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1.0 Site

40 Sinah Lane, Hayling Island, Hampshire PO11 0HH. The Ordnance Survey National Grid Reference for the site is E470480 N99800. The site is located in the south-west corner of Hayling Island on the north-facing shoreline fronting onto Langstone Harbour (in a protected low wave energy frontage). The site is 0.48Ha, 35m wide, 175m long. The plot has a road frontage to Sinah Lane of 8m. The site use is a single residential dwelling house with garden and ancillary outbuildings. The existing 3-storey house and single storey annex building lie toward the middle of the plot behind no 40A and a 50m long driveway. To the north of the site is a sea wall, concrete slipway and a single storey beach house which overlooks Langstone Harbour. The northernmost part of the site is a sheltered low wave energy frontage protected from coastal erosion by concrete block sea walls and slipway. The highest part of the site by the road is +5.20m AOD. The floor level of the existing annex is +4.88m AOD, the floor level of the existing house is +5.00m AOD and the floor level of the existing beach house is +4.50m AOD.

2.0 Development summary

The proposed development comprises demolition of the existing buildings and construction of a replacement dwelling house and single storey outbuildings, all of similar scale, with associated landscaping work. The new buildings are positioned in very much the same place as the existing with a small increase in building footprint. The floor level of the proposed Annex is +5.00m AOD, the floor level of the proposed house is +5.09m AOD and the floor level of the proposed beach house is +4.55m AOD.

3.0 Policy and Consultation

Data and advice from various sources have been used to prepare this assessment including UK Government, Havant Borough Council (HBC), Hampshire County Council (HCC) The Environment Agency (EA). HBC Strategic Flood Risk Assessment – 2016 Update Guidance Document and HBC Strategic Flood Risk Assessment - Local Plan Sites November 2018 apply. The relevant North Solent Shoreline Management Plan Policy Unit for the site is 5aH106 (0-20 years) with a policy of “hold the line”.

4.0 Flood risk - Local Context

Whilst there are no records of the site or neighbouring sites ever being affected by flooding from any source EA data indicates that due to the coastal location and expected climate change, the northern fringe of the site is affected by a high risk of tidal flooding. EA data indicates that the risk of flooding from other sources (river, groundwater, sewer and reservoir) is low to very low for all parts of the site. A new single storey 4 bedroom dwelling in the rear garden of 42 Sinah Lane, the adjoining site to the west which lies in Flood Zones 2 and 3, was approved in 2016 with a floor level of +4.7mAOD, 300mm above the 1 in 200 year flood risk level plus climate change of +4.4mAOD (ref AAPP/16/00383). The floor level of the proposed replacement house and annex at 40 Sinah Lane will be +5.09AOD and +5.00m AOD respectively, a minimum of 300mm above this approved level and double the approved margin above the 1 in 200 year flood risk level plus climate change of +4.4mAOD.

5.0 Flood risk - House & Annex

The existing and proposed annex are ancillary to the house and contains additional living accommodation, a garage, plant and storage. The EA Vulnerability Classification “More Vulnerable Development” applies to both the existing and proposed. The primary flood risk is tidal and tidal storm surge from Langstone Harbour however the existing and proposed dwellinghouse and annex are located some 60m from the shore on higher ground in Flood Zone 1 with low risk of flooding. The 1 in 200 year present day flood level is +3.20mAOD and the proposed floor level is 1.80m above this. The 1 in 200 year plus climate change flood level is +3.70mAOD and the proposed floor level 1.30m above this. The 1 in 200 year plus climate change flood level is +4.40mAOD and the proposed floor level is 0.60m above this. The first floor sleeping accommodation level of the existing house is +7.92mAOD. The proposed dwelling house provides sleeping accommodation on the first floor at a floor level of +8.21mAOD which is betterment. The ground floor

sleeping accommodation of the existing annex is +4.88AOD. The proposed annex provides sleeping accommodation on the ground floor at a level of +5.00mAOD which is betterment. The development is therefore within EA guidelines.

6.0 Flood risk - Beach House

The existing and proposed beach house are ancillary to the house and their purpose is to support water - bourne activities with no overnight accommodation. The EA Vulnerability Classification "Water Compatible Development" therefore applies to both the existing and proposed development. The primary flood risk is tidal and tidal storm surge from Langstone Harbour. The existing and proposed beach house is located within 15m of the shore in Flood Zone 3 and the flood risk is high. The 1 in 200 year present day flood level is +3.20mAOD and the proposed floor level is 1.35m above this. The 1 in 200 year plus climate change flood level is +3.70mAOD and the proposed floor level 0.85m above this. The 1 in 200 year plus climate change flood level is +4.40mAOD and the proposed floor level is 0.15m above this. The floor level of the existing beach house is +4.50AOD. The proposed floor level is +4.55mAOD which is betterment. The development is therefore within EA guidelines.

7.0 Rainwater strategy

The existing site has approximately 1460m² of impermeable surface. The development results in an overall net reduction of 700m² of impermeable surface. The existing large area of concrete paved driveway discharges to the public foul sewer in Sinah Lane. The proposed development will replace all concrete paving with permeable gravel. Existing roofs also discharge rainwater to the public foul sewer in Sinah Lane. The proposed development includes an application to HCC to discharge all rainwater from the roofs to the Harbour. As a result the proposed development eliminates all rainwater discharge to the public sewer from the site and thereby the proposed development will provide a significant reduction in water discharge with the potential to cause flooding elsewhere. There is no local fresh water watercourse, river, drainage channel or flood plain and no resulting impact.

8.0 Wider impact of the development

The proposed drainage strategy will provide a significant reduction in rainwater discharge with the potential to cause flooding elsewhere. The primary flood risk source for the site is tidal and tidal storm surge. Flood risk from other sources is low. Sea level is not directly affected by the existing or proposed development on the site or by increased discharge of rainwater to the Harbour therefore other developments are unaffected also. The development is therefore within EA guidelines.

9.0 Post occupancy risk management

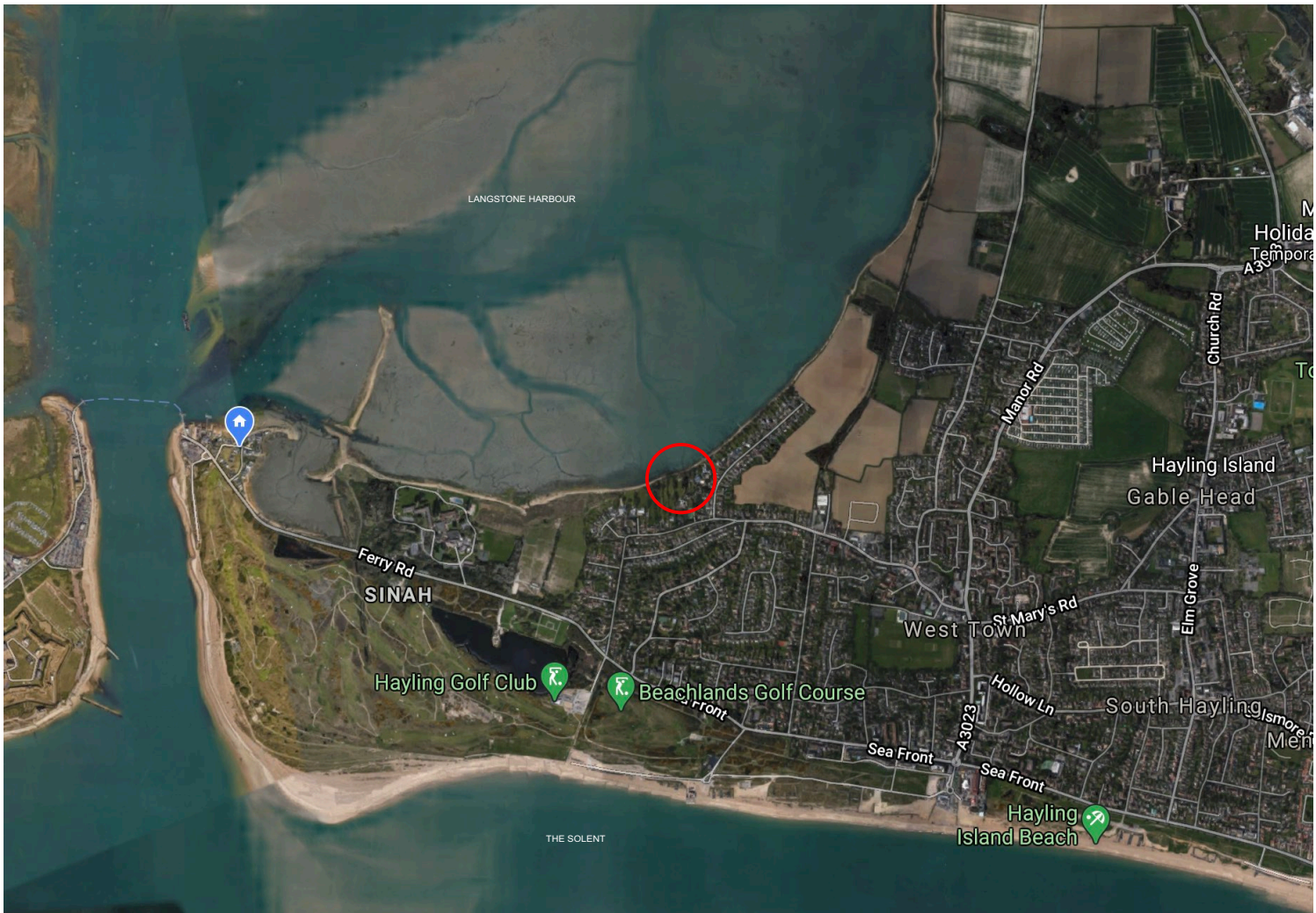
Safe access and egress to Sinah Lane are available at all times via the driveway which lies on higher ground some 180m to the south of the shoreline. Proposed ground levels and bedroom floor levels are increased from the existing and are above EA 1 in 200 year plus climate change flood risk levels. Notwithstanding this, due to the proximity of the site to the Harbour, parts of the site will remain at risk from tidal flooding and measures can be taken to mitigate risk. These include application of flood resilient design to protect building fabric and adoption of a flood warning and evacuation plan including householders signing up to the flood warning and alert service provided by the EA.

10.0 Conclusion

The floor level of the proposed replacement house and annex at 40 Sinah Lane will be a minimum of 600mm above the 1 in 200 year flood risk level plus climate change of +4.4mAOD and 300mm above the floor level approved for the new dwelling on the neighbouring site. The available data and maps demonstrate that the proposed development provides betterment and complies with planning policy and EA guidance in respect of flooding and climate change and is therefore suitable and appropriate. Adoption and maintenance of flood mitigation and safety measures will further enhance this.

APPENDIX A			
40 Sinah Lane, Hayling Island, Hants. PO11 0HH. Summary of flood risk assessment parameters for the proposed development. December 2020. OSNGR: E470480, N99800			
Development	Existing	Proposed	Notes
Development Type	3 Storey Single dwelling & single storey ancillary outbuildings	Demolition of existing and construction of a 3 storey single dwelling & single storey ancillary outbuildings	
EA Vulnerability Classification - house & annex	More vulnerable development	More vulnerable development	No change
EA Vulnerability Classification - beach house	Water compatible development	Water compatible development	No change. Beach house supports water bourne activities
Ground floor level - house	+5.09mAOD	+5.09mAOD	No change. Existing ground floor level maintained to minimise impact of new dwelling on neighbours
Ground floor level - annex	+4.88mAOD	+5.00mAOD	Betterment
Ground floor level - beach house	+4.50mAOD	+4.55mAOD	Betterment
Sleeping accommodation level - house	+7.92mAOD	+8.21mAOD	Betterment
Sleeping accommodation level - annex	+4.88mAOD	+5.00mAOD	Betterment
Sleeping accommodation level - beach house	N/A (no sleeping accommodation)	N/A (no sleeping accommodation)	No change
Impermeable surface area	1460m2	700m2 (net reduction of 760m2)	Betterment
Surface water drainage	Discharge to foul sewer and harbour	Discharge to harbour	Application submitted to HCC. Subject to approval
Site Area	0.48Ha	0.48Ha	
Recorded Flood Events in Area:	No		
Recorded Flood Events at Site:	No		
SFRA Available	Yes	Havant Borough Council (Strategic Flood Risk Assessment – 2016 Update Guidance Document and Strategic Flood Risk Assessment -Local Plan Sites November 2018	
Local coastal management policy	Hold the line	Hold the line	No change. North Solent Shoreline Management Plan Policy Unit 5aH106 (0-20 years)
Flood Risk - residential house and annex	Summary	Comment	
EA Flood Zone	Zone 1	Proposed development Flood Zone 1	Buildings located on higher ground over 60m from shoreline
Flood source	Tidal & tidal storm surge (Langstone Harbour)	Low risk (Flood Zone 1)	Overnight accommodation
Flood source (other)	pluvial, fluvial, groundwater, sewer and reservoir sources	Low risk	
1:200 year present day flood level	+3.20mAOD*	Proposed floor level 1.80m above flood risk level	Within EA guidelines
1:200 year + climate change flood level	+3.70mAOD*	Proposed floor level 1.30m above flood risk level	Within EA guidelines
1:200 year + climate change flood level	+4.40mAOD*	Proposed floor level 0.60m above flood risk level	Within EA guidelines
Flood Risk - recreational beach house	Summary	Comment	
EA Flood Zone	Flood Zone 3a	Proposed development Flood Zone 3a	Building located within 15m from the shoreline
Flood source	Tidal & tidal storm surge (Langstone Harbour)	High risk (Flood Zone 3a)	No overnight accommodation
Flood source (other)	pluvial, fluvial, groundwater, sewer and reservoir sources	Low risk	
1:200 year present day flood level	+3.20mAOD*	Proposed floor level 1.35m above flood risk level	Within EA guidelines
1:200 year + climate change flood level	+3.70mAOD*	Proposed floor level 0.85m above flood risk level	Within EA guidelines
1:200 year + climate change flood level	+4.40mAOD*	Proposed floor level 0.15m above flood risk level	Within EA guidelines
Risk Management post-occupation			
Ground floor level above extreme flood levels:	Yes		
Flood Resilient Design:	Recommended		
Safe Access/Egress Route:	Yes	Safe route to and from public highway on Sinah Lane lies on higher ground to south of the site	
Flood Warning & Evacuation Plan:	Recommended	Occupants sign up to EA Flood Warning Alerts Service	
Wider impact of development			
Displacement of floodwater outside the site	None	Site affected by tidal flood risk. Sea level is not affected by proposed development on site or increased discharge of surface water to Harbour	No change
Surface water run-off volume	Reduced	Significant reduction in impermeable landscape finishes	Betterment
Impact on public drainage infrastructure	Reduced	Surface water not connected	Betterment
Impact on river drainage channel or flood plain	None	No local watercourse	No change

* Based on 2011 base data with climate change projection



APPENDIX B - AERIAL LOCATION MAPS





DRIVEWAY



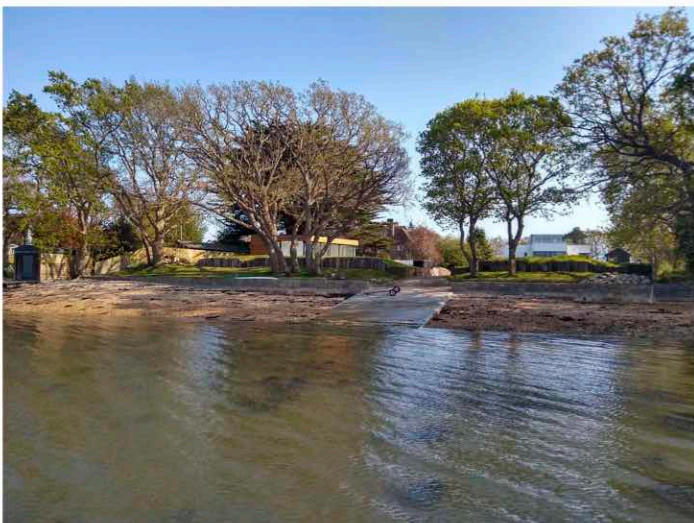
ANNEX



HOUSE



LAWN



SHORE

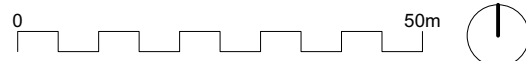


BEACH HOUSE

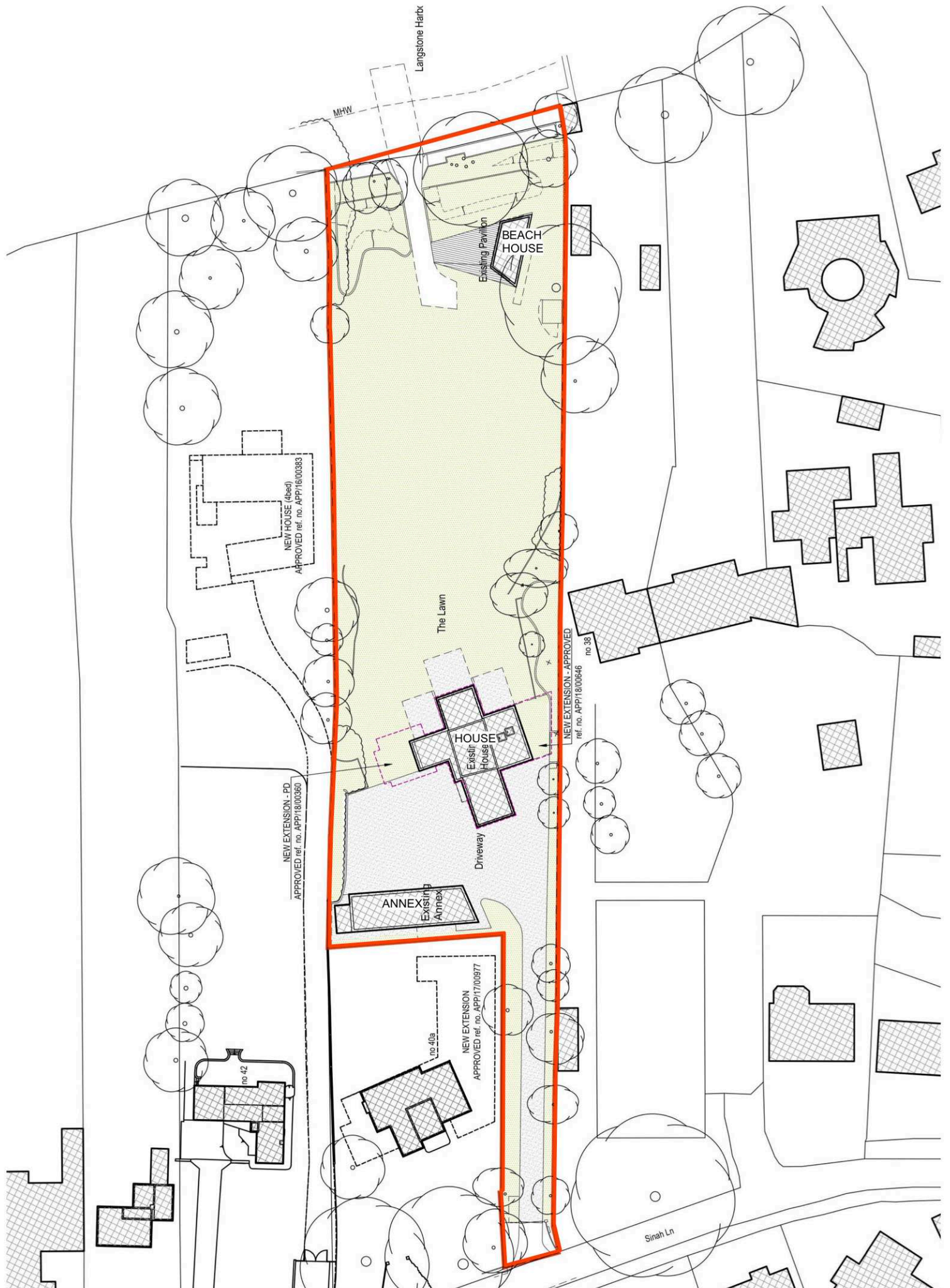


APPENDIX D - AERIAL SITE PLAN - EXISTING

■ SITE BOUNDARY

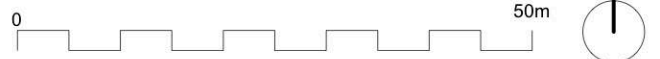


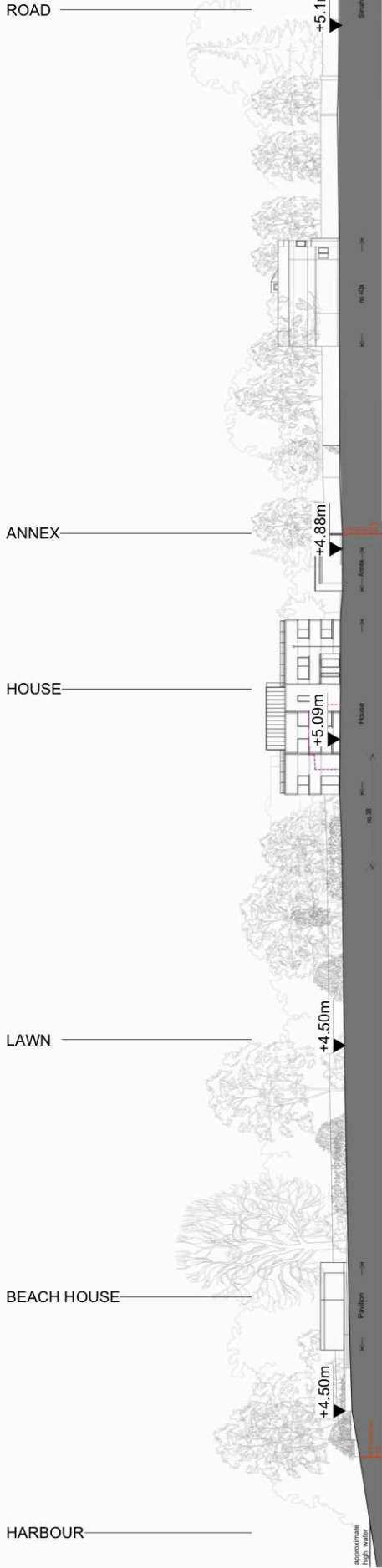




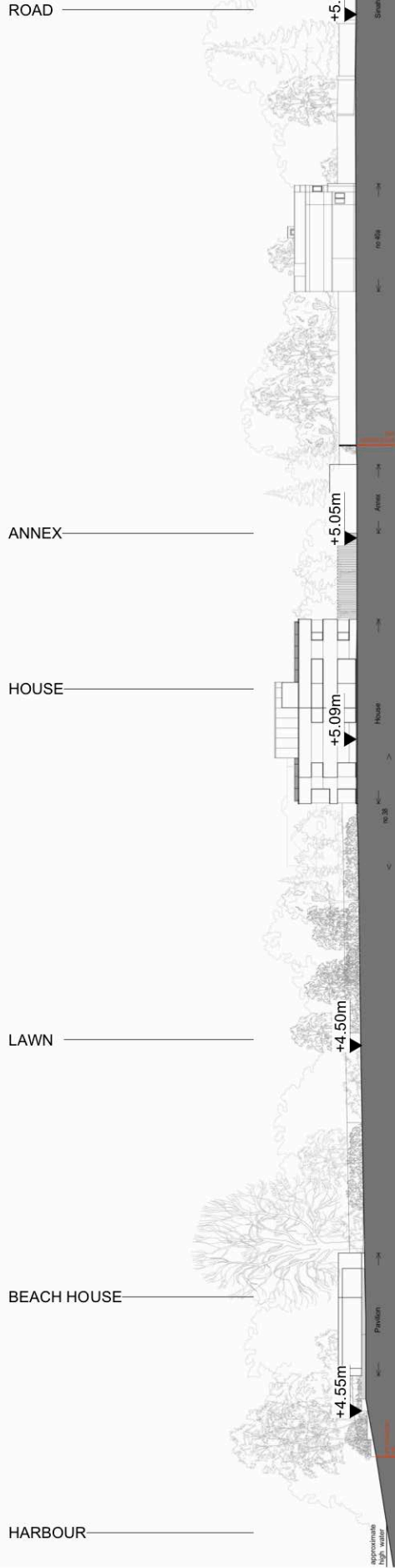
APPENDIX F - SITE PLAN EXISTING

SITE BOUNDARY





4 WEST ELEVATION - LONG CONTEXT ELEVATION, SCALE 1:250 - EXISTING



4 WEST ELEVATION - LONG CONTEXT ELEVATION, SCALE 1:250 - PROPOSED

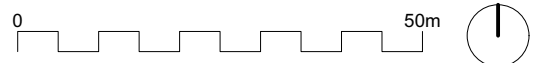
Notes:
1. All elevations are for the existing site.
2. All elevations are for the proposed site.
3. All elevations are for the existing site.
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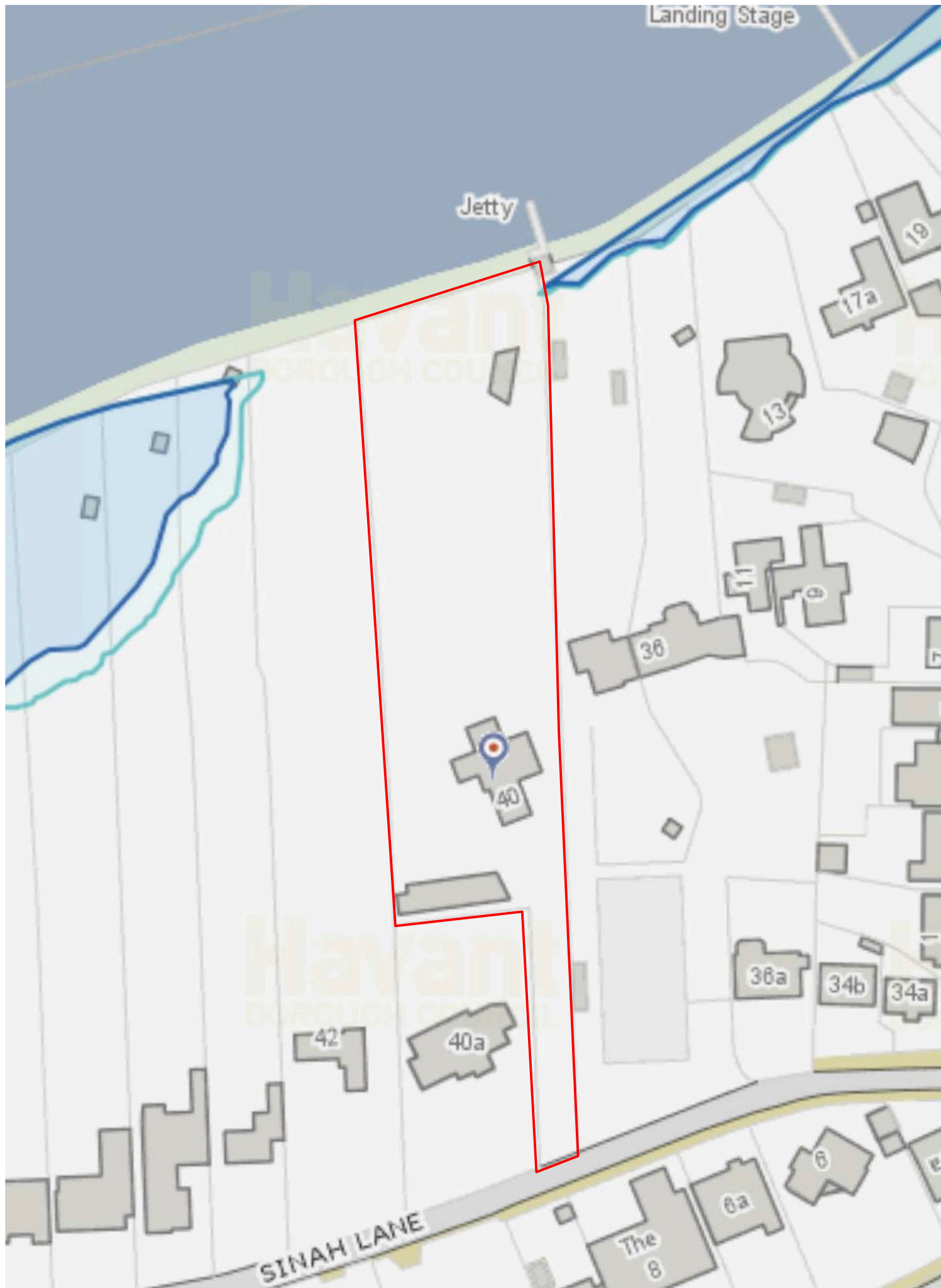
Notes:
1. All elevations are for the existing site.
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10. All elevations are for the proposed site.



APPENDIX I - HBC ONLINE INTERACTIVE MAP
FLOOD ZONES 2 AND 3 (AERIAL)

- SITE BOUNDARY
- FLOOD ZONE 2
- FLOOD ZONE 3





APPENDIX J - HBC ONLINE INTERACTIVE MAP
FLOOD ZONES 2 AND 3 (OS COLOUR)

- SITE BOUNDARY
- FLOOD ZONE 2
- FLOOD ZONE 3

0 50m





APPENDIX K - EA FLOOD MAP

- SITE BOUNDARY
- FLOOD ZONE 2
- FLOOD ZONE 3

