

**LAND AT NYTON NURSERY,  
EASTERGATE AND WESTERGATE,  
WEST SUSSEX**

**APPRAISAL OF SHARED  
FOOTWAY/CYCLEWAY LINK**

**Taylor  
Wimpey**

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## DOCUMENT CONTROL RECORD

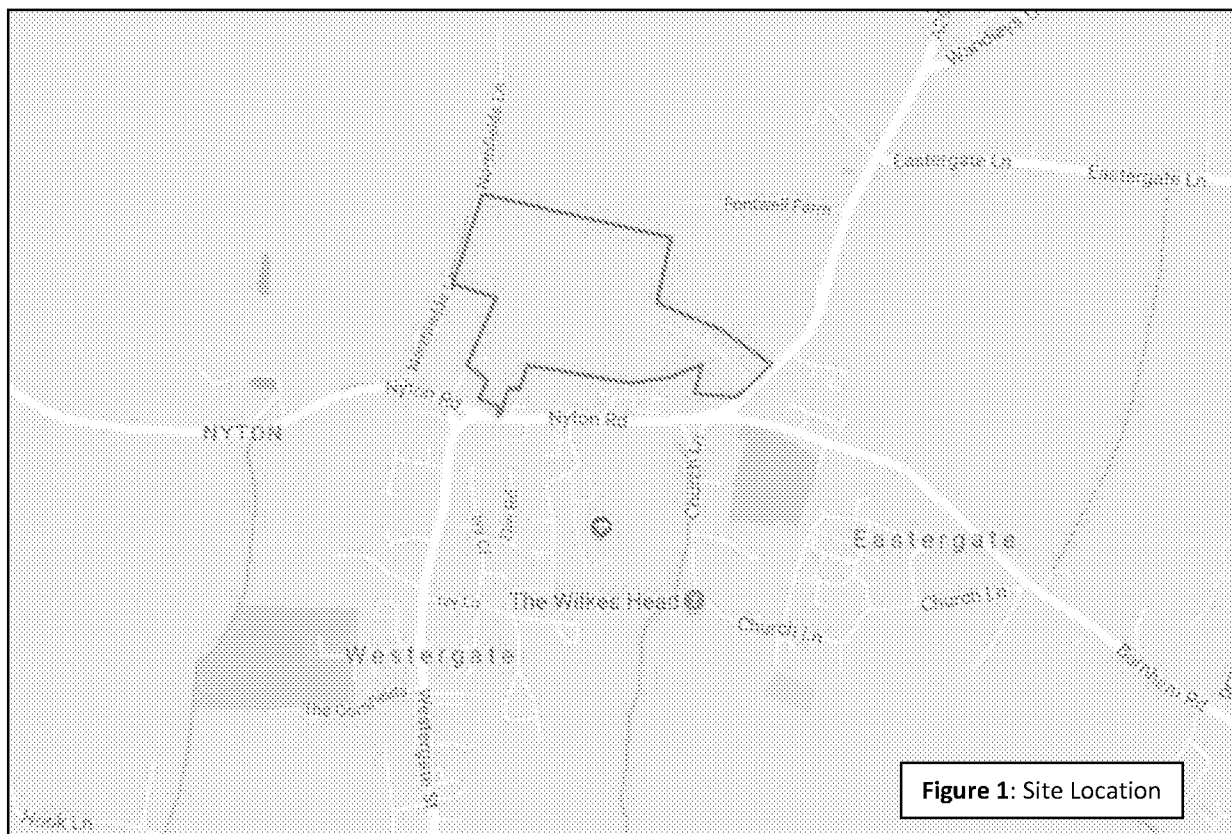
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# 1 Introduction

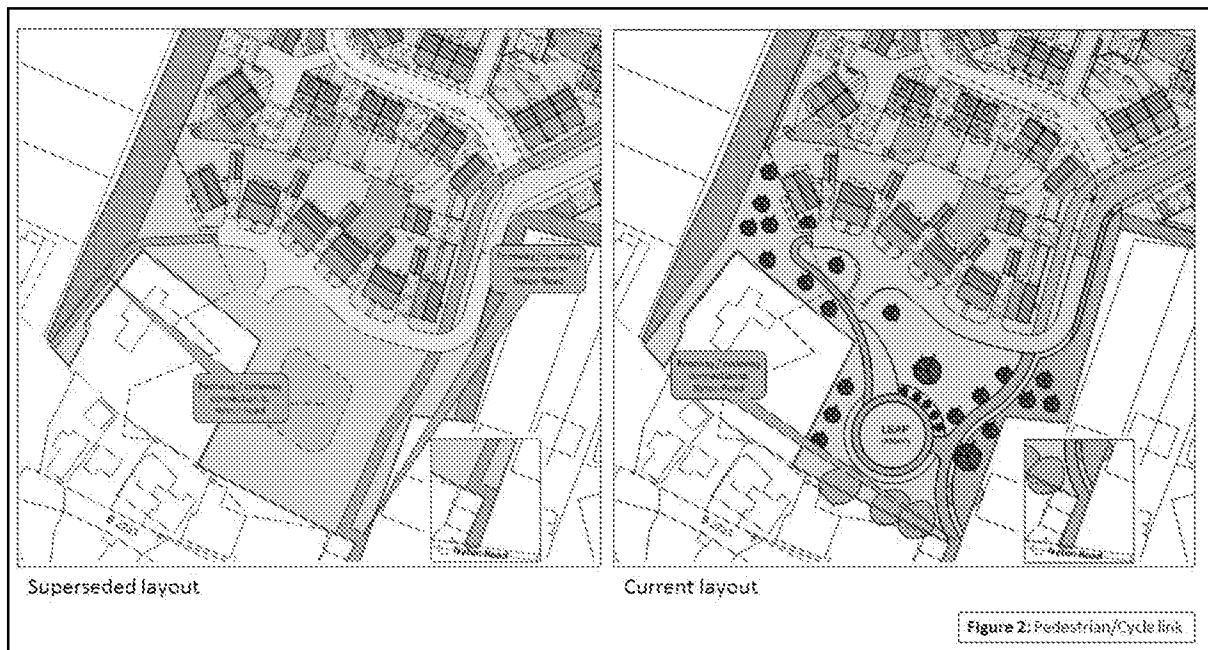
## 1.1 General

- 1.1.1 Taylor Wimpey (TW) has commissioned MJA Consulting (MJA) to appraise the feasibility of providing a new shared footway/cycleway connection between a residential development and the proposed shared footway/cycleway improvements on Nyton Road.
- 1.1.2 The site is located to the north of the Eastergate and Westergate settlements, and situated on the northern side of Nyton Road. A Veterinary Surgery and residential properties are also situated on Nyton Road, and in close proximity of the site. The site position in relation to the surrounding area is shown in **Figure 1**.

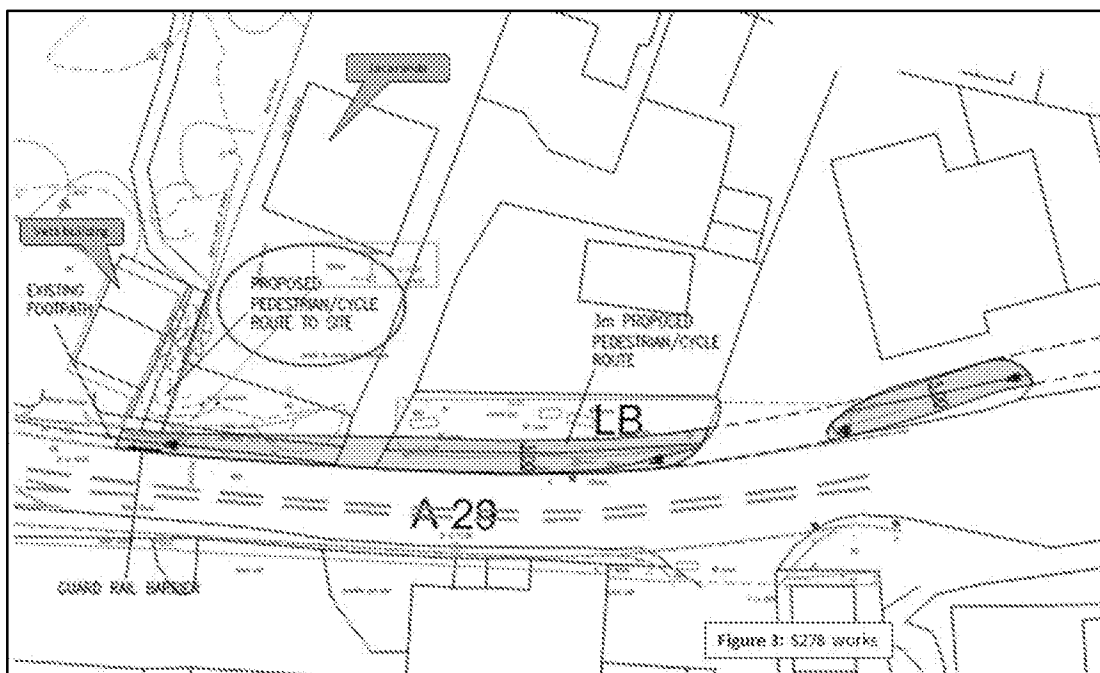


- 1.1.3 The main vehicular and pedestrian access will continue to be provided from A29 Fontwell Avenue, at the eastern extent of the site. The existing site access will be improved / formalised to provide a simple ghost island junction appropriate for the residential scheme.
- 1.1.4 A shared footpath/cyclepath will be provided to the south, and would form an important link towards Eastergate and Westergate amenities and the proposed footway/cycleway facilities on Nyton Road. **Figure 2** shows that the only pedestrian and cycle connection

directly onto Nyton Road, from the site, will be provided between the veterinary surgery (previously Apogee House) and the adjacent property (known as Jacaranda).



- 1.1.5 **Figure 3** below includes an extract of the proposed cycle infrastructure improvements along a section of Nyton Road, which link to the residential scheme and provides a Toucan crossing facility close to the nearby school. This shows that for the majority of the s278 works the cycle path will be 3.0m in width. ***It should be noted that in the vicinity of Jacaranda and the Veterinary Surgery the cycle path width is reduced within the highway constraints and to tie into the existing footway.***



- 1.1.6 An emergency access point will be provided in the northwest section of the site, via Northfields Lane and would also provide a pedestrian and cycle connection. It is understood that Northfields Lane is a private driveway that is unlit and unsurfaced.

## 1.2 Appraisal of proposed shared use footpath/cycle link

- 1.2.1 The current site layout shows that the proposed shared cycle/pedestrian facility would be generally be of a consistent width of 3.0m, and provides connections and permeability through the site. This connects to the main cycleway infrastructure improvements along Nyton Road.

### Route Widths

- 1.2.2 The DfT document LTN 1/12 – Shared Use Routes for Pedestrians and Cyclist provides guidance on designs for cycling infrastructure. The document “..... ***focuses on routes within built up areas, where the predominant function of the route is for utility transport, and where use by pedestrians and/or cyclists is likely to be frequent.***” Consequently it is considered that the guidance provided generally relates to the main cycleway that forms the majority of a scheme.
- 1.2.3 For unsegregated shared paths LTN 1/12 at Table 7.5, suggests a preferred minimum width of 3.0m. However, para. 7.31 states that “***It might not always be possible to meet the minimum recommendations for the route as a whole. In this case, practitioners need to***

*consider whether a new sub-standard facility is better than none. .... on lightly used routes, .... a narrow route might represent a considerable improvement."*

- 1.2.4 Para. 7.32 states ***"There might be situations ..... where flows are so light that the likelihood of two users encountering each other is very low. In this case, the minimum widths given below might be far more than are necessary. .... in any case, at the very least two wheelchair users should be able to pass one another."*** The DfT document Inclusive Mobility provides guidelines on designing for people with mobility impairment. It is noted that the maximum width of an electric wheelchair is 0.755m and a manual wheelchair is 0.722m, however a manual wheelchair preferably should have an additional 0.1m on both sides for elbows and hands ( $0.722 + 2 \times 0.1 = 0.922\text{m}$ ). Thus to allow for two wheelchair users to pass requires  $2 \times 0.922 = 1.844\text{m}$ . For a single wheelchair user plus an ambulant person side-by-side it is recommended that a width of 1.5m is provided.
- 1.2.5 LTN 1/12, para. 7.34 states ***"A width of 3 metres should generally be regarded as the preferred minimum on an unsegregated route, although ..... a narrower route might suffice. .... the absence of segregation gives cyclists greater freedom to pass other cyclists."***
- 1.2.6 The Sustrans Design Manual – Handbook for cycle-friendly design, at **Table H.8**, suggests that a minimum path width of 2.5m should be provided for links/secondary routes into surrounding areas, whilst the main path should have a minimum of 3.0m.
- 1.2.7 As mentioned above the pedestrian/cycle link will be provided between the veterinary surgery and Jacaranda. On-site observations have recorded the distance between the fence of Jacaranda and the veterinary surgery building as being in the range of 2.51m and 3.38m (measured at the northern and southern extents of the building respectively – 10.4m in length). Consequently a short section (less than 6m) of the pedestrian/cycle link will be below the suggested 3.0m width for a main cycle path. With reference to the Sustrans design manual, secondary links (such as this) are suggested to have minimum widths of 2.5m. It should be remembered that additional width should be provide where vertical features are present. **Table 7.4** of LTN 1/12 and **Table 8.2** of LTN2/08 both give clearances of between 0.2 and 0.5m dependant on the height of the vertical feature.

- 1.2.8 The main aim of the proposal is to create a facility that will encourage walking and cycling to and from the development. Providing a short section of the path which is below the preferred minimum width would not have a detrimental impact on the usability of the proposed connection.
- 1.2.9 The narrowest section of the link will exceed Inclusive Mobility requirements. The provision of shared footway/cycleway along Nyton Road with additional connection to the south of the site would represent a considerable improvement to existing pedestrian and cycle provision in the area.

### Gradient along cycle path

- 1.2.10 In general, a preferred maximum gradient of 3% is recommended for an off-road cycle route, as suggested in the DfT document LTN 2/08 - Cycle Infrastructure Design (para. 8.7.2) & the Sustrans Design Manual (**Table H.7**). However, both documents also provide alternative gradients to accommodate a local topography.
- 1.2.11 LTN 2/08 at para.8.7.2 states ***“gradient of 3 per cent is recommended, but this can rise to 5 per cent over a distance of up to 100 metres. Where steeper slopes are unavoidable, the limiting gradient is 7 per cent over a distance of up to 30m.”*** Para. 8.7.3 states ***“It is worth bearing in mind that recommendations on cycle route gradients relate to comfort not safety. ....designers should not adhere too rigidly to the recommended maxima if doing so rules out the option of providing the cycle route. ....In some hilly areas, it is not uncommon to find cycle route on roads with gradients of between 10% and 15%.”***
- 1.2.12 Sustrans Design Manual in **Table H.7** gives a range of gradients and the maximum distances they relate to, as shown below:

| Sustrans Gradients |                               |
|--------------------|-------------------------------|
| 3%                 | Preferred maximum             |
| 5%                 | Normal maximum – up to 100m   |
| 7%                 | Limiting gradient – up to 30m |
| >7%                | For short lengths             |

*In hilly areas, many roads have steeper gradients but can still make acceptable cycle routes*

1.2.13 Similar to LTN 2/08, Sustrans suggests that a gradient of 7% can be provided over a distance of up to 30 metres. It is considered that gradients along the cycle link, in line with the national guidance documents, can be achieved for the residential development site.

1.2.14 Inclusive Mobility suggest preferred gradients for ramps at 5% (or 1 in 20), with maximum gradients of 8% (or 1 in 12), to accommodate wheelchair users and people with prams/pushchairs. These gradients also relate to maximum ramp lengths, where the 5% gradient should be provided over no more than a 10 metre distance, then level landing area should be provided.

1.2.15 **Figure 2** above shows the cycle link into the site, over a distance of around 40 to 50 metres from Nyton Road. Consequently, whilst preferred geometries cannot be achieved in the area fronting Nyton Road, it is deemed that acceptable cycle provision can be provided for the site.

1.2.16 The final gradients will be established at the detailed design stage, with an aim to achieve the minimum gradient possible.

### 1.3 Visibility

1.3.1 It can be seen from the site layout plans that the alignment of the shared pedestrian/cycle link is proposed to meander left and right beyond the veterinary surgery building, within the site.

1.3.2 Given that the presence of the building will obscure forward visibility of users on the link, it is recommended that some form of staggered barrier is installed. This will have a number of benefits including: to guide approaching pedestrians or cyclists away from the building, hence making them visible to other users; and reduce cyclist speeds as they enter the slightly narrow section of the link.

1.3.3 Signage such as 'Cyclist dismount' could also be installed, however this would contradict the purpose of the shared use path.

### 1.4 Conclusion

1.4.1 The proposed shared footway/cycleway link, in combination with the shared footway/cycleway route along Nyton Road would be a significant improvement of the existing cycle provision. For the majority of the facility the guidelines can be met, however

for a very short section in the vicinity of Nyton Road, the width will be slightly below recommendations. The proposed facility will offer all residents the opportunity for direct access the site and local amenities by bicycle. The addition of a Toucan crossing will make journeys to school safer.

- 1.4.2 National guidance recognised that sometimes it might be impossible to meet the recommendations for the whole route, however the provision of a lesser route is better than none.
- 1.4.3 It is concluded that that local conditions necessitate narrowing of a short section of the cycle path link, but this would not have a detrimental impact on the usability of the proposed shared footway/cycleway, and provides a greater benefit for those wishing to travel sustainably.

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