
Technical Note

Project No: ITB12174
Project Title: Land west of Old Manor Farm, south of Lower Road, Bedhampton
Title: Further Highways Response
Ref: SJ/BC/RW/ITB12174-018A TN
Date: 23 June 2022

SECTION 1 Introduction

- 1.1.1** Following discussions with the highways officers at Hampshire County Council (HCC), this note has been prepared to address some final queries raised. All matters have now been agreed with HCC and this note sets out the agreed position.
- 1.1.2** This note should be read in conjunction with the previous planning application highways response note (*i-Transport ref: ITB12174-015A TN*). The additional information contained within this note and the accompanying drawings have been produced to answer HCC's remaining verbal comments, enabling HCC to remove the holding objection to the planning application on Land west of Old Manor Farm, south of Lower Road, Bedhampton.
- 1.1.3** The main comments that have been addressed as part of this note have been split into the following headings:
- Site access from phase 1;
 - Pedestrian trips from the approved Forty Acre Farm Development;
 - Increase of walking trips due to improvements at the Rusty Cutter Roundabout;
 - Improvements to the pedestrian crossing across Brookside Road at the Bedhampton Road (B2177) junction; and
 - Contributions towards the Local Cycling and Walking Infrastructure Plan.

SECTION 2 Site Access

HCC Interpreted Comment

- 2.1.1 The swale within phase 1 conflicts with the proposed carriageway access connection into phase 2.

i-Transport Response

- 2.1.2 The swale has been redesigned, it has been made shorter to avoid the carriageway of the access road, whilst being widened to ensure the same (indeed greater) area of swale is retained. This amendment of widening the swale has required the relocation of north south section of footway located to the north of the access. This footway has been relocated west closer to the reoriented parking bays (for phase 1 plots 26-28) but with a suitable separation from them.
- 2.1.3 In addition, a 2m wide footway has been added to the southern side of the site access road (in place of the previously shown service margin) along with tactile paving to aid crossing between the relocated north south section of footway. These changes are shown on the revised site access **drawing ITB12174-GA-018 Rev F**.

SECTION 3 Pedestrian Trips from Forty Acre Farm Site to Bidbury Junior/Infant School

HCC Interpreted Comment

- 3.1.1 Although Solent infant and junior schools are closer to the consented Forty Acre Farm site, these sit within Portsmouth City Council and the Forty Acre Farm site is within the catchment for Bidbury Infant and Junior schools. HCC have requested that the potential additional pupil trips associated with the Forty Acre Farm site to Bidbury Infant and Junior schools via Lower Road are estimated and allowed for in the assessment of the Old Manor Farm site.

i-Transport Response

- 3.1.2 It is noted that the walk distance between the Forty Acre Farm Site and Bidbury Infant/Junior schools is around 2.2km (26 minutes) or 2.3km (27 minutes) via Bedhampton Hill/Bedhampton Road and Lower Road respectively. These walk times are based on a typical walking speed¹, and may take longer with young school children. Therefore, the number of walking trips is not likely to be as high as properties within a closer catchment.
- 3.1.3 However, following the review of the Forty Acre Farm development TA and the associated mitigation undertaken in the previous Highways Response note, the applicant has undertaken a further review to determine the likely pedestrian movements associated with the Bidbury Infant and Junior Schools from the Forty Acre Farm site.
- 3.1.4 To undertake this assessment, several assumptions have been made to calculate the estimated number of pupils that will attend Bidbury Infant and Junior Schools and the likely routes they will take from Forty Acres Farm. The following paragraphs elaborate on the method used.
- 3.1.5 For the Lower Road development site of 43 dwellings, it has been calculated that there will be some two pupils per year group (established from the HCC Education response to the planning application) across seven school years who may attend Bidbury Infant/Junior Schools. This works out to be a total of 14 pupils for 43 dwellings, providing a factor of 0.326 primary age school children per dwelling (14/43).
- 3.1.6 This factor can then be applied to the number of consented residential units at Forty Acres Farm site (320 dwellings, plus the additional 34 dwellings, totalling 354 dwellings) which provides an estimated 115 pupils. Using the modal split set out in the Forty Acre Farm Development Travel Plan (TP), which stated that some 9% of residential trips could be undertaken on foot, the 104 pupils' results in an estimated total of around 10 to 11 pupil trips on foot to primary schools in the AM peak hour. It is also assumed that each pupil will be accompanied by a parent undertaking a return journey, thus resulting in an estimated total of 31 two-way person trips during the AM peak hour.
- 3.1.7 As a worst case it is assumed that all these pupils will attend the Bidbury Junior and Infant Schools.

¹ Based on Google maps directions.

3.1.8 As stated in the previous planning application highways response note, the Forty Acre Farm Transport Assessment did not provide a distribution for local trips undertaken by foot or bicycle. This assessment therefore uses the same approach to route assignment as set out in the previous response note, by using a first principles approach. As established above, the walking route from the Forty Acre Farm Development to Bidbury Infant and Junior Schools is quickest via Bedhampton Hill/Bedhampton Road. Although it is appreciated that Lower Road can provide a quieter route to and from the schools. The proposed walking routes are therefore split equally between Bedhampton Hill and Lower Road, as shown in **Table 3.1**.

Table 3.1: Walking Trips from Forty Acres Farm to Bidbury Schools

Route 1	% Trips	Route 2	% Trips	Route 3	% Trips	Route 4
Havant Road (E)	100%	Bedhampton Hill	50%	Bedhampton Road	50%	North Street
		Lower Road	50%	Bidbury Lane	50%	North Street

Source: Consultant calculations and assumptions.

3.1.9 As can be seen in the table above, it is assumed that all school walking trips will head east on Havant Road, and then split 50/50 between routes via Lower Road and Bedhampton Hill. This assignment has been applied to the expected walking trip generation from Forty Acre Farm development to Infant/Junior School trips. This trip generation is then added to the expected total pedestrian movements on Lower Road, including existing flows, phase 1, proposed phase 2 and the other Forty Acre Farm development movements, the resulting flows are shown in **Table 3.2**. All flows (excluding Forty Acre Farm movements) are taken from Table 6.4 of the Proposed Development Transport Assessment (*Ref: ITB12174-012B*) and Table 3.9 of the previous Highways Response note (*Ref: ITB12174-015A*).

Table 3.2: Existing, Phase 1, Proposed Phase 2, and Forty-Acre Farm Pedestrian & Cycle movements on Lower Road

Weekday Average	Pedestrian Movements				
	Existing	Phase 1	Proposed Development	Forty Acre Farm	Total
AM Peak Hour	20	12	14	18	64
PM Peak Hour	21	8	6	2	37
Daily	135	84	76	54	349

Source: ITB12174-012B R Transport Assessment and Consultant's calculations.

Note: Input errors noted in peak hours of Table 6.4 of the Transport Assessment have been rectified above

3.1.10 The table above demonstrates that there could be 64 pedestrian movements in the AM peak hour, which is an additional 16 movements above the previous estimate. Note that school trips will not be undertaken in the PM peak hour, and as such the number of trips in the PM is unchanged. During a day the trips are circa 31 higher than previously to account for the trips to/from the schools and the Forty Acre Farm site as a worst case.

3.1.11 Using the vehicular trips rates set out in the Transport Assessment, and Table 3.10 in the previous Highways Response note, **Table 3.3** shows the average existing weekday vehicle and pedestrian/cyclist movements on Lower Road from Forty Acre Farm site, alongside the Phase 1 and the proposed development movements.

Table 3.3: Existing, Phase 1, Proposed Phase 2, and Forty-Acre Farm Pedestrian and Cyclists vs. Vehicles on Lower Road

Weekday Average	Vehicular Movements					Cyclist Movements					Pedestrian Movements				
	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total
07:45 – 08:45	44	26	23	0	93	19	2	1	1	23	20	12	14	18	64
16:15 – 17:15	50	26	23	0	99	33	2	1	1	37	21	8	6	2	37
07:00 – 19:00	504	227	218	0	949	100	13	6	7	126	135	84	76	54	349

Source: ITB12174-012B R Transport Assessment and Consultant's calculations.

3.1.12 The forecast number of pedestrian and cycling movements as a total of all forecast movements on Lower Road will range between 48% (Morning peak: 64 pedestrians and 23 cyclists divided by 180 all movements) and 43% (unchanged from the previous assessment) in the evening peak hour (Evening peak: 37 pedestrians and 37 cyclists divided by 173 all movements).

3.1.13 The conclusion in the previous note remains unchanged, in Table 3.3 it shows that over a day, the amounts of pedestrians and cyclists using Lower Road against the number of vehicles will continue to be high when the development is completed. Some 33% of daily movements will be in the form of pedestrians and cyclists (349 pedestrians and 126 cyclists divided by 1,424) i.e., it will continue to be a genuine shared surface during busier times and throughout the day.

Sensitivity Scenario

3.1.14 As undertaken in the previous response note, a sensitivity scenario has also been undertaken as a worst case, this includes doubling the expected percentage of (non-school) walking and cycling trips along

Lower Road associated with the Forty Acre Farm site as well as adding the additional Forty Acre school pupil walking trips, these are shown in **Table 3.4**.

Table 3.4: Sensitivity Scenario – Foot and Cycle Trips via Lower Road

Mode	Development Element	AM Peak			PM Peak			Total Daily Trips
		Arr	Dep	Two Way	Arr	Dep	Two Way	
On Foot	354 Residential Dwellings	12	5	20	3	2	4	71
	66 Unit Care Home	0	0	0	0	0	0	7
	Total	12	5	20	3	2	5	78
Bicycle	354 Residential Dwellings	0	1	1	1	1	2	13
	66 Unit Care Home	0	0	0	0	0	0	0
	Total	0	1	1	1	1	2	13

Source: Consultant's calculations. Note: Numbers may not sum due to rounding

3.1.15 Again, using the vehicular trips rates set out in the Transport Assessment, **Table 3.5** shows the average existing weekday vehicle and pedestrian / cyclist movements on Lower Road from Forty Acre Farm site as a sensitivity test, alongside the Phase 1 and the proposed development movements.

Table 3.5: Sensitivity Scenario – Existing, Phase 1, Proposed Phase 2, and Forty-Acre Farm Pedestrian and Cyclists vs. Vehicles on Lower Road

Weekday Average	Vehicular Movements					Cyclist Movements					Pedestrian Movements				
	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total
07:45 – 08:45	44	26	23	0	93	19	2	1	1	23	20	12	14	20	66
16:15 – 17:15	50	26	23	0	99	33	2	1	2	38	21	8	6	5	40
07:00 – 19:00	504	227	218	0	949	100	13	6	13	132	135	84	76	78	373

Source: ITB12174-012B R Transport Assessment and Consultant's calculations.

3.1.16 The above table demonstrates that the number of pedestrians and cyclists using Lower Road against the number of vehicles will continue to be high when both phases of the development are completed along with Forty Acre Farm development. The sensitivity scenario forecast number of pedestrian and cycling movements as a total of all forecast movements on Lower Road will range between 49%

(Morning peak: 66 pedestrians and 23 cyclists divided by 182 all movements) and 44% (unchanged from the previous assessment) in the evening peak hour (40 pedestrians and 38 cyclists divided by 176 all movements).

3.1.17 Table 3.5 also shows that over a day, the amounts of pedestrians and cyclists using Lower Road in the sensitivity scenario against the number of vehicles will continue to be high when the development is completed. Some 35% of daily movements will be in the form of pedestrians and cyclists (373 pedestrians and 132 cyclists divided by 1,454) i.e., the same conclusion as above, it will continue to be a genuine shared surface during busier times and throughout the day in the sensitivity scenario. The increase in walking trips attributed to the Bidbury Infant and Junior schools is an approx. increase of 3% in pedestrian and cycle movements across the day when compared to the previous assessment in the original response note.

SECTION 4 Rusty Cutter Roundabout Improvements

HCC Interpreted Comment

4.1.1 The pedestrian and cycle mitigation improvements at the Rusty Cutter Roundabout as part of the Forty Acre Farm development could increase the number of pedestrian and cycle movements across the A3(M) and A27 to and from Bedhampton Hill and Lower Road.

i-Transport Response

4.1.2 The number of pedestrian and cycle trips previously assessed along Lower Road is considered accurate, in addition a sensitivity scenario has been undertaken which doubles the expected percentage of (non-school) walking and cycling trips along Lower Road associated with the Forty Acre Farm site, this is robust.

4.1.3 However, to address HCC Highways concerns, a further sensitivity scenario has been undertaken that increases the existing number (i.e., the recorded number) of pedestrian and cyclist trips by a further 10%. This scenario includes the phase 1 development trips, the Forty Acre Farm doubled development trips (with additional school walking trips) and the proposed development trips. The results of this additional sensitivity scenario are shown in **Table 4.1**.

Table 4.1: Sensitivity Scenario – Existing with additional 10%, Phase 1, Proposed Phase 2, and Forty-Acre Farm Pedestrian and Cyclists vs. Vehicles on Lower Road

Weekday Average	Vehicular Movements					Cyclist Movements					Pedestrian Movements				
	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total	Existing	Phase 1	Proposed Dev	Forty Acre Farm	Total
07:45 – 08:45	44	26	23	0	93	21	2	1	1	25	22	12	14	20	68
16:15 – 17:15	50	26	23	0	99	36	2	1	2	41	23	8	6	5	42
07:00 – 19:00	504	227	218	0	949	110	13	6	13	142	149	84	76	78	387

Source: ITB12174-012B R Transport Assessment and Consultant's calculations.

4.1.4 The above table demonstrates that the number of pedestrians and cyclists using Lower Road against the number of vehicles will continue to be high when both phases of the development are completed along with Forty Acre Farm development. The sensitivity scenario forecast number of pedestrian and cycling movements as a total of all forecast movements on Lower Road will range between 50% (Morning peak: 68 pedestrians and 25 cyclists divided by 186 all movements) and 46% (Evening peak: 42 pedestrians and 41 cyclists divided by 182 all movements) in the evening peak hour.

4.1.5 **Table 4.1** also shows that over a day, the amounts of pedestrians and cyclists using Lower Road in the sensitivity scenario against the number of vehicles will continue to be high when the development is completed. Some 36% of daily movements will be in the form of pedestrians and cyclists (387 pedestrians and 142 cyclists divided by 1,4787) i.e., the same conclusion as above, it will continue to be a genuine shared surface during busier times and throughout the day in the sensitivity scenario. This further sensitivity scenario is an approx. increase of 4% in pedestrian and cycle movements across the day.

SECTION 5 Brookside Road/Bedhampton Road junction

HCC Interpreted Comment

5.1.1 The increase in traffic alongside Brookside Road resulting from the proposed development could make it more difficult for pedestrians to cross Brookside Road at the Brookside Road/Bedhampton Road junction.

i-Transport Response

- 5.1.2 The existing crossing across Brookside Road at the Brookside Road/Bedhampton Road junction is currently a straight across crossing with dropped kerbs, this requires pedestrians to cross Brookside Road in one movement and do so slightly off the desire line.
- 5.1.3 An improvement scheme has been investigated by the applicant that develops and enlarges the existing traffic island to create a pedestrian refuge to allow pedestrians to cross in two stages. This design requires the realignment of the eastern footway, amendments to the dropped kerb positions, the addition of tactile paving, relocation of 'keep left' bollard and relocation of the existing street nameplate. However, in discussion with HCC it was agreed that the scheme may result in the crossing being in a location where there is reduced pedestrian visibility and on reflection it is agreed that the existing crossing location is preferable.
- 5.1.4 Notwithstanding this, HCC produced a draft Local Walking and Cycling Infrastructure Plan (LCWIP) in September 2021. The LCWIP includes an aspiration for improved walking and cycling provision on Bedhampton Road and this includes a range of improvements which could further consider improved crossing facilities at the junction of Brookside Road and Bedhampton Road. It has been agreed that the applicant will help bring forward the future LCWIP improvements or other pedestrian measures at the Brookside Road/Bedhampton Road junction and potentially on Bidbury Lane through a contribution sum via a s106 Agreement – this is documented below.

SECTION 6 Contribution towards Local Cycling and Walking Infrastructure Plan

HCC Interpreted Comment

- 6.1.1 HCC are seeking a contribution towards LCWIP measures and will provide more detailed information on the cost of them, their proposed design and how a contribution towards them will meet the CIL tests governing planning obligations.

i-Transport Response

- 6.1.2 In discussion with HCC it has been agreed that HCC's draft LCWIP includes an aspiration for improved walking and cycling provision on Bedhampton Road. The specific area of the LCWIP that is most relevant to the application site is:
- Route 275 Portsdown Hill Road – Warblington Station

- Ref No. 275.1.4 – Upgrade dropped kerbs, implement cycle lane. Noted as LOW COST.
- Ref No. 275.1.5 - Mandatory cycle lanes, verge space and central reservations removed/ reduced in width. Noted as MEDIUM COST.

6.1.3 It is intended that the LCWIP 275.1.5 scheme will create a 'lightly segregated' cycleway on Bedhampton Road between the Bedhampton Road roundabout and Bedhampton railway station. HCC have confirmed that their initial work estimates the cost of providing 'lightly segregated' cycleways is £240 per metre.

6.1.4 Whilst a cycleway between the Bedhampton Road roundabout and Bedhampton railway station will be of benefit to residents of the proposed development, they will not need to use all of it, as the majority of cycle trips from the development that route towards the railway station will use Bidbury Lane and join Bedhampton Road via Kings Croft Lane. This means that cyclists from the development will use around 300m of the proposed cycleway.

6.1.5 As an alternative route, the development cyclists, may choose to route from Bidbury Lane to Bedhampton Road via Bidbury Mead. Should they do this, then development cyclists will use 450m of the proposed cycleway.

6.1.6 On this basis it is agreed that the applicant will fund 450m of the cycleway at £240m and provide a contribution to HCC of £108,000 (450m x £240). This sum will enable HCC to either provide 300m of cycleway plus some further improvements at the junction of Brookside Road and Bedhampton Road and or Bidbury Lane or 450m of cycleway.

Summary of sustainable transport improvement package

6.1.7 It has been agreed that the application will provide a sustainable transport package to the value of £164,400 as follows:

- Contribution of £108,000 towards:
 - The LCWIP improvements between the Bedhampton Road roundabout and Bedhampton Station; and/or
 - Pedestrian improvements in the vicinity of the Brookside Road / Bedhampton Road junction; and / or
 - Pedestrian improvements on Bidbury Lane and the wider route to Bidbury School.
- Delivery of a Travel Plan with measures of £39,900.
- Payment of HCC Travel Plan monitoring and approval fees of £16,500.

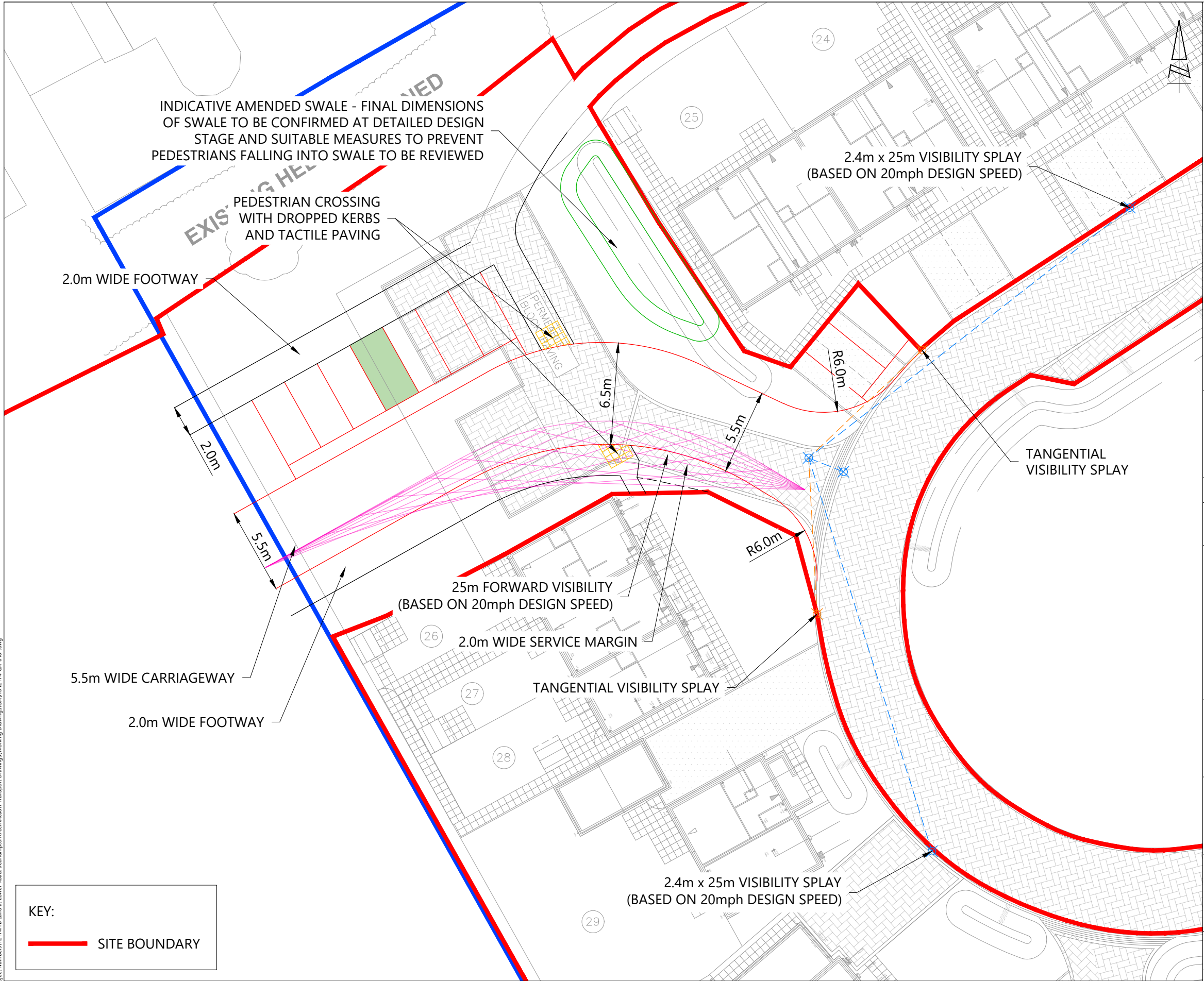
SECTION 7 Summary

7.1.1 Following discussions with the highways officers at HCC, this note has addressed the final queries raised by HCC. The additional information contained within this note and the accompanying drawings provide responses to HCC's remaining verbal comments which will allow the removal the holding objection to the planning application on Land west of Old Manor Farm, south of Lower Road, Bedhampton.

7.1.2 The summary of the points addressed are as follows:

- **Site access from phase 1.**
 - Updated drawing ITB12174-GA-018 Rev F shows an amended swale and walking provision.
- **Pedestrian trips from the approved Forty Acre Farm Development**
 - The pedestrian trips from the Forty Arce Farm site that are likely to use Lower Road to access the Bidbury Schools have been quantified and included in an updated assessment. The conclusions of the previous assessment work are unchanged in that Lower Road will continue to operate as a shared surface.
- **Increase of walking trips due to improvements at the Rusty Cutter Roundabout.**
 - The potential increase in pedestrian trips arising from the committed improvements at the Rusty Cutter junction have been quantified and included in an updated assessment. The conclusions of the previous assessment work are unchanged in that Lower Road will continue to operate as a shared surface.
- **Improvements to the pedestrian crossing across Brookside Road at the Bedhampton Road (B2177) junction.**
 - An improvement scheme of the crossing of Brookside Road at the Bedhampton Road junction is provided for through the agreed contribution sum (£108,000) via a s106 Agreement.
- **Contributions towards the Local Cycling and Walking Infrastructure Plan**
 - The LCWIP measures to deliver a cycleway on Bedhampton Road is provided for through the agreed contribution (£108,000) sum via a s106 Agreement.

DRAWING



NOTE:
TACTILE PAVING, SIGNAGE AND KERB DETAILS
TO BE DESIGNED AND SPECIFIED AT DETAILED
DESIGN STAGE

F	22.06.22	JD	SITE ACCESS UPDATED	SJ	SJ
E	16.06.22	JD	SITE ACCESS UPDATED	BC	SJ
D	01.03.22	JD	RSA COMMENTS INCORPORATED	BC	SJ
C	15.02.22	JD	SITE ACCESS UPDATED	BC	SJ
B	10.02.22	JD	SITE ACCESS UPDATED	BC	SJ
A	26.01.22	JD	SITE ACCESS UPDATED	BC	SJ

REV	DATE	BY	DESCRIPTION	CHK	APD
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STATUS: FOR INFORMATION



The Square, Basing View,
Basingstoke, Hampshire, RG21 4EB
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TITLE:
PROPOSED SITE ACCESS ARRANGEMENT FROM PHASE 1 SITE

PROJECT:
LAND WEST OF OLD MANOR FARM, BEDHAMPTON

CLIENT:
BARGATE HOMES

DRAWN:	CHECKED:	APPROVED:
JMc	BC	SJ

PROJECT No:	SCALE @ A3:	DATE:
ITB12174	1:250	23.08.21

DRAWING No:	REV:
ITB12174-GA-018	F

T:\Projects\12000 Series Project Numbers\12174\ITB Land at Lower Road, Bedhampton\Tech\Acad\i-Transport Drawings\Working Drawings\GA\ITB12174-GA-018F.dwg

KEY:
SITE BOUNDARY

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