

Figure 5.3: Cycling Network BEFORE East MRT Scheme

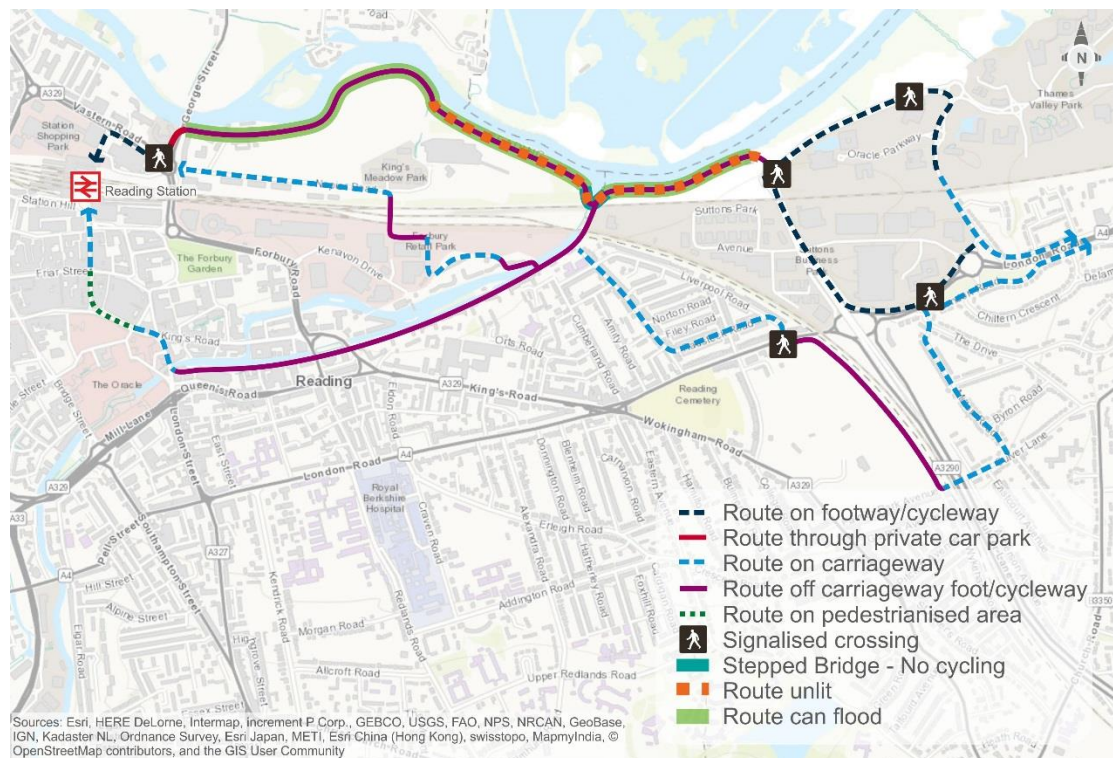
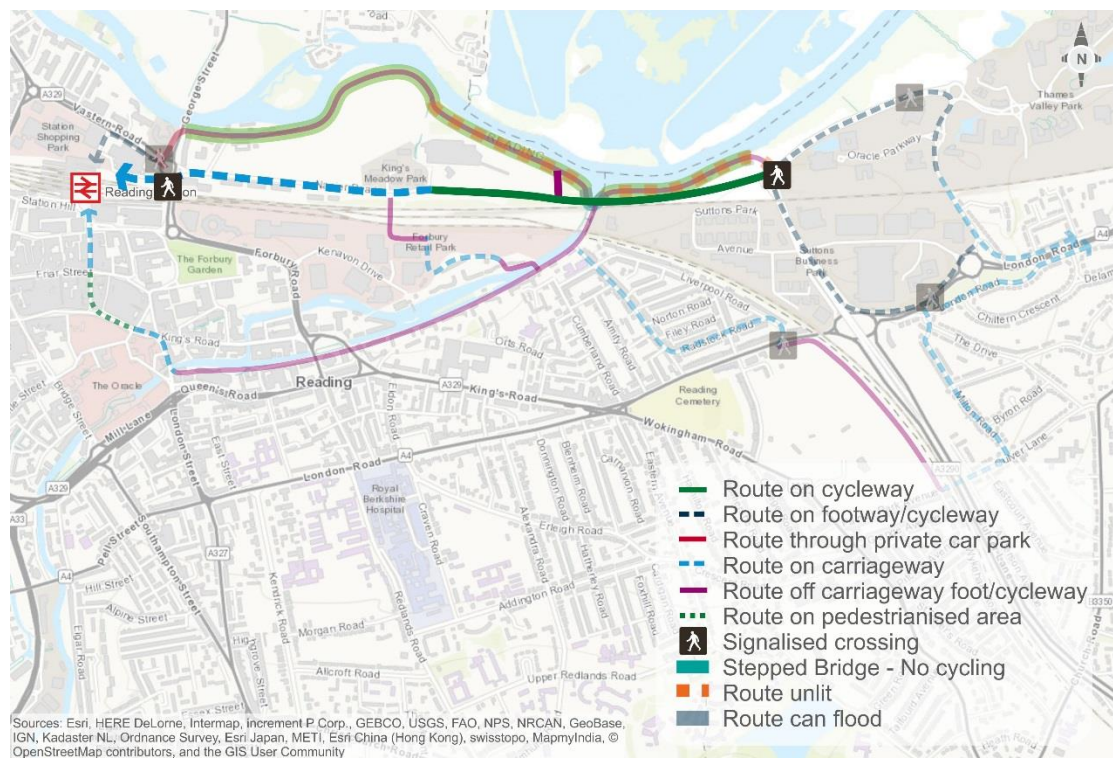


Figure 5.4: Cycling Network AFTER East MRT Scheme



5.1.4 The East MRT scheme provides an alternative crossing of the River Kennet for towpath users, avoiding the stepped Horseshoe bridge (see **Figure 3.5**).

- 5.1.5 The East MRT Scheme provides a direct route into Reading town centre and station, which is lit and avoids steps, areas of flood risk and benefits from natural surveillance of the regular bus services, but is adjacent to a relatively low trafficked carriageway.
- 5.1.6 **Figure 5.5** shows walk and cycle access to the East MRT Scheme. The transition between the existing and proposed routes are high quality and direct, as set out in **Section 4**. The connections at either end of the scheme provide a seamless link with existing walk and cycle infrastructure.

Figure 5.5: Walking and Cycling Access to East MRT Scheme

Route Comparison

- 5.1.7 The proposed route has been assessed against the existing pedestrian and cycle routes between the A4 London Road / A3290 roundabout to Reading town centre and station. The walking and cycle routes are illustrated in **Figure 5.6** and **5.7** respectively.

Figure 5.6: Walking Routes

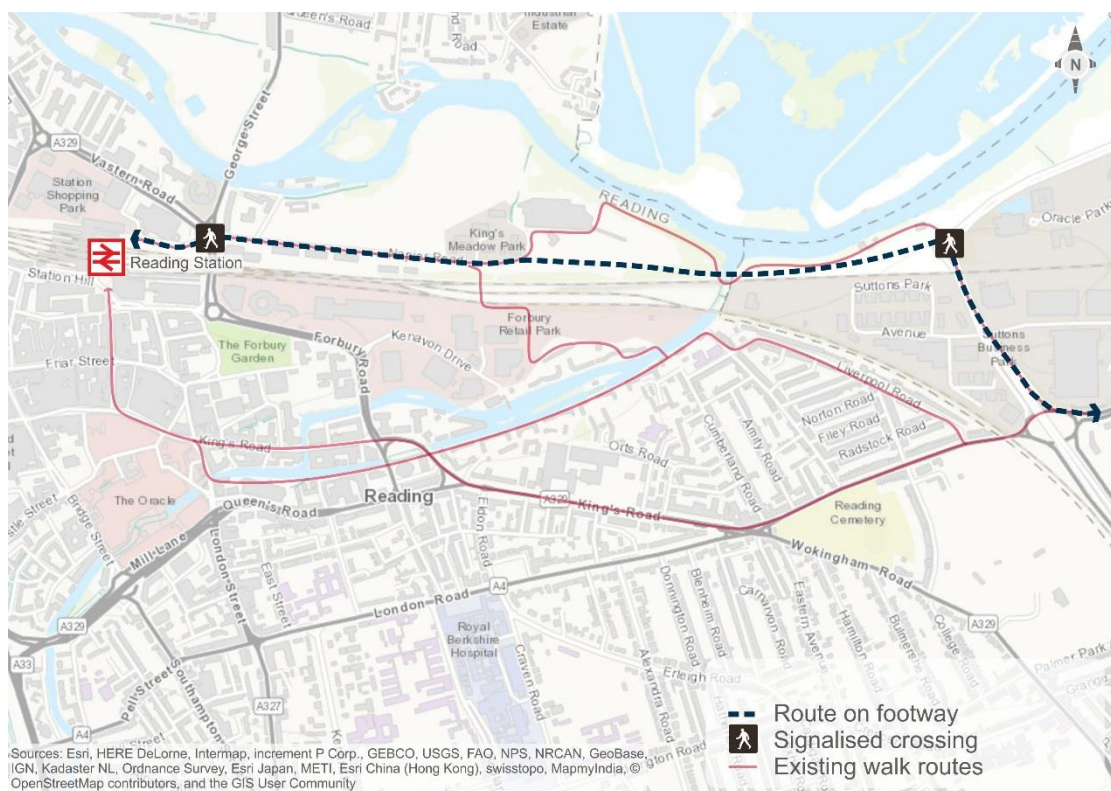


Table 5.1: Walking Route Assessment Comparison

Assessment Criteria	PR1	PR2	PR3	PR4	East MRT Scheme
Length	1.75 miles	1.85 miles	1.85 miles	1.8 miles	1.6 miles
Width	Average of approximately 3m on London Rd and Kings Rd	Average of approximately 2.5m on Liverpool Rd / 3m to 5m on Kennet path	Approximately 2.5m to 3.0m on A3290 / 1.5m to 3.0m on Thames path / 2m to 3m Napier Rd	Average of approximately 2.5m on Liverpool Rd / 3m to 5m on Kennet path / Approximately 2.0m on bridge and footpath/way through Kenavon Drive / 3.5m underpass / 2m to 3m Napier Rd	2m East MRT Scheme / 2m to 3m Napier Rd
Lighting	Full route is lit	Full route is lit	Partially unlit along Thames	Full route is lit	Full route is lit, low level lighting proposed
Surfacing	Maintained footways	Maintained footways	Maintained footways / Thames path poor in places	Maintained footways	Maintained footways
Traffic	High trafficked roads	Low trafficked roads	Low trafficked roads	Low trafficked roads	Low trafficked roads
Natural Surveillance	Traffic, Residential, Retail, Employment on Kings Rd and London Rd	Traffic, Residential on Liverpool Rd / Some Residential on Kennet path	Traffic A3290 / None Thames path / Residential, Retail, Employment on Napier Rd	Traffic, Residential on Liverpool Rd / Some Residential on Kennet path / Residential, Retail, Employment on Napier Rd	Traffic A3290 and East MRT Scheme / Residential, Retail, Employment on Napier Rd
Flood Risk	None	None	Thames path risk of flooding	None	None

- 5.1.8 The walking route assessment comparison has identified that the East MRT Scheme provides the best walking option from the A4 London Road to Reading Station and town centre based on the assessment criteria. PR1, PR2 and PR4 provide a similar level of comfort whilst PR3 provides the least attractive route.

Figure 5.7: Cycling Routes

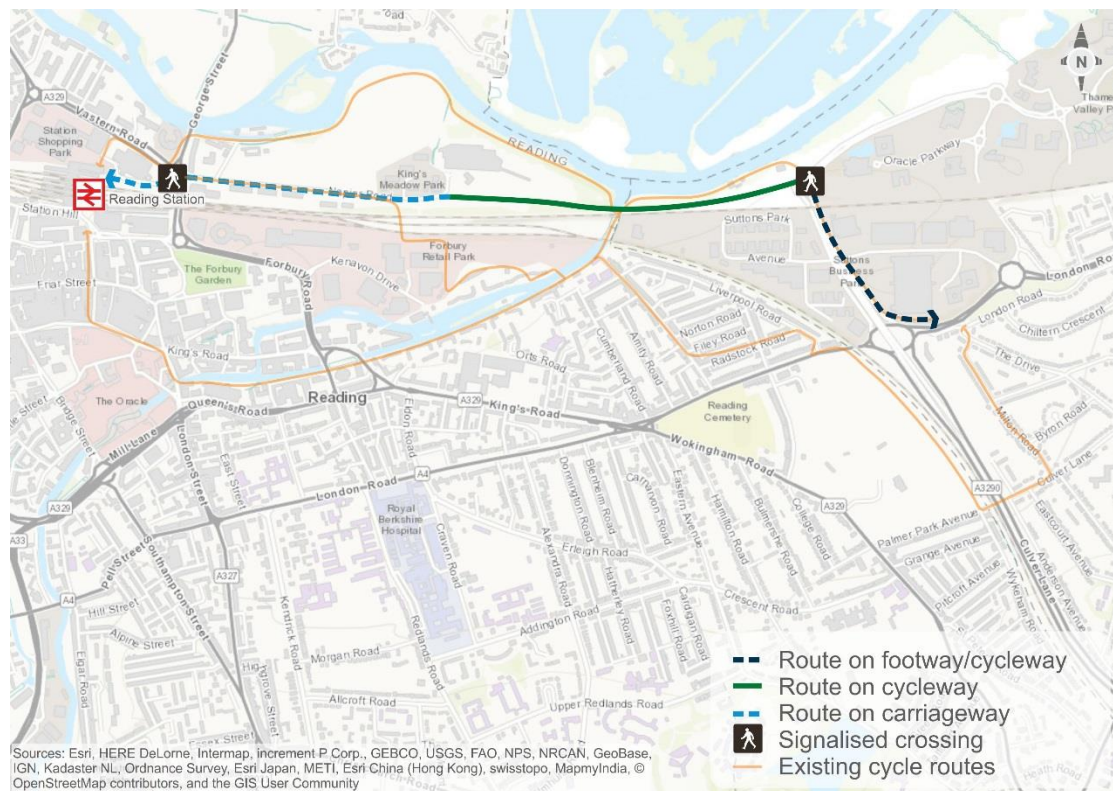


Table 5.2: Cycling Route Assessment Comparison

Assessment Criteria	CR1	CR2	CR3	CR4	East MRT Scheme
Length	1.9 miles	2.1 miles	2.7 miles	2.5 miles	1.6 miles
Width	Approximately 2.5m to 3.0m on A3290 / 1.5m to 3.0m on Thames path	Approximately 2.5m to 3.0m on A3290 / 1.5m to 3.0m on Thames path / 3m to 5m on Kennet path	On carriageway on Milton Road, Palmer Park Avenue, Radstock Road and Cholmley Road / approx. 2.5m through Palmer Park, 3m to 5m on Kennet path	On carriageway on Milton Road, Palmer Park Avenue, Radstock Road, Cholmley Road, Kenavon Drive and Napier Road / approx. 2.5m through Palmer Park / 3m to 5m on Kennet path / 2.0m on bridge and footpath / 3.5m underpass	3m East MRT Scheme / On carriageway Napier Road
Lighting	Majority of the route is unlit	Route partially unlit along Thames path	Full route is lit	Full route is lit	Full route is lit, low level lighting proposed
Surfacing	Maintained foot/cycleway / Thames path poor in places	Maintained foot/cycleway / Thames path poor in places	Maintained foot/cycleway and carriageway	Maintained foot/cycleway and carriageway	Maintained foot/cycleway and carriageway
Traffic	No traffic adjacent on Thames path	No traffic adjacent on Thames and Kennet paths	Low trafficked on residential streets / No traffic through Palmer Park and Kennet path	Low trafficked on residential streets / No traffic through Palmer Park and Kennet path	Low trafficked bus route adjacent to dedicated cycle route
Natural Surveillance	None along Thames path	None along Thames path / Some Residential on Kennet path	Traffic and homes on residential streets / none though Palmer Park / Some Residential on Kennet path	Traffic and homes on residential streets / none though Palmer Park / Some Residential on Kennet path	Traffic A3290 and East MRT Scheme / Residential, Retail, Employment on Napier Rd
Usability	Shared foot/cycleway,	Shared foot/cycleway,	Shared foot/cycleway,	Shared foot/cycleway,	Dedicated cycle lane on

	cyclists have to navigate pedestrians, narrow in places, cyclists dismount on Horseshoe Bridge	cyclists have to navigate pedestrians	cyclists have to navigate pedestrians	cyclists have to navigate pedestrians	East MRT Scheme / on carriageway on Napier Road
Flood Risk	Thames path risk of flooding	Thames path risk of flooding	None	None	None

5.1.9 The cycle route assessment comparison has identified that the East MRT Scheme provides the best cycling option from the A4 London Road to Reading Station and town centre based on the assessment criteria. CR2, CR3 and CR4 provides the second most attractive routes whilst CR1 provides the least attractive route.

5.1.10 The results of the route assessment comparison show that the East MRT Scheme provides benefit to pedestrians and cyclists travelling from A4 London Road to the town centre and therefore promotes healthy living, well-being and active lifestyles by providing enhanced opportunities for walking and cycling. The scheme will also improve pedestrian and cyclist safety through the provision of a fast track, lit and dedicated cycle and pedestrian route directly to the centre of Reading.

5.2 Public Transport

5.2.1 The East MRT Scheme will provide significant benefits in the form of improved journey times and enhanced reliability to public transport services using the route to/from central Reading and existing residential and employment areas to the east and south-east of Reading, including TVP, Woodley, Winnersh and Wokingham.

5.2.2 Bus services between these areas currently route along London Road and Kings Road. The London Road is extremely unpredictable and heavily congested, particularly during peak periods, which leads to unreliable public transport journey times. The East MRT Scheme provides an alternative route to London Road and Kings Road with a section of dedicated bus corridor, the use of Napier Road which is a relatively low trafficked and uncongested route with proposed off-site improvements delivering bus priority at Reading Bridge roundabout. The East MRT Scheme would provide public transport services operating along the route a high level of reliability, and therefore a significant improvement on the current unpredictability of journey times caused by congestion on London Road.

5.2.3 The scheme has the potential capacity to cater for up to 2,000 two-way people trips per hour by the introduction of new bus services to accommodate future development in Reading and Wokingham Boroughs and the wider area.

5.2.4 The Reading Transport SATURN Model (RTM) has been used to understand any potential journey time savings the East MRT Scheme may provide. Journey times from the A3290/A4 roundabout to Reading Station have been extracted from the RTM for the following routes and scenarios.

- **Existing:** London Road, Kings Road, Forbury Road, South East Station Interchange – 2021 with TVP P&R AM and PM peak hours

- **Future:** A3290, East MRT Scheme, Napier Road, Northern Station Interchange, 2021 with TVP P&R AM and PM peak hours

A.1.1 The journey times are summarised in **Table 5.3** and journey time route plots from the RTM are included in **Appendix C**.

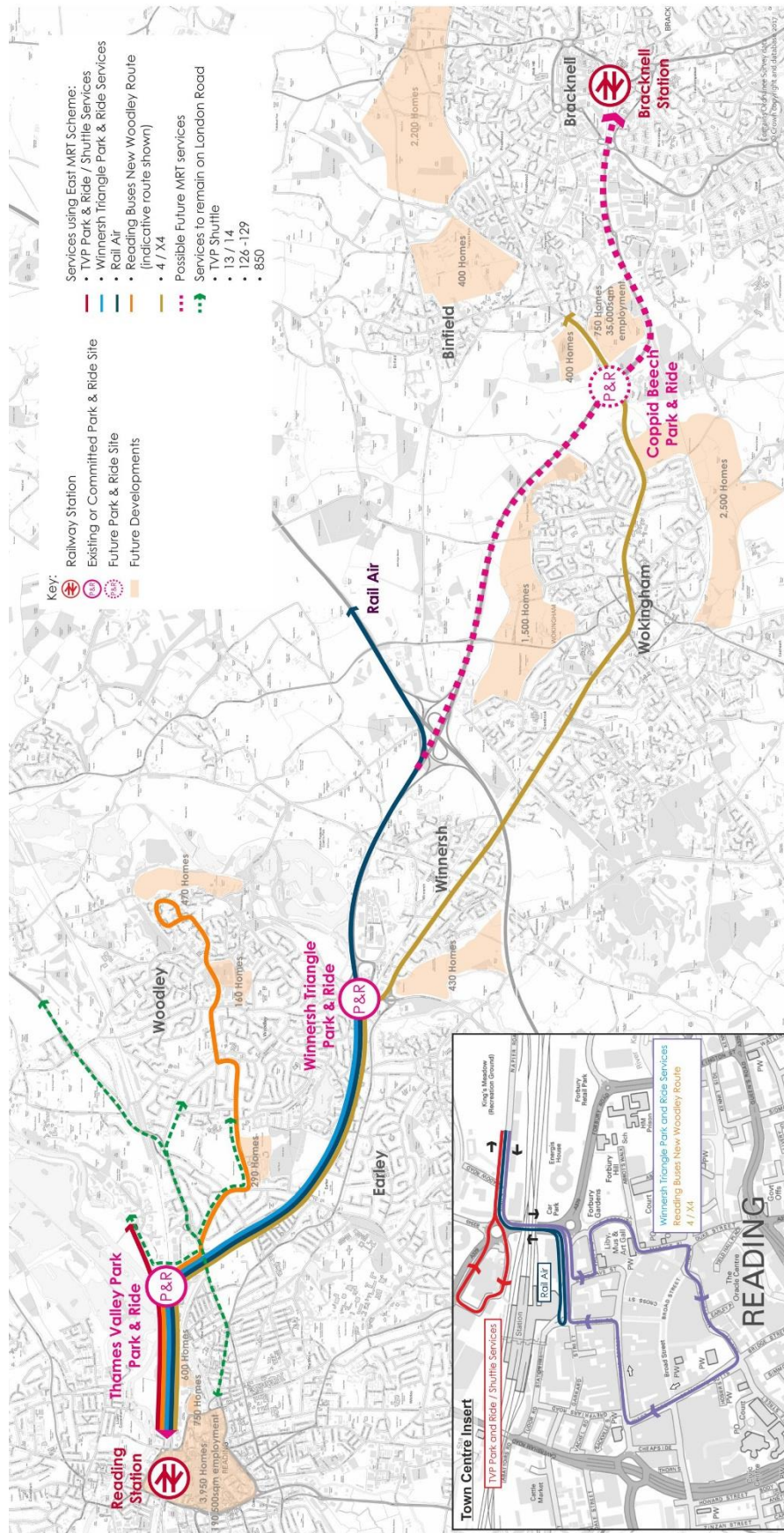
Table 5.3: Public Transport Journey Time Summary With and Without East MRT Scheme

Journey Time (Minutes)	Morning Peak Period		Evening Peak Period	
	Station Inbound	Station Outbound	Station Inbound	Station Outbound
Existing	12.5	17.8	15.0	16.7
Future	6.0	4.6	5.5	4.8
Journey Time Saving	6.5	13.2	9.5	11.9

- 5.2.5 Testing within the RTM shows that the East MRT Scheme will provide significant journey time savings.
- 5.2.6 A workshop on 4th August 2017 was facilitated with Reading Buses following submission of the planning application to review the original assumptions regarding the bus services which might use the East MRT Scheme. RailAir and TVP have also been consulted regarding the use of the route. It has been confirmed that the following assumptions regarding the bus services that might benefit from the East MRT Scheme are reasonable:
- Winnersh Park and Ride
 - TVP Shuttle
 - RailAir
 - TVP Park and Ride
 - New Service to Woodley
 - Service 4/X4 to Reading, Wokingham and Bracknell
- 5.2.7 The scheme will result in faster, more reliable public transport services with significantly increased levels of capacity. This means that extra services could be provided on the corridor.
- 5.2.8 In addition to supporting the provision of new services in the future, other services such as the 850 or 126-129 could also switch to use the East MRT Scheme but these have been assumed to remain on London Road.
- 5.2.9 Services 13 and 14 currently route along London Road and Kings Road between Reading and Woodley. A new Woodley service will be introduced which will route via the East MRT Scheme whilst maintaining the current routes of the 13 and 14 serving Kings Road. This would provide a peak period frequency of eight buses per hour between Reading and Woodley, with four routed via Kings Road and four routed via the East MRT Scheme.
- 5.2.10 It is expected that two TVP services an hour would stay on London Road.
- 5.2.11 The scheme also provides shorter journey times and increased journey reliability for potential future bus services at the TVP P&R and possible Coppid Beech P&R.

- 5.2.12 The East MRT Scheme also offers the potential to allow services to be routed via the TVP P&R to serve the stops there, to enable TVP P&R to operate longer hours during the week and on a Saturday and/or Sunday.
- 5.2.13 All services except the TVP shuttle and RailAir will continue to use the town centre loop and serve the railway station and town centre. The TVP shuttle will terminate at the Reading Station northern interchange and RailAir will continue to use the RailAir stop to the south of the railway station.
- 5.2.14 The routes are illustrated in **Figure 5.8**.

Figure 5.8: Public Transport Network



6 Highway Capacity Assessment

6.1 Off Site Capacity Assessment

6.1.1 The RTM has been used to understand the potential traffic impacts the East MRT Scheme may have on the local highway network surrounding the site. Traffic flows for the following scenarios have been used:

- Baseline – Existing highway network with traffic growth to 2021 and committed developments plus TVP P&R
- Proposed Scheme - Existing highway network with traffic growth to 2021 and committed developments plus TVP Park and Ride and East MRT Scheme

6.1.2 It should be noted that the modelling was undertaken to inform the Business Case and therefore provides a conservative assessment of the benefits for the preparation of a robust Business Case. It is expected that the East MRT will attract a greater level of patronage than tested, particularly in relation to providing access to the future Elizabeth Line services. Furthermore, the East MRT Scheme will provide a catalyst for the delivery of further Park & Ride schemes, attract bus operators to offer fast track bus services along the A329M and enable further phases of the wider planned MRT network and/or Third Thames Crossing.

6.1.3 The traffic flows along the eastern A4 corridor into and out of Reading are high throughout the day, with queues and delays building during the peak periods. This congestion is forecast to increase, as a result of committed and planned development both within Reading Borough and Wokingham Borough. It should be highlighted that the periods of congestion are likely to extend due to increased demand, but this is not assessed.

6.1.4 Drivers switching to use the bus services on the East MRT scheme will relieve the forecast congestion which will in turn allow 'rat running' vehicles to return to the main A4 corridor, benefiting some residential streets.

6.1.5 The following outputs from the tests undertaken using the Reading Transport Model (RTM) are included in **Appendix D**:

- Vehicle flow* on links in 2021 AM Peak hour 0800 to 0900;
- Vehicle flow* on links in 2021 with MRT AM Peak hour 0800 to 0900;
- Difference in vehicle flows* between 2021 AM and 2021 AM plus MRT;
- Vehicle flow* on links in 2021 PM Peak hour 1700 to 1800;
- Vehicle flow* on links in 2021 with MRT PM Peak hour 1700 to 1800; and
- Difference in vehicle flows* between 2021 PM and 2021 PM plus MRT.

*Actual flows output from the model

6.1.6 The difference flow plots for the AM peak hour show that traffic flows are forecast to reduce on the residential streets in the east side of Reading, such as Erleigh Road, Crescent Road and Culver Lane with an increase in traffic on London Road. These reductions are likely to be as a result of people switching to use the bus/MRT into Reading with the introduction of the East MRT scheme. The shift to bus/MRT will allow people currently "rat-running" along residential

streets, travelling from the east side of Reading to the town centre, to shift to back on the A4 (a main radial route into Reading).

- 6.1.7 Some reductions are shown in central Reading on Forbury Road and Kings Road in the AM peak hour. This is likely to be as a result of people switching their mode of travel into Reading from private car to bus as a result of the East MRT scheme.
- 6.1.8 The PM difference flow plots show a similar pattern to the AM peak hour with some reductions on residential streets, the A4 and the IDR due to the East MRT scheme.
- 6.1.9 Actual and demand flows on London Road have been compared in the RTM to understand how many vehicles are predicted to not be able to get to their destination within the AM and PM peak hours due to highway congestion. This comparison shows that approximately 1,000 two-way vehicles do not make their journey on highway network in both the AM and PM peak hours. This suppressed demand is vehicles only and does not account for people travelling by other modes of transport. This highlights the need to help to move people between east Reading and the town centre.

Reading Bridge Roundabout

- 6.1.10 A capacity assessment of Reading Bridge roundabout has been undertaken to understand if the proposed bus lane and pedestrian crossing will impact on the operation of the roundabout during the morning and evening peak hours.
- 6.1.11 There are two existing signalised pedestrian crossings, one on Vastern Road North West and one on Vastern Road South. These have been included in the assessment with a flow of 500 people per hour crossing. It should be noted that exact numbers are unknown however the crossings are well-used by people walking from north Reading to the station and town centre and this is considered to be a reasonable assumption.
- 6.1.12 The junction geometry in Junctions 9 of the proposed improvement does not include the width of the bus lane on Napier Road to provide a robust assessment. If this were included, Junctions 9 would show a capacity improvement as it does not allocate flows to lanes, therefore general traffic would utilise the bus lane.
- 6.1.13 Reading Bridge roundabout often suffers from peak hour congestion due to upstream junctions operating over capacity and blocking back through the roundabout. Due to this blocking back, the junction cannot be fully validated when modelling in isolation. However, the relative effects of the bus lane and pedestrian crossing improvement on traffic at the junction can still be tested.
- 6.1.14 The results of the assessment are summarised in **Table 6.1** and **6.2** with the Junctions 9 outputs and traffic flows included in **Appendix E**.

Table 6.1: Summary of Reading Bridge Roundabout Capacity Assessment – 2021 with TVP P&R Existing Junction Layout

Arm	AM Peak Hour (0800 – 0900)			PM Peak Hour (1700 to 1800)		
	RFC (%)	Delay (pcu/s)	Queue (pcu)	RFC (%)	Delay (pcu/s)	Queue (pcu)
George Street	112	200.53	60.8	62	8.93	1.8
Napier Road	20	12.19	0.3	13	6.02	0.2
Vastern Road (South)	60	7.53	1.6	89	20.40	8.2
Bagnall Way	0	2.13	0.0	19	4.14	0.3
Vastern Road (North West)	96	35.02	17.0	73	8.69	2.8

Table 6.2: Summary of Reading Bridge Roundabout Capacity Assessment – 2021 with TVP P&R & East MRT Scheme
Proposed Junction Layout

Arm	AM Peak Hour (0800 – 0900)			PM Peak Hour (1700 to 1800)		
	RFC (%)	Delay (pcu/s)	Queue (pcu)	RFC (%)	Delay (pcu/s)	Queue (pcu)
George Street	113	208.26	62.9	64	9.66	2.0
Napier Road	26	11.89	0.4	20	7.29	0.3
Vastern Road (South)	61	7.75	1.7	90	22.01	8.8
Bagnall Way	0	2.14	0.0	19	4.13	0.3
Vastern Road (North West)	96	37.23	18.2	75	9.21	3.1

- 6.1.15 The results show that the East MRT improvement scheme is predicted to have a minimal impact on the operation of the roundabout. The highest increase in delay is shown as 7.73 seconds in the AM peak hour on George Street. The largest increase in RFC is 6% on Napier Road in the AM peak hour and the largest increase in queue is 2.1 pcu in the AM peak hour on George Street. These small increases are considered insignificant, especially when taking into account the other benefits to sustainable travel predicted to be seen as a result of the East MRT Scheme.
- 6.1.16 The queue surveys undertaken along Napier Road from Tesco to Reading Bridge Roundabout survey have been analysed to understand if the bus lane proposed on the approach to the roundabout will be inaccessible to buses whilst queuing traffic clears.
- 6.1.17 The results show that the buses, on a relatively busy day, will be delayed for approximately 2 minutes on average for around 2% of a weekday (0700 to 1900), 5% of a Saturday (0700 to 1900) and 1.5% of a Sunday (0700 to 1900). Delays are minimal throughout the rest of the day.
- 6.1.18 Land is safeguarded in the Local Plan to extend the bus lane along Napier Road to the East MRT Scheme to enable MRT/buses to bypass queuing traffic in the future.

Proposed Napier Road / East MRT Scheme Junction

- 6.1.19 A capacity assessment of the proposed Napier Road/East MRT Scheme junction has been undertaken to understand any potential impacts caused by the proposed junction.
- 6.1.20 The results of the assessment are summarised in **Table 6.3** with the Junctions 9 outputs and traffic flows included in **Appendix F**.

Table 4.3: Summary of Napier Road / East MRT Scheme Capacity Assessment – 2021 with TVP P&R & East MRT Scheme
Proposed Junction Layout

Arm	AM Peak Hour (0800 – 0900)			PM Peak Hour (1700 to 1800)		
	RFC (%)	Delay (pcu/s)	Queue (pcu)	RFC (%)	Delay (pcu/s)	Queue (pcu)
EAST MRT Scheme	2	10.24	0	2	10.32	0
Napier Road Right	2	9.68	0	2	9.75	0

- 6.1.21 The results show that the proposed junction with right turn lane for two buses is not predicted to cause any significant queuing or delay to vehicles travelling to and from Tesco. The maximum RFC is only 2% with no queuing predicted.

TVP P&R / A3290 / Thames Valley Park Drive Roundabout

- 6.1.22 The operation of this junction has been assessed as part of the TVP P&R planning application. This shows that the junction is predicted to operate well within capacity with the TVP P&R open.
- 6.1.23 The traffic increase into the proposed TVP P&R access arm of the roundabout generated by the East MRT Scheme is approximately 15 buses per hour eastbound and 15 buses per hour westbound. This increase in traffic is considered insignificant and would have a negligible impact on the operation of the junction.

7 Construction Management Plan

7.1 Construction Phasing & Access

- 7.1.1 The purpose of this section is to provide an overview of the principles for construction activity associated with delivering the scheme. At this stage, it should be recognised that although there has been some initial early contractor engagement to provide reassurance that the scheme is deliverable in construction terms, the construction methods cannot be fixed until the contractor is selected.
- 7.1.2 The scheme will be developed within a 'Considerate Contractor Framework' which will include the production of an overarching construction method statement as well as detailed method statements for each primary activity. The statements will illustrate a construction routing strategy, areas of protection and management practices such as noise, dust and times of operation.
- 7.1.3 It is anticipated that construction of the East MRT Scheme will commence in Summer 2019 (although seasonal site clearance may need to be done earlier in 2019) with completion expected in Spring 2022.

7.2 Contractor's Amenities & Provisions

- 7.2.1 The Contractor will be requested to provide the following amenities and provisions during the construction of all phases.

Times & Duration

- 7.2.2 Construction vehicle movements could take place during a typical working hours between 0800 and 1800hrs Monday to Friday, and 0800 and 1300hrs on Saturdays. Construction vehicles would not access the Site outside these hours, unless agreed in advance with the Council. The site will be reached via the A3290 at the Thames Valley Park Drive Roundabout and via Napier Road. The majority of the works will likely be accessed from the A3290, but access will be needed via Napier Road. It would be the contractor's aim to manage the majority of lorry access between 0900 and 1600 to avoid peak traffic flows in the town centre to reach Napier Road.
- 7.2.3 There would be no construction vehicle movements at the site on Sundays or Bank Holidays, unless agreed with the Council.
- 7.2.4 Consideration regarding safety of the operational railway will be required, there may be a need for the main bridge beams over the River Kennet to be lifted during a night time closure of the railway.

Hoardings

- 7.2.5 Construction hoardings and security fencing will be placed around the construction site, but the exact location and layout is to be determined by the appointed Contractor. Hoarding / fencing will be a requirement under the construction contract to provide a secure working environment for office staff/visitors and members of the public.

Site Cranes and Plant

- 7.2.6 It is anticipated that site cranes and plant will be located within the site area. These could be provided by either using a mobile crane or a crawler crane. Other plant is expected to include excavators, telehandlers and dumpers.

Wheel Wash

- 7.2.7 The Contractor will be requested to provide suitable vehicle washing facilities to prevent material being deposited onto the public highways. Road sweeping would also take place to maintain clean road surfaces in the area.

Routing

- 7.2.8 The primary routes for construction vehicles will be from the M4. Construction vehicles accessing the eastern section of the site will be routed from the M4 to the south of Reading via the A3290 (M). Vehicles accessing the western section of the site will be routed from the M4 via the A33 and Vastern Road to Napier Road.

Statutory Requirements

- 7.2.9 During construction of the project, the Contractor shall be required to comply with all Statutory Requirements regarding the control of pollution (including noise pollution).
- 7.2.10 The Contractor will be required to obtain all necessary Local Authority, Police, and all other necessary approvals in respect of access to the sites and any necessary diversions and traffic control systems. It will be the responsibility of the Contractor to obtain any necessary consent for means of access, loading/unloading and diversions.

Highways, Footpaths & Crossovers

- 7.2.11 During the construction of each phase the Contractor will be required to make allowance for any restrictions that may be placed on his work in respect of maintaining traffic and pedestrian access.
- 7.2.12 The Contractor will not obstruct public thoroughfares without the approval of the appropriate Authority and will be responsible for the payment of any charges in connection with such closures.

Site Deliveries

- 7.2.13 The Contractor will be required to operate suitable booking systems and site management controls for controlling the delivery of construction materials.

Site Storage

- 7.2.14 The exact location of site storage will be the responsibility of the Contractor but this will need to be on site where possible.
- 7.2.15 The Contractor will be required to co-operate with the Local Authority and comply with any requirements relating to the delivery of materials to the sites.

Existing Services

- 7.2.16 The Contractor will be required to identify existing services and shall protect the service pipes, cables, ducts and the like and maintain these during the execution of the project.

Adjacent Occupiers

- 7.2.17 The Contractor will be required to take precautions to protect occupiers of adjacent land or buildings and the general public from any danger, discomfort, disturbance, trespass or

nuisance arising by reason of the project. Such precautions shall include the provision of temporary screens, notices and the like, as necessary.

- 7.2.18 Specifically, interface with the Network Rail Asset Protection team will be required. RBC will enter into a Basic Asset Protection Agreement with Network Rail's Asset Protection Team, allowing Network Rail to appoint a Project Manager and Project Engineer to comment on the development of the detailed design and fulfil the relevant assurance processes.

Site Offices, Toilets, Washing & Welfare Facilities

- 7.2.19 The Contractor will be required to provide all necessary temporary site accommodation and welfare facilities to properly undertaken the works.
- 7.2.20 The Contractor will determine the location of such accommodation and will clear away all accommodation on completion of the works before making good any damage. All huts shall be of a good standard. Caravans, mobile homes and the like will not be allowed on site

8 Summary

8.1 Current Situation for Travel into Reading from the East

- 8.1.1 The A4 London Road is the main corridor into Reading from the east, from the A4 and A3290. It is heavily constrained comprising two narrow lanes for traffic travelling towards central Reading and a single narrow lane exiting towards the A3290, and onto junction 10 of M4. The daily traffic flows have not fluctuated markedly over the last eight years and the daily profile of the traffic flows show peak spreading with traffic only reducing between 10:00–12:00 then gradually increasing towards an extended evening peak period. This, alongside the observed queues indicate that the corridor is operating at, or over capacity during the majority of the day. The queues can reach 300 – 550 vehicles exiting Reading in the peak periods and between 60 – 200 vehicles entering Reading in the peak periods. Furthermore, the commuter shuttle bus services are full in the peak periods.
- 8.1.2 Peak period journey times between the A3290 and Reading Station range from 7 to 24 minutes eastbound and 9 to 24 minutes westbound. This shows there is currently significant variations in journey time due to congestion which will severely limit the potential for future growth on the corridor and the attractiveness of using public transport as opposed to the private car.
- 8.1.3 Public transport services are well used in east Reading and the commuter shuttle bus services are full in the peak periods. There is existing bus priority between Watlington Street gyratory and Cemetery Junction, however services suffer delays in the town centre and between Cemetery Junction and the A3290.
- 8.1.4 The A4 London Road does not provide adequate pedestrian and cycle facilities between and on the boundary of Reading and Wokingham Boroughs as the carriageway and footway are too narrow. The towpath provides a pedestrian and cycle route, however natural surveillance is poor, surfacing is poor in some locations, it is narrow in places, it includes a stepped bridge where cyclists have to dismount and is shared by pedestrians. The route also follows the River Thames to northern destinations in the town centre, rather than into the centre.
- 8.1.5 In total, the corridor supports some 75,000 people movements per day to key areas of economic activity such as Thames Valley Park immediately to the east (8000 jobs) and central Reading (over 50,000 jobs). As well as supporting current employment, a further 190,500sqm of employment is planned in the Town Centre and 35,000sqm at IQ Winnersh and 5,300 homes at Kenavon Drive, Station Hill, former Cooper BMW site and Royal Mail sites plus a further 9,400 homes in Wokingham and on the west side of Bracknell. This does not account for the emerging local plan developments which will add further development growth in the area.
- 8.1.6 Continued issues with congestion on the network will restrict economic growth and there is a risk that existing businesses would consider relocating out of the Thames Valley Berkshire (TVB) area and possibly elsewhere in Europe.

8.2 Scheme Overview

- 8.2.1 This scheme is a long-established element of RBC's strategy to deliver sustainable economic growth and housing for Reading and Wokingham Boroughs. It is included in RBC's Corporate Plan, Core Strategy and Local Transport Plan.
- 8.2.2 The scheme is also identified in WBC's Core Strategy, Managing Development Delivery, Local Plan, and Local Transport Plan; and TVB LEP's Strategic Economic Plan. The land has been safeguarded for Strategic Transport Networks and Road Infrastructure, which includes Mass Rapid Transit.

- 8.2.3 RBC's LTP sets out that *"an MRT system must be designed to meet a set of standards above and beyond a quality local bus. The long-term vision incorporates a network that expands the public transport offer rather than replacing existing networks, and it will be branded as such."*
- 8.2.4 The East MRT scheme is a segregated fast track public transport, pedestrian and cycle route that will support enhanced accessibility and continued sustainable growth in Reading, Wokingham Borough and the wider area. It would provide a new dedicated walk, cycle and public transport link from central Reading to existing residential and employment areas to the east and south-east of Reading, including Thames Valley Park, Woodley, Winnersh and Wokingham.
- 8.2.5 The purpose of the scheme is to improve access to and from Reading eastwards for buses, pedestrians and cyclists. This will help relieve the forecast increase in travel demand along the heavily congested A4 corridor, which provides access to existing residential employment and educational sites, as well as Reading town centre, Reading railway station and substantial planned development in Wokingham Borough and Reading town centre.
- 8.2.6 The scheme will provide urban connectivity and access to wider strategic transport networks. It will deliver significant capacity and reliability enhancements to support future growth, through modal shift and increasing capacity in the transport network. This improved capacity will assist in unlocking housing development already committed in Reading and Wokingham boroughs, improve accessibility and reliability of the network and will be a catalyst for improving the vibrancy of the town centre and encouraging employers to locate here.

8.3 Summary of Benefits

- 8.3.1 A summary of the benefits of the scheme is listed below:

Wider Benefits

- Delivers a fundamental element of the wider sustainable transport strategy for Reading and the Thames Valley, enabling a public transport corridor on the Reading – Wokingham – Bracknell corridor and in north Reading linked to the proposed Third Thames crossing;
- Meets the policy/infrastructure requirements in Reading and Wokingham's Local Plans to enable the planned levels of economic growth and housing delivery; and
- Increases public transport accessibility and affordability, resulting in improved social equality and decreased levels of isolation for the most vulnerable in society.

Walking and Cycling

- Potential capacity to cater for 120 to 450 pedestrians per hour and 60 to 300 cyclists per hour;
- Provides a faster route option and enhanced user experience for people walking and cycling from the A4 London Road/A3290 roundabout to Reading Railway Station and town centre offering:
 - lighting and low gradient,
 - adjacent to low trafficked carriageway offering regular natural surveillance from regular bus services,
 - alternative crossing of the River Kennet Mouth for towpath users to avoid the stepped Horseshoe Bridge,

- alternative route to avoid flood risk areas;
- Promotes healthy living, well-being and active lifestyles by providing enhanced opportunities for walking and cycling;
- Increases levels in cycling of 114 new trips/day, (based on work to inform the Business Case, specifically, cycling increases based on timesaving and improved facilities utilising DfT TAG UNIT A5.1).
- Improves pedestrian and cyclist safety through the provision of a fast track and dedicated cycle and pedestrian route directly into the centre of Reading; and
- Connects the cycle hire schemes at Thames Valley Park to the central areas of Reading.

Public Transport

- Offers the potential capacity to cater for up to 2,000 two-way people trips per hour by the introduction of new bus services, and therefore the ability to accommodate future forecast travel demands;
- Increases public transport patronage by up to 15% (based on the demand modelling undertaken to inform the Business Case);
- Significantly increases capacity for accessing (and leaving) Reading town centre and Reading Railway Station;
- Significantly improves public transport connectivity between Reading and Wokingham Boroughs;
- Provides opportunity to facilitate future bus services east of Reading towards Wokingham and Bracknell and the potential TVP P&R at Coppid Beech; and
- Reduces journey times and improves reliability for public transport services using the East MRT Scheme.

Highway

- Reduces rat-running in some eastern parts of Reading and provides alternative means to travel along the congested corridor to accommodate the highway trips that are forecast not to complete their journey in the modelled peaks in the future, as a result of building delays/congestion.
- Accommodates two right turning buses at the proposed East MRT Scheme and Napier Road junction which is predicted to operate well within capacity causing minimal to no delays to traffic accessing and egressing Tesco;
- Causes minimal delays to existing traffic at the Napier Road approach to Reading Bridge roundabout due to off-site improvements; and
- Accommodates bus movements at the Thames Valley Park Drive / A3290 roundabout.

Future Opportunities

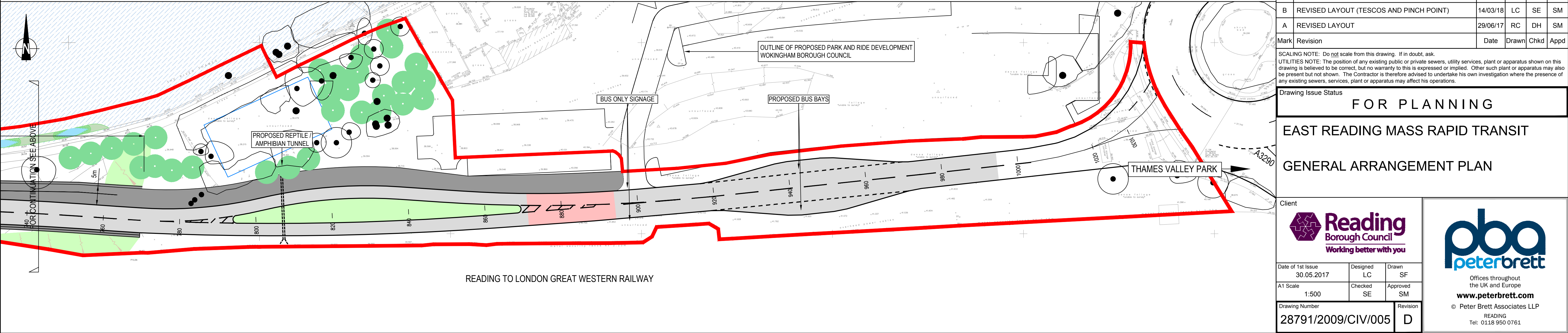
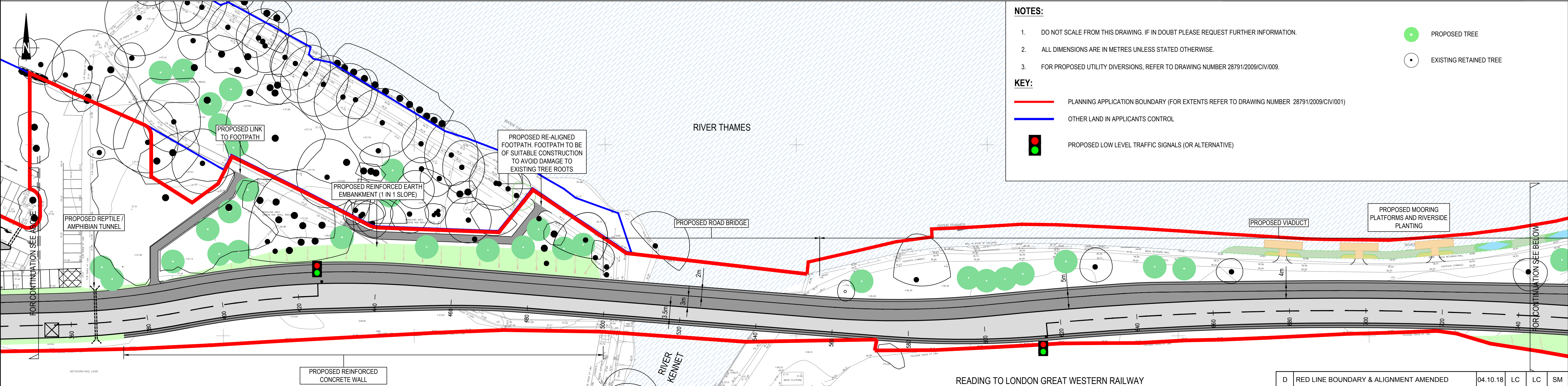
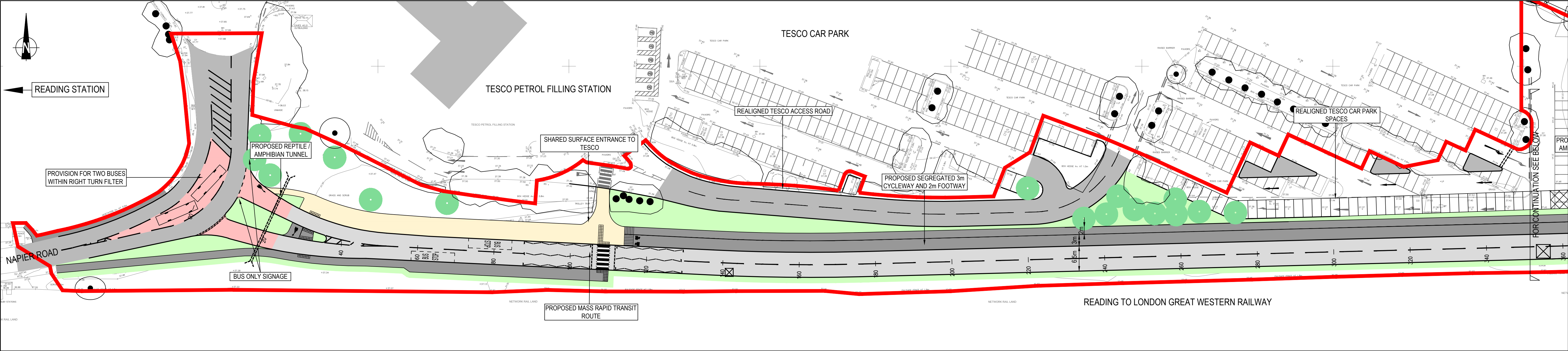
- 8.3.2 This eastern section will form part of a longer term MRT network for the Thames Valley or operate as a standalone MRT route. The link also provides future opportunity to link to a Third Thames Crossing to provide MRT to a P&R north of the River Thames.

8.3.3 Reading is planned to benefit from significant investment in the following strategic networks:

- Elizabeth Line (Crossrail) services are planned to operate from Reading Station in 2019 providing direct services into central London. This line is reported to be generating the most homes of all the new rail lines;
- The Western Rail Link to Heathrow (WRLtH) will provide direct access to Heathrow Airport from Reading and is planned to be completed in 2021;
- HS2, which should be completed in the next decade, will reduce journey times from London to Birmingham to 49 minutes, making it easier to commute from Britain's second city to the capital. London's rail commuter network will then encompass Brighton, in the south, Southend, in the east, Reading, in the west, and Birmingham, to the north; and
- M4 Junctions 3-12: Smart Motorway scheme is currently under construction and due to be fully operational by 2022.

8.3.4 The East MRT scheme will improve accessibility to these strategic transport networks, allowing residents from existing and planned development living to the east of Reading to reach the rail services and Reading town centre, or visitors arriving from the motorway to use the P&R at TVP or Winnersh into Reading town centre.

Drawings



NOTES:

- DO NOT SCALE FROM THIS DRAWING. IF IN DOUBT PLEASE REQUEST FURTHER INFORMATION.
- ALL DIMENSIONS ARE IN METRES UNLESS STATED OTHERWISE.
- FOR PROPOSED UTILITY DIVERSIONS, REFER TO DRAWING NUMBER 28791/2009/CIV/009.

KEY:

- PLANNING APPLICATION BOUNDARY (FOR EXTENTS REFER TO DRAWING NUMBER 28791/2009/CIV/001)
- OTHER LAND IN APPLICANTS CONTROL
- PROPOSED LOW LEVEL TRAFFIC SIGNALS (OR ALTERNATIVE)

PROPOSED TREE

EXISTING RETAINED TREE

D	RED LINE BOUNDARY & ALIGNMENT AMENDED	04.10.18	LC	LC	SM
C	AMENDMENT TO RED LINE BOUNDARY	25/05/18	DH	SM	SM
B	REVISED LAYOUT (TESCOS AND PINCH POINT)	14/03/18	LC	SE	SM
A	REVISED LAYOUT	29/06/17	RC	DH	SM
Mark	Revision	Date	Drawn	Chkd	Appd

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.

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

Drawing Issue Status

FOR PLANNING

EAST READING MASS RAPID TRANSIT

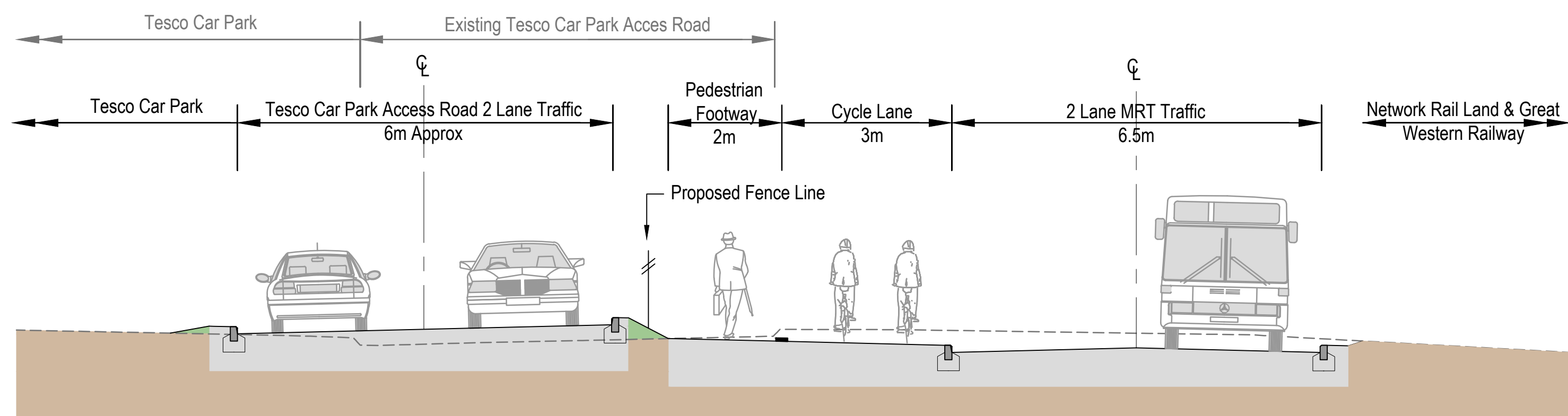
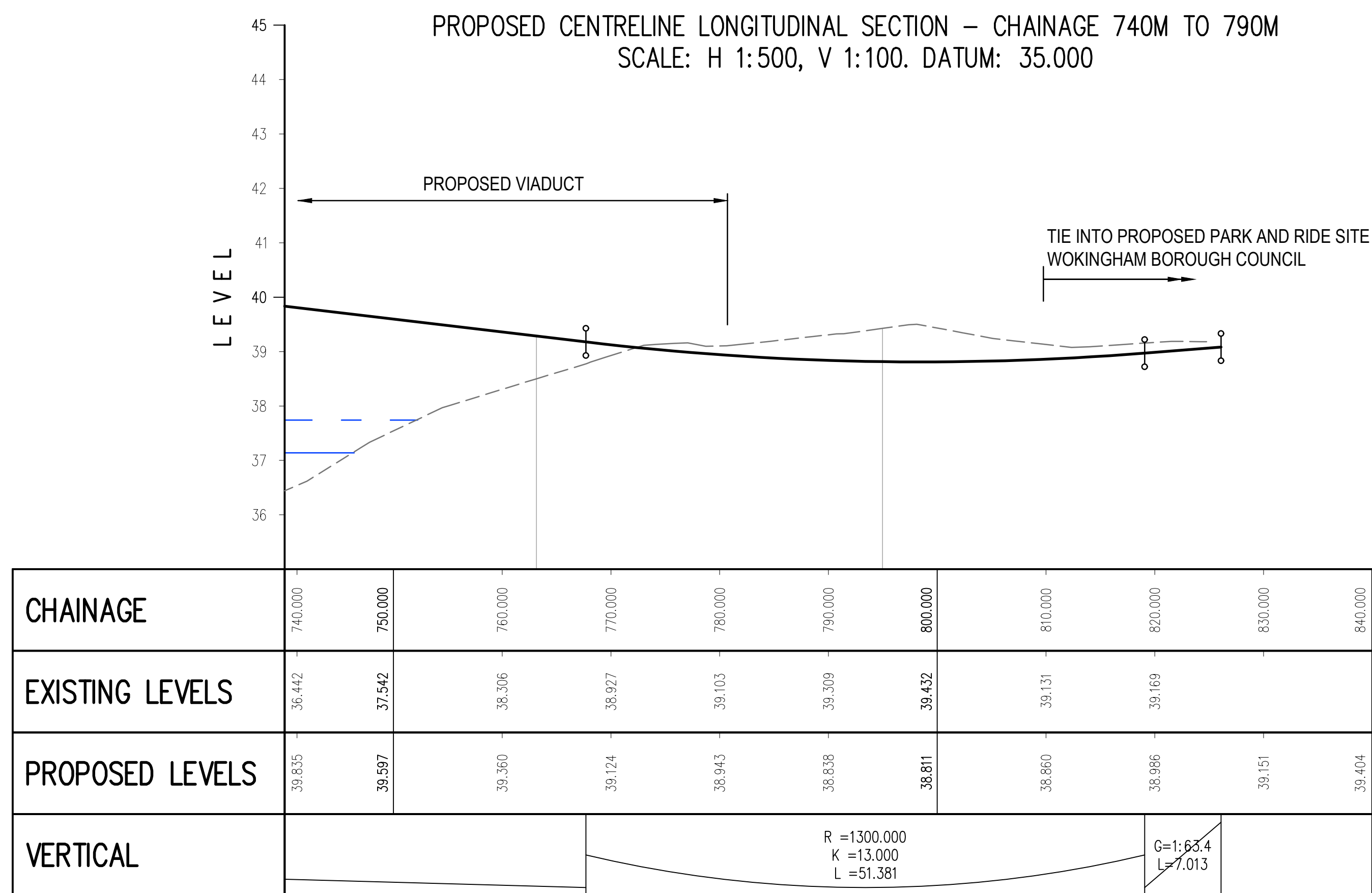
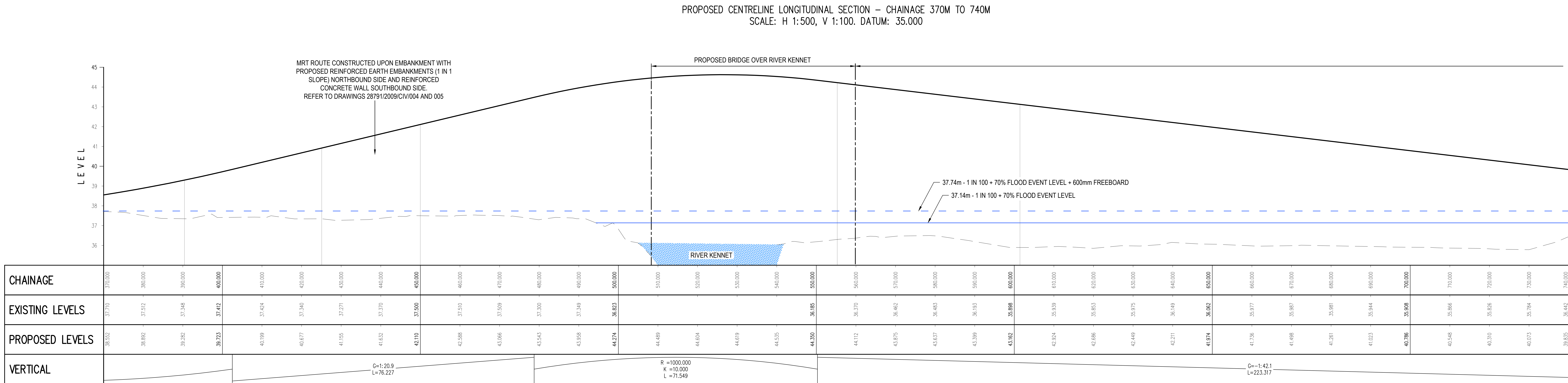
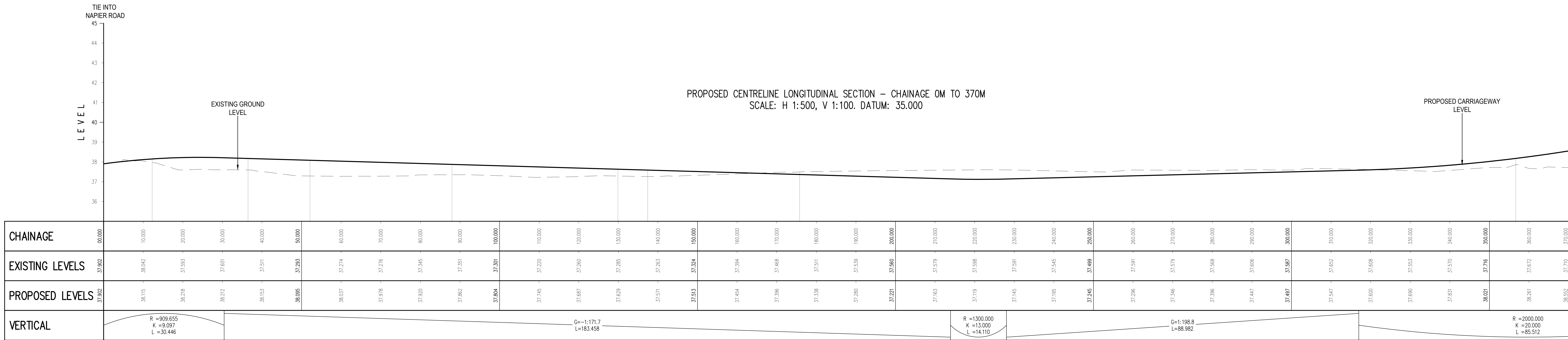
GENERAL ARRANGEMENT PLAN

Client

Reading Borough Council
Working better with you

Date of 1st Issue: 30.05.2017
Designed: LC
Drawn: SF
A1 Scale: 1:500
Checked: SE
Approved: SM
Drawing Number: 28791/2009/CIV/005
Revision: D

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TYPICAL CROSS SECTION (ADJACENT TO TESCO)
(NOT TO SCALE)

NOTE: FOR CROSS SECTIONS THROUGHOUT THE SCHEME EXTENTS, REFER TO
DRAWING NUMBERS 28791/2009/CIV/013 AND 014.

B	LONG SECTION UPDATED	04.10.18	NK	LC	SM
A	REVISED LAYOUT (TESCOS AND PINCH POINT)	07.03.18	NK	LC	SM
Mark	Revision	Date	Drawn	Chkd	Appd

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Drawing Issue Status
FOR PLANNING

EAST READING MASS RAPID TRANSIT PROPOSED HIGHWAY LAYOUT LONGITUDINAL SECTION AND TYPICAL CROSS SECTION

Client

Reading
Borough Council
Working better with you

Date of 1st Issue
03.05.2016

Designed
MJP

Drawn
LC

A1 Scale
SCALE AS SHOWN

Checked
SE

Approved
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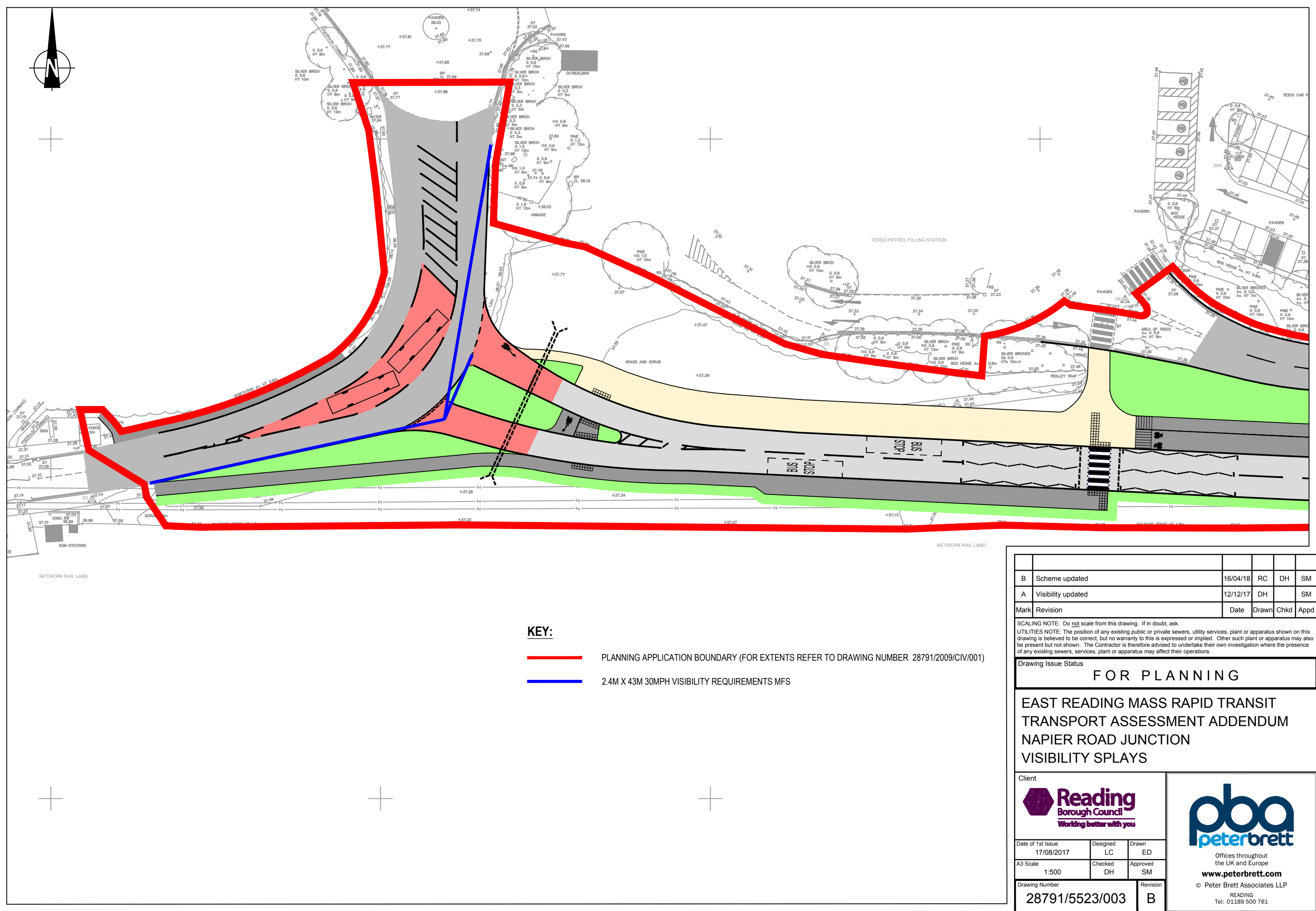
Drawing Number
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Revision
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- KEY:**
- PLANNING APPLICATION BOUNDARY (FOR EXTENTS REFER TO DRAWING NUMBER 28791/2009/CIV/001)
 - 2.4M X 43M 30MPH VISIBILITY REQUIREMENTS MFS

B	Scheme updated	16/04/18	RC	DH	SM
A	Visibility updated	12/12/17	DH		SM
Mark	Revision	Date	Drawn	Chkd	Appd

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Drawing Issue Status

FOR PLANNING

EAST READING MASS RAPID TRANSIT
TRANSPORT ASSESSMENT ADDENDUM
NAPIER ROAD JUNCTION
VISIBILITY SPLAYS

Client



Reading
Borough Council
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Date of 1st Issue

17/08/2017

Designed

LC

Drawn

ED

A3 Scale

1:500

Checked

DH

Approved

SM

Drawing Number

28791/5523/003

Revision

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