



CASE STUDY

Water, Drainage and  
Flood Risk Management

**Project**

Sea, Fluvial and Coastal Flooding  
Management

**Client**

Garrison Developments Limited  
Liability Partnership (GDLLP)

**Location**

Shoebury Garrison, Shoeburyness,  
Southend on Sea, Essex

Ardent's skilled in-house experts were commissioned to undertake a Flood Risk Assessment (FRA) for a proposed residential-led development adjacent to New Garrison Road and west of New Barge Pier Road in Shoeburyness.

Formed of undeveloped greenfield land, the entire site was located within the tidal floodplain. It had previously been used as agricultural land, with rifle and firing ranges and football grounds on part of the land parcels.

The development proposals comprised of up to 250 dwellings, a new health centre and retail floor space, together with car parking, new foot and cycle paths, landscaping and the provision of high-quality open spaces.

The Environment Agency, Southend-on-Sea Borough Council and Anglian Water were all active partners in delivering this residential-led development within an allocated commercial development area.

**Our Role**

- Undertook early stage consultation with the council for sequential and exception tests, and the Environment Agency for tidal flood risk
- Created four development platforms above the climate change tidal levels, ensuring no increase in flood risk off-site as a result of the development
- Agreed the flood response plan with the council's Emergency Planner, and the emergency services, in case of a breach or overtopping of the tidal defences
- Created an enhanced public open space with associated footways and SuDS features across the entire site
- Enhanced the social, environmental and economic credentials of the area

**Client Benefits**

- Enabled all existing fill materials on-site to be retained as an asset for re-use
- Created green areas with habitat and leisure potential
- Reduced flood risk in excess of the minimum standards of the NPPF, and current and future climate change requirements, ensuring a viable development into the future
- Reduced the capital cost by maximising SuDS techniques. Implemented SuDS features in line with the 'Management train' approach to achieve water quality, bio-diversity and amenity benefits and requirements for the Ramsar foreshore
- Created proposals which enabled residents to secure mortgages and home insurance