VIRGINIA WATER TRANSPORT STRATEGY

Wentworth Residents Association

October 2022

Introduction

Purpose of this Report

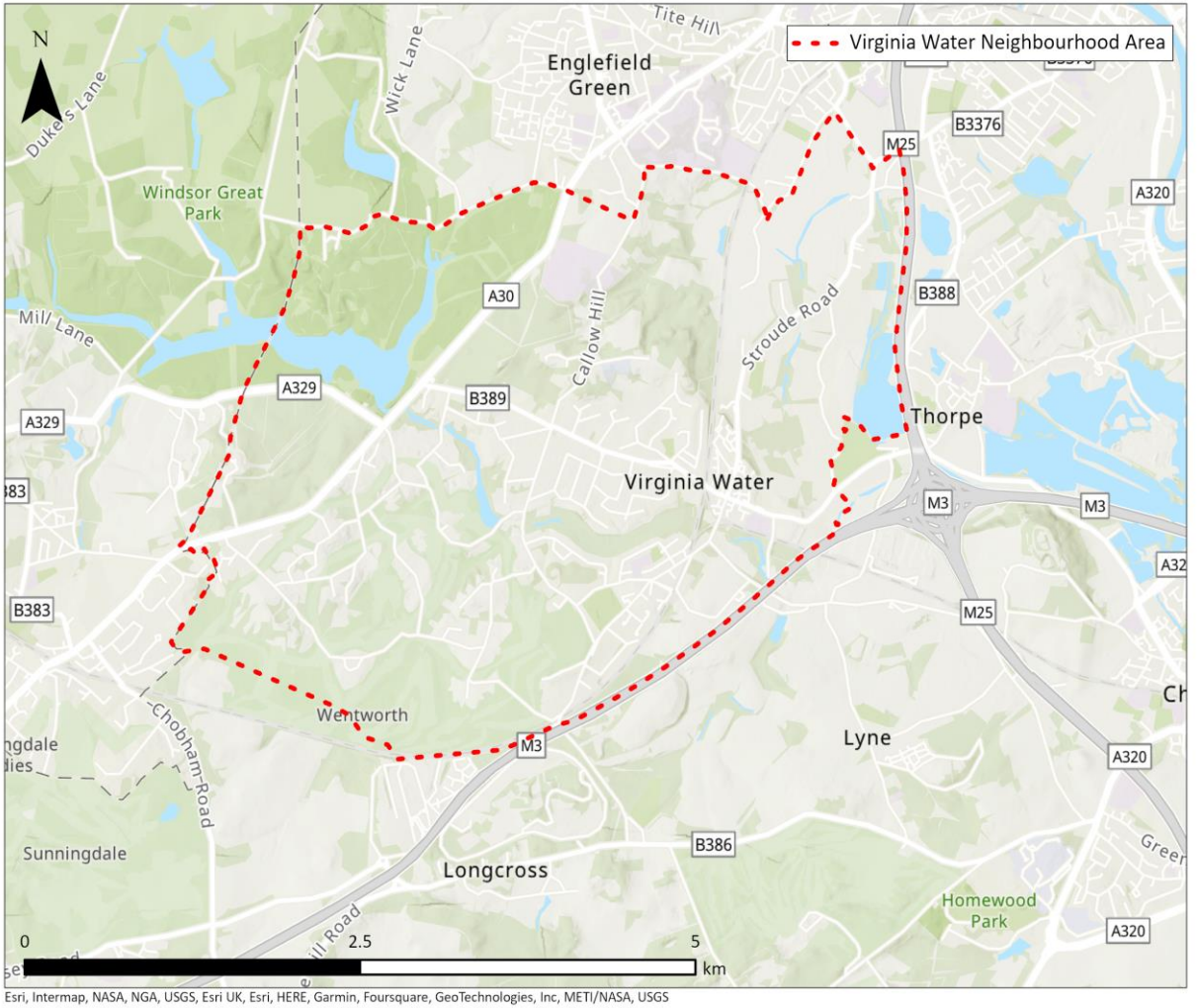
This Transport Strategy has been prepared by PJA on behalf of Wentworth Residents Association, to set out the aspirations for transport and mobility within the village, as well as ambitions for addressing the impacts of development and construction traffic. The strategy has been prepared to support the Neighbourhood Plan, with the intention that it will be annexed to the plan to inform funding and decision making.

The scope of works covered by this study includes:

- A review of the wider application of the design principles identified as part of the village centre study including identifying locations of key design interventions such as village gateway /entry treatments
- A review of recommendations for wider cycle connectivity in light of the current LCWIP undertaken by Atkins;
- Identification of Potential 'traffic' interventions such as speed limit reductions and weight limits to help to civilise traffic within the village; and
- Preparation of a framework Construction Traffic Management Plan which will set out overarching principles and measures that can be adopted by developers

This document includes the following sections:

- Baseline Conditions – provides a review of opportunities and constraints within Virginia Water
- Identification of Wider Village Recommendations – sets out a series of potential options to improve Virginia Water, and addresses the impacts of development and construction traffic

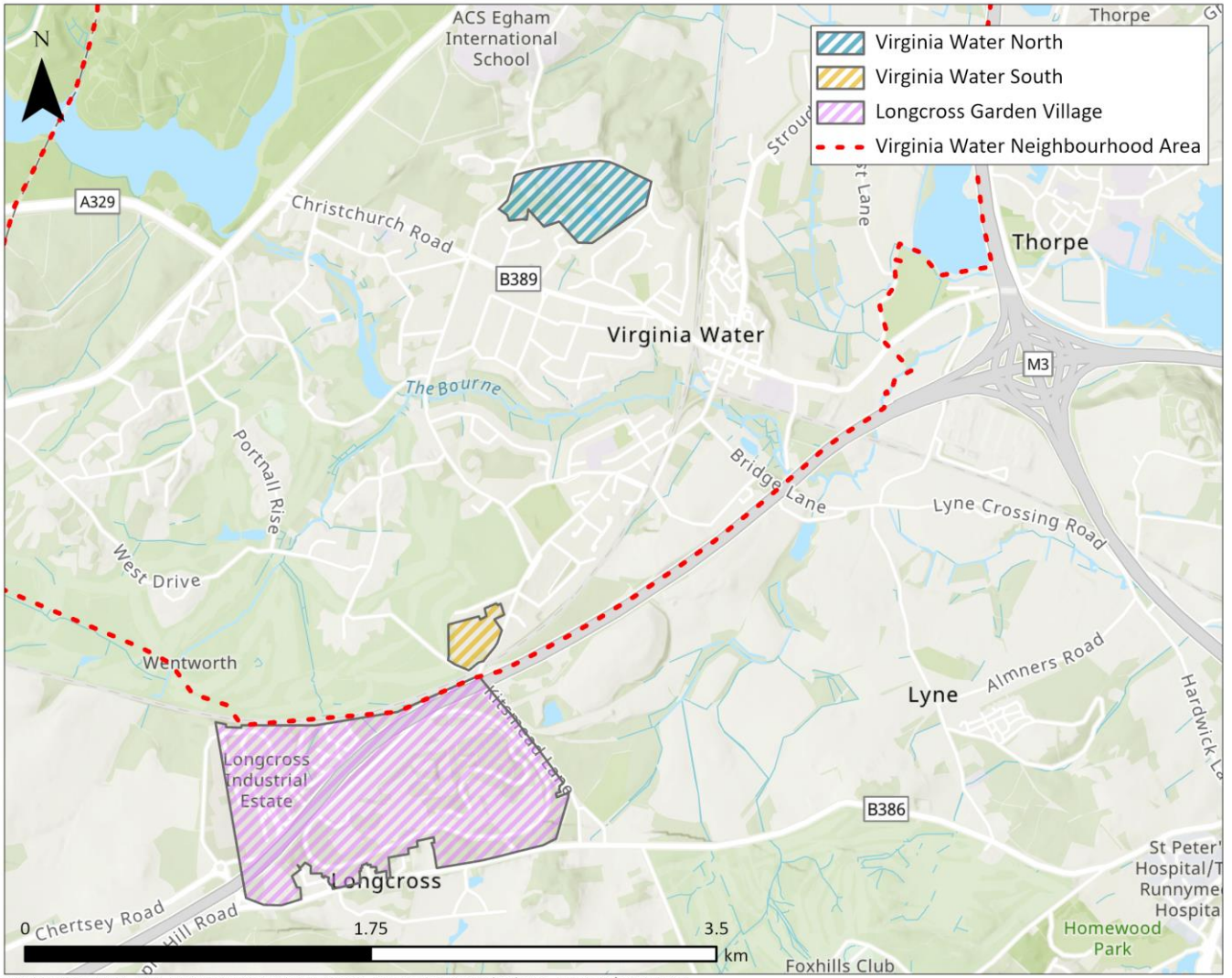


Planning Context

There are several committed developments in the area:

- Longcross North and Longcross South, collectively known as Longcross Garden Village
- Virginia Water North
- Virginia Water South

The locations of each of these sites can be seen in the plan, whilst further details are provided on the following pages.



Esri, Intermap, NASA, NGA, USGS, Esri UK, Esri, HERE, Garmin, Foursquare, GeoTechnologies, Inc, METI/NASA, USGS

Planning Context

Longcross Garden Village
Longcross Garden Village is located to the south of Virginia Water Neighbourhood Plan Area.

Runnymede 2030 Local Plan
The site was allocated for development in the adopted Runnymede 2030 Local Plan as Policy SD9, which notes the need for a range of sustainable transport improvements to maximise opportunities for modal shift, including

- Upgrades to Longcross Station and increased service frequency
- Delivery of improvements to local road network and to A320
- Funding towards bus services to Longcross railway station and neighbouring settlements including Woking
- Network of safe and segregated (where possible) cycling and walking links
- Provision of electrical vehicle charging opportunities

There is no requirement for pedestrian / cycle link to Virginia Water. However, this connection is important to offset potential vehicle impacts of the development and to accommodate movements to Virginia Water local centre and railway station.

Planning Application – Longcross North
A planning application for Longcross North (the element of the site to the north of the M3) was submitted in 2013 (reference RU.13/0856), including: up to 79,025sqm (GEA) of Class B1 employment uses (including parking); up to 36,000sqm (GEA) of sui generis Data Centres use (including ancillary facilities and parking); up to 200 dwellings; up to 6,300sqm (GEA) of ancillary uses, including Class A1 - A5 uses (i.e. retail uses, cafe/restaurants and a public house up to 1,550sqm GEA), Class D1 uses (i.e. childcare facilities up to 600sqm GEA); Class D2 uses (i.e. Health and Leisure (up to 1900sqm GEA)); Publicly Accessible Open Space; and car parking for railway station.

The S106 Agreement required the following:

- Provision of a bus service contribution towards Demand Responsive Transport (to operate from first dwelling until either 185th dwelling or 20,000sqm B1 floorspace, operating Monday-Sunday 7am-7pm) and subsequent Bus Service, as a subsidy for a minimum of nine years.
- Provision of a rail service contribution to establish minimum half hourly rail service Monday to Saturday and hourly service Sunday at Longcross railway station, as well as a contribution towards provision of station facilities
- Provision of cycle lane on Chobham Lane between site and Kitsmead Lane

Further, the Decision Notice Condition 32 requires the signalisation of A30 London Road / Broomhall Lane / Chobham Road junction in Sunningdale.

Planning Application – Longcross South
A planning application for Longcross South (the element of the site to the south of the M3) was submitted in early 2022 (reference: RU.22/0393), including: 1,700 dwellings; Care home/extra care accommodation; Land reserved for up to 10 travelling show people plots; Retail, food and drink; Public house; Community facilities; Employment use; A primary school including early years provision; and Public open space including allotments, sports pitches and ancillary facilities.

A 3m wide shared used path is proposed to be provided alongside Kitsmead Lane, alongside the signalisation of the Kitsmead Lane / Chobham Lane junction to include a signalised crossing across the western junction arm. As part of this, those approaching from the west would be permitted to continue ahead only.

The application also included for the signalisation of the junction between Wellington Avenue and Trumps Green Road, as well as signalisation of the junction between Trumps Green Road and Lyne Road (including the underbridge).

A Hopper Bus service will be provided within Longcross South so that all parts of the development can access public transport, integrating with rail services at Longcross railway station, with the potential for the extension of an existing public bus service to supplement the provision as part of Longcross North. Further, the development would have the potential to provide additional improvements at Longcross railway station, for example step-free access.

Planning Context

Virginia Water North
The Virginia Water North site is located to the north of Virginia Water and is formed from three parcels of land at Gorse Hill House, Kenwolde and Merlewood.

The site is allocated as allocation SL9 in the adopted Runnymede 2030 Local Plan for a residential development incorporating a minimum of 120 net units, for delivery between 2020 and 2025. The allocation requires the development to:
"f) Contribute towards the improvement of and maximise opportunities to provide safe and attractive links to the existing public rights of way network which exist in the locality of the site;
g) Include measures to mitigate the impact of development on the local road network and take account of impacts on the strategic road network as identified through a site specific Travel Plan and Transport Assessment, exploring opportunities for the site to link with or contribute to the Christchurch Road off road cycle route to Virginia Water rail station and to improve pedestrian access to public transport links"

A planning application for this development has not yet been submitted.

Virginia Water South
The Virginia Water South site is located north of the Longcross Garden Village Development.

The site is allocated as allocation SL10 in the adopted Runnymede 2030 Local Plan for a residential development incorporating a minimum of 140 net units and two net additional serviced traveller pitches, for delivery between 2020 and 2023. The allocation requires the development to:
"d) Contribute towards the improvement of and maximise opportunities to provide safe and attractive links to the existing public rights of way network in the locality of the site;
e) Include measures to mitigate the impact of development on the local road network and take account of impacts on the strategic road network as identified through a site specific Travel Plan and Transport Assessment, exploring opportunities for the site to link with, or contribute towards cycle routes including those at Longcross Garden Village and to improve pedestrian access to public transport links"

A planning application has been submitted for part of this site (reference: RU.22/0278) for:
"*Outline Planning Permission for Demolition of existing structures and erection of up to 67 new homes (35% affordable), provision of 1 travellers pitch, and new vehicular access via Trumps Green Road together with associated car parking, open space and landscaping with Access only to be considered with all other matters reserved."*

The proposals include vehicular access from the eastern extent of the site frontage onto Trumps Green Road, where maximum visibility can be achieved, as well as a secondary emergency access. A Framework Travel Plan was prepared as part of the planning application.

Within the Officer Report, the following are recommended for inclusion within a S106:
"6. To secure through a S278 agreement with the Local Highways Authority vehicular access to Trumps Green Road, provision of upgraded pedestrian crossing infrastructure over Trumps Green Road, priority junctions with Wellington Avenue, Tithe Meadows and Crown Road and the improvement of the bus stop located at Trumps Green Road, called Oak Tree Close bus stop to include.

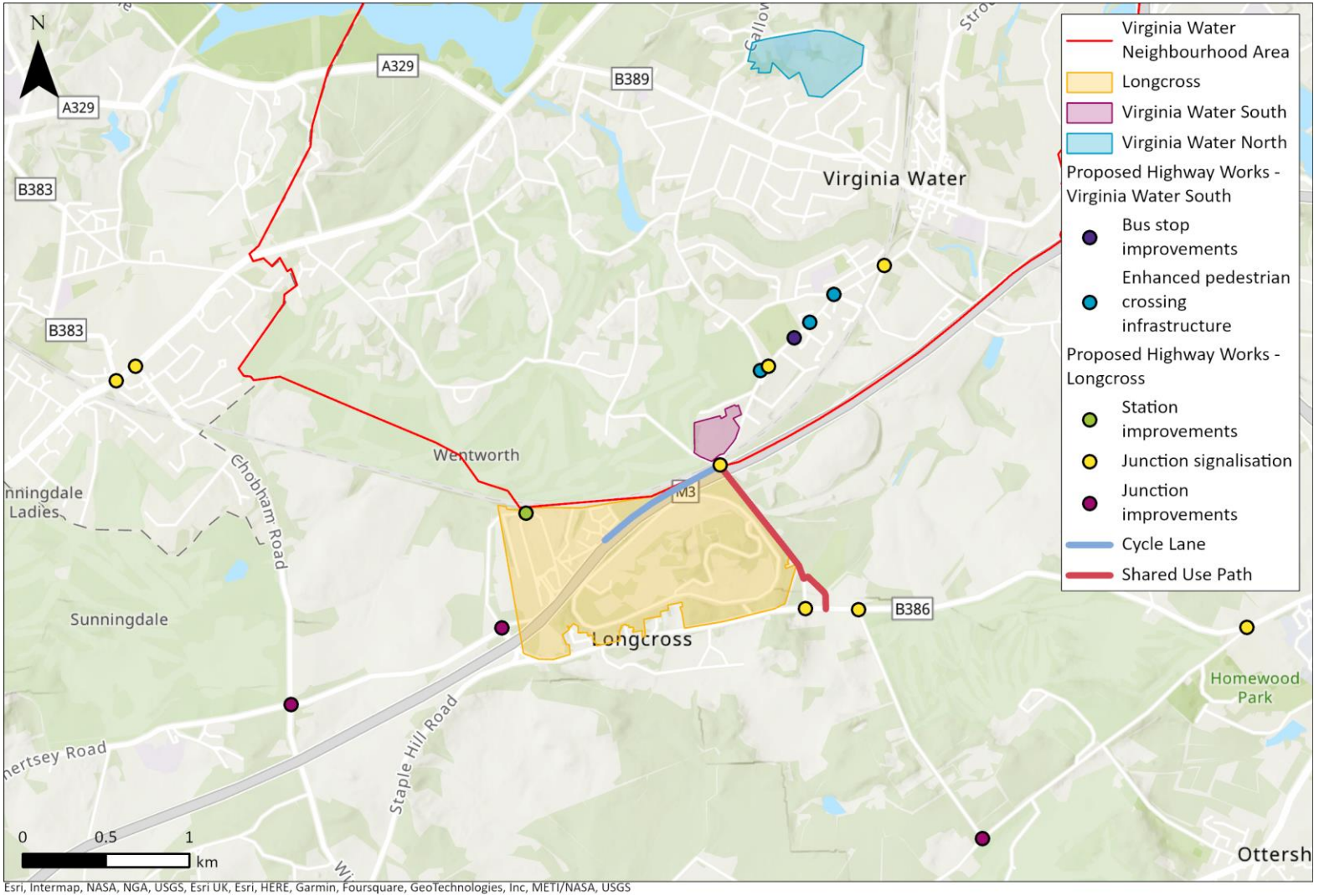
- *The provision of a raised kerb to a height of 140 mm over 9 metres in length to ensure level access onto/off buses for those with Motability issues*
- *New Flagpole, sign and timetable case.*

7. Transportation improvements and contributions including:

- *Travel Plan auditing fee of £6,150*
- *From the 20th Occupation of the dwellings on site a financial contribution to Demand Responsive Transport (DRT) Bus Service for £53,600 for index linked to RPIx from the 20th Occupation of the units for a period of 5 years. Should there be no other DRT's operational in the area, a one-off contribution of £268,600 to improve the conventional bus services in the area will be made instead."*

Planning Context

The location of the future development sites and associated highways infrastructure are illustrated in the adjacent figure.



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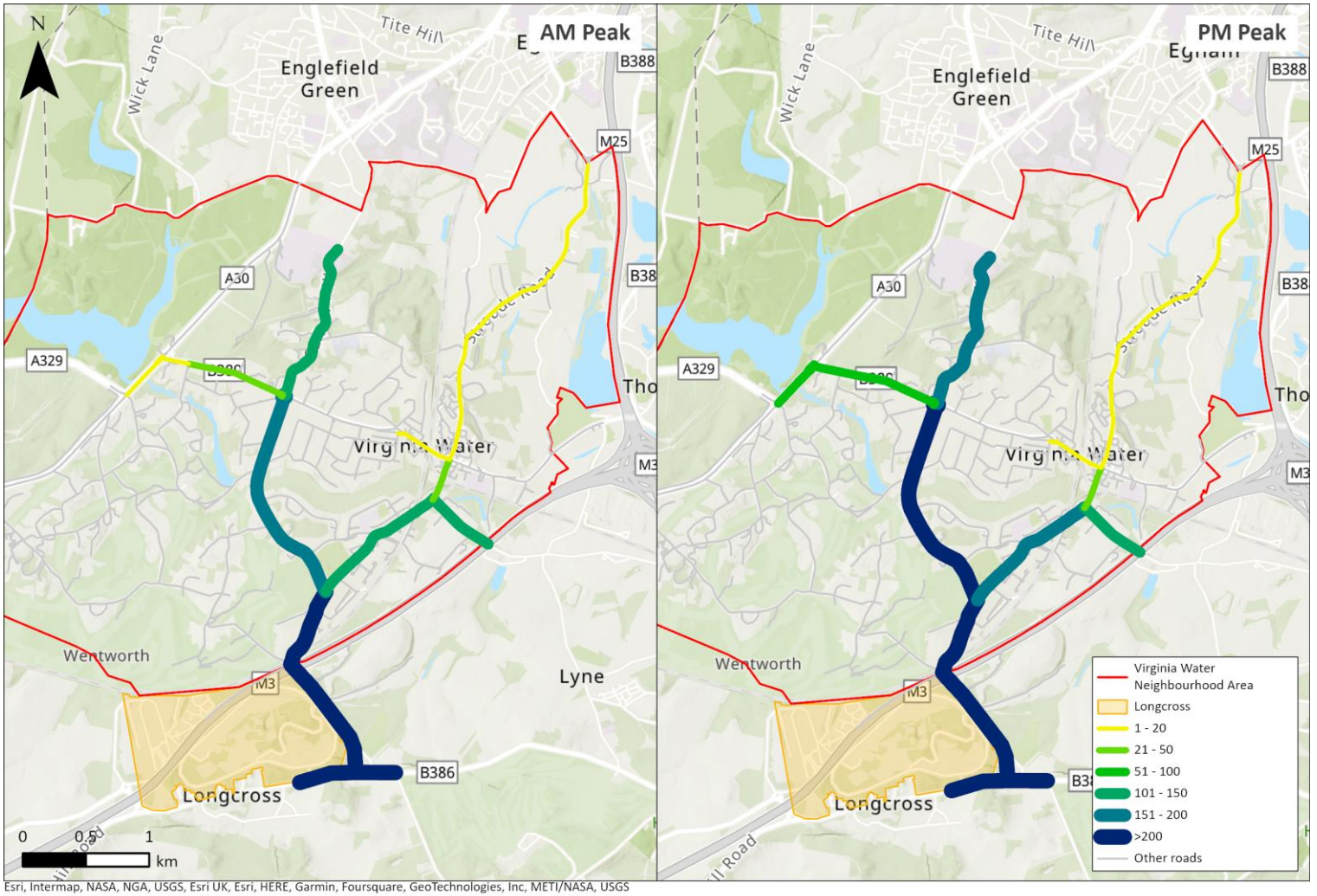
Longcross Development Traffic (Total development across North and South sites)

An indication of the estimated peak hour traffic flows arising from the Longcross development (both north and south) are illustrated adjacent figure.

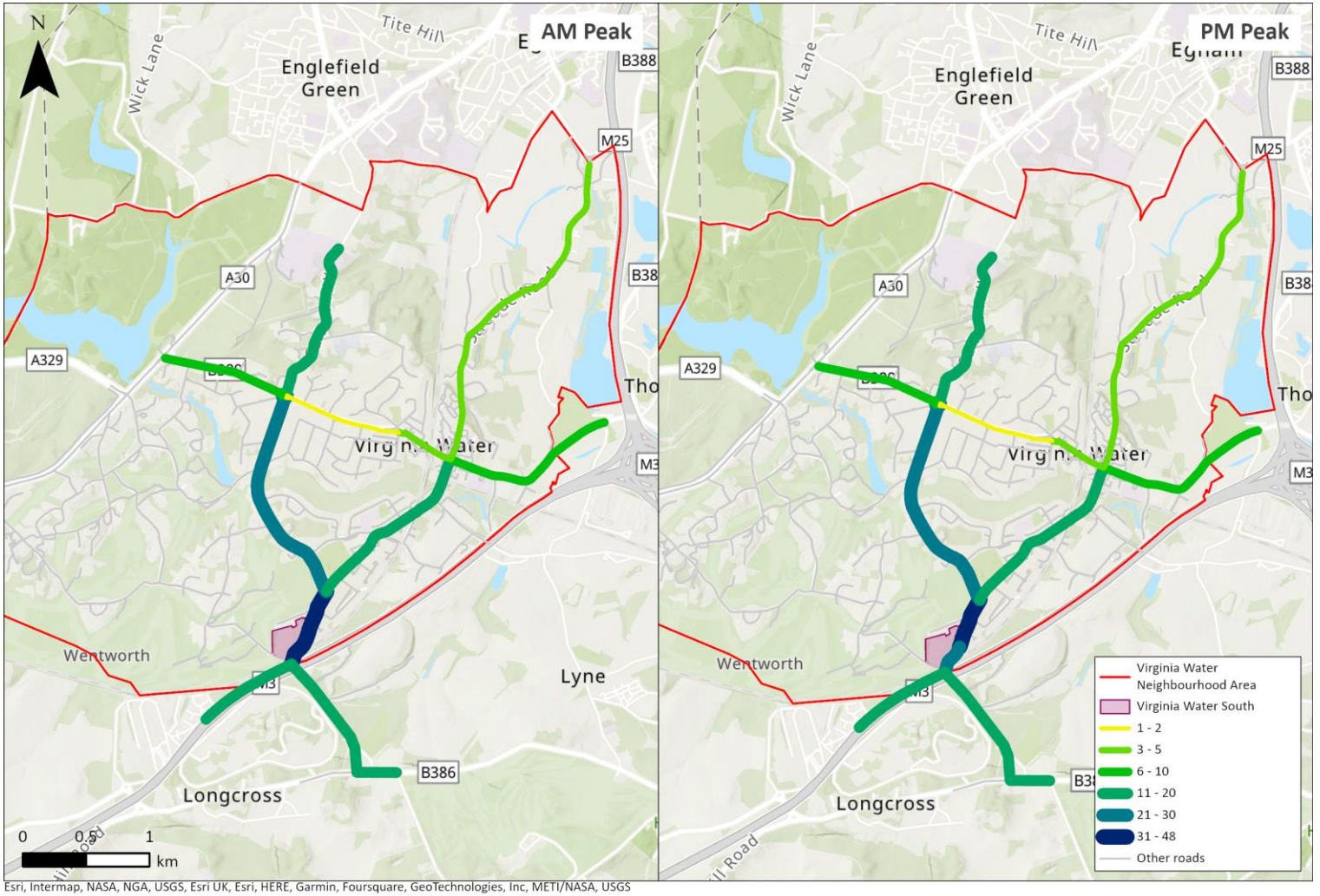
These figures are based on information taken from the latest Transport Assessment for Longcross South.



Virginia Water South Development Traffic (total allocation)

An indication of the estimated peak hour traffic flows arising from the full allocation at Virginia Water South are illustrated adjacent figure.

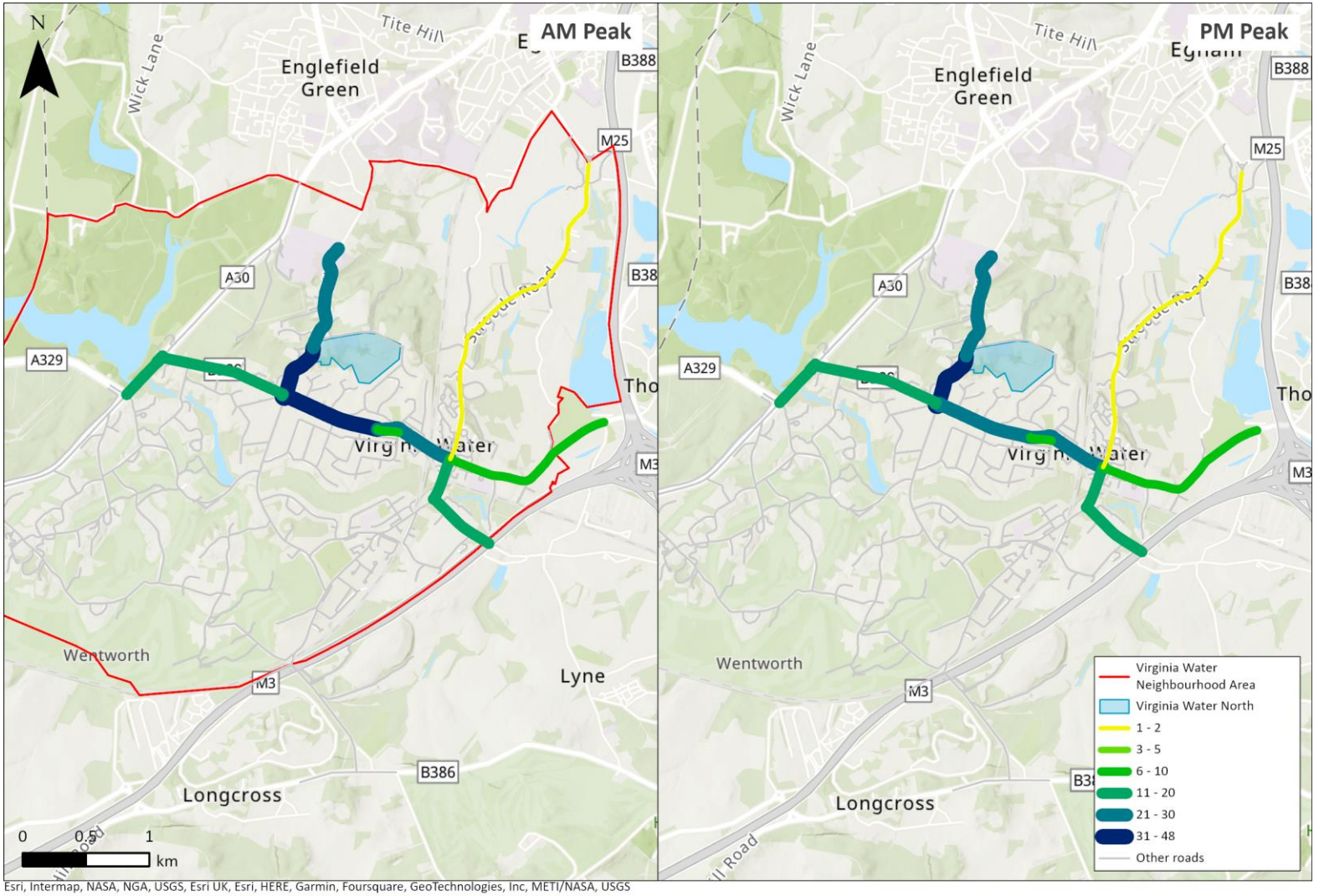
These figures are based on information taken from the Transport Assessment for the eastern area of Virginia Water South.



Virginia Water North Development Traffic (total allocation)

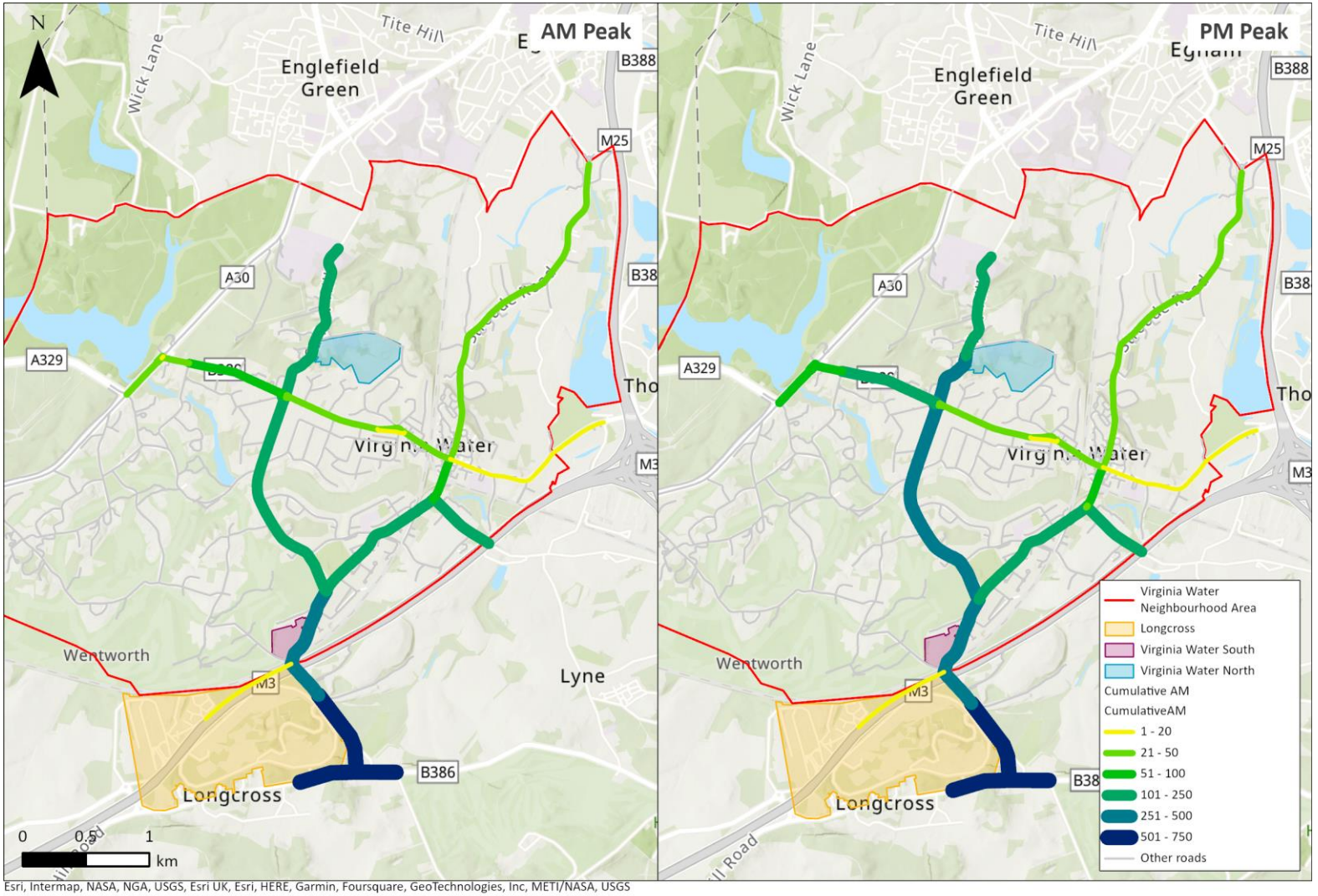
An indication of the estimated peak hour traffic flows arising from the full allocation at Virginia Water North are illustrated adjacent figure.

These figures are based on information taken from the Transport Assessment for the eastern area of Virginia Water South with the distribution amended to reflect the site location.



Cumulative Development Impact (Note: development traffic data not available for all road links for all sites)

The cumulative traffic impacts of the three development sites around Virginia Water are illustrated on the adjacent figure.



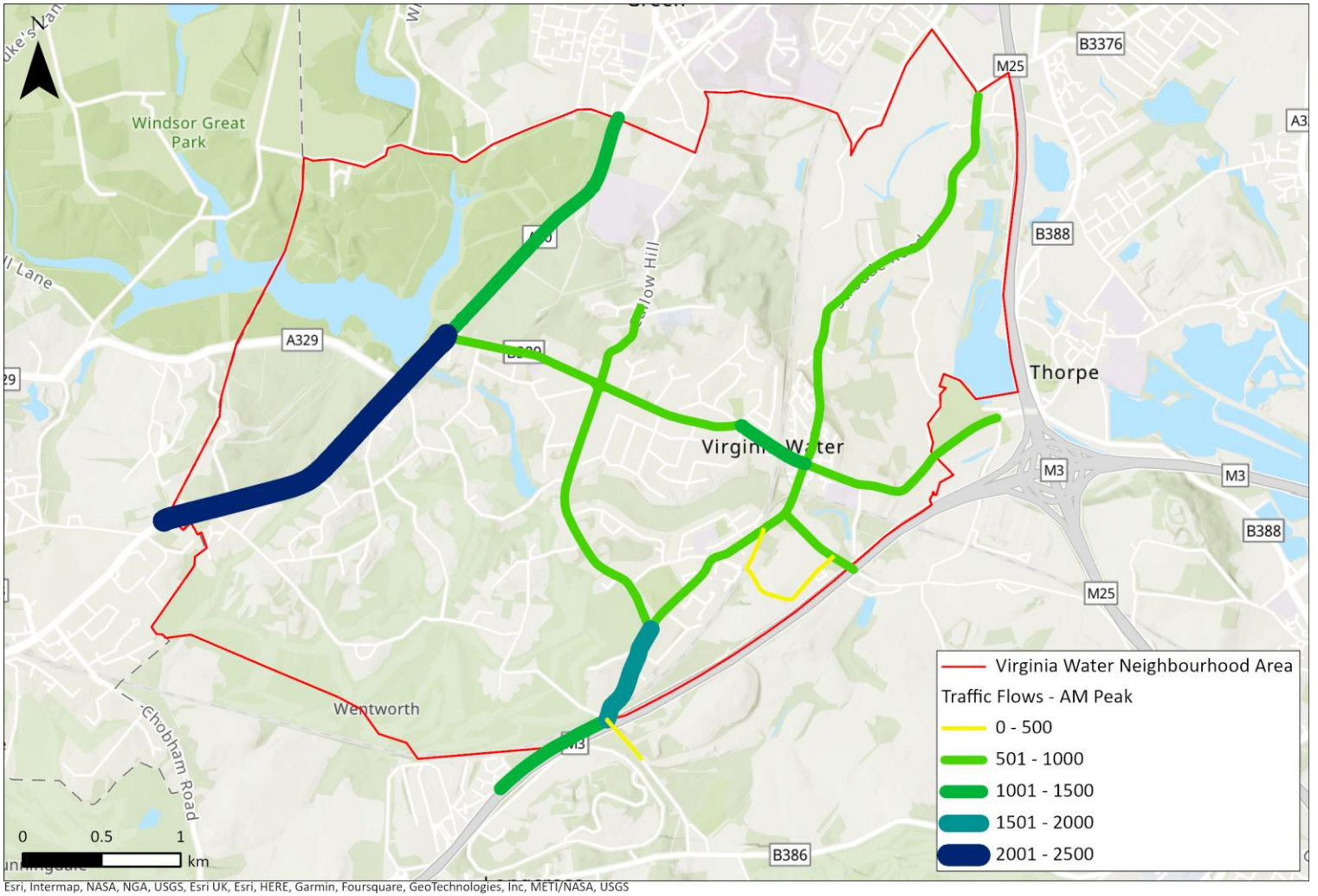
Existing Traffic Flow Data - AM Peak

An indication of the traffic flows on each road within Virginia Water is provided within the adjacent figure.

The majority of roads within the settlement carry traffic flows of between 500 and 1,000 two-way vehicle movements in the AM peak hour.

The exceptions to this are:

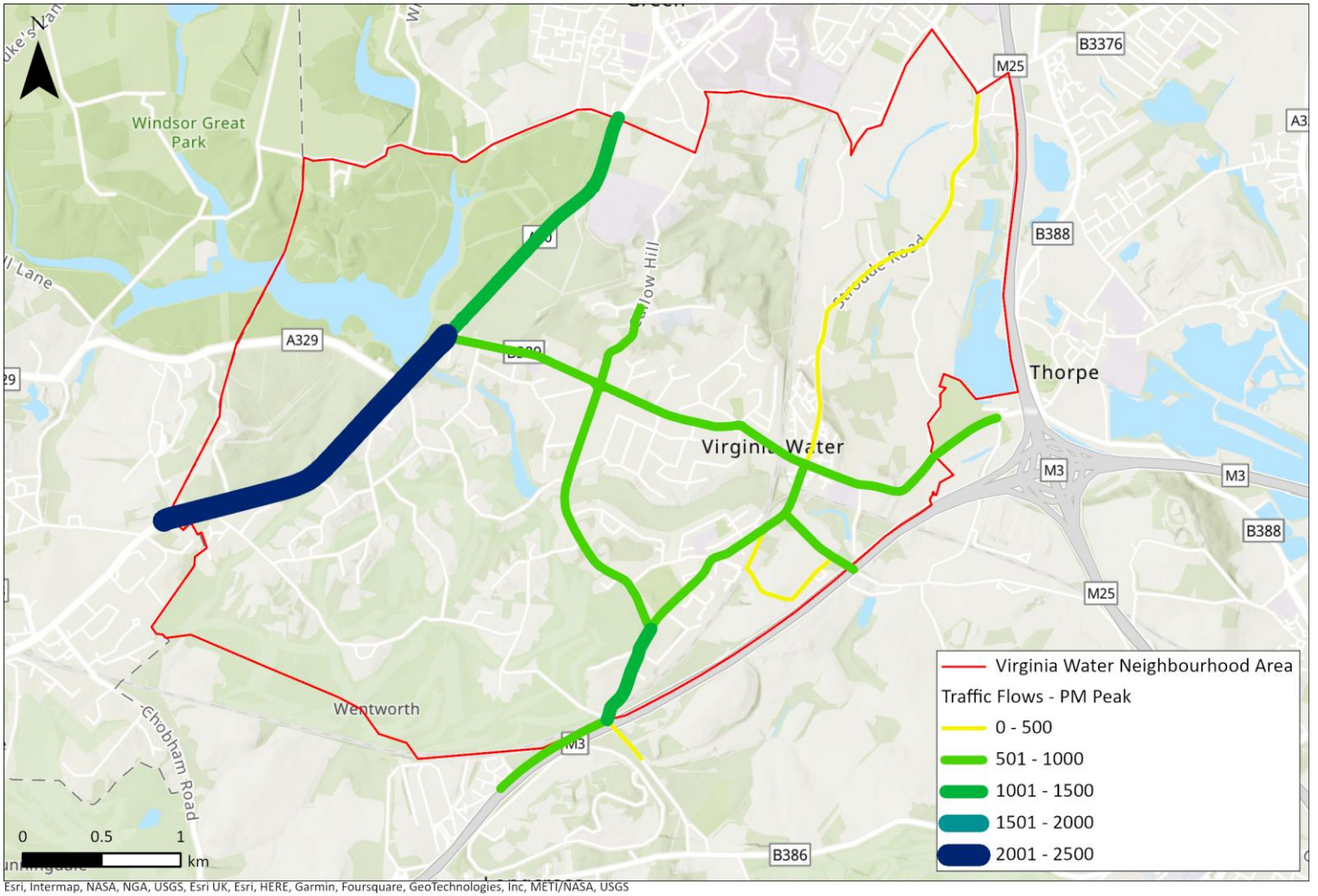
- Christchurch Road in the centre of the Village (1,000 – 1,500 vehicles per hour)
- Southern section of Trumps Green Road (1,500 – 2,000 vehicles per hour)
- A30 (2000+ vehicle movements per hour)



Existing Traffic Flow Data - PM Peak

An indication of the traffic flows on each road is provided within the adjacent figure.

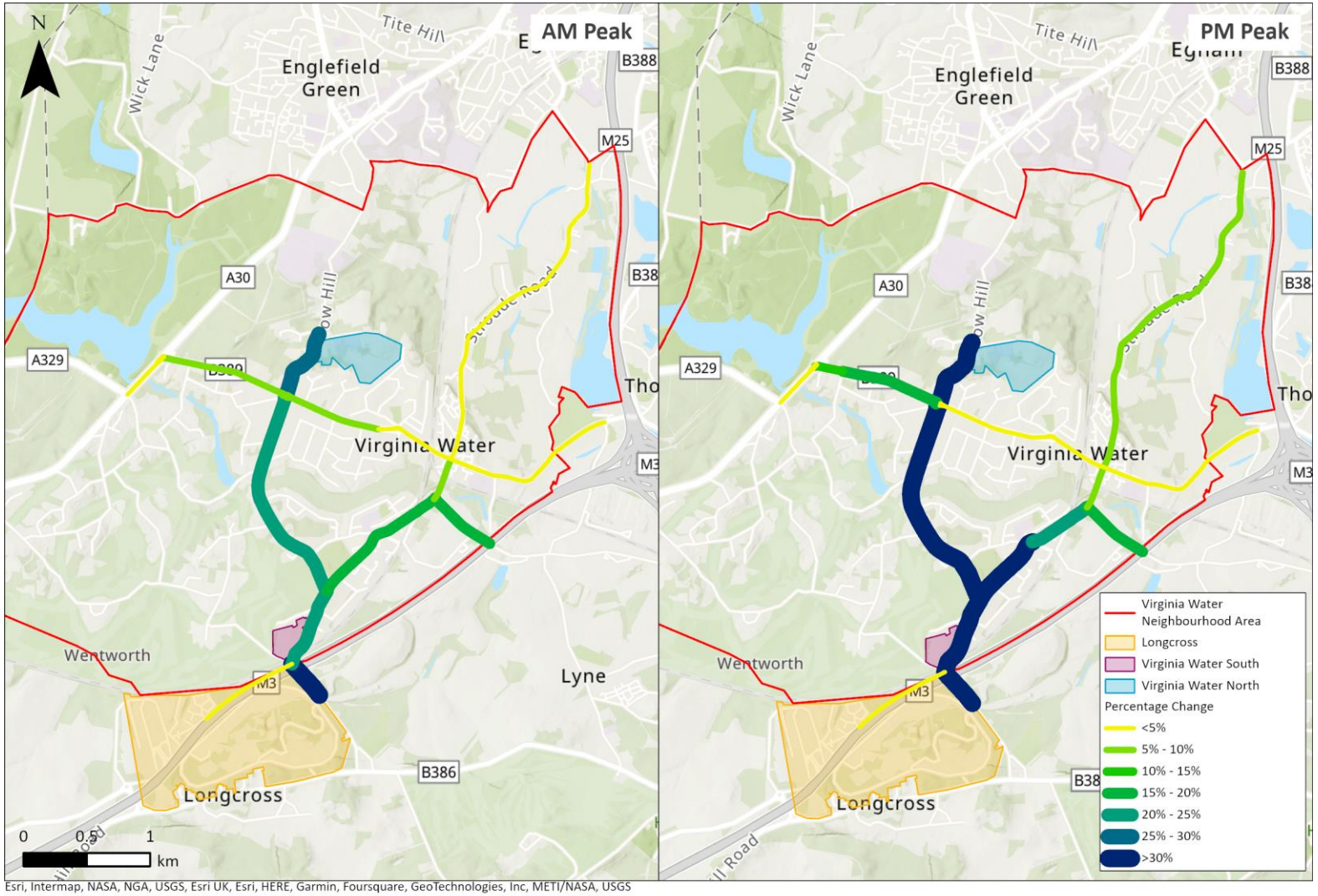
A similar pattern of traffic flows are expected in the PM peak hour as the AM peak with higher flows expected on the southern section Trumps Green Road and the A30.



Percentage change in traffic from existing as a result of cumulative developments (note: base traffic not available for all road links)

The proportional increases in traffic flows arising from the three committed development sites relative to the existing baseline scenario for both the AM and PM peak hour are illustrated in the adjacent figures.

It is clear from this figure that Wellington Avenue and Trumps Green Road will experience the most significant increases in traffic flow, with increases of in excess of 30% forecast for the PM peak.

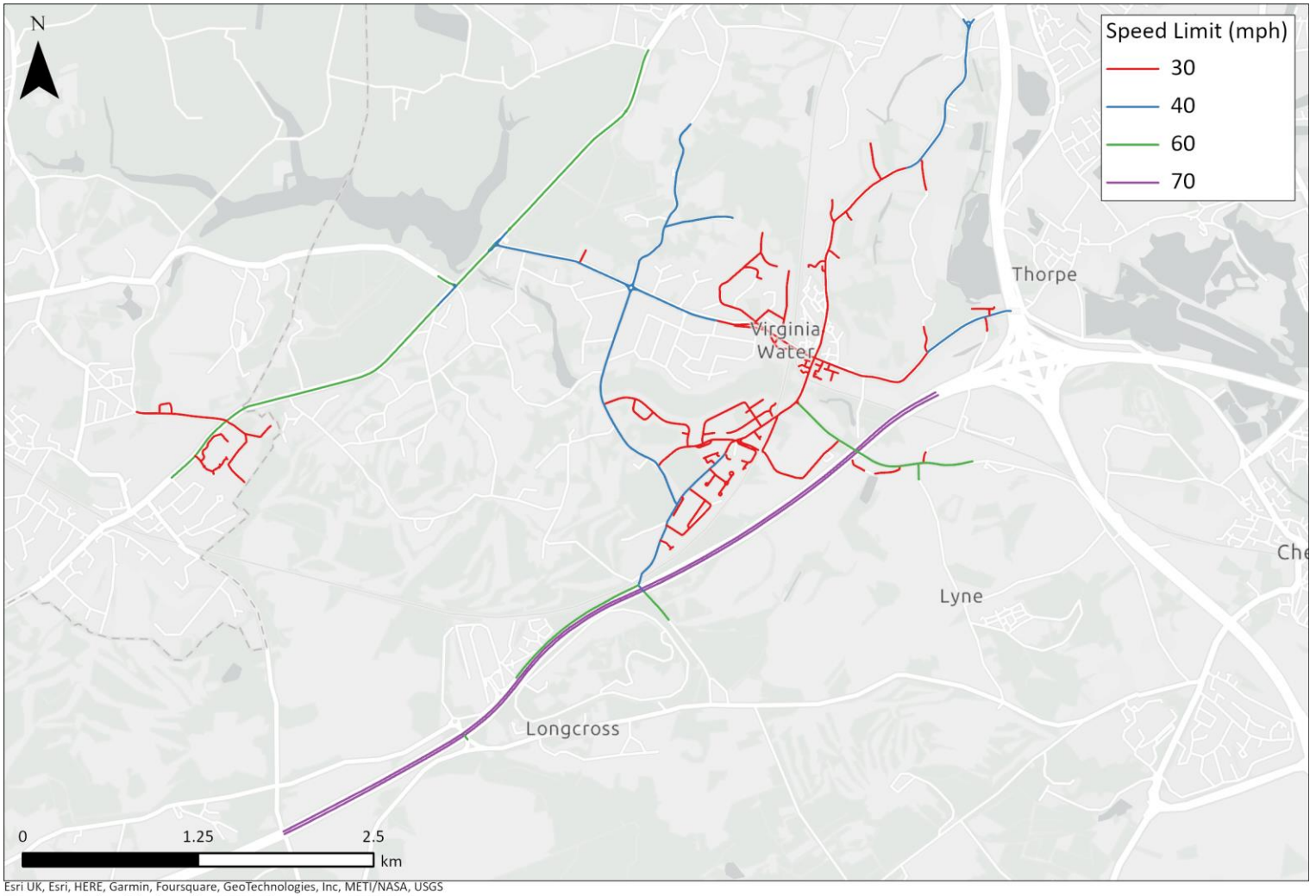


Traffic Speed Data

OS Mastermap Highways Network RAMI and Average Speed and Speed Limit data has been obtained for Virginia Water.

The figure shows the current speed limits on the roads within Virginia Water.

Significant sections of the network within the built up area of the village are subject to a 40mph speed limit.

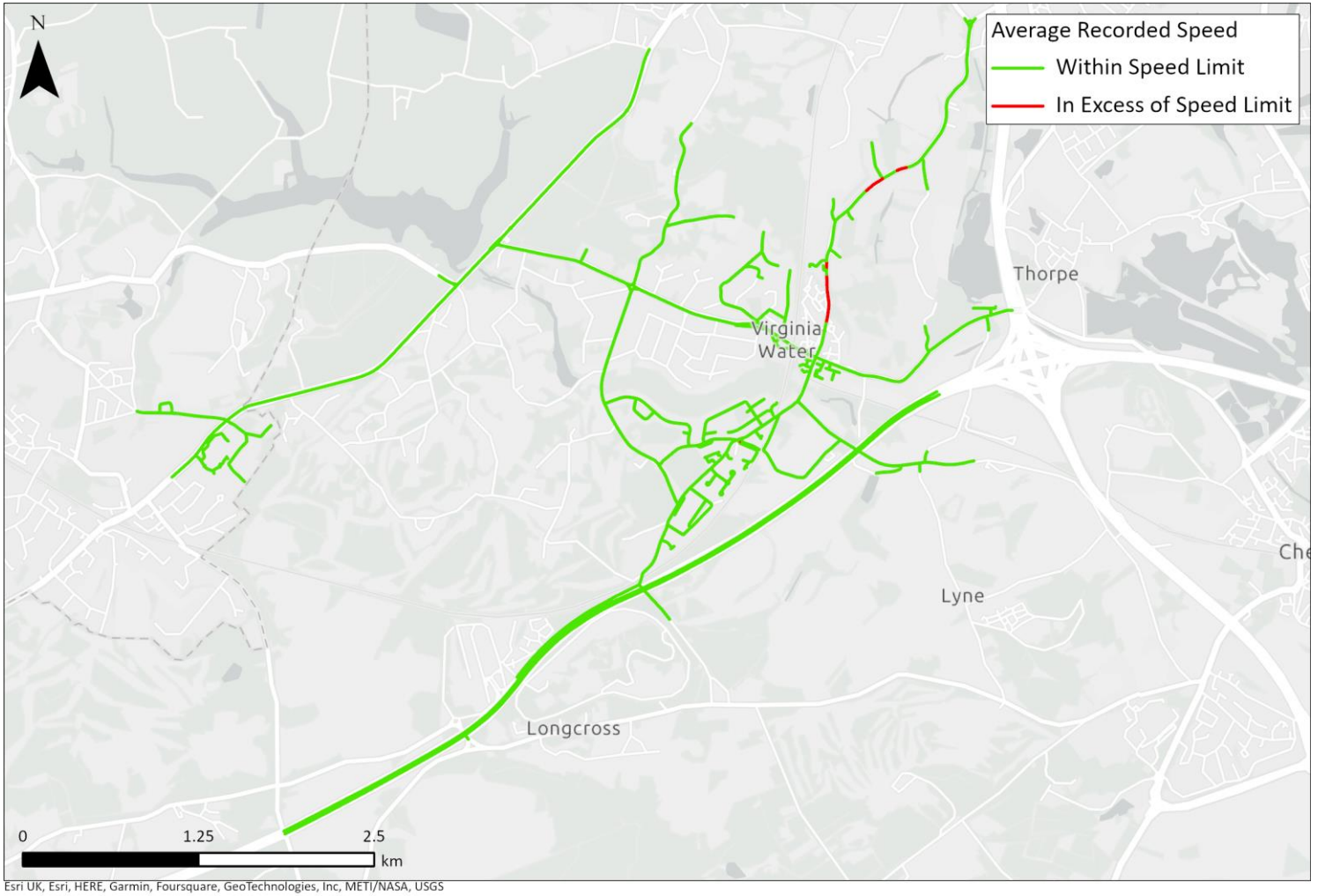


Traffic Speed Data

OS Mastermap Highways Network RAMI and Average Speed and Speed Limit data has been obtained for Virginia Water.

The figure shows the roads for which the average speed is below / above the speed limit. This is based on AM peak traffic flows.

This information demonstrates that there is general accordance with the current posted speed limits within the village.

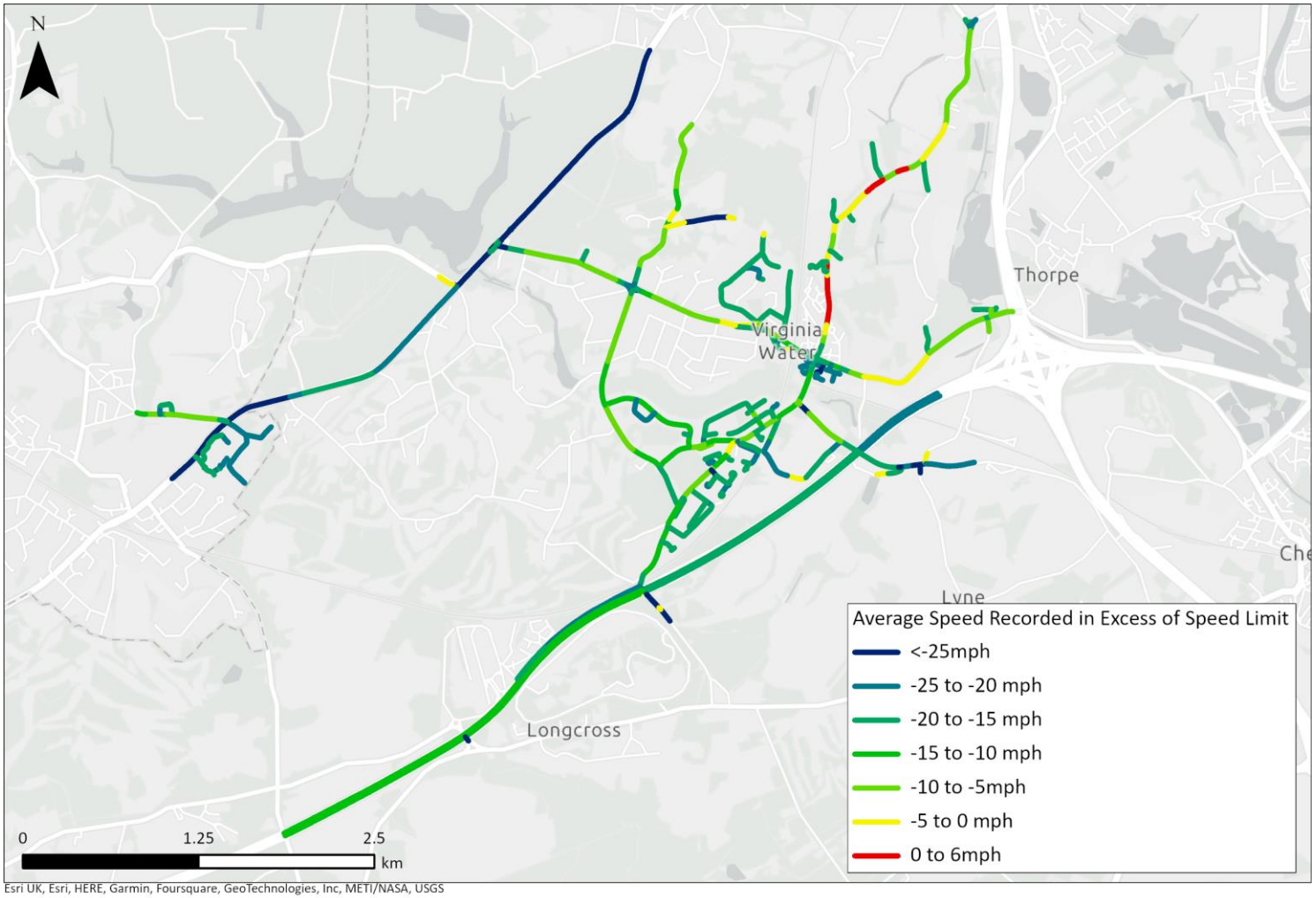


Traffic Speed Data

OS Mastermap Highways Network RAMI and Average Speed and Speed Limit data has been obtained for Virginia Water.

The figure shows the roads for which the average speed is below / above the speed limit.

This indicates that for some sections of the road network within Virginia Water the average speed of vehicles is significantly below the posted speed limit. Of particular note is Wellington Avenue, which is subject to a 40mph speed limit but average speeds are between 30-35mph and therefore a reduction in speed limit should be considered

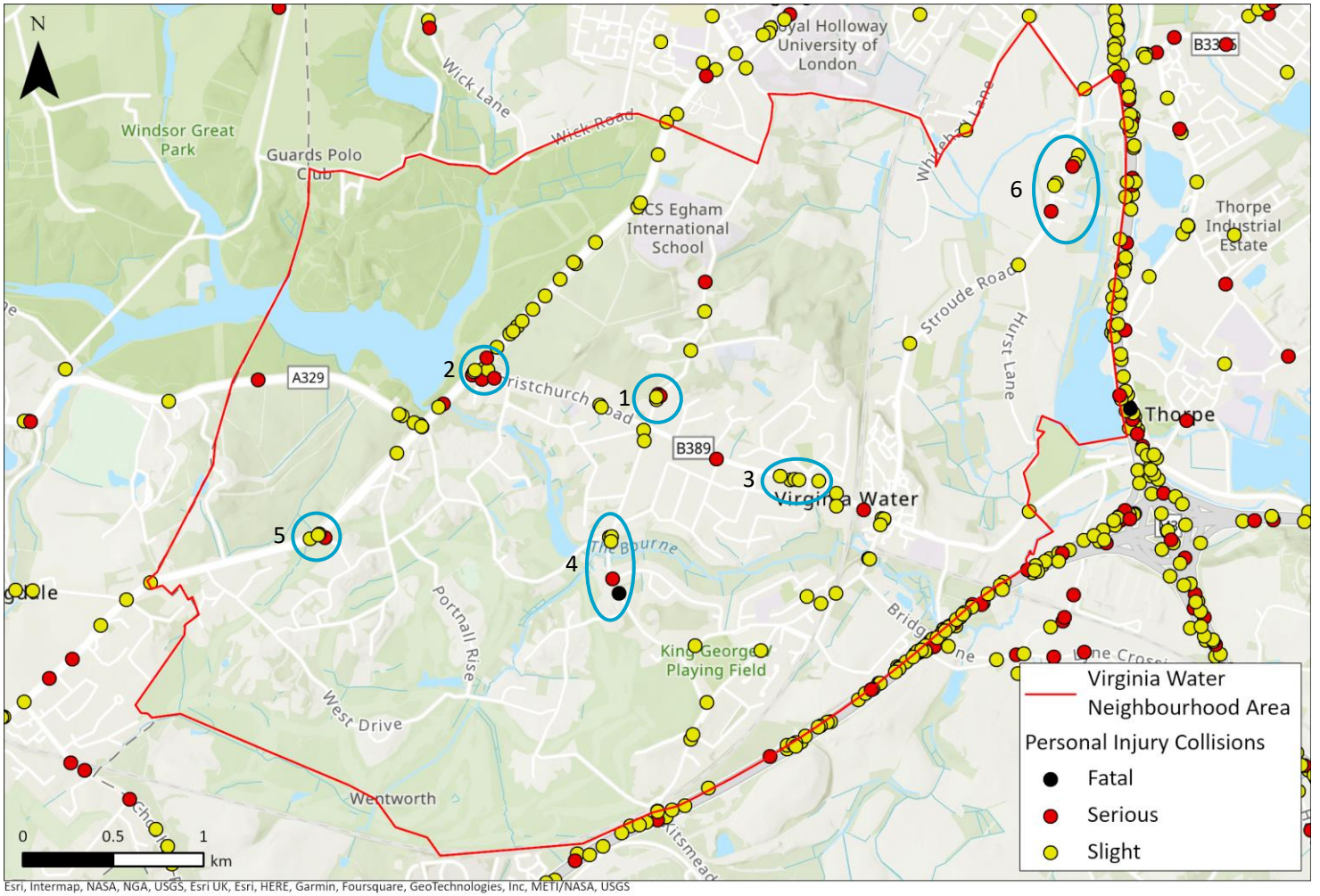


Highway Safety

Personal Injury Collision data has been reviewed for the five year period from 2016 to 2020 inclusive.

There are several notable collision clusters in Virginia Water:

1. Callow Hill, at bend to the north of the junction with the B389 – two serious and two slight collisions occurred in this location
2. B389 / A30 London Road signalised junction
3. Station Approach
4. Wellington Avenue – one serious and one fatal, as well as several slight, collisions occurred along this road
5. A30 London Road / Meadow Road priority junction
6. Stroude Road

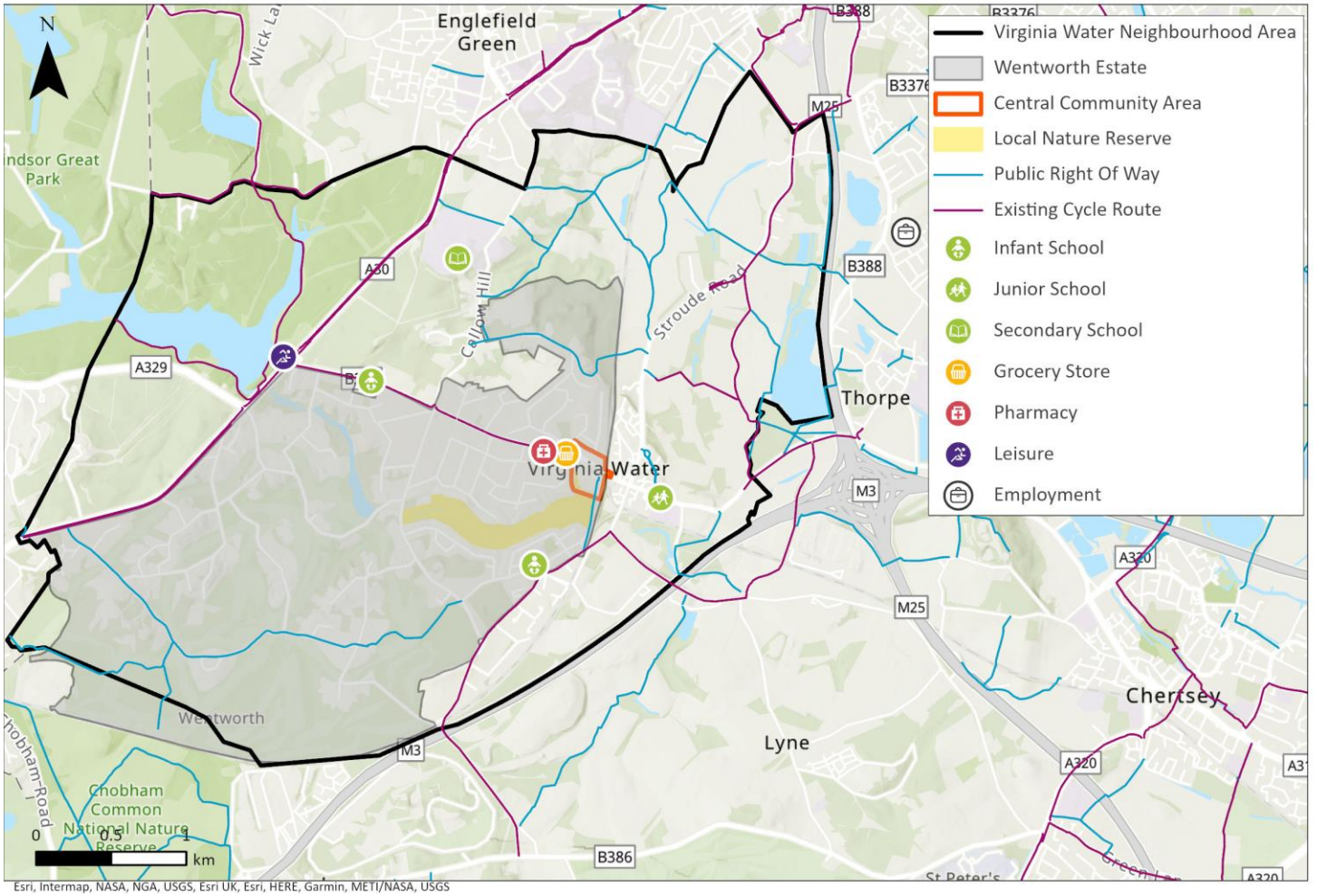


Existing Walking and Cycling Network

The figure shows the existing walking and cycling infrastructure within proximity to Virginia Water.

Gaps were identified in the following locations:

- Trumps Green Road: Unlit road which is subject to a 40mph speed limit. Two sided footpath provided for most of the route.
- Wellington Avenue: Relatively unlit road subject to a 40mph speed limit. Narrow footpath provided only on one side of the carriageway. This route is classed as a 'recommended cycling route' according to Surrey County Council.
- Callow Hill: Unlit road which is subject to a 40mph speed limit. Narrow footpath provided only on the western side of the carriageway.
- Christchurch Road / Sandhills Lane, east of Virginia Water's Central Community Area: Well-lit road subject to a 30mph speed limit.
- Christchurch Road West: Well-lit road subject to a 40mph speed limit.



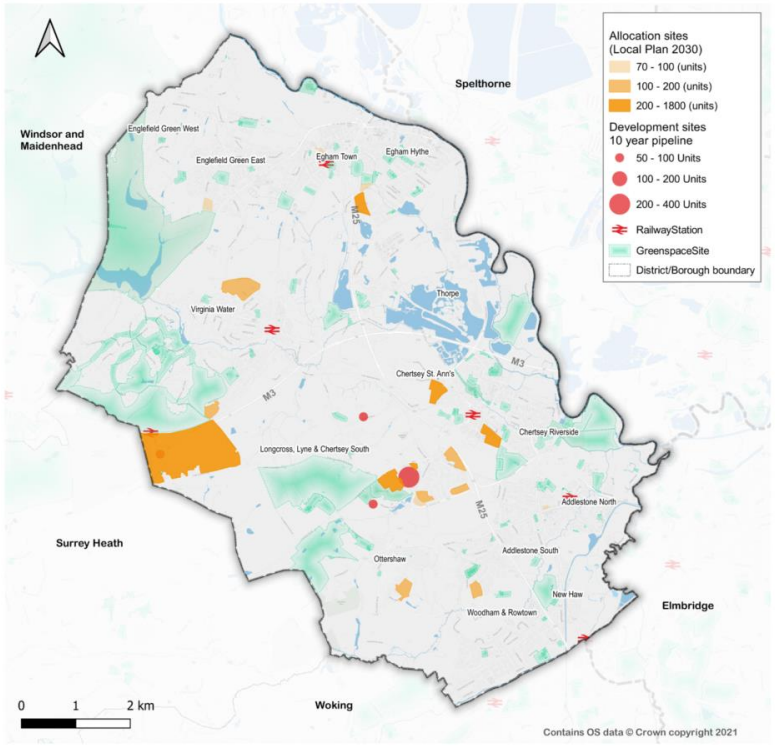
LCWIP and Cycle Interventions

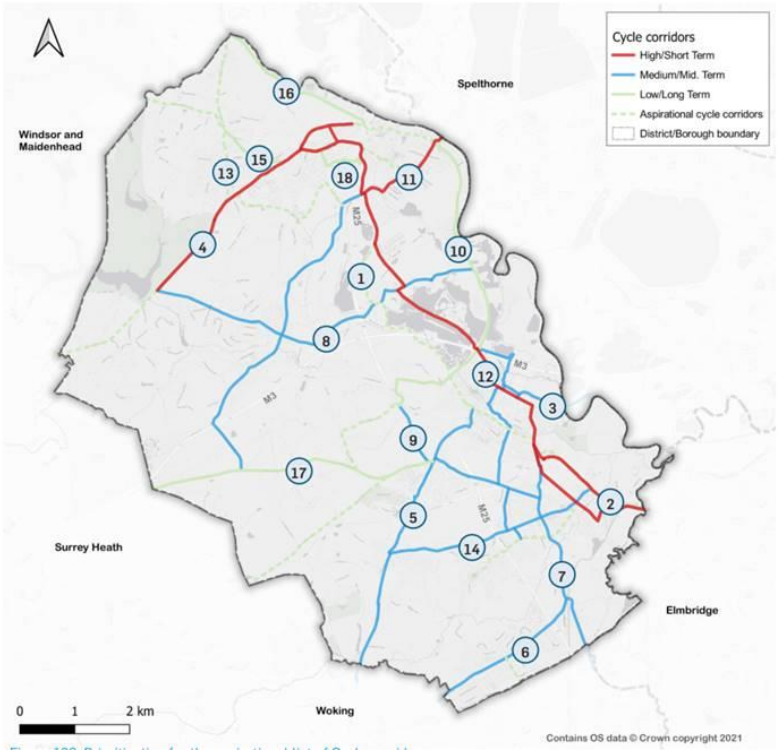
The LCWIP shows medium / mid term routes within Virginia Water:

- Along the B389 Christchurch Road
- Along the B389 Sandhills Lane
- Along Trumps Green Road and Kitsmead Lane
- Along Stroude Road

To assist in achieving these routes, Christchurch Road and Trumps Green Road should be focuses for measures to reduce traffic volumes and speeds.

A key desire line has been omitted from the LCWIP which would be along Wellington Avenue. This would provide a link between Longcross and the wider cycle provision along the A30. This route would likely be more desirable for trips to the northeast (including to Royal Holloway) than Stroude Road, which is relatively hilly.





Overall Design Principles

The various opportunities and constraints that have been reviewed through the baseline review have been considered and options to support the uptake of active and sustainable travel within the village better manage existing vehicle movements through the village and to mitigate the impact of the construction and operational development traffic have been identified.

The key objectives of any interventions will be to:

- Reduce vehicle speeds through the village
- Change the context of roads within the village to influence current driver behaviour and decisions.
- Discourage the use of roads within the village by transiting HGVs.
- Manage the impact of construction and operational traffic from planned developments in the village and surrounding areas.

These objectives would then result in the following key benefits:

- Civilising of traffic to make routes more suitable for active travel modes;
- Improving highway safety for all users;
- Improving the environmental factors (air quality, traffic noise etc) along the key highway routes within the village;

The interventions in the following sections have been split into measures to ‘Civilise’ traffic and those requiring more significant infrastructure delivery. In reality a combination of the two elements will be necessary to achieve the objectives of the strategy.

Measures to Civilise Traffic

Speed Limit Reductions
Within their *"Setting Local Speed Limits Policy"*, Surrey County Council (SCC) set out that the aim is for speed limits which are appropriate for the main use of the road.

Speed limit reductions would be suitable for some roads within Virginia Water, particularly those which are currently subject to a 40mph speed limit. This includes

- Wellington Avenue,
- Christchurch Road,
- Callow Hill and
- Trumps Green Road.

These are residential roads with frequent dwelling accesses and footways, and therefore a 30mph speed limit would be more appropriate. It is likely that traffic calming measures may be required alongside the speed limit changes to encourage vehicles to comply, in accordance with the SCC requirement that *"speed limits should be considered as part of a package of measures to manage vehicle speeds and improve road safety"*. There may also be scope for further speed reductions to 20mph on these roads, if they are to form a key cycling connection within the village.

Further, within the centre of the village the speed limit could be further reduced to 20mph. The SCC policy notes that *"A limit of 20 mph may be appropriate in residential areas, busy shopping streets and near schools where the needs and safety of pedestrians and cyclists should have greater priority"*. It further notes that signed-only 20mph speed limits are generally only appropriate where the mean speed is already less than 24mph, with additional measures required where existing speeds are greater.

The off-peak (10:00-16:00) weekday average speed of 18mph-25mph from the OS Mastermap data for Christchurch Road in the village centre indicates that a signed-only 20mph speed limit may be appropriate. However, given the small sample size associated with this data we would recommend further automatic traffic count surveys are undertaken.

A wider adoption of 20mph speed limits could be considered with appropriate traffic calming interventions, that would be aimed at making the carriageways more suitable for cycling where segregated cycle routes are unlikely to be achieved. These locations would include Trumps Green Road and Stroude Road, which are identified as cycle corridors in the emerging LCWIP.

Any speed limit change would be subject to a Traffic Regulation Order (TRO), and would need to follow SCC's procedure to decide whether to change a speed limit. This has the following steps:

- Step 1: Request to change a speed limit is received
- Step 2: Measure existing speeds and analyse road casualty data
- Step 3: Compare the existing speeds with the suggested new speed limit
- Step 4: Conduct feasibility of supporting engineering measures
- Step 5: Consult with Surrey Police Road Safety and Traffic Management Team
- Step 6: Local committee decision and allocation of funding
- Step 7: Advertisement of legal speed limit order and implementation
- Step 8: Monitoring of success of scheme

Removal of Centre Lines
The removal of centre lines and other unnecessary road markings along the roads through the village centre which can contribute to reduced vehicle speeds and would support decluttering. This could be a low cost intervention with road markings allowed to fade over time and not be repainted.

Signage Strategy Review
A review of existing traffic signs on the approach to the village could be undertaken to establish whether changes to existing signage could be made to discourage through traffic routing through the village. A particular emphasis would be on signing the most appropriate routings for HGVs.

Routing of Construction Traffic
Restricting the passage of construction traffic through the village will be an important factor in limiting the impact of committed developments on the village. The is dealt with in detail in latter sections of this report.

Enforcement of Weight Restrictions
There is an existing 24.5 tonne weight restriction on the railway bridge on Trumps Green Road. This could be better enforced through routine inspection with fining for vehicles contravening the restrictions. Subject to monitoring of HGV levels, potential to introduce environmental restriction of 7.5t to preclude HGV movements other than for access.

Physical Infrastructure Measures – Traffic Calming

Traffic Calming
Traffic calming measures should include a range of interventions, ranging from cheaper to more expensive options:

TYPICALLY MORE EXPENSIVE

- Installation of village gateway features
- Removal of centre line markings
- Continuous footways across junctions
- Installation of build outs, with priority cycle bypasses
- Junction treatments (raised tables, tighten junction radii)
- Implementation of a central median strip along the whole length of the route

These should be implemented alongside speed limit changes to maximise the potential for speed reductions within the village.

Legibility
Legibility for pedestrians and cyclists can be improved through enhanced signage to key destinations, for example along the Station Path.

Physical Infrastructure Measures - Gateways

Village Gateways

Village Gateways are a key intervention to influence driver behaviour. The objective of the gateway features would be to increase awareness that drivers have entered the built up area of Virginia Water and should therefore adjust their speed and driving style accordingly. The gateway features, alongside other measures such as traffic calming and appropriate route signage, will also assist in dissuading HGVs that are currently transiting the village from undertaking these journeys.

Gateways would include:

- Signage to indicate entry to village
- Possible build out with priority working or other localised traffic calming feature
- A change of road character, for example a reduction in speed limit or increased residential development

Within Virginia Water, gateways should be located as follows:

- On Trumps Green Road, at railway bridge close to junction with Kitsmead Lane. This gateway would be improved with the Virginia Water South development, which would increase the residential presence in the area, and could be accompanied by a speed limit reduction to 30mph.
- On Sandhill Lane, at the existing speed limit change close to The Rose and Crown.
- On Stroude Road, at the existing speed limit change close to the junction with Luddington Avenue. There is already signage and a central island in this location which should be further developed to emphasise the village location.
- On the B389 Christchurch Road, close to the junction with the A30. This gateway should be accompanied by a speed limit reduction to 30mph.
- On Callow Hill, to the south of Hollow Lane. This gateway could be accompanied by a speed limit reduction to 30mph.

Potential Design Interventions – Point Measures

Junction Treatments
Junctions improvements could include:

- Pedestrian priority across smaller side roads through continuous footways
- Raised table treatments to reduce vehicle speeds
- Tighter kerb radii, to reduce vehicle speeds and reduce the pedestrian / cycle crossing distance
- Introducing a roundel

Potential junctions which could benefit from junction treatments include:

- Trumps Green Road / Crown Road – this is in close proximity to Trumps Green Infant School. Given the angle of this junction, it may benefit from restrictions on the possible turning movements, which would allow the kerb radii to be reduced. Additionally, an informal crossing and raised table could be introduced. Alternatively there may be scope for a roundel to be provided in this location.
- Trumps Green Road / Bridge Lane – Bridge Lane has large kerb radii, which it may be possible to reduce subject to swept path analysis.
- Wellington Avenue / Crown Road – there is potential for a raised table at this junction.
- Wellington Avenue / Harpesford Avenue – there is potential for a raised table at this junction.
- Wellington Avenue / Abbots Drive – there is potential for a raised table at this junction, as well as a pedestrian crossing to link to the footway provision along the opposite side of the road.
- Continuous footways across more minor side roads, as part of a corridor of complementary measures.

Further, there may be scope for cycle improvements at the signalised junction of Trumps Green Road / Stroude Road, such as the installation of advance stop lines. However, changes to a signalised junction are likely to be costly and may impact on junction capacity.

Potential Design Interventions – Location Specific

There is additional potential for location-specific measures to be implemented at key destinations within the village, such as at schools and shopping areas.

1. **Village Centre – Station Approach**
- Reconfigure western priority junction to egress only from Station Approach
- Widen footway adjacent to retail units by rationalising existing car parking
- Improve pedestrian connectivity across car park and central green space by creating a raised pedestrian crossing
- Create new 20mph zone on Christchurch Road, with central medium to replace existing central hatching
- Create new roundels at junctions of Station Approach and Christchurch Road

2. **Virginia Water railway station – Station Parade**
- Rationalise access from Christchurch Road to Station Parade to a single point of access to allow central green space to be enhanced and enlarged
- Relocate existing bus stop on to Christchurch Road
- Introduce new tree planting between existing on street parking bays on Station Parade
- Reverse entry and egress to public car park to improve relationship to with car parking spaces outside Costa coffee and station forecourt entry and egress

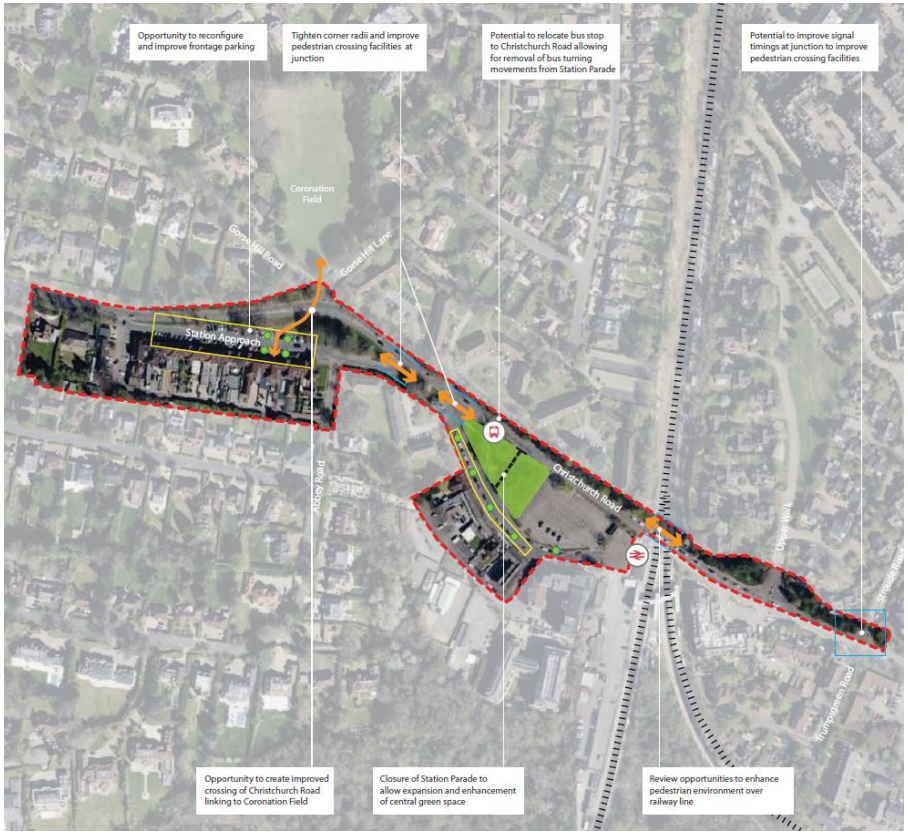
3. **St Ann's Heath Junior School**
- Installation of formal pedestrian crossing in place of existing dropped kerb crossing
- Extension of School Keep Clear markings further east

4. **Manor Mead School**
- Reduction in speed limit to 30mph outside school
- Localised traffic calming measures

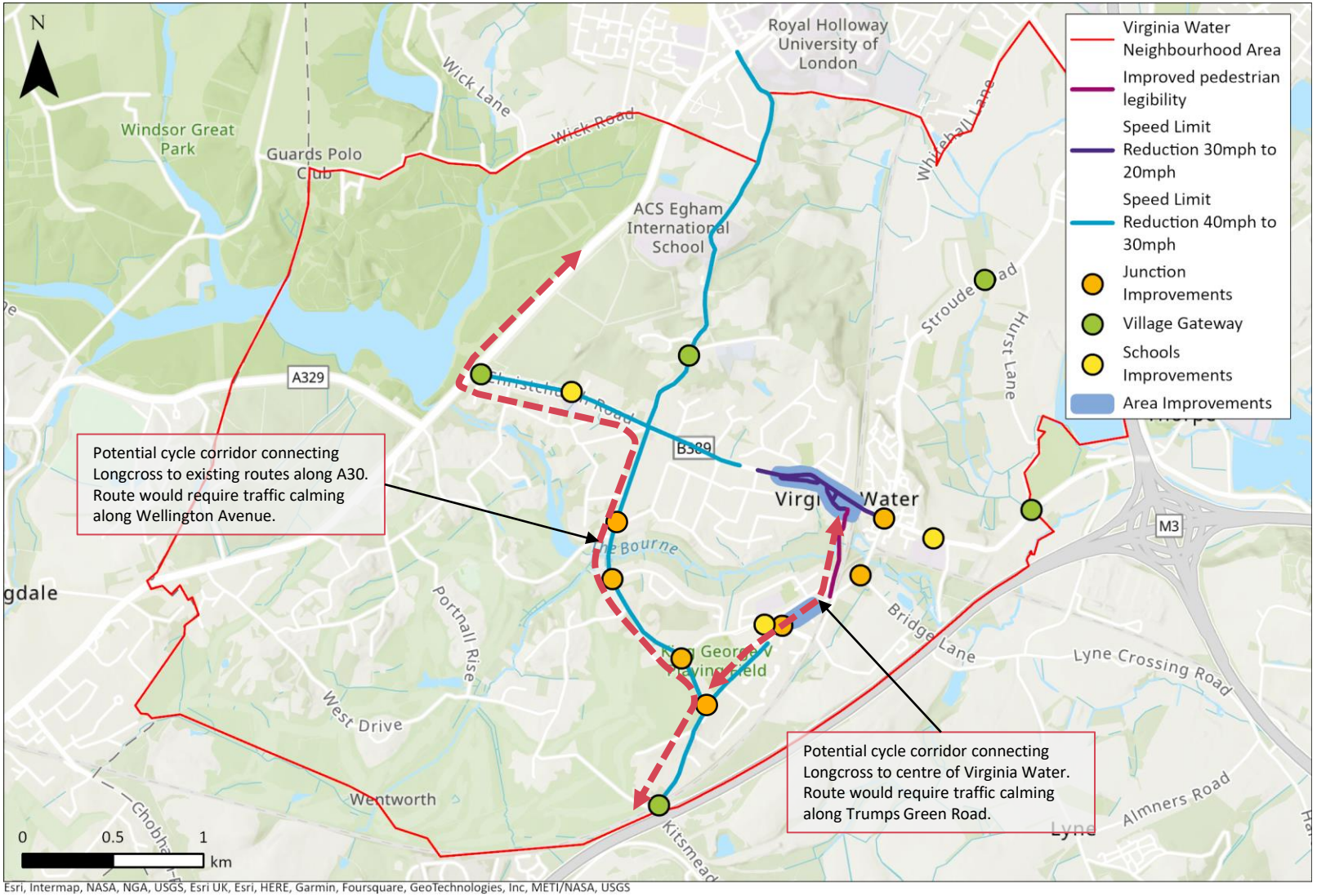
5. **Trumps Green Infant School**
- Improvements to junction between Crown Road and Trumps Green Road with restricted turning movements, reduction in kerb radii and provision of an informal pedestrian crossing
- Localised traffic calming measures

6. **Trumps Green Road neighbourhood centre**
- Potential for localised traffic calming to reduce vehicle speeds, given that the carriageway and parallel parking bays are relatively narrow in this location

7. **Wellington Avenue Corridor Improvements**
- Reduce speed limits to mitigate traffic flow increase
- Introduce junction improvements along the corridor and other visual traffic calming to civilise traffic and address safety concerns



Potential Design Interventions – Summary



Framework Construction Traffic Management Plan

To establish the existing commitments to the control of construction traffic, the planning applications for the local developments were reviewed.

Longcross North

A series of Construction Environmental Management Plans (CEMPs) have been submitted for each of the elements of development at Longcross North. Key transport and logistics commitments vary between documents, but the most recent CEMP for the Data Centre (RU.21/1602) includes:

- Working hours: 07:00-19:00 Monday to Friday (reduced to 08:00-18:00 for noise generating works) and 07:00-16:00 on Saturdays (reduced to 08:00-13:00 for noise generating works)
- All deliveries made during construction site hours on a just in time basis, with a strict delivery schedule. Delivery vehicles prohibited from waiting within or near site with engines running
- Smaller delivery vehicles used wherever possible
- For larger deliveries (e.g. prefabricated products), a single delivery would be made in morning delivery period and vehicle would remain on site until 19:00
- Wheel cleaning facilities, and periodic sweeping of approach roads
- Parking for site team and contractors within designated area
- Vehicles to use temporary roadways on site (wherever practical) with maximum 20mph speed limit
- All construction traffic to use main roundabout access from Chobham Lane

There is no commitment to a specific routing arrangement for vehicles to access the site.

Virginia Water South

A Framework Construction Traffic Management Plan was included as a chapter within the Transport Assessment for Virginia Water South, prepared by i-Transport and dated February 2022. In relation to vehicle routing, the document notes that: *"As part of the final CTMP the appointed contractor will be required to provide a vehicle routing strategy which shall set out the primary construction routes to and from the site. It is proposed that they will be directed onto the strategic highway network, likely via Chobham Lane towards the M3 and Trumps Green Road towards the M25."*

It further notes that construction vehicles will not be permitted to park / wait on the surrounding highway network, and must enter the site visit the site access which will be constructed first. A member of contractor staff would be responsible for the monitoring and review of the Plan.

Construction Traffic Routing for Longcross

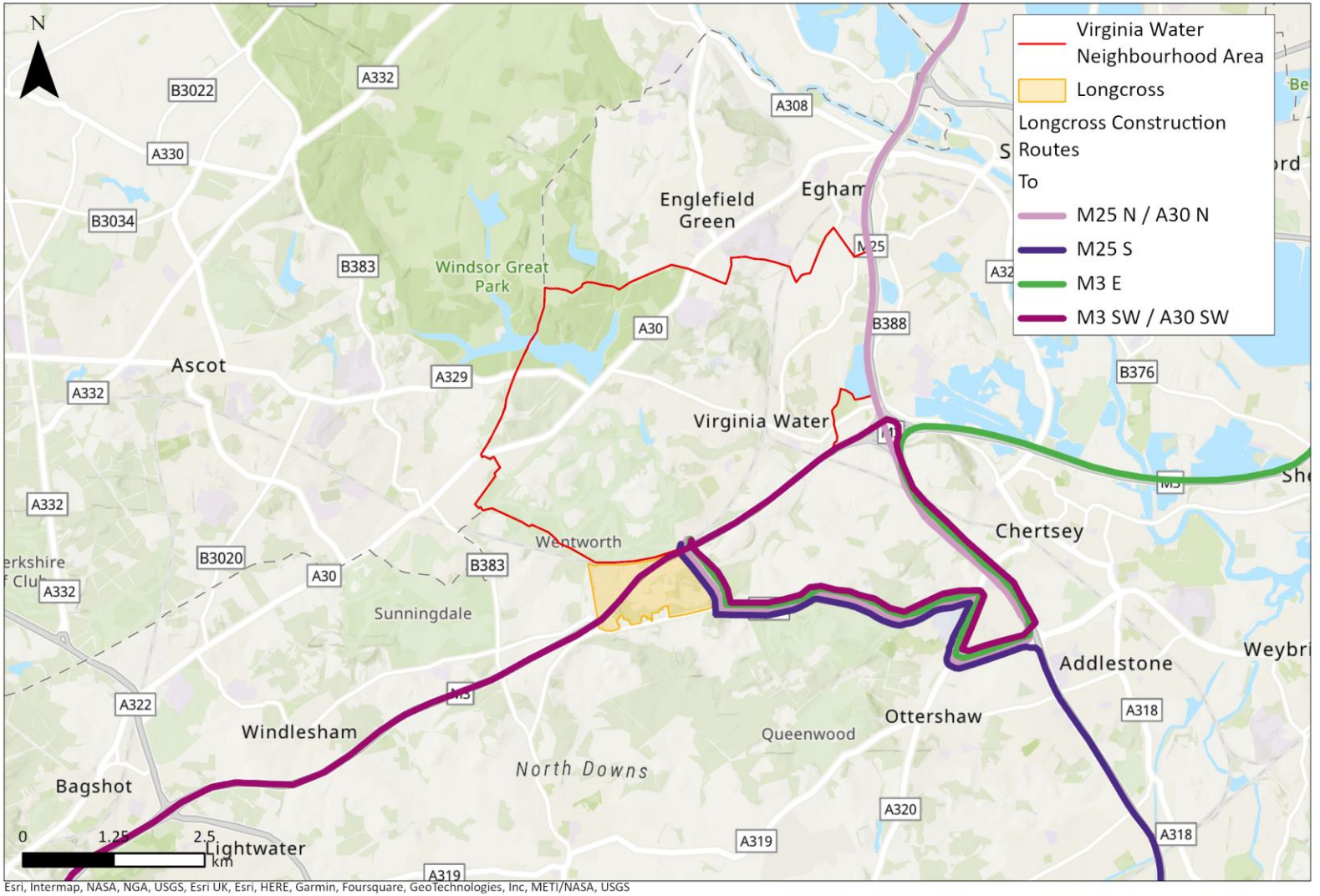
Key origins and destinations for construction traffic have been identified as the following:

- To the M3 West
- To the M25 North and A30 East
- To the M25 South and M3 East

Potential routings for each destination from Longcross have been established and are summarised in the Table below. From this analysis it is clear that routes A4 / B1 / C1 / D4 represent the most suitable for construction traffic for Longcross. These are illustrated on the figure on the following page. These routes could also form part of a longer term routing agreement for HGVs accessing the on-site employment uses, as part of the Delivery and Servicing Plan.

Origin / Destination	Route Option	Route	Distance	Off-Peak Journey Time	Comments	Suitability
M25 N / A30 N	A1	Trumps Green Rd => Wellington Avenue => Callow Hill / Bakeham Lane => A30	6.9 miles	14-20 mins	• Most direct routing however impacts on Trumps Green Roadand Wellington Avenue. Vehicles limited to 24.5t • Callow Hill unsuitable for high volumes of HGV traffic	
	A2	Trumps Green Rd => Wellington Avenue => Christchurch Road => A30	7.5 miles	14-22 mins	• No impact upon Callow Hill however construction traffic will still impact upon Trumps Green Road and Wellington Road within Virginia Water. • Vehicles limited to 24.5t	
	A3	B386 Chertsey Road => Chobham Road => A30	9.2 miles	18-26 mins	• Impacts on Virginia Water are minimised although construction traffic would pass through Sunningdale and across restricted bridge • Increased journey times unlikely to be attractive	
	A4	Longcross Rd / Holloway Hill => A320 => St Peters Way => M25 J11	11.1 miles	16-22 mins	• No impacts on Virginia Water. Construction traffic routing would not pass through significant residential settlements or weight restrictions. • Average off-peak journey times comparable to most direct route.	
M25 S	B1	Longcross Rd => A320 => St Peters Way => M25 J11	5.8 miles	10-16 mins	• Most direct route • No impacts on Virginia Water. Construction traffic routing would not pass through significant residential settlements.	
M3 E	C1	Longcross Rd => A320 => St Peters Way => M25 J11 => M3 NW	8.1 miles	14-18 mins	• Most direct route • No impacts on Virginia Water. Construction traffic routing would not pass through significant residential settlements or weight restrictions.	
M3 SW / A30 SW	D1	B386 => A30 => A322	6.0 miles	12-18 mins	• Most direct routing however construction traffic would route through Windlesham • Limited by 7.5t weight restriction	
	D2	B386 => B383 Chobham Road => A30 => A322	7.7 miles	14-22 mins	• Impacts on Windlesham minimised. • Journey times comparable to most direct route however route crosses weight restricted bridge	
	D3	Trumps Green Rd => Wellington Avenue => Christchurch Road => A30 => A322	9.3 miles	16-26 mins	• Significantly longer journey distance and times • Traffic impact on Virginia Water and centre of Sunningdale. • Vehicles limited to 24.5t	
	D4	Route as per B1 with access to M3 via M25 J12	15.1 miles	22-35 mins	• Unrestricted route for HGV movements • No impacts on Virginia Water. Construction traffic routing would not pass through significant residential settlements.	

Construction Traffic Routing for Longcross South



VIRGINIA WATER TRANSPORT STRATEGY

Construction Traffic Routing for Virginia Water South

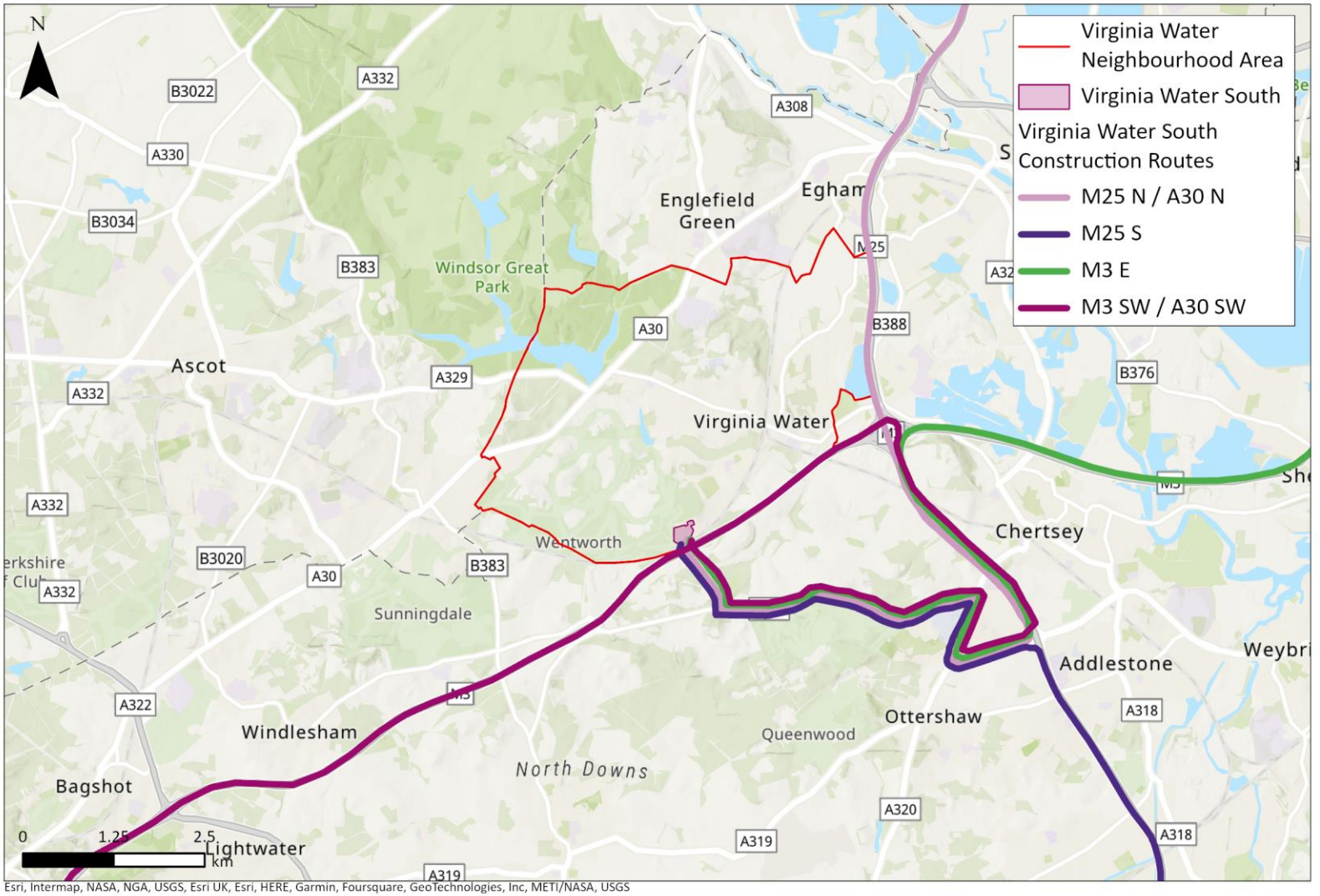
Key origins and destinations for construction traffic have been identified as the following:

- To the M3 West
- To the M25 North and A30 East
- To the M25 South and M3 East

Potential routings for each destination from Virginia Water have been established and are summarised in the Table below. From this analysis it is clear that routes A3 / B1 / C1 / D3 represent the most suitable for construction traffic for Virginia Water South. These are illustrated on the figure on the following page. Consultation required with SCC/Network Raid regarding weight restriction on Trumps Green Road overbridge.

Origin / Destination	Route Option	Route	Distance	Off-Peak Journey Time	Comments	Suitability
M25 N / A30N	A1	Trumps Green Rd => Wellington Avenue => Callow Hill => A30	5.6 miles	10-16 mins	• Most direct routing however impacts on Trumps Green Road and Wellington Avenue. • Callow Hill unsuitable for high volumes of HGV traffic	
	A2	Trumps Green Rd => Wellington Avenue => Christchurch Road => A30	6.2 miles	12-18 mins	• No impact upon Callow Hill however construction traffic will still impact upon Trumps Green Road and Wellington Road within Virginia Water. • Route utilised by vehicles over 24.5t as required	
	A3	Kitsmead Ln => Longcross Rd => A320 => St Peters Way => M25 J11	10.1 miles	14-20 mins	• No impacts on Virginia Water. Construction traffic routing would not pass through significant residential settlements. • Average off-peak journey times comparable to most direct route. • Vehicles to be limited to 24.5t due to weight restriction	
M25 S	B1	Kitsmead Ln => Longcross Rd => A320 => St Peters Way => M25 J11	4.6 miles	8-14 mins	• Most direct route albeit limited by 24.5t weight restriction. Alternative routing for laden vehicles as per A2 above. • No impacts on Virginia Water. Construction traffic routing would not pass through significant residential settlements.	
M3 E	C1	Kitsmead Ln => Longcross Rd => A320 => St Peters Way => M25 J11	7.3 miles	12-16 mins	• Most direct route • No impacts on Virginia Water. Construction traffic routing would not pass through significant residential settlements.	
	C2	Trumps Green Rd => Sandhills Lane => B388 => A320 => St Peters Way => M25 J11	9.1 miles	16-24 mins	• Longer than most direct route • Construction traffic on Trumps Green Lane and congested junction with B389	
M3 SW / A30 SW	D1	Chobham Lane => B386 => A322	6.7 miles	12-18 mins	• Most direct routing however construction traffic would route through Windlesham. • Route limited by 7.5t weight restriction	
	D2	Chobham Lane => B386 => B383 Chobham Road => A30 => A322	8.0 miles	14-22 mins	• Impacts on Windlesham minimised. • Journey times comparable to most direct route however route crosses weight restricted bridge	
	D3	Trumps Green Rd => Wellington Avenue => B389 => A30 => A322	8.4 miles	16-26 mins	• Route can be used by vehicles over 24.5t as required • Impacts upon Trumps Green Road and Wellington Avenue. • Vehicles under 24.5t should utilise Route B1 and access M3 via M25 J12.	

Construction Traffic Routing for Virginia Water South



VIRGINIA WATER TRANSPORT STRATEGY

Construction Traffic Routing for Virginia Water North

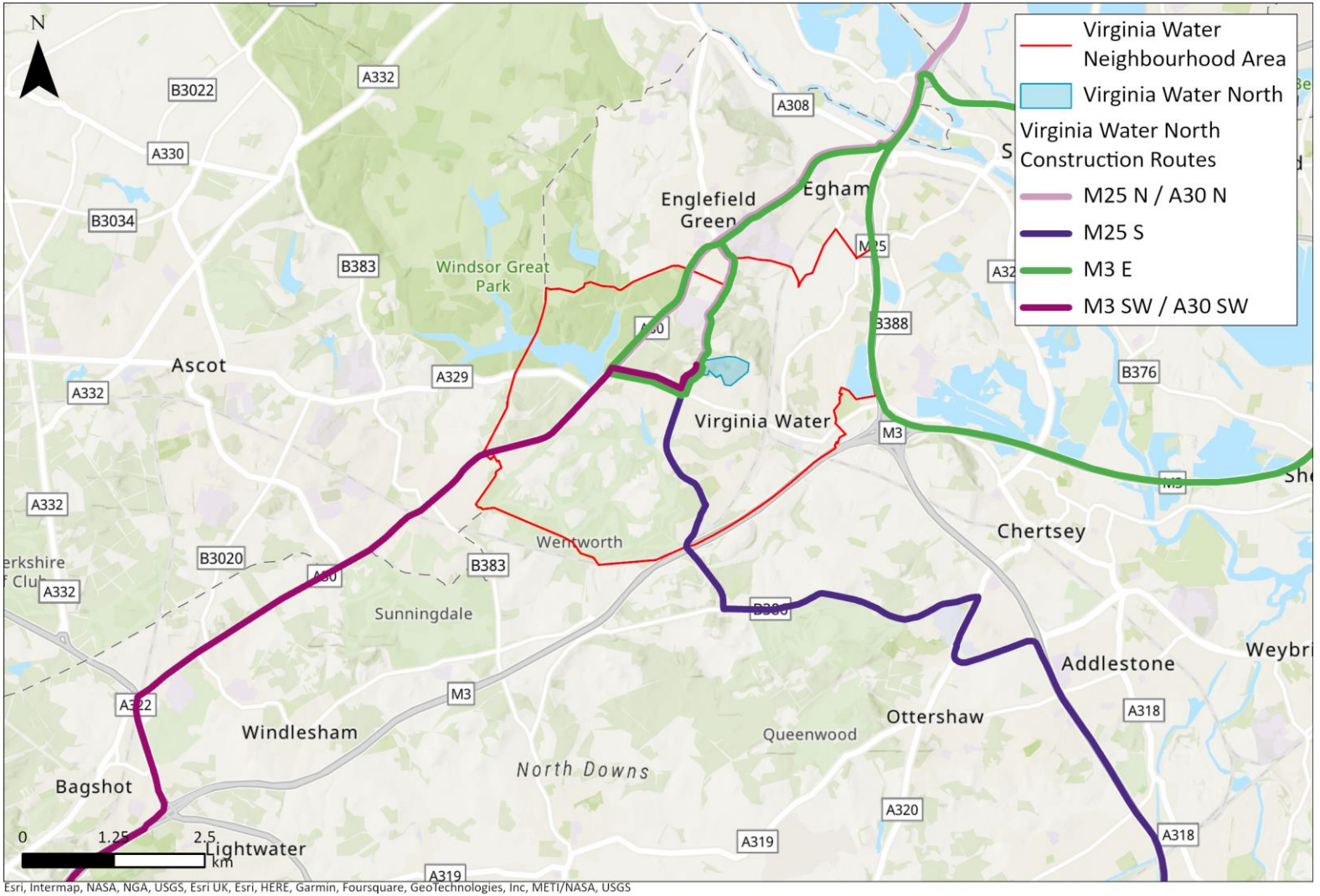
Key origins and destinations for construction traffic have been identified as the following:

- To the M3 West
- To the M25 North and A30 East
- To the M25 South and M3 East

Potential routings for each destination from Virginia Water North have been established and are summarised in the Table below. From this analysis it is clear that routes A3 / B2 / C2 / D1 represent the most suitable for construction traffic for Virginia Water North. These are illustrated on the figure on the following page.

Origin / Destination	Route Option	Route	Distance	Off-Peak Journey Time	Comments	Suitability
M25 N / A30N	A1	Callow Hill / Bakeham Lane => A30	3.9 miles	7-12 mins	• Most direct routing • Limited impact on Virginia Water other than Callow Hill	
	A2	Callow Hill => B389 => A30	5.2 miles	9-16 mins	• Less direct routing • Reduced length of Callow Hill accommodating Construction Traffic	
	A3	Combined A1 for arrivals and A2 for departures operating as one way system			• One way operation removes need to turn right into the site from Callow Hill. • Removes the need for two way construction HGV movements on Callow Hill reducing potential conflicts	
M25 S	B1	Callow Hill => B389 => Trumps Green Road => Bridge Ln => A320 => St Peters Way	5.5 miles	10-16 mins	• Most direct route • Impacts upon the centre of Virginia Water • Bridge Lane not suitable for Construction Traffic	
	B2	Callow Hill => Wellington Ave => Trumps Green Road => Kitsmead Ln => Longcross Rd => A320 => St Peters Way => M25 J11	6.5 miles	12-18 mins	• Impacts upon Wellington Avenue and Trumps Green Road but avoids centre of Virginia Water • Comparable journey times to most direct route • Subject to 24.5t weight restriction	
	B3	Route A3 to M25 J13 => M25 S	9.4 miles	16-28 mins	• Minimises impacts on Virginia Water • Significantly increased journey time variation, however suitable use for vehicles over 24.5t	
M3 E	C1	Callow Hill => Wellington Ave => Trumps Green Road => Kitsmead Ln => Longcross Rd => A320 => St Peters Way => M25 J11	6.5 miles	14-22 mins	• Impacts upon Wellington Avenue and Trumps Green Road but avoids centre of Virginia Water • Subject to 24.5t weight restriction	
	C2	Route A3 to M25 J13 => either A308 or M25 S	7.7 miles	12-22 mins	• Minimises impacts on Virginia Water • Comparable journey times to most direct route and not subject to weight restriction.	
M3 SW / A30 SW	D1	Callow Hill => B389 => A30 => A322	7.6 miles	14-24 mins	• Most direct routing • Limited impact on Callow Hill and B389	

Construction Traffic Routing for Virginia Water North



Framework Construction Traffic Management Plan Measures

Vehicle Routing and Monitoring
The suggest vehicle routing for each of the significant development sites has been summarised in the previous sections.

Monitoring of compliance should be undertaken. This could involve the following:

- **GPS –** Introduction of a vehicle location tracking system for HGV movements enabling the monitoring of routes taken.
- **RFID –** RFID requires HGVs to be fitted with transponders which are then read by receivers. Receivers would be placed on non-approved routes to identify any inappropriate use. The placement of Road and the receivers can respond to local complaints as necessary.
- **ANPR –** ANPR can be utilised as an alternative to RFID for monitoring purposes as necessary in compliance with the requirements of the information commissioner. The placing of cameras can again be flexible to respond to the local concerns raised and reports of non-compliance.

Construction vehicles over 3.5t would be required to follow the set routings with signage provided. Vehicles under 3.5t would not be restricted to the fixed routes although staff should be informed of sensitive locations and congested areas in the local vicinity to avoid during peak times.

Access Control
All construction vehicles travelling to a site should be booked in for each arrival and departure time. The benefits of adopting this system will be as follows:

- Ensure that there is capacity on the sites to accommodate the vehicle arrivals without the need to wait on the surrounding highway network.
- Ensure that HGV movements are distributed across the day minimising the impact on the surrounding highway network. Deliveries should be timed to avoid sensitive periods such as start and end of the school day.

Carriageway conditions surveys
Prior to the commencement of any construction works a survey should be undertaken of the carriageway conditions in the vicinity of the proposed construction access. Regular monitoring of conditions should be undertaken over the construction period with any defects attributable to construction movements rectified at the completion of the works.

Sheeting and Wheel Washing
Dust and air quality management measures will be required to be implemented to limit pollution arising from transportation and storage of materials. Wheel washing facilities should be provided and street cleaning undertaken as necessary.

Parking Provisions
Sufficient parking should be provided for contractor and operational vehicles within the construction sites. On-street parking of operational vehicles is to be prohibited. Where necessary, temporary traffic orders or physical measures should be considered, to ensure that parking on the surrounding roads is not occurring.

A Workforce Travel Plan should be prepared for each construction site. This plan should identify the need for workforce parking to be accommodated on-site or whether alternative options for travel to the site are available. The Workforce Travel Plan will be different from a traditional Travel Plan in that the workforce will be constantly changing and therefore ongoing promotion and review of the document will be important to ensure continued appliance and relevance of the measures.

Driver Information Packs
A driver information pack will need to be provided to all drivers that will be accessing the site. This pack will include:

- Confirmation of the appropriate routing for construction traffic
- Details of the vehicle booking system
- Information on sensitive receptors along access routes
- Specifics on the process to follow in relation to incident reporting and safety requirements.

Monitoring and Management
The Construction Traffic Management Plans prepared for each site will require ongoing management to ensure compliance. A CTMP coordinator will be appointed for each site who will be responsible for managing and recording vehicle movements into and out of the site, act as a point of contact for any complaints raised by the local community, and ensure that measures contained within the plan are fully implemented