SECTION 10 71 19

REMOVABLE FLOOD BARRIERS

Display hidden notes to specifier. (Don't know how? [Click Here](https://www.arcat.com/sd/display_hidden_notes.shtml))

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\*\* NOTE TO SPECIFIER \*\* Flood Ark USA; flood barriers.
This section is based on the products of Flood Ark USA, which is located at:
Blue Ridge Industrial Park 124 Blue Ridge Unit 105
Kerville, TX 78028
Tel: 210-609-4276
Email: [request info (floodarkusa@gmail.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=Flood+Ark+USA&coid=53254&rep=&fax=&message=RE:%20Spec%20Question%20(10719fau):%20%20&mf=)
Web: <https://www.floodarkusa.com> | <https://www.floodark.com>
 [ [Click Here](https://www.arcat.com/arcatcos/cos53/arc53254.html) ] for additional information.
Flood Ark USA, located in central Texas, is the US fabricator for Flood Ark Flood Barriers. Designed and engineered in the UK and Made in the USA, Flood Ark Flood barriers protect homes, businesses, and public facilities from the catastrophic damage caused in flood water instances. Contact Flood Ark USA to learn more about the advantages of our Flood Barriers for all door, window and drive thru openings. For Flood Proofing solutions and services for whole house and building water intrusion protection, please contact us to learn about applied sealants and other products.

1. GENERAL
	1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete items below not required for project.

* + 1. Flood barriers..
	1. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 10 71 13.13 - Exterior Shutters.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. ASTM International (ASTM).
		2. Federal Emergency Management Agency (FEMA):
			1. FEMA Technical Bulletin 3-93.
		3. Federal Insurance Administration (FIA).
		4. National Flood Insurance Program (NFIP ).
		5. British Standards Institution (BSI):
			1. Kitemark Certification: PAS 1188-1:2014 - Flood Protection Products. Specification. Building aperture products.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. Product Data:
			1. Manufacturer's data sheets on each product to be used.
			2. Preparation instructions and recommendations.
			3. Storage and handling requirements and recommendations.
			4. Typical installation methods.
		3. Shop Drawings: Include details of materials, construction and finish. Include relationship with adjacent construction.
	2. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
		2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
		3. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

\*\* NOTE TO SPECIFIER \*\* Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up on might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. Locate mock-up as acceptable to Architect and provide temporary foundations and support.
			1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
			2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
			3. Retain mock-up during construction as a standard for comparison with completed work.
			4. Do not alter or remove mock-up until work is completed or removal is authorized.
	1. PRE-INSTALLATION CONFERENCE
		1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
	2. DELIVERY, STORAGE, AND HANDLING
		1. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
		2. Protect from damage due to weather, excessive temperature, and construction operations.
	3. PROJECT CONDITIONS
		1. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.
	4. WARRANTY
		1. Manufacturer's standard limited warranty unless indicated otherwise.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Flood Ark USA, which is located at: Blue Ridge Industrial Park 124 Blue Ridge Unit 105; Kerville, TX 78028; Tel: 210-609-4276; Email: [request info (floodarkusa@gmail.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=Flood+Ark+USA&coid=53254&rep=&fax=&message=RE:%20Spec%20Question%20(10719fau):%20%20&mf=); Web: <https://www.floodarkusa.com> | <https://www.floodark.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
	1. FLOOD BARRIERS FOR DOORS, WINDOWS AND DRIVE THRU OPENINGS
		1. Basis of Design: Flood Barriers Assembles custom manufactured and supplied by Flood Ark USA. Provide a waterproof barrier along the sides and bottom of an opening.
			1. Suitable for building openings, doors, patio doors, windows, garages and gateways.
			2. Lightweight, reusable, UPVC clad barrier panels attach manually to the frame creating the watertight barrier.
		2. Performance Requirements: Flood barrier Systems.
			1. Must comply with standards of the Federal Emergency Management Agency (FEMA) and Federal Insurance Administration (FIA) for use on doors in flood-prone areas.
			2. Satisfy FEMA Technical Bulletin 3-93 which describes design, construction, planning, and certification requirements for the flood proofing of non-residential buildings under NFIP regulations.
			3. British Standards Institution: Kitemark certified.
				1. Flood Protection Products: PAS 1188-1:2014
			4. Assembly and dismantling must require no special tools and must be executable by one person and by people of all abilities.
			5. Each board may be added or removed one at a time as flood water rises or recedes giving maximum protection and accessibility to your property.
		3. Barrier Frame Assemblies: Aesthetically pleasing, unobtrusive and non-corrosive.
			1. Material: Extruded Aluminum EN AW-6063 T6.

\*\* NOTE TO SPECIFIER \*\* Power coating can be done to any RAL color.

* + - 1. Finish: Powder-coated. Color: \_\_\_\_\_\_\_\_.
			2. Finish: Powder-coated. Color: As determined by the Architect.
			3. Gasketing: Closed cell PVC foam impervious to weathering, salt water, and ultra-violet rays.
				1. Ensures a watertight seal to almost any surface, even rough or damaged brickwork.
			4. Side Frames:
				1. Square Hollow, SHS Posts: 2 x 2 inch (50 x 50 mm). Anchors to Substrate.
				2. Closed Cell Silicon Seal (W x D): 2 x 1/2 inch (50 x 12 mm). Stuck to extrusion and seals against SHS posts.
				3. Closed Cell Silicon Seal (W x D): 1-9/16 x 1/2 inch (40 x 12 mm). Stuck to extrusion and seals against panels.
		1. Base Frame Assembly for Doors or Access Openings: A trench is required in the concrete or similar substrate for installation of the base frame below the door threshold.
			1. Trench (DxW): 4 x 6.3 inches (100 x 160 mm).
			2. Frame 2 x 6.3 inches (55 x 160 mm) below the door threshold aluminum extrusion. Grout is backfilled around the base assembly to fill the required trench.
			3. Cover Plate: Formed aluminum diamond tread plate.
		2. Center Post Frame: Aluminum extrusion. Cantilevered support.
		3. Barrier Panels:
			1. Panel Height: 7-3/4 inch (200 mm).
			2. Front, Top, and Back Facing: 0.06 inch (1.5 mm) extruded UPVC.
			3. Tube Framing: 1 x 1 inch (25 x 25 mm) x 10 SWG aluminum box.
			4. Panel Overall Thickness: 1-3/16 inch (30 mm).
			5. Panel Weight: 2 lbs per linear ft (3 kg per meter)

\*\* NOTE TO SPECIFIER \*\* Maximum panel lengths are 8 ft (2438 mm). For opening requiring longer panels, a center post is added and all boards are fabricated to equidistant lengths. Delete options not required.

* + - 1. Panel Length: Up to 8 ft (2438 mm).
			2. Color: White.
			3. Bottom Edge:
				1. Neoprene blocking piece on bottom at each end of panel.
				2. Rubber Gasketing: 0.06 x 0.06 inch (1.5 x 1.5 1.5 mm) bonded to bottom edge.
			4. Top Edge: 9/16 inch (14 mm) Snap lock tongue for securing interim panels.
				1. Tongue is removed 1/2 inch (13 mm) on each end to facilitate neoprene blocks on the bottom of the above panel.
			5. Compression Latch Assemblies: Partial turn knob latches that lock an offset pawl into the open grooves in the frame extrusions. As the latch is tuned the pawl locks into place and further turning compresses the panel against the the seals attached to the rails making a watertight seal.
				1. Knob is on the wet side of panel with the offset pawl on the dry side of panels.
				2. Two compression latches on each end of the panels.
				3. Bottom Panels: One compression latch every 11-13/16 inches (300 mm)
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly constructed and prepared.
		2. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
	2. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
	3. INSTALLATION
		1. Install in accordance with manufacturer's instructions, approved submittals, and in proper relationship with adjacent construction.
			1. Installation of the flood barrier system requires at least one manufacturer's representative to be on site to either supervise or perform the actual installation.
	4. FIELD QUALITY CONTROL
		1. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

\*\* NOTE TO SPECIFIER \*\* Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection or construction. Delete if not required.

* + 1. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.
	1. CLEANING AND PROTECTION
		1. Clean products in accordance with the manufacturers recommendations.
		2. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION