

Site 157 – Egham Gateway West

Site Number	157	Site Name	Egham Gateway West
Site Location	TW20 9LD	Grid Reference	TQ 01028 71241
Location Plan			
KEY:	<p>Red line boundary</p> <p>Main River —</p> <p>*Other Rivers —</p> <p>*Where other indicates: Drains, culverts, streams, brooks etc.</p>		
Description	<p>This site is in the centre of Egham. It spans Station Road North and is bounded by the High Street to the north and Church Road to the south. The present development consists of commercial premises with residential accommodation above on either side of Station Road North and along the High Street. The south-eastern part of the site is a car park. The River Thames flows to the north of the site. Although there are no formal flood defences, the site lies behind the Egham Bypass, which acts as a defence.</p>		

Sources of Flooding

Fluvial

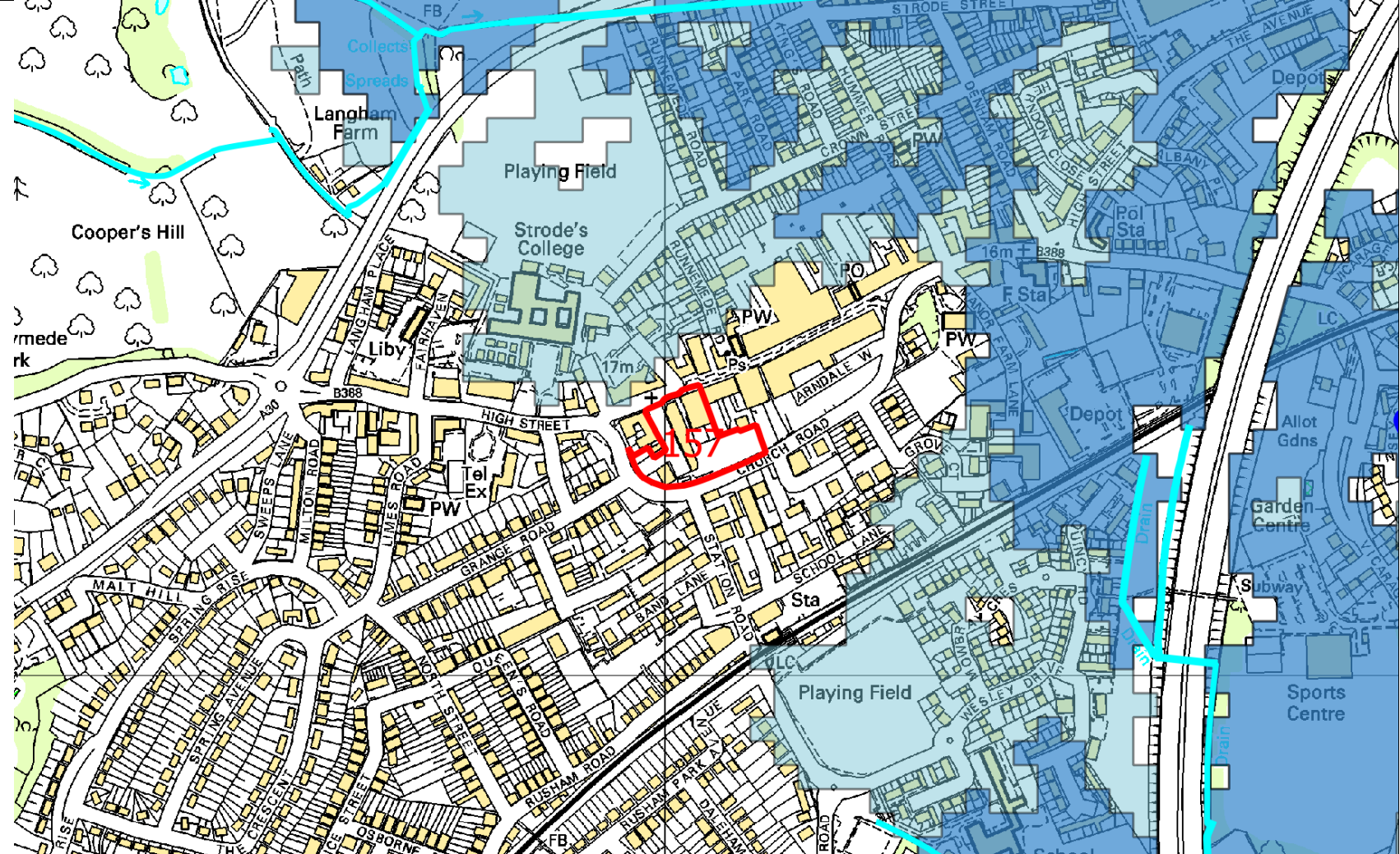
1 in 100yr +20%CC
Flood Extent



1 in 100yr Flood Extent



The 2009 the River Thames Reach 3 flood model shows that the site lies outside of the all flood events up to and including the 1 in 100 year plus 20% climate change allowance. This latter flood extent extends up to properties just north of the site on the other side of Egham High Street. There is currently no modelling available for the revised climate change allowances. Given that the site lies in Flood Zone 2, the Basic assessment method given in the Environment Agency's Thames Area Climate Change Allowances guidance document will need to be used to assess the implications of the revised climate change allowances.



River Thames 2018 Model Output

Hazard Mapping 1 in 100 year plus 35% climate change

Depth and velocity data has been made available from the River Thames 2018 model. This data has been used to give an approximate assessment of the flood hazard. As the data available is for peak depth and peak velocity, the resulting flood hazard rating gives a 'worse case' scenario. In normal circumstances, peak depth will not occur at the same instance as peak velocity. Although the south west of the site and Church Road are shown to flood, safe escape is available as the hazard is only Very Low.

Danger for All



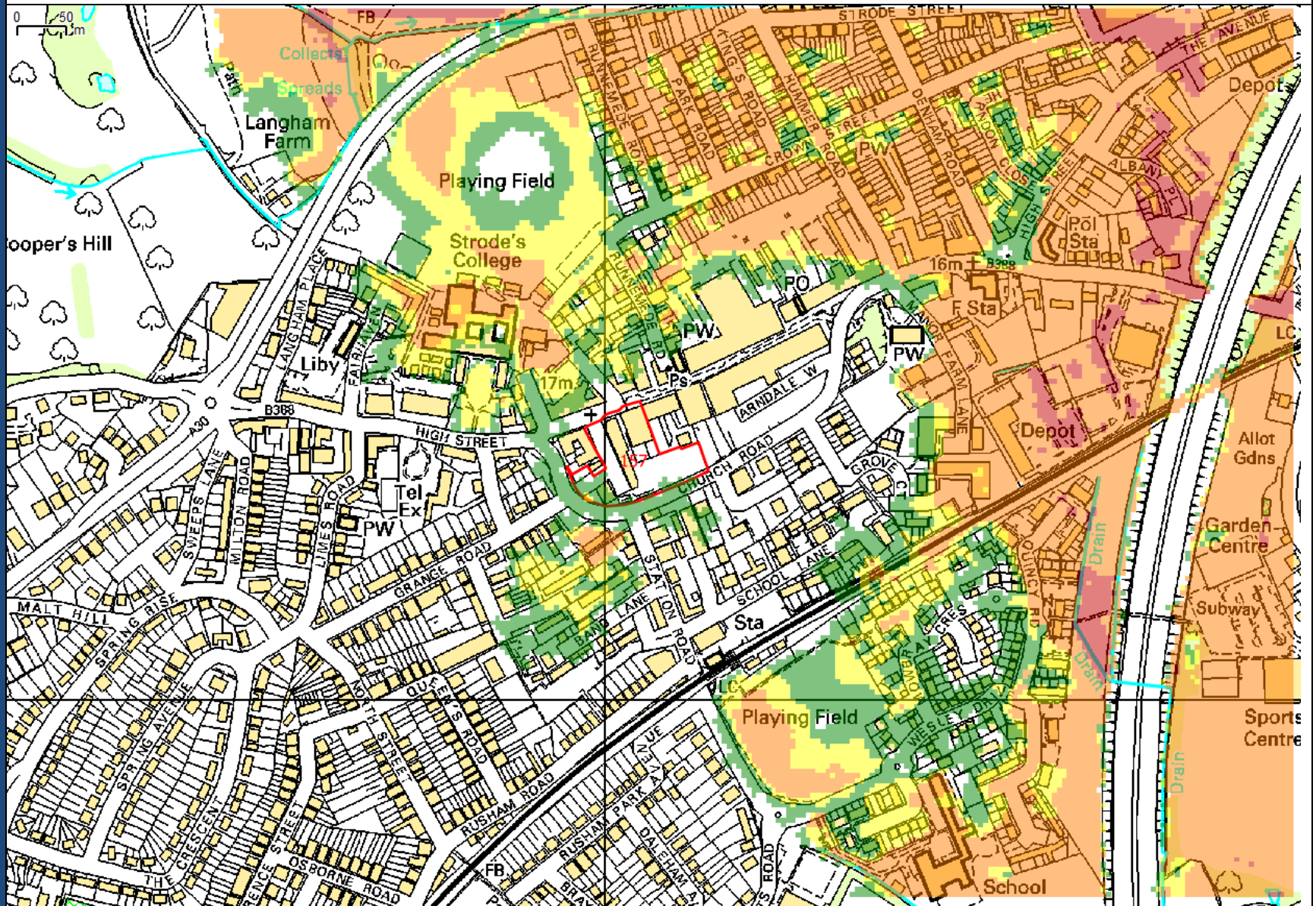
Danger for most



Danger for some



Very Low Hazard -
Caution



Surface Water/Sewer

The Risk of Flooding from Surface Water map shows that the south-west corner of the site is shown to be at medium risk of flooding. There is a low risk of this flooding extending further into the site from Vicarage Road. The major part of the site is shown to be at very low risk from flooding.

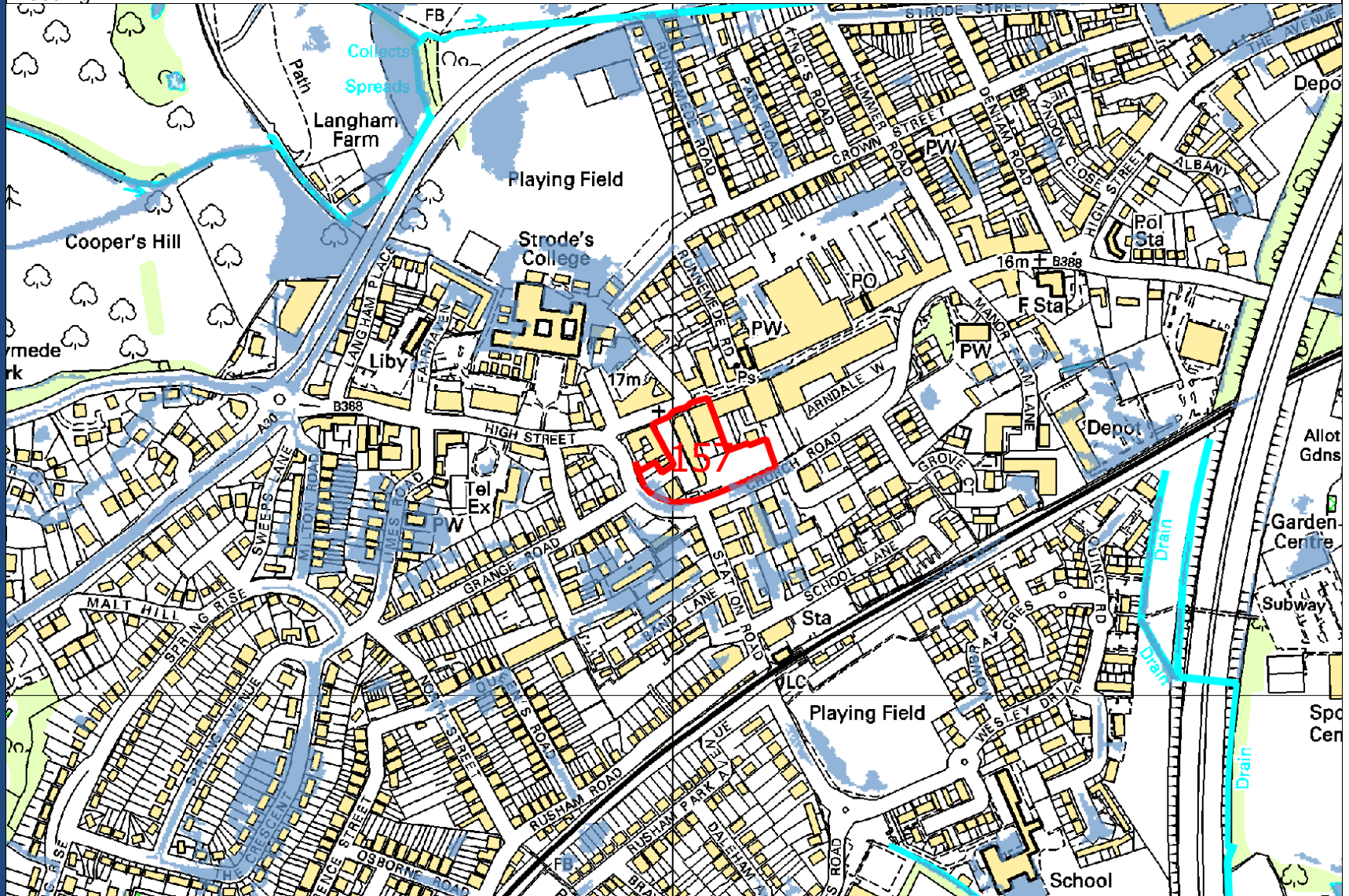
KEY:

Red line
boundary

Main River

*Other Rivers

SW Flood Extent



Artificial Sources

The site lies within the area predicted to be at risk from flooding from a reservoir breach. Such risk is considered to be very low.

Summary of flood risk from all sources of flooding	<ul style="list-style-type: none"> Flooding from Fluvial sources – The detailed modelling indicates that the site lies outside of the 1 in 100 year flood envelope, including an 20% allowance for climate change. The best available information indicates that the site lies in Flood Zone 2. The implications of the revised climate change allowances will need to be investigated further. Flooding from Pluvial Sources - There is a medium risk of flooding to a small area of the site but most of it is at very low risk. Flooding from Artificial Sources – Although the site is shown to be at risk of reservoir flooding, this risk is considered to be very low.
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Risk Management – Guidance will be provided in the following section to inform policy development
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Flood Risk Management Recommendations	<ul style="list-style-type: none"> The site is effectively a 100% brownfield site. The indications are that the ground water table is high and the British Geological Survey have identified that very significant constraints are indicated for infiltration SuDS. Thus the methods of draining the site are limited. There is a 600mm dia. culvert running down Station Road North. Its exact status is unknown, but it is not a public sewer. This culvert can be used to drain the site, possibly subject to obtaining an appropriate easement. The runoff from the site will need to be attenuated to, as near as is reasonably practicable, to greenfield runoff rates. There are no public surface water sewers within this area of Egham. Surface water should not be discharged to the foul sewer system. Where it can be fully demonstrated that there are no other practical means to drain the site then connecting into the public foul sewer (as effectively a combined sewer) will be considered. Such connection will only be allowed where Thames Water have confirmed that their sewer has the capacity to receive the attenuated flow as stated above. The surface water drainage system should be designed to ensure that no flooding occurs up to the 1 in 30 year pluvial event and that ensure that no on site property flooding or increased off site flood risk occurs for events up to the 1 in 100 year event, including allowance for climate change. As the site is almost fully in Flood Zone 2, both Less Vulnerable and More Vulnerable developments are appropriate. Given that the site may be at risk of flooding at the 1 in 100year event when climate change is considered, placing habitable rooms on the ground floor should be avoided. Safe access and egress from the site is achievable to the west along the High Street or Grange Road.
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Reasonable prospect of compliance within the Exception Test?	As the site lies outside of Flood Zone 3 there will be no requirement to satisfy the Exception Test.
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Flood Risk Suitability Score	3
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