

Proposed Residential Development - Bradley Villa Farm – Transport Assessment and Travel Plan Review

Prepared for:	Paula Bedford (Highways England)
Prepared by:	Cat Campbell (JSJV)
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Reviewed/approved by:	Jonathan Parsons (JSJV)

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Overview

This Technical Memorandum [TM] was prepared by Jacobs Systra Joint Venture [JSJV] on behalf of Highways England and provides a response to the Transport Assessment [TA] and Travel Plan [TP] submitted by Optima, on behalf of Redrow Homes (Yorkshire) Ltd, R Kershaw and S Gill, planning reference 2021/92086.

The TA and TP has been prepared in support of a full planning application for a residential development of up to 275 dwellings. The development site is referred to as Bradley Villa Farm and is the first phase of development for the Kirklees Local Plan Allocation Site HS11.

The development proposals are situated on land to the north of the A6107 Bradley Road, approximately 4km north of Huddersfield and 2km south of Brighouse. M62 Junctions 24 and 25 are the closest junctions of the Strategic Road Network [SRN] to the development site (approximately 4km), hence the need for this review to assess the impact of the development proposals at the SRN.

JSJV has reviewed the information in the TA and TP in the order in which the issues are presented; and this TM comments on the suitability of the TA and TP in considering the impact of the development proposals at the SRN. For ease of cross referencing, the headings adopted below are the same as those utilised within the TA and TP, where appropriate to Highways England.

A summary and conclusions are presented at the end of this TM.

Previous Scoping Note Review

The scope of this TA was set out in a Transport Assessment Scoping Study [TASS], prepared by Optima and dated 8th October 2020. The TASS was issued to Kirklees and Calderdale Councils and Highways England and was reviewed by CH2M (Document reference AA.20.15.16 DevWY0043 TM001).

The TASS included matters relating to site access, development quantum, trip generations / distributions, future design years, committed development, traffic surveys and the extent of the highway network to be considered for the development proposals, as well as the overall Site Allocation HS11.

CH2M presented the following conclusions (with the aim for these to be resolved at TA / planning submission stage):

- In broad terms, it is considered by CH2M that the TP will have to contain aggressive modal shift targets given the quantum of development proposed, and the number of single-occupancy private vehicle trips that could be generated at full build out;
- The Scoping Note states that for robustness and to allow a little headroom as the scheme is finalised, it is proposed to test the Phase 1 development at 280 units, 10 dwellings more than the anticipated 270. Whilst this robust approach is accepted by CH2M, it is considered that the robustness is for the Phase 1 TA only and should not be carried through into subsequent TAs;
- From the trip generation figures presented within the TA, it is noted that the Phase 1 development proposals has an impact of over 30 two-way trips in the Morning and Evening Peaks, and as such, M62 Junction 25 should be included within the list of junctions assessed within the Phase 1 TA;
- Clarity on the Cooper Bridge Link Road should be provided by Optima when more certainty on the details of the scheme is known, especially as this is contained with the policy requirements for HS11 within the Kirklees Local Plan;
- Given that Bradley Wood, Thornhills and Woodhouse are being considered as a cumulative entity through masterplanning work, it is considered that all of the garden suburbs should be considered within the base traffic flows and junction assessments. Furthermore, the development proposals at Clifton Business Park – as well as the associated mitigation works – should also be considered as committed. Evidenced approval of the committed developments should be provided by both Kirklees and Calderdale Councils; and
- With regard to the assessment of the SRN, as well as operational assessment of M62 Junctions 24 and 25 it is considered that merge / diverge analysis will be required for M62 Junctions 24 and 25.

This TM has been prepared in the context of the review of the TASS, to ensure that the issues raised previously have been considered / agreed.

Transport Assessment Review

Development Proposals and Access Strategy

It is slated that the development proposals are for 275 dwellings, although it is also stated that these details are generally in line with those specified in the planning application, however the number of residential dwellings is slightly higher in the TA than compared to the planning application (270). As with the comments on the TASS, whilst this robust approach is accepted by JSJV, it is considered that the robustness should be for the Phase 1 TA only and should not be carried through into subsequent TAs.

The TA states that the public transport strategy will provide numerous attractive pedestrian links throughout the site and the existing highway corridors to ensure that the Phase 1 development proposals can access established, frequent bus services. It

is considered by JSJV that this is an appropriate approach to take with regards to site accessibility, although this will be primarily considered through the review of the TP.

With regards to the Cooper Bridge Link Road – as identified in the review of the TASS – it is stated in the TA that the Local Plan Allocation of HS11 states that “*the spine road through the site should be linked to the Bradley Relief Road that is part of TS1 LP19; and Kirklees Council will monitor the implementation of the early phases of delivery to manage the options and need for strategic intervention in advance of the 750th dwelling*”.

Furthermore, it is stated that Transport scheme TS1 in Policy LP19 of the Local Plan is referred to as “*A62 / A644 Huddersfield to M62 Junction 25*” which, alongside improvements to the A62 and the A644 corridors and junctions in the Cooper Bridge area, also includes a new Link Road that routes from the A62 Leeds Road / Bradley Road junction, along the northern edge of Bradley before turning ninety degrees in a north-easterly direction to cross the River Calder and connect with the A644 Wakefield Road to the south-east of M62 Junction 25. The TA states that the scheme is being promoted by several Local Highway Authorities including Kirklees Council as well as the West Yorkshire Combined Authority.

With regards to the funding and delivery of the Link Road, the TA states that whilst the scheme has secured public funding through the West Yorkshire Transport Fund, Kirklees Council have also been collecting private sector contributions in line with their 2007 SPD1 document ‘Negotiating Financial Contributions for Transport Improvements (Leeds Road, Huddersfield).

It is noted by JSJV that the scheme is required to be delivered in advance of the 750th dwelling, which will occur in future phases, beyond Phase 1 which is being reviewed within this TM. As such, it is considered that Highways England should keep a watching brief on the emergence of development proposals at this location, as well as liaising closely with Kirklees Council, to ensure the scheme is delivered.

Site Accessibility and Travel Behaviour

This section of the TA describes the accessibility and sustainability of the development site by non-car modes (walking, cycling, public transport), and sets out how the travel planning measures proposed will enhance accessibility and seek to minimise single occupancy trips.

Within the TA, each mode of transport has been considered in turn, and includes measures aimed to positively influence and encourage existing users and proposed residents to use those modes of transportation. Such measures are welcomed by JSJV since it is important to provide a viable alternative to the private car to encourage sustainable travel. As mentioned previously, this will be primarily considered through the review of the TP.

Trip Generation and Distribution

The TA considers the potential traffic impact on the highway network, by estimating the vehicle trip generation potential and distribution profile of the development proposals.

For robustness and to allow a little headroom as the scheme is finalised, the TA states that the development site has been tested at 280 units (stated as being five more than the anticipated 275) although the planning application was subsequently submitted for 270 dwellings. Whilst this is considered robust by JSJV, the previous point that

robustness should be for the Phase 1 TA only and should not be carried through into subsequent TAs remains.

Furthermore, it is stated that a future design year of 2029 has been adopted as that is the proposed year of completion due to the stated build out in Table 5.1 of the TA. This is noted by JSJV and is consistent with discussions regarding the TASS.

Trip Generation

The trip rates produced in this section of the TA is consistent the agreed approach undertaken within the TASS, and as such, is considered agreed. The development proposals are stated to generate 162 two-way trips in the morning peak and 153 two-way trips in the evening peak.

In addition, the full HS11 allocation has been considered in trip generation terms within the TA. Whilst this is welcomed by JSJV, the TA has been prepared to consider the impact of the development quantum allied to Phase 1.

The proportion of trips by each mode, including vehicle trips, was calculated using the 2011 Census Data for the closest and most representative Middle Layer Super Output Area [MSOA]– Kirklees 002, which includes the site. The MSOA can be seen in Image 5.1 of the TA. It is considered by JSJV that the approach to modal split is appropriate.

Trip Distribution

The TA states that a distribution exercise has been undertaken to determine the assignment of these trips onto the local and strategic road networks. The traffic distribution of the site has been assessed based on travel patterns contained within the 2011 Census data for the Kirklees 002 MSOA. The Census has been filtered in order to identify all destinations where car driver trips make up more than 1% of all journeys in order to highlight key destinations and to provide a focus for the traffic distribution calculation; and these trips have been assigned to the local highway network based on logical route choice and anticipated journey times during peak hour periods.

This approach is the same undertaken within the TASS, and as such, is considered agreed.

The diagrams presented within the TA show that 23% of arrivals / departures from the site access M62 Junction 25 and 4% of arrivals / departures from the site access M62 Junction 24. This is consistent with the agreed approach in the TASS.

These distribution figures, along with the distribution assignment in the TA are identical to those presented in the October 2020 TASS and has been reviewed by and agreed with Highways England.

Furthermore, it is stated that traffic distributions have been adjusted within the Cooper Bridge area to allow for the re-assignment effect of the committed Link Road scheme, and this is for only the full allocation, which is consistent with the approach detailed above regarding the delivery of the Link Road.

Traffic Flows and Materiality Assessment

The TA states that the previous national Guidance on Transport Assessment (GTA) document (now withdrawn) suggested that a development traffic generation of 30 two-way (*two-way added by JSJV for completeness*) trips represented a reasonable threshold figure above which further assessment may be required, but below which the impact could be considered non-material.

It is stated that consideration has been given to those junctions where development trips exceed thirty on any individual movement, as well as taking into account the likely percentage increase in traffic against background flows. As noted above by JSJV, it is 30 two-way trips which is considered the starting point for discussion as per the GTA.

Table 6.1 of the TA presents the junctions to be assessed (i.e. a materiality or capacity assessment) to consider the impact of the development proposals, and this table does not include any junctions at the SRN. Furthermore, the TA states that the list of junctions was agreed with Highways England.

However, this is not the case, as the review of the TASS, replicated at the start of this TM, stated that M62 Junction 25 should be included within the junctions to be reviewed when Phase 1 of the Site Allocation is being considered. As such, justification is required from Optima as to why this requirement has been disregarded.

Whilst it is stated in the TA that M62 Junctions 24 and 25 will be assessed for the whole Site Allocation, this is noted by JSJV but this information is considered superfluous at the stage in the process.

With regards to peak hour traffic flows, it was stated in the TASS that surveys would be undertaken in October 2020 to compare with the 2018 data that Optima had, to enable the determination of an appropriate and representative 'Covid factor' to apply to the new survey information. However, this has not been collected for M62 Junction 25, and as such, there is only 2018 data for the SRN.

Given this, justification from Optima as to their approach within the TA is required.

Committed Development Sites

The committed developments included within the assessment are consistent with scoping discussions as well as being ratified by Kirklees Council. As such, the committed developments named are accepted by JSJV.

Traffic Growth

The TA states that the traffic growth is predicted based on a combination of proposed future development, car ownership and changing attitudes to the way people use and have access to their vehicles. Background traffic growth rates for the local area surrounding the site have been determined using Temprow 7.2b for the two base years of 2029 and 2034. This approach was accepted in the review of the TASS.

It is stated that the growth rates are as follows:

- Morning Peak growth 2018 – 2029 – 8.7%;
- Evening Peak growth 2018 – 2029 – 9.0%;
- Morning Peak growth 2018 – 2034 – 13.1%; and
- Evening Peak growth 2018 – 2034 – 13.4%.

Traffic Surveys

It is stated in the TA that Manual Classified Counts have been obtained for a number of junctions on the local highway network in 2018 and 2020 between the hours of 07:00 to 10:00 and 16:00 to 19:00. As such, the traffic surveys identified the following existing weekday peak hour periods:

- Morning Peak – 08:00 to 09:00; and

- Evening Peak – 17:00 to 1800.

Whilst this is noted, it is stated previously within this TM that the SRN has not been considered within the junctions for assessment, so it is not known as to whether the peak hours identified are the network peak hours for the SRN.

The TA states that a materiality assessment of the junctions identified in Table 6.1 has been undertaken to determine which will require further, detailed capacity modelling. This assessment considers the quantum of additional Morning and Evening Peak hour development trips at each junction and the percentage change in traffic flow when comparing the Base 'without development' scenario and the Design 'with development' scenario.

This assessment within the TA identifies that M62 Junction 25 should be modelled, however, M62 Junction 25 has not been modelled within Section 7 of the TA which considers the Phase 1 development proposals.

Operational and Highway Safety Assessment

Section 8 of the TA reviews the full Site Allocation, although it is stated that this is to inform the Environmental Statement, and this includes an assessment of M62 Junction 25. However, in the spirit of expediency, JSJV has reviewed the assessment presented of M62 Junction 25.

Initially, it is not clear as to whether the improvements allied to the Clifton Business Park proposals at this location have been included within the junction modelling, and as such, clarification is required on this issue. Furthermore, clarification is required as to whether the assessment of M62 Junction 25 includes the construction and operation of the improvement scheme at Cooper Bridge, which has implications for the operation of M62 Junction 25.

The modelling of the junction presented in the TA shows minimal queuing in the 2018 and 2034 base scenarios, which is not considered by JSJV of how the junction operates at present, and does not reflect the queuing observed on the M62 southbound off-slip, which is caused by queuing on the A644 from Cooper Bridge.

When development flows are added in the 2034 scenarios, it is noted that the queue lengths and delay on all arms increases, although from the outputs presented in the TA, the junction does not operate over capacity, although due cognisance should be paid to JSJV's comments above regarding the modelling of the base scenarios.

It is stated that the impact of the proposed full HS11 allocation, in terms of highway capacity and safety, does not trigger the requirement of any mitigation at this junction. However, it was requested that M62 Junction 25 be assessed for the Phase 1 development proposals, and this has not been undertaken by Optima.

In addition, M62 Junction 25 has been assessed with regards to its merge / diverge provision, again for 2018 and 2034 scenarios, but also for a 2029 design year scenario.

Considering the information presented, it is considered by JSJV that the Northbound Merge and the Southbound Diverge require upgrading as a consequence of the 2034 assessment of the full HS11 allocation. However, it is noted that this assessment has been prepared for the Environmental Statement and more detailed modelling will be required by Optima for submission within a subsequent TA.

Highway Safety

The TA states that personal injury accident has been obtained for the highway network in the vicinity of the site for the most recently available five-year period (25th January

2016 to 24th January 2021); with the data was supplied by Leeds City Council. Assessments were carried out of the circumstances behind each collision that has occurred to ascertain whether there are any underlying contributing factors relating to junction design or layout. This approach has been previously accepted in the review of the TASS.

The TA states that having taken into account the extended study area, over a five-year period, combined with a number of causal factors and variety of locations, there are no specific accident concerns or that the proposed development will exacerbate the existing situation. Having reviewed the information provided, JSJV concurs with this assessment.

Travel Plan Review

The TP will mainly be a matter for Kirklees Council to comment upon in more detail, given they will be responsible for monitoring its effectiveness. As such, JSJV has undertaken a high-level review of the TP to broadly ensure that it is fit for purpose.

Objectives and Targets

It is stated that the overall objectives of the TP for the development are:

- Promoting walking, cycling and public transport as the primary modes of travel;
- To deliver mode shift from car journeys to alternative modes including multi-occupancy vehicle trips;
- To reduce vehicle emissions through the take up of alternative transport modes; and
- To deliver education and promotion of walking and cycling as options for a healthier lifestyle.

These are considered by JSJV to be appropriate.

Furthermore, it is stated that overarching targets are to be set once baseline travel surveys have been carried out; and these will need to be 'SMART' i.e. they must be:

- Site-specific;
- Measurable;
- Achievable;
- Realistic; and
- Time related.

Again, this is considered by JSJV to be appropriate.

With regards to targets, the TP proposes the following targets, and these are to be met within two years from first occupation:

- 5% reduction in 68.8% driving a car without any passengers = 63.8%;
- 100% increase in cycling trips = 1.6%; and
- For any school trips, the target is for a maximum of 20% of school children to be taken to school by car where that is the sole purpose of the journey.

In addition, it is stated that whilst these are initial targets, a further target of reducing single occupancy car trips to and from the development by 10% will be aimed for within five years of first occupation.

It is stated in the TP that these targets will be reviewed, expanded and confirmed within three months following the initial travel survey; and these or other targets set shall not be omitted or changed by the Travel Plan Coordinator [TPC] without prior consultation with Kirklees Council.

Roles and Responsibilities

The TP states that Redrow Homes (Yorkshire) Ltd will appoint a TPC prior to first occupation of the development; and once appointed the TPC will inform Kirklees Council of the date that this work commenced and provide a contact name and details. The duties of the TPC will include:

- Implementation of the TP;
- Acting as a single point of contact across the development for all transport, access and travel related issues;
- Liaising with any other TPCs across the wider development;
- Obtaining and providing residents / visitors with up to date details of information relating to access to the site via sustainable modes; and
- Liaison with Kirklees Council, West Yorkshire Combined Authority and other key stakeholders such as Highways England.

The identified roles and responsibilities for the TPC are considered appropriate by JSJV.

Monitoring and Review

It is stated that a critical element of the information gathering exercise for the TP is to carry out a questionnaire survey of residents; as this will provide details of individual circumstances, travel patterns and preferences etc.

The TP states that a travel survey of all residents will take place within 12 months of first occupation; with the results of the survey will be provided to Kirklees Council within three months of the survey taking place and will be compared against the interim targets.

Furthermore, it is stated that the TP will be monitored on an annual basis, which will include a full survey of all residents. Within three months of the annual review the TPC shall agree the following Travel Plan items with Kirklees Council:

- Any revised site-specific measures to reduce the numbers of car-borne trips; and
- Any revisions to the modal split targets for the residents as a result of carrying out the surveys.

The annual monitoring report will also review the progress that has been achieved in implementing measures against the modal shift targets over the preceding 12-month period; and any progress made will be reported by the TPC to the relevant external organisations including Kirklees Council, and public transport operators where appropriate.

It is considered by JSJV that this is an appropriate approach to take.

In addition, it is stated that following the completion of the annual monitoring report, the TP will be reviewed as appropriate and any further actions/measures will be identified and implemented to progress and, if necessary, improve the TP to meet objectives and targets. This review should be undertaken in consultation with Kirklees

Council and any other relevant stakeholders. Potential secondary measures / actions could include the following for which the TPC would be responsible:

- Re-promote the Residential Metrocard scheme and target households that have not taken up the offer;
- Arrange for a local cycle store to provide a troubleshooting/maintenance day. Promotion of this through marketing would be coordinated by the TPC;
- Seek to arrange a discount for residents at a local cycle store. Promotion of this through marketing would be coordinated by the TPC; or
- Seek to arrange a discount for residents at a local running / sportswear store to try and increase the number of people walking / running.

In overall terms, it is considered that the TP is acceptable, however, as mentioned previously, it will mainly be a matter for Kirklees Council to comment upon in more detail, given they will be responsible for monitoring its effectiveness.

Summary and Conclusions

This Technical Memorandum was prepared by JSJV on behalf of Highways England and provides a response to the Transport Assessment and Travel Plan submitted by Optima, on behalf of Redrow Homes (Yorkshire) Ltd, R Kershaw and S Gill, planning reference 2021/92086.

The TA and TP has been prepared in support of a full planning application for a residential development of up to 275 dwellings. The development site is referred to as Bradley Villa Farm and is the first phase of development for the Kirklees Local Plan Allocation Site HS11.

The development proposals are situated on land to the north of the A6107 Bradley Road, approximately 4km north of Huddersfield and 2km south of Brighouse. M62 Junctions 24 and 25 are the closest junctions of the Strategic Road Network to the development site (approximately 4km), hence the need for this review to assess the impact of the development proposals at the SRN.

JSJV has reviewed the information in the TA and TP in the order in which the issues are presented; and this TM comments on the suitability of the TA and TP in considering the impact of the development proposals at the SRN, paying due cognisance to the previous review of the Transport Assessment Scoping Study undertaken in October 2020.

On the basis of this review, the recommendation to Highways England in relation to this development proposals is:

Holding Recommendation – further information required (as identified below)

This review has highlighted the following deficiencies as follows:

- 1) Table 6.1 of the TA presents the junctions to be assessed (i.e. a materiality or capacity assessment) to consider the impact of the development proposals, this table does not include any junctions at the SRN, and it is stated that the list of junctions was agreed with Highways England. However, this is not the case, as the review of the TASS, stated that M62 Junction 25 should be included within the junctions to be reviewed when Phase 1 of the Site Allocation is being considered. As such, justification is required from Optima as to why this requirement has been disregarded;

- 2) With regards to peak hour traffic flows, it was stated in the TASS that surveys would be undertaken in October 2020 to compare with the 2018 data that Optima had, to enable the determination of an appropriate and representative 'Covid factor' to apply to the new survey information. However, this has not been collected for M62 Junction 25, and as such, there is only 2018 data for the SRN. Given this, justification from Optima as to their approach within the TA is required;
- 3) It is not known as to whether the peak hours identified within the TA are the network peak hours for the SRN;
- 4) The assessment within the TA identifies that M62 Junction 25 should be modelled, however, M62 Junction 25 has not been modelled within Section 7 of the TA which considers the modelling of the Phase 1 development proposals;
- 5) With regards to the modelling of M62 Junction 25 for the purposes of the Environmental Statement, it is not clear as to whether the improvements allied to the Clifton Business Park proposals at this location have been included within the junction modelling, and as such, clarification is required on this issue. Furthermore, clarification is required as to whether the assessment of M62 Junction 25 includes the improvement scheme at Cooper Bridge, which has implications for the operation of M62 Junction 25;
- 6) The modelling of the junction presented in the TA shows minimal queuing in the 2018 and 2034 base scenarios, which is not considered by JSJV of how the junction operates at present, and does not reflect the queuing observed on the M62 southbound off-slip, which is caused by queuing on the A644 from Cooper Bridge;
- 7) It is stated that the impact of the proposed full HS11 allocation, in terms of highway capacity and safety, does not trigger the requirement of any mitigation at this junction. However, it was requested that M62 Junction 25 be assessed for the Phase 1 development proposals, and this has not been undertaken by Optima;
- 8) Considering the information presented with regards to the assessment of the merge / diverge provision, it is considered by JSJV that the Northbound Merge and the Southbound Diverge require upgrading as a consequence of the 2034 assessment of the full HS11 allocation;
- 9) Finally, clarification is required to why M62 Junction 24 has not been included within the modelling in advance of the Environmental Statement being prepared, as stated previously within the TA; and
- 10) In overall terms, it is considered that the TP is acceptable, however, as mentioned previously, it will mainly be a matter for Kirklees Council to comment upon in more detail, given they will be responsible for monitoring its effectiveness.