



Hawaiian Inn Storm seawall

Daytona Beach Shores, FL | USA



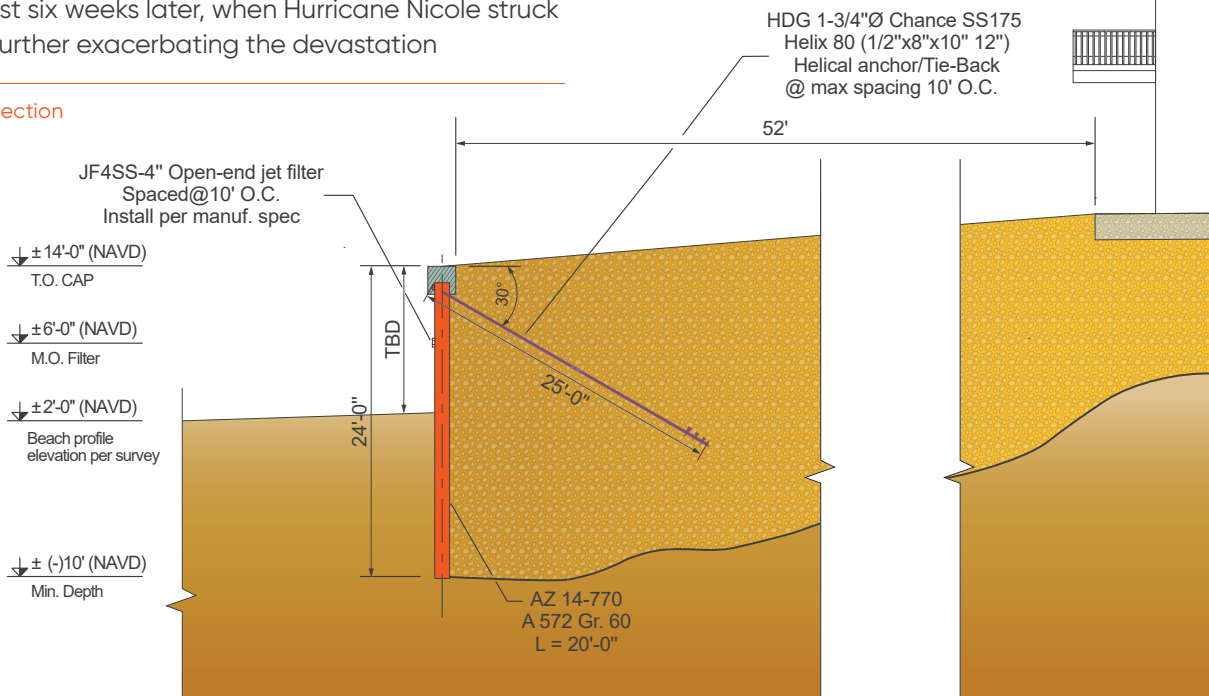
Hawaiian Inn Storm seawall, Daytona Beach Shores, FL © JD Fields & Company

The southern states of the United States, particularly those along the Gulf Coast and the Southeast Atlantic Coast, are frequently affected by natural disasters, such as storms and coastal inundations.

In September 2022, Hurricane Ian caused widespread devastation across Florida, revealing the profound vulnerability of coastal communities to natural disasters. Among the severely affected sites was the beach resort Hawaiian Inn in Daytona Beach, which sustained extensive damage, including the complete destruction of its concrete seawall. Without this critical barrier, stormwaters caused significant erosion, threatening the structural integrity of the Resort. Unfortunately, the situation worsened just six weeks later, when Hurricane Nicole struck the region, further exacerbating the devastation

After temporarily securing the site, the owners of Hawaiian Inn decided to rebuild a stronger and more resilient seawall using steel sheet piles. ArcelorMittal sheet piles were chosen due to their efficiency and their ability to ensure rapid delivery through their distributor JD Fields, enabling short lead times and quick construction progress. The coastal protection was thus erected using the **AZ 14-770** profile in the **EcoSheetPile™ Plus** range, manufactured from 100% scrap and 100% renewable electricity. This low-carbon solution

Typical cross-section



View of the jobsite



underlines the project's commitment to sustainability and climate resilience.

A total of 125 tons of 20 feet-long **AZ 14-770** sheet piles, in the steel grade A 572 Gr. 60, were installed shortly after delivery in April 2023 by East Coast Marine Construction & Design. Installation was carried out using a free-hanging vibratory hammer, with the sheet pile wall anchored by injected helical anchors and finished with a concrete capping beam.

Aerial view of the jobsite



Storm seawall | USA

| | |
|---------------------------|---|
| Customer | Hawaiian Inn |
| Design | LAV Engineering & Zahn Engineering |
| Main Contractor | East Coast Marine Construction & Design |
| Steel sheet piles | |
| AZ 14-770 | 20 ft A 572 Gr. 60 125 t |
| Total sheet piles: | 125 tons |

For corrosion protection, the beach-facing side of the sheet piles was coated over a height of 15.1 ft. To relieve hydrostatic pressure from accumulated groundwater or heavy rainwater, weep holes were installed approximately 7.9 ft below the top of the wall.

This project thus not only restored critical coastal defences but also showed how quick action and sustainable materials can help communities better prepare for future storms.

Site plan

