

***WASHINGTON ROAD TO NEW BRIGHTON ROAD,
EMSWORTH
PROPOSED FOOTWAY AND CYCLE TRACK***

Flood Risk Assessment



CLIENT: HAMPSHIRE COUNTY COUNCIL, STRATEGIC TRANSPORT

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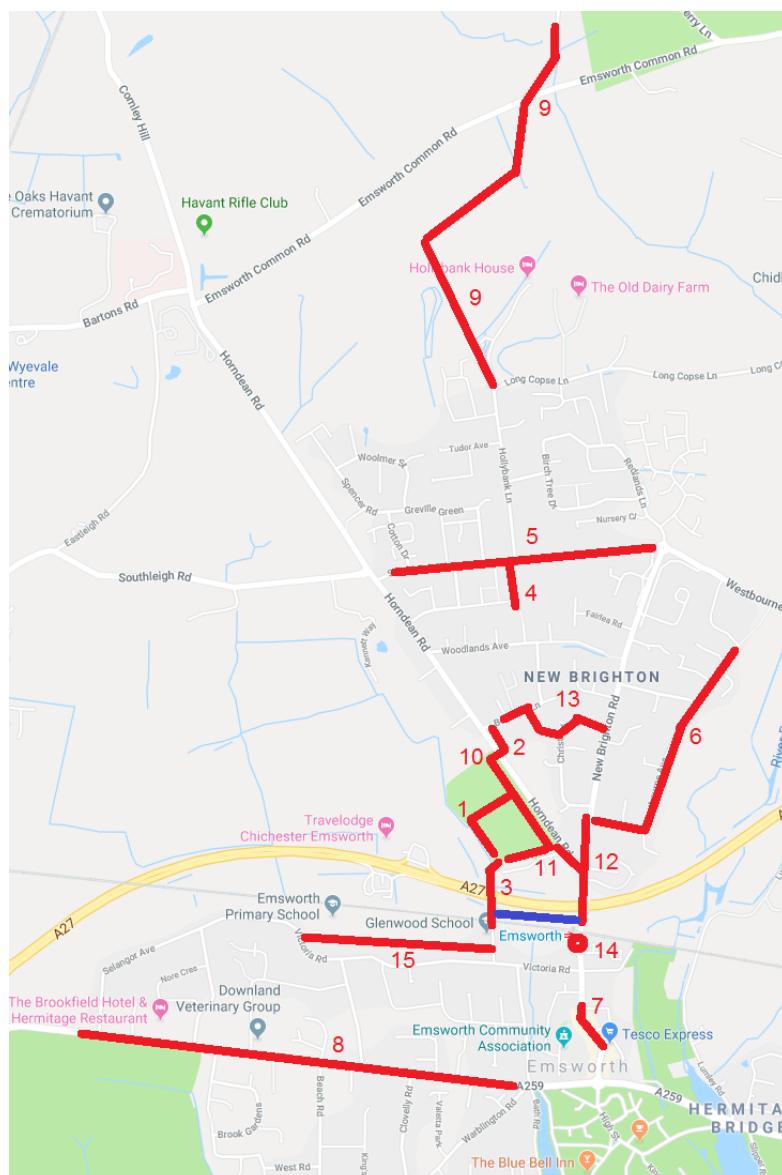
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1 Summary

- 1.1 This Flood Risk Assessment (FRA) explains the process by which the proposed design has taken consideration of the site's location in a flood zone and the measures taken to minimise flood risk both to the works when in use and to the wider community.
- 1.2 Hampshire County Council desires to complete the works originally identified in 2012 to create a comprehensive walking and cycling network in Emsworth, especially that area north of the A259 Havant Road. In various projects since 2012, sections of the cycle network have been completed including works in New Brighton Road, Horndean Road, North Street and Emsworth Recreation Ground. This project forms the final link in completing that originally identified network.
- 1.3 The project subject of this FRA creates an all-weather shared footpath / cycle track 2.5m wide connecting Washington Road and New Brighton Road by providing a new east-west link and improving access to the north side of Emsworth railway station.

2 The Emsworth walking and cycling network

- 2.1 Hampshire County Council has engaged Havant Borough Council as Agent to design and implement the Emsworth Cycle Network. This project includes schemes to improve walking and cycling connectivity across the area north of the A259 and has been ongoing in a number of phases since 2012. The present application forms the fifth and final phase of this programme of works.
- 2.2 The funding for the works has been taken from S106 developer contributions from the Hampshire Farm and Little Oaks development sites.
- 2.3 The cycle network was identified following consultation with stakeholders and the local community and has support of the local Members both at Borough and County levels. The network has addressed issues of severance and perceived road safety by providing a series of on-road and off-road cycle routes, improved crossing points (including a toucan crossing in Horndean Road) and a waymarking programme to assist those unfamiliar with the area to navigate their way around the town. The locations of the various interventions is shown on the next page.
- 2.4 Access to the local schools has been improved and is a key driver in the location of the various projects within the programme. St James C of E Primary School north of the A27 and Emsworth Primary School to the south of the A27 each take approximately 40% of their pupils from the 'other side' of the A27 from that where the school is located; hence crossing the A27 is a key element of the network.



Emsworth Cycles and Crossings

Projects completed:

1. Emsworth Recreation Ground W and N
2. St James School off-road
3. Washington Road footpath 71 upgrade
4. Hollybank Recreation Ground
5. Southleigh Road on-road lanes
6. Westbourne Avenue on-road
7. North Street crossings
8. A259 Havant Road on-road & off-road
9. Hollybank Woods to Rowlands Castle
10. Horndean Road toucan crossing
11. Emsworth Recreation Ground E and S
12. New Brighton Road off-road
13. Christopher Way on-road
14. Emsworth station cycle parking
15. Emsworth Primary School link off-road

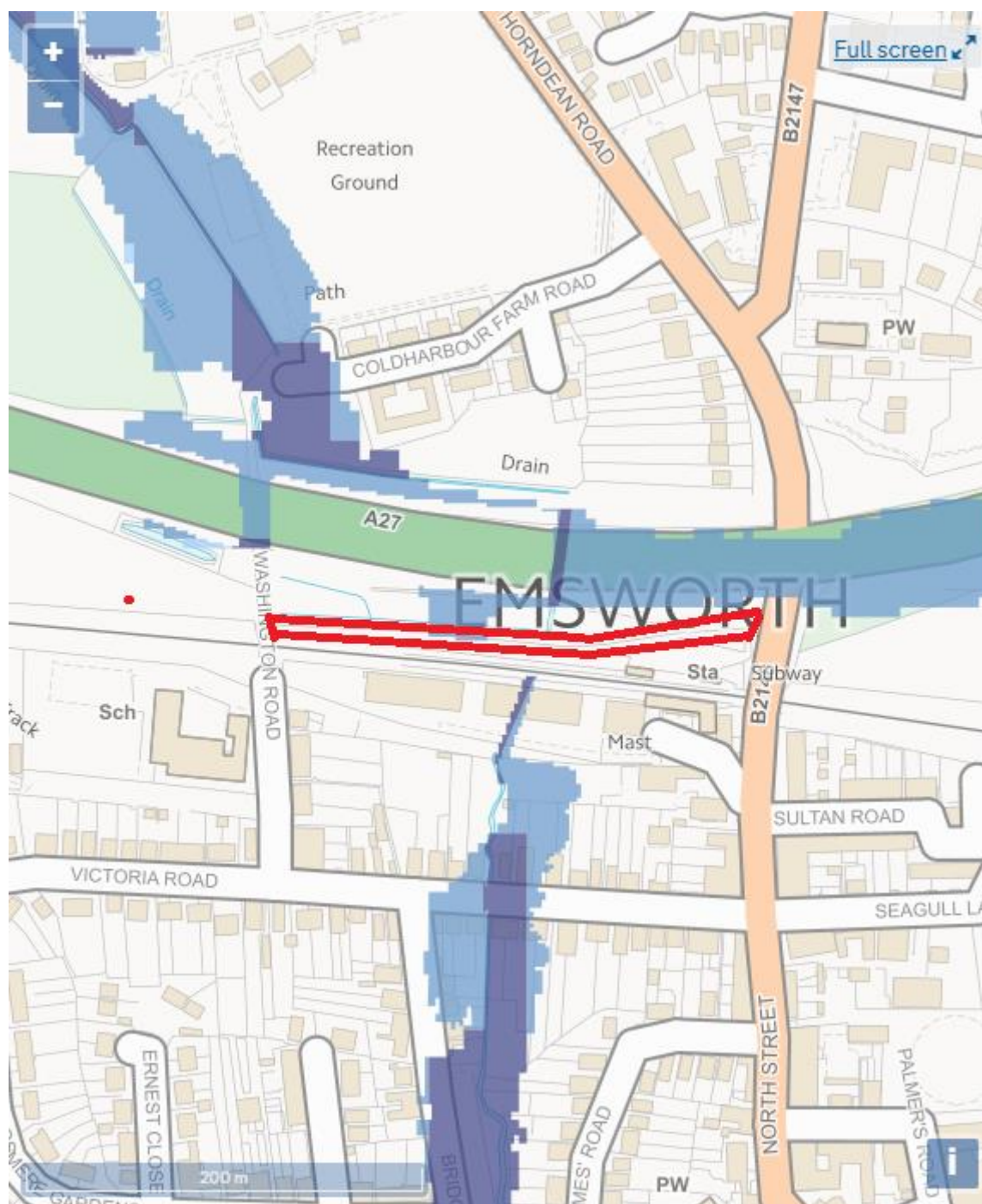
The Interbridges link project is shown in blue and completes the identified Emsworth network

Projects undertaken in Emsworth since 2010

- 2.5 There are two points of crossing the A27 available, matching the crossing points established in the mid 19th century by railway underbridges. These are at North Street where the B2148 Emsworth to Rowlands Castle road passes under the railway alongside Emsworth station; and at Washington Road which is historically a farm access. Due to the layout of North Street with a narrow road and low headroom bridge being unattractive for cyclists (pedestrians can use the adjacent Network Rail subway), it is Washington Road that has been developed (successfully) as the main north-south route for cyclists and pedestrians.

3 Existing flooding situation

- 3.1 The A27 subway is a key link in the walking and cycling network on north-south routes, but unfortunately the A27 subway sits low in the surrounding ground with the result that it has a history of poor drainage and flooding. The drainage relies on gravity drainage into the adjacent watercourse (West Brook) and this responds quickly to heavy rain with the result that the subway can become impassable. When this occurs the only other dry-shod route is via Victoria Road and North Street, but this does involve a large element of back-tracking once it is found that the subway is flooded, affecting school attendance due to lateness.
- 3.2 The creation of the proposed route allows a shorter diversion route away from the flooded subway, as well as improving access directly to the railway station. In terms of the cycle network, with this route in place a cyclist from Emsworth south of the railway can access the railway station directly without having to use local roads and mostly using shared use off-road routes.
- 3.3 A key consideration in terms of school access is that the route also provides a link in the route between St James School and pupils living north of the A27, with Warblington Secondary School as both primary schools in Emsworth feed to Warblington in year 7.
- 3.4 The route is partially located within Flood zone 2 as shown on the next page. The design has taken account of this to ensure that the route itself is not affected by flooding in the future and that it does not translate flooding into other locations.
- 3.5 The scheme layout is shown in drawing 2014-07/648 (sheets 1-4) with the planning ('red line') drawing numbered 2014-07/658.



Environment Agency flood map extracted 20 June 2019 (application site in red outline)

4 Scheme design and drainage

- 4.1 The land to be used by the new link has been extensively reworked recently, with a foul sewer rising main laid along its entire length as part of the development of the Emsworth westbound service area in 2014. The ground has been kept clear of vegetation under a programme of ecologically-superintended maintenance ready for the construction of the path (see cover photograph).
- 4.2 The land has been previously identified as the route for access into the 'Interbridges west' development site. There have been a number of options put forward for the development of this site including for residential and commercial uses; however to date nothing concrete has been promoted and part of the reason for this may be that the part of the site is subject to proposals in the Havant Borough Local Plan 2036 for a future A27 junction for access to the Southleigh strategic development site.
- 4.3 The path would be constructed 2.5m wide with a small amount of site clearance undertaken to clear topsoil only; a blanket of 'Terram' or equivalent will be laid to ensure stability and then a free draining 'Type 3' stone blanket placed on top of this layer to ensure that the effectiveness of the adjacent ditch is unaffected and allows 100% permeability of the fill material. By this measure the path walking level is taken out of flood zone 2 (this requires fill at the lowest point of 225mm above existing ground level). A 35mm thick layer of 'Flexipave' will then be placed onto this stone blanket to create the surface of the path. This is a recycled inert material which allows 100% rainwater permeability, again to ensure that the hydrology of the ditch is unaffected by the development.
- 4.4 The choice of materials and levels means that the works will therefore not add to flood risk elsewhere as the structure of the path is completely permeable; nor will the path itself be affected by flooding as both the walking surface is permeable (allowing rainwater to be removed from the surface instantly) and the fill material the surface is placed onto is permeable and will allow water to flow through the structure of the path from one side to the other.

5 Conclusion

- 5.1 The project will complete the identified Emsworth cycle network and improve accessibility for all users to Emsworth railway station and add resilience to the routes between the north and south parts of the town.
- 5.2 The FRA demonstrates that the new route can be built in accordance with all identified requirements to avoid risk of flooding to the works and to avoid translation of flooding to other areas.