

**Appendix D – Correspondence with FEMA Regarding
Perimeter Flood Wall Height**

Horwedel, Leroy

From: Nemeth jr, Alexander
Sent: Thursday, January 23, 2014 3:39 PM
To: Horwedel, Leroy
Cc: Mcpartlan, Patrick
Subject: 0.2% Stillwater Elevation: Middlesex County Utilities Authority (MCUA) - Sayreville Pump Station [40.46995, -74.36789]
Attachments: 500 yr elevations required for these locations.

Hello Leroy:

Starting off, it should be noted that the Preliminary Coastal Work Maps for Middlesex County do not display the 0.2% annual chance flood elevation (unlike the former ABFE maps which provided that data), because they are usually not included on the preliminary FIRM map deliverable. Also, there is actually not a wave component calculated for the 0.2% recurrence interval, thus the elevations are being derived directly from the StillWater Elevation (SWEL) grid. For FEMA projects we have been extracting the 0.2% SWEL based on the project area and using the maximum elevation to be conservative, then rounding up to the nearest foot. Also for reference purposes, the FEMA Modeling Task Force (MOTF) performed a Hurricane Sandy Impact Analysis, modeling estimated water surface elevations in the area of interest at **13.08 feet** for that event. A nearby High Water Mark was taken at **13.34** feet about 0.86 miles away.

For the area depicted below, the **ABFE** map data recorded a **Coastal LiMWA (1.5'-3' wave action) Flood Zone A with a 1% Annual chance elevation of 15 feet and a 0.2% elevation of 20 feet.**

The Middlesex County Preliminary Coastal **Work Map** recorded the site hitting a **Flood Zone AE-14 for the 1% Annual chance elevation as depicted below.**

The highest 0.2% area from the Prelim Work Map for the MCUA Sayreville Pump Station is at 18 feet (17.32 SWEL) inside the box displayed below.



Aerial Imagery





Preliminary Work Map

The Ground Elevations for the cleared land - range from about 0.1-16.3 feet inside the area of interest, with ground measurements of about 7.5-9.3 feet in the structure area surrounded by the roadway.

If you need anything else, please let me know.

Thanks, -Alex

Alex Nemeth

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