Thanington 4th Arm Slip Road

Walking, Cycling & Horse-Riding Assessment & Review Report

On behalf of **Pentland Properties**

Project Ref: 39183/2001 | Rev: 1 | Date: October 2017

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1 Introduction

1.1 Introduction

1.1.1 Peter Brett Associates LLP (PBA) have been appointed by Pentland Properties Limited to carry out the Stage 1 (preliminary) design of the proposed 4th arm slip road at Thanington. The design and delivery of this off slip from the A2 is a planning requirement of the outline planning consent granted for mixed use development known as Thanington Park, Canterbury. The proposed off slip is referred to as the 'Thanington 4th Arm Slip Road'.

1.2 Background

1.2.1 The scheme is a highway improvement scheme that will have a permanent impact on the trunk road and local highway networks, therefore the HD 42/17 Walking, Cycling & Horse-Riding Assessment and Review applies. In accordance with HD 42/17, the scale of the scheme has been assessed (by the Lead Assessor) and is considered to qualify as a 'large' scheme for the purposes of this assessment. Therefore, the scheme will be subject to a Walking, Cycling & Horse-Riding Assessment (chapters 2 and 3 of this document) and Review (chapters 4 and 5) of this document) as part of the Stage 1 Preliminary design stage. This will be followed by Walking, Cycling & Horse-Riding Review at the Stage 2 detailed design.

1.3 Proposed Highway Scheme

1.3.1 The proposed scheme involves the provision of the new off slip from the Dover bound carriageway of the A2, currently this direction is not served by the existing grade separated interchange at the A2/A28 Wincheap junction. The slip road will connect to Ten Perch Road, which is to be upgraded to provide 2 lanes in either direction and to relocate the existing roundabout at its northern end. The image below shows the proposed scheme.



Figure 1: Proposed scheme layout

1.3.2 The existing junction of Ten Perch Road and the A28 will be amended to align with the slip road and future relief road as part the proposals

1.3.3 The proposed Thanington 4th Arm Slip Road forms part of the wider Canterbury City Council and Kent County Council strategic transport plan for this area of Canterbury, and will form part of their proposed Wincheap Relief Road which aims to create a gyratory system within the Wincheap area.

1.4 Study Area

1.4.1 The figure below shows the approximate study area for the assessment report. The area covers a 5km radius from the centre of the scheme and encompasses the city centre of Canterbury, the University of Kent and the villages of Chartham, Bridge and Blean. The area also covers the Great Stour river to the north and open countryside to the south.

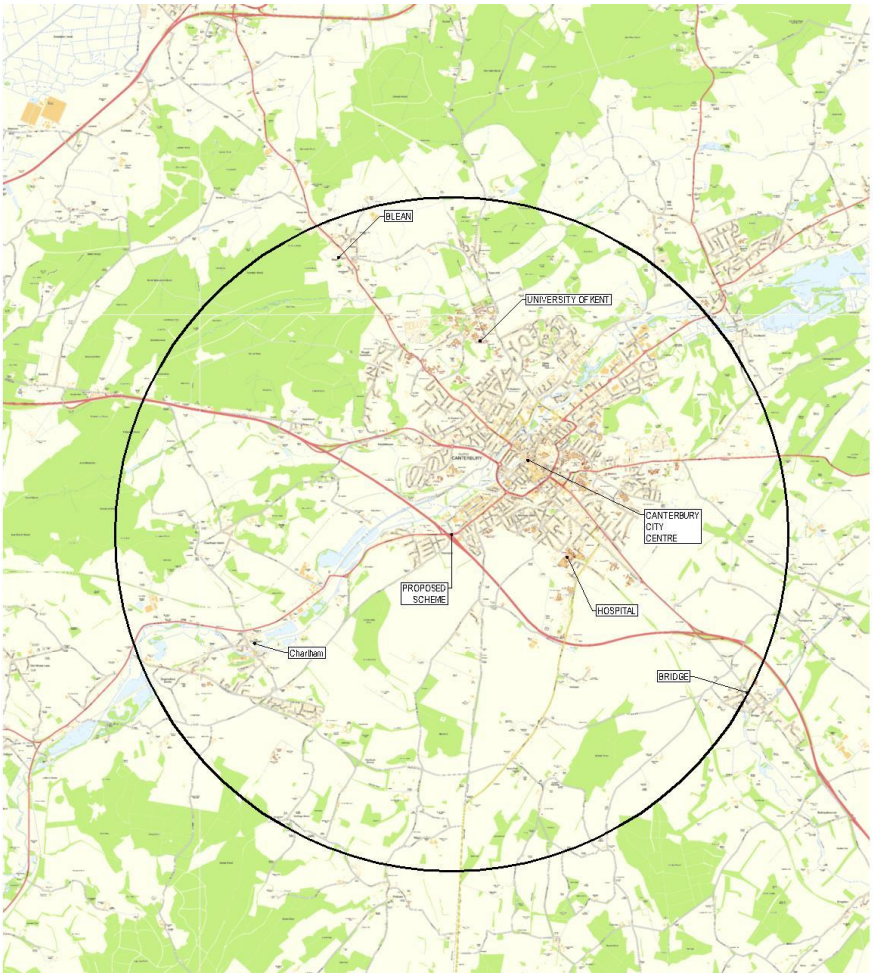


Figure 2: Study Area - 5km radius

2 Walking, Cycling & Horse-Riding Assessment

he findings of the assessment and any potential opportunities for improvement, are summarised below, as set out in Chapter 4 of HD42/17.

2.1 Review of Walking, Cycling & Horse-Riding Policies and Strategies

2.1.1 The following documents have been reviewed as part of the Assessment:

a. Canterbury City Council Local plan

b. Canterbury District Transport Strategy

c. Kent County Council Local Transport Plan (LPT3 and Draft LPt4 version)

d. Thanington Park Transport Assessment

e. DfT Cycling and Walking Investment Strategy

2.1.2 The CCC local plan and transport strategy both support schemes to encourage sustainable transport measures (eg Walking /cycling routes) and promote future facilities in Canterbury none are located within the immediate area of the proposed slip road. A number of new routes are proposed from the wider Wincheap and Thanington area. The new 4th arm slip road features prominently within the strategy, as part of the Wincheap Relief Road scheme. The Park and Ride is to be extended in the future to offset the spaces lost through the construction of the off slip, and to provide additional parking capacity.

2.1.3 The KCC Local Transport Plan provides support for schemes to unlock development and promote use of 'Active Transport 'as part of the 'Safer and Healthier County' policy. There are no specific walking or cycling scheme detailed within the vicinity of the proposed off slip. The 4th arm slip road and Wincheap relief road form part of the draft policy.

2.1.4 The transport assessment for the Thanington Park development requires the existing London A2 off slip and junction with the A28 to be reconfigured to provide a site access to the development. The proposals will alter the layout of the signalised A28 junction, and provide a shared use footway cycleway to the development.

2.2 Collision Data

2.2.1 Personal injury data has been collected for the A2 between the Harbledown and Bridge junctions, and A28 from Thanington to the Rheims Way roundabout for the 5-year period to 30 June 2016 as provided by Kent County Council. The data shows a total of 54 slight incidents, 6 serious and 1 fatality. 6 of the incidents noted as slight injury involved cyclists, on parts of the network outside of the proposed off slip, generally the cyclists and drivers of vehicles have failed to observe one another resulting in minor collisions.

2.2.2 One of the serious injury incidents involved a cyclist using the A2 Dover bound on slip, this appears to be an isolated incident and is outside of the scope of the proposed works.

2.2.3 The fatality is noted to have occurred near the Nackington Road emergency off slip, where a vehicle has overturned. This is beyond the scheme limits and did not involve pedestrians, cyclist or Horse riders.

2.3 Public Transport Services & Interchange Information

2.3.1 The figure below show the location of the bus stops in the immediate vicinity of the scheme, the closest bus stops are located in Wincheap, to the east of the scheme, and in Ten Perch Road at the park and ride facility.



Figure 3: Existing bus stop location

2.3.2 A summary of the local routes and frequencies (In bus services per hour) for the AM and PM peak is presented in the table overleaf. For ease of reference, the daytime frequency is quoted as the total number of buses between the peaks.

Table 1 Existing bus services

Service No.	Route Description	Frequency at AM Peak (0800-0900)	Frequency at PM Peak (1700-1800)	Daytime Frequency
1	Ashford - Wye - Chilham - Chartham - Canterbury	1	1	13
1A	Ashford - Wye - Chilham - Chartham - Canterbury	1	3	15
1X	Ashford - Wye - Chilham - Chartham - Canterbury	2	0	4
004	Chartham - Thanington - Canterbury - Spires Academy	1	0	2
649	Brymore Road - Canterbury City Centre - Wincheap	0	0	1
653	Canterbury High School - Chartham	1	0	1
667	Challock - Old Wives Lees - Canterbury	1	0	3
952	Canterbury Bus Station - Chaucer School	1	0	1
P2	Wincheap Park & Ride - Canterbury City Centre	7	8	63

2.3.3 The Park and Ride operates off-bus ticketing and services run between the site and Canterbury City centre at a timetabled frequency of 8 minutes, Monday to Friday (no services on a Sunday) between 07:00 and 19:30.

2.3.4 There are no rail facilities in the immediate vicinity of the scheme. The nearest rail station is Canterbury East station, approximately 1.1km to the east of the site access via the A28. Canterbury West rail station is located 1.9km to the north east of the site, and can be accessed either via the a28 or the off road shared use route located on the northern side of the Great Stour (a footway cycleway bridge link is provided between Ten Perch Road and this route).

2.4 Trip Generators

2.4.1 There are number of trip generators within the vicinity of the proposed 4th arm slip road, that may be attractive to pedestrians and cyclists, including:

a. The Morrison's supermarket in Ten Perch Road

b. The retail park to the north of Ten Perch Road

c. Thanington Recreation Ground

d. The retail units in Homersham

e. The Wincheap Estate (retail and light industrial units)

f. Canterbury City Centre, including Canterbury Cathedral and the Marlow theatre

2.4.2 The Thanington Park development, the planning consent which requires the provision of the 4th arm slip road, is located to the south west of the scheme. The development proposals consist of 750 homes, a business park, a new primary school, sports pitches, community facilities and a new, purpose-built hospice. Access to the site will be via two new junctions from Cockering Road, and by modifying the existing A2 London Bound Off Slip. This development is likely to increase pedestrian and cycle trips, although alternative routes away from the A28 are included with the development proposals.

2.5 Site Visit

2.5.1 A number of site visits have been undertaken by Anthony Moore (Lead Assessor), the dates and times of these are listed below:

a. 28 February 2017, 15:30 to 16:30. This visit was undertaken during overcast weather conditions, to review the existing junction and facilities in Ten Perch Road and the A28 Wincheap junctions.

b. 6 March 2017, 19:00 to 20:00. This visit was undertaken during clear weather conditions, primarily to review the existing Ten Perch Road and A28 junction. No cyclists were observed through the scheme, and a low number of pedestrians were observed walking between the Thanington residential area and the A28 towards Wincheap or the Morrison's supermarket. Currently there is street lighting to both the A28 and Ten Perch Road.

c. 17 July 2017, 14:00 to 16:30. This site visit was undertaken to the existing pedestrian and cycle facilities within the vicinity of the scheme (there are no equestrian facilities) and included the A28 Wincheap junctions, the facilities in Ten Perch Road and the shared use route north of the Great Stour river.

2.5.2 The primary findings of the site visits are listed below:

a. Pedestrians using the existing signalised crossing at the A2 London bound of slip/A28 junction, travelling from the Thanington residential area (accessed via the footpath adjacent to the off slip) to and from the City Centre direction, and Morrison's supermarket

b. Evidence of pedestrians walking up the embankment behind the A2/A28 overbridge, this is likely to be lorry drivers parking in the existing layby accessing the Morrison's supermarket.

c. Use of the shared use route north of the Great Stour, by pedestrians and cyclists. The bridge link to Ten Perch Road was observed to be used by pedestrians and a low number of cyclists.

d. A large number of passengers using the Park and Ride bus stop facility, those observed were using the car parking facility. A number of those egressing the bus were observed to walk to Morrison's prior to returning to the car park.

e. A low number of pedestrians walking along the Boundary between the Retail Park and the Wincheap Industrial Estate.

2.6 Consultation with Key Stake Holders

2.6.1 Currently the scheme is at the preliminary design stage and therefore the consultation is currently limited to Highways England, Kent County Council and Canterbury City Council, meeting have been held with these authorities as noted below.

a. Meetings with Highways England were held on 24 February 2017 and 6 April 2017, where the principles and layout of the scheme were discussed and agreed. Minutes of these meetings are included in Appendix B

b. Meetings with Kent County Council and Canterbury City Council, including the walking and cycling officer, were held on 15 March 2017 and 14 July 2017. The scheme principles, layout, and interaction with the wider Wincheap relief road were discussed and agreed. Both KCC and CCC are supportive of the scheme as proposed.

2.6.2 Wider consultation on the scheme proposals will be undertaken as part of the planning application stage of the scheme.

2.7 Existing Pedestrian, Cycle and Equestrian Facilities within the Local Area

2.7.1 The following pedestrian, cyclist and equestrian facilities within the scheme extents have been identified:

Pedestrian Facilities

2.7.2 Signal controlled pedestrian crossings are incorporated in the existing signalised junctions of the A28/Ten Perch Road, the A28/Homersham and the A28 and the London bound A2 off and on slip roads. The footways on the southern side of the A28 are provided at an average width of 2.4m, whilst the northern footways are approximately 2.0m wide. The footways are predominantly asphalt concrete construction, in good condition apart from the area of vehicle overrun damage at the A28/A2 London bound off slip junction.



Photograph 1: Damage to footway A2 London bound off slip

2.7.3 Footpath link from the A28/A2 London bound off slip road junction to the existing Thanington residential area.



Photograph 2: Footpath link to Thanington

2.7.4 Footways on the A28 Thanington Road, at a nominal width of 2.3m on both sides. The footways are constructed in sections of flag paving and asphalt concrete, with vehicle crossings to existing properties. Generally, the footways are in good condition, dropped kerbs are provided at junctions but not all have tactile paving.

2.7.5 Footways are provided on the A28 Wincheap, at a nominal width of 2.0m. Again, these are constructed in section of flag paving and asphalt construction. Dropped kerbs are provided junctions, but tactile paving is not installed at all.

2.7.6 A footway is provided on the eastern side of Ten Perch Road, at a nominal width of 2.4m. A footpath is provided on the western side of Ten Perch Road, this is located away from the carriageway within the Park and Ride, the nominal width of this footpath is 3.0m. Whilst this appears to be used as a shared use route there is no signage provided to confirm this.



Photograph 3: Footpath to the west of Ten Perch Road

2.7.7 Informal crossing points, with tactile paving, are provided on the northern and eastern arms of the roundabout at the access to Morrison's and the Park and Ride on Ten Perch Road. The crossing point on the western side is provided with dropped kerbs but no tactile paving.

2.7.8 A second informal crossing point is provided north of the Morrison's roundabout, linking the path from the store to the Park and Ride.

2.7.9 Informal crossing points, with tactile paving, are provided to the southern and eastern arms of the roundabout at the northern limit of Ten Perch Road. The crossing to the western arm has dropped kerbs only to the outer kerb lines, whilst tactile paving is provided in the splitter island. A crossing point is also provided on the northern arm, set back inside the retail park access itself.

2.7.10 A shared use footway cycleway link is provided from Ten Perch Road, to the off-road route north of the Great Stour (the Stour Valley Walk). A pedestrian cyclist bridge is provided over the river, north of the Ten Perch Road roundabout.

2.7.11 Raised bus border kerbs are provided at the existing bus stop in Ten Perch Road, serving the Park and Ride.



Photograph 4: Park and Ride bus stop in Ten Perch Road

2.7.12 The existing bus stop on the A28 Wincheap, east of the Ten Perch Road junction (east bound), is provided with raised bus border kerbs and a bus shelter.

2.7.13 The existing bus stop on the A28 Wincheap, east of the Ten Perch Road junction (west bound), is provided with raised bus border kerbs.

Cycle Facilities

2.7.14 The figure below shows the existing cycle facilities in the vicinity of the site, taken from the Sustrans website

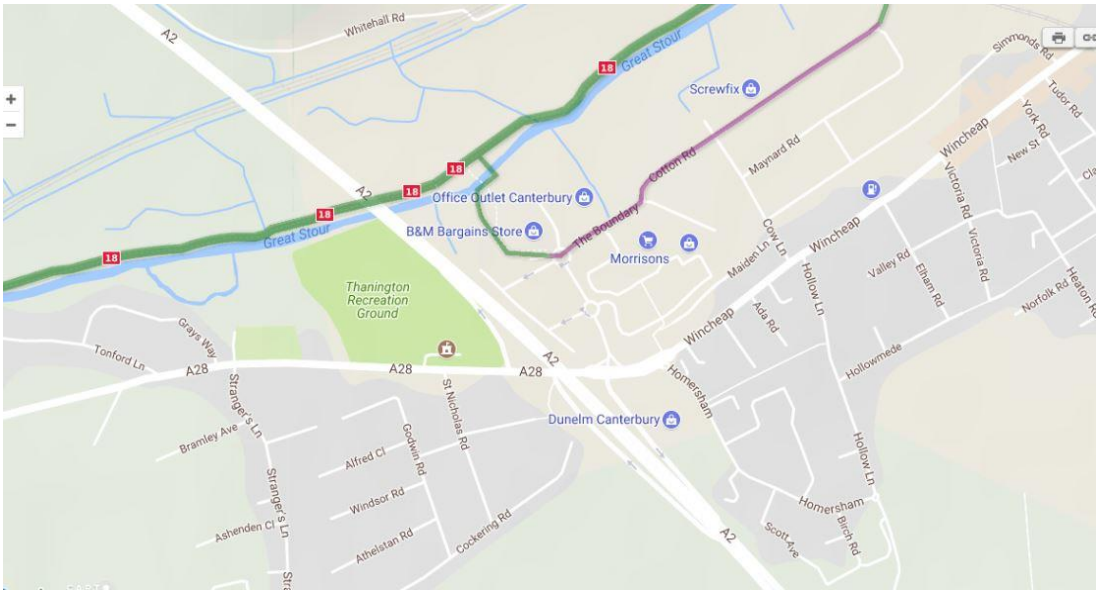


Figure 4: Sustrans cycle map

2.7.15 The footpath on the western side of Ten Perch Road is not signed as a cycle route, but was observed to be used by cyclists during the visit as it connects to the existing shared use route (the Stour Valley Walk) to the north of the Great Stour river via a bridge. There is no signage provided on site to highlight this link. Access for cyclists from the carriageway is only provided by use of the pedestrian crossing points at the A28/Ten Perch Road signalised junction and the dropped kerbs on the western roundabout arms in Ten Perch Road

2.7.16 An on-road cycle route is shown on the 'Canterbury City Council cycle map' linking Ten Perch Road to the Wincheap estate, via 'The Boundary'. Directional cycle signage is provided at the junction of the Boundary and Cotton Road. A cycle bypass lane is provided around the road narrowing traffic calming feature in Cotton Road.



Photograph 5: Traffic calming feature with cycle bypass

2.7.17 National cycle route (NCN18), known as the Stour Valley Walk, is located on the northern side of the Great Stour River. This provides a traffic free route between Chartham and Canterbury.



Photograph 6: Stour Valley Way cycle route

Equestrian Facilities

2.7.18 There are no existing equestrian facilities within the immediate vicinity of the site.

Walking and Cycling User Survey Data

2.7.19 The table below summarises the walking and cycling user survey data provided by Traffic Survey Partners on 3 May 2017, taken during peak hours (am peak 07:00 to 10:00, and pm peak 16:00 to 19:00)

Table 2 Pedestrian and Cycle User Survey Data

		Ped 1	Ped 2	Ped 3	Ped 4	Ped 5	Ped 6	Ped 7	Ped 8	Ped 9	Ped 10	Ped 11	Ped 12	Ped 13	Ped 14	Ped 15	Ped 16	Ped 17
AM	Pedestrian	11	0	4	6	55	49	22	109	8	0	21	1	1	153	23	24	24
	Cyclists	0	0	1	1	0	1	0	7	0	0	2	0	0	7	1	2	3
PM	Pedestrian	21	7	19	38	66	32	34	156	6	0	41	3	2	95	43	40	42
	Cyclists	3	0	3	3	1	5	1	19	3	0	2	0	0	5	2	2	2

2.7.21 The following is a summary of the main points from the data:

a. There is a light cycle usage through both the A28 junction and on Ten Perch Road.

b. Pedestrian crossing movements between the Morrison's Supermarket and the Park and Ride site/bus stop. From the survey data, it appears pedestrians are crossing Ten Perch Road at both existing informal crossing points and between the crossings (locations ped 5,6 and 7 on the image below)

The existing A28 signalised crossing (at the Ten Perch Road junction) are well used, with the predominant movements east/west along the A28 rather than across it, linking to the City Centre.

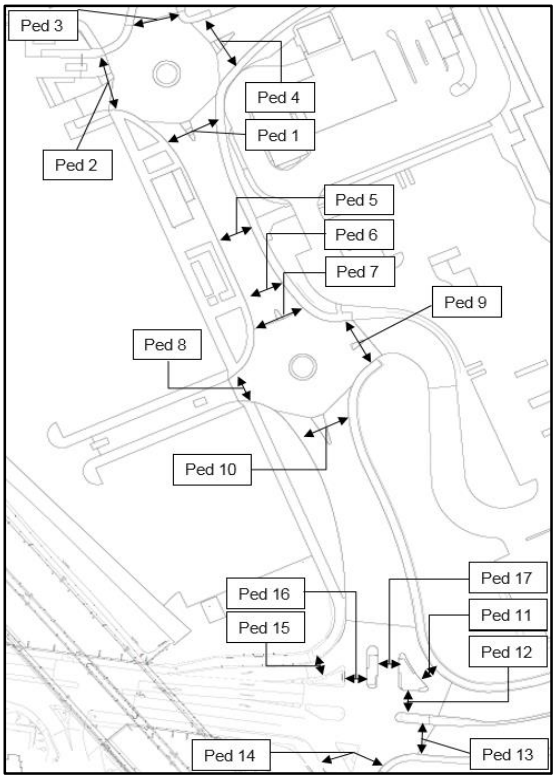


Figure 5: Survey Locations

2.8 Existing Pedestrian, Cyclist and Equestrian Facilities Beyond Scheme Extents and Links to County/Strategic Networks

2.8.1 The following pedestrian, cyclist and equestrian facilities outside of the immediate scheme extents have been identified:

Pedestrian and Cycle Facilities

2.8.2 Existing shared use footway cycleway in Homersham, between the A28 Wincheap and Hollow Lane.

2.8.3 The shared use route located north of the Great Stour River (the Stour Valley Walk) forms part of National Cycle Route 18 between Canterbury and Tunbridge Wells.

2.8.4 On road cycle route within the Wincheap Industrial Estate, via Cotton Road

2.8.5 National Cycle Route 1, the long-distance route between Dover and the Shetland Islands, meet route 18 near Canterbury West rail station.

2.8.6 Regional Route 16 between Canterbury City Centre and Dover, and connects to Regional Route 17 to Dover via Hawkinge.

2.8.7 There are a number of footpaths within the vicinity of the site, as shown in green on the Public Rights of Way map below.

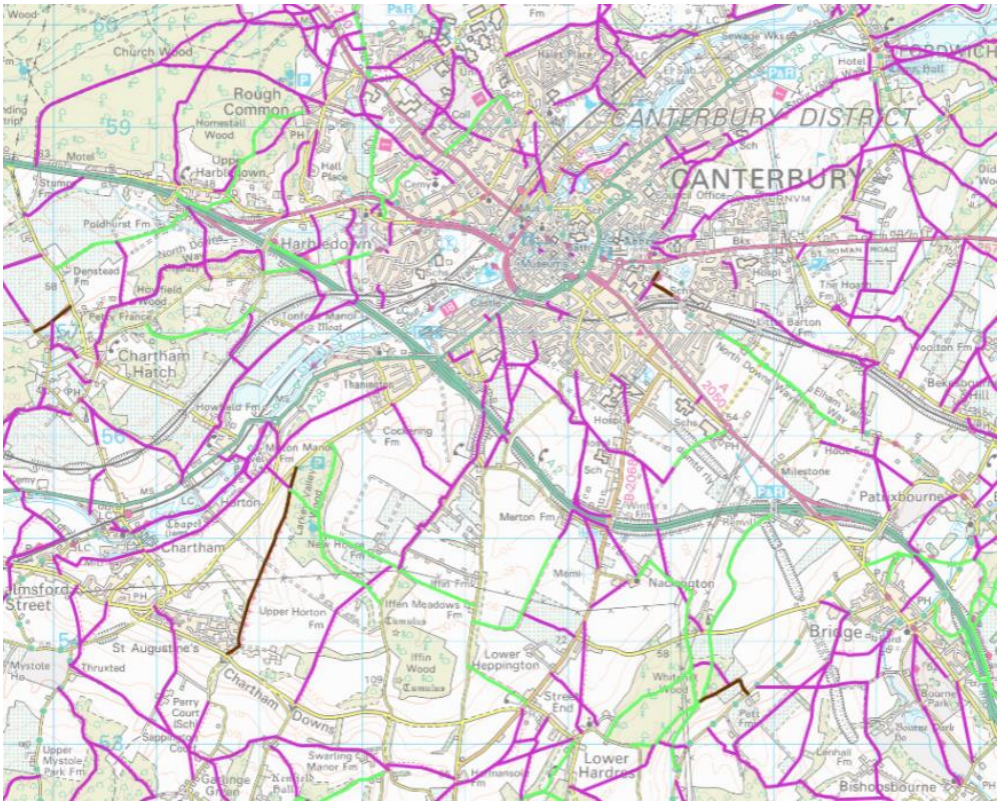


Figure 6 Public Rights of Way map, from KCC Website

Equestrian Facilities

2.8.8 The Public Rights of Way map above shows the extent of Public Rights of Ways in the vicinity of the site, bridleways are shown in brown.

3 User Opportunities

3.1.1 The opportunities highlighted below are considered to be relevant to the highway scheme and should be considered by the wider design team throughout the progression of the scheme design in addition to any further opportunities that may arise through the ongoing development of the design phases.

3.2 General Opportunities

3.2.1 **Assessment opportunity 1:** The existing A28/A2 London bound off slip is to be altered to provide a 2way link road as part of site access to the Thanington Park development. The design of the 4th arm slip road proposals will need to be consistent with the alterations at the A28/A2 London bound off slip amendments.

3.2.2 **Assessment opportunity 2:** The proposals for the consented Thanington Park development include future pedestrian and cycle link through the existing underpass below the A2 at Birch Road, to link to the existing Homersham development.

3.3 Strategic Opportunities

3.3.1 **Assessment opportunity 3:** The proposed Dover bound A2 off slip forms part of the wider Wincheap Relief Road scheme within the Canterbury City Council Local plan, the scheme design will need to consider connections to the future Relief Road.

3.4 Pedestrian Specific Opportunities

3.4.1 **Assessment opportunity 4:** The pedestrian linkages of the A28 and Ten Perch Road, including the signalised junction will need to be considered as part of the design.

3.4.2 **Assessment opportunity 5:** The pedestrian link to the Stour Valley Way from Ten Perch Road will need to be incorporated in to the design. The future extension of the Park and Ride site will affect the route to the existing pedestrian/cycle bridge over the Great Stour and will also need to be considered.



Photograph 7: Existing access to Stour Valley Way link

3.4.3 **Assessment opportunity 6:** The existing pedestrian linkages between the Retail Park, Morrison's and the Park and Ride site will need to be considered as part of the design for the proposals.

3.4.4 **Assessment opportunity 7:** The use of the verge and embankment between the existing layby on the Dover bound carriageway of the A2 and the overbridge shows evidence of use by pedestrians, the proposals will remove the existing layby and subsequently the need for formalising this pedestrian desire line should be reviewed.



Photograph 8: Evidence of pedestrian route to wing wall

3.5 Cyclist Specific Opportunities

3.5.1 **Assessment opportunity 8:** The existing cycle link to the Stour Valley Way from Ten Perch Road will need to be incorporated in to the design. The future extension of the Park and Ride site will affect the route to the existing pedestrian/cycle bridge over the Great Stour and will also need to be considered.

3.5.2 **Assessment opportunity 9:** Provision of cycle facilities to the A28 signalised junctions should be considered.

3.6 Equestrian Specific Opportunities

3.6.1 No specific equestrian opportunities have been identified within the immediate vicinity of scheme.

4 Preliminary Design Stage Walking, Cycling & Horse Riding Review

4.1.1 This chapter reviews opportunities identified during the assessment stage (as noted in Chapter 3 of this document) and actions taken during the preliminary design stage.

4.2 General Opportunities

4.2.1 **Assessment opportunity 1:** The existing A28/A2 London bound off slip is to be altered to provide a 2way link road as part of site access to the Thanington Park development. The design of the 4th arm slip road proposals will need to be consistent with the alterations at the A28/A2 London bound off slip amendments.

4.2.2 **Action taken/Outcome:** This junction is outside of the scope of works for the A2 4th arm slip road, but is being undertaken by the developer of the Thanington Park development. For reference the detailed design of the of the junction alteration is currently in progress (by Peter Brett Associates LLP). The scheme proposals have been agreed with both Highway Authorities (Kent County Council and Highways England). A copy of the General Arrangement plan for the junction is enclosed in Appendix C, the pedestrian and cycle facilities provided are;

a. Shared use footway cycleway on the western side of the proposed link road to the development site, terminating in advance of the junction to allow cyclists to re-join the carriageway.

b. Provision of a staggered pedestrian crossing of the Link Road at the A28 junction

c. The existing crossing of the A28, with narrow central island, is to be removed. Pedestrians wishing to cross north/south on the A28 can use the signalised crossings at existing A2 London bound slip road junction and the A28/Ten Perch Road junctions.

4.2.3 **Assessment opportunity 2:** The proposals for the consented Thanington Park development include future pedestrian and cycle link through the existing underpass below the A2 at Birch Road, to link to the existing Homersham development.

4.2.4 **Action taken/Outcome:** This connection is outside of the scope of works for the 4th arm slip road, but is a requirement of the Thanington Park development. A link through the underpass, to connect to the existing footways in Birch Road and the wider shared use facilities in Homersham is to be provided as the development progresses. This will provide an alternative to the city centre route for pedestrians and cyclists, as detailed in the Transport Assessment for Thanington Park.

4.3 Strategic Opportunities

4.3.1 **Assessment opportunity 3:** The proposed 4th arm slip road forms part of the wider Wincheap Relief Road scheme within the Canterbury City Council Local plan, the scheme design will need to consider connections to the future Relief Road.

4.3.2 **Action taken/Outcome:** Currently the proposals for the relief road are only at an early stage and therefore the pedestrian and cycle provision as part of the relief road scheme has not been determined. The preliminary design of the 4th arm slip road includes footways at the enlarged roundabout at the northern end of Ten Perch Road, including the Boundary arm as connections to the future relief scheme. These should be reviewed at the detailed design stage if further information of the relief road proposals is available.

4.4 Pedestrian Specific Opportunities

4.4.1 **Assessment opportunity 4:** The pedestrian linkages of the A28 and Ten Perch Road, including the signalised junction will need to be considered as part of the design.

4.4.2 **Action taken/Outcome:** Generally, the existing pedestrian crossing facilities at the A28/Ten Perch Road junction have been retained and incorporated in to the proposals.

4.4.3 The existing footway on the western side of Ten Perch Road is to be removed as part of the proposals. The original scheme retained this footway but required a signalised crossing to be installed at the end of the off slip, this would result in traffic queuing on the slip, towards he A2, which was not acceptable to Highways England. Therefore, the footway and associated crossing have been removed to allow a 'free slow slip' to be provided. A 3.0m wide shared use footway cycleway is provided on the eastern side of Ten Perch Road at the junction with the A28 and use the eastern footway in Ten Perch Road. This connects directly to the Morrison's store, and to the Retail Park via the crossing points at the proposed roundabout, two of the trip generators that have been identified.

4.4.4 **Assessment opportunity 5:** The pedestrian link to the Stour Valley Way from Ten Perch Road will need to be incorporated in to the design. The future extension of the Park and Ride site will affect the route to the existing pedestrian/cycle bridge over the Great Stour and will also need to be considered.

4.4.5 **Action taken/Outcome:** The existing link from the roundabout at the northern end of Ten Perch Road has been retained, with the footways at the roundabout linking to this via the proposed crossing points. Pedestrians travelling from the west (Thanington area) will need to cross Ten Perch Road at the A28 junction (as noted in 4.4.3 above) and use the eastern footway in Ten Perch Road, which is to be widened to a 3.0m shared use route as part of the scheme. This results in a marginal increase in walking distance to avoid the proposed off slip. Suitable guard railing to guide pedestrians and prevent access to the western side of Ten Perch Road may need to be considered as part of the detailed design stage.

4.4.6 A signal controlled crossing on The Boundary is to be included within the proposals for the wider Wincheap Relief Road scheme, subject to the availability of land, to aid linkage to the Great Stour Way route from Ten Perch Road

4.4.7 A shuttle bus service between the Thanington Park development and the city centre is to be provided, as noted in the approved Transport Assessment, therefore pedestrians from the Thanington area can use this rather than requiring access to the Park and Ride service to the city centre.

4.4.8 The future extension of the park and ride will affect the route of the link; the design of the extension will need to consider this but is outside of the current scope of works.

4.4.9 **Assessment opportunity 6:** The existing pedestrian linkages between the Retail Park, Morrison's and the Park and Ride site will need to be considered as part of the design for the proposals.

4.4.10 **Action taken/Outcome:** From site observations and the pedestrian counts a number of pedestrians cross Ten Perch Road between the Park and Ride bus stop and the Morrison's store access. The proposed design will relocate the bus stop inside the park and ride, the proposed pedestrian crossing point at the norther end of Ten Perch Road will therefore be located on the desire line between the bus stop and the Morrison's store. The internal layout of the Park and Ride will need to include a pedestrian link directly from the bus stop and the crossing point to maximise its use.

4.4.11 **Assessment opportunity 7:** The use of the verge and embankment between the existing layby on the Dover bound carriageway of the A2 and the overbridge shows evidence of use by pedestrians, the proposals should review the need for formalising this pedestrian desire line.

4.4.12 **Action taken/Outcome:** The proposed off slip from the Dover bound A2 will be constructed through the existing lay by, therefore the layby will need to be removed and removes this issue. A review of potential locations for a replacement layby on this section of the A2 has been undertaken, this shows there is no suitable location that meets current standards within land available.

4.5 Cyclist Specific Opportunities

4.5.1 **Assessment opportunity 8:** The existing cycle link to the Stour Valley Way from Ten Perch Road will need to be incorporated in to the design. The future extension of the Park and Ride site will affect the route to the existing pedestrian/cycle bridge over the Great Stour and will also need to be considered.

4.5.2 **Action taken/Outcome:** The existing link from the roundabout at the northern end of Ten Perch Road has been retained and cyclists can access this link from the carriageway in ten Perch Road. As noted in 4.4.3 above the existing footway on the western side of Ten Perch Road is to be removed, whilst this is not signed as a shared use facility cyclists have been observed to use it.

4.5.3 The footway on the eastern side of Ten Perch Road is to be widened to provide a shared use route, access to this from the signalised junction at the A28 will be provided as part of the scheme. There is insufficient width on the A28 overbridge to provide a shared use footway cycle way towards the A2 London bound off slip junction, therefore the modifications will be limited to the A28/Ten Perch Road junctions

4.5.4 The proposals for the Wincheap Relief Road scheme will allow a shared use footway cycleway to be provided on the A28 Wincheap, providing a more direct route to the city centre. As noted above a signalised crossing point is to be provided on The Boundary to connect with the Great Stour Way route

4.5.5 The future extension of the park and ride will affect the route of the link; the design of the extension will need to consider this but is outside of the current scope of works.

4.5.6 **Assessment opportunity 9:** Provision of cycle facilities to the A28 signalised junctions should be considered.

4.5.7 **Action taken/Outcome:** No additional cycle facilities on the A28 are to be provided as part of the off-slip scheme, due to the following:

a. The existing A28 corridor is constrained by the land available for highway improvements, properties and private land are located up to the rear of the existing footways.

b. The proximity of the junctions from one another further restricts the scope for improvements (for example advanced stop lines for cyclists will reduce the queuing capacity available)

c. The scope of works is limited the A28/Ten Perch Road junction, provision of cycle facilities at this junction, and not the rest of the A28 junctions, would be inconsistent.

5 Preliminary Design Stage Walking, Cycling & Horse Riding Review

5.1.1 This chapter documents any additional user related opportunities identified during the preliminary design phase and records the actions taken /outcomes

5.2 Additional items identified during the preliminary design

5.2.1 **Preliminary Design Stage Opportunity 1:** Currently, cyclists may use the existing A2 dual carriageway. The Stage 1 road safety audit recommends that signage to lead cyclists on to the slip road, and cross perpendicular to the off slip at the end of the nose, should be provided. This would follow the provision at other slip roads from the A2 (for example the Boughton slip road).

5.2.2 **Action taken/Outcome:** There is space within the layout to accommodate the recommendation. The appropriate signage and road markings are to be included in the detailed design of the scheme, as agreed with the Project Sponsor in the Designers Response to the Stage 1 Road Safety Audit.

5.2.3 **Preliminary Design Stage Opportunity 2:** The Stage 1 Road Safety Audit recommends that pedestrian guardrailing is provided at the end of the western footway the A28/Ten Perch Road and to the proposed central reservation in Ten Perch Road (to deter pedestrians from crossing where no footway is provided)

5.2.4 **Action taken/Outcome:** The guardrailing has been included in the scheme proposals, as per the recommendation and agreed with the Project Sponsor in the Designers Response to the Stage 1 Road Safety Audit.

6 Walking, Cycling & Horse-Riding Review Team Statement

6.1.1 As Lead Assessor, I confirm that this Walking, Cycling & Horse-Riding Review Report has been compiled in accordance with DMRB HD 42/17 and thus records all design team deliberations and decisions relating to Walking, Cycling & Horse-Riding issues and opportunities.

6.1.2 The Walking, Cycling & Horse-Riding Review was undertaken by the following team:

Walking, Cycling & Horse-Riding Lead Assessor

Anthony Moore, TMICE Associate	Signed:
Peter Brett Associates LLP	Date:

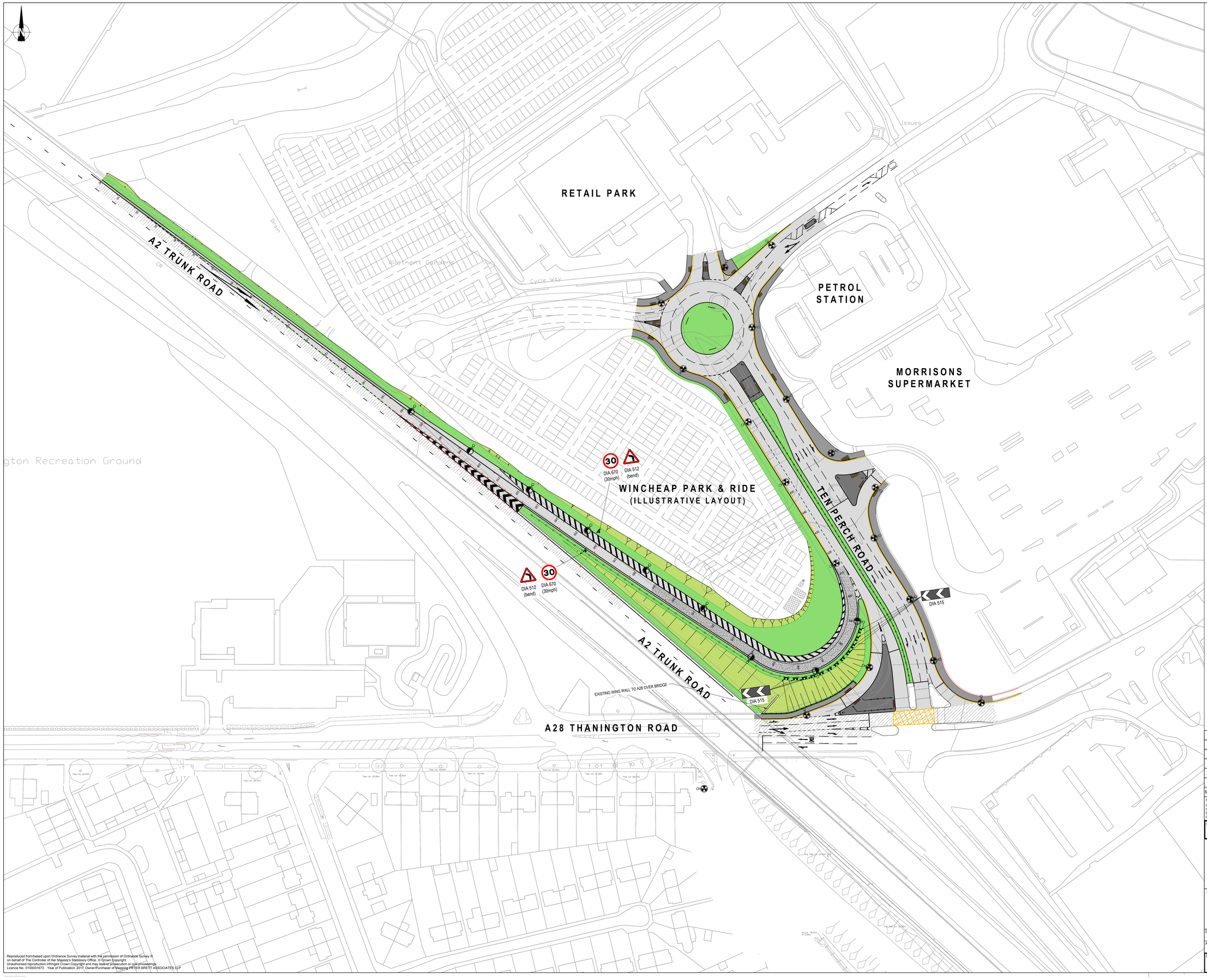
6.1.3 As design team leader I confirm that the assessment has been undertaken at the appropriate stage of scheme development and that the wider design team has been involved in the process.

6.1.4 I confirm that in my professional opinion the appointed Lead Assessor has the appropriate experience for the role making reference to the expected competencies contained in HD 42/17.

Design team leader

Tony Wake, Partner	Signed:
Peter Brett Associates LLP	Date:

Appendix A Scheme Drawings



GENERAL NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
2. DO NOT SCALE FROM THIS DRAWING.
3. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
4. DRAWING BASED ON WSP DRAWING 5269-SK02, A2 TOPOGRAPHICAL SURVEY BY MEC AND ORDNANCE SURVEY INFORMATION.

LEGEND:

- PLANNING BOUNDARY
- PROPOSED CARRIAGEWAY - ASPHALT CONCRETE CONSTRUCTION
- TIE IN TO EXISTING CARRIAGEWAY
- PROPOSED FOOTWAY AND TRAFFIC ISLAND - ASPHALT CONCRETE CONSTRUCTION
- PROPOSED VERGE
- PROPOSED EARTHWORKS EMBANKMENT (1:3)
- EXISTING GROUND TO BE RE-PROFILED
- PROPOSED CARRIAGEWAY HIGH FRICTION SURFACING
- PROPOSED OVER RUN AREA
- PROPOSED TACTILE PAVING AT CONTROLLED CROSSING
- PROPOSED TACTILE PAVING AT UNCONTROLLED CROSSING
- PROPOSED VEHICLE RESTRAINT SYSTEM (CRASH BARRIER)
- PROPOSED PEDESTRIAN GUARD RAILINGS
- PROPOSED LIGHTING COLUMN (INDICATIVE LOCATION)
- PROPOSED RED UNIDIRECTIONAL RETROREFLECTING ROAD STUD
- PROPOSED AMBER/RED UNIDIRECTIONAL RETROREFLECTING ROAD STUD
- PROPOSED GREEN UNIDIRECTIONAL RETROREFLECTING ROAD STUD
- KLB — PROPOSED SOLAR POWERED ILLUMINATED KEEP LEFT BOLLARD TO BE SOLABOLL DUAL ASPECT LED SOLAR POWERED BOLLARD BY PUDSEY DIAMOND WITH WITH KEEP LEFT ARROW (AS DIA 610)
- IB — PROPOSED SOLAR POWERED ILLUMINATED BOLLARD TO BE SOLABOLL DUAL ASPECT LED SOLAR POWERED PLAIN FACED BOLLARD BY PUDSEY DIAMOND

SCALE BAR: 1:500 METRIC — 10m 0 50m

Mark	Revision	Date	Drawn	Chkd	Appd
F	LAYOUT REVISED	16.10.17	AP	AM	
E	RETAIL ACCESSES REVISED, LIGHTING UPDATED	28.09.17	AP	AM	
D	RETAIL ACCESSES REVISED	17.08.17	AM	TW	
C	ROUNDABOUT AND P&R LAYOUTS ADJUSTED	01.08.17	AP	AM	
B	LAYOUT UPDATED TO SUIT COMMENTS FROM RSA1	26.04.17	WSW	AM	
A	ROAD MARKINGS LAYOUT REVISED	12.04.17	WSW	AM	

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake their own investigation where the presence of any existing sewers, services, plant or apparatus may affect their operations.

Drawing Issue Status

APPROVAL

THANINGTON FOURTH ARM SLIP ROAD

GENERAL ARRANGEMENT PLAN

Client
PENTLAND PROPERTIES Ltd

Date of 1st Issue	Designed	Drawn
31.03.2017	PG	AP
A0 Scale	Checked	Approved
1:500	AM	

Drawing Number: 39183/2001/001 — Revision: F

peterbrett
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ASHFORD
Tel: 01233 651 740

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File Location: J:\39183 - th - thanington fourth arm slip\3-autocad\drawings\2001\39183_2001_001.dwg

Appendix B Relevant Correspondence

Minutes of meetings with Highways England, dated 24/2/17 and 6/4/17
Minutes of meeting with Kent County Council and Canterbury City Council dated 14/7/17

Thanington Park, Canterbury

Note of Meeting held at Highways England, Guildford
on Thursday 6th April 2017

Present

Kevin Brown	KB	Highways England
Rachel Fisher	RF	Highways England
David Bowie	DB	Highways England
Anthony Moore	AM	Peter Brett Associates
N Borrell	NB	Pentland Homes

Points Arising

1. **Planning Condition 10** : NB stated that Planning Condition 10, is, in effect, a Grampian condition, that requires the approval of the detail design for the 4th Arm, Eastbound Slip Road, prior to works commencing on the Thanington site. He did not believe that it was the intention to prevent development, rather to enable the delivery of the slip road itself. There are also 2 requirements in the Section 106 agreement.
1. Saying that prior to occupation of 300 houses, an agreement is required for the road, and pay the Council the costs of the works, minus Grant Funding
2. Saying that no more than 449 units can be occupied before the road is Practically Complete.

   KB advised that the scheme is K.C.C. requirement. H.E. are neutral on the project and can see the advantage provided that there is not queueing on the main carriageway / A2.

   NB asked that H.E. consider that Stage 1 Road Safety Audit Approval be a satisfactory stage at which H.E. could advise Canterbury City Council that the planning Condition 10 could be discharged.

   The programme for the road requires an agreement by the occupation of the 300 unit, and construction by 450 unit. Pentland propose to commence works on their development in February 2018. It will take 6 months to construct the Infrastructure and then say 100 occupations per year.

Start:	February 2018
Infrastructure:	August 2018
299 Occupation:	August 2021
449 Occupation:	February 2023

   The important date here is August 2021 for 299 Occupations. The construction of the slip road will commence around this date. Any detail approvals provided prior to February 2018, to enable a start on the development site, will then be out of date, particularly the Safety Audit, and approvals will have to be applied for and granted again.

2. **4th Arm Slip Road Design** :

The conversation moved onto the proposed design of the slip road by PBA. This differs from the WSP scheme in that traffic lights have been removed, to provide a free flow land from the A2. Various points were discussed

KB advised that H.E. were more concerned about the Westbound Slip being amended. They noted that an additional set of lights are to be added, and that all the lights should be coordinated to improve the traffic flows.

AM & NB advised that PBA are the design engineers for both slip roads and are able to coordinate the design of the signals so that work in conjunction with each other. They advised that the signal designs are being rationalised, and that whilst one set has been added at the site access, another pedestrian crossing had been removed from the A2 with the consent of K.C.C.

There were discussions about the interface of the slip road and A28 lanes merging and crossing requirements, visibility requirements etc.

3. **Conclusion** :

KB suggested a Section 73 application to amend the Planning Condition. Nb advised that Pentland would not wish to pursue that route.
DB agreed that a Section 73 is not the best solution.

DB suggested that we arrange for a Stage 1 Safety Audit now.

This would identify any issues with PBA proposed 'Free Flow' design and further advise both sides whether a Stage 1 Safety Audit could be used as a satisfactory design to recommend discharge of the Planning Condition.

Action: PBA to submit an Audit Brief for H.E. approval. **Action AM**
Action: PBA to submit C.V. of Audit company who must be suitable for work on High Speed Network. **Action AM**
Action: Accident Stick Plots need to be provided. **Action AM**
Action: H.E. need contact at K.C.C. to liaise on Road Safety Audit. **Action NB**

C 15040

Thanington Park, Canterbury

Note of Meeting held at Highways England, Guildford on Thursday 6th April 2017

Present

Kevin Brown	KB	Highways England
Rachel Fisher	RF	Highways England
David Bowie	DB	Highways England
Anthony Moore	AM	Peter Brett Associates
N Borrell	NB	Pentland Homes

Points Arising

1. **Planning Condition 10** : NB stated that Planning Condition 10, is, in effect, a Grampian condition, that requires the approval of the detail design for the 4th Arm, Eastbound Slip Road, prior to works commencing on the Thanington site. He did not believe that it was the intention to prevent development, rather to enable the delivery of the slip road itself. There are also 2 requirements in the Section 106 agreement.
   1. Saying that prior to occupation of 300 houses, an agreement is required for the road, and pay the Council the costs of the works, minus Grant Funding
   2. Saying that no more than 449 units can be occupied before the road is Practically Complete.

   KB advised that the scheme is K.C.C. requirement. H.E. are neutral on the project and can see the advantage provided that there is not queueing on the main carriageway / A2.

   NB asked that H.E. consider that Stage 1 Road Safety Audit Approval be a satisfactory stage at which H.E. could advise Canterbury City Council that the planning Condition 10 could be discharged.

   The programme for the road requires an agreement by the occupation of the 300 unit, and construction by 450 unit. Pentland propose to commence works on their development in February 2018. It will take 6 months to construct the Infrastructure and then say 100 occupations per year.

Start:	February 2018
Infrastructure:	August 2018
299 Occupation:	August 2021
449 Occupation:	February 2023

   The important date here is August 2021 for 299 Occupations. The construction of the slip road will commence around this date. Any detail approvals provided prior to February 2018, to enable a start on the development site, will then be out of date, particularly the Safety Audit, and approvals will have to be applied for and granted again.

Thanington Park, Canterbury
New A2 Slip Road Application

Note of Meeting held at PBA's offices in Ashford

on Friday 14th July 2017

Present

Ruth Goudie	Canterbury City Council
Colin Finch	Kent CC
Andy Moreton	Kent CC
N Borrell	Pentland
I Bull	Pentland
G Heard	PBA
A Moore (AM)	PBA
R Sellwood (RS)	Sellwood Planning

Points Arising

1. RS explained the background to the submission of the new A2 slip road planning application and how the aim is to submit it in October 2017. There is urgency due to the deadline to draw down Growth Fund monies. RG / CF / A Moreton agreed to check what is the trigger to release funds (technical start / completion / planning permission?). The aim is to have monthly joint CCC / KCC / Pentland meetings to agree the content of the application.

2. RG explained that HE has its own deadline and she needs to submit material to them by the end of July. RG felt that this should make it easier to get a meeting with HE. The meeting is likely to be at PBA so HE can review the model. RS queried whether this could be tied in with the next Team Meeting (now 15th August @ 2.00 pm). HE has sought clarification on four modelling points. AM / GH will respond to RG today (14-7-17) and RG can send the response to HE on Monday 17th July 2017. HE should also be advised that the new slip road is now a named proposal in the new adopted plan.

3. It was noted that RG and Wardell Armstrong would be compiling similar information on air quality / noise / ecology (etc.). It was agreed that RG and Wardell Armstrong (Susan Raine) should liaise and exchange information.

4. IB queried whether Morrisons consent is required relating to changes to their access. AM / GH advised that, in their opinion, it only involves Highway land. IB also raised the three phone masts which need to be relocated. RG advised that she is following this up as a priority. It was pointed out that the masts could be re-provided between the new slip road and the Park and Ride. RG to report back to the next meeting.

5. CF / A Moreton advised that the scheme needs to be reported to KCC Cabinet. This will need to demonstrate that all HE concerns will be met as well as City Council plans to remodel / extend the Park and Ride (plus £1m from Pentland) and the City Council needs to confirm its strategy. The ideal solution would be to have extended the Park and Ride before the new slip road works start. This would include the bus layby and the cycle route to the river.

6. IB asked about the application for the recently built on slip road. RG recalled that it was a KCC application. She or A Moreton / CF would provide the number.

DRAFT

7. RS explained that the intention is to submit an EIA Screening Opinion to the City Council by the 21st July. The red line boundary is likely to be larger than the application boundary to allow flexibility and to deal with construction compound effects.

8. NB raised the discharge of Condition 10. RG felt that the City Council would be led by HE. If HE was content with the principle of the scheme, the departure and the modelling, that would suffice.

9. RS asked how long would it take from planning approval to opening. AM felt it could take a year to agree all the detail with HE and NB considered that it could take eight months to build the slip road. This would suggest an earliest opening date would be the end of 2019. RG asked where HE responsibility ends on the slip road. AM explained it would be where the slip road joins Ten Perch Road.

10. RS explained how the list of documents would include :

    - Planning Statement setting out the scheme, its policy provenance and benefits
    - Forms and Certificate C
    - TA : GH will set out the scope of the TA for the next meeting. It was felt hat the TA should refer to the benefits to Hambledown, how it fits into the Wincheap regeneration and the plans for the re-provision of the Park and Ride. A Moreton / CF to provide current flows at Hambledown. AM will provide a schedule of plans. The TA will rely heavily on the earlier HE approval of the scheme. A Moreton / CF suggested that the TA ought to deal with pedestrian / cycle linkages between Thanington and the Park and Ride once the new slip road is in place.
    - A Construction Management Plan
    - An Environmental Report : Likely topics(to be confirmed by Wardell Armstrong) are ecology, archaeology / heritage, air quality. Noise and surface water. In some cases, the text will simply advise 'no issue'
    - FRA : if not included in the Environmental Report.

11. RS will provide a Team contact list.

12. The next meeting will be on Tuesday the 15th August (2.00 pm at PBA's offices in Ashford).

DRAFT

MINUTES

Meeting Title:	Thanington 4th Slip
Attendees:	Nigel Borrell, Pentland Homes
	David Bowie, Highways England
	Tony Wake, Peter Brett Associates LLP
	Anthony Moore, Peter Brett Associates LLP
Apologies:	Keith Jacobs, Highways England
	Kevin Bown, Highways England
cc:	Mary Gillett, Kent County Council
	Richard Moore, Canterbury City Council
Date of Meeting:	24 February 2017
Job Number:	39183 - 2002

Item	Subject	Actions
	Scheme Overview Pentland Homes have outline planning consent for the Thanington Park development, comprising 750 homes, a business park, a new primary school, sports pitches, community facilities and a new, purpose-built hospice. The planning consent for the development requires details of the coast bound off slip to be approved prior to commencement of the development on site. Furthermore, the conditions also requires the slip road to have been constructed before the 450th occupation on site. There is potential for GHF funding towards the scheme, as discussed at the telecom of 7 February 2017. The slip road, and the associated revisions to Ten Perch Road, form part of the Canterbury City Council's strategic transport plan for the Wincheap area, contained in the proposed Local Plan.	

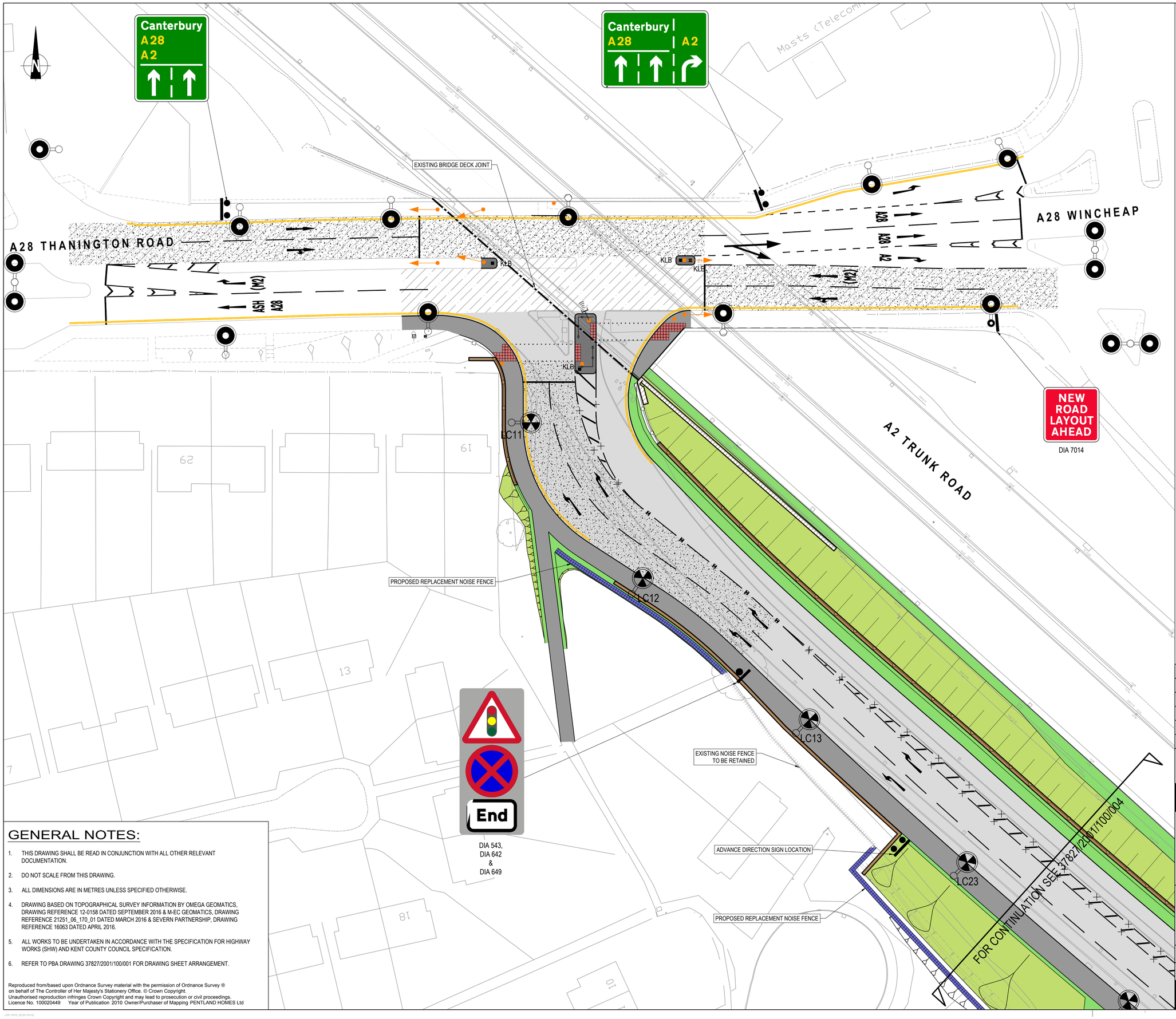
	Slip Road Design The layout shown on sketch 39183/2001/SK002 is based on the WSP design that is referenced in the planning consent for the development. DB advised that initial feedback from technical colleagues was that approval of the departures would be unlikely as presently drawn, due to the following issues: A. Length of the slip road. From the modelling work to date the mean max queue length from the stop line is 55m. This is positioned at the end of the 'near straight (70m from the end of the nose), but means that at times the queue would extend in to this area which would not be acceptable. B. The length of the slip road provided may mean that vehicles will be slowing on the mainline A2, reacting to the queue length noted in A above. C. The radius and supervelevation to the bend at the end of the slip road will require a departure from standards. D. The pedestrian crossing at the end of the slip road is unlikely to be acceptable. The above issues were discussed and the following noted; Providing a longer slip road to address A&B is unlikely to be deliverable due to the physical constraints (the existing bridges and river), available land, environmental issues and economic viability. The layout of the proposals in Ten Perch Road are currently being reviewed, to move the proposed roundabout further from the A28, this will create a longer approach to the roundabout and may reduce the queue length on the slip road (VISSIM model to be progressed to determine the impact here). The position of the bend noted in C above, at the end of the slip road is fixed by the existing bridge, Ten Perch Road and the A28. Increasing the radius of this bend would push it back towards the A2 and shorten the slip road that is provided. The pedestrian crossing noted in D above has now been removed from proposals, due to the level differences and the fact that there is very little demand anticipated (connection is the Park and Ride, access to the retail stores can be served through the A28 junction). The proposed Park and Ride layout will need to be revised around the forward visibility through the bend. The relocation of the roundabout should provide sufficient space to relocate the park and ride proposals clean of the visibility splay. It was acknowledged that there is considerable 'political will' to provide the 4th slip, however the scheme will need to provide drivers enough time to vary their behaviour on approach to the road layout or queue, safely. Mitigation measures would also need to be in place to minimise risks as far as practicable.	PBA PBA

	Alternative Scheme AM tabled a sketch 39183/2001/SK007 showing an alternative arrangement to the signal controlled off slip. This option removes the traffic signals from the slip road, and allows for a single 'free flow' lane in to Ten Perch Road. The 2nd lane in Ten Perch Road would be used for traffic from the A28, under signal control. A hard shoulder has been provided on the slip, although this could be hatched out to help highlight the change of environment to drivers. Landscaping and signage could also be provided to help reduce traffic speeds on the approach to the bend. Suitable forward visibility will need to be provided through the bend, and the Park and Ride layout will need to be adjusted to suit. As noted above the changes to the Ten Perch Road alignment will allow additional spaces to be provided to offset the spaces lost. Transport modelling of this option is required to determine the queue lengths anticipated with this option. A queue detection loop should still be provided on the slip road, to hold traffic on the A28 and allow the slip to clear should a queue develop to a point approaching the A2 main line.	PBA PBA

	Other Issues and Actions PBA to continue with transport modelling of both scheme options, to include the amended layout of Ten Perch Road. PBA believes that modelling needs to extend to the end of the local plan (2031)	PBA
	The layout shown in both sketches are to be revised to include: • The revised layout to Ten Perch Road • Amended Park and Ride layout, outside of forward visibility splay through the bend • Show potential mitigations measures that can be provided	PBA
	DB recommended that a Stage 1 Road Safety Audit be undertaken on both options to help asses which is deliverable.	PBA
	Departures will need to be applied for, and approved, to complete the stage 1 process. 3 months should be allowed for the departure process. A fully compliant layout will need to be provided to assess the departures against	PBA
	The status and use of the existing layby on the A2 that will be lost as a result of the scheme will need to be assessed. Alternative provision to be made if possible (extension of other existing or new facility).	PBA
	The existing accident data for the existing adjacent A2 junctions should be reviewed, to determine if there is a current issue with vehicles queueing on to the A2.	PBA
	The following information will be required for Highways England to recommend planning condition discharge: • Outline design (layout, horizontal & vertical alignment, visibility details, swept paths) • Completion of transport modelling, with satisfactory results • Stage 1 RSA, including designer's response (and drawings revised where necessary) • Departures approved	PBA / PH

Appendix C Supporting Information

A28/A2 London bound off slip General Arrangement Plan (drawing 37827/2001/100/003)



LEGEND:

- PROPOSED CARRIAGEWAY - ASPHALT CONCRETE CONSTRUCTION
- EXISTING CARRIAGEWAY TO BE RESURFACED
- PROPOSED CARRIAGEWAY HIGH FRICTION SURFACING
- PROPOSED TRAFFIC ISLAND CONSTRUCTION
- PROPOSED FOOTWAY - ASPHALT CONCRETE CONSTRUCTION:
- PROPOSED TACTILE PAVING AT CONTROLLED CROSSING
- PROPOSED VERGE
- PROPOSED EARTHWORKS EMBANKMENT (1:3)
- EXISTING GROUND TO BE RE-PROFILED
- EXISTING RETAINING WALL STRUCTURE
- PROPOSED RETAINING WALL STRUCTURE
- EXISTING PARAPET TO BRIDGE
- PROPOSED NOISE ATTENUATION FENCE
- PROPOSED PARAPET TO RETAINING WALL
- PROPOSED VEHICLE RESTRAINT SYSTEM (CRASH BARRIER) PEDESTRIAN GUARD RAIL
- PROPOSED TRAFFIC SIGNALS
- PROPOSED TRAFFIC SIGN ON EXISTING SIGN POST
- PROPOSED TRAFFIC SIGN ON NEW SIGN POST
- KLB — PROPOSED KEEP LEFT BOLLARD
- EXISTING STREET LIGHTING COLUMN TO BE RETAINED:
- PROPOSED 10m STREET LIGHTING COLUMN

GENERAL NOTES:

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
2. DO NOT SCALE FROM THIS DRAWING.
3. ALL DIMENSIONS ARE IN METRES UNLESS SPECIFIED OTHERWISE.
4. DRAWING BASED ON TOPOGRAPHICAL SURVEY INFORMATION BY OMEGA GEOMATICS, DRAWING REFERENCE 12-0158 DATED SEPTEMBER 2016 & M-EC GEOMATICS, DRAWING REFERENCE 21251_06_170_01 DATED MARCH 2016 & SEVERN PARTNERSHIP, DRAWING REFERENCE 16063 DATED APRIL 2016.
5. ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH THE SPECIFICATION FOR HIGHWAY WORKS (SHW) AND KENT COUNTY COUNCIL SPECIFICATION.
6. REFER TO PBA DRAWING 37827/2001/100/001 FOR DRAWING SHEET ARRANGEMENT.

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Mark	Revision	Date	Drawn	Chkd	Appd
E	TRAFFIC SIGNAL IN FOOTWAY RELOCATED & PEDESTRIAN PARAPET CHANGED TO GUARDRAIL	17.07/17	JH	AM	
D	EXTENT OF RESURFACING REVISED	17.05.17	AP	AM	
C	ROAD MODEL UPDATED	08.03.17	AP	AM	
B	EARTHWORKS & RETAINING WALL LAYOUTS UPDATED	10.11.16	PG	AM	
A	A28 PED CROSSING REMOVED, FOOTWAY ADJUSTED	21.09.16	AP	AM	

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UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty to this is expressed or implied. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake his own investigation where the presence of any existing sewers, services, plant or apparatus may affect his operations.

Drawing Issue Status

APPROVAL

THANINGTON PARK
A2 LONDON BOUND OFF SLIP
GENERAL ARRANGEMENT LAYOUT
SHEET 1 OF 4

Client

PENTLAND HOMES Ltd

Date of 1st Issue	Designed	Drawn
19.08.2016	AM / PG	WSW
A1 Scale	Checked	Approved
1:250	AM	TW
Drawing Number		Revision
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