

**ITEM BID LIST FOR ALUMINUM
& STEEL SECURITY SCREEN SYSTEMS**

INSTALLED

1. Aluminum Residential Window Security Screen / Medium (Fixed)
2. Aluminum Security Screen Door
3. Steel Security Screen Door

NON-INSTALLED

4. Aluminum Residential Window Security Screen / Medium (Fixed)
5. Aluminum Security Screen Door
6. Steel Security Screen Door

7. Pricing for additional features to Items 1-6

Specifications for Aluminum Security Screens

1.0 GENERAL

- 1.1 **Scope.** All security screens shall be furnished with all necessary hardware, anchors, and miscellaneous equipment as herein specified. All screens shall meet local codes for fire egress.
- 1.2 **Purpose.** The purpose of these security screens is to prevent forced entry through openings with easy access and for glass breakage, i.e., the exterior windows. The security screens shall have a metal frame and wire cloth, which may be operable or fixed.

2.0 REQUIREMENTS

- 2.1 **Material Performance.** All screens must meet or exceed all applicable materials and performance requirements as indicated herein.
- 2.2 **Manufacturing.** Metal Security Screens shall be manufactured of commercially accepted materials, and with good workmanship. They shall be free from serious blemishes, dents, and scratches or any other defects, which are visible when viewed at a distance of six feet, or which might otherwise affect their serviceability or appearance.

3.0 FRAME CONSTRUCTION

- 3.1 **Framing Members.** Framing and cross brace members shall be made of a material which will provide sufficient strength to meet performance requirements.
- 3.2 **Thickness.** Framing sections and cross braces shall be a minimum of .062" extruded aluminum.

- 3.2.1 **Approved Screening Material.** Screening for use in metal protection screens shall conform to one of the following:

Medium. 12x12 mesh .023" minimum tensile strength 400 lbs. per lineal inch after weaving.

Heavy. 12x12 mesh .028" minimum tensile strength 600 lbs. per lineal inch after weaving.

- 3.2.2 **Type of Screening:**

Medium. For protection against glass breakage and allow some deterrent against forced entry for openings with more difficult access, such as second floor window.

Heavy. Used to prevent glass breakage or deterrent against forced entry for openings with easy access such as first floor windows.

Specifications for Aluminum Security Screens

- 3.3 **Assembly.** Screens shall be assembled in a secure and workmanlike manner to perform as hereinafter specified to assure neat construction. Operable screens may be mounted with vertically or horizontally positioned hinge. Screen wire shall be secured in the frame between two pieces of flat extruded aluminum using tamper resistant screws on four-inch center.

4.0 HARDWARE

- 4.1 **Approved materials.** Stainless steel in the alloys of 302, and 304, aluminum extrusions from commercially produced 6063-T5 alloy.
- 4.2 **Design and Serviceability.** Application hardware shall be of such design as to afford ease of operation.
- 4.3 **Design.** Hardware shall be designed to perform the functions for which it is intended, and shall be securely attached to the screen. Operable screen shall be released from the interior but properly guarded to prevent access from the exterior when the window is open.
- 4.4 **Anchors.** Anchoring devices used in the erection of screens shall be of non-magnetic stainless steel or other non-corrosive material compatible with the screen. Anchors exposed, when the screen is closed and locked, shall be tamper resistant security type.
- 4.5 **Finish.** Screen frames furnished under this specification shall have a baked on enamel painted finish. Exposed surfaces of all members shall be clean and free from serious surface blemishes.

5.0 REQUIREMENTS OF ITEMS BID

- 5.1 **Fixed residential screens** shall consist of frame of extruded aluminum and stainless steel wire cloth.

6.0 DRAWINGS AND INSTALLATION DETAILS

The screen supplier shall furnish to the PHA standard details showing commendations for installation. Drawings shall include size of fasteners, maximum dimensions from each end, center-to-center spacing on all four sides, minimum penetration of fasteners into loading material and maximum clearance between frame and rough opening. Cross sections of frame materials shall show metal thickness or gauge.

7.0 INSTALLATION

Installation contractor shall securely anchor screens in place to straight, plumb and level condition, without distortion, in accordance with drawings and installation details, and make final adjustments for proper operation of screens where applicable. The installer shall touch-up all surfaces of screens scratched or abraded during shipping or installation with a rust inhibitor primer and enamel paint compatible with the factory finish.

8.0 CORROSION PROTECTION

Different metals shall not be in direct contact. Such metals shall dielectrically be separated.

SPECIFICATIONS FOR ALUMINUM SECURITY SCREEN DOORS

1.0 ALUMINUM SECURITY SCREEN DOORS

1.1 GENERAL

- 1.1.1 Aluminum security screen doors as called for in this specification shall be furnished with all necessary hardware, fasteners and miscellaneous equipment.

1.2 MATERIALS

- 1.2.1 The door shall consist of a hollow extruded smooth surface master frame, one hollow extruded smooth surface mullion or cross bar; extruded side and head Z-bars, and extruded external telescoping bottom expander. All extrusions shall be manufactured from 6063-T5 extruded aluminum alloy (minimum .062"), having a minimum tensile strength of 22,000 psi.
- 1.2.2 The hollow master frame of the door shall be of mitered joint construction and joined at the corners (4) using steel cadmium plated corner gussets secured with 4 #10 screws or 5/16" steel tubular rivets.
- 1.2.3 The kick panel mullion bar shall be of hollow extruded shape so designed as to fit the frame and joined to side stiles by stainless steel sheet metal screws. The main frame and mullion bar shall be provided with grooves to accommodate the kick plate. The mullion bar shall receive the top of the kick plate. The mullion bar shall have the same thickness as the frame and have a minimum 2" face. (See paragraph 1.2.7)
- 1.2.4 The head Z-bar shall be designed and extruded so as to also function as a drip cap over top of door. All Z-bars are to have all installation holes pre-punched and hinges attached with machine screws.
- 1.2.5 Each hinge shall be of three-knuckle construction, not less than 3 7/8" in length, each with a minimum of three pre-punched screw holes in the hinge leaf of minimum thickness .120" plus adequate longitudinal reinforcing ribs to support the door. Each door shall be supported with not less than five "built-in" type hinges employing the raised knuckle on the extruded Z-bar to receive a half-extruded aluminum hinge leaf joined at the knuckle by using two stainless steel or cadmium plated steel pins pivoting through oilite or nylon bushings. The pins shall be held securely in place by cadmium plated steel compression springs. The hinge shall allow the door to open 180 degrees. Continuous hinges of similar construction are acceptable.
- 1.2.6 The bottom of the doors shall have a bottom sweep made of extruded virgin polyvinyl plastic, adjustable to 5/8 of an inch.

SPECIFICATIONS FOR ALUMINUM SECURITY SCREEN DOORS

1.2.7 The finished master frame shall have a width across the flat surface of not less than 2 3/8" and a thickness of not less than 1". The mullion bars shall have a width across the flat surface of not less than 2" and a thickness of not less than 1". All wall thickness shall be a minimum of .062". The Z-bars shall have a wall thickness not less than .062" plus adequate reinforcing ribs to support the door. All master frame dimensions shall be permitted a manufacturing tolerance of plus or minus 1/8". Extrusion tolerances shall be in accordance with those set down by the Aluminum Extruded Products Division of the Aluminum Association.

1.3 FINISH

1.3.1 Doors finished under this specification shall have a painted finish. Pigmented organic coatings shall meet AAMA 603.6. Exposed surfaces of all aluminum members shall be cleaned and free from serious surface blemishes.

1.4 All hardware shall be aluminum, stainless steel or other non-corrosive material compatible with aluminum. Cadmium or zinc plated steel, where used, shall be in accordance with ASTM A164.71 or A165.71. It shall include all necessary screws, a latch with exterior handle and interior locking mechanism with anti-lockout feature, an adjustable heavy-duty door closer, a hurricane chain with spring hinged as specified herein.

1.5 HEAVY DUTY SCREEN

1.5.1 Screen material shall be of 12x12 mesh stainless steel with a wire diameter of .028 inch with tensile strength of 600 lbs. per lineal inch after weaving. Material alloy shall be alloy 304 stainless steel.

1.5.2 Screen wire shall be secured in the door between two pieces of flat extruded aluminum using tamper resistant screws on four-inch centers

1.6 MISCELLANEOUS

1.6.1 Kickplate shall be .062" extruded tubing or 1/4" tempered hardboard sandwiched between two sheets of .050" aluminum.

2.0 ALUMINUM DOOR INSTALLATION

2.1 SCOPE OF WORK

The Contractor shall furnish all materials, trucking tools, hoists, and other equipment necessary to the installation of aluminum doors. It is the Contractor's responsibility to inspect the existing conditions and to take all necessary measurements of the existing door openings to assure the installation of the aluminum doors in a professional manner.

SPECIFICATIONS FOR ALUMINUM SECURITY SCREEN DOORS

2.3 INSTALLATION OF ALUMINUM DOORS

- 2.3.1 The aluminum door units shall be securely fastened in place to a straight, plumb and level condition, without distortion of the door or its frame. Final adjustments shall be made for proper operation and satisfactory weather-strip contact and seal in accordance with the manufacturer's instructions.
- 2.3.2 In high wind areas, the door hinges shall be installed on the side to the prevailing wind as directed by the public housing agency.

2.4 CLEAN-UP AND DAMAGE

- 2.4.1 The Contractor shall keep the premises free of debris and usable materials resulting from the door installation work. All debris and such material shall be removed from the premises at the end of each work day.
- 2.4.2 Any damage to grounds, plantings, buildings, building components or other facilities or property shall be the Contractor's exclusive responsibility. Their repair or replacement shall be paid in full by the Contractor.

3.0 GUARANTEE

- 3.1 The Contractor guarantees that all installed materials and equipment are new and free of defects and were installed in a professional manner.
- 3.2 In the case of any defects in materials and workmanship occurring within one year subsequent to the final acceptance of this construction by the PHA, the Contractor agrees to repair and/or replace the defective item without any costs to the PHA.

4.0 ALUMINUM SECURITY DOOR SHIPPING/DELIVERY

- 4.1 The aluminum doors purchased without installation shall be delivered by the Contractor to the location designated in the purchase order FOB Destination. Shipping arrangements are the Contractor's responsibility. The public housing agency is responsible for unloading the aluminum doors purchased without installation. It is the Contractor's responsibility to unload and properly store the aluminum doors which were ordered with installation.

SPECIFICATIONS FOR STEEL SECURITY

SCREEN DOORS

1.0 SCOPE

The Contractor shall furnish and deliver to the point of destination steel security screen doors, with or without installation, as ordered by the Public Housing Agency.

1.1 GENERAL

All doors called for in this specification shall be steel and shall be furnished with pre-hung steel or extruded (.062") aluminum frame liner ("z" bar) to fit all entrance door apertures requiring frame sizes of 30" to 37" in width and 79" to 84" in height.

1.2 MATERIALS

1.2.1 The master frame of screen door shall be not less than 25-gauge roll form steel.

1.2.2 The fasteners shall be stainless or zinc-plated steel screws, nuts, washers, bolts and other miscellaneous fastening devices and hardware in accordance with ASTM A164-71, type LS.

1.2.3 The kick plate shall be at least 18 gauge embossed galvanized panel or 16 gauge Flat galvanized steel sheet.

1.2.4 The screen wire shall be alloy 304 stainless steel and shall have at least 0.028" diameter with tensile strength of 600 lbs. per lineal inch after weaving.

1.2.5 The door sweep shall be polyvinyl chloride (PVC) or equal material.

1.2.6 All hardware shall be stainless steel, aluminum or other non-corrosive material. The hardware shall include a latch equipped with exterior handle, interior locking mechanism with anti-lockout feature, adjustable heavy-duty door closer, all necessary screws and a hurricane chain with spring.

1.2.7 The frame liner ("z" bar) shall be roll formed galvanized steel or extruded aluminum (.062"),

1.2.8 The weather stripping shall be wool pyle, or vinyl.

1.3 CONSTRUCTION

1.3.1 The door shall meet or exceed all material, construction and performance requirements contained in this specification.

1.3.2 The door shall be complete with "z" bar frame liner, screen, durable steel kick plate, adjustable sill sweep, and all necessary hardware.

1.3.3 The assembly of door shall be in a secure and workmanlike manner permitting the door to perform properly and assuring its neat and weather-resistant construction.

1.3.4 The master frame shall be roll formed which shall be made of one piece steel interior and exterior faces laminated to a core of tubular lock-seam segments (mitered or butt-jointed) and rigidly fastened together by brazing or welding the entire joint with heavy-duty corner blocks. Steel gussets may be inserted at all corners of mitered or butt-jointed storm doors when edge brazing is used.

1.3.5 A transom rail (or mullion) shall be accurately machined or accurately fit the frame and shall be rigidly fixed to the side of stiles. The kick plate shall be rigidly retained in place by steel or aluminum connectors.

SPECIFICATIONS FOR STEEL SECURITY

SCREEN DOORS

- 1.3.6 An adjustable expander shall be installed at the bottom of each door to receive sweep. The adjustment limit shall be at least 5/16". Vinyl door sweep shall be installed in the entire length of the expander.
- 1.3.7 The frame liner ("z" bar) shall have a track to receive weather stripping and all necessary installation holes. The head section of frame liner shall be formed to function as drip cap. One of the following hinge types shall be installed on each frame liner and door:

At least four concealed 304 stainless steel hinges, each minimum 3" long;
or At least three surface-mounted (H) type galvanized steel hinges.

- 1.3.8 The finish of door shall be baked synthetic enamel applied to phosphatized, zinc-coated steel or to phosphate-treated steel. The finish shall not show fading or corrosion when exposed to salt-spray test.

1.3.9 DIMENSIONS

The widths across master frame shall be for (1) roll form door not less than 2 3/4" and (2) tubular steel doors at least 2". The thickness shall not be less than 15/16".

The mullion bar shall have 1 7/8" minimum width across.

The frame liner shall have not less than 1 1/16" return offset on the outside face for side flange width for bearing against the door buck. The wall thickness of frame liner shall be at least 0.062". The door shall be supported by adequate reinforcing ribs.

2.0 STEEL DOOR INSTALLATION

2.1 SCOPE OF WORK

The Contractor shall furnish all materials, trucking tools, hoists, and other equipment necessary to the installation of steel doors. It is the Contractor's responsibility to inspect the existing conditions and to take all necessary measurements of the existing door openings to assure the installation of the steel doors in a professional manner.

2.2 INSTALLATION OF STEEL DOORS

- 2.2.1 The steel door units shall be securely fastened in place to a straight, plumb and level condition, without distortion of the door or its frame. Final adjustments shall be made for proper operation and satisfactory weather-strip contact and seal in accordance with the manufacturer's instructions.
- 2.2.2 In high wind areas, the door hinges shall be installed on the side to the prevailing wind as directed by the public housing agency.

2.3 CLEAN-UP AND DAMAGE

- 2.3.1 The Contractor shall keep the premises free of debris and usable materials resulting from the door installation work. All debris and such material shall be removed from the premises at the end of each work day.

SPECIFICATIONS FOR STEEL SECURITY

SCREEN DOORS

2.3.2 Any damage to grounds, plantings, buildings, building components or other facilities or property shall be the Contractor's exclusive responsibility. Their repair or replacement shall be paid in full by the Contractor.

3.0 STEEL SECURITY DOOR SHIPPING/DELIVERY

3.1 The steel doors purchased without installation shall be delivered by the Contractor to the location designated in the purchase order FOB Destination. Shipping arrangements are the Contractor's responsibility. The public housing agency is responsible for unloading the steel doors purchased without installation. It is the Contractor's responsibility to unload and properly store the steel doors which were ordered with installation.

4.0 GUARANTEE

- 4.1 The Contractor guarantees all steel doors, furnished with or without installation, in their entireties, including inserts, closers, chains, hardware and latches, but excluding screens and glazing, free of defects for a period of one year subsequent to the date of their final acceptance by the public housing agency. The guarantee shall cover all defects in the design, material and workmanship of the steel doors.
- 4.2 In the case of installation of the steel doors, the Contractor also guarantees the installation against defective workmanship for a period of one year subsequent to the date of the public housing agency's final acceptance of the installed steel doors.
- 4.3 The Contractor agrees to furnish free of charge, FOB public housing agency, any part or parts of any or all steel doors for replacing such defective part or parts during the guarantee period. If such parts would not permit ready replacement by the public housing agency, or would require the use of special tool(s), or if the correction of door installation, except defects resulting from careless handling or vandalism, would become necessary, the Contractor agrees to make such repair(s) or correction within the guarantee period at no expense to the public housing agency.
- 4.4 It is understood that all replacements or corrections shall be made by the Contractor and that the public housing agency shall not negotiate with any party other than the Contractor to obtain replacements or correct defective installation.

**BID/SUMMARY PRICE SHEET FOR
SECURITY SCREEN SYSTEMS**

CPC Bid Number: _____ **Bid Date:** _____
(Available on Invitation to Bid)

Name of Firm: _____ **Contact:** _____

Address: _____

Email: _____ **Phone:** _____

Manufacturer: _____ **Model No. / Name:** _____

Item 1. Aluminum Residential Window Security Screen – Medium (Fixed) - INSTALLED

	Quantities		
<u>Size UI*</u>	<u>30 - 100</u>	<u>101 – 200</u>	<u>Over 200</u>
0-70	_____	_____	_____
71-80	_____	_____	_____
81-90	_____	_____	_____
91-120	_____	_____	_____

*UI (United Inch) Is Defined as Sum of One Frame Width Added to One Frame Height.

Add \$ _____ per square foot for screening with .028” 304 stainless steel wire cloth

Add \$ _____ per screen for addition of egress hardware consisting of continuous hinge and two (2) corner barrel bolts. Bolts shall be located on the screen frame so they will lock into a part of the window, providing insect protection and security.

Add \$ _____ per screen for addition of egress hardware consisting of continuous hinge and one (1) single point release mechanism with paddle level or handle (See 5.1).

Add \$ _____ per window for removal and disposal of existing security window screen if applicable.

Delivery: _____ **Terms:** _____

NOTE: Installed screen prices are complete including delivery, all necessary anchors, trim, hardware, performance & payment bonds and insurance.

**BID/SUMMARY PRICE SHEET FOR
SECURITY SCREEN SYSTEMS**

CPC Bid Number: _____ **Bid Date:** _____
(Available on Invitation to Bid)

Name of Firm: _____ **Contact:** _____

Address: _____

Email: _____ **Phone:** _____

Manufacturer: _____ **Model No. / Name:** _____

Item 2. Aluminum Security Screen Door - INSTALLED

	Quantities		
<u>Size</u>	<u>30 - 100</u>	<u>101 - 200</u>	<u>Over 200</u>
Width 2'-6" to 3'-0" Height 6'-6" to 6'-10"	_____	_____	_____

Add \$ _____ per square foot for glazing with minimum 0.047" 304 stainless steel wire cloth

Add \$ _____ per door for removal and disposal of existing screen or storm door.

Delivery: _____ **Terms:** _____

NOTE: Installed screen prices are complete including delivery, all necessary anchors, trim, hardware, performance & payment bonds and insurance.

Price for screen sizes that do not meet the range of specified sizes may be negotiated.

**BID/SUMMARY PRICE SHEET FOR
SECURITY SCREEN SYSTEMS**

CPC Bid Number: _____ **Bid Date:** _____
(Available on Invitation to Bid)

Name of Firm: _____ **Contact:** _____

Address: _____

Email: _____ **Phone:** _____

Manufacturer: _____ **Model No. / Name:** _____

Item 3. Steel Security Screen Door - INSTALLED

<u>Size</u>	<u>Quantities</u>		
	<u>30 - 100</u>	<u>101 - 200</u>	<u>Over 200</u>
Width 2'-6" to 3'-0" Height 6'-6" to 6'-10"	_____	_____	_____

Add \$ _____ per square foot for glazing with minimum 0.047" 304 stainless steel wire cloth

Add \$ _____ per door for removal and disposal of existing screen or storm door.

Delivery: _____ **Terms:** _____

NOTE: Installed screen prices are complete including delivery, all necessary anchors, trim, hardware, performance & payment bonds and insurance.

Price for screen sizes that do not meet the range of specified sizes may be negotiated.

**BID/SUMMARY PRICE SHEET FOR
SECURITY SCREEN SYSTEMS**

CPC Bid Number: _____ **Bid Date:** _____
(Available on Invitation to Bid)

Name of Firm: _____ **Contact:** _____

Address: _____

Email: _____ **Phone:** _____

Manufacturer: _____ **Model No. / Name:** _____

Item 4. Aluminum Residential Window Security Screen – Medium (Fixed) – NON-INSTALLED

<u>Size UI*</u>	<u>Quantities</u>		
	<u>30 - 100</u>	<u>101 – 200</u>	<u>Over 200</u>
0-70	_____	_____	_____
71-80	_____	_____	_____
81-90	_____	_____	_____
91-120	_____	_____	_____

*UI (United Inch) Is Defined as Sum of One Frame Width Added to One Frame Height.

Add \$ _____ per square foot for screening with .028” 304 stainless steel wire cloth

Add \$ _____ per screen for addition of egress hardware consisting of continuous hinge and two (2) corner barrel bolts. Bolts shall be located on the screen frame so they will lock into a part of the window, providing insect protection and security.

Add \$ _____ per screen for addition of egress hardware consisting of continuous hinge and one (1) single point release mechanism with paddle level or handle (See 5.1).

Delivery: _____ **Terms:** _____

NOTE: Screen prices are complete including delivery, all necessary anchors, trim, and hardware.

**BID/SUMMARY PRICE SHEET FOR
SECURITY SCREEN SYSTEMS**

CPC Bid Number: _____ **Bid Date:** _____
(Available on Invitation to Bid)

Name of Firm: _____ **Contact:** _____

Address: _____

Email: _____ **Phone:** _____

Manufacturer: _____ **Model No. / Name:** _____

Item 5. Aluminum Security Screen Door – NON-INSTALLED

<u>Size</u>	<u>Quantities</u>		
	<u>30 - 100</u>	<u>101 – 200</u>	<u>Over 200</u>
Width 2'-6" to 3'-0"	_____	_____	_____
Height 6'-6" to 6'-10"	_____	_____	_____

Add \$ _____ per square foot for glazing with minimum 0.047" 304 stainless steel wire cloth

Delivery: _____ **Terms:** _____

NOTE: Screen prices are complete including delivery, all necessary anchors, trim, and hardware.

Price for screen sizes that do not meet the range of specified sizes may be negotiated.

**BID/SUMMARY PRICE SHEET FOR
SECURITY SCREEN SYSTEMS**

CPC Bid Number: _____ **Bid Date:** _____
(Available on Invitation to Bid)

Name of Firm: _____ **Contact:** _____

Address: _____

Email: _____ **Phone:** _____

Manufacturer: _____ **Model No. / Name:** _____

Item 6. Steel Security Screen Door – NON-INSTALLED

<u>Size</u>	<u>Quantities</u>		
	<u>30 - 100</u>	<u>101 – 200</u>	<u>Over 200</u>
Width 2'-6" to 3'-0"	_____	_____	_____
Height 6'-6" to 6'-10"	_____	_____	_____

Add \$ _____ per square foot for glazing with minimum 0.047" 304 stainless steel wire cloth

Delivery: _____ **Terms:** _____

NOTE: Screen prices are complete including delivery, all necessary anchors, trim, and hardware.

Price for screen sizes that do not meet the range of specified sizes may be negotiated.

**BID/SUMMARY PRICE SHEET FOR
SECURITY SCREEN SYSTEMS**

CPC Bid Number: _____ **Bid Date:** _____
(Available on Invitation to Bid)

Name of Firm: _____ **Contact:** _____

Address: _____

Email: _____ **Phone:** _____

Item 7. Pricing for Additional Features to All Items No. 1-6

A. Painted Screen Wire

Screening to be painted to match frames in security screens and doors. Baked on as required on frames.

Add: _____ Per Sq. Ft.
Aluminum Screen Products

Add: _____ Per Sq. Ft.
Steel Screen Products

B. Air Conditioner Split-Screen

Where required, furnish screens in two sections, hinged with piano type hinges, riveted or screwed to both sections 5" on center. Provide three-way brass catch to hold the bottom section to the top section when in the raised position.

Add: _____ Per Screen