

Input Wave: $H_s=4.9\text{ft}$ (1.5m), $T_p=4\text{sec}$, $D_p=110^\circ$

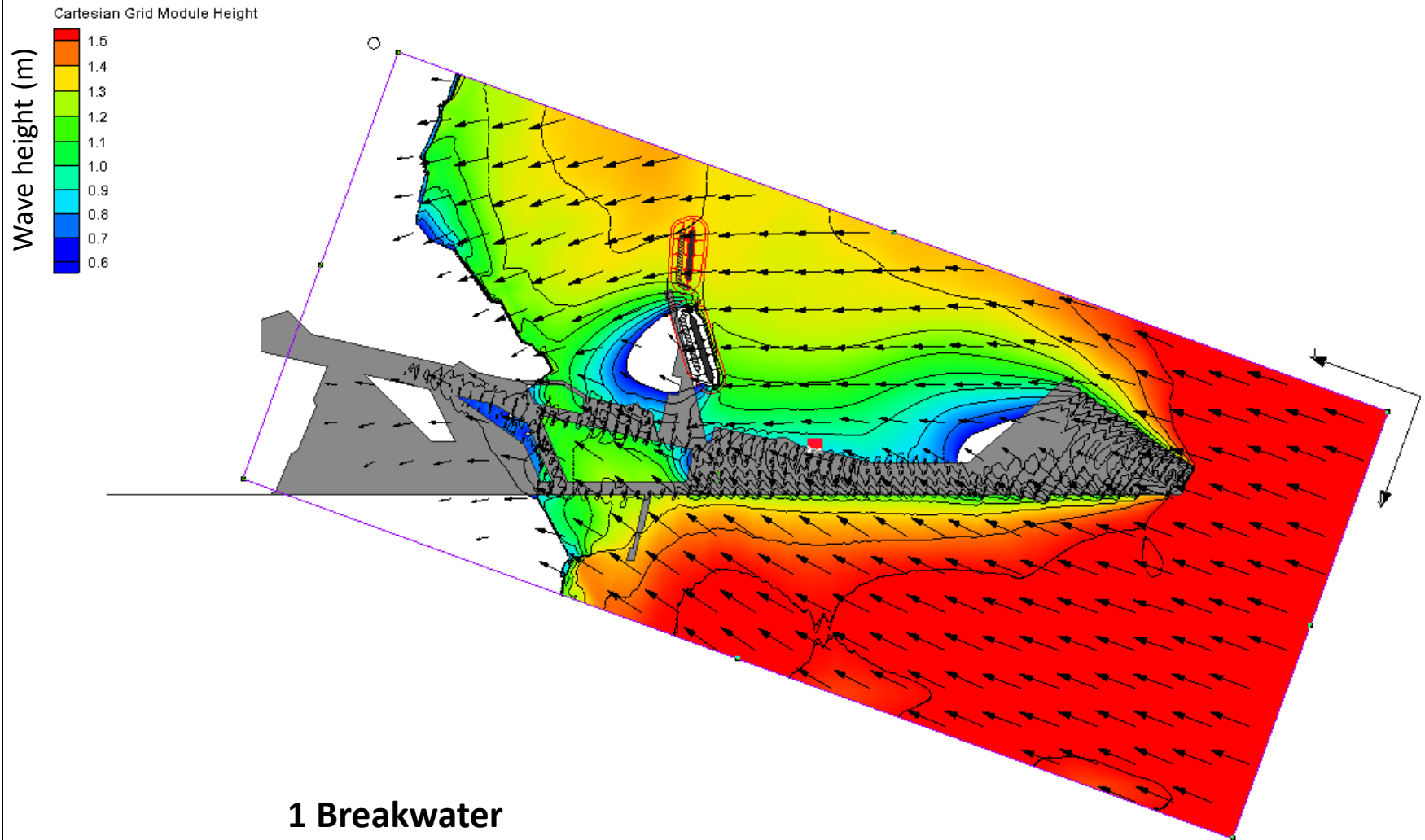


Figure1. Wave Model Results – Wave Shadow Zone Behind Proposed Breakwater Designs
25-Year Storm Event

Input Wave: $H_s=4.9\text{ft}$ (1.5m), $T_p=4\text{sec}$, $D_p=110^\circ$

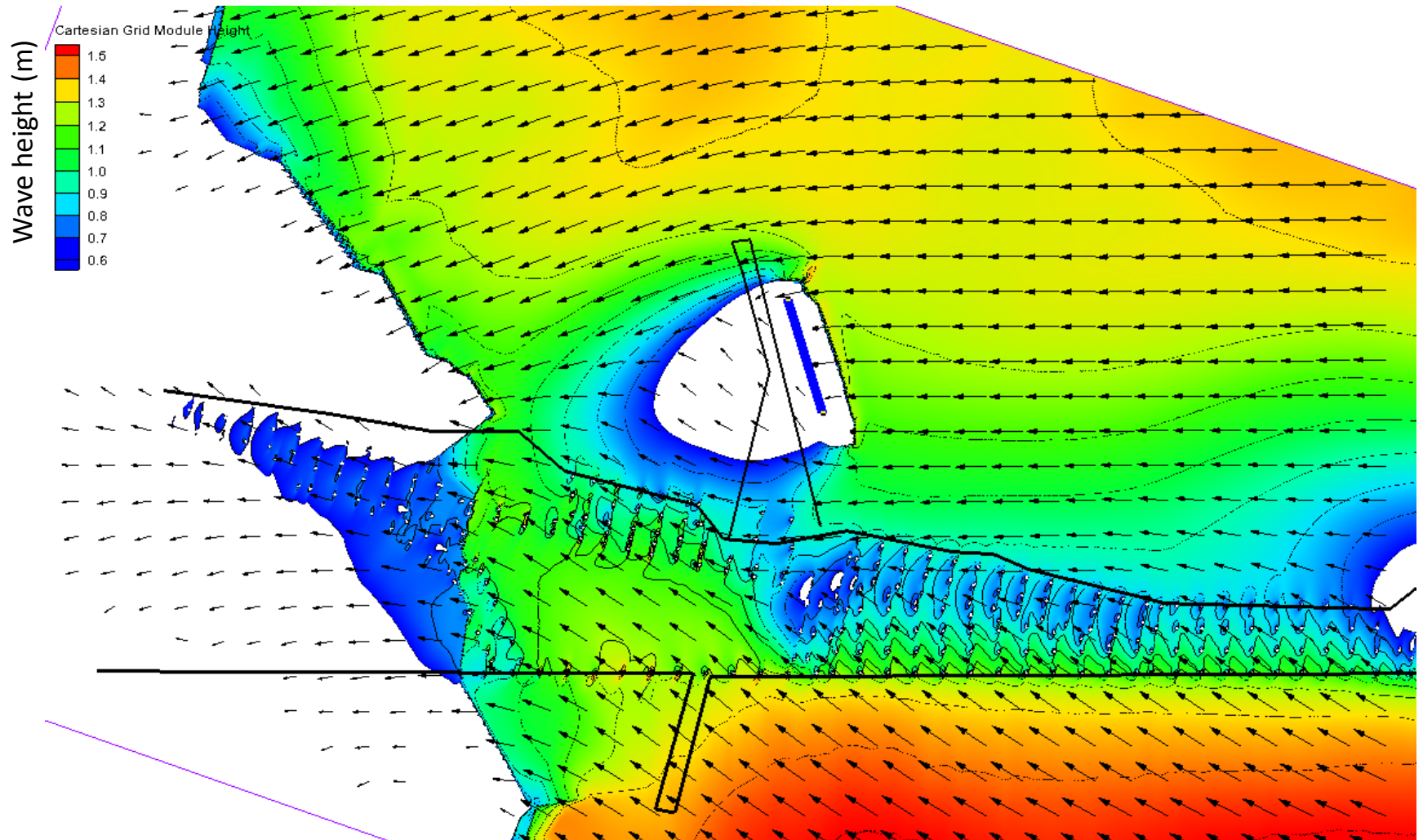
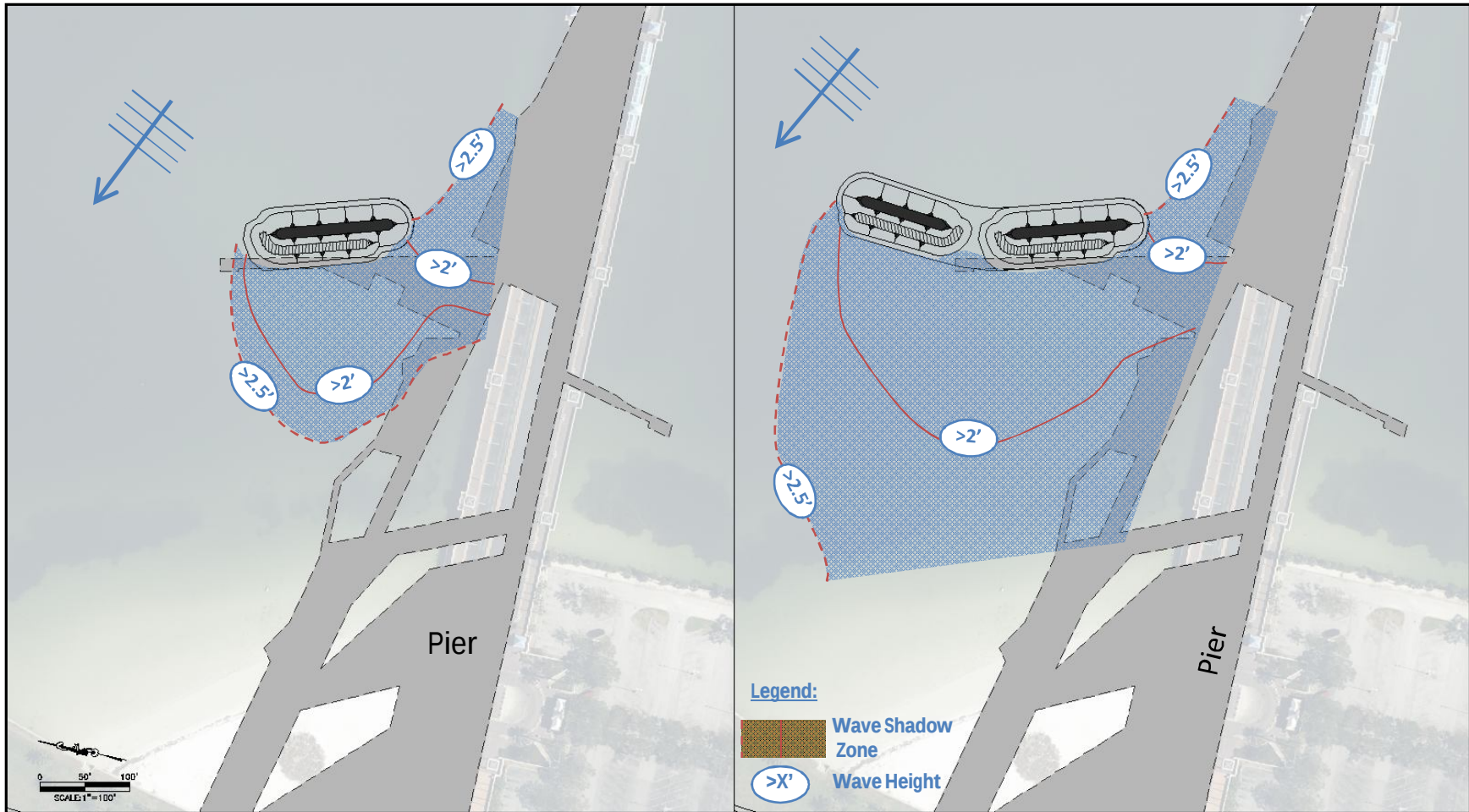


Figure 2. Detailed Wave Model Results – Wave Shadow Zone Behind Proposed Breakwater Designs
25-Year Storm Event

Input Wave: $H_s=3.3\text{ft}$ (1m), $T_p=4\text{sec}$, $D_p=110^\circ$



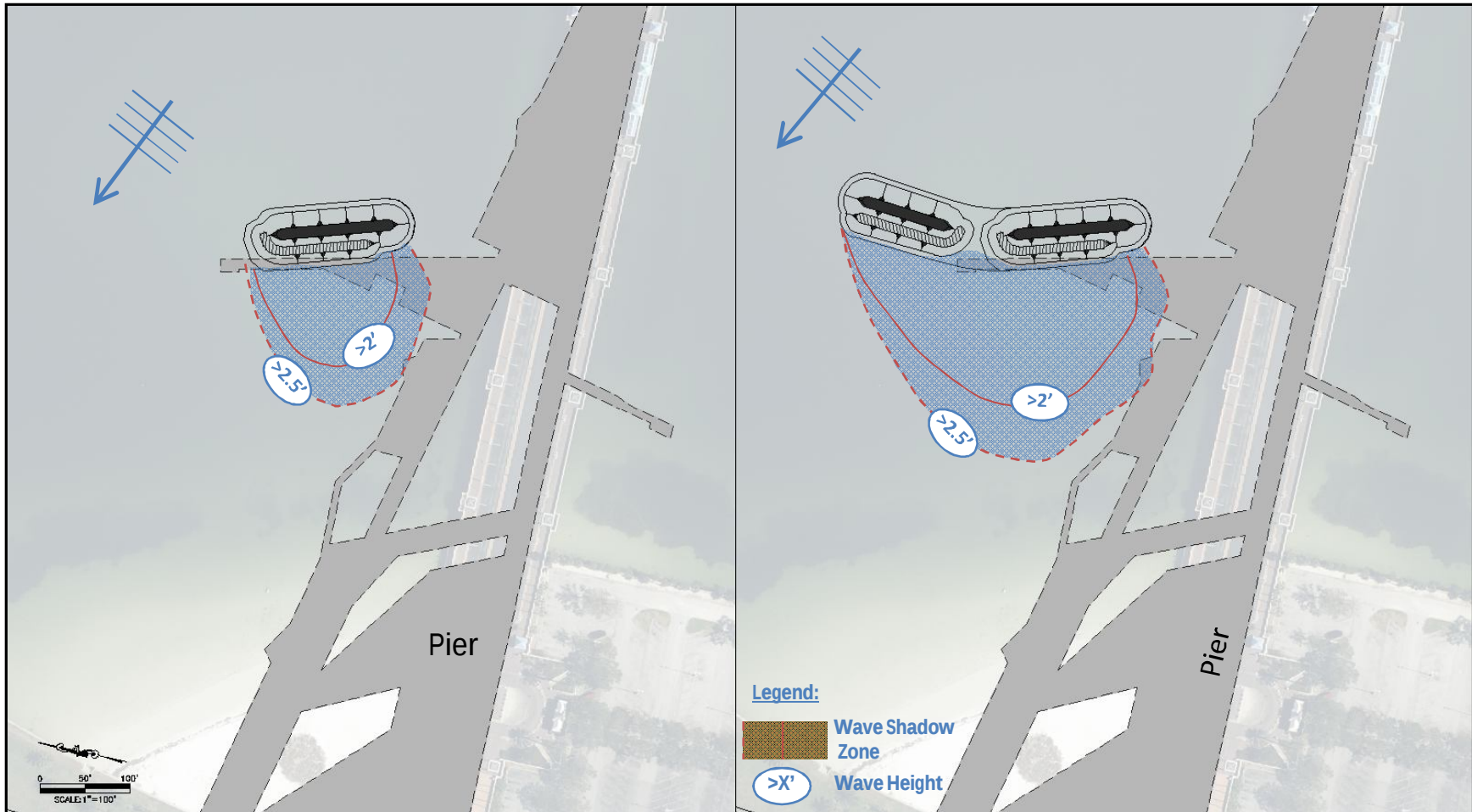
1 Breakwater

2 Breakwaters



Figure 3. Detailed Wave Model Results – Wave Shadow Zone Behind Proposed Breakwater Designs
20-Year Storm Event from 110°

Input Wave: $H_s=4.9\text{ft}$ (1.5m), $T_p=4\text{sec}$, $D_p=110^\circ$



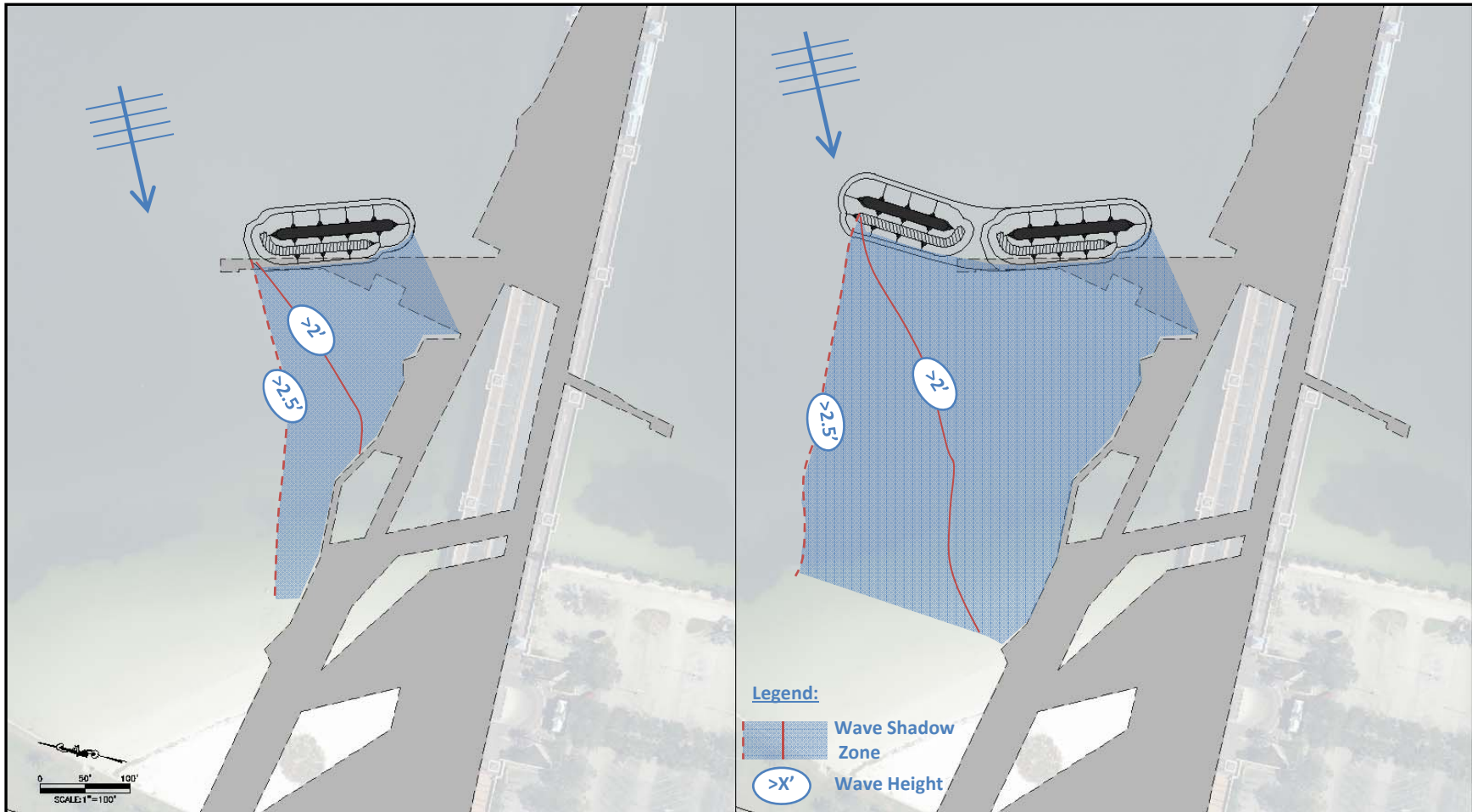
1 Breakwater

2 Breakwaters



Figure 4. Detailed Wave Model Results – Wave Shadow Zone Behind Proposed Breakwater Designs
25-Year Storm Event from 110°

Input Wave: $H_s=3.3\text{ft}$ (1m), $T_p=4\text{sec}$, $D_p=70^\circ$



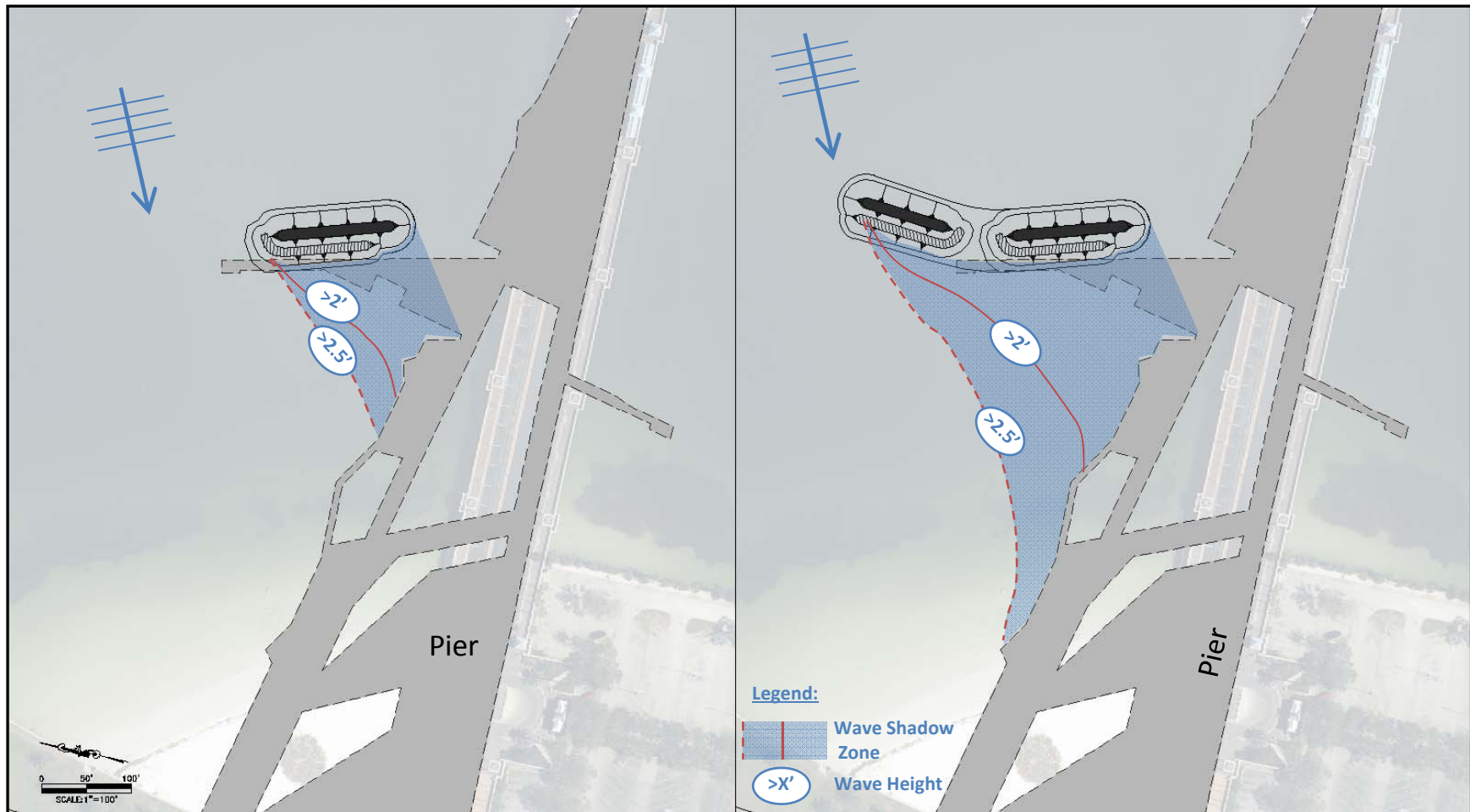
1 Breakwater

2 Breakwaters



Figure 5. Detailed Wave Model Results – Wave Shadow Zone Behind Proposed Breakwater Designs
20-Year Storm Event

Input Wave: $H_s=4.9\text{ft}$ (1.5m), $T_p=4\text{sec}$, $D_p=70^\circ$



1 Breakwater

2 Breakwaters



Figure 6. Detailed Wave Model Results – Wave Shadow Zone Behind Proposed Breakwater Designs
25-Year Storm Event