Design Note

Reference	053-CIX-00-XX-RP-C-0001	Rev.	P01
Project	Warneford Park – Prioritising Active Modes		
For	Danny Yee		
Organisation	Oxfordshire Liveable Streets		
Date	26th September 2025		

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Introduction

Oxfordshire Liveable Streets (OLS) has commissioned City Infinity to develop design concepts for the area around the Warnesford Lane/ Gipsy Lane/ Old Road/ Roosevelt Drive junction (WGOR) in Headington in order to help them frame a response to a planning application for the development of the Warneford Park site which is subject to planning application reference 25/01859/OUTFUL.

This Design Note has two main sections. The first covers a high level review of the developer's highways proposals for the area around the WGOR junction from the perspective of people walking, wheeling and cycling, and where their needs are prioritised. The section section introduces a concept design for the same area and explains, at a high level, the type of design choices which would support and enable people to walk, wheel and cycle.

The OLS brief is centred around a strategic approach for the area which places Oxfordshire County Council's "decide and provide" approach at its heart and questions the developer's assumption that reserve road capacity is a resource that can be utilised by motor traffic growth arising from the development, rather than by people who might walk, wheel and cycle around the area.

Review of developer's highway proposals

The main part of the proposals is a development of the WGOR junction to create a CYCLOPS design which adds an orbital clockwise cycle track to the junction with crossings of each junction arm in parallel with and outside of the pedestrian crossings.

The developer's work on the future scenario assumes the removal of cyclists from the carriageway and into the CYCLOPS arrangement gains a reduction in passenger car units (PCU) which is capacity that might be utilised by motor traffic, along with the reserve capacity of the junction which already exists.

The usefulness of the new junction layout for cycling will depend on how it connects with the local cycle and street network and as such, we have comments on how each arm performs in this regard as follows:

Warneford Lane.
Eastbound cycle traffic arriving at the junction has some 60 metres of unprotected space between the existing wand-protected cycle lane and the junction, including interaction with an existing bus stop.
Westbound cycle traffic leaving the junction is required to give way to general traffic and in a situation where people cycling will need to look over their right shoulder to observe a safe gap and with some 70 metres to the existing wand-protected cycle lane (albeit within an advisory cycle lane) and with interaction with an existing bus stop.

The lack of protection at the bus stops and the gaps to the wand-protected cycle lane is unlikely to be attractive to new cyclists.

Gipsy Lane
It is proposed to provide a two-way cycle track on the footway immediately to the east of the carriageway. The proposal is for a 3m cycle track with occasional local reductions to 2m where trees are present, and with a connection to the Headington Road service road. The two-way cycle track would connect to the CYCLOPS on the eastern side of Gipsy Lane.

There does not appear to be sufficient space for this proposal when the slope of the existing vehicle crossovers and back-fall across the verge are taken into account. It would be challenging to lower the levels of the existing footway due to the presence of utilities.

For two-way link here to reach a good level of quality, it would either need extensive works to lower levels, or additional width to contain the vehicle crossing ramps, by perhaps using “entrance kerbs” within a buffer zone of up to 0.5m and in that case, there will certainly be an impact on trees. For a long-term investment in this link, it might be appropriate to develop higher quality proposals that require replacement of the street trees.

Old Road
The proposals are for one-way cycle tracks on each side of the road of 2m width, with 1.5m at constraints. These would join and leave the CYCLOPS directly.

This is an appropriate treatment in the context, but there might be wider opportunities to consider with how the junction with Valentia Road might be incorporated into the design along with access to the streets immediately to the south.

Roosevelt Drive
The availability of highway width is challenging here as the available width is quickly constrained moving south from the junction. Northbound cycle traffic will access the CYCLOPS from a cycle track provided in the western verge. Southbound cycle traffic leaving the junction will give way which requires people to look over their right shoulders to find a safe gap, before joining a short section of cycle lane.

The use of Roosevelt Drive will depend on traffic volumes which are understood to already be at a level where many people will feel unsafe. However, the southbound transition could potentially be in protected space.

Other Opportunities

There are two obvious opportunities which have been missed, notwithstanding the comments above.

First, the CYCLOPS design does not provide a direct link to Grays Road, immediately to the north-east of the junction. Providing direct access here would enable people cycling to access the residential area beyond, with onward connection to the legacy cycling provision on London Road to the east.

Second, the school to the north-west of the junction would benefit for a direct connection to the CYCLOPS which would enable pupil, staff and visitor access. This would be even more useful with better connections in the immediate area.

There are also some smaller proposals for Warneford Lane. First, the right turn pocket for access to Cheney Lane is proposed for closure to be replaced with an uncontrolled pedestrian crossing. This would remove the ability of cyclists to turn right into Cheney Lane as well. This is problematic given the various trip attractors in Cheney Lane and the access to Headington Lane beyond.

It is certain that people will cycle across the proposed uncontrolled crossing which impacts pedestrians. It also potentially adds more U-turning traffic to the roundabout to the west which adds risk to people cycling around the roundabout.

Finally, a pair of uncontrolled crossings are proposed at the South Park pedestrian entrance, supporting the clear desire line.

Prioritising Active Modes Concept Designs

This approach considers the needs of people walking, wheeling and cycling in the area first, considers the space they might need to move and then providing for them whilst recognising there is a requirement for motor traffic access through the area.

There are trade-offs that are likely to impact motor traffic capacity at the WGOR junction, but this approach assumes that the reserve capacity should be utilised for enabling walking, wheeling and cycling. It also challenges the development to not increase motor traffic impact and indeed, work towards traffic reduction.

Although conceptual, the designs have regard for the highway boundary and in general seeks to avoid kerb realignments which change carriageway to footway or verge because this will often impact utilities and drainage to the extent that this might become cost-prohibitive.

Network Approach

The concept designs consider the obvious opportunities to utilises the WGOR junction as a catalyst to provide a series of local connections. This includes incorporating the exiting Warneford Lane wand-protected cycle lanes, providing direct access to the school and Grays Road and considering how access for walking, wheeling and cycling to Cheney Lane might be improved.

There is also consideration of the points of conflict between cycling and motor traffic at bus stops as well as the type of interventions which will manage pedestrian – cycle interaction at bus stops as well as improving general bus stop access for passengers.

In all cases there are trade-offs to consider and these will be described in the sections below which relate to a series of drawings which are appended to the of this note.

Cheney Lane Junction (053-CIX-01-XX-DR-C-0010)
The key design feature here is to ensure people cycling can move between Cheney Lane and the pair of one-way wand-protected cycle lanes on Warneford Lane. It also retains the right turn pockets for general traffic into/ out of Cheney Lane.

The junction form is a continuous treatment which takes cycle traffic out of the wand-protected cycle lane in the north-east direction. Cyclists will simply be able to turn left into/ out of Cheney Lane.

For those wishing to turn right, they will leave Cheney Lane in mixed traffic and cross to the central reserve before completing the right turn – a two stage crossing. For cyclists heading south-west, they will be able to turn from the wand-protected cycle lane and cross in two stages. This is more awkward with a lack of buffer space between the cycle lane and the traffic lane, but the design avoids changing the south-east kerb lane and the cycle lane is wide enough for the manoeuvrer to be accommodated.

The north-west bound bus stop is incorporated into the design, but will be described in the next section. As cyclists pass the locations where drivers turn right from the right turn pockets, the general traffic lane is slightly wider to enable the turns, but there are physical buffers to the cycle track to discourage driver overrun.

The continuous treatment doesn't show tactile paving either side of the pedestrian crossing point. It is highly likely that tactile paving will be desired by sight-impaired people, but the layout would ideally benefit from engagement work.

Warneford Lane Bus Stops (053-CIX-01-XX-DR-C-0011)
For the north-west bound stop, this is incorporated into the Cheney Lane to provide a 3m passenger island. Access to this involves crossing the cycle track using an uncontrolled crossing, although this could be facilitated with a zebra crossing.

The south-west bound bus stop comes from a continuation of protected cycling space from the WGOR junction and similarly provides a 3m passenger island. There is an uncontrolled crossing of the cycle track which also feeds an updated uncontrolled crossing of Warneford Lane. Again, this could be developed as a zebra crossing, although in the case of crossing the main carriageways of Warneford Lane, the crossing location would need to be moved north-east to avoid stopping buses occupying zig-zag markings.

The bus stops require buses to occupy the general traffic lane so that drivers cannot overtake. This is a trade-off from providing protected cycling space and avoiding changes to the central reserve kerb lines. In both cases, however, the arrangement acts as a "virtual" bus lane which means that as buses stop to allow people to board/ alight, the road ahead clears and allows buses to make progress.

The WGOR junction (053-CIX-01-XX-DR-C-0012)
The overarching approach here is for a CYCLOPS junction. A roundabout with an orbital cycle track was reviewed against Dutch design guidance, but the highway space isn't sufficient for such. A more compact roundabout might be possible with a partially overrun-able central island, but a signalised solution appears more achievable and familiar to users.

A CYCLOPS design is useful where there might be higher volumes of pedestrians waiting to cross the main carriageway because the utilise large waiting islands with the cycle track passing behind. This will be useful next to a school which will have high volumes of pedestrians twice a day.

The design concept considers the opportunity for a direct access to the school from the junction and the desire line to Grays Road. These both lead to a need for a two-way crossing of Gipsy Lane.

If the school is provided with direct access then the movement from it to the south-west bound cycle lane on Warneford Lane becomes a clear candidate for a two way crossing. The other two arms don't specifically generate the need for two-way crossings, but the Old Road arm has space and a two way crossing would allow cyclists to turn right to access Grays Road without using the entire junction. The Roosevelt Drive arm is constrained and so a two-way crossing is probably not viable within the existing highway boundary.

The design allows for one-way cycle tracks on Warneford Lane and Old Road to provide continuous protection. On Roosevelt Drive, the highway quickly narrow south of the junction, but it is possible to provide a north-west bound diverging cycle track and a south-east bound protected merge.

As explained in earlier, the Gipsy Lane arm is challenging with the carriageway width, vehicle accesses, trees and services. A good quality two-way cycle track on the north-east side is possible if there was a willingness to replace trees. However, the alternative has been shown with a cycle track feeding the junction in the south-east bound direction. North-west bound cycle traffic has the option to join the carriageway by turning left under a green signal, cross to access Grays Road or access Cheney Lane as previous described.

In theory, a north-west bound one-way cycle track could be provided within the school site and college beyond and this has been shown indicatively.

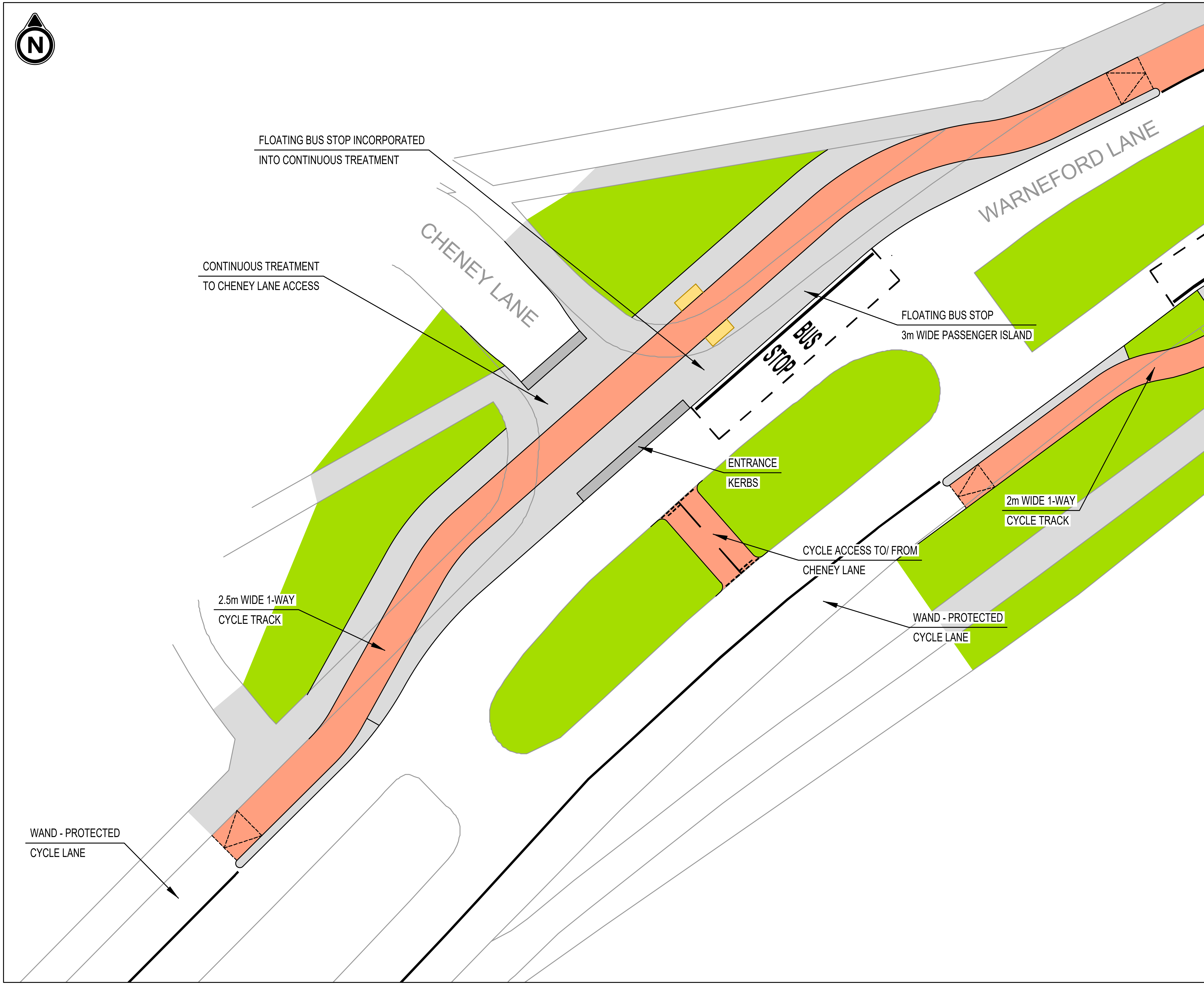
Warneford Lane – South Park Crossing (053-CIX-01-XX-DR-C-0013)
This section considers a layout which allows cycle traffic to access South Park from the Warnford Lane wand-protected cycle lane via a two-stage parallel crossing.

The layout also relocates the north-east bound bus stop north-east of the park entrance and incorporates it within protected cycling space, although the passenger loading area is a compromise on space. This is a trade-off between taking cycle traffic out of conflict with the existing bus stop and not moving kerb lines on the central reserve.

Conclusion

The concept design seeks to show the art of the possible when walking, wheeling and cycling is given priority, while maintaining full motor traffic access.

Trade-offs are acknowledged, but these arise from an overall approach which seeks to rebalance the use of road space and junction capacity in a more equitable way and challenges the assumption that reserve capacity is for a developer to utilise over the needs of those who currently and could walk, wheel and cycle.



PURPOSE: CONCEPT DESIGN

IMPORANT HEALTH & SAFETY INFORMATION

Works on the public highway require authorisation from the highway authority.

Buried and overhead utilities which should be located and identified before any works take place.

Working on the public highway is subject to live traffic and a safe system of work, including traffic management should be employed, including the protection of people walking, wheeling and cycling.

NOTES

LEGEND

- Footway
- Cycleway
- Verge
- Red blister tactile paving
- Buff blister tactile paving

KEY DESIGN FEATURES

- Existing dual-carriageway layout retained.
- Priority given to Warneford Lane movements.
- Continuous treatment provides access to/ from opposite cycle track.
- Single lane crossing of Warneford Lane minmises crossing distance.
- Existing wand-proected cycle lane maintained, other than where higher protection or layout requires a cycle track.

REVISION	AMENDMENT	DATE
P02	ADDITIONAL NOTES ADDED	25/09/2025
P01	INITIAL ISSUE	24/09/2025

CLIENT: OXFORDSHIRE LIVEABLE STREETS

JOB TITLE: WARNEFORD PARK PRIORITISING ACTIVE MODES

DRAWING TITLE: CHENEY LANE JUNCTION GENERAL ARRANGEMENT

DRAWN	CHECKED BY	SCALE (AT A3)	DATE
MLP	MLP	1:250	23/09/2025

DRAWING No	REVISION
053-CIX-01-XX-DR-C-0010	P02

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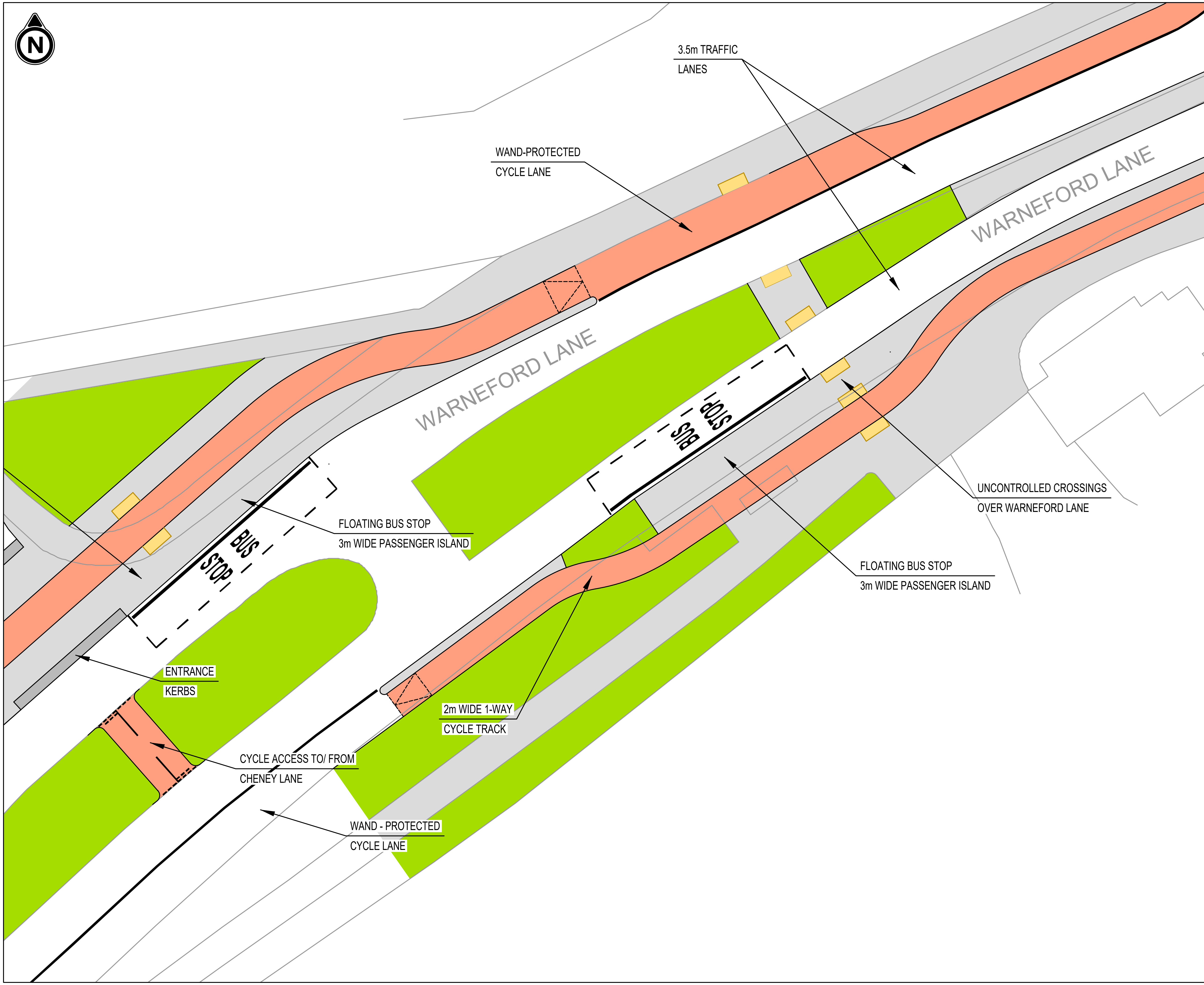

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KEY DESIGN FEATURES

- Floating bus stops used to avoid people cycling needing to overtake stationary buses with narrow overtaking space for general traffic.
- Existing uncontrolled pedestrian crossing improved within available space.
- General traffic held behind stationary buses required as cycling space has been prioritised over general traffic overtaking.

REVISION	AMENDMENT	DATE
P02	ADDITIONAL NOTES ADDED	25/09/2025
P01	INITIAL ISSUE	24/09/2025

CLIENT
OXFORDSHIRE LIVEABLE STREETS

JOB TITLE
WARNEFORD PARK
PRIORITISING ACTIVE MODES

DRAWING TITLE
WARNEFORD LANE BUS STOPS
GENERAL ARRANGEMENT

DRAWN	CHECKED BY	SCALE (AT A3)	DATE
MLP	MLP	1:250	23/09/2025

DRAWING No	REVISION
053-CIX-01-XX-DR-C-0011	P02

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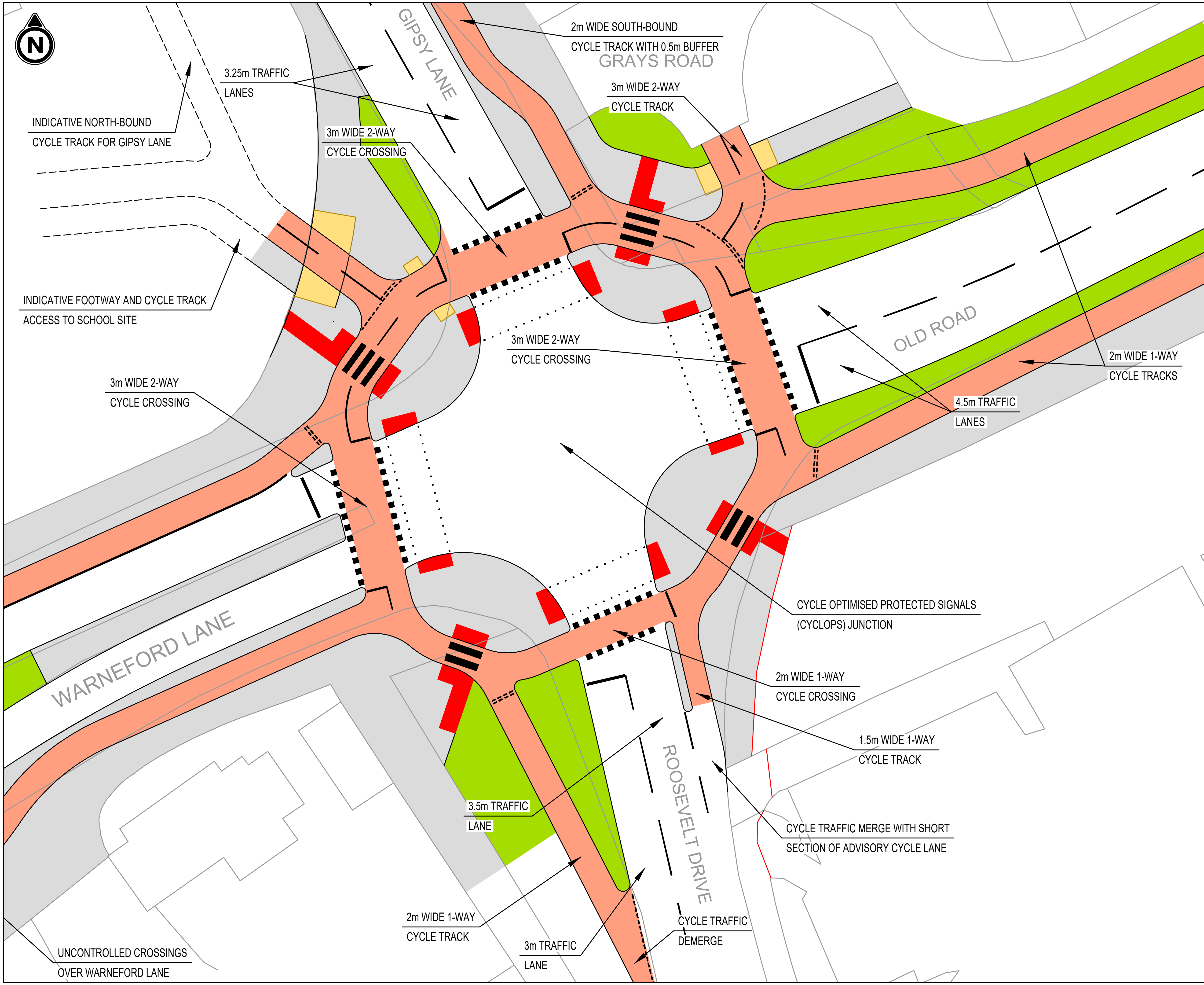

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KEY DESIGN FEATURES

- Layout prioritises protected cycling space over multi-lane approaches for general traffic.
- Layout responds to desire lines to/ from school and Grays Road where people cycling are most likely to cross in both directions.
- The eastern side of Gipsy Lane is too constrained for a two-way cycle track and so one-way southbound has been prioritised.
- Protected space on the western side of Gipsy Lane isn't possible within the highway, so cycle traffic will join under a green signal to cycle traffic.

REVISION	AMENDMENT	DATE
P02	ADDITIONAL NOTES ADDED	25/09/2025
P01	INITIAL ISSUE	24/09/2025

CLIENT: OXFORDSHIRE LIVEABLE STREETS

JOB TITLE: WARNEFORD PARK PRIORITISING ACTIVE MODES

DRAWING TITLE: WGOF JUNCTION GENERAL ARRANGEMENT

DRAWN	CHECKED BY	SCALE (AT A3)	DATE
MLP	MLP	1:250	23/09/2025

DRAWING No	REVISION
053-CIX-01-XX-DR-C-0012	P02

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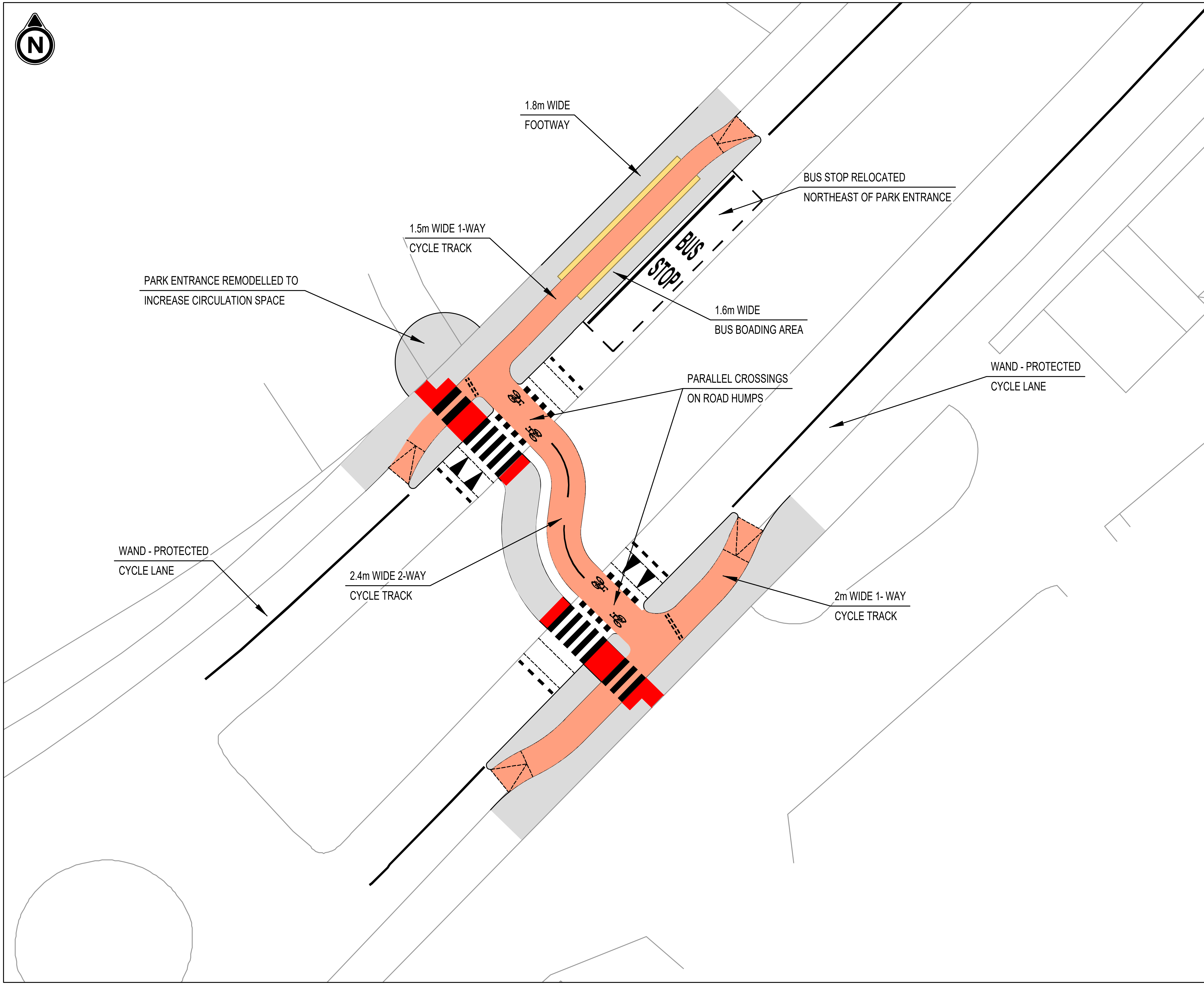

PURPOSE	CONCEPT DESIGN

IMPORANT HEALTH & SAFETY INFORMATION

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NOTES

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KEY DESIGN FEATURES

- Layout to provide connectivity between Warneford Road and South Park for people walking, wheeling and cycling.
- Northeast-bound bus stop relocated and incorporated into protected cycling space so people cycling aren't in conflict with buses and general traffic.
- Bus loading area is a trade-off between pedestrian and cycling space and not widening northeast-bound carriageway or land take from park.
- Crossing zig-zags omitted for clarity.

REVISION	AMENDMENT	DATE
P01	INITIAL ISSUE	25/09/2025

CLIENT: OXFORDSHIRE LIVEABLE STREETS

JOB TITLE: WARNEFORD PARK PRIORITISING ACTIVE MODES

DRAWING TITLE: WARNEFORD LANE - SOUTH PK CROSSING GENERAL ARRANGEMENT

DRAWN	CHECKED BY	SCALE (AT A3)	DATE
MLP	MLP	1:250	25/09/2025

DRAWING No	REVISION
053-CIX-01-XX-DR-C-0013	P01

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DRAWING & DOCUMENT ISSUE REGISTER
PROJECT Warneford Park – Prioritising Active Modes
DESIGN STAGE Concept

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?01 = revision status P is preliminary, C is completed		**D**	**24**	**25**								
		M	**9**	**9**								
		Y	**25**	**25**								
Drawing or Document Number	**Drawing or Document Title**		**Revisions Issued**									
053-CIX-01-XX-DR-C-0010	Cheney Lane Junction – General Arrangement		P01	P02								
053-CIX-01-XX-DR-C-0011	Warneford Lane Bus Stops – General Arrangement		P01	P02								
053-CIX-01-XX-DR-C-0012	WGOF Junction – General Arrangement		P01	P02								
053-CIX-01-XX-DR-C-0013	Warneford Lane – South Pk Crossing – General Arrangement		-	P01								

Issued To	**Organisation**		**Revisions Issued**									
Danny Yee	Oxfordshire Liveable Streets		X									
Hannah Kirby	Oxfordshire Liveable Streets		X									
Aeron Buchanan	Oxfordshire Liveable Streets		X									