8

Detailed Proposals
Phase 1

8.1 Introduction

The Phase 1 development represents a significant step in the broader infrastructure strategy designed to support sustainable growth and enhanced connectivity in the Crawley area. At the heart of this plan are several key infrastructure components that are essential to the successful integration of the new community with its surrounding environment and transportation networks. These elements have been planned to ensure that the development is both functional and future-proof, addressing the immediate needs of the community while also laying the groundwork for subsequent phases of development.

The first major element of this infrastructure is the **Crawley Western Multi Modal Corridor** (CWMMC). This corridor serves as a critical transportation artery, starting from its connection with Charlwood Road and extending southwest for approximately 2.5 kilometers. The CWMMC is designed to accommodate various modes of transportation, including vehicular traffic, buses, cyclists, and pedestrians, reflecting a commitment to multimodal transport solutions. A key feature of this corridor is the incorporation of a bridge crossing over the River Mole, which not only facilitates continuous connectivity but also demonstrates a thoughtful approach to integrating infrastructure with the natural landscape. This corridor is fundamental to the broader development, providing the main access route and linking various sections of the new community to the surrounding areas.

The second principal element is the Primary Street, which intersects with the CWMMC and serves as the primary access route for Phase 1 of the development. This street is strategically designed to support the initial phase of development, providing essential connections to various components of the community. Notably, the Primary Street forms a direct link to the proposed secondary school, ensuring easy access for students, staff, and visitors. In addition, the street includes spur connections to individual plots, secondary and tertiary roads, facilitating the efficient distribution of traffic and services throughout the development. The Primary Street also features dedicated bus routes, as well as walking and cycling paths that extend southeast to connect with Rusper Road. This multimodal link ensures that the new community is well-integrated with existing infrastructure, promoting sustainable transportation options and reducing reliance on private vehicles.

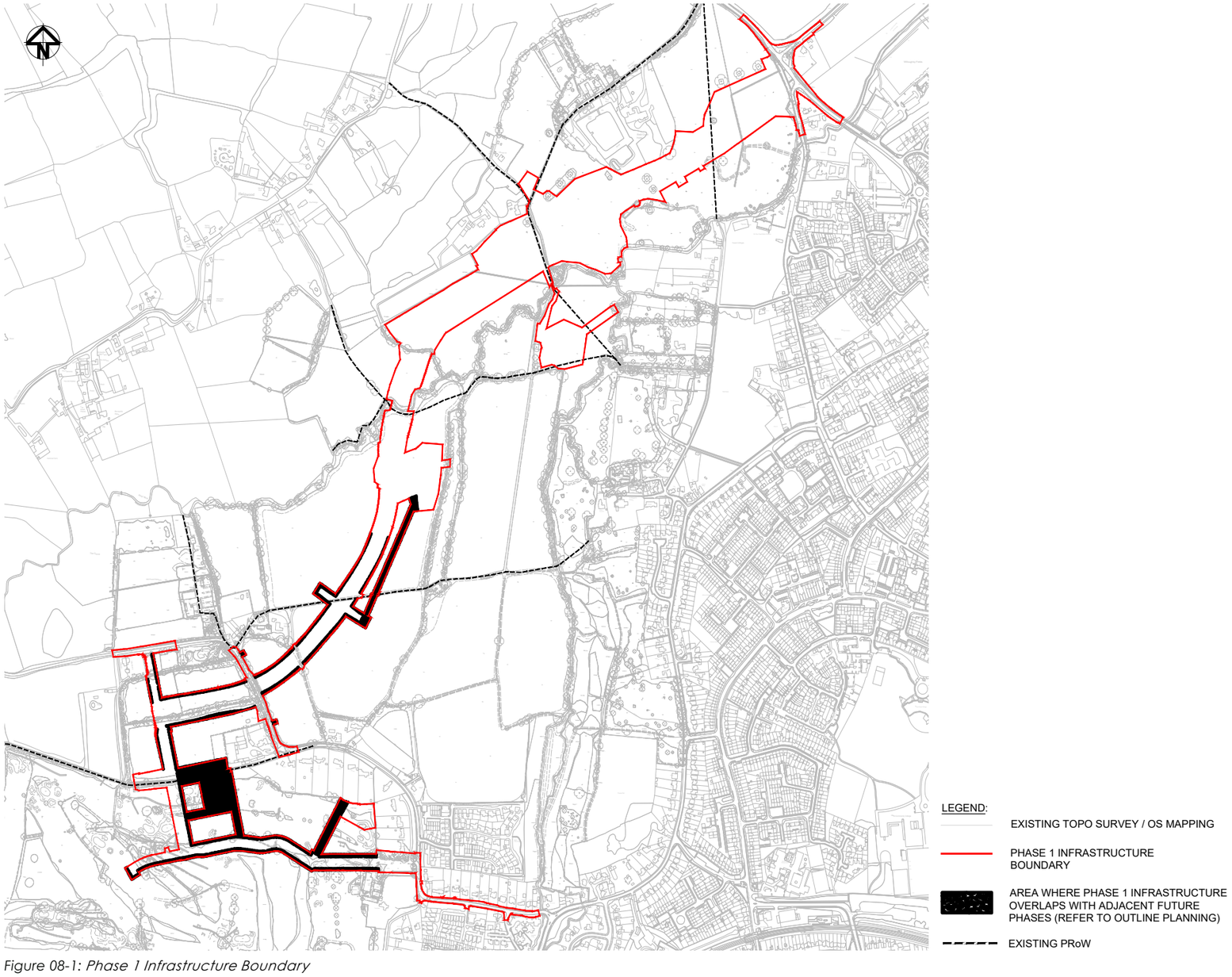

Figure 08-1: *Phase 1 Infrastructure Boundary*

8.2 Engagement with Key Stakeholders

Effective engagement with key stakeholders is crucial to the successful planning, development, and implementation of the Phase 1 infrastructure for the CWMMC and associated development. By fostering strong, collaborative relationships with all relevant authorities and agencies, we ensure that the project not only meets regulatory requirements but also aligns with broader strategic goals for sustainable development, environmental protection, and community well-being. The following sections outline the primary stakeholders involved in this process and the specific areas of engagement that are vital for advancing the project.

Key Stakeholders

1. West Sussex County Council (WSCC)- Highways team
2. West Sussex County Council (WSCC)- Flood risk management team
3. Horsham District Council (HDC)
4. Crawley Borough Council (CBC)
5. Gatwick Airport Limited
6. Environment Agency
7. Utility Providers

“Gatwick Airport Ltd (GAL), together with their consultant Birdstrike Management Ltd (BML) were consulted in February 2021. A meeting was held on 17th February 2021 which was attended by representatives of GAL, BML, Homes England and Ramboll. During the meeting GAL and BML provided comments on an initial technical note prepared by Ramboll (ref: TN-1620007949_3-Bird Strike 20210122, dated 22nd January 2021). This BHMP takes the discussions in the meeting and comments on the initial technical note into account. Gatwick Airport Limited were further consulted on following the EIA Scoping and provided a response in November 2023 to outline the Aerodrome Safeguarding which is a legislative requirement, the function of this is:

- To protect the blocks of air through which aircraft fly, by preventing penetration of the Obstacle Limitation Surface (OLS)
- Protect the integrity of communications, navigation & surveillance equipment (CNS)
- Protect Instrument Flight Procedures (IFPs)
- Protect visual aids, such as Approach & Runway lighting
- Avoid any increase in the risk to aircraft through birdstrike
- Assess proposed developments for any other risk including building induced turbulence, glint and glare etc.

The design has considered the above whilst developing the solutions for the Phase 1 Infrastructure to ensure that the proposals do not impact on the Aerodrome Safeguarding.

Meeting Date	Aspects Covered
30 June 2023	Meeting with WSCC. Outlining status of the design and programme. Confirmation of WSCC Highway requirements.
06 September 2023	Meeting with WSCC. Planning strategy updates. Agreement of design input parameters, principles and standards. River Mole Bridge Options
14 November 2023	Meeting with WSCC. Phase 1 Primary and Second Access design updates, including traffic calming measures, bus gates and drainage. Phase 1 CWMMC design updates, including Link Road cross-sections, River Mole Bridge/alignment and Charlwood Road Junction.
15 December 2023	Meeting with WSCC. Outline of the drainage design and adoption principles.
17 January 2024	Meeting with WSCC. Surface Water Strategy, include drainage design updates relating to the proposed SuDS and attenuation.
23 February 2024	Meeting with HBC & CBC covering all Phase 1 proposals - A general pre-app consultation meeting
3 May 2024	Meeting with HDC - Noise mitigation and CWMMC alignment.
22 May 2024	Meeting with HDC. Options for alignment of CWMMC Non-Motorised User (NMU) corridor and agree preferred option.
25 July 2024	Meeting with WSCC to discuss Departures from Standards

Table 1 - Dates of Key Stakeholder Meetings

8.3 The Proposals

8.3.1 Crawley Western Multi-Modal Corridor & River Mole crossing

There is a strong regional, sub-regional and local policy basis for delivering a new strategic transport corridor to the west of Crawley.

As set out in more detail below, there has been a long held aspiration for the development of a strategic transport link to the West of Crawley between the A264 and A23 with the objective to reduce congestion and transport pressures through Crawley Town Centre whilst also providing improved connectivity between Horsham, Crawley and key economic centres including Gatwick Airport and Manor Royal.

The policy basis for the delivery of the CWMMC has been iterative. Table 2 summarises the different policies which references the strategic transport corridor

As can be seen through the various policy iterations, there is a locally led requirement for a strategic, integrated, multi-modal corridor between the A264 and A23 and that any development to the West of Crawley will be a key mechanism for securing its delivery.

While initially the focus targeted a high speed, high capacity highway scheme, there is now a greater focus on integrated transport provision which supports a shift towards active and sustainable travel and better place-making outcomes.

It is also accepted within the various plans and strategies that the delivery of the strategic link will be phased. While this means that earlier phases are likely to have a more local focus (i.e. providing access to large scale development) there is a need to safeguard and show compatibility with the medium – long term safeguarded corridor to ensure the full link isn't prejudiced and that it fulfils its strategic objectives.

While there is no detailed design guidance or fixed requirements set out in policy, consideration has been given to the design of the integrated *multi-modal* corridor as part of the Crawley Borough Council led optioneering strategy undertaken by SYSTRA. This study is clear that any design must meet relevant DMRB (Design Manual for Roads and Bridges) standards and a series of cross sections shown below are established providing the basis for future design. It is clear from the SYSTRA study that the Optimal cross-section (i.e. 40m) should be the starting point for any design and that varying this to more sub-optimal layouts should only be considered where space is constrained.

Strategy	**Scheme Objectives**	**Scheme title**
West Sussex Structure Plan 2001 – 2016	Identified the Crawley Western "relief road" as infrastructure which could help improve safety, reduce congestion, improve mobility to the benefit of the local economy and result in an overall improvement to the environment.	Crawley Western Relief Road (CWRR)
The West Sussex Transport Plan 2006-2016	Included a strategy to improve links to the west of Crawley which would support new development while protecting neighbourhoods from through-traffic and helping to reduce congestion especially on the A23 Crawley Avenue.	Crawley Western Relief Road (CWRR)
West Sussex Walking and Cycling Strategy 2016–2026	Identified a number of strategic cycle improvements between Crawley and Horsham via the A264 corridor.	
Transport for South East – A Strategic Investment Plan for the South East (March 2023)	Identified a number of strategic interventions to support overarching sustainable and active travel objectives	N10 – Crawley Western Relief Road (CWRR) and Active Travel Corridor L1 – Crawley – Horsham Fastway Extension and N10

Table 2 - Stakeholder Objectives

Importantly, as part of that study the eastern section of the northern CWMMC section (i.e. that closest to the part of the CWMMCL that is required to be provided through the West of Ifield site – central CWMMC section) has tested, and shown to be deliverable, the optimal 40m cross section. Given the need to provide continuity and avoid prejudicing the delivery of the full link, it is necessary for any design within the West of Ifield scheme to be consistent with, align and support future extension within the northern section.

At each stage of scheme development, Homes England and its project team have sought to ensure that the ambition for a CWMMC has informed and been an integral part of the emerging West of Ifield masterplan and its associated detailed design.

The starting point for design considerations and associated scheme decision making has been to establish a number of design principles that are aligned with the strategic policy context above thereby looking to develop policy compliant approach. Following the development of a concept design, the next stage of the scheme design process (outline and detailed design) has been focusing on developing and refining the proposals in response to site constraints and wider masterplan objectives. These have then been further refined through consideration of DMRB (Design Manual for Roads and Bridges), LTN 1/20 and WSCC technical design standards.

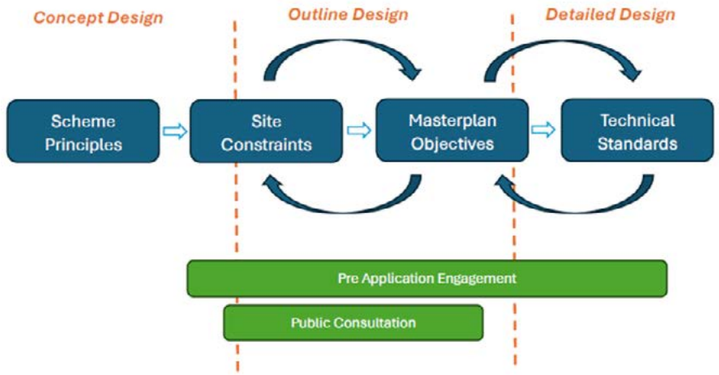

Figure 08-2: Scheme Development Process

Such an approach is necessarily iterative, ensuring that the design response is aligned with local objectives and placemaking outcomes but ultimately ensuring it is deliverable. The design has also been informed through community engagement and pre-application discussions to ensure that the scheme follows a design response that is aligned with local objectives, responds to local authority requirements and delivers a suitable solution that can be adopted by the local highways authority. The CWMMC design was developed from previous iterations for the Crawley western transport corridor which included the initial Crawley Western Relief Road and Crawley Western Link schemes.

Crawley Western Relief Road (CWRR) - Initial Design Iteration

The December 2019, the 'Draft Highways Access Strategy' was prepared. Following engagement with West Sussex County Council and the Local Authorities, this strategy followed a traditional 'predict and provide' approach to transport mitigation reflecting the prevailing practice at the time.

The initial highways designs were subsequently highway led and consistent with the original objectives for the Crawley Western Link Road. This is shown in Figure 08-3 below. The initial highway design showed the road within the West of Ifield site as a single carriageway road with safeguarding for dualling (an additional lane in each direction). The alignment of the road was such so that it operated as a traditional bypass, bordering the proposed development with site access provided via a number of roundabouts within the site along its route. This supported the objectives of higher capacity and higher speed routing as part of a strategic link between the A23 and A264.

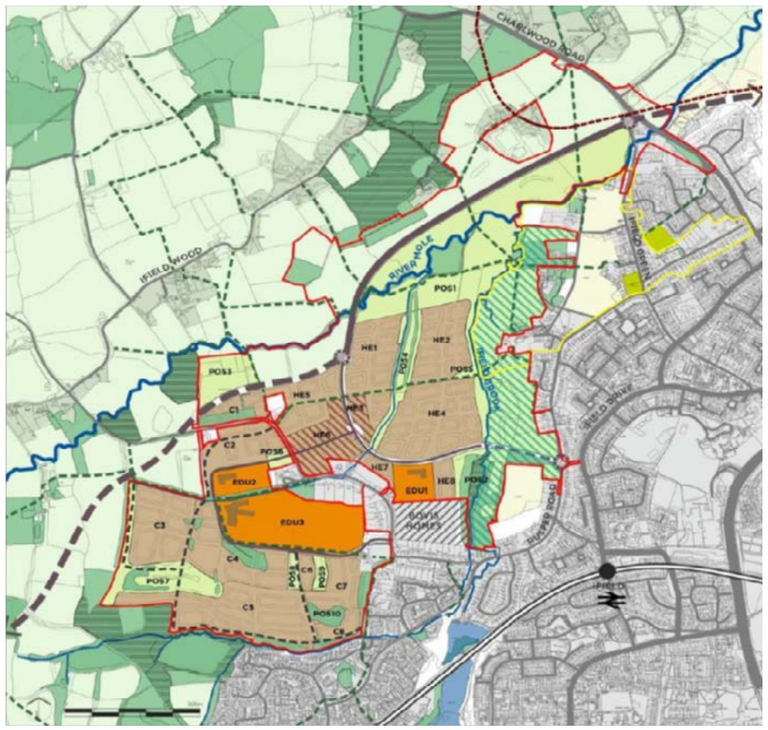

Figure 08-3: Initial Design Iteration Crawley Western Link

Crawley Western Link (CWL)

As part of the iterative scheme development and to support a shift in national and local policy2 towards the prioritisation of active and sustainable travel, the West of Ifield transport objectives were updated and an assessment of the compatibility of the Arcadis design with the new strategy was undertaken during 2020.

The review was multifaceted, with consideration given to updated evidence of site constraints (such as the Scheduled Ancient Monument), the need to secure full connection between the West of Ifield site and the A23 to the north and A264 to the south; opportunities to encourage greater use of active and sustainable travel (including extension of Fastway services from Crawley) from the outset.

In spring 2020 the highway design parameters were identified so the link could be integrated as part of the masterplan layout (rather than bypass it) to ensure that it maximised the opportunity to increase the uptake of sustainable and active travel modes. The name of the corridor changed to the Crawley Western Link (CWL), clarifying its role as a multimodal link within the local transport network.

In further refining the scheme and embedding it as part of the emerging masterplan, the CWL scheme continued to evolve to take account of responses to Homes England's public consultation on the scheme, pre-application discussions and emerging best practice around transport planning and move towards low carbon transport.

Through the development of the design, further clarity on scheme requirements was also provided by West Sussex County Council(WSCC), the Local Authorities and engagement with transport providers which shaped the scheme design. For example, the emerging Town & Country Planning HDC Reg 19 consultation (Draft 1.0 May 2020) stated the CWL would have segregated Fastway bus services and provide for active transport. This necessitated the inclusion of an additional traffic lane in each direction for Fastway buses and provision for pedestrians and cyclists.

It was agreed through a number of pre-application meetings/workshops, early in the design stage (2020/2021), that segregating walking & cycling away from vehicles but behind the separation of a kerb would be of benefit over full segregation on a completely different route. This is because of the natural surveillance that drivers of vehicles provide particularly for winter evenings to support commuting. It would also allow the pedestrian and cycle route to be lit with highways lighting instead of separate lighting or no lighting at all – minimising the impact on more sensitive environments through the site.

In July 2020, the initial transport modelling was completed which showed that based on the concept design, the full length of the CWL from the A23 to the A264 was not required to support the WoI site in isolation, but longer term, the need for a full link remained and that there were a number of benefits of this being a multi-modal corridor. This was presented at a transport pre-application meeting in June 2024.

Outline Design of the CWL started in November 2021. This built on the agreed concept design and updated transport strategy produced by Steer that reflected the updated scheme objectives and was informed through early public consultation and stakeholder engagement.

The outline design was used to test and evolve the CWL corridor shown in earlier iterations of the masterplan / parameters.

The western extent of the link was at the Homes England/Application boundary and the eastern end formed a new junction with Charlwood Road / Ifield Avenue. The form of this junction was a 'T' Junction and not a roundabout due to land ownership, land take issues, consideration of flood risk and impact on the River Mole flood plain as well as the required flexibility needed to ensure that future northern route options were not prejudiced.

The width of the corridor was based on the form of the road being similar to a dual carriageway but with a dedicated bus lane and regular traffic lane in each direction. The speed limit of the road for design purposes was 70kph (assuming a 40mph speed limit for the road) as a worst case scenario.

Initial corridor cross sections were developed. Provision for pedestrian and cyclists was included as a 5.5m wide path either side of the carriageway for the entire length of the road. Following completion of the initial road design, a number of further design iterations were completed in response to updated survey information, more certainty on options for future extension and other constraints that could impact on the successful delivery of the road. These included:

- Trees identified as either veteran or suspected to be rare species.
- Trees with potential to be ecological habitats for bats and birds
- Flood zone for the River Mole
- Ancient Monument north of the River Mole
- Proximity of existing properties
- A study undertaken by Systra on behalf of WSCC and CBC to determine northern route options.

Development of the CWMMC

The main design changes introduced in the development of the CWMMC can be summarised as:

- December 2021- the proposed road corridor was reviewed against the most up to date environmental survey information, including detailed tree surveys which had identified that the loss of trees north of the River Mole should be avoided if possible. The horizontal alignment was adjusted to minimise tree loss as far as possible whilst also moving away from the Scheduled Ancient Monument to the north and minimising encroachment into the flood zone to the south.
- March 2022 - the design and positioning of the CWL alignment was further revised to include an additional section 600m west of the site boundary. This provided safeguarding to ensure the full link through to the A264.
- April 2022 - the carriageway level between chainage 2680 and 2870 was raised to a minimum of 63.114 to be above the highest modelled flood level.
- Summer 2022 - the bend at chainage 2150 was amended with a slight realignment to move the road corridor away from the area of woodland on the outside of the bend.
- Winter 2022- it was agreed as part of pre-application discussions and engagement with West Sussex Council that the speed limit through the neighbourhood centre would be 20mph. This aligned with the new West Sussex Transport Plan Vision "Active travel modes, public or shared transport will be attractive options in built up areas and between towns, and rural communities will have access to the services they need"
- Early 2023- a decision was taken to remove the footway/cycleway on the northern side of the road between the River Mole overbridge and the junction with Charlwood Road. This was due to modelled usage numbers, a desire to reduce the corridor width as much as possible and to minimise proximity to the Ancient Monument.

Between 2021 – 2023, the Homes England project team developed a site wide design code with input from public consultation and pre-application discussions. In relation to the CWL, the draft Design Code set out a number of Design principles reflective of the Outline Design and intended to inform the detailed design stage, making clear that , amongst other things the development will do the following:

- Prioritise walking, cycling and public transport over car travel.
- Accommodate new and active forms of transport (e.g. electric scooters and cycles) and anticipate the onset of 'mobility as a service'.
- Provide routes that allow for easy access to other employment centres and the wider area.
- Maximise active travel and minimise day-to-day car use with the road network reflecting the following modal hierarchy (most important first); Walking Cycling Public Transport Service (Local Bus) Shared Vehicles and Taxis Service and logistics vehicles Private cars
- The CWL is to include future proofing for potential onward connection.
- The character is to be Urban within the development
- The speed limit is to be 40mph dropping to 20mph within the neighbourhood centre.
- Lane widths are 3.65m for each lane

A full draft version of the West of Ifield site wide Design Code was shared with the local authorities as part of ongoing pre-application engagement in May 2023.

In December 2023, the publication of the Horsham District Local Plan 2023- 2040 Regulation 19 Proposed Submission reconfirmed the intention for the Crawley Western Link to be a sustainable multi-modal corridor, renaming it the Crawley Western Multi Modal Corridor.

As part of the commitment to the early delivery of the CWMMC as required by policy, the design has been undertaken using the outline design and Design Code as its basis. The design has continued to be refined from the outline stage, with specific changes made to further optimise the alignment that minimises impacts on key constraints such as Flood Zones 2 and 3, the Scheduled Ancient Monument, Third Party Properties and Woodland Areas. These constraints are presented in Figure 08-4

The design also considered other technical constraints / requirements that could impact on the ability to secure an acceptable planning permission in the context of the future adoption by West Sussex as the adopting highway body.

The alignment vertically and horizontally has been designed to DMRB (Design Manual for Roads and Bridges) and MfS (Manual for Streets) depending on the design speed and context of the area, further aligning to the Design Code which has been agreed with the LPA.

The proposed vertical and horizontal alignments adhere particularly to CD109 Highway Link Design which has a prescribed range of alignment standards, both horizontal and vertical that can be applied for certain design speeds to ensure safety for all users. The Infrastructure design has considered Building for a Healthy Life (BHL) guidance and active travel provision includes cycle routes which have been designed in line with LTN 1/20 – Cycle Infrastructure Design. The Phase 1 Infrastructure design supports the Place Making goals of the masterplan, following the Site Wide Design Code for West of Ifield and recognises the proposed street typology.

The vertical / horizontal alignments and cross sections for the link have been considered, designed and tested to further refine the scheme so as to:

- Allow for a future A23 – A264 extension albeit some modifications needing to be required, for example Charlwood Road junction would be required to be converted into a 5 arm junction and the reconfiguration of the 3 arm junction at the end of the link into a 4 arm.
- Take account of constraints slightly outside the scheme area in order to not harm the future extension and minimise impact on the link i.e. the vertical alignment is positioned such that if it were extended to the south it can do so within the standards to pass an existing water course with minimal reconfiguration to the link.
- Rationalise the alignment across the River Mole to provide a smaller footprint and simplified bridge structure whilst further minimising impact on the trees, river channel and maintaining an existing PRoW route.
- Respond to the development of the design at the River Mole crossing in as much as the alignment change has introduced a further section with compliant horizontal curvature. (the outcome of these design refinements is shown in Figure 08-5

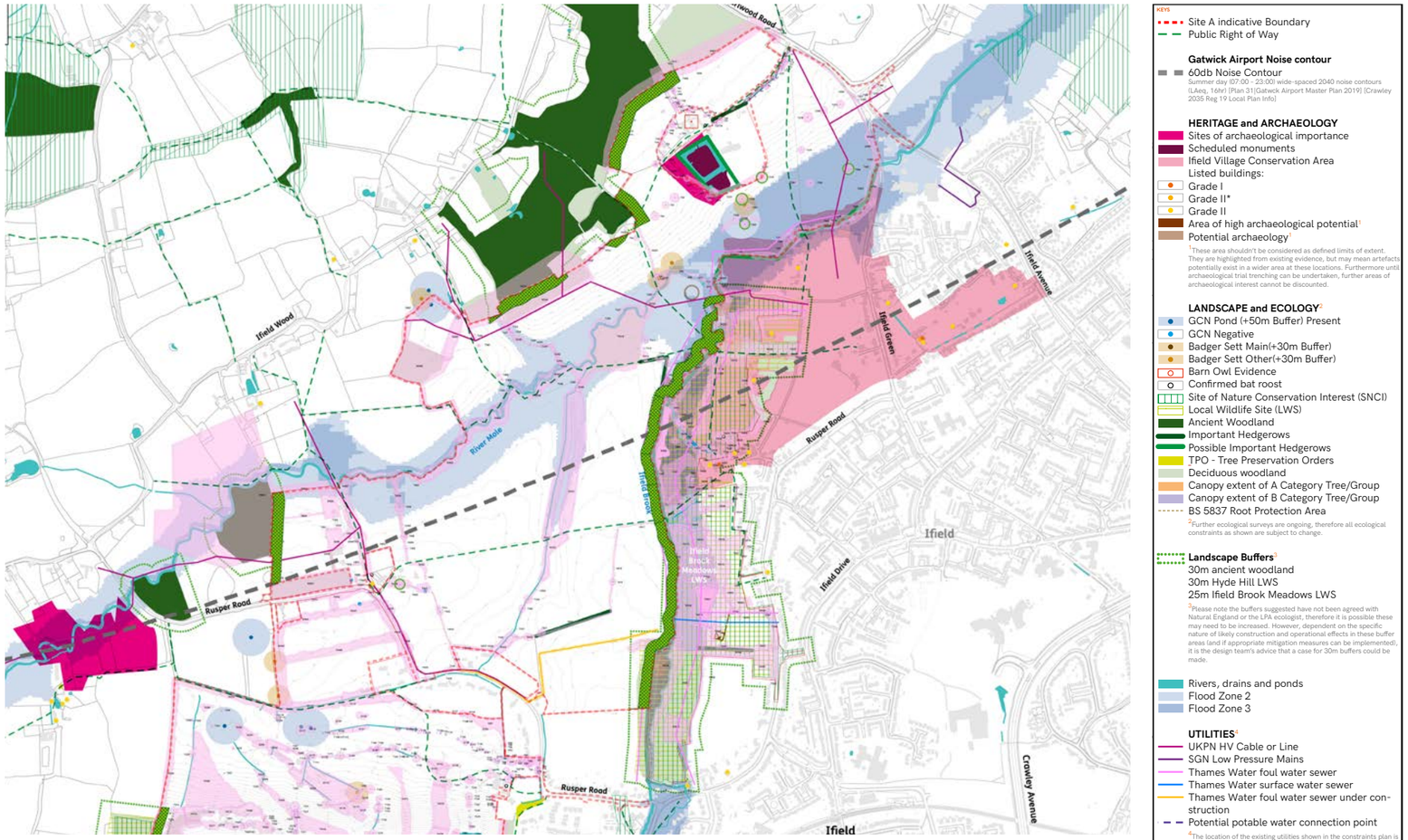

Figure 08-4: Constraints Map

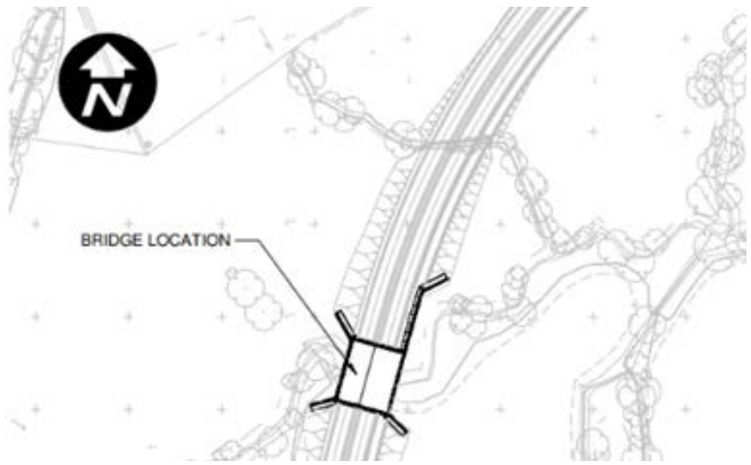

Figure 08-5: Mole Bridge Location (Illustration)