



Corporate Office:

223 Independence Dr. Claremont CA 91711 (909) 946-0964

New York Metro Office:

165 Borden Road, Middletown, NJ 07748 (732) 859-3476

MOVABLE BARRIER FLOODWALL SYSTEM™

Municipalities, States, Federal Projects, Levees, Shorelines, Private Facilities, Private Housing, Community Flood Shelters

The MBFS is a custom designed series of concrete floodwalls placed underground inside a trenched concrete U channel. A variety of powered systems raises the floodwall above grade to prevent flooding. After the flood the flood walls are lowered back underground where the system remains “invisible”. The scope of the system ranges from a closure unit to miles of flood protection. Based on Finite Element Analysis the systems can be designed against hydrostatic, hydrodynamic and impact loading up to a Category 5 hurricane.

The MBFS is designed for flood heights from 3’ to 20’. The depths of the foundations are 1.8 times the height. A 5’ rise utilizes a 9’ foundation. Each flood wall is produced as a single molded concrete element with inserts, voids, vertical guides, post tension rods and other required constructs. The foundation is produced as a cast-in-place U-channel through a series of custom supplied forms with inserts, vertical guides and other required constructs.

Additional elements include horizontal and vertical water seals, a drive over top and spring loaded up locks which can suspend the floodwalls in their raised position if the powered system fails. An internal powered sparger drain pipe mounted along the bottom of the foundation discharges any leakage from inside the system. The pump empties faster than the leakage so there is zero leakage on the dry side. The system design also utilizes a drain on the secure side that is plumbed into the foundation and pumped out through the sparger to prevent ponding on the dry side.

The system design allows for changes in contiguous flood wall heights, turning corners, accommodating changes in elevation, and allows for utility pass throughs. Geotech analysis has developed a variety of extra foundation elements such as cut off walls, batter piles, foundation heels and toes to assure long term stability. RSA supplies the custom design, engineering, fabrication, assembly, installation, commissioning and O&M oversight for each application. RSA partners with Mueser Rutledge Consulting Engineers (www.mrce.com) as our Engineers of Record. As the country’s leading Geotech firm MRCE custom develops the required foundation for each system.

RSA is looking to engage A&E & Civil Engineering Firms, hydraulic engineers, surveyors, large and small scale construction firms, concrete site experts, hydraulics, controls and telemetry engineers.



Hospitals

Shoreline



RSA Movable Barrier Floodwall System in stowed position

Housing

Movable Barrier Floodwall System™

Riverine walkway

Levee



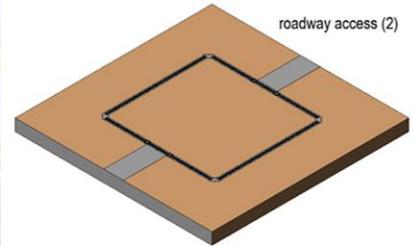
Community Flood Shelter



RSA MBFS retrofit underground



RSA Protective Technologies, LLC. Confidential & Proprietary Patent Pending Copyright 2017



roadway access (2)



Hospitals

Shoreline



System designed for zero leakage

Housing

Movable Barrier Floodwall System™

Riverine walkway

Levee



Community Flood Shelter



System deployed with retractable up locks



RSA Protective Technologies, LLC. Confidential & Proprietary Patent Pending Copyright 2017



Shelter from the storm