

Appendix A.6: Options Appraisal

8 Higher Level Option Appraisal

- 8.1

An evaluation of options for Segregated or Non SegrAn Options Appraisal Report (OAR) was prepared to inform a bid to secure the allocated funding from the Thames Valley Berkshire Local Enterprise Partnership (TVB LEP) for Phases 1 and 2 of the East Reading Mass Rapid Transit. The report presented the results of a study of route options that led to the identification of a preferred scheme.
- 8.2

The study clarified the need and justification for a transport intervention, and the process of option development and selection in order to address a clear set of locally developed objectives and desired outcomes.
- 8.3

The development options were compared with a ‘do nothing’ option where the following outcomes were identified:

• Ever increasing congestion and worsening transport conditions will act as an inhibitor to growth with private sector investment attracted to other areas with better accessibility;

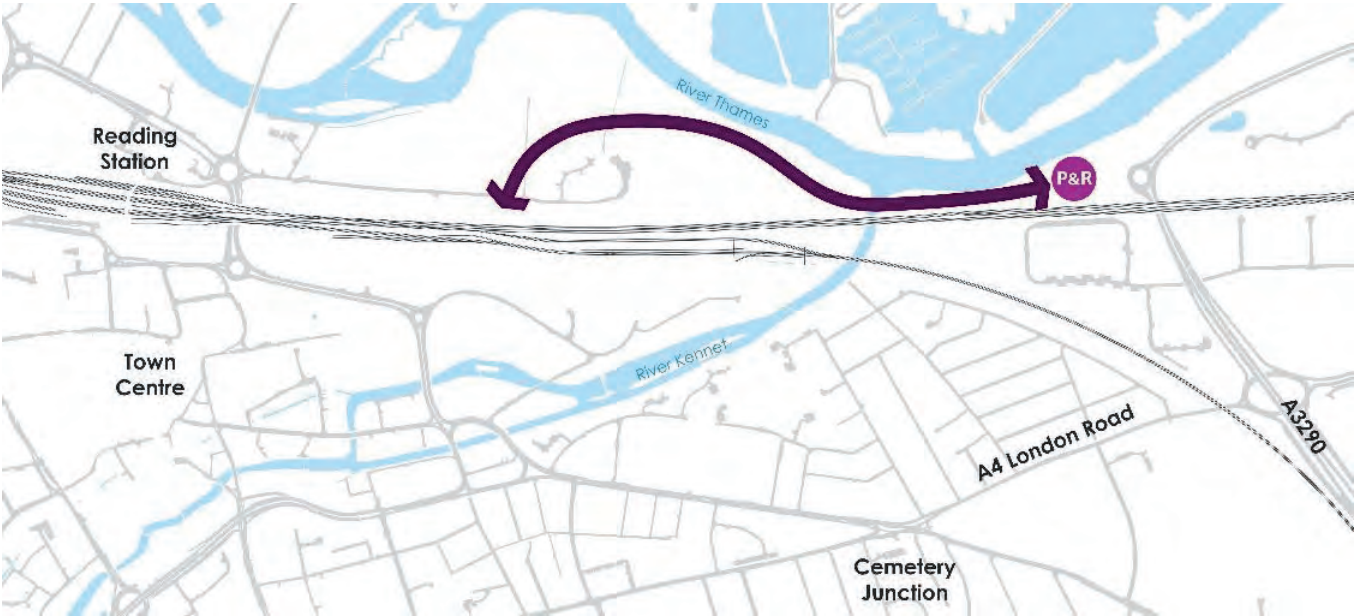
• Air Quality issues will be exacerbated without the mitigation afforded by intervention; and

• The resident population will be disadvantaged by restricted accessibility to jobs services.
- 8.4

The options comprise both wider transport options within Reading and the Thames Valley as well as specifically looking at the eastern route into Reading town centre from A4 and A329 at Thames Valley Park.
- 8.5

The first stage options were subject to robust assessment using the Department for Transport’s Early Assessment and Sifting Tool (EAST). The tool is designed to compare and refine options; highlight adverse impacts and unanticipated consequences; identify trade-off between competing objectives; filter and discount ‘non runner’ options at an early stage; and highlight uncertainties that should be the focus of further analysis.
- 8.6

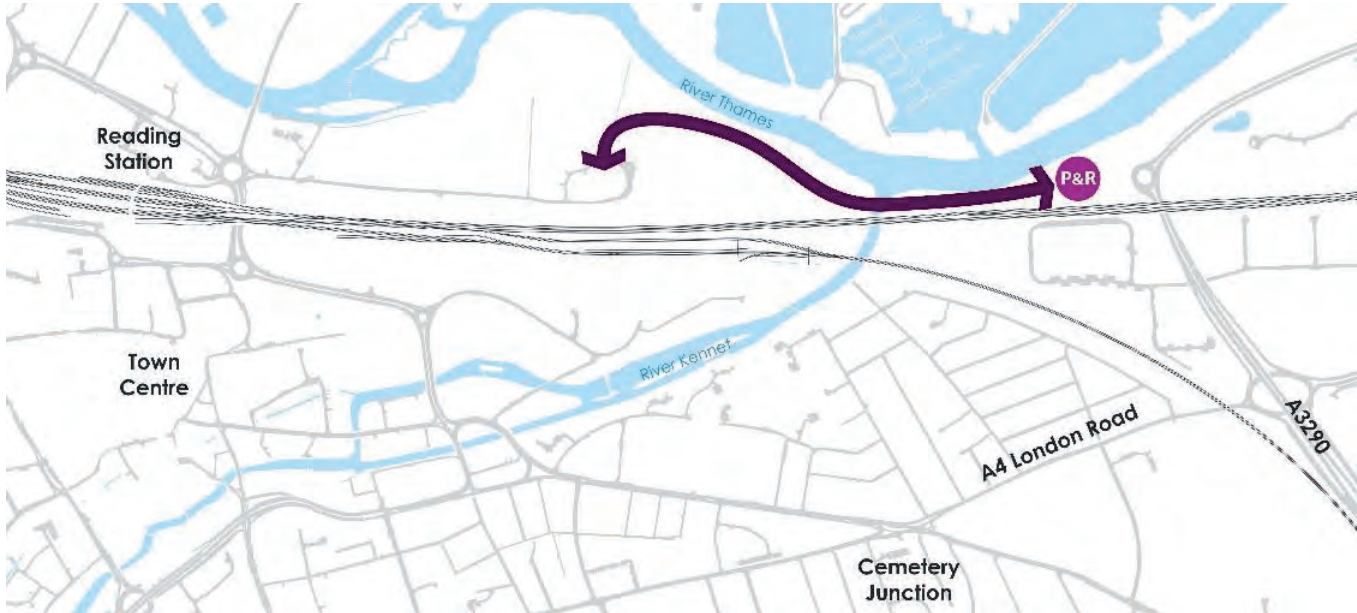
The two-stage process involved the assessment of ten options in stage one that were reduced to four options for more detailed appraisal leading to the identification of two hybrid preferred options.
- Option development and appraisal



Option 1 – Segregated MRT route between Napier Road and the A329(M) roundabout.

This route option passes through RBC land over the meadows. The route bridges the River Kennet mouth and connects to the proposed TVP Park & Ride.

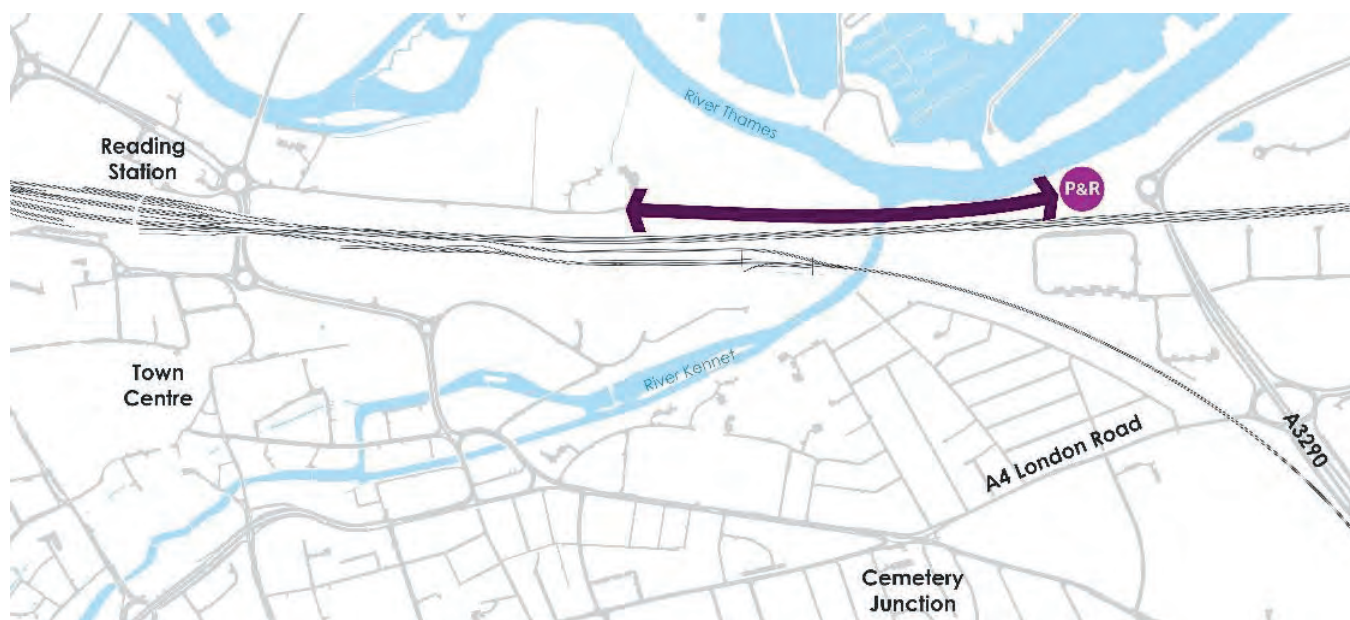
This option was selected for further appraisal in stage 2.



Option 2 - Segregated MRT route between Napier Road and the A329(M) roundabout.

This route option passes through RBC land over the meadows and adjoins the public highway at Tesco’s access roundabout. The route bridges the River Kennet mouth and connects to the proposed TVP Park & Ride.

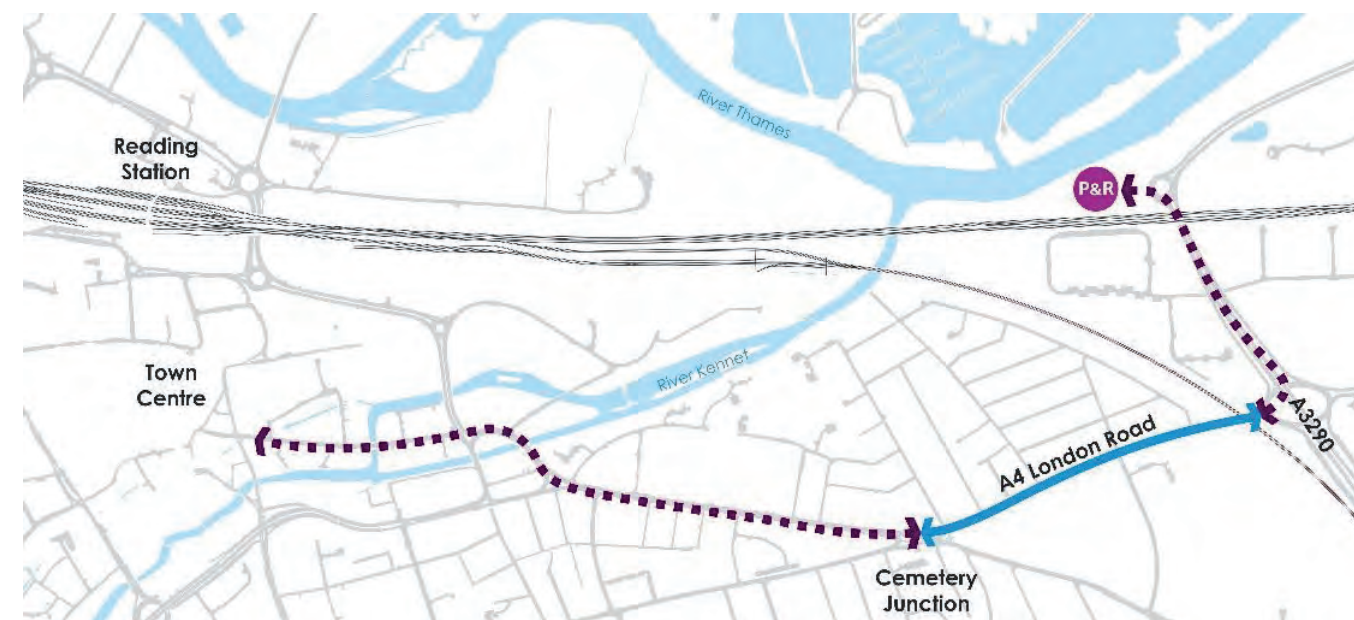
This option was selected for further appraisal in stage 2.



Option 3 - Segregated MRT route between Napier Road and the A329(M) roundabout.

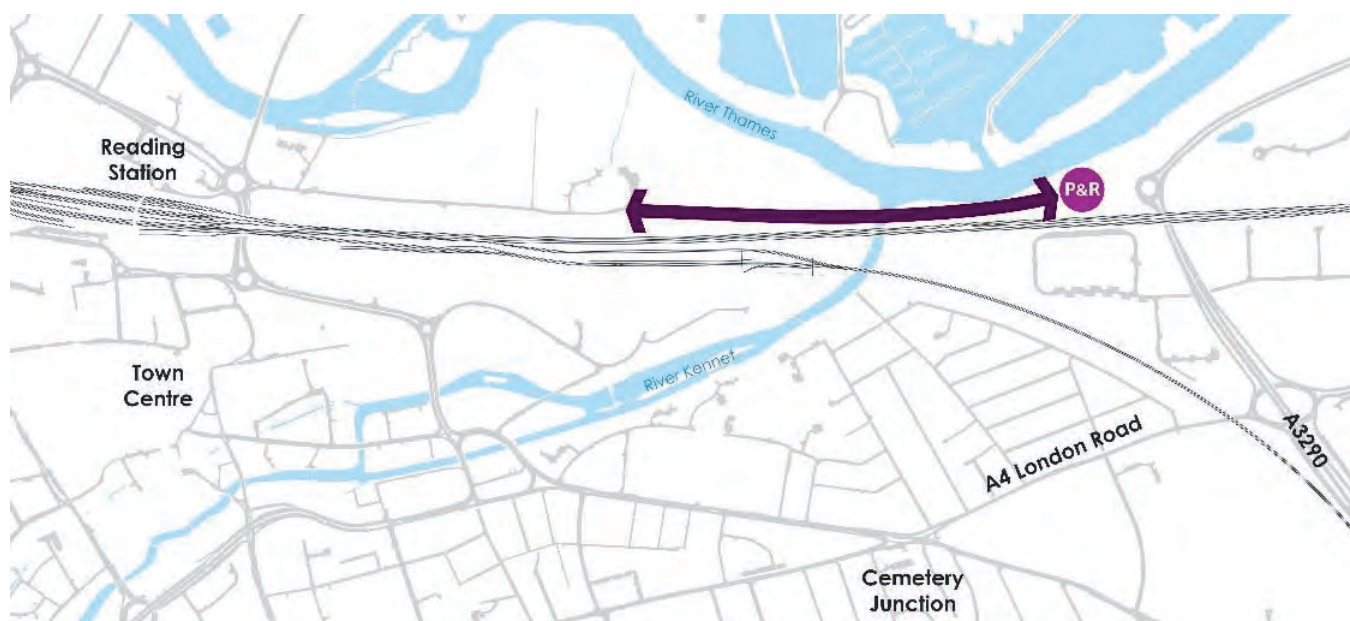
This route option passes through the edge of the superstore car park, land owned by Tesco's. The route bridges the River Kennet mouth and connects to the proposed TVP Park & Ride.

This option was selected for further appraisal in stage 2.



Option 5 – A tidal flow scheme on the A4 London Road.

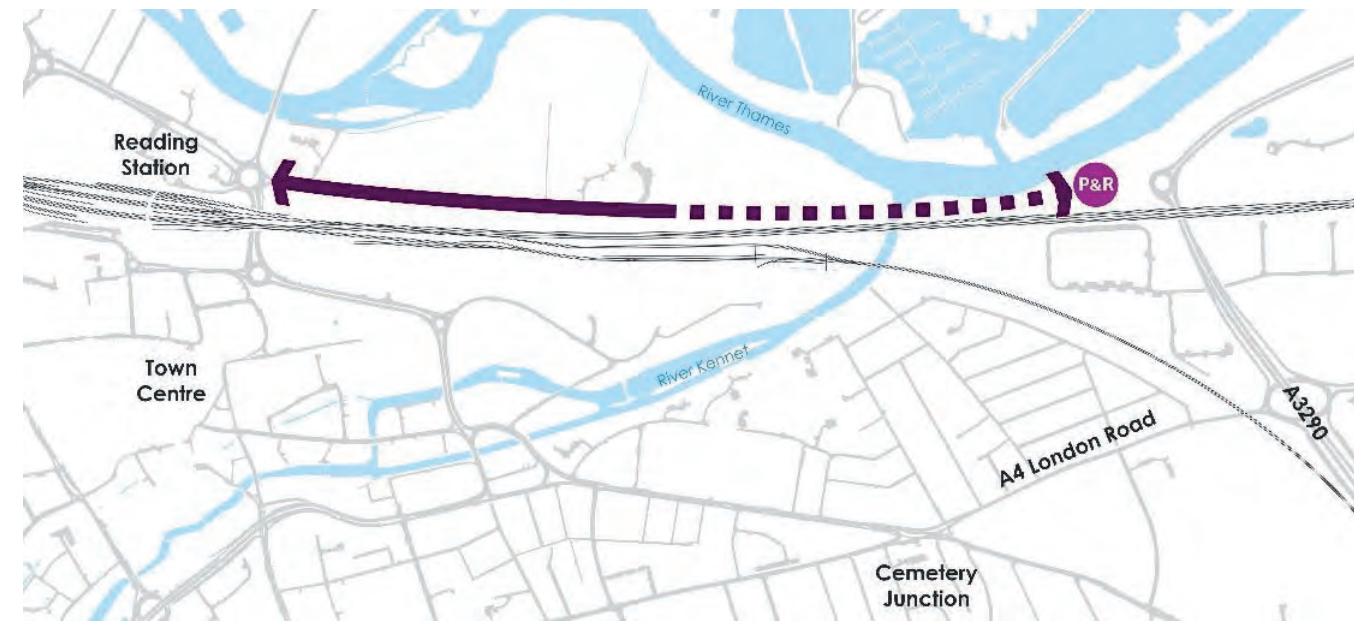
This option provided insufficient economic benefits and did not offer significant environmental benefits such as reducing carbon emissions, when compared to the alternative options. The option was therefore discounted.



Option 4 - Segregated MRT route between Napier Road and the A329(M) roundabout.

This route option runs adjacent to the railway line on Network Rail land and through a small parcel of land owned by Tesco. The route bridges the River Kennet mouth and connects to the proposed TVP Park & Ride.

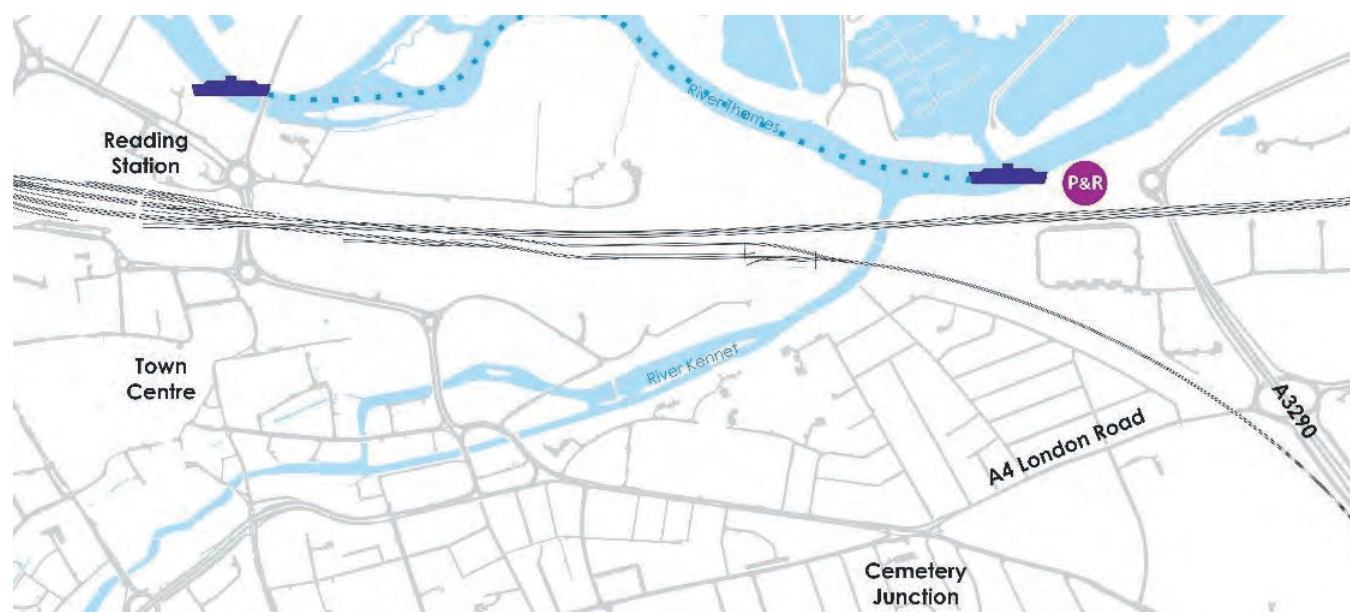
The construction costs of option 3 and 4 are the lowest of the four options and result in the lowest impact on the environment compared to remaining options, particularly in relation to ecology, flood risk, visual impact, landscape impact. This would improve public acceptability over the other remaining options. Option 4 requires less third party land than option 4, and is therefore considered more deliverable and potentially a lower cost.



Option 6 - Segregated MRT route between Napier Road and the A329(M) roundabout.

This route option passes through the edge of the superstore car park, land owned by Tesco. The route is via a tunnel under the River Kennet mouth and connects to the proposed TVP Park & Ride.

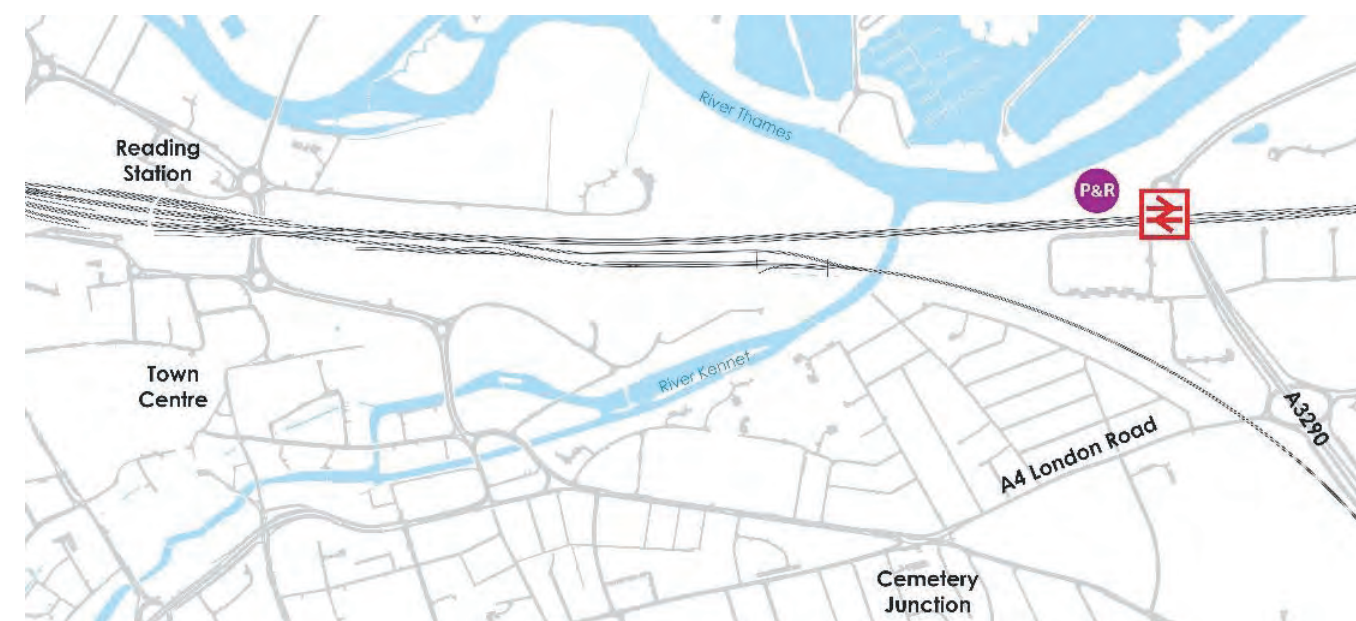
This option offered high delivery costs when compared with the potential benefits. The option was therefore discounted.



Option 7 – Park and Ferry. A new ferry route to be created between Reading Station, and the proposed TVP Park & Ride.

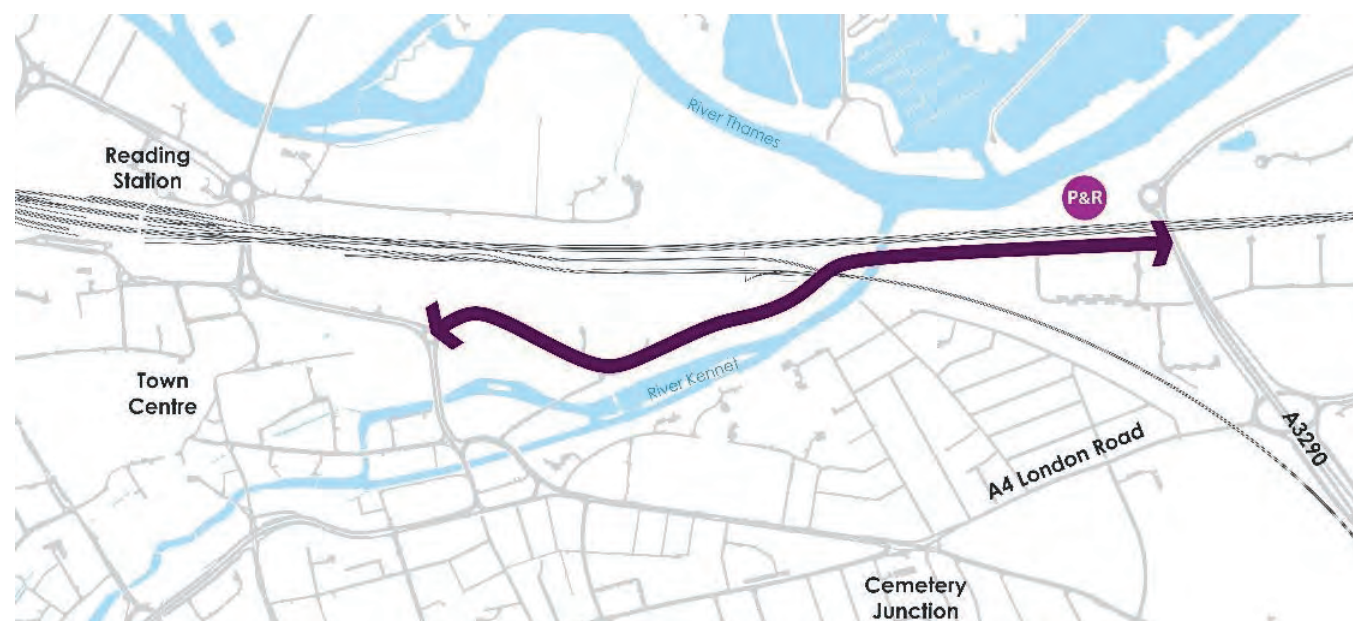
It is proposed that this route will follow the River Thames to a new jetty provided adjacent to Christchurch Bridge.

This option provided insufficient economic benefits and did not offer significant environmental benefits such as reducing carbon emissions, when compared to the alternative options. The option was therefore discounted.



Option 9 – Segregated MRT route between Sutton Park Avenue and Alexander Turner Close, across the River Kenet and beneath the Reading to Waterloo railway line.

This option offered high delivery costs when compared with the potential benefits. The option was therefore discounted.

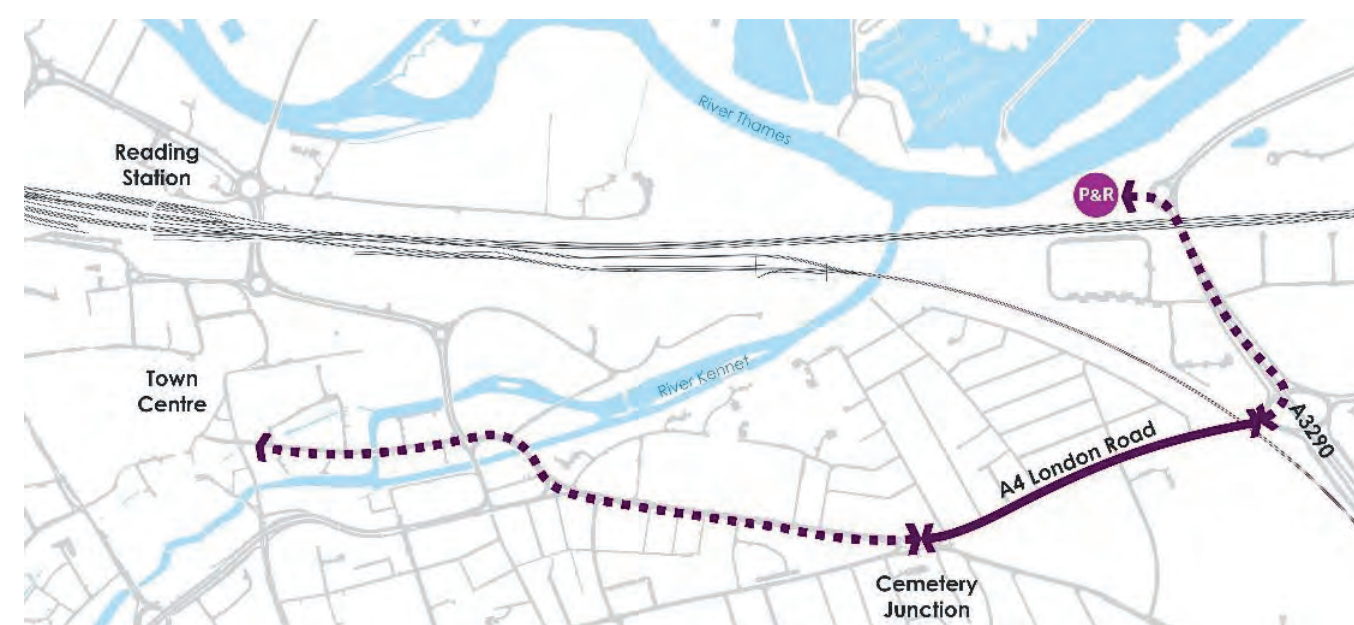


Option 8 – Park and Rail.

A new rail station to be provided at Thames Valley Park to serve both the business park, and provide a direct rail connection between the proposed TVP Park & Ride and Reading Railway Station.

This option offered high delivery costs when compared with the potential benefits. The option was therefore discounted.

This option provided insufficient economic benefits and did not offer significant environmental benefits such as reducing carbon emissions, when compared to the alternative options. The option was therefore discounted.



Option 10 - A tidal flow bus lane scheme on the A4 London Road.

This option was selected for further appraisal in stage 2.

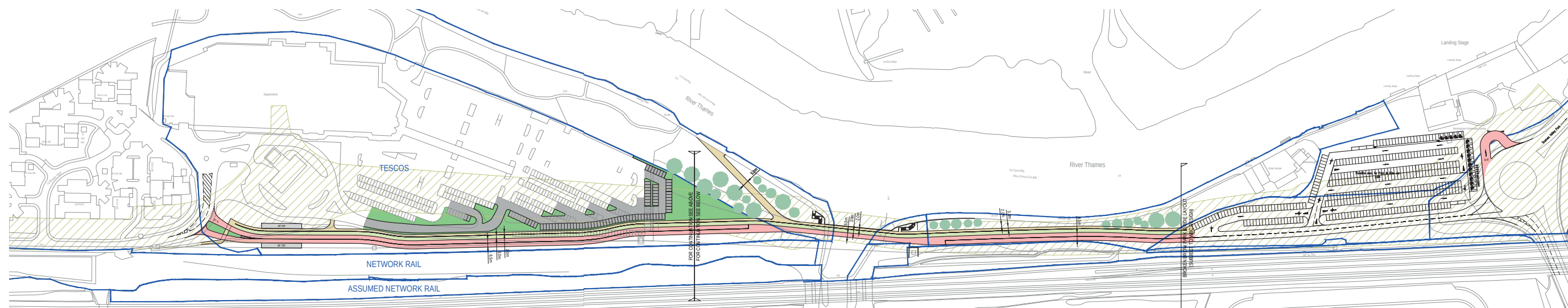


Figure 19. Preferred option

Stage 2

- 8.7 The construction costs of option 3 and 4 were found to be lowest of the four short-listed options. These options also resulted in the lowest impact on the environment compared to four remaining options, particularly in relation to ecology, flood risk, visual impact, landscape impact, which would improve public acceptability over the other remaining options.
- 8.8 The stage 2 assessment incorporated alternative approaches to bus priority as follows:
- Bus priority Option 1 – Nearside bus lane on approach to Vastern Road Roundabout along with a fully segregated cycle route and landscape enhancements.
 - Bus priority Option 2 - Segregated MRT route between Napier Road and the A329(M) roundabout along with fully segregated cycle route and landscape enhancements. This option uses land owned by Tesco's and Network Rail).
- 8.9 Bus priority Option 2 was found to be most complementary. It improves the journey times for bus services, other vehicles and cyclists, and improves the visual impacts and deliverability.

Preferred option

- 8.10 Option 3 (combined with Bus Priority Option 2) has been identified as the preferred option, on the basis of its quantitative and qualitative scores on strategic, economic, managerial, financial and commercial aspects.
- 8.11 The preferred route runs adjacent to the existing railway line, to the south of the River Thames.
- 8.12 The preferred option includes:
- a new route for public transport only, including cycle path and footway between Napier Road and the proposed Park & Ride at Thames Valley Park;
 - the erection of a new bridge over the River Kennet and route avoiding the food plain, with associated improvement works to the towpath;
 - creation of a recreational route with public open space and ecological habitats;
 - formation of a new T-junction with Napier Road; and
 - formation of a new three-arm roundabout junction between Thames Valley Park Drive and A3290 (as part of the Park & Ride facility).