminous paint.
- E. Set sill members and sill flashing in continuous bead of sealant.

3.3 ADJUSTING

- A. Adjust operating components for smooth operation while also providing tight fit at contact points and a secure enclosure; lubricate operating hardware.

3.4 CLEANING

- A. Clean exposed surfaces promptly after installation without damaging finishes.
- B. Remove and replace defective work.

3.5 CLOSEOUT ACTIVITIES

- A. Demonstrate operation and maintenance to designated Owner personnel.

END OF SECTION 085653