

In partnership with:

Medway Council

Level 2 Strategic Flood Risk Assessment Medway Council

Medway Council Gun Wharf Dock Road Chatham Kent ME4 4TR



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Level 2 Strategic Flood Risk Assessment Medway Council

Contents Amendment Record

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Contents Page

1	Scop	e and Summary of Appraisal	1
2	Defir	nition of Assessment Criteria	2
	2.1	Assessment Criteria	2
	2.2	Table of Individual Sites	7
3	Site	Summary Tables	10
	3.1	Flood Zone 1 Sites	10
		781 - 218 Main Road, Hoo	11
		839 - Former Alloy Wheels Priory Road	13
		1088 - Manor Farm, Parsonage Lane	15
		1106 - Miles Place, Delce Road, Rochester	17
		1302 - Rear of Angel Cottages, Station Road, Rainham	19
	3.2	Flood Zone 2 Sites	21
		243 - Chatham-Comparison Retailing	22
		810 - Junction of Pier Road and Medway Road, Gillingham	24
		1315 - Multi-storey car park, Rhode Street, Chatham	26
	3.3	Flood Zone 3 Sites	28
		90 - Strood Riverside, Canal Road	29
		102 - 1-35 High Street, Chatham (Grays Garage)	31
		137 - Civic Centre and Janes Creek	33
		213 - 352-356 Luton Road, Luton	35
		646 - Grain Power Station, Grain Road	37
		647 - ELNA Kingsnorth 1	39
		687 - National Grid Property, Pier Road, Gillingham	41
		699 - National Grid Property Holdings, Grain Road	43
		735 - Upnor Wharf	45
		757 - Between Cross Street & The Brook, Chatham	47
		760 - Site bound by Cross Street, Upbury Way, High Street and Slicketts	
		Hill	49
		818 - J7, Chatham Maritime	51
		824 - Chatham Docks, Chatham	53
		834 - Halfords, The Brook, Chatham	55
		843 - Tesco Site, Cuxton Road access point and Commercial Road works	
		site	57
		866 - Crown House, The Brook, Chatham	59

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1039 - National Tyre, Station Road, Strood	61
1057 - North side, Priory Road	63
1105 - Manor Farm, Marsh Road, Halling	65
1109 - Steelfields, Danes Hill, Gillingham	67
1115 - Car Park, Commercial Road, Strood	69
1133 - 247-253 High Street, Chatham	71
1141 - 325 High Street, Rochester	73
1147 - 18-20 Batchelor Street, Chatham	75
1188 - Pier Approach Road Depot	77
1190 - Acorn Wharf Shipyard	79
1216 - Site 4 Land to north of Binney Farm	81
1251 - Land to the west of Kingsnorth	83
1278 - Land East of Pier Approach Rd, Gillingham	85
1297 - Land bound by Commercial Rd, Knight Rd, Priory Rd and Smith St	87
1299 - East of Ropers Lane, Hoo	89
1301 - Temple Street Public Car Park, 151-175 High St, 1A-1 Cuxton	
Road	91
1306 - Dagenham Motors, Pier Road, Gillingham	93
1308 - B&M Bargains, Medway Street, Chatham	95
1309 - Riverside Gardens, Chatham	97
1311 - 199 to 233 High Street, Chatham	99
1312 - Pumping Station, The Brook, Chatham	101
1313 - 279 to 313a High Street, Chatham	103
1317 - Railway arches (3) and adjacent land	105
1318 - Sewage Pumping Station / Travelling Showpeople Site	107
1319 - Kingswear Gardens	109
1320 - McDonalds, Car Sales Garage and rear of High Street properties	111
1321 - 2 Station Road, Strood	113
0820a - Interface Land (northern parcel), Chatham Maritime	115
0820b - Interface Land, Chatham Maritime	117

4 Appendices

1 Scope and Summary of Appraisal

This report has been prepared to accompany the document entitled '**Medway Council Sequential** and **Exception Test**' prepared by Medway Council in July 2021 and should be read in conjunction with this report.

Paragraph 160 of the National Planning Policy Framework (NPPF 2021) states that, if "following the application of the Sequential Test, it is not possible, consistent with wider sustainability objectives for the development to be located in zones with a lower probability of flooding, the Exception Test can be applied."

Paragraph 164 of the NPPF 2021 reads;

 Exception Test Part B - For the Exception Test to be passed it should be demonstrated that "the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall."

Therefore, this document applies Part B of the Exception Test to the sites identified within the Medway Strategic Land Availability Assessment (SLAA) preferred development option, which did not pass the Sequential Test.

A high-level application of Part B of the Exception Test has been carried out for all sites within Flood Zone 2 and 3, and for sites in any Flood Zone where $\geq 40\%$ of the site area is shown to be at risk of flooding from surface water flooding from either the 'high' and/or 'medium' risk scenarios. In total, **53 sites** were taken forward for the application of the Exception Test Part B, with the breakdown of the sites as follows:

- 5 sites within Flood Zone 1 with ≥ 40% of the site at risk of surface water flooding,
- 3 sites in Flood Zone 2, with 1 site where ≥ 40% of the site is also at risk of surface water flooding , and
- 45 sites in Flood Zone 3, with 11 sites where ≥ 40% of the site is also at risk of surface water flooding.

The aim of this appraisal is to inform the evidence base for the Sustainability Appraisal and Infrastructure Development Plan, to support the final allocation of sites within the Medway Local Plan and to inform 'Part A' of the Exception Test at a strategic level. The document will also be used to assist developers in undertaking site-specific application of 'Part B' of the Exception Test. Recommendations are made on the basis of the best available information at this time and in absence of detailed proposals or Site Investigation data. Therefore, the suitability of any proposals is subject to appropriate Flood Risk Assessment in the context of wider planning objectives.

2 Definition of Assessment Criteria

2.1 Assessment Criteria

This section outlines the information and datasets that have been referenced in the process of applying the Exception Test Part B to the individual sites:

Site Reference and Name – The assigned site reference and name, as provided by Medway Council.

Site Area - The area of the site in hectares (ha).

Existing Land Use – States whether the site is currently a brownfield site (i.e. previously developed), or a greenfield site (undeveloped).

Proposed Lane Use - States the proposed land use of the site (i.e. residential or commercial).

Flood Zone Classification – States the percentage of the site within each flood zone based on the Environment Agency's (EA) 'Flood Map for Planning'. The definition of each flood zone is as follows:

- Zone 1 Low probability of flooding This zone is assessed as having less than a 1 in 1000 annual probability of river or sea flooding in any one year.
- Zone 2 Medium probability of flooding This zone comprises land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding or between 1 in 200 and 1 in 1000 annual probability of sea flooding in any one year.
- Zone 3a High probability of flooding This zone comprises land assessed as having a 1 in 100 or greater annual probability of river flooding, or 1 in 200 or greater annual probability of sea flooding in any one year.
- Zone 3b The Functional Floodplain This zone comprises land where water has to flow or be stored in times of flood and can be defined as land which would flood during an event having an annual probability of 1 in 20 or greater. This zone can also represent areas that are designed to flood in an extreme event as part of a flood alleviation or flood storage scheme.

In some instances, a site is shown to be located within the functional floodplain, when in reality this is considered not to be the case, with this inaccuracy attributed to the outputs of the hydrodynamic flood modelling that is currently available. The North Kent Coast (NKC) Modelling Study (2018) was released *prior* to the completion of a number of defence upgrades, most recently at Jane's Creek and Strood Riverside. The impact that these defence upgrades will have is therefore not accounted for within the model and as a consequence, for the sites that are shown to be located within the functional floodplain that actually benefit from new defences. It is intended that further modelling

refinements are undertaken as part of the Council's forthcoming Strood Flood Strategy to determine the true flood zone classification, and ultimately, to determine whether the site would pass the Exception Test. Where this is the case, an * is located next to the Flood Zone 3b percentage stated. Further guidance is included in the 'Exception Test Required' and 'Required Actions / Recommended Mitigation Measures' sections.

This approach is applied in accordance with paragraph 015 of the National Planning Policy Guidance (NPPG) Flood and Coastal Change, which states that; "The area identified as functional floodplain should take into account the effects of defences and other flood risk management infrastructure. Areas which would naturally flood, but which are prevented from doing so by existing defences and infrastructure or solid buildings, will not normally be identified as functional floodplain".

In cases where less than ~10% of the site is shown to be located within the functional floodplain, the site is not considered to be wholly within Flood Zone 3b. Instead, it is recommended that for these sites the *Sequential Approach* is applied, and development within the area of site shown to be within Flood Zone 3b should be avoided. This is listed as a recommendation within the 'Required Actions / Recommended Mitigation Measures' section.

Development Lifetime – States the anticipated lifetime of the development. The NPPF and 'Flood and Coastal Change' Planning Practice Guidance states that residential development should be considered for a minimum of 100 years, and that the lifetime of non-residential development depends on the characteristics of that development. A 60 year lifetime is often used as a design threshold for consideration of commercial development in flood risk modelling and therefore is referred to in this report.

Exception Test Required – This section considers whether the development falls into a category that requires the Exception Test to be undertaken and is based on the flood zone classification and flood risk vulnerability classification. The application of the Exception Test has been summarised in Table 2.1 below.

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Flood Risk Vulnerability Classification	Zone 1	Zone 2	Zone 3a	Zone 3b
Essential Infrastructure – Essential transport infrastructure, strategic utility infrastructure, including electricity generating power stations.	~	~	е	е
High Vulnerability – Emergency services, basement dwellings, caravans and mobile homes intended for permanent residential use.	~	е	×	×
More Vulnerable – Hospitals, residential care homes, buildings used for dwelling houses, halls of residence, pubs, hotels, non-residential uses for health services, nurseries and education.	~	~	е	×
Less Vulnerable – Shops, offices, restaurants, general industry, agriculture, sewerage treatment plants.	~	~	~	×
Water Compatible Development – Flood control infrastructure, sewerage infrastructure, docks, marinas, ship building, water-based recreation etc.	~	~	~	~
Key :				
✓ Development is appropriate				
× Development should not be permitted				
€ Exception Test required				



Flood History – Based on historic flood records provided by Medway Council and the EA's 'Historic Flood Outlines' GIS layer, analysis was carried out for each site to identify if there were any recorded flood events from any source, both on site, or within 100m of the site. incidents were present, a brief description has been provided.

Watercourse/Rivers – Identifies any main rivers, ordinary or man-made watercourses near to the site. Based on the EA's 'Statutory Main River Map', OS mapping and satellite imagery.

Percentage of site at risk of flooding from tidal sources and/or surface water – For tidal flooding, analysis was undertaken using the NKC Modelling Study (2018 – provided by the EA) to identify the percentage of each site within the extent of flooding for a range of return period events. The analysis was carried out for both the 'defended' and 'undefended' scenarios. The maximum flood level on site was also extracted and is shown in brackets within the table.

In some instances, the 'defended' flood levels are shown to be higher than the modelled 'undefended' flood levels. In some cases, this is a result of water being contained within the channel

by the defences prior to water overtopping the defences, whereas when the defences are removed, the water level is reduced as floodwater is no longer contained within the channel during extreme events. In addition, it should be acknowledged that for sites where defences have recently been improved, these levels were modelled *prior* to the installation of new defences (particularly Jane's Creek and Strood Riverside), which may account for the anomalous values.

With regard to surface water flooding, the EA's 'Risk of Flooding from Surface Water' maps formed the basis of the analysis. The EA's mapping shows three modelled scenarios; 'low', 'medium' and 'high', and where an area is not shown to flood from surface water, this is classified as 'very low' risk (as described below). The percentage of the site at risk of flooding during each modelled scenario was extracted and recorded in the table of results.

- 'Very low' risk means that each year this area has less than 0.1% chance of flooding.
- 'Low' risk means that each year this area has between 0.1% and 1% chance of flooding.
- 'Medium' risk means that each year this area between 1% and 3.3% chance of flooding.
- 'High' risk means that each year this area has greater than 3.3% chance of flooding.

Description of surface water flow paths – Describes any surface water flow path or identifies areas where surface water could accumulate on site during the 'low', 'medium' and/or 'high' risk scenarios.

Existing Flood Defence Infrastructure – A summary of the existing defence infrastructure which is based on the Medway Flood Defence High Level Appraisal (2011) and the EA's 'Spatial Flood Defence Dataset' (last updated in May 2020). Where available, the Standard of Protection (SoP) as provided by Medway Council has been listed.

The Medway Estuary and Swale Flood and Erosion Risk Management Strategy (MEASS) Benefit Area and Policies – Lists the MEASS Benefit Area covering the flood and erosion cell within which the site is located. This section also states the Preferred Options across three epochs; 'Now – 2038', '2038 to 2068' and '2068 to 2118' as described within the <u>MEASS Non-Technical</u> <u>Summary (2018).</u>

High Level Indicative Defence Cost – Where consideration should be given to upgrading existing defences, a high-level estimation of the costs associated with carrying out the works has been provided. This section assesses the cost of upgrading all defences that have an impact on each individual site with the aim of providing an indication of the cost to be shared amongst beneficiaries or defence upgrades.

All estimates have been based on the information contained within 'Cost Estimation for Coastal Protection – Summary of Evidence – Report SC080039/R7' and 'Cost Estimation for fluvial defences – summary of evidence – Report SC080039/R2' previously provided by the EA. The

estimates do not account for inflation since the documents were published in March 2015, and the cost for the individual sites do include 'double counting' of defence costs where multiple sites benefit from the same defences. All figures are basic estimates based on available data, and further detailed analysis will be required to determine a more accurate cost to upgrade the defences. Further data on costs is available within MEASS which considers the costs of options throughout a Benefit Area, which may be referred to where a scheme is considered to benefit a wider area and multiple beneficiaries. It is advised that as well as obtaining pre-app advice from the Council, that applicants also seek pre-app advice from the Environment Agency who can provide further advice on their implementation plans for MEASS and how this may relate to development proposals.

Flood Warning Area – States whether the site is wholly or partially within a Flood Alert Area or Flood Warning Area based on the EA's 'Flood Warning Area's' dataset.

Hazard Rating – The hazard rating classification outputs, provided as part of the NKC Modelling Study (2018), have been analysed and the percentage of the site which falls within each classification has been listed. There are four hazard rating classifications, as defined in Table 2.2 below, and the dominant Hazard Rating has been coloured within each site summary table (in the corresponding hazard rating colour) to allow for ease of comparison between sites.

Hazard Rating (HR)	Degree of Flood Hazard	Description
< 0.75	Low	Caution – shallow flowing water or deep standing water
0.75 to 1.25	Moderate	Dangerous for some, i.e., children – deep or fast flowing water
1.25 to 2.0	Significant	Dangerous for most people – deep fast flowing water
> 2.0	Extreme	Dangerous for all – extreme danger with deep and fast flowing water

Table 2.2 – Classification of Hazard Rating Thresholds.

Geology – The underlying bedrock geology and any overlying superficial deposits have been extracted from mapping provided by the British Geological Society (BGS) and recorded.

Required Actions / Recommended Mitigation Measures – The section highlights where a Flood Risk Assessment (FRA) and/or Surface Water Management Strategy (SWMS) would be required. In addition, this section summarises the recommendations and mitigation requirements to be considered as part of an FRA, and or SMWS.

2.2 Table of Individual Sites

Tables 2.3 below lists the sites that have been assessed as part of this appraisal alongside the flood zone classification. Appendix A.1 shows the location of these sites within Medway.

Medway Council Level 2 Strategic Flood Risk Assessment

Site Reference	Site Name	Flood Zone
0781	218 Main Road, Hoo	1
0839	Former Alloy Wheels Priory Road	1
1088	Manor Farm, Parsonage Lane	1
1106	Miles Place, Delce Road, Rochester	1
1302	Rear of Angel Cottages, Station Road, Rainham	1
0243	Chatham-Comparison Retailing	2
0810	Junction of Pier Road and Medway Road, Gillingham	2
1315	Multi-storey car park, Rhode Street, Chatham	2
0090	Strood Riverside, Canal Road	3
0102	<u>1-35 High Street, Chatham (Grays Garage)</u>	3
0137	Civic Centre and Janes Creek	3
0213	352-356 Luton Road, Luton	3
0646	Grain Power Station, Grain Road	3
0647	ELNA Kingsnorth 1	3
0687	National Grid Property, Pier Road, Gillingham	3
0699	National Grid Property Holdings, Grain Road	3
0735	Upnor Wharf	3

Site Reference	Site Name	Flood Zone
1109	Steelfields, Danes Hill, Gillingham	3
1115	Car Park, Commercial Road, Strood	3
1133	247-253 High Street, Chatham	3
1141	325 High Street, Rochester	3
1147	18-20 Batchelor Street, Chatham	3
1188	Pier Approach Road Depot	3
1190	Acorn Wharf Shipyard	3
1216	Site 4 Land to north of Binney Farm	3
1251	Land to the west of Kingsnorth	3
1278	Land East of Pier Approach Rd, Gillingham	3
1297	Land bound by Commercial Rd, Knight Rd, Priory Rd and Smith St	3
1299	East of Ropers Lane, Hoo	3
1301	Temple Street Public Car Park, 151-175 High St, 1A-1 Cuxton Road	3
1306	Dagenham Motors, Pier Road, Gillingham	3
1308	B&M Bargains, Medway Street, Chatham	3
1309	Riverside Gardens, Chatham	3
1311	199 to 233 High Street, Chatham	3

Medway Council Level 2 Strategic Flood Risk Assessment

Site Reference	Site Name	Flood Zone
0757	Between Cross Street & The Brook, Chatham	3
0760	Site bound by Cross Street, Upbury Way, High Street and Slicketts Hill	3
0818	J7, Chatham Maritime	3
0824	Chatham Docks, Chatham	3
0834	Halfords, The Brook, Chatham	3
0843	Tesco Site, Cuxton Road access point and Commercial Road works site	3
0866	Crown House, The Brook, Chatham	3
1039	National Tyre, Station Road, Strood	3
1057	North side, Priory Road	3
1105	Manor Farm, Marsh Road, Halling	3

Site Reference	Site Name	Flood Zone
1312	Pumping Station, The Brook, Chatham	3
1313	279 to 313a High Street, Chatham	3
1317	Railway arches (3) and adjacent land	3
1318	Sewage Pumping Station / Travelling Showpeople Site	3
1319	Kingswear Gardens	3
1320	McDonalds, Car Sales Garage and rear of High Street properties	3
1321	2 Station Road	3
0820a	Interface Land (northern parcel), Chatham Maritime	3
0820b	Interface Land, Chatham Maritime	3
-	_	-

Table 2.3 – List of sites assessed

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3 Site Summary Tables

3.1 Flood Zone 1 Sites

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	Site Area: 0.52ha		Existing Land Use: Brownf	ald		Proposed Land Use: Residential		
	Sile Alea. 0.5211a		-			Floposed Land Use. Residential		
ood Zone Classification ased on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b		
Map for Planning'	100%	0%		0%		0%		
Development lifetime	100 years							
xception Test required?	The Exception Test is not required to be applied for develop	ment classified as 'more	vulnerable'.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: Water-logging of fields.							
Watercourses/Rivers	The River Medway is located 900m to the south of the site.	The River Medway is located 900m to the south of the site. In addition, there is an ordinary watercourse along the northern boundary of the site.						
Geology	Bedrock: London Clay Formation (Clay (Undifferentiated) and Silt (Undifferentiated)) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated); Clay (Undifferentiated) and Silt (Undifferentiated))							
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.							
Percentage of site at risk of	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event		
	0.0% (0.00m AODN)	0.0	0% (0.00m AODN)	0.0% (0.00m AODN)		0.0% (0.00m AODN)		
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
ooding from tidal sources d surface water, based off apping available from the	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period eve	nt - 2115	1 in 1000-year return period event		
EA	0.0% (0.00m AODN)	0.0	0% (0.00m AODN)	0.0% (0.00m AODN)		0.0% (0.00m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario		
	31.3%	31.3%		47.3%		79.7%		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During all modelled scenarios, surface water flows across th	e centre of the site in an	easterly direction.					
Existing Flood Defence Infrastructure (inc. SoP):	The EA's Spatial Flood Defence dataset shows that there is Standard of Protection: Unknown	high ground along the R	iver Medway adjacent to the site. The cr	est levels of this defence vary between 4.67m	to 6.00m AODN.			
	-							
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS Policy 2038 - 2068			MEASS Policy 2068 - 2118		
	-			-		-		
High-Level Indication of Defence Costs	N/A - The site is predicted to remain unaffected by flooding	from the River Medway fo	or the lifetime of the development.					
Flood Warning Area?	Not available at this location.							

	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the						
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating				
	0.0% 0.0%						
	surface water runoff from the site. The SuDS proforma will be be completed for non major development proposals. For major developments, or where there are historic sewer flo and any upgrades are carried out where necessary.	required to accompany any SWMS. The site is also identifed by t	ning practice guidance. All major development will require a SWM he Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Me thority at an early stage to ensure that there will be sufficient capa	edway acity in			
Required Actions / ecommended Mitigation Measures		surface water, including the Environment Agency's recommended voids) should be provided where development would displace su	additional freeboard requirements where practicable. Flood resistant rface water and increase the risk of flooding to the surrounding and a state of the surrounding and the surrounding				
ecommended Mitigation	Suitable mitigation (i.e. compensatory flood storage, floodable	voids) should be provided where development would displace su		rea.			
Recommended Mitigation	Suitable mitigation (i.e. compensatory flood storage, floodable The Sequential Approach should be applied to the layout of th raised.	voids) should be provided where development would displace su	rface water and increase the risk of flooding to the surrounding an areas. The Sequential Approach should also be applied to the inte	rea.			

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.0%

to be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

and resilience measures should be considered for inclusion.

layout of buildings, in particular where floor levels cannot be

the LMIDB area, the LMIDB should be consulted to obtain

	Site Area: 3.01ha		Existing Land Use: Brownfie	ld	F	Proposed Land Use: Employment	
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b	
based on the EA's 'Flood Map for Planning'	100%		0% 0%			0%	
Development lifetime	60 years						
Exception Test required?	The Exception Test is not required to be applied for any vuln	erability classification					
Flood History	Incidents within the site: None. Incidents within 100m of the site:. Public sewer flooding. Highway flooding.						
Watercourses/Rivers	The River Medway is located 425m to the southeast of the s	ite.					
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk For Superficial: Head (Undifferentiated) (Clay (Undifferentiated)			k)			
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.					te shown in brackets.	
Percentage of site at risk of looding from tidal sources nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event	
	0.0% (0.00m AODN)	0.0	% (0.00m AODN)	0.3% (6.10m AODN)		0.0% (0.00m AODN)	
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.						
	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event	
EA	0.0% (0.00m AODN)	0.0	% (0.00m AODN)	0.0% (6.02m AODN)		0.0% (0.00m AODN)	
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'						
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario	
	31.6%		41.7%			50.7%	
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During all modelled scenarios, surface water is shown to flow	v across the northern hal	f of the site in an easterly direction.				
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual levels of 4.04m to 4.25m AODN and a condition rating of 3. Standard of Protection: Unknown	crest level of 3.67m to 4.	67m AODN (as stated in the MedwayFlo	od Defence High Level Appraisal) and has a	condition rating of 2 (G	ood) to 3 (Fair). EA's Spatial Flood Defence dataset shows	
	BA2.1 Strood. Raise (sustain) embankments, walls, flood gates and revetments. This option involves improving the current SOP provided by the defences to 1% AEP SoP with sea level rise.						
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS Policy 2038 - 2068			MEASS Policy 2068 - 2118	
	HTL Sustain		н	L Sustain		HTL Sustain	
High-Level Indication of Defence Costs	N/A - The site is predicted to remain unaffected by flooding f	rom the River Medway fo	or the lifetime of any development.				
Flood Warning Area?	Not available at this location.						

	Percentage of site in each Hazard Rate	ing Classification during the design flood event (2070) (The d	ominant hazard rating on the subject site has been highlighted	d in the i				
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating					
	0.0%	0.0%	0.0%					
	The site covers an area of greater than 1ha and is shown to	be at risk of flooding from surface water. As a result, an FRA, inc	luding a comprehensive investigation into surface water flood risk,	is require				
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS.							
Required Actions /	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in and any upgrades are carried out where necessary.							
Recommended Mitigation Measures			at Agency's recommended additional freeboard requirements where elopment would displace surface water and increase the risk of floo					
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the int	ternal lay				
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.					

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.0%

uired.

be produced to show how SuDS will be included to manage

in the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be to the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 19.06ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential		
Flood Zone Classification	Flood Zone 1	1	Flood Zone 2	Flood Zone 3		Flood Zone 3b		
based on the EA's 'Flood Map for Planning'	100%		0%	0%		0%		
Development lifetime	100 years							
Exception Test required?	The Exception Test is not required to be applied for develop	ment classified as 'more	vulnerable'.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: Basement flooding and floo	oding recorded on Frinds	sbury Hill by Southern Water. No further in	formation is provided.				
Watercourses/Rivers	The River Medway is located 725m to the east of the site. In	addition, there is an ord	dinary watercourse 200m to the east of the	site.				
Geology	Bedrock: Thanet Sand Formation; Lewes Nodular Chalk For Superficial: Head (Undifferentiated); River Terrace Deposits,				and Silt (Undifferentiate	ed) and Clay (Undifferentiated);Chalk)		
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.							
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event		
Percentage of site at risk of	0.0% (0.00m AODN)	0.0% (5.47m AODN)		0.1% (6.10m AODN)	0.0% (5.41m AODN)		
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
ooding from tidal sources d surface water, based off apping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event		
EA	0.0% (0.00m AODN)	0.0% (5.43m AODN)		0.1% (6.05m AODN)		0.0% (0.00m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' ris	m' risk scenario		'Low' risk scenario		
	0.5%		2.5	5%		7.4%		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenario surface water flo the topography.	ws across the centre of	the site in an easterly direction. There is o	nly localised surface water accumulation o	n site during the 'high' ri	sk scenario, which could be attributed to localised depressio		
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of an embankment and high g Flood Defence dataset shows crest levels of 3.58m to 7.14m Standard of Protection: Unknown			(as stated in the MedwayFlood Defence H	ligh Level Appraisal)ar	nd has a condition rating of 2 (Good) to 3 (Fair). The EA's S		
	-							
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS Po	olicy 2038 - 2068		MEASS Policy 2068 - 2118		
	-			-		-		
High-Level Indication of Defence Costs	N/A - The site is predicted to remain almost entirely unaffect	ed by flooding from the l	River Medway for the lifetime of the develo	poment and therefore defence improvement	ts are not considered ar	propriate		

1088 - Manor Farm, P	arsonage Lane			
	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighted	l in the l
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.1%	0.0%	0.0%	
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the developments or major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the depth of flooding fro Suitable mitigation (i.e. compensatory flood storage, floodal The Sequential Approach should be applied to the layout of raised.	lopment where possible, in accordance with the NPPF and its plan be required to accompany any SWMS. flooding incidents, developers should consult the relevant water a m surface water, including the Environment Agency's recommende ble voids) should be provided where development would displace s	luding a comprehensive investigation into surface water flood risk, i nning practice guidance. All major development will require a SWM authority at an early stage to ensure that there will be sufficient cap ed additional freeboard requirements where practicable. Flood resis surface water and increase the risk of flooding to the surrounding an k areas. The Sequential Approach should also be applied to the int an achieve safe access and egress.	IS to be acity in t tance ar rea.

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.0%

uired.

be produced to show how SuDS will be included to manage in the wastewater system to accommodate the development and resilience measures should be considered for inclusion. layout of buildings, in particular where floor levels cannot be

	Site Area: 0.31ha		Existing Land Use: Brown	eld		Proposed Land Use: Residential		
ood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3	3	Flood Zone 3b		
ased on the EA's 'Flood Map for Planning'	100%		0%	0%		0%		
Development lifetime	100 years			1				
xception Test required?	The Exception Test is not required to be applied for develop	ment classified as 'more v	vulnerable'.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: Highway flooding from priv	rate drain.						
Watercourses/Rivers	The nearest watercourse is the River Medway which is located over 800m away.							
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated)	and Silt (Undifferentiated) and Sand(Undifferentiated) and Grav	el (Undifferentiated))				
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.							
Percentage of site at risk of	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period	1 in 200-year return period event - 2115			
	0.0% (0.00m AODN)	0.0	% (0.00m AODN)	0.0% (0.00m AC	DN)	0.0% (0.00m AODN)		
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
ooding from tidal sources id surface water, based off apping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event		
EA	0.0% (0.00m AODN)	0.0	% (0.00m AODN)	0.0% (0.00m AODN)		0.0% (0.00m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario		
	37.4%		47.2%			59.9%		
Description of Surface Water Flow Paths (EA's RoFSW Maps)	During all modelled scenarios, surface water is shown to flo	w across the site in a nort	herly direction.					
Existing Flood Defence Infrastructure (inc. SoP):	There are no flood defences near to the site. Standard of Protection: Unknown							
	-							
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS	Policy 2038 - 2068		MEASS Policy 2068 - 2118		
				-		-		
High-Level Indication of Defence Costs	N/A - There are no defences near to the site and the site is	predicted to remain unaffe	ected by flooding from the River Medwa	y for the lifetime of any development.				
Flood Warning Area?	Not available at this location.							

Medway Council Level 2 Strategic Flood Risk Assessment

	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The de	ominant hazard rating on the subject site has been highlighted	d in the i
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.0%	0.0%	0.0%	
	SuDS should be considered to be included within the devel	an 1ha, the site is shown to be at risk of flooding from surface wate lopment where possible, in accordance with the NPPF and its plar	er. As a result, an FRA, including a comprehensive investigation in nning practice guidance. All maior development will reguire a SWM	
	be completed for non major development proposals.	be required to accompany any SWMS. The site is also identifed by	the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M	
Required Actions / Recommended Mitigation	be completed for non major development proposals.			edway C
Required Actions / Recommended Mitigation Measures	be completed for non major development proposals.For major developments, or where there are historic sewer and any upgrades are carried out where necessary.Floor levels should be raised above the depth of flooding from the depth of flooding floodi	flooding incidents, developers should consult the relevant water a m surface water, including the Environment Agency's recommende	the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M	edway C acity in t stance an
Recommended Mitigation	be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the depth of flooding fro Suitable mitigation (i.e. compensatory flood storage, floodat	flooding incidents, developers should consult the relevant water a m surface water, including the Environment Agency's recommende ole voids) should be provided where development would displace s	the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M uthority at an early stage to ensure that there will be sufficient cap ed additional freeboard requirements where practicable. Flood resis	edway C acity in t tance an rea.

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e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.0%

face water flood risk, is recommended.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

the wastewater system to accommodate the development

and resilience measures should be considered for inclusion.

layout of buildings, in particular where floor levels cannot be

	Site Area: 0.62ha		Existing Land Use: Greenfie	ld		Proposed Land Use: Residential		
ood Zone Classification	Flood Zone 1	1	Flood Zone 2	Flood Zone 3		Flood Zone 3b		
ased on the EA's 'Flood Map for Planning'	100%		0% 0%			0%		
Development lifetime	100 years							
Exception Test required?	The Exception Test is not required to be applied for develop	ment classified as 'more	vulnerable'.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: External property flooding	on Station Road.						
Watercourses/Rivers	The Otterham Creek is located 400m to north of the site. The Otterham Creek discharges into the River Medway further north.							
Geology	Bedrock: Seaford Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated)	and Silt (Undifferentiated	1))					
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.							
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period ev	ent - 2115	1 in 1000-year return period event		
	0.0% (0.00m AODN)	0.	0% (0.00m AODN)	0.0% (0.00m AODN)		0.0% (0.00m AODN)		
ercentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
ooding from tidal sources d surface water, based off apping available from the	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period ev	ent - 2115	1 in 1000-year return period event		
EA	0.0% (0.00m AODN)	0.0% (0.00m AODN)		0.0% (0.00m AODN)		0.0% (0.00m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario		'Low' risk scenario			
	35.1%		41	6%		51.5%		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During all modelled scenarios surface water is shown to flow	in north-westerly directi	on across the centre of the site.					
Existing Flood Defence Infrastructure (inc. SoP):	The EA's Spatial Flood Defence dataset shows there is high Standard of Protection: Unknown	ground defences to the	north of the site with crest levels of 4.90r	to 5.10m AODN and a condition rating of 3				
	-							
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118		
	-			-		-		
High-Level Indication of Defence Costs	N/A - The site is predicted to remain unaffected by flooding f	rom the River Medway f	or the lifetime of any development.					
Flood Warning Area?	Not available at this location.							

	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The do	ominant hazard rating on the subject site has been highlighted	in the
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.0%	0.0%	0.0%	
	SuDS should be considered to be included within the devel	opment where possible, in accordance with the NPPF and its plar	urface water. As a result, an FRA, including a comprehensive invest nning practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Ma	IS to be
Required Actions / Recommended Mitigation	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding incidents, developers should consult the relevant water a	uthority at an early stage to ensure that there will be sufficient capa	acity in
•	and any upgrades are carried out where necessary. Floor levels should be raised above the depth of flooding from	m surface water, including the Environment Agency's recommende	uthority at an early stage to ensure that there will be sufficient capa ed additional freeboard requirements where practicable. Flood resist surface water and increase the risk of flooding to the surrounding ar	tance ar
Recommended Mitigation	and any upgrades are carried out where necessary. Floor levels should be raised above the depth of flooding from Suitable mitigation (i.e. compensatory flood storage, floodab	m surface water, including the Environment Agency's recommende ole voids) should be provided where development would displace s	ed additional freeboard requirements where practicable. Flood resist	tance ar rea.

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ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.0%

ion into surface water flood risk, is recommended.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

and resilience measures should be considered for inclusion.

layout of buildings, in particular where floor levels cannot be

3.2 Flood Zone 2 Sites

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			_			• •• •• •• •• ••		
	Site Area: 1.36ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential		
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b		
Map for Planning'	98.06%		1.94%	0%		0%		
Development lifetime	100 years							
Exception Test required?	The Exception Test is not required to be applied for develop	ment classified as 'more	vulnerable'.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.							
Watercourses/Rivers	The River Medway is 500m to the northwest of the site.							
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated)	and Silt (Undifferentiated	I) and Sand(Undifferentiated) and Gravel	(Undifferentiated))				
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.							
_	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event		
	0.0% (0.00m AODN)	1.9% (5.46m AODN) 4.3%		4.3% (6.11m AOI	4.3% (6.11m AODN) 1.9% (5.40m AODN)			
ercentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
looding from tidal sources nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event		
EA	0.0% (0.00m AODN)	1.9% (5.45m AODN)		4.2% (6.07m AODN)		1.9% (5.39m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' n	'Medium' risk scenario		'Low' risk scenario		
	0.0%		2.	2.0%		14.2%		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario there are localised areas of su flow path remains during the 'medium' scenario, albeit it on				water flows in a a northerly	direction along the northwest boundary of the site. The north		
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.60m to 5.49m AODN and a condition rating of 3. Standard of Protection: Unknown	crest level of 4.67m to 5.	17m AODN (as stated in the Medway Flo	od Defence High Level Appraisal and ha	as a condition rating of 2 (C	Good). The EA's Spatial Flood Defence dataset shows crest le		
	BA2.2 Rochester. Raise (sustain) embankments, walls, floor The rest of the Benefit Area will have a No Active Inteventio		n localised areas. Localised raising of the	defences to protect properties and asse	ts at risk of flooding around	Rochester and Chatham against a 0.1% AEP with sea level		
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118		
	HTL Sustain with localised NAI		HTL Sustair	with localised NAI		HTL Sustain with localised NAI		
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing o	lefence wall, it is estimate	ed to cost in the region of £610,000 to up	grade the 400m of defences in order to p	rotect the site for the lifetir	ne of any development.		

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	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in t							
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating					
	0.8%	0.0%	2.3%					
	The site is located partially in Flood Zone 2 , and therefore will	equired a Flood Risk Assessment.						
	SuDS should be considered to be included within the developm surface water runoff from the site. The SuDS proforma will be re-	nent where possible, in accordance with the NPPF and its planning equired to accompany any SWMS.	practice guidance. All major development will require a SWI					
	For major developments, or where there are historic sewer floo and any upgrades are carried out where necessary.	ding incidents, developers should consult the relevant water author	ity at an early stage to ensure that there will be sufficient cap					
•	The development should meet the requirements of the EA's Flo be provided where development would displace surface water a	ood Risk Standing Advice, which applies for 'less vulnerable' and 'm and increase the risk of flooding to the surrounding area.	ore vulnerable' development within Flood Zone 2. Suitable n					
•	be provided where development would displace surface water a		·					
ecommended Mitigation	be provided where development would displace surface water a The Sequential Approach should be applied to the layout of the raised.	and increase the risk of flooding to the surrounding area.	as. The Sequential Approach should also be applied to the in					

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ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.0%

be produced to show how SuDS will be included to manage in the wastewater system to accommodate the development on (i.e. compensatory flood storage, floodable voids) should layout of buildings, in particular where floor levels cannot be

to the site and surrounding area. The costs associated with

	Site Area: 0.59ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential		
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone	9 3	Flood Zone 3b		
based on the EA's 'Flood Map for Planning'	97.67%		2.33%	0%		0%		
Development lifetime	100 years							
Exception Test required?	The Exception Test is not required to be applied for developm	nent classified as 'more v	ulnerable'.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: Surface water flooding with	in highways due to tide lo	ocking and capacity within public sewer a	nd pumping station.				
Watercourses/Rivers	The River Medway is located 450m to the north of the site.							
Geology	Bedrock: Thanet Sand Formation (Sand(Undifferentiated) an Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidate							
	Percentage of site	at risk of flooding from	n tidal sources during the defended so	enario for key return period events	s. Maximum flood level on s	site shown in brackets.		
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event		
	0.0% (0.00m AODN)	0.0	% (0.00m AODN)	86.1% (6.07m /	AODN)	0.0% (0.00m AODN)		
ercentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
looding from tidal sources nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-year	return period event - 2070	1 in 200-year return peri	00-year return period event - 2115 1 in 1000-year retu			
EA	0.0% (0.00m AODN)	3.04	% (5.04m AODN)	85.2% (6.05m /	ODN) 2.3% (4.53m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' ri	ledium' risk scenario		'Low' risk scenario		
	53.7%		74.	74.6%		92.4%		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During all modelled scenarios, surface water flows across the	e centre of the site in a no	ortherly direction.					
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual condition rating of 3. Standard of Protection: Unknown	crest level of 3.67m to 4	4.17m AODN (as stated in the Medway	Flood Defence High Level Appraisal)	. The EA's Spatial Flood Def	ence dataset shows crest levels of 3.63m to 5.53m AODN a		
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls,	flood gates and revetme	ents. This option involves improving the S	oP provided by the defences to 0.5%	AEP SoP with sea level rise			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118		
	HTL Sustain		HT	_ Sustain		HTL Sustain		
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estimated	d to cost in the region of £2,750,000 to u	pgrade the 1.8km of defences in orde	r to protect the site for the life	etime of any development.		
Flood Warning Area?	Yes.							

	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the subject site has been highlighte							
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating					
	3.3%	0.0%	65.0%					
	SuDS should be considered to be included within the develop surface water runoff from the site. The SuDS proforma will be be completed for non major development proposals.	oment where possible, in accordance with the NPPF and its plann required to accompany any SWMS. The site is also identifed by t	thensive investigation into surface water flood risk, is required to be und ing practice guidance. All major development will require a SWMS to b he Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medway thority at an early stage to ensure that there will be sufficient capacity in					
Required Actions / Recommended Mitigation Measures	be provided where development would displace surface water	and increase the risk of flooding to the surrounding area.	d 'more vulnerable' development within Flood Zone 2. Suitable mitigatio areas. The Sequential Approach should also be applied to the internal l					

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

3.1%

dertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to in the wastewater system to accommodate the development ion (i.e. compensatory flood storage, floodable voids) should layout of buildings, in particular where floor levels cannot be

to the site and surrounding area. The costs associated with

	Site Area: 0.41ha		Existing Land Use: Brownfie	d		Proposed Land Use: Residential		
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b		
based on the EA's 'Flood Map for Planning'	93.75%		6.25%	0%		0%		
Development lifetime	100 years							
Exception Test required?	The Exception Test is not required to be applied for developr	nent classified as 'more	vulnerable'.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: . Public sewer flooding.							
Watercourses/Rivers	The River Medway is located 700m to the northwest of the si	te.						
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) a	and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel	(Undifferentiated))				
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.							
Percentage of site at risk of	1 in 200 year return period event	1 in 200-yea	D-year return period event - 2070 1 in 200-year return period event - 2115		event - 2115	1 in 1000-year return period event		
	0.0% (0.00m AODN)	9.1	% (5.47m AODN)	9.7% (6.12m AODN)		6.3% (5.40m AODN)		
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
ooding from tidal sources ad surface water, based off apping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event		
EA	0.0% (0.00m AODN)	9.1	% (5.46m AODN)	9.7% (6.07m AODN)		6.3% (5.40m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario		
	0.2%		0.6%		0.6%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	The entire site is almost entirely unaffected by flooding from	surface water during all r	modelled scenarios.					
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of high ground with minimum a levels of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	ictual crest level of 4.67n	n to 5.17m AODN (as stated in the Medwa	ayFlood Defence High Level Appraisal)	and has a condition rating	of 2 (Good). The EA's Spatial Flood Defence dataset shows		
	BA2.2 Rochester. Raise (sustain) embankments, walls, flood The rest of the Benefit Area will have a No Active Intevention	gates, and revetments in Approach.	n localised areas. Localised raising of the	defences to protect properties and asse	ts at risk of flooding around	Rochester and Chatham against a 0.1% AEP with sea leve		
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS Po	licy 2038 - 2068		MEASS Policy 2068 - 2118		
	HTL Sustain with localised NAI		HTL Sustain	with localised NAI		HTL Sustain with localised NAI		
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing d	efence wall, it is estimate	ed to cost in the region of £610,000 to up	rade the 400m of defences in order to p	protect the site for the lifetin	ne of any development.		

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Hazard Rating	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the r					
	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating			
	1.1%	0.0%	6.5%			
Required Actions /	The site is located partially in Flood Zone 2, and therefore will required a Flood Risk Assessment. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. The site is also identifed by the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medway be completed for non major development proposals. For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in and any ungraded are carried out where proceedings.					
•	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer	e required to accompany any SWMS. The site is also identifed by	the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M	edway (
•	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding incidents, developers should consult the relevant water a Flood Risk Standing Advice, which applies for 'less vulnerable' a	the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M	edway (acity in		
Recommended Mitigation	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. The development should meet the requirements of the EA's be provided where development would displace surface wat	Flood Risk Standing Advice, which applies for 'less vulnerable' are and increase the risk of flooding to the surrounding area.	the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M uthority at an early stage to ensure that there will be sufficient cap	edway (acity in nitigation		

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ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.0%

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

on (i.e. compensatory flood storage, floodable voids) should

layout of buildings, in particular where floor levels cannot be

3.3 Flood Zone 3 Sites

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	Site Area: 7.17ha		Existing Land Use: Brownfie	ld		Propos		
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3				
Map for Planning'	11.54%		3.53%	6.64%				
Development lifetime	100 years							
Exception Test required?	Development which has a 'more vulnerable' classification wi Riverside defences. These defences would likely reduce the vulnerable' use should not be permitted in Flood Zone 3b.							
Flood History	Incidents within the site: Internal flooding possibly caused by water overtopping the river wall. External flooding in yard. Internal flooding of cellar. Internal flooding of property. Incidents within 100m of the site: External flooding of areas around and adjacent to Watermill Wharf, caused by a small breach in the flood defences at Watermill Wharf. Re-occurring flooding following h							
Watercourses/Rivers	The River Medway is adjacent to the site.							
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk For Superficial: Head (Undifferentiated); Alluvium (Clay (Undifferentiated))				e); Clay (Undifferentiated) and Silt		
Percentage of site at risk of flooding from tidal sources and surface water, based off mapping available from the EA	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site show							
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115				
	84.2% (5.07m AODN)	88.7	88.7% (5.49m AODN) 94.7% (6.13m AOD		DN)			
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site sho							
	1 in 200-year return period event	1 in 200-year return period event - 2070 1 in 2		1 in 200-year return period	1 in 200-year return period event - 2115			
	84.9% (5.03m AODN)	88.8	8% (5.47m AODN)	94.1% (6.06m AODN)				
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario					
	1.7% 4.8%							
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' risk scenario, there are localised areas of su is shown to accumulate, which could be attributed to localise			er of the site towards the centre of the si	e. During the 'high' and 'n	nedium' r		
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside have recently been upgraded in the Medway Flood Defence High Level Appraisal) and ha Standard of Protection: Variable	and now have a crest he is a condition rating of 2 (ight of 6.1m AODN. The existing defence Good). The EA's Spatial Flood Defence of	es between Jane's Creek and Strood Riv dataset shows crest levels of 4.49m to 5.	erside consist of a wall wi 11m and a condition rating	th minimu g of 2.		
MEASS Benefit Area and Preferred Option	BA2.1 Strood. Raise (sustain) embankments, walls, flood gates and revetments. This option involves improving the current SOP provided by the defences to 1% AEP SoP with sea level rise.							
	MEASS Policy Now - 2038		MEASS Po	olicy 2038 - 2068				

oosed Land Use: Residential

Flood Zone 3b

78.29% *refer to text below

dy does not take into account the recently completed Strood inctional floodplain on site. Development classified as 'more

ng heavy rainfall due to tide locking. Public sewer flooding.

Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel

hown in brackets.

1 in 1000-year return period event

88.0% (5.43m AODN)

shown in brackets.

1 in 1000-year return period event

88.1% (5.43m AODN)

'Low' risk scenario

17.2%

n' risk scenarios there are localised areas where flood water

imum actual crest level of 4.17m to 4.67m AODN (as stated

MEASS Policy 2068 - 2118

HTL Sustain

High-Level Indication of Defence Costs	The Strood Riverside and Jane's Creek defences have recently been upgraded to improve the standard of protection. Notwithstanding this, further improvements should be considered to improve the Based on an average cost of £1,526/m to raise an existing defence wall, it is estimated to cost in the region of £460,000 to upgrade the 300m of defences in order to protect the site for the lifetime of any							
Flood Warning Area?	Yes.							
Hazard Rating	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the re-							
	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating					
	2.6%	1.2%	22.6%					
Required Actions / Recommended Mitigation Measures	1.2% 22.6% The site is located in Flood Zones 2 and 3. As a result, a detailed FRA, including further analysis to determine the extent of Flood Zone 3b on site, is required to be undertaken. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be surface water runoff from the site. The SuDS proform will be required to accompany any SWMS. For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience means (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area. The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal la raised. Flood Hazard should be consulted where development layout to ensure that users and occupants of the site can achieve safe access and egress. The EA should be consulted where development is proposed within 16m of a tidal waterbody or tidal defence infrastructure to obtain consent via a Flood Risk Activity Permit (FRAP). When developing a scheme, the condition of any adjacent defences should be taking into account							

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the defences between Strood Riverside and Jane's Creek. any development.

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

64.5%

be produced to show how SuDS will be included to manage in the wastewater system to accommodate the development asures should be considered for inclusion. Suitable mitigation layout of buildings, in particular where floor levels cannot be

to the site and surrounding area. The costs associated with
	Site Area: 0.59ha		Existing Land Use: Brownfie	ld	P	Proposed Land Use: Residential			
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	65.79%		6.26%	26.14%		1.81% *refer to text below			
Development lifetime	100 years				· ·				
Exception Test required?	Development which has a 'more vulnerable' classification w	ill be subject to the Excer	ntion Test. Development classified as 'mo	re vulnerable' use should not be permitted in	Flood Zone 3b.				
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.								
Watercourses/Rivers	The River Medway is adjacent to the site.								
Geology	edrock: Lewes Nodular Chalk Formation (Chalk) Iperficial: Alluvium; Beach and Tidal Flat Deposits (Undifferentiated) (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme); Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated))								
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.								
	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event			
Percentage of site at risk of looding from tidal sources nd surface water, based off napping available from the	5.4% (5.09m AODN)	23	1% (5.48m AODN)	56.6% (6.12m AODN)		23.1% (5.42m AODN)			
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period even	nt - 2115	1 in 1000-year return period event			
EA	28.0% (5.02m AODN)	34.5% (5.49m AODN)		54.9% (6.08m AODN)		34.2% (5.43m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario		'Low' risk scenario				
	2.1%		6.	6.4%		17.3%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario surface water flows across the depressions in the topography.	ne centre of the site in a	northerly direction. During the 'high' and	medium' risk scenarios there are localised a	reas where flood water	is shown to accumulate, which could be attributed to loca			
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actua of 4.14m to 5.65m AODN and a varying condition rating of Standard of Protection: 200		7m AODN (as stated in the Medway Floo	d Defence High Level Appraisal) and has a d	ondition rating of 2 (Goo	od). The EA's Spatial Flood Defence dataset shows crest l			
	BA2.2 Rochester. Raise (sustain) embankments, walls, floo The rest of the Benefit Area will have a No Active Intevention		n localised areas. Localised raising of the	defences to protect properties and assets at	risk of flooding around F	Rochester and Chatham against a 0.1% AEP with sea leve			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain with localised No Acitive Interve	ntion (NAI)	HTL Sustair	with localised NAI		HTL Sustain with localised NAI			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing	defence wall, it is estimat	ed to cost in the region of £725,000 to up	grade the 475m of defences in order to protec	t the site for the lifetime	e of any development.			

	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in th							
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating					
	6.8%	1.1%	32.1%					
	The site is located in Flood Zones 2 and 3, and therefore wil	The site is located in Flood Zones 2 and 3, and therefore will required a detailed Flood Risk Assessment.						
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. The site is also identifed by the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medw be completed for non major development proposals.							
	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacit and any upgrades are carried out where necessary.							
Required Actions / Recommended Mitigation	Floor levels should be raised above the design flood level, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience me (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.							
Measures	The Sequential Approach should be applied to the layout of buildings, in particular where floor levels cannot be raised.	the site by locating the most vulnerable elements in the lowest ris	sk areas, and avoiding develpoment within Flood Zone 3b*. The Seq	luentia				
	Flood Hazard should be appraised against the proposed dev	velopment layout to ensure that users and occupants of the site c	an achieve safe access and egress.					
	The EA should be consulted where development is propose	d within 16m of a tidal waterbody or tidal defence infrastructure to	obtain consent via a Flood Risk Activity Permit (FRAP).					
	The EA should be consulted where development is proposed within 16m of a tidal waterbody or tidal defence infrastructure to obtain consent via a Flood Risk Activity Permit (FRAP). When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered							

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ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.0%

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

asures should be considered for inclusion. Suitable mitigation

tial Approach should also be applied to the internal layout of

	Site Area: 4.8ha		Existing Land Use: Brownfie	ld	Propos			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3				
Map for Planning'	0.03%		2.02%	22.95%				
Development lifetime	100 years							
Exception Test required?	Development which has a 'more vulnerable' classification wi Creek defences. These defences would prevent the site floor							
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding.							
Watercourses/Rivers	The River Medway is adjacent to the site.							
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) Superficial: Alluvium; Beach and Tidal Flat Deposits (Undifferentiated) (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme); Clay (Undifferentiated) and Silt (Undifferentiated) and Silt (Undifferentiated) and Silt (Undifferentiated) and Silt (Undifferentiated) and S							
	Percentage of site	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level						
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115				
	96.8% (5.05m AODN)	100.0% (5.47m AODN) 100.0% (6.09m AODN)			N)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site sh							
looding from tidal sources nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070 1 in 200-year return period		1 in 200-year return period ev	ent - 2115			
EA	97.5% (5.01m AODN)	100.0% (5.42m AODN) 100.0% (6.02m AODN)			N)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario					
	4.4%		9.9%					
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' risk scenario, surface water flows along the e of the site towards the river.	eastern boundary of the si	ite towards the River Medway, and towar	ds the centre of the site. During the 'medium	ו' and 'high' risk scenarios surfa			
Existing Flood Defence Infrastructure (inc. SoP):	Defences at St Jane's Creek have recently been upgraded a Standard of Protection: Variable	nd now have a crest heig	ght of 6.1m AODN.					
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gat	es and revetments. This	option involves improving the current SO	P provided by the defences to 1% AEP SoF	² with sea level rise.			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS Po	olicy 2038 - 2068				
	HTL Sustain		нт	L Sustain				
High-Level Indication of Defence Costs	The Strood Riverside and Jane's Creek defences have rece Based on an average cost of £1,526/m to raise an existing d							

osed Land Use: Residential

Flood Zone 3b

75% *refer to text below

dy does not take into account the recently completed Jane's t automatically fail the Exception Test.

nd Sand(Undifferentiated))

own in brackets.

1 in 1000-year return period event

100.0% (5.42m AODN)

hown in brackets.

1 in 1000-year return period event

100.0% (5.38m AODN)

'Low' risk scenario

35.0%

face water is shown to flow only along the eastern boundary

MEASS Policy 2068 - 2118

HTL Sustain

the defences between Strood Riverside and Jane's Creek. any development.

	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the							
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating					
	0.0%	0.0%	27.9%					
	The site is located in Flood Zones 2 and 3. As a result, a detailed FRA, including further analysis to determine the extent of Flood Zone 3b on site, is required to be undertaken.							
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS.							
	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity and any upgrades are carried out where necessary.							
Required Actions / Recommended Mitigation	Floor levels should be raised above the design flood level, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience mea (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.							
Measures	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal la raised.							
	Flood Hazard should be appraised against the proposed deve	elopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.					
	The EA should be consulted where development is proposed	within 16m of a tidal waterbody or tidal defence infrastructure to	obtain consent via a Flood Risk Activity Permit (FRAP).					
	When developing a scheme, the condition of any adjacent d defence upgrades should be shared amongst beneficiaries.	efences should be taking into account and consideration given t	to upgrading the defences to maintain, or further, the protection of	fered to t				

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e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

71.9%

he produced to show how SuDS will be included to manage in the wastewater system to accommodate the development sures should be considered for inclusion. Suitable mitigation ayout of buildings, in particular where floor levels cannot be

	Site Area: 0.31ha		Existing Land Use: Brownfi	eld		Proposed Land Use: Residential		
od Zone Classification	Flood Zone 1	1	Flood Zone 2	Flood Zone 3		Flood Zone 3b		
sed on the EA's 'Flood Map for Planning'	2.12%		3.29%	94.59%		0%		
Development lifetime	100 years			1				
ception Test required?	Development which has a 'more vulnerable' classification with	Il be subject to the Exce	ption Test.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.							
Watercourses/Rivers	There are no watercourses near to the site.							
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated))							
	Percentage of sit	te at risk of flooding from tidal sources during the defended scenario for key return period events. Max			imum flood level on s	ite shown in brackets.		
	1 in 200 year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period eve	ent - 2115	1 in 1000-year return period event		
ercentage of site at risk of ooding from tidal sources	0.0% (0.00m AODN)	0.	0% (0.00m AODN)	0.0% (0.00m AODN)		0.0% (0.00m AODN)		
	Percentage of site	at risk of flooding fron	n tidal sources during the undefended	scenario for key return period events. Ma	ximum flood level on	site shown in brackets.		
surface water, based off pping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period eve	ent - 2115	1 in 1000-year return period event		
EA	0.0% (0.00m AODN)	0.0% (0.00m AODN)		0.0% (0.00m AODN)		0.0% (0.00m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario		'Low' risk scenario			
	1.1%		1'	.4%		38.2%		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' and 'medium' risk scenarios surface water fl	ows in a northwesterly d	rection across the northern part of the si	e. During the 'high' risk scenario only a very	small area along the ac	cess road is shown to flood.		
Existing Flood Defence nfrastructure (inc. SoP):	There are no flood defences near to the site. Standard of Protection: N/A							
	-							
EASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS	olicy 2038 - 2068		MEASS Policy 2068 - 2118		
	-			-		-		
igh-Level Indication of Defence Costs	N/A - There are no defences near to the site and the site is	predicted to remain unaf	fected by flooding from the River Medwa	for the lifetime of any development.				
Flood Warning Area?	Not available at this location.							

Hazard Rating	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in th							
	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating					
	0.0%	0.0%	0.0%					
	The site is located within a dry valley which is also not predicted to flood from the River Medway. The site is, however, at risk of flooding from surface water. As a result, a comprehensive investigati SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a Surface Wa will be included to manage surface water runoff from the site. The site is also identifed by the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medway Council LLFA may require a development proposals.							
	will be included to manage surface water runoff from the s development proposals.	site. The site is also identifed by the Level 1 SFRA as a 'Sensitiv						
Required Actions / Recommended Mitigation	development proposals.	·		uire a S∖				
•	development proposals.For major developments, or where there are historic sewer and any upgrades are carried out where necessary.Floor levels should be raised above the maximum depth of	flooding incidents, developers should consult the relevant water a	ve Drainage Area' and therefore Medway Council LLFA may requisit uthority at an early stage to ensure that there will be sufficient cap ere practicable. Flood resistance and resilience measures should be	uire a SV acity in t				
Recommended Mitigation	 development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the maximum depth of flood storage, floodable voids) should be provided where development of the storage floodable voids are carried out where necessary. 	flooding incidents, developers should consult the relevant water a flooding from surface water, including an additional freeboard who evelopment would displace surface water and increase the risk of f	ve Drainage Area' and therefore Medway Council LLFA may requisit uthority at an early stage to ensure that there will be sufficient cap ere practicable. Flood resistance and resilience measures should be	uire a SN acity in t be consi				

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.0%

n into surface water flood risk, is required to be undertaken.

er Management Strategy to be produced to show how SuDS SWMS and SuDs proforma to be completed for non major

in the wastewater system to accommodate the development

nsidered for inclusion. Suitable mitigation (i.e. compensatory

layout of buildings, in particular where floor levels cannot be

	Site Area: 101.02ha		Existing Land Use: Brownfie	ld		Propos				
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3						
based on the EA's 'Flood Map for Planning'	20.35%		3.79%							
Development lifetime	60 years									
	Any development classified as 'Less Vulnerable', 'More Vu Exception Test. Development that is classified as 'water-com			ithin the Functional Floodplain (Flood Zo	ne 3b). Development wh	nich is cl				
Exception Test required?	o remain operational and safe for users in times of flood;									
	o result in no net loss of floodplain storage; and									
	o not impede water flows and not increase flood risk elsewhere.									
Flood History	Incidents within the site: Overtopping of defences during the	1953 tidal flood event.								
	Incidents within 100m of the site: Overtopping of defences d	nts within 100m of the site: Overtopping of defences during the 1953 tidal flood event.								
Watercourses/Rivers	River Medway is adjacent to the site, and there are a number of ordinary watercourses in the surrounding area.									
	edrock: London Clay Formation (Clay (Undifferentiated) and Silt (Undifferentiated))									
Geology	Superficial: River Terrace Deposits, 2; Head (Undifferentiated); Beach and Tidal Flat Deposits (Undifferentiated); Alluvium (Sand and Gravel; Clay (Undifferentiated) and Silt (Undifferentiated) and Silt (Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits C)									
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site sh									
	1 in 200-year return period event	turn period event 1 in 200-year return period event - 2070 1 in 200-year return period event -								
	2.6% (6.07m AODN) 6.1% (6.07m AODN) 35.1% (6.08m AODN)									
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site sh									
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period e	vent - 2115					
EA	75.9% (4.76m AODN)	77.	7% (5.23m AODN)	80.3% (5.87m AOD	N)					
		Percentage of site	e at risk of flooding from surface water	based on the EA's 'Risk of Flooding fr	om Surface Water Map	,				
	'High' risk scenario		'Medium' ri	sk scenario						
	0.5%		2.0)%						
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	There are localised areas of surface water accumulation dur	ing all three modelled sc	enarios, which could be attributed to local	lised depressions in the topography.						
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall. The EA's Spatial Flo Standard of Protection: 1000	ood Defence dataset show	ws crest levels of 5.3m to 5.7m AODN an	d a condition rating of 3.						
	T2100 Action Zone 7, Policy 4: Take further action to keep u	p with climate and land u	use change so that flood risk does not inc	rease.						
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068						
· · · · · · · · · · · · · · · · · · ·	n/a			n/a						

osed Land Use: Employment

Flood Zone 3b

1.94% *refer to text below

classified as 'essential infrastructure' will be subject to the

Sand(Undifferentiated) and Gravel (Undifferentiated); Clay

own in brackets.

1 in 1000-year return period event

3.8% (6.07m AODN)

hown in brackets.

1 in 1000-year return period event

77.6% (5.17m AODN)

'Low' risk scenario

11.0%

MEASS Policy 2068 - 2118

n/a

High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing defence wall, it is estimated to cost in the region of £230,000 to upgrade the 150m of defences in order to protect the site for the lifetime of an						
Flood Warning Area?	Yes.						
	Percentage of site in each Hazard Rating Classification during the design flood event (2070) (The dominant hazard rating on the subject site has been highlighted in the						
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating				
	3.9%	1.6%	0.3%				
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will I For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, i The Sequential Approach should be applied to the layout of buildings, in particular where floor levels cannot be raised. Flood Hazard should be appraised against the proposed de The EA should be consulted where development is propose obtain consent for any development proposed within 8m of	Iopment where possible, in accordance with the NPPF and its plate required to accompany any SWMS. flooding incidents, developers should consult the relevant water a including the Environment Agency's recommended additional free if the site by locating the most vulnerable elements in the lowest ri- evelopment layout to ensure that users and occupants of the site c ed within 16m of a tidal waterbody or tidal defence infrastructure to any ordinary watercourse. Where the watercourse falls within the defences should be taking into account and consideration given	to obtain consent via a Flood Risk Activity Permit (FRAP). The LP/	pacity in t ence mea Sequential A should			

any development.

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.7%

be produced to show how SuDS will be included to manage in the wastewater system to accommodate the development

easures should be considered for inclusion.

tial Approach should also be applied to the internal layout of

Id be consulted prior to the commencement of any works to to the site and surrounding area. The costs associated with

	Site Area: 24.77ha		Existing Land Use: Greenfie	ld		Proposed Land Use: Employment			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b			
Map for Planning'	0%		0.14%	99.86%		0%			
Development lifetime	60 years								
Exception Test required?	Development which is classified as 'essential infrastructure' classified as 'water compatible' or 'less vulnerable'.	and 'more vulnerable' v	will be subject to the Exception Test. Develo	pment classified as 'highly vulnerable' use s	hould not be permitted.	The Exception Test is not required to be applied for developr			
Flood History	Incidents within the site: Overtopping of defences during the	e 1953 tidal flood event.	-						
	Incidents within 100m of the site: Overtopping of defences of	during the 1953 tidal flo	od event.						
Watercourses/Rivers	The site is located 800m from the River Medway. There are	also ordinary watercou	urses along the northern and southern bord	ers of the site, and a small pond on site.					
Geology	Bedrock: London Clay Formation (Clay (Undifferentiated) and	ock: London Clay Formation (Clay (Undifferentiated) and Silt (Undifferentiated))							
Geology	Superficial: Alluvium; River Terrace Deposits, 1 (Clay, Silty	erficial: Alluvium; River Terrace Deposits, 1 (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme); Clay (Undifferentiated) and Silt (Undifferentiated))							
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.								
	1 in 200-year return period event	1 in 200-year return period event - 2070 1 in 200-year		1 in 200-year return period eve	1 in 200-year return period event - 2115				
	0.0% (0.00m AODN)	3	34.3% (5.40m AODN)	99.9% (6.02m AODN)	29.0% (5.25m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
looding from tidal sources nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period eve	ent - 2115	1 in 1000-year return period event			
EA	99.9% (5.03m AODN)	100.0% (5.43m AODN)		100.0% (6.03m AODN)		100.0% (5.37m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	1.8%		4.	4.7%		16.2%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	There are localised areas of surface water accumulation du	ring all three modelled	scenarios, which could be attributed to loca	lised depressions in the topography.					
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall and embankment. T Standard of Protection: 200-1000	he EA's Spatial Flood I	Defence dataset shows crest levels of 5.64	n to 6.14m AODN and a condition rating of 2	to 3.				
	BA1.2 Kingsnorth. Maintenance of the current defences (er 0.1% SoP in 100 years taking account of sea level rise.	nbankment, seawall an	nd rock revetment) for the first 8 years to th	e current SoP offered. Following this, defendent	ces to be raised to 5.3	mAOD and then raised again in year 50 to 6.6mAOD to ensu			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS F	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Maintain to Yr 5 then HTL Susta	in	н	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	Based on an average cost of £1,152/m to raise an existing e	embankment, it is estim	nated to cost in the region of £115,000 to u	grade the 100m of defences in order to prot	ect the site for the lifeti	me of any development.			

	Percentage of site in each Hazard Rating Classification during the design flood event (2070) (The dominant hazard rating on the subject site has been highlighted in the							
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating					
	5.2%	0.6%	2.0%					
	The site is located in Flood Zone 3, and therefore will required a detailed Flood Risk Assessment.							
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS.							
	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity and any upgrades are carried out where necessary.							
Required Actions /	Floor levels should be raised above the design flood level, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience manual states are also be added and the states are also be added additional freeboard requirements where practicable.							
Recommended Mitigation Measures	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal raised.							
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.					
	The LPA should be consulted prior to the commencement of any works to obtain consent for any development proposed within 8m of any ordinary watercourse. Where the watercourse falls within consent.							
	consent.							

te respective colour – Refer to Table 2) 'Extreme' Hazard Rating 26.3% be produced to show how SuDS will be included to manage in the wastewater system to accommodate the development easures should be considered for inclusion. layout of buildings, in particular where floor levels cannot be in the LMIDB area, the LMIDB should be consulted to obtain to the site and surrounding area. The costs associated with

	Site Area: 2.12ha		Existing Land Use: Brownfi	ld		Proposed Land Use: Residential			
lood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	33.09%		17.43%	39.22%		10.26% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification w	ill be subject to the Excep	otion Test. Development classified as 'mo	re vulnerable' use should not be permitted in	Flood Zone 3b.				
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding and	highway flooding due to	tide locking and pump capacity issues.						
Watercourses/Rivers	The River Medway is adjacent to the site.								
Geology		edrock: Thanet Sand Formation (Sand(Undifferentiated) and Silt (Undifferentiated) and Clay (Undifferentiated)) superficial: Beach and Tidal Flat Deposits (Undifferentiated); Alluvium (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))							
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.								
	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period eve	ent - 2115	1 in 1000-year return period event			
Percentage of site at risk of looding from tidal sources nd surface water, based off napping available from the	43.6% (5.04m AODN)	68	3% (5.43m AODN)	88.7% (6.05m AODN)	60.0% (5.38m AODN)			
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period eve	ent - 2115	1 in 1000-year return period event			
EA	44.0% (4.99m AODN)	74.2% (5.46m AODN)		88.7% (6.05m AODN)	66.9% (5.41m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' i	'Medium' risk scenario		'Low' risk scenario			
	0.1%		1.	6%		8.4%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During all modelled scenarios surface water is shown to flow depressions in the topography.	w in northerly direction alo	ong the eastern border of the site. During	the 'low' risk scenario there are also localise	d areas where flood wa	ter is shown to accumulate, which could be attributed to loca			
Existing Flood Defence nfrastructure (inc. SoP):	The existing defences consist of a wall with minimum actua and a condition rating of 2 to 3. Standard of Protection: Unknown	al crest level of 3.67m to	4.67m AODN (as stated in the MedwayF	ood Defence High Level Appraisal). The EA	's Spatial Flood Defen	ce dataset shows effective crest levels of 3.09m to 5.38m A			
	BA2.3 St Mary's Island. Raise (sustain) embankments, wall	s, flood gates and revetm	ents. This option involves improving the	SoP provided by the defences to 0.5% AEP	SoP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS F	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain		н	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing	defence wall, it is estimat	ed to cost in the region of £2,750,000 to	upgrade the 1.8km of defences in order to pr	otect the site for the life	time of any development.			

Hazard Rating	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in th							
	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating					
	1.3%	0.0%	77.6%					
	SuDS should be considered to be included within the develop	The site is located in Flood Zones 2 and 3, and therefore will required a detailed Flood Risk Assessment. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS.						
	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity and any upgrades are carried out where necessary.							
Required Actions / Recommended Mitigation	Floor levels should be raised above the design flood level, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience me (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.							
Measures	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas, and avoiding development within Flood Zone 3b*. The Sequent buildings, in particular where floor levels cannot be raised.							
	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress.							
	Flood Hazard should be appraised against the proposed develo	opment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.					
	Flood Hazard should be appraised against the proposed develor The EA should be consulted where development is proposed w		Ũ					

herrington CONSULTING LIMITED

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

2.8%

be produced to show how SuDS will be included to manage in the wastewater system to accommodate the development asures should be considered for inclusion. Suitable mitigation tial Approach should also be applied to the internal layout of

	Site Area: 587.97ha		Existing Land Use: Brownfiel	d		Propos				
Flood Zone Classification	Flood Zone 1	I	Flood Zone 2	Flood Zone 3						
based on the EA's 'Flood Map for Planning'	4.66%		6.47%	88.36%						
Development lifetime	60 years									
	Any development classified as 'Less Vulnerable', 'More Vulnerable' and 'Highly Vulnerable' uses should not be permitted within the Functional Floodplain (Flood Zone 3b). Development which is a Exception Test. Development that is classified as 'water-compatible' should be designed and constructed to:									
Exception Test required?	o remain operational and safe for users in times of flood;									
	o result in no net loss of floodplain storage; and									
	o not impede water flows and not increase flood risk elsewhere.									
Flood History	Incidents within the site: Overtopping of defences during the									
	Incidents within 100m of the site: Surface water flooding due	to urban and rural land	drainage ditches being unable to discharg	e freely into Yantlett Creek and Thames Estu	ary due to tide locking	g. Overt				
Watercourses/Rivers	The River Medway is adjacent to the site. In addition, there a	are numerous ordinary ar	nd man-made watercourses on site.							
	Bedrock: London Clay Formation (Clay (Undifferentiated) an	Bedrock: London Clay Formation (Clay (Undifferentiated) and Silt (Undifferentiated))								
Geology	Superficial: River Terrace Deposits, 2; Head (Undifferentiate (Undifferentiated) and Silt (Undifferentiated) and Sand(Undif	ed); Beach and Tidal Fla ferentiated); Clay, Silty P	at Deposits (Undifferentiated); Alluvium (S eaty Sandy (Unconsolidated Deposits C)	Sand and Gravel; Clay (Undifferentiated) and	Silt (Undifferentiated	i) and S				
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site sh									
_	1 in 200-year return period event	1 in 200-yea	1 in 200-year return period event - 2070 1 in 200-year return period event - 2115							
	1.7% (4.92m AODN) 6.1% (5.33m AODN) 38.5% (5.95m AODN)									
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site sh									
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	00-year return period event - 2070 1 in 200-year return period event		nt - 2115					
EA	88.9% (4.84m AODN)	93.	6% (5.30m AODN)	95.7% (5.93m AODN)						
		Percentage of site	e at risk of flooding from surface water	based on the EA's 'Risk of Flooding from	Surface Water Map'					
	'High' risk scenario		'Medium' ris	sk scenario						
	0.4%		1.5	%						
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	There are localised areas of surface water accumulation acr	oss the site during all thr	ee modelled scenarios, in particular surro	unding the watercourses on site.						
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall. The EA's Spatial Flo Standard of Protection: 1000	ood Defence dataset show	ws crest levels of 3.94m to 6.08m AODN a	and a condition rating of 2 to 3.						
	T2100 Action Zone 7, Policy 4: Take further action to keep u	p with climate and land u	use change so that flood risk does not incr	ease						
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS Po	licy 2038 - 2068						
•	n/a			n/a						
	n/a n/a									

osed Land Use: Employment

Flood Zone 3b

0.51% *refer to text below

classified as 'essential infrastructure' will be subject to the

vertopping of defences during the 1953 tidal flood event.

Sand(Undifferentiated) and Gravel (Undifferentiated); Clay

own in brackets.

1 in 1000-year return period event

4.6% (5.29m AODN)

hown in brackets.

1 in 1000-year return period event

93.3% (5.24m AODN)

'Low' risk scenario

9.0%

MEASS Policy 2068 - 2118

n/a

High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing of	defence wall, it is estimated to cost in the region of $\pounds230,000$ to up	ograde the 150m of defences in order to protect the site for the lifetin	ne of an				
Flood Warning Area?	Yes.							
	Percentage of site in each Hazard Rating Classification during the design flood event (2070) (The dominant hazard rating on the subject site has been highlighted in the							
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating					
	1.5%	1.6%	2.9%					
	The site is located in Flood Zones 2 and 3, and therefore will required a detailed Flood Risk Assessment.							
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS.							
	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity and any upgrades are carried out where necessary.							
Required Actions /	Floor levels should be raised above the design flood level, in	ncluding the Environment Agency's recommended additional free	board requirements where practicable. Flood resistance and resilien	ice mea				
Recommended Mitigation Measures	The Sequential Approach should be applied to the layout of buildings, in particular where floor levels cannot be raised.	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas, and avoiding development within Flood Zone 3b*. The Sequenti buildings, in particular where floor levels cannot be raised.						
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site c	an achieve safe access and egress.					
		ed within 16m of a tidal waterbody or tidal defence infrastructure t any ordinary watercourse. Where the watercourse falls within the	to obtain consent via a Flood Risk Activity Permit (FRAP). The LPA LMIDB area, the LMIDB should be consulted to obtain consent.	should				
	When developing a scheme, the condition of any adjacent defence upgrades should be shared amongst beneficiaries.		to upgrading the defences to maintain, or further, the protection off	ered to				

any development.

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.1%

be produced to show how SuDS will be included to manage in the wastewater system to accommodate the development easures should be considered for inclusion.

tial Approach should also be applied to the internal layout of

Id be consulted prior to the commencement of any works to to the site and surrounding area. The costs associated with

735 - Upnor Wharf						
	Site Area: 0.25ha		Existing Land Use: Brownfi	eld	Р	roposed Land Use: Residential
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b
based on the EA's 'Flood Map for Planning'	0%		44.89%	54.66%		0.45% *refer to text below
Development lifetime	100 years				·	
Exception Test required?	Development which has a 'more vulnerable' classification wil	l be subject to the Exce	ption Test. Development classified as 'mo	re vulnerable' use should not be permitted in	Flood Zone 3b.	
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.					
Watercourses/Rivers	The River Medway is located 500m to the northwest of the s	te.				
Geology	Bedrock: Thanet Sand Formation (Sand(Undifferentiated) an Superficial: Beach and Tidal Flat Deposits (Undifferentiated)			lifferentiated))		
	Percentage of site	e at risk of flooding fro	m tidal sources during the defended s	cenario for key return period events. Maxi	mum flood level on site	Bb. evel on site shown in brackets. f in 1000-year return period event 100.0% (5.40m AODN) level on site shown in brackets. f in 1000-year return period event 100.0% (5.43m AODN) ter Map' 'Low' risk scenario 0.1% ating of 2 (Good). The EA's Spatial Flood Defence dataset show level rise.
	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period eve	nt - 2115	
	0.6% (5.06m AODN)	100	0.0% (5.45m AODN)	100.0% (6.08m AODN)	100.0% (5.40m AODN)
ercentage of site at risk of	Percentage of site	at risk of flooding from	n tidal sources during the undefended	urces during the undefended scenario for key return period events. Maximum flood level o		te shown in brackets.
d surface water, based off	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event
EA	55.1% (5.01m AODN)	100	0.0% (5.49m AODN)	100.0% (6.06m AODN)		100.0% (5.43m AODN)
		Percentage of sit	e at risk of flooding from surface wate	r based on the EA's 'Risk of Flooding from	Surface Water Map'	
	'High' risk scenario		'Medium' i	isk scenario		'Low' risk scenario
	0.0%		0	0%		0.1%
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	The site is not predicted to flood from surface water during a	ny of the modelled scer	arios.			
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with a minimum actual crest levels of 5.03m to 6.13m AODN and a condition rating Standard of Protection: <20	al crest level of 4.67m to of 3.	5.17m AODN (as stated in the Medwayl	Flood Defence High Level Appraisal) and has	a condition rating of 2 (0	Good). The EA's Spatial Flood Defence dataset shows et
Flood History I Watercourses/Rivers I Geology I Geology I rcentage of site at risk of oding from tidal sources I surface water, based off pping available from the EA I Description of Surface Vater Flow Paths (EA's RoFSW Maps) I Existing Flood Defence of rastructure (inc. SoP): I	BA2.3 St Mary's Island. Raise (sustain) embankments, walls	, flood gates and revetn	ents. This option involves improving the	SoP provided by the defences to 0.5% AEP S	oP with sea level rise.	
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS F	olicy 2038 - 2068		MEASS Policy 2068 - 2118
	HTL Sustain		Н	'L Sustain		HTL Sustain
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing d	efence wall, it is estimat	ed to cost in the region of £460,000 to up	grade the 300m of defences in order to prote	ct the site for the lifetime	of any development.
Flood Warning Area?	Yes.					

	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in th							
Hazard Rating	'Low' Hazard Rating 'Moderate' Hazard Rating		'Significant' Hazard Rating					
	0.0%	0.0%	99.3%					
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will be be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, in	popment where possible, in accordance with the NPPF and its plan be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water a including the Environment Agency's recommended additional freek	nning practice guidance. All major development will require a SWM y the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Me authority at an early stage to ensure that there will be sufficient capa board requirements where practicable. Flood resistance and resilier sk areas, and avoiding development within Flood Zone 3b*. The Se	edway C acity in t nce mea				
	Flood Hazard should be appraised against the proposed dev	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.	ered to				

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ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.7%

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

easures should be considered for inclusion.

tial Approach should also be applied to the internal layout of

	Site Area: 0.79ha		Existing Land Use: Brownfi	eld		Proposed Land Use: Residential		
Flood Zone Classification	Flood Zone 1	1	Flood Zone 2	Flood Zone	3	Flood Zone 3b		
based on the EA's 'Flood Map for Planning'	81.9%		12.47%	5.63%		0%		
Development lifetime	100 years					·		
Exception Test required?	Development which has a 'more vulnerable' classification wil	be subject to the Excep	tion Test.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding.							
Watercourses/Rivers	The River Medway is located 650m to the northwest of the si	te.						
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) a	and Silt (Undifferentiated	l) and Sand(Undifferentiated) and Grave	(Undifferentiated))				
	Percentage of site	e at risk of flooding fro	m tidal sources during the defended s	cenario for key return period events	. Maximum flood level on s	ite shown in brackets.		
	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return peri	od event - 2115	1 in 1000-year return period event		
	3.9% (4.48m AODN)	20.	0% (5.47m AODN)	27.6% (6.12m A	AODN)	18.1% (5.40m AODN)		
Watercourses/Rivers The Geology Bedi Geology Incid Geology Bedi Supple Incid Geology Incid Prcentage of site at risk of poding from tidal sources disurface water, based off apping available from the EA Incid Description of Surface Water Flow Paths (EA's RoFSW Maps) Duri	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
	1 in 200-year return period event	1 in 200-year return period event - 2070 1 in 200-year return period event - 2115			1 in 1000-year return period event			
	3.9% (4.43m AODN)	20.	0% (5.46m AODN)	27.6% (6.07m Å	AODN)	18.1% (5.40m AODN)		
		Percentage of site	e at risk of flooding from surface wate	r based on the EA's 'Risk of Floodin	g from Surface Water Map'			
	'High' risk scenario		'Medium'	isk scenario		'Low' risk scenario		
	0.0%		9.3%			n site shown in brackets.		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenarios surface water is	shown to flow along par	t of the southwest site boundary in a nor	th-easterly direction. The site is not pre	dicted to flood from surface v	vater during the 'high' risk scenario.		
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	crest level of 4.67m to 5.	17m AODN (as stated in the MedwayFlo	od Defence High Level Appraisal) and	has a condition rating of 2 (C	Good). The EA's Spatial Flood Defence dataset shows crest le		
	BA 2.2 Rochester. Raise (sustain) embankments, walls, floo rise. The rest of the Benefit Area will have a No Active Interve		s in localised areas. Localised raising of	the defences to protect properties and	assets at risk of flooding are	ound Rochester and Chatham against a 0.1% AEP with sea l		
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS F	Policy 2038 - 2068		MEASS Policy 2068 - 2118		
	HTL Sustain with localised NAI		HTL Sustai	n with localised NAI		HTL Sustain with localised NAI		
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing d	efence wall, it is estimate	ed to cost in the region of £610,000 to u	ograde the 400m of defences in order to	o protect the site for the lifetir	ne of any development.		

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	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in t							
Hazard Rating	'Low' Hazard Rating	'Low' Hazard Rating 'Moderate' Hazard Rating						
	1.6%	0.2%	18.5%					
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the development surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer that any upgrades are carried out where necessary. Floor levels should be raised above the design flood level and considered for inclusion. Suitable mitigation (i.e. compensate The Sequential Approach should be applied to the layout of raised.	looding from surface water. As a result, a detailed FRA, including a opment where possible, in accordance with the NPPF and its plan be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water at and depth of flooding from surface water, including the Environment ory flood storage, floodable voids) should be provided where deve the site by locating the most vulnerable elements in the lowest risk velopment layout to ensure that users and occupants of the site ca	the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M uthority at an early stage to ensure that there will be sufficient cap t Agency's recommended additional freeboard requirements wher lopment would displace surface water and increase the risk of floo k areas. The Sequential Approach should also be applied to the in	MS to be fedway bacity in re praction boding to				

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.8%

o be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 1.34ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential				
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zo	ne 3	Flood Zone 3b				
Map for Planning'	99.95%		0%	0.05%	6	0%				
Development lifetime	100 years									
Exception Test required?	Development which has a 'more vulnerable' classification w	ill be subject to the Excep	tion Test.							
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding.									
Watercourses/Rivers	The River Medway is located 800m to the northwest of the s	site.								
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated)	drock: Lewes Nodular Chalk Formation (Chalk) perficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Gravel (Undifferentiated))								
	Percentage of sit	te at risk of flooding from	m tidal sources during the defended so	cenario for key return period even	nts. Maximum flood level on s	ite shown in brackets.				
	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return pe	eriod event - 2115	1 in 1000-year return period event				
	0.0% (0.00m AODN)	0.0	0% (0.00m AODN)	10.7% (6.12n	n AODN)	1 in 1000-year return period event 0.0% (0.00m AODN) vel on site shown in brackets. 1 in 1000-year return period event 0.0% (0.00m AODN) r Map'				
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.									
sed on the EA's 'Flood Map for Planning' Development lifetime ception Test required? Flood History Watercourses/Rivers Geology centage of site at risk of bding from tidal sources surface water, based off oping available from the EA Description of Surface fater Flow Paths (EA's ROFSW Maps) xisting Flood Defence frastructure (inc. SoP): EASS Benefit Area and Preferred Option	1 in 200-year return period event	1 in 200-yea	1 in 200-year return period event - 2070 1 in 200-year return period event - 2115			1 in 1000-year return period event				
	0.0% (0.00m AODN)	0.0	0% (0.00m AODN)	9.0% (6.07m	AODN)	0.0% (0.00m AODN)				
		Percentage of site	e at risk of flooding from surface water	based on the EA's 'Risk of Flood	ing from Surface Water Map'	,				
	'High' risk scenario		'Medium' ri	risk scenario		'Low' risk scenario				
	0.0%		0.1	1%		0% Im site shown in brackets. 1 in 1000-year return period event 0.0% (0.00m AODN) on site shown in brackets. 1 in 1000-year return period event 0.0% (0.00m AODN) or site shown in brackets. 1 in 1000-year return period event 0.0% (0.00m AODN) ap' 'Low' risk scenario 6.9% cod from surface water during the ' medium' and 'high' risk states the special specia				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario there are localised areas of sur	face water accumulation	on site, which could be attributed to locali	sed depressions in the topography.	The site is not predicted to flood	d from surface water during the ' medium' and 'high' risk scer				
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	crest level of 4.67m to 5.	17m AODN (as stated in the MedwayFloo	od Defence High Level Appraisal)a	nd has a condition rating of 2 (0	Good). The EA's Spatial Flood Defence dataset shows crest				
	-									
ased on the EA's 'Flood Map for Planning' Development lifetime kception Test required? Flood History Watercourses/Rivers Geology rcentage of site at risk of oding from tidal sources I surface water, based off opping available from the EA Description of Surface Vater Flow Paths (EA's RoFSW Maps) Existing Flood Defence ifrastructure (inc. SoP): EASS Benefit Area and Preferred Option ligh-Level Indication of	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118				
	-			-		-				
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing of	defence wall, it is estimate	ed to cost in the region of £610,000 to up	grade the 400m of defences in order	r to protect the site for the lifetin	ne of any development.				
Flood Warning Area?	Not available at this location.									

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	Percentage of site in each Hazard Rating	g Classification during the design flood event (2115) (The do	pminant hazard rating on the subject site has been highlighted	in the respective colour – Refer to Table 2)
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating
	6.8%	0.0%	0.0%	0.0%
Required Actions / Recommended Mitigation Measures	 surface water runoff from the site. The SuDS proforma will be a For major developments, or where there are historic sewer flow and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level and considered for inclusion. Suitable mitigation (i.e. compensatory). The Sequential Approach should be applied to the layout of the raised. Flood Hazard should be appraised against the proposed developments. 	ment where possible, in accordance with the NPPF and its plan required to accompany any SWMS. oding incidents, developers should consult the relevant water at depth of flooding from surface water, including the Environment y flood storage, floodable voids) should be provided where devel e site by locating the most vulnerable elements in the lowest risk lopment layout to ensure that users and occupants of the site ca	uning practice guidance. All major development will require a SWMS uthority at an early stage to ensure that there will be sufficient capa t Agency's recommended additional freeboard requirements where lopment would displace surface water and increase the risk of flood c areas. The Sequential Approach should also be applied to the inte in achieve safe access and egress. o upgrading the defences to maintain, or further, the protection offe	city in the wastewater system to accommodate practicable. Flood resistance and resilience me ing to the surrounding area. rnal layout of buildings, in particular where floor

ncluded to manage

te the development

neasures should be

oor levels cannot be

sts associated with

		1				
	Site Area: 0.51ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b
based on the EA's 'Flood Map for Planning'	0%		0%	100%		0%
Development lifetime	100 years					
Exception Test required?	Development which has a 'more vulnerable' classification w	II be subject to the Excep	tion Test.			
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.					
Watercourses/Rivers	The River Medway is located 150m to the west of the site. In	n addition, the site is loca	ted adjacent to the Chatham Maritime Ma	rina.		
Geology	Bedrock: Seaford Chalk Formation (Chalk) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidat	ed Deposits Classification	n Scheme))			
	Percentage of sit	e at risk of flooding fro	n tidal sources during the defended so	enario for key return period events. I	laximum flood level on s	1 in 1000-year return period event 25.4% (4.20m AODN) d level on site shown in brackets. 1 in 1000-year return period event 100.0% (5.44m AODN)
	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period	event - 2115	1 in 1000-year return period event
	0.0% (0.00m AODN)	100	.0% (4.61m AODN)	100.0% (6.08m A0	DDN)	1 in 1000-year return period event 25.4% (4.20m AODN) I on site shown in brackets. 1 in 1000-year return period event 100.0% (5.44m AODN)
ercentage of site at risk of ooding from tidal sources	Percentage of site	at risk of flooding from	tidal sources during the undefended	scenario for key return period events.	Maximum flood level on	site shown in brackets.
nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period	event - 2115	1 in 1000-year return period event
EA	100.0% (5.01m AODN)	100	.0% (5.49m AODN)	100.0% (6.06m A0	DDN)	100.0% (5.44m AODN)
		Percentage of site	e at risk of flooding from surface water	based on the EA's 'Risk of Flooding	from Surface Water Map'	
	'High' risk scenario		'Medium' ri	sk scenario		'Low' risk scenario
	0.0%	0.0% 0.0%				0.1%
Description of Surface Water Flow Paths (EA's <u>RoFSW Maps)</u>	The site is not predicted to flood from surface water during a	any of the modelled scena	arios.			
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 5.60m to 6.00m AODN and a condition rating of 2. Standard of Protection: 200-1000	crest level of 5.17m to 5.	67m AODN (as stated in the Medway Flo	od Defence High Level Appraisal) and ha	as a condition rating of 2 (G	Good). The EA's Spatial Flood Defence dataset shows crest le
	BA2.3 St Mary's Island. Raise (sustain) embankments, wall	s, flood gates and revetm	ents. This option involves improving the S	oP provided by the defences to 0.5% A	EP SoP with sea level rise.	
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118
	HTL Sustain		НТ	_ Sustain		HTL Sustain
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing of	defence wall, it is estimate	ed to cost in the region of £5,800,000 to u	pgrade the 3.8km of defences in order to	o protect the site for the life	time of any development.
Flood Warning Area?	Yes.					

	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the							
Hazard Rating	'Low' Hazard Rating 'Moderate' Hazard Rating		'Significant' Hazard Rating					
	0.0%	0.0%	2.6%					
Required Actions / Recommended Mitigation	surface water runoff from the site. The SuDS proforma will be r be completed for non major development proposals. For major developments, or where there are historic sewer floo and any upgrades are carried out where necessary.	detailed Flood Risk Assessment. ment where possible, in accordance with the NPPF and its planning required to accompany any SWMS. The site is also identifed by the oding incidents, developers should consult the relevant water author uding the Environment Agency's recommended additional freeboard	Level 1 SFRA as a 'Sensitive Drainage Area' and therefore	e Medway capacity in				

e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

97.4%

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

the wastewater system to accommodate the development

easures should be considered for inclusion.

layout of buildings, in particular where floor levels cannot be

	Site Area: 29.45ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b
based on the EA's 'Flood Map for Planning'	29.7%		15.81%	51.84%		2.65% *refer to text below
Development lifetime	100 years					
Exception Test required?	Development which has a 'more vulnerable' classification with	II be subject to the Excep	tion Test. Development classified as 'mo	re vulnerable' use should not be permitted in	Flood Zone 3b.	
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.					
Watercourses/Rivers	The site is located adjacent to the River Medway and the Ch	natham Maritime Marina.				
Geology	Bedrock: Seaford Chalk Formation; Thanet Sand Formation Superficial: Beach and Tidal Flat Deposits (Undifferentiated)		, , , ,		ndy (Unconsolidated De	eposits Classification Scheme))
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum f					e 3b. solidated Deposits Classification Scheme)) l level on site shown in brackets. l in 1000-year return period event 49.7% (5.38m AODN) od level on site shown in brackets. l in 1000-year return period event 70.3% (5.49m AODN) Vater Map' Low' risk scenario 12.3% rating of 2 (Good). The EA's Spatial Flood Defence dataset shows cr
	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period eve	nt - 2115	1 in 1000-year return period event
	28.6% (5.04m AODN)	52.	9% (5.43m AODN)	76.9% (6.19m AODN)		49.7% (5.38m AODN)
ercentage of site at risk of	Percentage of site	at risk of flooding from	tidal sources during the undefended	scenario for key return period events. Ma	kimum flood level on	site shown in brackets.
looding from tidal sources nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period eve	nt - 2115	1 in 1000-year return period event
EA	54.5% (5.01m AODN)	71.	2% (5.53m AODN)	77.2% (6.08m AODN)		70.3% (5.49m AODN)
		Percentage of site	e at risk of flooding from surface water	based on the EA's 'Risk of Flooding from	Surface Water Map'	
	'High' risk scenario		'Medium' r	sk scenario		'Low' risk scenario
	1.8%		4.	1%		12.3%
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	There are localised areas of surface water accumulation du	ring all three modelled sc	enarios, which could be attributed to loca	lised depressions in the topography.		
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.6m AODN and a condition rating of 3. Standard of Protection: Variable	crest level of 4.17m to 4	.67m AODN (as stated in the MedwayFlo	od Defence High Level Appraisal) and has a	a condition rating of 2 (Good). The EA's Spatial Flood Defence dataset shows crest
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls	s, flood gates and revetm	ents. This option involves improving the	SoP provided by the defences to 0.5% AEP S	SoP with sea level rise.	
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118
	HTL Sustain		нт	L Sustain		HTL Sustain
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing of	lefence wall, it is estimate	ed to cost in the region of £1,070,000 to	pgrade the 750m of defences in order to pro	tect the site for the life	time of any development.
	Yes.					

	Porcentage of site in each Hazard Patin	a Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighte	d in the r			
		g classification during the design nood event (2113) (The d		, in the r			
Hazard Rating	'Low' Hazard Rating 'Moderate' Hazard Rating		'Significant' Hazard Rating				
	3.5%	0.0%	36.8%				
	The site is located in Flood Zones 2 and 3, and therefore will require a detailed Flood Risk Assessment.						
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS.						
	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity and any upgrades are carried out where necessary.						
Required Actions / Recommended Mitigation	Floor levels should be raised above the design flood level, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience met (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.						
Measures	The Sequential Approach should be applied to the layout of the buildings, in particular where floor levels cannot be raised.	e site by locating the most vulnerable elements in the lowest ris	sk areas, and avoiding develpoment within Flood Zone 3b*. The S	equential			
	Flood Hazard should be appraised against the proposed deve	lopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.				
	The EA should be consulted where development is proposed within 16m of a tidal waterbody or tidal defence infrastructure to obtain consent via a Flood Risk Activity Permit (FRAP).						
	The EA should be consulted where development is proposed within 16m of a tidal waterbody or tidal defence infrastructure to obtain consent via a Flood Risk Activity Permit (FRAP). When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered						

e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

33.2%

be produced to show how SuDS will be included to manage in the wastewater system to accommodate the development asures should be considered for inclusion. Suitable mitigation tial Approach should also be applied to the internal layout of

	Site Area: 0.25ha		Existing Land Use: Brown	ield		Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b			
Map for Planning'	0%		0%	100%		0%			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification w	ill be subject to the Excep	tion Test.						
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding.								
Watercourses/Rivers	The River Medway is located 500m to the northwest of the	e River Medway is located 500m to the northwest of the site.							
Geology	Irock: Lewes Nodular Chalk Formation (Chalk) nerficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated))								
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.								
	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period e	vent - 2115	1 in 1000-year return period event			
ercentage of site at risk of ooding from tidal sources	100.0% (4.48m AODN)	100	.0% (5.47m AODN)	100.0% (6.12m AOE	DN)	100.0% (5.40m AODN)			
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070 1 in 200-yea		1 in 200-year return period e	vent - 2115	1 in 1000-year return period event			
EA	100.0% (4.43m AODN)	100.0% (5.46m AODN)		100.0% (6.07m AOE	DN)	100.0% (5.40m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	18.3%		10	0.0%		100.0%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenario surface water flo	ws across the entire site	in a northwesterly direction. During the	'high' risk scenario, surface water flows acro	oss the eastern boundary	of the site only.			
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	crest level of 4.67m to 5.	17m AODN (as stated in the MedwayFl	ood Defence High Level Appraisal) and has	a condition rating of 2 (G	iood). The EA's Spatial Flood Defence dataset shows crest le			
	BA2.2. Rochester. Raise (sustain) embankments, walls, flo rise. The rest of the Benefit Area will have a No Active Inter		s in localised areas. Localised raising o	the defences to protect properties and ass	ets at risk of flooding aro	und Rochester and Chatham against a 0.1% AEP with sea			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS	Policy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL with Sustain with localised NA		HTL Susta	in with localised NAI		HTL Sustain with localised NAI			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing	defence wall, it is estimate	ed to cost in the region of £610,000 to u	pgrade the 400m of defences in order to pro	otect the site for the lifetin	ne of any development.			
	Yes.								

	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the							
Hazard Rating	'Low' Hazard Rating 'Moderate' Hazard Rating		'Significant' Hazard Rating					
	0.0%	0.0%	82.5%					
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the develop surface water runoff from the site. The SuDS proforma will be be completed for non major development proposals. For major developments, or where there are historic sewer flu and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level and considered for inclusion. Suitable mitigation (i.e. compensato The Sequential Approach should be applied to the layout of the raised. Flood Hazard should be appraised against the proposed development.	pment where possible, in accordance with the NPPF and its plar e required to accompany any SWMS. The site is also identifed by ooding incidents, developers should consult the relevant water a d depth of flooding from surface water, including the Environmen ry flood storage, floodable voids) should be provided where deve he site by locating the most vulnerable elements in the lowest risk elopment layout to ensure that users and occupants of the site ca	a comprehensive investigation into surface water flood risk, is red nning practice guidance. All major development will require a SW the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore is uthority at an early stage to ensure that there will be sufficient ca t Agency's recommended additional freeboard requirements whe dopment would displace surface water and increase the risk of flook k areas. The Sequential Approach should also be applied to the is an achieve safe access and egress. o upgrading the defences to maintain, or further, the protection of	/MS to be Medway (apacity in t ere practic boding to t nternal lay				

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

17.5%

o be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 1.21ha		Existing Land Use: Brownfie	ld		Prop			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2		}				
Map for Planning'	8.89%		2.32%	14.61%					
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification wi Creek defences. These defences would likely reduce the external use should not be permitted in Flood Zone 3b.								
Flood History	Incidents within the site: None. Incidents within 100m of the site:Highway flooding. Public	sewer flooding. Highway f	flooding.						
Watercourses/Rivers	The River Medway is located 475m to the southeast of the site.								
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated))								
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site s								
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period	l event - 2115				
Percentage of site at risk of	87.8% (5.00m AODN)	91.1% (5.47m AODN) 93.6% (6.10m AOD			DN)				
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site s								
flooding from tidal sources and surface water, based off	1 in 200-year return period event	1 in 200-year return period event - 2070 1 in 200-year return period ever			l event - 2115				
mapping available from the EA	88.8% (5.01m AODN)	91.1% (5.42m AODN) 92.9% (92.9% (6.02m AC	DN)				
		Percentage of site	at risk of flooding from surface water	based on the EA's 'Risk of Flooding	from Surface Water Map)'			
	'High' risk scenario		'Medium' risk scenario						
	37.2%		49.0%						
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'medium' and 'high' scenarios, surface water is sh	nown to accumulate arour	nd the existing buildings on site. During th	ne 'low' scenario, the majority of the site	is shown to flood from su	rface v			
Existing Flood Defence Infrastructure (inc. SoP):	Dat Strood Riverside and Jane's Creek have recently been AODN (as stated in the MedwayFlood Defence High Level A Standard of Protection: Variable								
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gat	es and revetments. This of	option involves improving the current SO	P provided by the defences to 1% AEP	SoP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS Po	olicy 2038 - 2068					
	HTL Sustain	HTL Sustain							

oosed Land Use: Residential

Flood Zone 3b

74.18% *refer to text below

dy does not take into account the recently completed Jane's oodplain on site. Development classified as 'more vulnerable'

hown in brackets.

1 in 1000-year return period event

91.1% (5.42m AODN)

shown in brackets.

1 in 1000-year return period event

91.1% (5.38m AODN)

'Low' risk scenario

91.8%

vater.

h ground with minimum actual crest level of 3.67m to 5.17m DDN and a condition rating of 2 to 4.

MEASS Policy 2068 - 2118

HTL Sustain

west of Jane's Creek. Based on an average cost of £2,984/m

Flood Warning Area?	Yes.							
	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighted	in the				
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating					
	0.3%	0.3%	21.5%					
	The site is located in Flood Zones 2 and 3, and is at risk of flooding from surface water. As a result, a detailed FRA, including a comprehensive investigation into surface water flood risk and further required to be undertaken.							
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS.							
Required Actions /	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity and any upgrades are carried out where necessary.							
Recommended Mitigation Measures	Floor levels should be raised above the design flood level and depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practic considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the storage.							
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the inte	ərnal lay				
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.					
	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress. When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered to defence upgrades should be shared amongst beneficiaries.							

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e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

70.6%

analysis to determine the extent of Flood Zone 3b on site, is be produced to show how SuDS will be included to manage in the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be to the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 0.68ha		Existing Land Use: Brownfi	eld		Proposed Land Use: Residential		
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b		
based on the EA's 'Flood Map for Planning'	73.3%		16.44%	10.26%		0%		
Development lifetime	100 years							
Exception Test required?	Development which has a 'more vulnerable' classification w	ill be subject to the Excep	ption Test.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.							
Watercourses/Rivers	The River Medway is located 450m to the northwest of the	River Medway is located 450m to the northwest of the site.						
Geology	edrock: Lewes Nodular Chalk Formation (Chalk) uperficial: None							
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.							
	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period ever	nt - 2115	1 in 1000-year return period event		
Percentage of site at risk of looding from tidal sources nd surface water, based off napping available from the	9.9% (4.48m AODN)	26	.3% (5.46m AODN)	34.9% (6.11m AODN)		26.3% (5.40m AODN)		
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
	1 in 200-year return period event	1 in 200-year return period event - 2070 1		1 in 200-year return period ever	nt - 2115	1 in 1000-year return period event		
EA	9.9% (4.43m AODN)	26.3% (5.45m AODN) 34.9% (6.		34.9% (6.07m AODN)		26.3% (5.39m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario		'Low' risk scenario			
	6.2%		11	5%	16.5%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During all three modelled scenarios, surface water is shown	to flow along part of the	southwest site boundary in a north-west	orly direction.				
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	crest level of 4.67m to 5	.17m AODN (as stated in the MedwayFlo	od Defence High Level Appraisal) and has a c	condition rating of 2 (Ge	ood). The EA's Spatial Flood Defence dataset shows crest le		
	BA2.2. Rochester. Raise (sustain) embankments, walls, flo rise. The rest of the Benefit Area will have a No Active Inter	od gates, and revetment ention Approach.	s in localised areas. Localised raising of	the defences to protect properties and assets	at risk of flooding arou	und Rochester and Chatham against a 0.1% AEP with sea l		
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS F	olicy 2038 - 2068		MEASS Policy 2068 - 2118		
	HTL Sustain with localised NAI		HTL Sustai	with localised NAI		HTL Sustain with localised NAI		
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing of	defence wall, it is estimat	ted to cost in the region of £610,000 to up	grade the 400m of defences in order to protec	t the site for the lifetim	e of any development.		

	Percentage of site in each Hazard Rati	ng Classification during the design flood event (2115) (The do	ominant hazard rating on the subject site has been highlighted	d in the					
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating						
	1.7%	2.2%	16.3%						
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the development surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer than any upgrades are carried out where necessary. Floor levels should be raised above the design flood level are considered for inclusion. Suitable mitigation (i.e. compensate The Sequential Approach should be applied to the layout of	opment where possible, in accordance with the NPPF and its plar e required to accompany any SWMS. The site is also identifed by dooding incidents, developers should consult the relevant water a nd depth of flooding from surface water, including the Environmen bry flood storage, floodable voids) should be provided where deve	a comprehensive investigation into surface water flood risk, is required a comprehensive investigation into surface water flood risk, is required and the sufficience of the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M uthority at an early stage to ensure that there will be sufficient cap t Agency's recommended additional freeboard requirements where support would displace surface water and increase the risk of flook k areas. The Sequential Approach should also be applied to the in-	MS to be Medway (bacity in re practic bding to t					
	raised. Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress.								
	Flood Hazard should be appraised against the proposed dev	velopment layout to ensure that users and occupants of the site ca	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress. When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered defence upgrades should be shared amongst beneficiaries.						

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

10.9%

o be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 0.14ha		Existing Land Use: Brownfie	ld	Prop					
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3						
based on the EA's 'Flood Map for Planning'	0%		0%	0%						
Development lifetime	100 years									
Exception Test required?	Development which has a 'more vulnerable' classification w Riverside and Jane's Creek defences. These defences wo classified as 'more vulnerable' use should not be permitted i	uld likely reduce the exte								
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.									
Watercourses/Rivers	The River Medway is located 250m to the southeast of the s	River Medway is located 250m to the southeast of the site.								
Geology	drock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) perficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))									
	Percentage of sit	e at risk of flooding from	n tidal sources during the defended so	cenario for key return period events. Maxi	imum flood level on site sh					
	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period eve	ent - 2115					
Percentage of site at risk of	100.0% (5.00m AODN)	100.0% (5.47m AODN) 100.0% (6.12m AODN))					
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site sl									
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070 1 in 200-year return period event			ent - 2115					
EA	100.0% (5.02m AODN)	100.	100.0% (5.43m AODN) 100.0% (6.05m A0)					
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'									
	'High' risk scenario		'Medium' risk scenario							
	45.4%		79.	0%						
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During all modelled scenarios, surface water is shown to ac	cumulate on the northeas	t part of the site. During the 'low' risk sce	nario, the entire site is shown to flood from s	urface water.					
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recent AODN (as stated in the Medway Flood Defence High Level , Standard of Protection: Variable	tly been upgraded and no Appraisal) and has a cono	w have a crest height of 6.1m AODN. Th dition rating of 2 (Good). The EA's Spatia	e existing defences between Jane's Creek a I Flood Defence dataset shows crest levels o	and Strood Riverside consist of 4.49m to 5.11m and a con					
	BA2.1 Strood. Raise (sustain) embankments,walls, flood ga	tes and revetments. This	option involves improving the current SO	P provided by the defences to 1% AEP SoP	with sea level rise.					
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068						
Preferred Option	HTL Sustain		HT	L Sustain						

oosed Land Use: Residential

Flood Zone 3b

100% *refer to text below

dy does not take into account the recently completed Strood rue extent of the functional floodplain on site. Development

hown in brackets.

1 in 1000-year return period event

100.0% (5.42m AODN)

shown in brackets.

1 in 1000-year return period event

100.0% (5.38m AODN)

'Low' risk scenario

100.0%

t of a wall with minimum actual crest level of 4.17m to 4.67m ndition rating of 2.

MEASS Policy 2068 - 2118

HTL Sustain

the defences between Strood Riverside and Jane's Creek. any development.

Medway Council Level 2 Strategic Flood Risk Assessment

1039 - National Tyre,	Station Road, Strood						
Flood Warning Area?	Yes.						
	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighte	d in the i			
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating				
	0.0%	0.0%	0.0%				
	The site is located in Flood Zones 2 and 3, and is at risk of flooding from surface water. As a result, a detailed FRA, including a comprehensive investigation into surface water flood risk and further a required to be undertaken. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to b surface water runoff from the site. The SuDS proform a will be required to accompany any SWMS. The site is also identifed by the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medway						
Required Actions /	be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding incidents, developers should consult the relevant water a	uthority at an early stage to ensure that there will be sufficient cap	oacity in t			
Recommended Mitigation Measures			It Agency's recommended additional freeboard requirements wher elopment would displace surface water and increase the risk of floo				
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the in	ternal lay			
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.				
	When developing a scheme, the condition of any adjacent defence upgrades should be shared amongst beneficiaries.		to upgrading the defences to maintain, or further, the protection of	ffered to			

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e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

100.0%

nalysis to determine the extent of Flood Zone 3b on site, is

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

the wastewater system to accommodate the development

icable. Flood resistance and resilience measures should be to the surrounding area.

ayout of buildings, in particular where floor levels cannot be

	Site Area: 0.26ha		Existing Land Use: Brownfie	d	Pr	oposed Land Use: Residential		
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b		
based on the EA's 'Flood Map for Planning'	97.19%		2.8%	0.01%		0%		
Development lifetime	100 years				·			
Exception Test required?	Development which has a 'more vulnerable' classification with	ill be subject to the Excep	tion Test.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: Internal flooding of proper	idents within the site: None. idents within 100m of the site: Internal flooding of property. Highway flooding.						
Watercourses/Rivers	The River Medway is located 425m to the southeast of the s	e River Medway is located 425m to the southeast of the site.						
Geology	edrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) uperficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated))							
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.							
	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period ev	ent - 2115	1 in 1000-year return period event		
Percentage of site at risk of looding from tidal sources	0.0% (5.00m AODN)	2.8	% (5.47m AODN)	12.0% (6.10m AODN)	2.8% (5.42m AODN)		
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
ad surface water, based off apping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period ev	ent - 2115	1 in 1000-year return period event		
EA	0.0% (5.01m AODN)	2.8% (5.42m AODN)		12.0% (6.02m AODN)	2.8% (5.38m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario		
	0.0%	0.0%		%		11.8%		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' risk scenario there are areas of localised su	rface water accumulation,	which could be attributed to localised de	pressions in the topography. The site is no	predicted to flood during t	he 'medium' and 'high' risk scenarios.		
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recen 5.17m AODN (as stated in the MedwayFlood Defence High Standard of Protection: Unknown	tly been upgraded and no Level Appraisal) and has	w have a crest height of 6.1m AODN. T a condition rating of 2 (Good) to 4 (Poo	e existing defences to the southwest of Ja). EA's Spatial Flood Defence dataset show	ne's Creek consist of a wa s crest levels of 4.04m to a	II and high ground with minimum actual crest level of 3.67 4.99m AODN and a condition rating of 2 to 4.		
	BA2.1 Strood. Raise (sustain) embankments, walls, flood gates and revetments. This option involves improving the current SOP provided by the defences to 1% AEP SoP with sea level rise.							
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	licy 2038 - 2068		MEASS Policy 2068 - 2118		
	HTL Sustain		HT	Sustain		HTL Sustain		
High-Level Indication of Defence Costs	The Jane's Creek defences have recently been upgraded to to construct a defence wall, it is estimated to cost in the regi					thwest of Jane's Creek. Based on an average cost of £2,9		

1057 - North side, Prie	ory Road			
	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighted	in the
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	4.2%	1.8%	1.0%	
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, i	opment where possible, in accordance with the NPPF and its plan be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water a ncluding the Environment Agency's recommended additional freek	nning practice guidance. All major development will require a SWM y the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Me nuthority at an early stage to ensure that there will be sufficient capa poard requirements where practicable. Flood resistance and resilien k areas. The Sequential Approach should also be applied to the inte	edway (acity in nce mea

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.0%

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

easures should be considered for inclusion.

layout of buildings, in particular where floor levels cannot be

	Site Area: 1.1ha		Existing Land Use: Brownfie	ld I		Proposed Land Use: Residential			
			-			·			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b			
Map for Planning'	84.76%		10.27%	4.85%		0.12% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification wil	evelopment which has a 'more vulnerable' classification will be subject to the Exception Test. Development classified as 'more vulnerable' use should not be permitted in Flood Zone 3b.							
Flood History	Incidents within the site: None. Incidents within 100m of the site: Overtopping of defences d	ncidents within the site: None. Incidents within 100m of the site: Overtopping of defences during the 1953 tidal flood event.							
Watercourses/Rivers	he River Medway is 500m to the east of the site, and there is an ordinary watercourse 200m to the east.								
Geology	edrock: West Melbury Marly Chalk Formation and Zig Zag Chalk Formation (Undifferentiated) (Chalk) uperficial: Head (Undifferentiated); Alluvium (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))								
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.								
	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period o	event - 2115	1 in 1000-year return period event			
ercentage of site at risk of	5.0% (4.96m AODN)	17	.3% (5.47m AODN)	37.9% (6.13m AOI	DN)	15.2% (5.43m AODN)			
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
ooding from tidal sources nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period o	event - 2115	1 in 1000-year return period event			
EA	5.0% (4.97m AODN)	14.3% (5.36m AODN)		32.7% (5.95m AOI	DN)	12.8% (5.32m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' ri	sk scenario		'Low' risk scenario			
	0.9%		1.1	1.1%		3.2%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	There are localised areas of surface water accumulation dur	ing all three modelled so	cenarios, which could be attributed to loca	ised depressions in the topography.					
Existing Flood Defence Infrastructure (inc. SoP):	The EA's Spatial Flood Defence dataset shows that there is Standard of Protection: Unknown	an embankment to the e	east of the site with crest levels of 3.33m to	o 3.58m AODN and a condition rating of 3	3.				
MEASS Benefit Area and	BA 3.2 Halling. Construct new setbak embankments at Halling Marshes. Raise (sustain) embankments, walls, and flood gates in localised areas. Localised raising of the defences to protect properties and assets at risk of flooding around Halling against 5% AEP with sea level rise. The rest of the Benefit Area will have a NAI approach and management will cease on the defences. Additionally, construction of a MR site at Halling marsh to help compensate for the strategy wide coastal squeexe impacts. Setbac embankments to be constructed to manage tifdal water and a breach in the current defences created.								
Preferred Option	MEASS Policy Now - 2038		MEASS Po	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain and MR with localised NA	AI	HTL Sustain and	MR with localised NAI		HTL Sustain and MR with localised NAI			
High-Level Indication of Defence Costs	Based on an average cost of £1,152/m to raise an existing e	mbankment, it is estima	ted to cost in the region of £1,400,000 to u	pgrade the 1200m of defences in order t	o protect the site for the li	fetime of any development.			

	Percentage of site in each Hazard Ratir	ng Classification during the design flood event (2115) (The do	minant hazard rating on the subject site has been highlig	hted in the			
Hazard Rating	'Low' Hazard Rating	'Significant' Hazard Rating					
	6.7%	0.1%	20.2%				
	The site is located in Flood Zones 2 and 3, and therefore will require a detailed Flood Risk Assessment.						
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS.						
	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity and any upgrades are carried out where necessary.						
Required Actions / Recommended Mitigation Measures		d depth of flooding from surface water, including the Environment ry flood storage, floodable voids) should be provided where develo					
incuculos	The Sequential Approach should be applied to the layout of t buildings, in particular where floor levels cannot be raised.	Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas, and avoiding develpoment within Flood Zone 3b*. The Sequential angs, in particular where floor levels cannot be raised.					
	Flood Hazard should be appraised against the proposed deve	elopment layout to ensure that users and occupants of the site car	achieve safe access and egress.				
	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress. When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered to defence upgrades should be shared amongst beneficiaries.						

e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.0%

be produced to show how SuDS will be included to manage

the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be the surrounding area.

tial Approach should also be applied to the internal layout of
	Flood Zone 1 54.99%	- ·				
Map for Planning'			Flood Zone 2	Flood Zone 3		Flood Zone 3b
			19.96%	18.36%		6.69% *refer to text below
ception Test required?	100 years			·		
	Development which has a 'more vulnerable' classification wi	II be subject to the Excep	tion Test. Development classified as 'm	ore vulnerable' use should not be permitted in	Flood Zone 3b.	
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.					
Watercourses/Rivers	The River Medway is adjacent to the site.					
Geology	Bedrock: Thanet Sand Formation (Sand(Undifferentiated) ar Superficial: Beach and Tidal Flat Deposits (Undifferentiated (Undifferentiated) and Silt (Undifferentiated))	· · · · · · · · · · · · · · · · · · ·		d Silt (Undifferentiated) and Sand(Undifferent	ated); Clay, Silty Peaty	Sandy (Unconsolidated Deposits Classification Scheme)
	Percentage of sit	e at risk of flooding fro	m tidal sources during the defended	scenario for key return period events. Maxi	mum flood level on site	e shown in brackets.
	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period eve	nt - 2115	1 in 1000-year return period event
	22.4% (5.03m AODN)	45.	0% (5.42m AODN)	50.5% (6.05m AODN)		45.0% (5.38m AODN)
centage of site at risk of	Percentage of site	at risk of flooding from	tidal sources during the undefended	l scenario for key return period events. Ma	kimum flood level on si	te shown in brackets.
oding from tidal sources surface water, based off oping available from the	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period eve	nt - 2115	1 in 1000-year return period event
EA	20.5% (4.98m AODN)	45.	0% (5.45m AODN)	50.2% (6.04m AODN)		45.0% (5.39m AODN)
		Percentage of site	e at risk of flooding from surface wat	er based on the EA's 'Risk of Flooding fron	Surface Water Map'	
	'High' risk scenario		'Medium'	risk scenario		'Low' risk scenario
	0.0%		(.0%		2.1%
Description of Surface Vater Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' risk scenario there is localised surface water	r accumulation on site, w	hich could be attributed to localised dep	ressions in the topography. The site is not pre	dicted to flood during the	'medium' and 'high' risk scenarios.
xisting Flood Defence	The existing defences consist of high ground with minimum a condition rating of 3 to 4.	actual crest level of <3.6	7m to 4.17m AODN (as stated in the Me	dwayFlood Defence High Level Appraisal). T	ne EA's Spatial Flood De	fence dataset shows crest levels of 3.99m to 4.33m AOD
frastructure (inc. SoP):	Standard of Protection: Unknown					
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls	s, flood gates and revetm	ents. This option involves improving the	SoP provided by the defences to 0.5% AEP S	oP with sea level rise.	
EASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS	Policy 2038 - 2068		MEASS Policy 2068 - 2118
	HTL Sustain		F	TL Sustain		HTL Sustain

Flood Warning Area?	Yes.			
	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The do	minant hazard rating on the subject site has been highlight	ed in the
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	2.1%	0.6%	43.4%	
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will be For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, in (i.e. compensatory flood storage, floodable voids) should be The Sequential Approach should be applied to the layout of buildings, in particular where floor levels cannot be raised. Flood Hazard should be appraised against the proposed det	opment where possible, in accordance with the NPPF and its plan	ard requirements where practicable. Flood resistance and resilie crease the risk of flooding to the surrounding area. k areas, and avoiding develpoment within Flood Zone 3b*. The n achieve safe access and egress.	apacity in t

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

1.0%

be produced to show how SuDS will be included to manage in the wastewater system to accommodate the development asures should be considered for inclusion. Suitable mitigation tial Approach should also be applied to the internal layout of

	Site Area: 0.29ha		Existing Land Use: Brownfie	ld	Pr		
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1	I	Flood Zone 2	Flood Zone 3			
Map for Planning'	0%		0%	3.02%			
Development lifetime	100 years						
Exception Test required?	Development which has a 'more vulnerable' classification wi Riverside and Jane's Creek defences. These defences wou classified as 'more vulnerable' use should not be permitted in	uld likely reduce the exter	otion Test. *Although the NKC modelling nt of flooding during a 1in20 year return	shows the site to be within the functional period event, and further analysis is reco	floodplain, the modelling st mmended to determine the		
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding.						
Watercourses/Rivers	The River Medway is located 400m to the southeast of the s	ite.					
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk For Superficial: Head (Undifferentiated); Alluvium (Clay (Undiffer				ne))		
	Percentage of site	e at risk of flooding fron	n tidal sources during the defended s	cenario for key return period events. Ma	ximum flood level on site		
	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period e	vent - 2115		
	100.0% (5.00m AODN)	100.0% (5.47m AODN) 100.0% (6.10m AO		100.0% (6.10m AOD	N)		
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site s						
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period e	vent - 2115		
EA	100.0% (5.01m AODN)	100.	0% (5.42m AODN)	100.0% (6.02m AOD	N)		
		Percentage of site	at risk of flooding from surface water	based on the EA's 'Risk of Flooding fro	om Surface Water Map'		
	'High' risk scenario		'Medium' ri	sk scenario			
	64.3%		97.	4%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During all modelled scenarios, surface water is shown to flow	w across the site in an ea	sterly direction.				
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recent 5.17m AODN (as stated in the MedwayFlood Defence High I Standard of Protection: Variable	tly been upgraded and no Level Appraisal) and has	w have a crest height of 6.1m AODN. The a condition rating of 2 (Good) to 4 (Pool	ne existing defences to the southwest of Ja). EA's Spatial Flood Defence dataset sho	ane's Creek consist of a wa ws crest levels of 4.04m to		
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gat	tes and revetments. This	option involves improving the current SC	P provided by the defences to 1% AEP So	P with sea level rise.		
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068			
	HTL Sustain		HT	L Sustain			

oosed Land Use: Residential

Flood Zone 3b

96.98% *refer to text below

dy does not take into account the recently completed Strood rue extent of the functional floodplain on site. Development

hown in brackets.

1 in 1000-year return period event

100.0% (5.42m AODN)

shown in brackets.

1 in 1000-year return period event

100.0% (5.37m AODN)

'Low' risk scenario

100.0%

and high ground with minimum actual crest level of 3.67m to 99m AODN and a condition rating of 2 to 4.

MEASS Policy 2068 - 2118

HTL Sustain

west of Jane's Creek. Based on an average cost of £2,984/m

Flood Warning Area?	Yes.			
	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The de	ominant hazard rating on the subject site has been highlighted	d in the r
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.0%	0.0%	0.2%	
	required to be undertaken.		a comprehensive investigation into surface water flood risk and fu	irther and
			nning practice guidance. All major development will require a SWN the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M	
Required Actions /	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals.	e required to accompany any SWMS. The site is also identifed by		edway C
Required Actions / Recommended Mitigation Measures	 surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a 	be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water a nd depth of flooding from surface water, including the Environmen	the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M	edway C acity in t e practica
Recommended Mitigation	 surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensate) 	be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water a nd depth of flooding from surface water, including the Environmen ory flood storage, floodable voids) should be provided where deve	the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Mu uthority at an early stage to ensure that there will be sufficient cap t Agency's recommended additional freeboard requirements where	edway C acity in t e practica ding to th
Recommended Mitigation	 surface water runoff from the site. The SuDS proforma will the completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensat The Sequential Approach should be applied to the layout of raised. 	be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water a nd depth of flooding from surface water, including the Environmen ory flood storage, floodable voids) should be provided where deve	the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Mu uthority at an early stage to ensure that there will be sufficient cap t Agency's recommended additional freeboard requirements where lopment would displace surface water and increase the risk of floor k areas. The Sequential Approach should also be applied to the int	edway C acity in t e practica ding to th

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

99.8%

analysis to determine the extent of Flood Zone 3b on site, is

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 0.08ha		Existing Land Use: Brownfi	ld		Proposed Land Use: Residential
lood Zone Classification	Flood Zone 1	1	Flood Zone 2	Flood Zone 3		Flood Zone 3b
ased on the EA's 'Flood Map for Planning'	0%		4.27%	95.73%		0%
Development lifetime	100 years					
xception Test required?	Development which has a 'more vulnerable' classification w	ill be subject to the Exce	ption Test.			
Flood History	Incidents within the site: None. Incidents within 100m of the site:					
Watercourses/Rivers	The River Medway is located 500m to the northwest of the	site.				
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated)	and Silt (Undifferentiate	d) and Sand(Undifferentiated) and Grave	(Undifferentiated))		
	Percentage of sin	e at risk of flooding fro	om tidal sources during the defended s	cenario for key return period events. Max	imum flood level on s	ite shown in brackets.
	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period eve	ent - 2115	1 in 1000-year return period event
	95.7% (4.48m AODN)	10	0.0% (5.46m AODN)	100.0% (6.12m AODN	l)	100.0% (5.40m AODN)
rcentage of site at risk of oding from tidal sources	Percentage of site	at risk of flooding from	n tidal sources during the undefended	scenario for key return period events. Ma	ximum flood level on	site shown in brackets.
d surface water, based off apping available from the	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period eve	ent - 2115	1 in 1000-year return period event
EA	95.7% (4.43m AODN)	10	0.0% (5.46m AODN)	100.0% (6.07m AODN	l)	100.0% (5.40m AODN)
		Percentage of sit	te at risk of flooding from surface wate	based on the EA's 'Risk of Flooding from	n Surface Water Map'	
	'High' risk scenario		'Medium' i	isk scenario		'Low' risk scenario
	48.7%		95	8%		100.0%
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario, surface water flows across the	entire site in a northwes	sterly direction. During the 'medium' and 'h	gh' risk scenarios, surface water is shown to	accumulate on site, wh	ich could be attributed to localised depressions in the topog
Existing Flood Defence nfrastructure (inc. SoP):	The existing defences consist of high ground with minimum levels of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	actual crest level of 4.67	m to 5.17m AODN (as stated in the Medv	rayFlood Defence High Level Appraisal)and	has a condition rating	of 2 (Good). The EA's Spatial Flood Defence dataset shows
	BA2.2 Rochester. Raise (sustain) embankments, walls, floo The rest of the Benefit Area will have a No Active Inteventio		in localised areas. Localised raising of the	defences to protect properties and assets a	t risk of flooding around	Rochester and Chatham against a 0.1% AEP with sea leve
IEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS F	olicy 2038 - 2068		MEASS Policy 2068 - 2118
	HTL Sustain with localises NAI		HTL Sustai	with localised NAI		HTL Sustain with localised NAI
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing of	defence wall, it is estima	ted to cost in the region of £610,000 to up	grade the 400m of defences in order to prote	ect the site for the lifetin	ne of any development.

	Percentage of site in each Hazard Rati	ng Classification during the design flood event (2115) (The do	pminant hazard rating on the subject site has been highlighted	d in the
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.0%	0.0%	64.2%	
Required Actions / Recommended Mitigation	SuDS should be considered to be included within the development surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer frand any upgrades are carried out where necessary. Floor levels should be raised above the design flood level are	ooding from surface water. As a result, a detailed FRA, including a opment where possible, in accordance with the NPPF and its plan e required to accompany any SWMS. The site is also identifed by looding incidents, developers should consult the relevant water and depth of flooding from surface water, including the Environment ory flood storage, floodable voids) should be provided where deve	ning practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M uthority at an early stage to ensure that there will be sufficient cap	AS to be ledway (pacity in e practic
Measures				ternal la
Measures	raised.	the site by locating the most vulnerable elements in the lowest risk		
Measures	raised.	the site by locating the most vulnerable elements in the lowest risk relopment layout to ensure that users and occupants of the site ca		

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

35.8%

o be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be to the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 0.03ha		Existing Land Use: Brownfie	ld	F	Proposed Land Use: Residential	
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b	
Map for Planning'	11.11%		33.42%	0%		55.47%	
Development lifetime	100 years						
Exception Test required?	Development classified as 'more vulnerable' use should not	be permitted**.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: Highway flooding following	g high tides due to tide lo	cking.				
Watercourses/Rivers	The River Medway is 100m to the north of the site.						
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: None						
	Percentage of sit	e at risk of flooding fro	m tidal sources during the defended so	cenario for key return period events. Maxi	mum flood level on sit	e shown in brackets.	
	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period eve	ent - 2115	1 in 1000-year return period event	
	55.5% (5.09m AODN)	88.	9% (5.47m AODN)	89.7% (6.12m AODN)		88.9% (5.42m AODN)	
ercentage of site at risk of	Percentage of site	at risk of flooding from	tidal sources during the undefended	scenario for key return period events. Max	ximum flood level on s	ite shown in brackets.	
looding from tidal sources nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period eve	ent - 2115	1 in 1000-year return period event	
EA	55.5% (5.02m AODN)	88.	9% (5.50m AODN)	89.7% (6.08m AODN)		88.9% (5.44m AODN)	
		Percentage of site	e at risk of flooding from surface water	based on the EA's 'Risk of Flooding from	n Surface Water Map'		
	'High' risk scenario		'Medium' ri	sk scenario		'Low' risk scenario	
	32.6%		34.	6%		39.3%	
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	There are localised areas of surface water accumulation du	ring all three modelled sc	enarios, which could be attributed to loca	lised depressions in the topography.			
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual crest levels of 4.14m to 4.5m AODN and a condition rating of Standard of Protection: Unknown		.67m AODN (as stated in the MedwayFlo	ood Defence High Level Appraisal)and has	a condition rating of 2 (C	Good) to 3(Fair). The EA's Spatial Flood Defence dataset sh	
	BA2.2 Rochester. Raise (sustain) embankments, walls, floo The rest of the Benefit Area will have a No Active Inteventio		n localised areas. Localised raising of the	defences to protect properties and assets at	t risk of flooding around l	Rochester and Chatham against a 0.1% AEP with sea level	
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118	
	HTL Sustain with localised NAI		HTL Sustain	with localised NAI		HTL Sustain with localised NAI	
High-Level Indication of	Based on an everage cost of \$1 526/m to raise on evicting	defence wall it is estimate	ed to cost in the region of £575,000 to up	arade the 375m of defences in order to prote	oct the site for the lifetime	of any development	
Defence Costs	Based on an average cost of £1,526/m to raise an existing of						

1141 - 325 High Stree		ing Classification during the design flood event (2015) (The d	a minant barand rating on the subject site has been bigblight	d in the r
Hazard Rating	'Low' Hazard Rating	ing Classification during the design flood event (2115) (The de 'Moderate' Hazard Rating	Significant' Hazard Rating	a in the r
	0.8%	21.5%	51.5%	
Required Actions / Recommended Mitigation Measures	 **The site is currently 'brownfield' and in accordance with Pabe identified as functional floodplain. Therefore, if a development proposal is progressed for this SuDS should be considered to be included within the development are surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensation the sequential Approach should be applied to the layout of raised. Flood Hazard should be appraised against the proposed determine the proposed determine the sequential should be appraised against the proposed determine the	dplain) and therefore, normally, 'more vulnerable' development sho aragraph 015 of NPPG: Flood and Coastal Change is an area preve site, a detailed FRA, including a comprehensive investigation into a lopment where possible, in accordance with the NPPF and its plar be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water a and depth of flooding from surface water, including the Environmen tory flood storage, floodable voids) should be provided where deve if the site by locating the most vulnerable elements in the lowest risk evelopment layout to ensure that users and occupants of the site ca defences should be taking into account and consideration given t	ented from acting as a functional floodplain by existing defences a surface water flood risk, is required to be undertaken. nning practice guidance. All major development will require a SW v the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore N uthority at an early stage to ensure that there will be sufficient ca t Agency's recommended additional freeboard requirements whe elopment would displace surface water and increase the risk of flo k areas. The Sequential Approach should also be applied to the ir an achieve safe access and egress.	MS to be Medway C pacity in the practica oding to the nternal lay

herrington CONSULTING LIMITED

e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

8.2%

astructure or solid buildings and would therefore not normally

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

ayout of buildings, in particular where floor levels cannot be

	Site Area: 0.03ha		Existing Land Use: Brownf	eld		Proposed Land Use: Residential	
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b	
Map for Planning'	0%		0%	100%		0%	
Development lifetime	100 years						
Exception Test required?	Development which has a 'more vulnerable' classification w	ill be subject to the Exce	ption Test.				
Flood History	Incidents within the site: None. Incidents within 100m of the site:. Public sewer flooding.						
Watercourses/Rivers	The River Medway is located 550m to the northwest of the	site.					
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated)	and Silt (Undifferentiated	d) and Sand(Undifferentiated) and Grave	I (Undifferentiated))			
	Percentage of sit	te at risk of flooding fro	om tidal sources during the defended	scenario for key return period events. Maxi	mum flood level on si	te shown in brackets.	
	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period eve	nt - 2115	1 in 1000-year return period event	
	100.0% (4.48m AODN)	100	0.0% (5.47m AODN)	100.0% (6.12m AODN))	100.0% (5.40m AODN)	
ercentage of site at risk of	Percentage of site	at risk of flooding fron	n tidal sources during the undefended	scenario for key return period events. Max	timum flood level on s	site shown in brackets.	
looding from tidal sources nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period eve	nt - 2115	1 in 1000-year return period event	
EA	100.0% (4.43m AODN)	100	0.0% (5.46m AODN)	100.0% (6.07m AODN)		100.0% (5.40m AODN)	
		Percentage of site	e at risk of flooding from surface wate	r based on the EA's 'Risk of Flooding from	Surface Water Map'		
	'High' risk scenario		'Medium'	risk scenario		'Low' risk scenario	
	7.0%		10	0.0%		100.0%	
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenario surface water flo	ws across the entire site	e in a northwesterly direction. The site is	not predicted to flood from surface water during	g the 'high' risk scenari	0.	
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	crest level of 4.67m to 5	5.17m AODN (as stated in the MedwayFlo	ood Defence High Level Appraisal) and has a	condition rating of 2 (G	ood). The EA's Spatial Flood Defence dataset shows crest le	
	BA2.2 Rochester. Raise (sustain) embankments, walls, floo The rest of the Benefit Area will have a No Active Inteventio		in localised areas. Localised raising of th	e defences to protect properties and assets at	risk of flooding around	Rochester and Chatham against a 0.1% AEP with sea level	
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS	Policy 2038 - 2068		MEASS Policy 2068 - 2118	
	HTL Sustain with localised NAI		HTL Susta	n with localised NAI		HTL Sustain with localised NAI	
High-Level Indication of	Based on an average cost of £1,526/m to raise an existing of	defence wall, it is estimat	ted to cost in the region of £610,000 to u	ograde the 400m of defences in order to prote	ct the site for the lifetim	e of any development.	
Defence Costs							

	Percentage of site in each Hazard Rati	ing Classification during the design flood event (2115) (The do	ominant hazard rating on the subject site has been highlighted	l in the
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.0%	0.0%	0.4%	
	SuDS should be considered to be included within the development surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer that any upgrades are carried out where necessary.	opment where possible, in accordance with the NPPF and its plar be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water a	a comprehensive investigation into surface water flood risk, is required uning practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Ma uthority at an early stage to ensure that there will be sufficient capa t Agency's recommended additional freeboard requirements where	IS to be edway C acity in t e practic
Required Actions / Recommended Mitigation Measures			lopment would displace surface water and increase the risk of flood	ding to t
Recommended Mitigation	considered for inclusion. Suitable mitigation (i.e. compensate	ory flood storage, floodable voids) should be provided where deve		0
Recommended Mitigation	considered for inclusion. Suitable mitigation (i.e. compensate The Sequential Approach should be applied to the layout of raised.	ory flood storage, floodable voids) should be provided where deve	lopment would displace surface water and increase the risk of flood c areas. The Sequential Approach should also be applied to the int	0

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

99.6%

be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

1188 - Pier Approach	•						
	Site Area: 0.93ha		Existing Land Use: Brownfie	ld	P	Propo	
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1	·	Flood Zone 2	Flood Zone 3			
Map for Planning'	1.24%		13.29%	41.3%			
Development lifetime	100 years						
Exception Test required?	Development which has a 'more vulnerable' classification wil with a 1in200 year SoP. Paragraph 015 in the NPPG Flood functional floodplain'. Therefore, further analysis is recomme	d and Coastal Change st	ates 'Areas which would naturally flood,	but which are prevented from doing so by	existing defences and inf	frastru	
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.						
Watercourses/Rivers	The River Medway is 200m to the north of the site.						
Geology	Bedrock: Thanet Sand Formation (Sand(Undifferentiated) an Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidat						
	Percentage of sit	e at risk of flooding from	n tidal sources during the defended s	cenario for key return period events. Max	imum flood level on site	e sho	
	1 in 200-year return period event	1 in 200-year return period event - 2070 1 in 200-year re		1 in 200-year return period eve	ent - 2115		
	85.5% (5.05m AODN)	98.8% (5.42m AODN) 100.0% (6.06m AOD		100.0% (6.06m AODN	I)		
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site sl						
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period eve	ent - 2115		
EA	77.1% (4.99m AODN)	99.7	7% (5.47m AODN)	100.0% (6.05m AODN	I)		
		Percentage of site	at risk of flooding from surface water	based on the EA's 'Risk of Flooding from	n Surface Water Map'		
	'High' risk scenario		'Medium' ri	sk scenario			
	0.0%		12.	9%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' and 'medium' risk scenarios surface water fl	ows across the site in a n	orth-easterly direction. The site is not pre	edicted to flood during the 'high' risk scenario).		
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.6m AODN and a condition rating of 3. Standard of Protection: Variable	crest level of 4.17m to 4.	67m AODN (as stated in the Medway Flo	bod Defence High Level Appraisal) and has a	a condition rating of 2 (Go	. (boc	
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls	s, flood gates and revetme	ents. This option involves improving the S	SoP provided by the defences to 0.5% AEP	SoP with sea level rise.		
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068			
	HTL Sustain		HT	L Sustain			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing of	lefence wall it is estimate	d to cost in the region of £2.750.000 to u	ingrade the 1.8km of defences in order to pr	otect the site for the lifetin	me of	

oosed Land Use: Residential

Flood Zone 3b

44.17% *refer to text below

Defence' dataset shows that the site benefits from defences structure or solid buildings, will not normally be identified as nitted in Flood Zone 3b.

hown in brackets.

1 in 1000-year return period event

98.8% (5.37m AODN)

shown in brackets.

1 in 1000-year return period event

98.8% (5.41m AODN)

'Low' risk scenario

65.3%

). The EA's Spatial Flood Defence dataset shows crest level

MEASS Policy 2068 - 2118

HTL Sustain

of any development.

Flood Warning Area?	Yes.			
	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The do	ominant hazard rating on the subject site has been highlighte	d in the r
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.0%	0.0%	33.1%	
	The site is located in Flood Zones 2 and 3, and is at risk of required to be undertaken.	flooding from surface water. As a result, a detailed FRA, including	a comprehensive investigation into surface water flood risk and fu	urther and
		lopment where possible, in accordance with the NPPF and its plar be required to accompany any SWMS. The site is also identifed by		
Required Actions /	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals.		the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore N	ledway C
Required Actions / Recommended Mitigation Measures	 surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a 	be required to accompany any SWMS. The site is also identifed by	the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M uthority at an early stage to ensure that there will be sufficient cap t Agency's recommended additional freeboard requirements wher	ledway C bacity in t re practica
Recommended Mitigation	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensate	be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water a and depth of flooding from surface water, including the Environmen	the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M uthority at an early stage to ensure that there will be sufficient cap t Agency's recommended additional freeboard requirements wher lopment would displace surface water and increase the risk of floo	ledway C bacity in th re practica bding to th
Recommended Mitigation	 surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensate The Sequential Approach should be applied to the layout of raised. 	be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water a and depth of flooding from surface water, including the Environmen tory flood storage, floodable voids) should be provided where deve	the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M uthority at an early stage to ensure that there will be sufficient cap t Agency's recommended additional freeboard requirements wher lopment would displace surface water and increase the risk of floc k areas. The Sequential Approach should also be applied to the in	ledway C bacity in th re practica bding to th

e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

66.9%

analysis to determine the extent of Flood Zone 3b on site, is

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 1.5ha		Existing Land Use: Brownfi	ld	I	Proposed Land Use: Residential				
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b				
based on the EA's 'Flood Map for Planning'	0.07%		0.05%	43.2%		56.68%				
Development lifetime	100 years									
Exception Test required?	Development classified as 'more vulnerable' use should not	velopment classified as 'more vulnerable' use should not be permitted.**								
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.									
Watercourses/Rivers	The River Medway is adjacent to the site.	e River Medway is adjacent to the site.								
Geology	edrock: Lewes Nodular Chalk Formation (Chalk) uperficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))									
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.									
Percentage of site at risk of flooding from tidal sources nd surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event				
	57.4% (5.02m AODN)	99.3% (5.45m AODN) 100.0% (6.08m AODN)				99.2% (5.40m AODN)				
	Percentage of site	at risk of flooding from	n tidal sources during the undefended	scenario for key return period events. Max	timum flood level on s	site shown in brackets.				
	1 in 200-year return period event	1 in 200-ye	1 in 200-year return period event - 2070 1 in 200-year return per		event - 2115 1 in 1000-year return period even					
EA	99.9% (4.99m AODN)	100.0% (5.40m AODN)		100.0% (6.03m AODN)	99.9% (5.35m AODN)				
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'									
	'High' risk scenario		'Medium' risk scenario		'Low' risk scenario					
	0.0%		0.	0.0%		9.8%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario surface water flows in a northe	easterly direction along th	he southern boundary of the site. The site	is not predicted to flood from surface water d	uring the 'medium' and	'high' risk scenarios.				
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 5.4m to 6.9m AODN and a condition rating of 2 to 4. Standard of Protection: 200-1000	crest level of 4.67m to 6	5.17m AODN (as stated in the Medway Flo	od Defence High Level Appraisal) and has a	condition rating of 2 (G	ood). The EA's Spatial Flood Defence dataset shows crest le				
	BA2.2 Rochester. Raise (sustain) embankments, walls, floo The rest of the Benefit Area will have a No Active Inteventio		in localised areas. Localised raising of the	defences to protect properties and assets at	risk of flooding around	Rochester and Chatham against a 0.1% AEP with sea level r				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS F	olicy 2038 - 2068		MEASS Policy 2068 - 2118				
	HTL Sustain with localised NAI		HTL Sustai	with localised NAI		HTL Sustain with localised NAI				
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing	defence wall, it is estimat	ted to cost in the region of £650,000 to up	grade the 425m of defences in order to prote	ct the site for the lifetim	e of any development.				

	Percentage of site in each Hazard Rati	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating							
	0.3%	0.5%	28.1%							
	The site is located in Flood Zone 3B (i.e. the functional flood	dplain) and therefore, 'more vulnerable' development should not be	e permitted.							
	**The site is currently 'brownfield' and in accordance with Paragraph 015 of NPPG: Flood and Coastal Change is an area prevented from acting as a functional floodplain by existing defences and infrast be identified as functional floodplain.									
	Therefore, if a development proposal is progressed for this site, a detailed FRA, including a comprehensive investigation into surface water flood risk, is required to be undertaken.									
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. The site is also identifed by the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medway be completed for non major development proposals.									
Required Actions / Recommended Mitigation Measures	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in and any upgrades are carried out where necessary.									
weasures	Floor levels should be raised above the design flood level and depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practiconsidered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to									
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the in	ternal lay						
	Flood Hazard should be appraised against the proposed dev	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.							
	When developing a scheme, the condition of any adjacent defence upgrades should be shared amongst beneficiaries.	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress. When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered to defence upgrades should be shared amongst beneficiaries								

herrington CONSULTING LIMITED

e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

69.6%

structure or solid buildings and would therefore not normally

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

ayout of buildings, in particular where floor levels cannot be

	Site Area: 1.69ha		Existing Land Use: Brownfi	eld		Proposed Land Use: Residential			
ood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b			
based on the EA's 'Flood Map for Planning'			8.54%	6.44%		0%			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test.								
Flood History	Incidents within the site: None. Incidents within 100m of the site: Overtopping of defences d	Incidents within the site: None. Incidents within 100m of the site: Overtopping of defences during the 1953 tidal flood event.							
Watercourses/Rivers	The River Thames Estuary is located 1km to the north of the	e site. There are a numbe	er of ordinary watercourses to the east of	the site.					
Geology	Bedrock: London Clay Formation (Clay (Undifferentiated) and Silt (Undifferentiated)) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated))								
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.								
	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period even	nt - 2115	1 in 1000-year return period event			
	0.0% (0.00m AODN)	0.0	0% (0.00m AODN)	10.4% (5.01m AODN)		0.0% (0.00m AODN)			
ercentage of site at risk of ooding from tidal sources d surface water, based off apping available from the	Percentage of site	at risk of flooding from	tidal sources during the undefended	scenario for key return period events. Max	imum flood level on	site shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070 1 in 200-year return period event -		nt - 2115	1 in 1000-year return period event				
EA	6.4% (4.81m AODN)	16.	32.4% (5.88m AODN) 32.4% (5.88m AODN)			15.0% (5.19m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	0.5%		6.1%			38.6%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario, surface water flows across the	site in an easterly direct	ion. There is localised surface water acc	umulation on site during the 'medium' risk sce	nario, and the site is n	ot predicted to flood during the 'high' risk scenario.			
Existing Flood Defence Infrastructure (inc. SoP):	The EA's Spatial Flood Defence dataset shows a number of Standard of Protection: Unknown	embankments to the no	theast and east of the site with crest lev	els of 3.62m to 6.4m AODN and a condition ra	ting of 3.				
	-								
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS Policy 2038 - 2068			MEASS Policy 2068 - 2118			
	-			-		-			
High-Level Indication of Defence Costs	N/A - the cost of improving the defences is not considered c	ommensurate with the si	ze of the site and extent of flooding on si	e.					
Flood Warning Area?	Yes.								

1216 - Site 4 Land to I	north of Binney Farm								
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating						
	4.5%	0.0%	2.2%						
	The site is located in Flood Zones 2 and 3, and is at risk of flooding from surface water. As a result, a detailed FRA, including a comprehensive investigation into surface water flood risk, is required to								
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS.								
Required Actions / Recommended Mitigation	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in and any upgrades are carried out where necessary.								
Measures	Floor levels should be raised above the design flood level and depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practic considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to t								
	The Sequential Approach should be applied to the layout of raised.	f the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the int	ernal lay					
	Flood Hazard should be appraised against the proposed de	evelopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.						

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.0%

o be undertaken.

be produced to show how SuDS will be included to manage

in the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be to the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 65ha		Existing Land Use: Greenfie	d		Prop			
lood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zor	ne 3				
ased on the EA's 'Flood Map for Planning'	77.62%	4.05%		18.33%	, D				
Development lifetime	60 years								
Exception Test required?	Development which is classified as 'essential infrastructure' a classified as 'water compatible' or 'less vulnerable'.	elopment which is classified as 'essential infrastructure' and 'more vulnerable' will be subject to the Exception Test. Development classified as 'highly vulnerable' use should not be permitted. Th sified as 'water compatible' or 'less vulnerable'.							
Flood History	Incidents within the site: None.								
	cidents within 100m of the site: Highway flooding. Overtopping of defences during the 1953 tidal flood event.								
Watercourses/Rivers	The River Medway is located 1.3km to the southeast of the s	ite.							
	Bedrock: London Clay Formation (Clay (Undifferentiated) and	d Silt (Undifferentiated))							
Geology	Superficial: Head (Undifferentiated); Alluvium; River Terrace Clay (Undifferentiated) and Silt (Undifferentiated))	Deposits, 1 (Clay (Undif	ferentiated) and Silt (Undifferentiated) and	nd Sand(Undifferentiated) and Grave	el (Undifferentiated); Clay,	Silty Pea			
	Percentage of site	e at risk of flooding from	n tidal sources during the defended so	enario for key return period even	s. Maximum flood level	on site s			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115					
Percentage of site at risk of looding from tidal sources nd surface water, based off	0.0% (0.00m AODN)	7.0% (5.42m AODN) 14.8% (6.03m AO			AODN)				
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site s								
	1 in 200-year return period event	1 in 200-year return period event - 2070 1 in 20		1 in 200-year return pe	riod event - 2115				
apping available from the EA	5.1% (5.03m AODN)	8.6% (5.44m AODN) 14.9% (6.03m AO		AODN)					
		Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' ri	sk scenario					
	2.8%		5.0	%					
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During all modelled scenarios, surface water is shown to flow along the southeast boundary of the site during the 'medium'				rom the centre of the site	towards t			
Existing Flood Defence	The EA's Spatial Flood Defence dataset shows a number of 4.54m to 5.63m AODN and a condition rating of 3.	embankments to the sou	th of the site with crest levels of 5.03m to	5.12m AODN and a condition rating	g of 3. In addition, there ar	e a numl			
nfrastructure (inc. SoP):	Standard of Protection: Unknown								
	BA1.2 Kingsnorth. Maintenance of the current defences (em 0.1% SoP in 100 years taking account of sea level rise.	bankment, seawall and r	ock revetment) for the first 8 years to the	e current SoP offered. Following this	, defences to be raised to	5.3mAC			
IEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS PO	olicy 2038 - 2068					
	HTL Maintain until year 5 and then HTL Su	ustain	-HT	L Sustain					

osed Land Use: Employment Flood Zone 3b 0% Exception Test is not required to be applied for development ty Sandy (Unconsolidated Deposits Classification Scheme); hown in brackets. 1 in 1000-year return period event 6.3% (5.26m AODN) shown in brackets. 1 in 1000-year return period event 8.2% (5.38m AODN) 'Low' risk scenario 15.1% ne southeast boundary of the site. There is localised flooding er of embankments to the east of the site with crest levels of D and then raised again in year 50 to 6.6mAOD to ensure a MEASS Policy 2068 - 2118 HTL Sustain of any development.

1251 - Land to the we	est of Kingsnorth							
Flood Warning Area?	Yes.							
	Percentage of site in each Hazard Ra	ting Classification during the design flood event (2070) (The d	ominant hazard rating on the subject site has been highlighted in	in the				
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating					
	1.0%	1.2%	4.7%					
	The site is located partially in Flood Zones 2 and 3, and is at risk of flooding from surface water. As a result, a detailed FRA, including a comprehensive investigation into surface water flood risk, is required to a surface water flood risk.							
	surface water runoff from the site. The SuDS proforma will		nning practice guidance. All major development will require a SWMS	> to be				
	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity is and any upgrades are carried out where necessary.						
Required Actions / Recommended Mitigation Measures			nt Agency's recommended additional freeboard requirements where p elopment would displace surface water and increase the risk of floodir					
	The Sequential Approach should be applied to the layout of raised.	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal la raised.						
	Flood Hazard should be appraised against the proposed de	evelopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.					
	When developing a scheme, the condition of any adjacent defence upgrades should be shared amongst beneficiaries		to upgrading the defences to maintain, or further, the protection offer	red to				

e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.1%

equired to be undertaken.

be produced to show how SuDS will be included to manage

in the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be to the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 0.35ha		Existing Land Use: Brownfie	d		Proposed Land Use: Residential			
Flood Zone Classification			Flood Zone 2	Flood Zone 3	3	Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	93.16%		6.19%	0.65%		0%			
Development lifetime	100 years	· · ·		1					
Exception Test required?	velopment which has a 'more vulnerable' classification will be subject to the Exception Test.								
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.								
Watercourses/Rivers	The River Medway is 400m to the north of the site.	e River Medway is 400m to the north of the site.							
Geology	Bedrock: Thanet Sand Formation (Sand(Undifferentiated) and Silt (Undifferentiated) and Clay (Undifferentiated)) Superficial: ()								
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.								
Percentage of site at risk of flooding from tidal sources nd surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	0.7% (5.04m AODN)	6.	.8% (5.42m AODN)	96.7% (6.06m AC	DDN)	6.8% (5.37m AODN)			
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period	l event - 2115	1 in 1000-year return period event			
EA	0.0% (0.00m AODN)	6.8% (5.47m AODN)		96.7% (6.05m AC	DDN)	6.8% (5.41m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	0.0%		0.0%		40.6%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario surface water flows across the	site in an easterly direc	tion. The site is not predicted to flood durin	g the 'medium' and 'high' risk scenario.					
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actua condition rating of 2 to 3. Standard of Protection: Unknown	al crest level of 3.67m to	o 4.67m AODN (as stated in the MedwayF	lood Defence High Level Appraisal). T	he EA's Spatial Flood Defe	ence dataset shows crest levels of 3.63m to 5.67m AODN a			
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls	s, flood gates and revetn	nents. This option involves improving the S	oP provided by the defences to 0.5% A	EP SoP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS Policy 2038 - 2068			MEASS Policy 2068 - 2118			
	HTL Sustain		HTI	_ Sustain		HTL Sustain			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing o	defence wall, it is estima	ted to cost in the region of £2,750,000 to u	pgrade the 1.8km of defences in order t	o protect the site for the life	time of any development.			

	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the							
Hazard Rating	'Low' Hazard Rating 'Moderate' Hazard Rating		'Significant' Hazard Rating					
	25.9%	0.0%	24.1%					
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensat The Sequential Approach should be applied to the layout of raised. Flood Hazard should be appraised against the proposed de	flooding from surface water. As a result, a detailed FRA, including lopment where possible, in accordance with the NPPF and its plan be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water a and depth of flooding from surface water, including the Environment tory flood storage, floodable voids) should be provided where developed if the site by locating the most vulnerable elements in the lowest rise evelopment layout to ensure that users and occupants of the site can defences should be taking into account and consideration given the	nning practice guidance. All major development will require a y the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore authority at an early stage to ensure that there will be sufficient at Agency's recommended additional freeboard requirements of elopment would displace surface water and increase the risk of sk areas. The Sequential Approach should also be applied to t	SWMS to be one Medway C at capacity in t where practic of flooding to t he internal lay				

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.6%

o be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 3.23ha		Existing Land Use: Brownfie	ld		Prop			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1	Flood Zone 2		Flood Zor	e 3				
Map for Planning'	7.93%		4.32%	16.27%					
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test. *Although the NKC modelling shows the site to be within the functional floodplai Creek defences. These defences would likely reduce the extent of flooding during a 1in20 year return period event, and further analysis is recommended to determine the true exter use should not be permitted in Flood Zone 3b.								
Flood History	Incidents within the site: Public sewer flooding. Incidents within 100m of the site:. Highway flooding.								
Watercourses/Rivers	The River Medway is 350m to the southeast of the site.								
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Fo Superficial: Head (Undifferentiated); Alluvium (Clay (Undifferentiated);		. , , ,		icheme))				
	Percentage of site	e at risk of flooding fron	n tidal sources during the defended s	cenario for key return period event	s. Maximum flood level or	n site sho			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200 year return period event - 2115					
Percentage of site at risk of	87.8% (5.00m AODN)	92.1% (5.47m AODN) 94.1% (6.10m AODN)							
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site sh								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070 1 in 200-		1 in 200-year return pe	riod event - 2115				
EA	87.8% (5.01m AODN)	92.1	92.1% (5.42m AODN) 94.1% (6.02m AODN)		AODN)				
		Percentage of site	at risk of flooding from surface water	based on the EA's 'Risk of Floodi	ng from Surface Water Ma	ıp'			
	'High' risk scenario		'Medium' risk scenario						
	29.4%		38.6%						
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' risk scenario, surface water accumulates on	the majority of the site. D	During the 'medium' and 'high' risk scenar	ios surface water accumulates in the	centre of the site, which co	uld be att			
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recent 5.17m AODN (as stated in the Medway Flood Defence High Standard of Protection: Unknown	ly been upgraded and no Level Appraisal) and has	w have a crest height of 6.1m AODN. The a condition rating of 2 (Good) to 4 (Pool	he existing defences to the southwes r). EA's Spatial Flood Defence datase	t of Jane's Creek consist of t shows crest levels of 4.04	a wall an m to 4.99			
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gate	es and revetments. This	option involves improving the current SC	P provided by the defences to 1% Al	EP SoP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068					
	HTL Sustain			L Sustain					

osed Land Use: Residential

Flood Zone 3b

71.48% *refer to text below

dy does not take into account the recently completed Jane's bodplain on site. Development classified as 'more vulnerable'

own in brackets.

1 in 1000-year return period event

92.1% (5.42m AODN)

hown in brackets.

1 in 1000-year return period event

91.0% (5.38m AODN)

'Low' risk scenario

78.7%

tributed to a localised depression in the topography.

and high ground with minimum actual crest level of 3.67m to 99m AODN and a condition rating of 2 to 4.

MEASS Policy 2068 - 2118

HTL Sustain

vest of Jane's Creek. Based on an average cost of £2,984/m

1297 - Land bound by	/ Commercial Rd, Knight Rd, Priory Rd and	Smith St						
Flood Warning Area?	Yes.							
	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighted	l in the i				
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating					
	0.7%	0.2%	32.0%					
	required to be undertaken.	lopment where possible, in accordance with the NPPF and its plar	a comprehensive investigation into surface water flood risk and fur nning practice guidance. All major development will require a SWM					
Required Actions /	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding incidents, developers should consult the relevant water a	uthority at an early stage to ensure that there will be sufficient capa	acity in t				
Recommended Mitigation Measures		Floor levels should be raised above the design flood level and depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practic considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to t						
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the inte	ernal lay				
	Flood Hazard should be appraised against the proposed de	evelopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.					
	Where new defences are present which were completed aft	ter the NKC modelling, further analysis should be undertaken to de	termine the extent of Flood Zone 3b on site.					

e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

59.3%

analysis to determine the extent of Flood Zone 3b on site, is be produced to show how SuDS will be included to manage in the wastewater system to accommodate the development sticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

	0 ¹ / ₁ 1 00 70										
	Site Area: 80.76ha		Existing Land Use: Greenfie	d		Proposed Land Use: Residential					
lood Zone Classification ased on the EA's 'Flood	Flood Zone 1	FI	lood Zone 2	Flood Zone	e 3	Flood Zone 3b					
Map for Planning'	92.39%		0.66%	6.95%		0%					
Development lifetime	100 years										
xception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test.										
Flood History	Incidents within the site: None.	idents within the site: None.									
Those mistory	Incidents within 100m of the site: Highway flooding.	cidents within 100m of the site: Highway flooding.									
Watercourses/Rivers	The River Medway is located 1.8km to the southeast of the	The River Medway is located 1.8km to the southeast of the site. In addition, there are numerous ordinary watercourses on site.									
	Bedrock: London Clay Formation (Clay (Undifferentiated) and	drock: London Clay Formation (Clay (Undifferentiated) and Silt (Undifferentiated))									
Geology		uperficial: Head (Undifferentiated); River Terrace Deposits, 2; Alluvium (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated); Clay (Undifferentiated) and Silt (Undifferentiated); Sand and Gravel; Clay, lty Peaty Sandy (Unconsolidated Deposits Classification Scheme))									
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.										
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event					
	0.0% (0.00m AODN)	0.0%	(0.00m AODN)	0.0% (0.00m A	AODN)	0.0% (0.00m AODN)					
ercentage of site at risk of ooding from tidal sources nd surface water, based off napping available from the	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.										
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return per	iod event - 2115	1 in 1000-year return period event					
EA	0.0% (0.00m AODN)	0.0%	(0.00m AODN) 0.0% (0.00m AODN)		AODN)	0.0% (0.00m AODN)					
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'										
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario					
	3.2%		5.5%			11.4%					
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' risk scenario, surface water flows across th northeast boundary.	ne centre of the site in an eas	sterly direction and along the northeas	t border of the site in a southeasterly	direction. During the 'mediu	n' and 'high' risk scenarios the flow path is only present alor					
Existing Flood Defence nfrastructure (inc. SoP):	The EA's Spatial Flood Defence dataset shows a number of Standard of Protection: Unknown	f embankments 1.4km to the	e south of the site with crest levels of 5.	03m to 5.12m AODN and a condition	rating of 3.						
	BA1.3 Hoo. Maintenance (patch and repair) of the current d	lefences (earth embankment	ts and rock revetment) for the first 25 y	ears. After this all maintenance will be	e ceased with the site becom	ing No Active Intevention.					
IEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	licy 2038 - 2068		MEASS Policy 2068 - 2118					
	HTL Maintain with MR		NA	with MR		NAI with MR					
High-Level Indication of Defence Costs	N/A - The site is predicted to remain unaffected by flooding	from the River Medway for the	he lifetime of any development.								
	1										

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	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The de	ominant hazard rating on the subject site has been highlighted	in the r
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.0%	0.0%	0.0%	
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the depth of flooding from Suitable mitigation (i.e. compensatory flood storage, floodabe The Sequential Approach should be applied to the layout of raised.	lopment where possible, in accordance with the NPPF and its plan be required to accompany any SWMS. flooding incidents, developers should consult the relevant water a om surface water, including the Environment Agency's recommende ble voids) should be provided where development would displace s	a comprehensive investigation into surface water flood risk, is requinning practice guidance. All major development will require a SWM uthority at an early stage to ensure that there will be sufficient capated additional freeboard requirements where practicable. Flood resist surface water and increase the risk of flooding to the surrounding ar k areas. The Sequential Approach should also be applied to the international an achieve safe access and egress.	IS to be acity in tl tance an rea.
	The LPA should be consulted prior to the commencement consent.	of any works to obtain consent for any development proposed wit	thin 8m of any ordinary watercourse. Where the watercourse falls	within th

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.0%

o be undertaken.

be produced to show how SuDS will be included to manage in the wastewater system to accommodate the development and resilience measures should be considered for inclusion. layout of buildings, in particular where floor levels cannot be

n the LMIDB area, the LMIDB should be consulted to obtain

	Site Area: 0.72ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zon	e 3	Flood Zone 3b
Map for Planning'	65.36%		20.35%	12.68%		1.61% *refer to text below
Development lifetime	100 years					
Exception Test required?	Development which has a 'more vulnerable' classification w	ill be subject to the Excep	tion Test. Development classified as 'mo	re vulnerable' use should not be pern	nitted in Flood Zone 3b.	
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding.					
Watercourses/Rivers	The River Medway is located 475m to the southeast of the	site.				
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk F Superficial: Head (Undifferentiated) (Clay (Undifferentiated)			<)		
	Percentage of si	te at risk of flooding from	n tidal sources during the defended s	cenario for key return period event	s. Maximum flood level on s	ite shown in brackets.
		1 in 1000-year return period event				
	14.3% (5.00m AODN)	34.6	6% (5.47m AODN)	44.2% (6.10m	1 in 200-year return period event - 2115 1 in 1000-year return period event 44.2% (6.10m AODN) 34.6% (5.42m AODN)	
Percentage of site at risk of	Percentage of site	at risk of flooding from	tidal sources during the undefended	scenario for key return period ever	nts. Maximum flood level on	site shown in brackets.
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return per	riod event - 2115	1 in 1000-year return period event
EA	14.3% (5.01m AODN)	34.6	6% (5.42m AODN)	43.7% (6.02m	AODN)	34.6% (5.38m AODN)
		Percentage of site	at risk of flooding from surface water	based on the EA's 'Risk of Floodii	ng from Surface Water Map'	
	'High' risk scenario		'Medium' n	sk scenario		'Low' risk scenario
	8.3%		14.	8%		45.0%
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During all modelled scenarios, surface water is shown to flo	w across the site in a sou	theasterly direction.			
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recer 5.17m AODN (as stated in the Medway Flood Defence High Standard of Protection: Unknown	ntly been upgraded and no n Level Appraisal) and has	w have a crest height of 6.1m AODN. T a condition rating of 2 (Good) to 4 (Poo	ne existing defences to the southwes). EA's Spatial Flood Defence datase	t of Jane's Creek consist of a t shows crest levels of 4.04m	wall and high ground with minimum actual crest level of 3.67m to 4.99m AODN and a condition rating of 2 to 4.
	BA2.1 Strood. Raise (sustain) embankments,walls, flood ga	tes and revetments. This	option involves improving the current SC	P provided by the defences to 1% A	EP SoP with sea level rise.	
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118
	HTL Sustain		HT	L Sustain		HTL Sustain
High-Level Indication of Defence Costs	The Jane's Creek defences have recently been upgraded to to construct a defence wall, it is estimated to cost in the reg	improve the standard of p ion of £2,540,000 to upgra	protection. Notwithstanding this, further in ade the 850m of defences in order to pro	provements should be considered to ect the site for the lifetime of any dev	improve the defences to the s elopment.	southwest of Jane's Creek. Based on an average cost of £2,984
Flood Warning Area?	Yes.					

	Percentage of site in each Hazard Ratin	ng Classification during the design flood event (2115) (The do	minant hazard rating on the subject site has been highlighted in the
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating
	4.0%	0.7%	32.6%
		pment where possible, in accordance with the NPPF and its plan	ning practice guidance. All major development will require a SWMS to b the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medway
Required Actions / Recommended Mitigation Measures	and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, inc (i.e. compensatory flood storage, floodable voids) should be	luding the Environment Agency's recommended additional freeboa provided where development would displace surface water and in	
Recommended Mitigation	and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, inc (i.e. compensatory flood storage, floodable voids) should be	luding the Environment Agency's recommended additional freeboa provided where development would displace surface water and in	ard requirements where practicable. Flood resistance and resilience meas
Recommended Mitigation	and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, inc (i.e. compensatory flood storage, floodable voids) should be The Sequential Approach should be applied to the layout of t buildings, in particular where floor levels cannot be raised.	luding the Environment Agency's recommended additional freeboa provided where development would displace surface water and in	ard requirements where practicable. Flood resistance and resilience meas crease the risk of flooding to the surrounding area. creas, and avoiding develpoment within Flood Zone 3b*. The Sequenti

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.3%

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

asures should be considered for inclusion. Suitable mitigation

tial Approach should also be applied to the internal layout of

	Site Area: 4.66ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b
based on the EA's 'Flood Map for Planning'	6.14%		6.47%	69.53%		17.86%
Development lifetime	100 years					
Exception Test required?	Development classified as 'more vulnerable' use should not	be permitted**.				
Flood History	Incidents within the site: Public sewer flooding. Public sewer Incidents within 100m of the site: None.	r flooding related to capa	city issues with nearby pump.			
Watercourses/Rivers	The River Medway is located 250m to the north of the site.					
Geology	Bedrock: Thanet Sand Formation (Sand(Undifferentiated) and Superficial: Beach and Tidal Flat Deposits (Undifferentiated	· · · · · · · · · · · · · · · · · · ·	• • • • • • • •	Sand(Undifferentiated); Clay, Silty Peaty Sar	ndy (Unconsolidated D	eposits Classification Scheme))
	Percentage of sit	te at risk of flooding from	m tidal sources during the defended s	cenario for key return period events. Max	mum flood level on s	ite shown in brackets.
	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	urn period event - 2070 1 in 200-year return period event - 2115		1 in 1000-year return period event
	85.6% (5.04m AODN)	94.	1% (5.43m AODN)	98.3% (6.05m AODN)	5m AODN) 93.0% (5.38m AODN)	
ercentage of site at risk of	Percentage of site	at risk of flooding from	tidal sources during the undefended	scenario for key return period events. Ma	ximum flood level on	site shown in brackets.
ooding from tidal sources nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period eve	ent - 2115	1 in 1000 year return period event
EA	87.4% (4.99m AODN)	95.	2% (5.46m AODN)	98.3% (6.05m AODN)	93.9% (5.41m AODN)
		Percentage of site	e at risk of flooding from surface wate	based on the EA's 'Risk of Flooding fron	n Surface Water Map'	
	'High' risk scenario		'Medium' r	sk scenario		'Low' risk scenario
	19.4%		33	0%		62.8%
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During all modelled scenarios, surface water is shown to flo	w across the site in a nor	therly direction.			
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of high ground and a wall with 5.59m AODN and a condition rating of 2 to 4. Standard of Protection: Unknown	n minimum actual crest le	vel of 3.67m to 4.67m AODN (as stated i	the Medway Flood Defence High Level App	oraisal). The EA's Spat	al Flood Defence dataset shows effective crest levels of 4.00
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls	s, flood gates and revetm	ents. This option involves improving the	SoP provided by the defences to 0.5% AEP \$	SoP with sea level rise.	
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS F	olicy 2038 - 2068		MEASS Policy 2068 - 2118
	HTL Sustain		н	L Sustain		HTL Sustain
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing o	defence wall, it is estimate	ed to cost in the region of £2,750,000 to	pgrade the 1.8km of defences in order to pr	btect the site for the life	time of any development.

	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighted	d in the r			
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating				
	0.3%	0.1%	69.0%				
	The site is located in Flood Zone 3B (i.e. the functional flood	Iplain) and therefore, 'more vulnerable' development should not be	e permitted.				
	**The site is currently 'brownfield' and in accordance with Pa be identified as functional floodplain.	aragraph 015 of NPPG: Flood and Coastal Change is an area preve	ented from acting as a functional floodplain by existing defences an	id infrastr			
	Therefore, if a development proposal is progressed for this site, a detailed FRA, including a comprehensive investigation into surface water flood risk, is required to be undertaken.						
			nning practice guidance. All major development will require a SWN v the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M				
Required Actions / Recommended Mitigation Measures	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding incidents, developers should consult the relevant water a	uthority at an early stage to ensure that there will be sufficient cap	acity in t			
			t Agency's recommended additional freeboard requirements where elopment would displace surface water and increase the risk of floo				
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the int	ternal lay			
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.				
	When developing a scheme, the condition of any adjacent defence upgrades should be shared amongst beneficiaries.	defences should be taking into account and consideration given t	o upgrading the defences to maintain, or further, the protection of	fered to f			

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e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

27.6%

astructure or solid buildings and would therefore not normally

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

ayout of buildings, in particular where floor levels cannot be

	Site Area: 0.31ha		Existing Land Use: Brownfi	eld		Proposed Land Use: Residential
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone	3	Flood Zone 3b
based on the EA's 'Flood Map for Planning'	0%		1.06%	98.94%		0%
Development lifetime	100 years					
Exception Test required?	Development which has a 'more vulnerable' classification wi	Il be subject to the Excep	tion Test.			
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.					
Watercourses/Rivers	The River Medway is located adjacent to the site.					
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidat	ed Deposits Classification	n Scheme))			
	Percentage of sit	e at risk of flooding fror	n tidal sources during the defended s	cenario for key return period events.	. Maximum flood level on s	ite shown in brackets.
	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return perio	od event - 2115	1 in 1000-year return period event
	98.9% (5.07m AODN)	100	0% (5.46m AODN)	100.0% (6.11m /	AODN)	100.0% (5.41m AODN)
ercentage of site at risk of	Percentage of site	at risk of flooding from	tidal sources during the undefended	scenario for key return period event	s. Maximum flood level on	site shown in brackets.
ooding from tidal sources nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return perio	od event - 2115	1 in 1000-year return period event
EA	98.9% (5.01m AODN)	100.	0% (5.47m AODN)	100.0% (6.07m /	AODN)	100.0% (5.41m AODN)
		Percentage of site	at risk of flooding from surface wate	r based on the EA's 'Risk of Flooding	g from Surface Water Map'	
	'High' risk scenario		'Medium'	isk scenario		'Low' risk scenario
	0.0%		1	7%		49.5%
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario, floodwater flows across the we	estern half of the site in a	northerly direction. The site is not predi	cted to flood from surface water during t	the 'medium' and 'high' risk s	cenarios.
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of high ground with minimum levels of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	actual crest level of 4.60r	n to 5.17m AODN (as stated in the Med	vayFlood Defence High Level Appraisal) and has a condition rating	of 2 (Good). The EA's Spatial Flood Defence dataset shows
	BA2.2 Rochester. Raise (sustain) embankments, walls, floor The rest of the Benefit Area will have a No Active Intevention	d gates, and revetments in n Approach.	n localised areas. Localised raising of th	e defences to protect properties and as	sets at risk of flooding around	Rochester and Chatham against a 0.1% AEP with sea level
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS	Policy 2038 - 2068		MEASS Policy 2068 - 2118
	HTL Sustain with localised NAI		HTL Sustai	n with localised NAI		HTL Sustain with localised NAI
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing of	lefence wall, it is estimate	ed to cost in the region of £610,000 to u	ograde the 400m of defences in order to	protect the site for the lifetin	ne of any development.
Flood Warning Area?	Yes.					

	Percentage of site in each Hazard Rati	ng Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighte	d in the
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.0%	0.0%	96.9%	
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the development from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer frand any upgrades are carried out where necessary. Floor levels should be raised above the design flood level ar considered for inclusion. Suitable mitigation (i.e. compensate The Sequential Approach should be applied to the layout of traised. Flood Hazard should be appraised against the proposed development.	oppment where possible, in accordance with the NPPF and its plar e required to accompany any SWMS. The site is also identifed by looding incidents, developers should consult the relevant water a and depth of flooding from surface water, including the Environment ory flood storage, floodable voids) should be provided where developed the site by locating the most vulnerable elements in the lowest rist relopment layout to ensure that users and occupants of the site ca	a comprehensive investigation into surface water flood risk, is recomming practice guidance. All major development will require a SW the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore I uthority at an early stage to ensure that there will be sufficient can tagency's recommended additional freeboard requirements whe elopment would displace surface water and increase the risk of flok areas. The Sequential Approach should also be applied to the in an achieve safe access and egress.	/MS to be Medway (pacity in re practic oding to t nternal la

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

3.1%

o be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 0.41ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b
Map for Planning'	14.2%		16.47%	69.33%		0%
Development lifetime	100 years					
Exception Test required?	Development which has a 'more vulnerable' classification w	ill be subject to the Exce	ption Test.			
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.					
Watercourses/Rivers	The River Medway is located adjacent to the site.					
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolida	ted Deposits Classificatio	on Scheme))			
	Percentage of si	te at risk of flooding fro	om tidal sources during the defended s	cenario for key return period events. Maxi	mum flood level on si	ite shown in brackets.
	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event
	67.4% (5.07m AODN)	83	.8% (5.46m AODN)	96.3% (6.11m AODN)		83.8% (5.41m AODN)
ercentage of site at risk of	Percentage of site	at risk of flooding from	n tidal sources during the undefended	scenario for key return period events. Max	timum flood level on a	site shown in brackets.
looding from tidal sources nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period eve	nt - 2115	1 in 1000-year return period event
EA	68.4% (5.01m AODN)	85	.7% (5.47m AODN)	98.5% (6.07m AODN)		85.7% (5.41m AODN)
		Percentage of sit	e at risk of flooding from surface wate	based on the EA's 'Risk of Flooding from	Surface Water Map'	
	'High' risk scenario		'Medium' r	sk scenario		'Low' risk scenario
	0.0%		65	2%		77.9%
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenarios, surface water	is shown to flow across t	he majority of the site in a northwesterly o	rection. The site is not predicted to flood fror	n surface water during	the 'high' risk scenario.
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of high ground with minimum levels of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown		m to 5.17m AODN (as stated in the Medv	ayFlood Defence High Level Appraisal) and	has a condition rating o	of 2 (Good). The EA's Spatial Flood Defence dataset shows o
	BA2.2 Rochester. Raise (sustain) embankments, walls, floo The rest of the Benefit Area will have a No Active Intevention		in localised areas. Localised raising of the	defences to protect properties and assets at	risk of flooding around	Rochester and Chatham against a 0.1% AEP with sea level
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS F	blicy 2038 - 2068		MEASS Policy 2068 - 2118
	HTL Sustain with localised NAI		HTL Sustai	with localised NAI		HTL Sustain with localised NAI
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing	defence wall, it is estimat	ted to cost in the region of £610,000 to up	grade the 400m of defences in order to prote	ct the site for the lifetim	ne of any development.

	Percentage of site in each Hazard Ratin	g Classification during the design flood event (2115) (The domina	ant hazard rating on the subject site has been highlig	hted in the
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	4.7%	4.9%	47.0%	
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the develop surface water runoff from the site. The SuDS proforma will be be completed for non major development proposals. For major developments, or where there are historic sewer flo and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level and considered for inclusion. Suitable mitigation (i.e. compensator	boding from surface water. As a result, a detailed FRA, including a com- orment where possible, in accordance with the NPPF and its planning required to accompany any SWMS. The site is also identifed by the L boding incidents, developers should consult the relevant water authori d depth of flooding from surface water, including the Environment Age by flood storage, floodable voids) should be provided where development he site by locating the most vulnerable elements in the lowest risk area	practice guidance. All major development will require a s evel 1 SFRA as a 'Sensitive Drainage Area' and therefor ty at an early stage to ensure that there will be sufficient ncy's recommended additional freeboard requirements w ent would displace surface water and increase the risk of	SWMS to be re Medway (capacity in /here practic flooding to

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

30.1%

o be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

the site.

	Site Area: 0.53ha		Existing Land Use: Brownfie	ald		Proposed Land Use: Residential
			-			•
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b
Map for Planning'	0%		26.35%	73.65%		0%
Development lifetime	100 years					
Exception Test required?	Development which has a 'more vulnerable' classification w	ill be subject to the Exce	ption Test.			
Flood History	Incidents within the site: None. Incidents within 100m of the site:					
Watercourses/Rivers	The River Medway is located 575m to the northwest of the	site.				
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated)	and Silt (Undifferentiate	d) and Sand(Undifferentiated) and Grave	(Undifferentiated))		
	Percentage of si	te at risk of flooding fro	om tidal sources during the defended s	cenario for key return period events. Ma	ximum flood level on s	ite shown in brackets.
	1 in 200-year return period event		1 in 1000-year return period event			
	69.0% (4.48m AODN)	10	0.0% (5.46m AODN)	1 in 200-year return period event - 2115 1 in 1000-year return period event 100.0% (6.12m AODN) 100.0% (5.40m AODN)		
ercentage of site at risk of	Percentage of site	e at risk of flooding from	n tidal sources during the undefended	scenario for key return period events. M	laximum flood level on	site shown in brackets.
ooding from tidal sources nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-ye	ear return period event - 2070	1 in 200-year return period e	vent - 2115	1 in 1000-year return period event
EA	61.8% (4.43m AODN)	100	0.0% (5.46m AODN)	100.0% (6.07m AOD	N)	100.0% (5.39m AODN)
		Percentage of sit	te at risk of flooding from surface wate	based on the EA's 'Risk of Flooding fro	om Surface Water Map'	
	'High' risk scenario		'Medium' r	isk scenario		'Low' risk scenario
	17.8%		47	5%		100.0%
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' risk scenario, surface water is shown to flow site, which could be attributed to localised depressions in the		a northwesterly direction, and during the	'medium' risk scenario in the same direction	n to a lesser extent. Duri	ng the 'high' risk scenario, there is only localised accumulatio
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of high ground with minimum levels of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown		7m to 5.17m AODN (as stated in the Medv	ayFlood Defence High Level Appraisal)ar	nd has a condition rating	of 2 (Good). The EA's Spatial Flood Defence dataset shows
	BA2.2 Rochester. Raise (sustain) embankments, walls, floo The rest of the Benefit Area will have a No Active Inteventio		in localised areas. Localised raising of the	e defences to protect properties and assets	at risk of flooding around	Rochester and Chatham against a 0.1% AEP with sea leve
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS F	olicy 2038 - 2068		MEASS Policy 2068 - 2118
	HTL Sustain with localised NAI		HTL Sustain	with localised NAI		HTL Sustain with localised NAI
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing	defence wall, it is estima	ted to cost in the region of £610,000 to up	grade the 400m of defences in order to pro	tect the site for the lifetin	ne of any development.

	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The do	ominant hazard rating on the subject site has been highlighted	in the r
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.0%	0.0%	75.9%	
	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will	opment where possible, in accordance with the NPPF and its plan	a comprehensive investigation into surface water flood risk, is requining practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Me	IS to be
	be completed for non major development proposals.			
Required Actions / Recommended Mitigation		flooding incidents, developers should consult the relevant water a	uthority at an early stage to ensure that there will be sufficient capa	acity in t
Required Actions / Recommended Mitigation Measures	For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a	nd depth of flooding from surface water, including the Environment	uthority at an early stage to ensure that there will be sufficient capa t Agency's recommended additional freeboard requirements where lopment would displace surface water and increase the risk of floor	e practica
Recommended Mitigation	For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensat	nd depth of flooding from surface water, including the Environmentory flood storage, floodable voids) should be provided where deve	t Agency's recommended additional freeboard requirements where	e practica ding to th

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

24.1%

o be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

1312 - Pumping Statio	on, The Brook, Chatham					
	Site Area: 0.2ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b
based on the EA's 'Flood Map for Planning'	56.06%		23.06%	20.88%		0%
Development lifetime	100 years					
Exception Test required?	Development which has a 'more vulnerable' classification wi	Il be subject to the Excep	ption Test.			
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.					
Watercourses/Rivers	The River Medway is located 500m to the northwest of the s	ite.				
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated)	and Silt (Undifferentiated	d) and Sand(Undifferentiated) and Gravel	(Undifferentiated))		
	Percentage of sit	e at risk of flooding fro	m tidal sources during the defended s	cenario for key return period events. I	laximum flood level on s	ite shown in brackets.
		1 in 1000-year return period event				
	9.2% (4.48m AODN)	47.	.2% (5.46m AODN)	60.2% (6.12m AC		
ercentage of site at risk of	Percentage of site	at risk of flooding from	n tidal sources during the undefended	scenario for key return period events.	Maximum flood level on	site shown in brackets.
ooding from tidal sources nd surface water, based off napping available from the	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period	event - 2115	1 in 1000-year return period event
EA	7.9% (4.43m AODN)	47.	.2% (5.46m AODN)	60.2% (6.07m AC	DN)	43.4% (5.39m AODN)
		Percentage of site	e at risk of flooding from surface water	based on the EA's 'Risk of Flooding	from Surface Water Map'	
	'High' risk scenario		'Medium' r	sk scenario		'Low' risk scenario
	0.0%		18	8%		39.7%
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenarios surface water is	shown to flow along par	rt of the southwest site boundary in a nor	h-easterly direction. The site is not predi	cted to flood from surface v	water during the 'high' risk scenario.
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of high ground with minimum levels of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	actual crest level of 4.67	m to 5.17m AODN (as stated in the Medw	ayFlood Defence High Level Appraisal)	and has a condition rating	of 2 (Good). The EA's Spatial Flood Defence dataset shows o
	BA2.2 Rochester. Raise (sustain) embankments, walls, floor The rest of the Benefit Area will have a No Active Inteventio		in localised areas. Localised raising of the	defences to protect properties and asse	ts at risk of flooding around	d Rochester and Chatham against a 0.1% AEP with sea level
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118
	HTL Sustain with localised NAI		HTL Sustair	with localised NAI		HTL Sustain with localised NAI
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing o	lefence wall, it is estimate	ed to cost in the region of £610,000 to up	grade the 400m of defences in order to p	rotect the site for the lifetir	ne of any development.
Flood Warning Area?	Yes.					

Medway Council Level 2 Strategic Flood Risk Assessment

	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The do	minant hazard rating on the subject site has been highlighte	d in the r
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.5%	3.8%	37.9%	
	The site is located in Flood Zones 2 and 3, and is at risk of f	flooding from surface water. As a result, a detailed FRA, including a	a comprehensive investigation into surface water flood risk, is req	ired to be
	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals.	opment where possible, in accordance with the NPPF and its plan be required to accompany any SWMS. The site is also identifed by	ning practice guidance. All major development will require a SWI the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore N	/IS to be ledway C
Required Actions / Recommended Mitigation	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals.		ning practice guidance. All major development will require a SWI the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore N	/IS to be ledway C
•	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a	be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water at nd depth of flooding from surface water, including the Environment tory flood storage, floodable voids) should be provided where devel	ning practice guidance. All major development will require a SWI the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore N uthority at an early stage to ensure that there will be sufficient cap Agency's recommended additional freeboard requirements wher	AS to be ledway C bacity in the practica

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e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

6.8%

o be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be to the surrounding area. The Sequential Approach should be
	Site Area: 0.46ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential
Flood Zone Classification	Flood Zone 1	I	Flood Zone 2	Flood Zone 3		Flood Zone 3b
based on the EA's 'Flood Map for Planning'	0%		36.54%	63.46%		0%
Development lifetime	100 years					
Exception Test required?	Development which has a 'more vulnerable' classification w	ill be subject to the Exce	eption Test.			
Flood History	Incidents within the site: Public sewer flooding. Incidents within 100m of the site:					
Watercourses/Rivers	The River Medway is located 700m to the northwest of the	site.				
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated)	and Silt (Undifferentiate	ed) and Sand(Undifferentiated) and Gravel	(Undifferentiated))		
	Percentage of si	te at risk of flooding fro	om tidal sources during the defended s	cenario for key return period events. N	laximum flood level on s	ite shown in brackets.
	1 in 200-year return period event	1 in 200-ye	ear return period event - 2070	1 in 200-year return period	event - 2115	1 in 1000-year return period event
	53.3% (4.48m AODN)	10	0.0% (5.47m AODN)	100.0% (6.12m AC	DDN)	100.0% (5.40m AODN)
ercentage of site at risk of ooding from tidal sources	Percentage of site	at risk of flooding from	m tidal sources during the undefended	scenario for key return period events.	Maximum flood level on	site shown in brackets.
ad surface water, based off apping available from the	1 in 200-year return period event	1 in 200-ye	ear return period event - 2070	1 in 200-year return period	event - 2115	1 in 1000-year return period event
EA	43.5% (4.43m AODN)	10	0.0% (5.46m AODN)	100.0% (6.07m AC	DDN)	100.0% (5.40m AODN)
		Percentage of sit	te at risk of flooding from surface water	based on the EA's 'Risk of Flooding f	rom Surface Water Map'	
	'High' risk scenario		'Medium' n	sk scenario		'Low' risk scenario
	19.2%		39.	7%		100.0%
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario, surface water is shown to flow site, which could be attributed to localised depressions in the		n a northwesterly direction, and during the	medium' risk scenario in the same directi	ion to a lesser extent. Duri	ng the 'high' risk scenario, there is only localised accumulation
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of high ground with minimum levels of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: -Unknown	actual crest level of 4.67	7m to 5.17m AODN (as stated in the Medw	ayFlood Defence High Level Appraisal)	and has a condition rating	of 2 (Good). The EA's Spatial Flood Defence dataset shows
	BA2.2 Rochester.Raise (sustain) embankments, walls, floor The rest of the Benefit Area will have a No Active Intevention		in localised areas. Localised raising of the	defences to protect properties and asset	s at risk of flooding around	Rochester and Chatham against a 0.1% AEP with sea leve
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	blicy 2038 - 2068		MEASS Policy 2068 - 2118
	HTL Sustain with localised NAI		HTL Sustair	with localised NAI		HTL Sustain with localised NAI
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing	defence wall, it is estima	ted to cost in the region of £610,000 to up	grade the 400m of defences in order to p	rotect the site for the lifetin	ne of any development.

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	Percentage of site in each Hazard Rat	ng Classification during the design flood event (2115) (The do	ominant hazard rating on the subject site has been highlighted	in the
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.0%	0.0%	83.7%	
	SuDS should be considered to be included within the devel	.	a comprehensive investigation into surface water flood risk, is requining practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Me	IS to be
	be completed for non major development proposals.		, and the second s	
Required Actions / Recommended Mitigation		looding incidents, developers should consult the relevant water a	uthority at an early stage to ensure that there will be sufficient capa	
•	For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a	nd depth of flooding from surface water, including the Environmen	, and the second s	acity in t
Recommended Mitigation	For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensat	nd depth of flooding from surface water, including the Environmen ory flood storage, floodable voids) should be provided where deve	uthority at an early stage to ensure that there will be sufficient capa t Agency's recommended additional freeboard requirements where	acity in t practic ding to t

ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

16.3%

o be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be to the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 0.48ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone	9 3	Flood Zone 3b
based on the EA's 'Flood Map for Planning'	97.2%		1.57%	1.23%		0%
Development lifetime	100 years					
Exception Test required?	Development which has a 'more vulnerable' classification wil	l be subject to the Excep	tion Test.			
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.					
Watercourses/Rivers	The River Medway is located 650m to the southeast of the s	te.				
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk For Superficial: Head (Undifferentiated) (Clay (Undifferentiated) a		. , , ,	<)		
	Percentage of site	e at risk of flooding from	n tidal sources during the defended s	cenario for key return period events	. Maximum flood level on s	ite shown in brackets.
	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return peri	od event - 2115	1 in 1000-year return period event
	1.2% (4.99m AODN)	2.8	% (5.47m AODN)	7.0% (6.10m A	ODN)	2.8% (5.42m AODN)
rcentage of site at risk of	Percentage of site	at risk of flooding from	tidal sources during the undefended	scenario for key return period even	ts. Maximum flood level on	site shown in brackets.
ooding from tidal sources d surface water, based off apping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return peri	od event - 2115	1 in 1000-year return period event
EA	1.2% (5.01m AODN)	2.8	% (5.42m AODN)	5.0% (6.02m A	ODN)	2.8% (5.37m AODN)
		Percentage of site	at risk of flooding from surface water	based on the EA's 'Risk of Floodin	g from Surface Water Map'	
	'High' risk scenario		'Medium' r	sk scenario		'Low' risk scenario
	2.3%		5.	\$%		19.3%
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenarios, surface water fl	ows along the eastern bo	oundary of the site in a southeasterly dire	ction. The site is not predicted to flood	I from surface water during th	e 'high' risk scenario.
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recent AODN (as stated in the MedwayFlood Defence High Level A Standard of Protection: Unknown	y been upgraded and no ppraisal) and has a cone	w have a crest height of 6.1m AODN. Th dition rating of 2 (Good) to 4 (Poor). EA's	e existing defences to the south of Jar Spatial Flood Defence dataset shows	ne's Creek consist of a wall ar crest levels of 4.04m to 4.99	nd high ground with minimum actual crest level of 3.67m to m AODN and a condition rating of 2 to 4.
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gat	es and revetments. This	option involves improving the current SC	P provided by the defences to 1% AE	P SoP with sea level rise.	
IEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118
	HTL Sustain		Н	L Sustain		HTL Sustain
High-Level Indication of Defence Costs	N/A - The site is predicted to remain unaffected by flooding f	rom the River Medway fo	r the lifetime of any development.			
Flood Warning Area?	Yes.					

Medway Council Level 2 Strategic Flood Risk Assessment

	Percentage of site in each Hazard Rati	ng Classification during the design flood event (2115) (The do	ominant hazard rating on the subject site has been highlig	ted in the i
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	2.2%	0.0%	2.8%	
	The site is located partially within Flood Zones 2 and 3, and	is at risk of flooding from surface water. As a result, a detailed FR	A including a comprehensive investigation into surface water f	ood risk is
		opment where possible, in accordance with the NPPF and its plan required to accompany any SWMS. The site is also identifed by	ning practice guidance. All major development will require a S	WMS to be
Required Actions / Recommended Mitigation	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals.		ning practice guidance. All major development will require a S the Level 1 SFRA as a 'Sensitive Drainage Area' and therefor	WMS to be Medway C
Required Actions / Recommended Mitigation Measures	 surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level and another ano	e required to accompany any SWMS. The site is also identifed by	ining practice guidance. All major development will require a S the Level 1 SFRA as a 'Sensitive Drainage Area' and therefor uthority at an early stage to ensure that there will be sufficient t Agency's recommended additional freeboard requirements w	WMS to be Medway C capacity in t
Recommended Mitigation	 surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level are considered for inclusion. Suitable mitigation (i.e. compensate) 	e required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water and nd depth of flooding from surface water, including the Environment	ining practice guidance. All major development will require a S the Level 1 SFRA as a 'Sensitive Drainage Area' and therefor uthority at an early stage to ensure that there will be sufficient t Agency's recommended additional freeboard requirements w lopment would displace surface water and increase the risk of	WMS to be Medway C capacity in t ere practic looding to t

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e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

0.0%

is required to be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 0.87ha		Existing Land Use: Brownfie	ld		Prop		
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone :	3			
Map for Planning'	0.1%		0%	1.13%				
Development lifetime	100 years							
Exception Test required?	Development which has a 'more vulnerable' classification wi Riverside and Jane's Creek defences. These defences wou classified as 'more vulnerable' use should not be permitted in	uld likely reduce the exte						
Flood History	Incidents within the site: None. Incidents within 100m of the site: Sewer flooding.							
Watercourses/Rivers	The River Medway is located 275m to the southeast of the s	ite.						
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk For Superficial: Head (Undifferentiated); Alluvium (Clay (Undiffer			,	eme))			
	Percentage of site	e at risk of flooding from	n tidal sources during the defended so	cenario for key return period events.	Maximum flood level on	site sh		
	1 in 200-year return period event	1 in 200-year return period event - 2070 1		1 in 200-year return period event - 2115				
	99.9% (5.00m AODN)	99.9% (5.47m AODN) 100.0% (6.12m AODN)			ODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site s							
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period	d event - 2115			
EA	99.9% (5.02m AODN)	99.9% (5.43m AODN)		100.0% (6.05m A	ODN)			
		Percentage of site	at risk of flooding from surface water	based on the EA's 'Risk of Flooding	from Surface Water Map	o'		
	'High' risk scenario		'Medium' ri	sk scenario				
	18.6%		73.	9%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' and 'medium' risk scenarios, surface water is attributed to localised depressions in the topography.	s shown to accumulate a	cross the majority of the site. During the	'high' risk scenario, surface water accu	mulates in the southeast	part of t		
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recent AODN (as stated in the MedwayFlood Defence High Level A Standard of Protection: Unknown	ly been upgraded and no oppraisal) and has a cono	w have a crest height of 6.1m AODN. Th dition rating of 2 (Good). The EA's Spatia	e existing defences between Jane's Cru I Flood Defence dataset shows crest le	eek and Strood Riverside vels of 4.49m to 5.11m an	consist o d a cono		
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gat	tes and revetments. This	option involves improving the current SO	P provided by the defences to 1% AEP	SoP with sea level rise.			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068				
	HTL Sustain		HT	L Sustain				
High-Level Indication of	The Strood Riverside and Jane's Creek defences have rece	antly been ungraded to in	normer the standard of protection Natur	thatanding this further improvements	hould be considered to in			

oosed Land Use: Residential

Flood Zone 3b

98.77% *refer to text below

dy does not take into account the recently completed Strood rue extent of the functional floodplain on site. Development

hown in brackets.

1 in 1000-year return period event

99.9% (5.43m AODN)

shown in brackets.

1 in 1000-year return period event

99.9% (5.38m AODN)

'Low' risk scenario

99.7%

the site only. The accumulation of surface water is could be

t of a wall with minimum actual crest level of 4.17m to 4.67m ndition rating of 2.

MEASS Policy 2068 - 2118

HTL Sustain

the defences between Strood Riverside and Jane's Creek. any development.

Flood Warning Area?	Yes.			
	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The do	ominant hazard rating on the subject site has been highlighted	in the i
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.0%	0.0%	1.4%	
	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer	lopment where possible, in accordance with the NPPF and its plan be required to accompany any SWMS. The site is also identifed by	a comprehensive investigation into surface water flood risk, is required a comprehensive investigation into surface water flood risk, is required printing practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Maturnary at an early stage to ensure that there will be sufficient capacity.	IS to be edway C
	and any upgrades are carried out where necessary.			
Required Actions / Recommended Mitigation Measures	Floor levels should be raised above the design flood level a		t Agency's recommended additional freeboard requirements where lopment would displace surface water and increase the risk of floor	
Recommended Mitigation	Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensat	tory flood storage, floodable voids) should be provided where deve		ding to th
Recommended Mitigation	Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensate The Sequential Approach should be applied to the layout of raised.	tory flood storage, floodable voids) should be provided where deve	lopment would displace surface water and increase the risk of flood k areas. The Sequential Approach should also be applied to the int	ding to th

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ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

98.6%

to be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 1.76ha		Existing Land Use: Brownfie	ld		Propo	
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zone 3			
based on the EA's 'Flood Map for Planning'	1.4%		2.96%	4.22%			
Development lifetime	100 years						
Exception Test required?	Development which has a 'more vulnerable' classification wi Riverside and Jane's Creek defences. These defences wou classified as 'more vulnerable' use should not be permitted ir	Id likely reduce the exte	ption Test. *Although the NKC modelling nt of flooding during a 1in20 year return	shows the site to be within the functional period event, and further analysis is reco	floodplain, the modelling ommended to determine	g study the true	
Flood History	Incidents within the site: None. Incidents within 100m of the site: External flooding of areas a External flooding in yard.	around and adjacent to V	Vatermill Wharf, caused by a small bread	ch in the flood defences at Watermill Whar	f. Re-occurring flooding	followin	
Watercourses/Rivers	The River Medway is located 75m to the southeast of the site	9.					
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Fo Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidate			k)			
	Percentage of site	e at risk of flooding from	n tidal sources during the defended so	cenario for key return period events. Ma	ximum flood level on s	site sho	
	1 in 200 year return period event	1 in 200 year return period event - 2070 1 in 200-year retu		1 in 200-year return period e	vent - 2115		
	95.5% (5.05m AODN)	99.0% (5.48m AODN) 99.2% (6.12m AODN)			N)		
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site sh						
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period e	vent - 2115		
EA	95.4% (5.02m AODN)	98.6% (5.46m AODN) 99.1% (6.		99.1% (6.05m AOD	N)		
		Percentage of site	at risk of flooding from surface water	based on the EA's 'Risk of Flooding fro	om Surface Water Map'	,	
	'High' risk scenario		'Medium' ri	sk scenario			
	1.2%		3.(5%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	There are localised areas of surface water accumulation acro	oss the site, during all thr	ee modelled scenarios. The accumulatio	n of surface water could be attributed to lo	calised depressions in th	ne topog	
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recentl AODN (as stated in the MedwayFlood Defence High Level A Standard of Protection: Unknown	ly been upgraded and no ppraisal) and has a conc	w have a crest height of 6.1m AODN. Th dition rating of 2 (Good). The EA's Spatia	e existing defences between Jane's Creek I Flood Defence dataset shows crest level	and Strood Riverside c s of 4.49m to 5.11m and	onsist o a condi	
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gate	es and revetments. This	option involves improving the current SC	P provided by the defences to 1% AEP Sc	P with sea level rise.		
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068			
	HTL Sustain		НТ	L Sustain			
			1				

oosed Land Use: Residential

Flood Zone 3b

91.42% *refer to text below

ly does not take into account the recently completed Strood rue extent of the functional floodplain on site. Development

ving heavy rainfall due to highway drainage and tide locking.

hown in brackets.

1 in 1000-year return period event

98.5% (5.43m AODN)

shown in brackets.

1 in 1000-year return period event

98.6% (5.41m AODN)

'Low' risk scenario

21.1%

ography and surface water backing up on site.

t of a wall with minimum actual crest level of 4.17m to 4.67m ndition rating of 2.

MEASS Policy 2068 - 2118

HTL Sustain

the defences between Strood Riverside and Jane's Creek. any development.

Flood Warning Area?	Yes.			
	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighted	in the r
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.4%	0.7%	11.6%	
	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be	lopment where possible, in accordance with the NPPF and its plan be required to accompany any SWMS.	a comprehensive investigation into surface water flood risk, is requi nning practice guidance. All major development will require a SWM authority at an early stage to ensure that there will be sufficient capa	S to be
Required Actions / Recommended Mitigation Measures	Floor levels should be raised above the design flood level a		nt Agency's recommended additional freeboard requirements where elopment would displace surface water and increase the risk of flood	
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	sk areas. The Sequential Approach should also be applied to the inte	ərnal lay
	Flood Hazard should be appraised against the proposed de	evelopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.	
	When developing a scheme, the condition of any adjacent	defences should be taking into account and consideration given t	to upgrading the defences to maintain, or further, the protection offe	ered to

e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

85.5%

o be undertaken.

be produced to show how SuDS will be included to manage

the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be to the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 0.59ha		Existing Land Use: Brownfie	ld		Propo		
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zo	ne 3			
Map for Planning'	4.3%		9.7%	21.469	%			
Development lifetime	100 years							
Exception Test required?	Development which has a 'more vulnerable' classification wi Riverside and Jane's Creek defences. These defences wou classified as 'more vulnerable' use should not be permitted in	Id likely reduce the exte						
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding.							
Watercourses/Rivers	The River Medway is located 400m to the southeast of the si	ite.						
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Fo Superficial: Head (Undifferentiated); Alluvium (Clay (Undifferentiated)		. , .	,	Scheme))			
	Percentage of site	e at risk of flooding fron	n tidal sources during the defended so	cenario for key return period even	ts. Maximum flood level or	n site sho		
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115				
	86.0% (5.00m AODN)	97.4% (5.47m AODN) 100.0% (6.10m AODN)			n AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site sl							
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070 1 in 200-year		1 in 200-year return pe	eriod event - 2115			
EA	86.0% (5.01m AODN)	95.3	3% (5.42m AODN)	100.0% (6.02r	n AODN)			
		Percentage of site	at risk of flooding from surface water	based on the EA's 'Risk of Flood	ing from Surface Water Ma	ap'		
	'High' risk scenario		'Medium' ri	sk scenario				
	14.4%		43.	3%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' and 'medium' risk scenarios, surface water is	s shown to flow in an east	terly direction across the southern half of	the site. During the 'high' risk scena	ario, surface water flows alon	ig the sout		
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recent 5.17m AODN (as stated in the MedwayFlood Defence High L Standard of Protection: Unknown	ly been upgraded and no Level Appraisal) and has	ow have a crest height of 6.1m AODN. The a condition rating of 2 (Good) to 4 (Poor	ne existing defences to the southwe). EA's Spatial Flood Defence datas	st of Jane's Creek consist of et shows crest levels of 4.04	a wall and Im to 4.99i		
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gat	tes and revetments. This	option involves improving the current SC	OP provided by the defences to 1% A	AEP SoP with sea level rise.			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068				
	HTL Sustain		НТ	L Sustain				

osed Land Use: Residential

Flood Zone 3b

64.54% *refer to text below

ly does not take into account the recently completed Strood rue extent of the functional floodplain on site. Development

own in brackets.

1 in 1000-year return period event

95.7% (5.42m AODN)

hown in brackets.

1 in 1000-year return period event

95.0% (5.38m AODN)

'Low' risk scenario

85.6%

outhern boundary of the site only.

and high ground with minimum actual crest level of 3.67m to 99m AODN and a condition rating of 2 to 4.

MEASS Policy 2068 - 2118

HTL Sustain

vest of Jane's Creek. Based on an average cost of £2,984/m

1320 - McDonalds, Ca	ar Sales Garage and rear of High Street prop	erties		
Flood Warning Area?	Yes.			
	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighted	l in the
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.0%	0.0%	38.5%	
Required Actions /	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be completed for non major development proposals.	lopment where possible, in accordance with the NPPF and its plar be required to accompany any SWMS. The site is also identifed by	a comprehensive investigation into surface water flood risk, is requining practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Me uthority at an early stage to ensure that there will be sufficient capa	IS to be edway C
Recommended Mitigation Measures			t Agency's recommended additional freeboard requirements where elopment would displace surface water and increase the risk of floor	
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the inte	ernal lay
	Flood Hazard should be appraised against the proposed de	evelopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.	
	When developing a scheme, the condition of any adjacent defence upgrades should be shared amongst beneficiaries.		to upgrading the defences to maintain, or further, the protection off	ered to

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ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

59.7%

o be undertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 0.19ha		Existing Land Use: Brownfie	ld	Propos		
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3			
Map for Planning'	0%		0%	0%			
Development lifetime	100 years						
Exception Test required?	Development which has a 'more vulnerable' classification wi Riverside and Jane's Creek defences. These defences wou classified as 'more vulnerable' use should not be permitted in	uld likely reduce the exte	ption Test. *Although the NKC modelling nt of flooding during a 1in20 year return	shows the site to be within the functional flop period event, and further analysis is recom	podplain, the modelling study imended to determine the true		
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.						
Watercourses/Rivers	The River Medway is located 275m to the southeast of the s	ite.					
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk For Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidate			x)			
	Percentage of site	e at risk of flooding from	n tidal sources during the defended so	cenario for key return period events. Maxi	mum flood level on site sho		
_	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period eve	ent - 2115		
	100.0% (4.99m AODN)	100.0% (5.47m AODN) 100.0% (6.10m AODN))		
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site sh						
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period eve	ent - 2115		
EA	100.0% (5.01m AODN)	100.	0% (5.42m AODN)	100.0% (6.02m AODN)		
		Percentage of site	at risk of flooding from surface water	based on the EA's 'Risk of Flooding from	n Surface Water Map'		
	'High' risk scenario		'Medium' ri	sk scenario			
	78.2%		81.	0%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	Surface water is shown to flow across the site in an easterly	direction during all mode	lled scenarios.				
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recent AODN (as stated in the Medway Flood Defence High Level A Standard of Protection: Unknown	ly been upgraded and no Appraisal) and has a cond	w have a crest height of 6.1m AODN. Th dition rating of 2 (Good). The EA's Spatia	e existing defences between Jane's Creek a I Flood Defence dataset shows crest levels o	nd Strood Riverside consist of of 4.49m to 5.11m and a condi		
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gat	es and revetments. This	option involves improving the current SO	P provided by the defences to 1% AEP SoP	with sea level rise.		
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068			
	HTL Sustain		НТ	L Sustain			
High-Level Indication of	The Strood Riverside and Jane's Creek defences have rece	antly been ungraded to in	norove the standard of protection. Notwi	thetanding this further improvements should	d be considered to improve th		

osed Land Use: Residential

Flood Zone 3b

100% *refer to text below

ly does not take into account the recently completed Strood rue extent of the functional floodplain on site. Development

own in brackets.

1 in 1000-year return period event

100.0% (5.42m AODN)

hown in brackets.

1 in 1000-year return period event

100.0% (5.37m AODN)

'Low' risk scenario

100.0%

of a wall with minimum actual crest level of 4.17m to 4.67m ndition rating of 2.

MEASS Policy 2068 - 2118

HTL Sustain

the defences between Strood Riverside and Jane's Creek. any development.

Flood Warning Area?	Yes.			
	Percentage of site in each Hazard Rat	ting Classification during the design flood event (2115) (The de	ominant hazard rating on the subject site has been highlight	ed in the i
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	
	0.0%	0.0%	0.0%	
	SuDS should be considered to be included within the deve	g from surface water. As a result, a detailed FRA, including a comp lopment where possible, in accordance with the NPPF and its plar	.	
	be completed for non major development proposals.	be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water a	the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore l uthority at an early stage to ensure that there will be sufficient ca	,
Required Actions / Recommended Mitigation Measures	be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a		uthority at an early stage to ensure that there will be sufficient ca t Agency's recommended additional freeboard requirements whe	pacity in t
Recommended Mitigation	be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensat	flooding incidents, developers should consult the relevant water a	uthority at an early stage to ensure that there will be sufficient ca t Agency's recommended additional freeboard requirements whe lopment would displace surface water and increase the risk of flo	pacity in t re practica oding to th
Recommended Mitigation	be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensal The Sequential Approach should be applied to the layout of raised.	flooding incidents, developers should consult the relevant water a and depth of flooding from surface water, including the Environmen tory flood storage, floodable voids) should be provided where deve	uthority at an early stage to ensure that there will be sufficient ca t Agency's recommended additional freeboard requirements whe lopment would displace surface water and increase the risk of flo k areas. The Sequential Approach should also be applied to the i	pacity in t re practica oding to tl

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ne respective colour – Refer to Table 2)

'Extreme' Hazard Rating

100.0%

dertaken.

be produced to show how SuDS will be included to manage y Council LLFA may require a SWMS and SuDs proforma to

in the wastewater system to accommodate the development

ticable. Flood resistance and resilience measures should be o the surrounding area.

layout of buildings, in particular where floor levels cannot be

	Site Area: 2.8ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential	
Flood Zone Classification	Flood Zone 1		lood Zone 2 Flood Zone 3			Flood Zone 3b	
based on the EA's 'Flood Map for Planning'	0.25%		2.15%	94.53%		3.07% *refer to text below	
Development lifetime	100 years						
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test. Development classified as 'more vulnerable' use should not be permitted in Flood Zone 3b.						
Flood History	Incidents within the site: None. Incidents within 100m of the site: Highway flooding within both carriageways following heavy rainfall.						
Watercourses/Rivers	The River Medway is adjacent to the site.						
Geoloav	Bedrock: Seaford Chalk Formation (Chalk) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))						
Percentage of site at risk of flooding from tidal sources and surface water, based off mapping available from the EA	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.						
	1 in 200-year return period event	1 in 200-year return period event - 2070 1 in 200-year return period		1 in 200-year return period eve	ent - 2115	1 in 1000-year return period event	
	3.1% (5.06m AODN)	3.1	3.1% (5.46m AODN) 100.0% (6.09m AODN)		I)	3.1% (5.40m AODN)	
	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.						
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event	
	97.6% (5.01m AODN)	99.8% (5.49m AODN)		100.0% (6.06m AODN)		99.8% (5.44m AODN)	
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'						
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario	
	0.4%		2.4%			8.5%	
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	There are localised areas of surface water accumulation during all three modelled scenarios, which could be attributed to localised depressions in the topography.						
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual crest level of 5.17m to 5.67m AODN (as stated in the Medway Flood Defence High Level Appraisal) and has a condition rating of 2 (Good). The EA's Spatial Flood Defence dataset shows crest level of 5.60m to 6.17m AODN and a condition rating of 2. Standard of Protection: 200-1000						
MEASS Benefit Area and Preferred Option	BA2.3 St Mary's Island. Raise (sustain) embankments, walls, flood gates and revetments. This option involves improving the SoP provided by the defences to 0.5% AEP SoP with sea level rise.						
	MEASS Policy Now - 2038		MEASS Policy 2038 - 2068			MEASS Policy 2068 - 2118	
	HTL Sustain		HTL Sustain			HTL Sustain	
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing defence wall, it is estimated to cost in the region of £1,530,000 to upgrade the 1km of defences in order to protect the site for the lifetime of any development.						
Flood Warning Area?	Yes.						

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	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the re-							
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating					
	0.0%	0.0%	26.5%					
Required Actions / Recommended Mitigation Measures	The site is located in Flood Zones 2 and 3, and therefore will require a detailed Flood Risk Assessment. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWM surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient caparian dany upgrades are carried out where necessary. Floor levels should be raised above the design flood level, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area. The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas, and avoiding development within Flood Zone 3b*. The Sequential should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress. The EA should be consulted where development is proposed within 16m of a tidal waterbody or tidal defence infrastructure to obtain consent via a Flood Risk Activity Permit (FRAP).							

e respective colour – Refer to Table 2)

'Extreme' Hazard Rating

73.3%

be produced to show how SuDS will be included to manage in the wastewater system to accommodate the development asures should be considered for inclusion. Suitable mitigation tial Approach should also be applied to the internal layout of

	Site Area: 2.23ha		Existing Land Use: Brownfi	eld		Proposed Land Use: Residential		
Flood Zone Classification based on the EA's 'Flood Map for Planning'	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b		
	71.86%		10.21% 17.		0%			
Development lifetime	100 years							
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test.							
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.							
Watercourses/Rivers	The River Medway is 275m to the west of the site.							
Geology	Bedrock: Seaford Chalk Formation (Chalk) Superficial: Alluvium;River Terrace Deposits, 1 (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme); Sand and Gravel)							
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.							
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event		
	0.0% (0.00m AODN)	0.0% (0.00m AODN)		39.7% (6.09m AODN)		0.0% (0.00m AODN)		
ercentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event		
EA	17.9% (5.00m AODN)	28.8% (5.49m AODN)		38.8% (6.06m AODN)		28.1% (5.43m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario		'Low' risk scenario			
	0.6%		1.5%		7.8%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	There are localised areas of surface water accumulation during all three modelled scenarios, which could be attributed to localised depressions in the topography.							
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual crest level of 5.17m to 5.67m AODN (as stated in the Medway Flood Defence High Level Appraisal) and has a condition rating of 2 (Good). The EA's Spatial Flood Defence dataset shows crest level of 5.60m to 6.17m AODN and a condition rating of 2. Standard of Protection: 200-1000							
MEASS Benefit Area and Preferred Option	BA2.3 St Mary's Island. Raise (sustain) embankments, walls, flood gates and revetments. This option involves improving the SoP provided by the defences to 0.5% AEP SoP with sea level rise.							
	MEASS Policy Now - 2038		MEASS Policy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain		HTL Sustain			HTL Sustain		
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing defence wall, it is estimated to cost in the region of £1,530,000 to upgrade the 1km of defences in order to protect the site for the lifetime of any development.							
	Yes.							

	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)							
Hazard Rating	'Low' Hazard Rating 'Moderate' Hazard Rating		'Significant' Hazard Rating	'Extreme' Hazard Rating				
	2.8%	0.0%	29.1%	2.0%				
Required Actions / Recommended Mitigation Measures	The site is partially located in Flood Zones 2 and 3, and therefore will required a detailed Flood Risk Assessment. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be in							
	surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS.							
	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater system to accommodat and any upgrades are carried out where necessary.							
	Floor levels should be raised above the design flood level and depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience methods considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.							
	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal layout of buildings, in particular where flow raised.							
	Flood Hazard should be appraised against the proposed deve	elopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.					

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ncluded to manage

the development

easures should be

or levels cannot be

sts associated with



4 Appendices

Appendix A.1 – Site Location Map



Appendix A.1 – Site Location Map





LEVEL 2 SITES Medway Council Strategic Flood Risk Assessment

Date: 17/09/2021 Date: 17/09/2021 Date: 17/09/2021

Status:

Final

Revision No:

Drawn: NW Checked: TV Approved: SMB

Drawing Number:

Appendix A.1 - South

 Scale:
 1: 45,000

 Original:
 A3

 Sheet:
 2 of 2



💭 Sites

The datasets used may have been designed to be viewed at a range of map scales, and therefore this map is not intended to be viewed at a site-specific scale. The information presented is the best available at the time of collation, but should not be considered comprehensive. Queries with regard to the administrative boundaries should be directed to the LPA.

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