Appendix A – Summary of Pre-Application Highways Scoping Discussions

Pell Frischmann TA and FTP Scoping Note July 2019

Pell Frischmann		Project No. A13398/VAA
		Version No. V3, Final 1
TECHNICAL NOTE	Project Land at Chidswell, Dewsbury	Date 25/07/2019
Subject Transport Assessment (TA) and Framework Travel Plan (FTP) Scoping Note: July 2019		By Chkd PF London S Evans

1 INTRODUCTION

1.1 Pell Frischmann is commissioned by the Church Commissioners for England (the 'Commissioners' and the 'Applicant') to provide transport planning and highways consultancy services in connection with emerging masterplan proposals for a strategic residential-led development on the Commissioners' strategic landholding at Chidswell, Dewsbury (the 'Site').

1.2 The Local Planning and Highways Authority is Kirklees Council (KC) and the Highways Authority for the Strategic Road Network (SRN), including the nearby M1 and M62 Motorways, is Highways England (HE).

1.3 The Commissioners' site is allocated within the KC Local Plan, that was the subject of an Examination in Public (EIP) by a Government-appointed Inspector in February 2018 and was adopted in February 2019. By way of reference, the Commissioners' site is referred as 'Land East of 932-1110 Leeds Road, Shawcross/Woodkirk, Dewsbury' (KC Local Plan site allocation reference MXS7). An *Interim Transport Assessment* (ITA) was prepared in August 2016, together with various other supplementary information, to inform KC Highways officers and the Government-appointed Inspector of the potential transport and highways impacts of a strategic masterplan development at the site. Further reference is made to this August 2016 ITA within this Scoping Note.

1.4 The Site is split into two development parcels, referred to as 'Site A' and 'Site B'. It is proposed that each of Site A and Site B are the subject of separate outline planning applications, that will be submitted to KC in parallel. This Scoping Note has been prepared to set out the proposed scope and general content of a Transport Assessment (TA) and Framework Travel Plan (FTP) that it is expected will be required to accompany each outline planning application; the TA and FTP will each assess the cumulative impacts of the proposed development of both Site A and B as a whole and each will be submitted twice, once with each planning application.

1.5 The proposed development is for up to 1,535 residential units (C3 Use Class) shared across Site A (181 units) and Site B (1,354 units), together with up to 35 hectares (ha) of employment land within Site B. Site B will also include a new local centre / community hub and a new primary school. The employment Gross Floor Area (GFA) and split between respective employment Use Classes resulting from the 35 ha of developable land is to be confirmed and will be set out in the TA.

1.6 A previous version of this Scoping Note (October 2018) was reviewed and commented upon by Highways Officers at KC (and others). In addition, a number of meetings with KC and its transport consultants and a meeting with Highways England (HE) dated 20 June 2019 have taken place in the interim. This updated Scoping Note reflects the emerging nature of the site proposals and those previously agreed comments and actions from KC. Agreement is now sought from HE (and others) to the revised scope of the TA and FTP as set out within this Scoping Note. This updated Scoping Note is provided to KC officers, for information, and reflects the outcome of discussions with KC officers to-date.

1.7 Pell Frischmann, on behalf of the Commissioners, would welcome the opportunity to discuss the content of this Scoping Note and the proposed scope of the assessment with KC Highways and HE Officers at the earliest opportunity, should such discussions be required.

2 SITE LOCATION AND DESCRIPTION

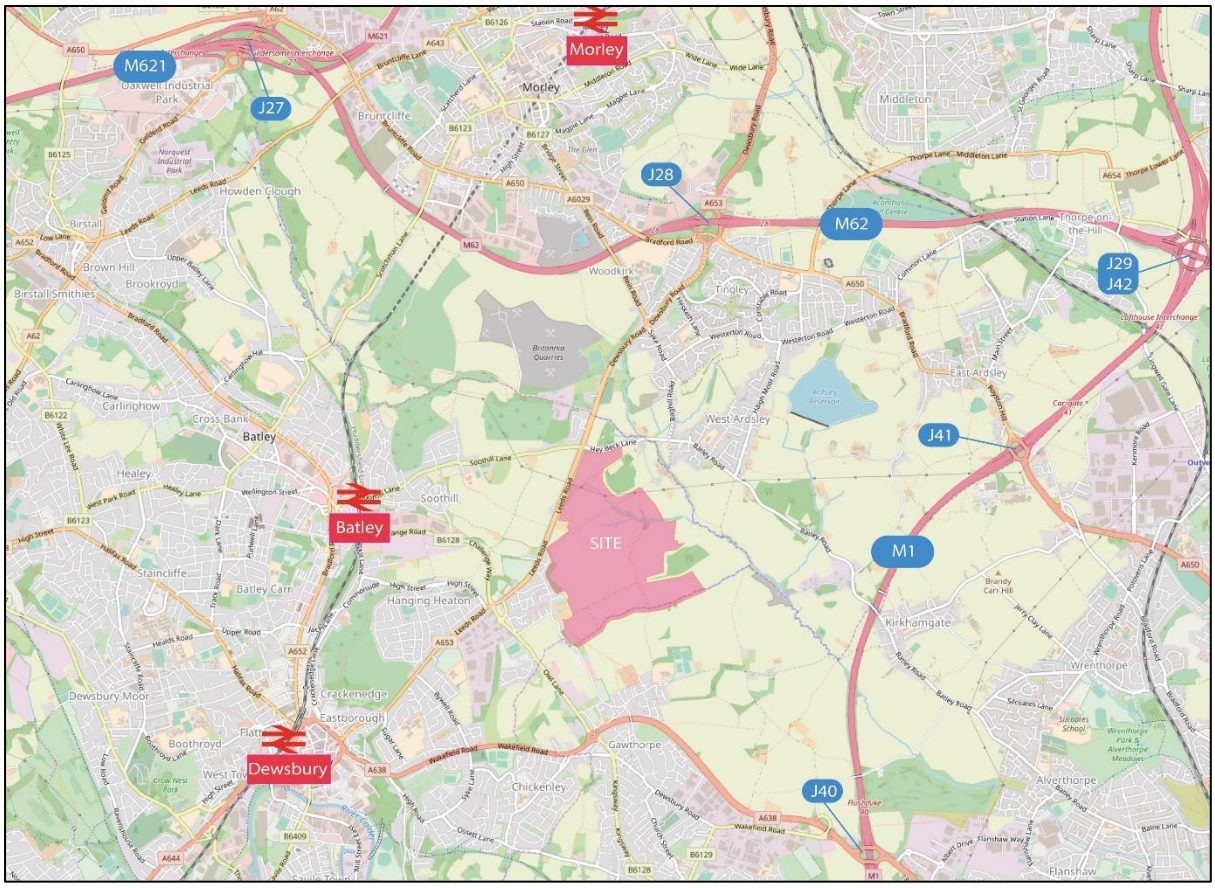
2.1 The proposed development is situated to the east of the A653 Leeds Road which is a strategic corridor between Dewsbury to the south and Leeds to the north. In the immediate vicinity of the Site, the A653 Leeds Road runs in a north-south direction connecting the A638 Wakefield Road to the south and Junction 28 (the Tingley Interchange) of the M62 Motorway to the north. In addition, the A638 Wakefield Road links with Junction 40 (the Flushdyke Interchange) of the M1 Motorway to the east of the Site.

2.2 The Site extends to Heybeck Lane to the north and Chidswell Lane to the south. Chidswell Lane provides access onto Leeds Road to the south-west of the Site and to the B6128 Owl Lane, via Windsor Road, to the south. Owl Lane in turn connects to the A638 Wakefield Road to the east, which connects to the M1 Junction 40, and heads towards Ossett to the west.

2.3 The land to the east of the Site, some of which is also within the ownership of the Commissioners, is predominantly in agricultural use.

2.4 A strategic Site location plan, showing the location of the Site in relation to the wider area, surrounding local and strategic highway networks and key public transport interchanges, is provided in **Figure 2.1**.

Figure 2.1: Site Location Plan[1]



[1] Source: OpenStreetMap (http://www.openstreetmap.org), © OpenStreetMap contributors (http://www.openstreetmap.org/copyright), October 2018; with Pell Frischmann annotation.

3 EXISTING TRANSPORT CONDITIONS

LOCAL HIGHWAY NETWORK AND STRATEGIC TRANSPORT CORRIDORS

3.1 The A653 Leeds Road is a two-lane dual carriageway providing access between Leeds and the M62 Junction 28 (Tingley Interchange) to the north and the town of Dewsbury to the south. It is a local 'A' road owned and managed, within the vicinity of the site, by KC as the Local Highway Authority. The Site is fronted by residential properties and also has a number of small farm accesses, including access to Lees House Farm which is adjacent to the proposed masterplan development Site.

3.2 To the south of the Site, Leeds Road becomes a single carriageway road with a single lane of traffic in each direction. It continues to be fronted by residential properties, although various local shops and facilities are provided between the Site and Dewsbury town centre. As Leeds Road enters Dewsbury town centre, it meets the Dewsbury Ring Road which is a dual carriageway with limited active frontage.

3.3 The B6128 Owl Lane is a single carriageway road with a single lane of traffic in each direction. It connects the A653 Leeds Road with the A638 Wakefield Road. The junction of Leeds Road and Owl Lane is a signalised crossroads.

3.4 The West Yorkshire Combined Authority (WYCA) *West Yorkshire Transport Strategy 2040 (2017)* as well as the KC *Local Plan (LP; 2019)* identify strategic transport corridors. These corridors, which include road and rail routes, connect Leeds to the north with Bradford, Wakefield, Halifax and the main towns within Kirklees District, including Dewsbury and Huddersfield, with the Highways England (HE) Strategic Road Network (SRN).

3.5 The site is situated within the Leeds – North Kirklees – Huddersfield – Manchester transport corridor, which is identified as the main strategic corridor in Kirklees District as it links the major towns with the adjoining regional centres. This corridor comprises several transport routes within Kirklees including strategic roads and the TransPennine Railway. The proposals for development in the KC LP have as far as possible been linked with this main corridor, both to take advantage of the highest quality transport links in the District and to ensure new developments are well connected and sustainable. The site is also situated within the West Yorkshire Combined Authority (WYCA) 'Cross-Pennine' transport corridor which will be the subject of various road improvements.

3.6 The Site is therefore considered to be very well connected to the local, regional and strategic road networks.

PUBLIC TRANSPORT SERVICES AND FACILITIES

Local Bus Services

3.7 The Site is well connected by the local bus network, being served by a large number of existing bus routes providing convenient key links to major employment areas and town centres elsewhere in the Kirklees District and beyond. There are various existing bus stops located in close proximity to the proposed masterplan development Site, including at the northern, western and southern edges of the Site, with bus stops situated along the A653 Leeds Road, Heybeck Lane and Chidswell Lane respectively.

3.8 The northern part of the Site is served by local bus routes 117, 205, 212 and 212A in both directions along Heybeck Lane. Routes 117 and 217 connect Wakefield with Leeds via Chidswell; route 205 connects Dewsbury with Pudsey; and routes 212/212A connect Wakefield with Batley, to the west, providing a direct bus service between the proposed masterplan development Site and Batley Rail Station. These routes generally all operate 1 bus per hour on weekday daytimes, and a lower frequency of service in the evenings and at weekends.

3.9 The Site's western edge, along Leeds Road, has three bus stops. These are served by routes 117, 202, 203, 205 and 217; routes 202 and 203 run from Huddersfield to Leeds via Dewsbury, all major nearby employment centres. All routes are generally of low frequency at 1 bus per

hour on weekday daytimes, with the exceptions of the 202/203 service which operates four buses per hour, or route 2017 which operates on weekday peaks only.

3.10 The Site's southern edge is also served by route 205 and additionally routes 119, 120 and ML2. Route ML2 connects Chidswell with Dewsbury town centre by five buses a day (Monday to Saturday), once an hour between 10:00 and 14:00 hours, offering a 'hail-and-ride' service for most of the route. Routes 119 and 120 link Wakefield to Batley via Chidswell.

Mainline Rail Services

3.11 There are two mainline railway stations located within relatively close proximity to the Site. Batley Railway Station is located approximately 2.5km to the west and Dewsbury Railway Station is located approximately 3.5km to the south-west. Services are provided by Northern Rail and TransPennine Express and operate a total of four trains per hour each way in the weekday off-peak.

3.12 The Site is within the Leeds Metro Rail Zonal fare system with the border of Zones 2 and 3 being between Batley and Dewsbury Stations.

3.13 Both stations can be accessed via existing bus routes and bus stops are provided close to both stations. Dewsbury Station also has a dedicated public transport interchange facility located directly outside the station.

WALKING AND CYCLING NETWORKS AND FACILITIES

Walking

3.14 According to the Department for Transport (DfT), walking is considered to be the most important mode of travel at the local level with the greatest potential to replace short car trips, particularly under 2 kilometres. Additionally, the Chartered Institution of Highways & Transportation (CIHT) Guidance 'Planning for Walking' also states that, *"Across Britain about 80 per cent of journeys shorter than 1 mile are made wholly on foot"*. This would indicate that a large percentage of the trips within the Site itself and within a 1 mile radius of the Site would be made on foot.

3.15 The majority of roads surrounding the Site, including Leeds Road, Heybeck Lane, Chidswell Lane and Windsor Road, have footways provided on both sides of the carriageway to facilitate pedestrian movement.

3.16 Along the A653 Leeds Road, good-quality footways are provided on both sides of the carriageway. Pedestrian crossing facilities are also provided at various junctions, providing pedestrian connectivity. Leeds Road is well lit and is considered safe for pedestrians.

3.17 Heybeck Lane also provides good quality wide footways on both sides of the carriageway. It is also well lit making this a safe walking environment for pedestrians.

3.18 Chidswell Lane provides footways on both sides of the carriageway, which are also well lit.

Cycling

3.19 According to the DfT, cycling has the potential to replace short car trips, particularly those under 5km. The 5km cycling catchment from the Site includes Dewsbury, Batley, Morley, East Ardsley, Ossett and parts of Wakefield.

3.20 Cycling provision is available in the local area with cycle lanes being provided on Leeds Road adjacent to the Site. In addition, towns such as Wakefield, Horbury, Morley and Middleton can all be reached by bicycle within 30 minutes via existing cycle routes and Public Rights of Way (PROWs).

3.21 The Site is connected to various destinations via several National Cycle Network (NCN) routes. NCN route 69 connects Dewsbury with Ravensthorpe and, in turn via NCN route 66, with Huddersfield and Bradford. NCN route 69 also connects Dewsbury with Ossett and, in turn via NBCN route 699, to the 'Wakefield Wheel'.

3.22 To the north of the Site, there are several local traffic-free cycle routes that link Tingley to Beeston and Middleton to Leeds city centre.

4 POLICY CONSIDERATIONS

THE GOVERNMENT'S *NATIONAL PLANNING POLICY FRAMEWORK* (NPPF) (JULY 2018)

4.1 The Government's *National Planning Policy Framework* (NPPF) sets out the planning policies for England and how these should be applied and was adopted in July 2018. The new NPPF replaces the previous edition of the NPPF, which itself replaced the majority of previous Planning Policy Statement (PPS) and Planning Policy Guidance Note (PPG) documents on 27 March 2012.

4.2 It is meant as high-level guidance for local councils to use when defining their own personal local and neighbourhood plans. This approach allows the planning system to be customised to reflect the needs and priorities of individual communities.

4.3 At the heart of the NPPF is a presumption in favour of sustainable development, and the NPPF notes that, *"the purpose of the planning system is to contribute to the achievement of sustainable development"*. At a very high level, the objective of sustainable development can be summarised as*, "meeting the needs of the present without compromising the ability of future generations to meet their own needs"*.

4.4 The NPPF defines the delivery of sustainable development through three roles:

- *an economic objective;*
- *a social objective; and*
- *an environmental objective.*

4.5 Chapter 9 of the NPPF relates to the promotion of sustainable development. Paragraph 102 states that:

"Transport issues should be considered from the earliest stages of plan-making and development proposals, so that:

- *the potential impacts of development on transport networks can be addressed;*
- *opportunities from existing or proposed transport infrastructure, and changing transport technology and usage, are realised – for example in relation to the scale, location or density of development that can be accommodated;*
- *opportunities to promote walking, cycling and public transport use are identified and pursued;*
- *the environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains; and*
- *patterns of movement, streets, parking and other transport considerations are integral to the design of schemes and contribute to making high quality places."*

4.6 Paragraph 108 states that:

"In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

- *appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*
- *safe and suitable access to the site can be achieved for all users; and*
- *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree."*

4.7 Paragraph 109 notes that, *"development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe"*.

4.8 Within this context, Paragraph 110 notes that, *"applications for development should:*

- *give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*
- *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*
- *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*
- *allow for the efficient delivery of goods, and access by service and emergency vehicles; and*
- *be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."*

5 DEVELOPMENT PROPOSALS

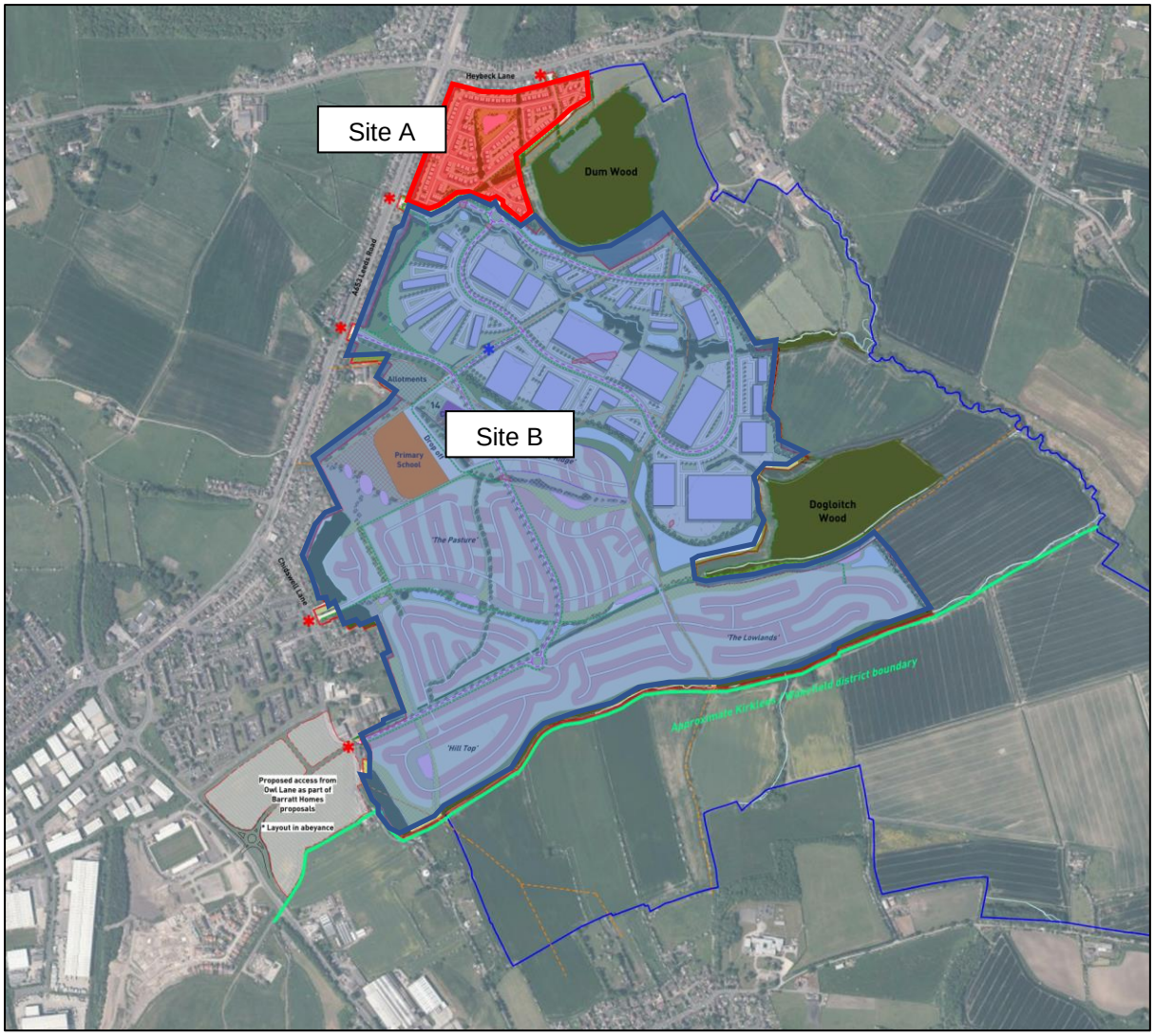
MASTERPLAN PROPOSALS

5.1 This Scoping Note relates to the proposals for the development of the Site to provide the following:

- Up to approximately 181 residential units within Site A; and
- Up to approximately 1,354 residential units, various employment uses within approximately 35 ha of employment land, a new local centre / community hub and a new primary school within Site B.

5.2 An initial concept design prepared on behalf of the Commissioners by Enjoy Design, the project masterplanner, is provided in **Figure 5.1**.

Figure 5.1: Emerging Concept Masterplan and Development Sites[2]



ACCESS AND EGRESS ARRANGEMENTS

5.3 Vehicular access and egress into and out of Site A is proposed in the form of a priority T-junction on Heybeck Lane, whilst vehicular access and egress in and out of Site B is proposed in the form of two signal-controlled junctions on Leeds Road, a priority T-junction on Chidswell Lane, and a four-arm roundabout on Owl Lane with a new access road running parallel to Windsor

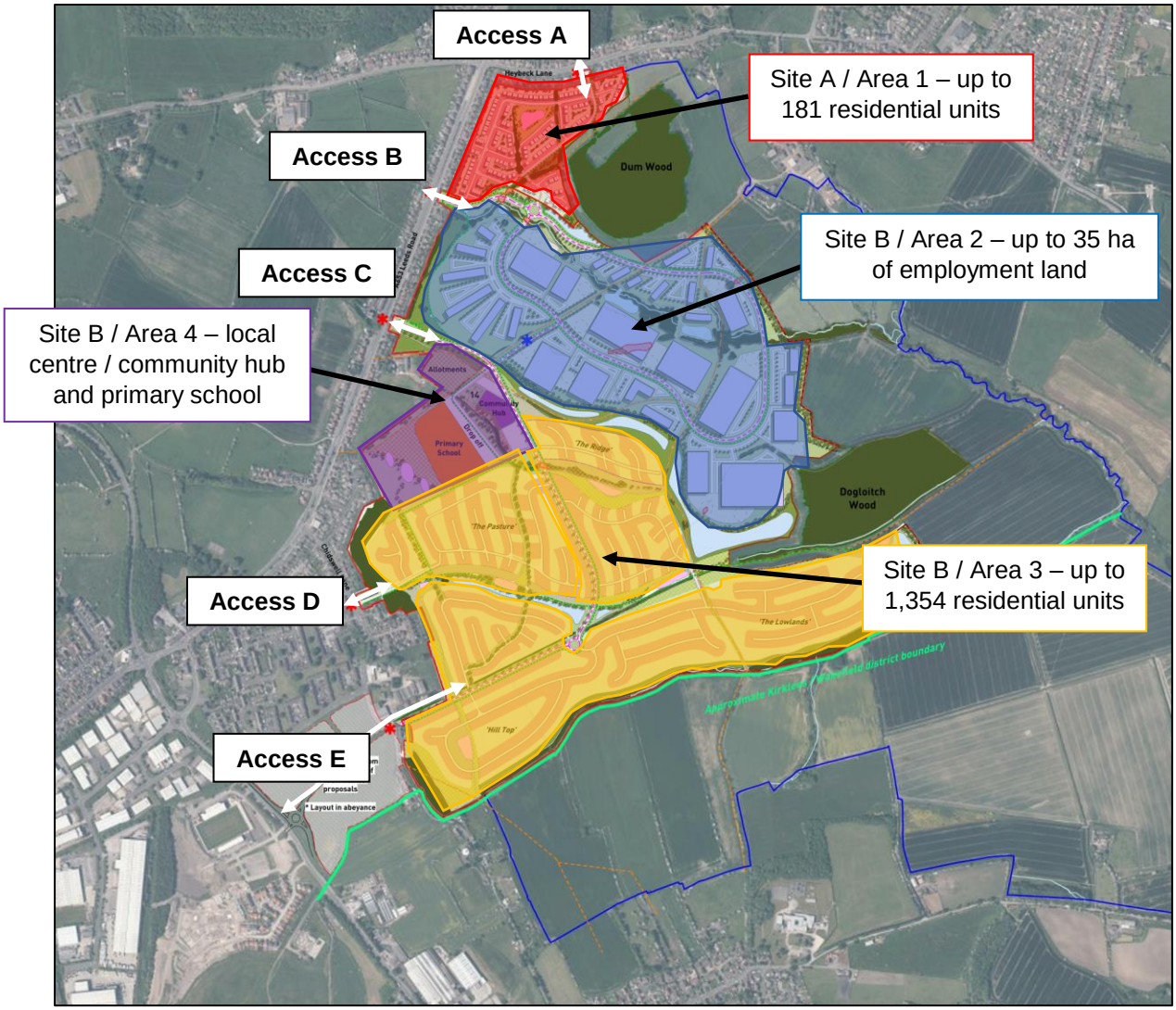
[2] Source: Enjoy Design 'Chidswell Masterplan, Proposed Plots, job/drawing no. 18,006/00-001, 25 June 2018; with Pell Frischmann annotations.

Road between Owl Lane and the southern edge of the Site. This access road would route across an adjacent landholding under the control of Barratt David Wilson Homes to the south-west of the Site; this Site is also contained within the KC Local Plan (site allocation reference HS47, 'Land to the East of Leeds Road, Chidswell'). It is noted that the five points of access and egress to and from the Site have been previously discussed and agreed in principle with KC Highways Officers, subject to detailed design and applicable Road Safety Audits (RSAs).

5.4 It is proposed that Site A and Site B are connected via an emergency vehicle link and pedestrian/cycle link. It is proposed that this emergency vehicle link is controlled and/or gated to prevent everyday use by general traffic.

5.5 As noted above, it is proposed that Site A will accommodate up to approximately 181 residential units, whilst Site B will accommodate up to approximately 1,354 residential units, various employment uses, a new local centre / community hub and a new primary school. Site B is therefore subdivided further into various smaller development parcels or, for the purposes of this Scoping Note, Site 'Areas'. These, together with the proposed points of access and egress across the site as a whole, are illustrated in **Figure 5.2**.

Figure 5.2: Emerging Concept Masterplan and Indicative Development Parcels / Site Areas[3]



5.6 As illustrated in **Figure 5.2**, the four main areas of the Site in transport terms and respective points of vehicular access and egress are as follows:

[3] Source: Enjoy Design 'Chidswell Masterplan, Proposed Plots, job/drawing no. 18,006/00-001, 25 June 2018; with Pell Frischmann annotations.

- **Area 1 (residential 'Site A')** – Up to approximately 181 residential units accessed via Site Access A (Heybeck Lane).
- **Area 2 (employment part of 'Site B')** – Up to 35 ha of employment land primarily accessed via Site Access B (Leeds Road (North)) but with an internal connection through to Area 3 (residential) and Area 4 (local centre) providing non-HGV access via Site Access C (Leeds Road (South)) and Site Access E (Owl Lane).
- **Area 3 (residential part of 'Site B')** – Up to approximately 1,354 residential units accessed via Site Access C (Leeds Road (South)) and Site Access E (Owl Lane) but with an internal connection through to Area 2 (employment) providing secondary access via Site Access B (Leeds Road (North)). Local access via Site Access D (Chidswell Lane) will also be possible.
- **Area 4 (local centre / community hub part of 'Site B')** – Local centre / community hub accessed via Site Access C (Leeds Road (South) and Site Access E (Owl Lane) but with an internal connection through to Area 2 (employment) providing secondary access via Site Access B (Leeds Road (North)).

5.7 As noted above, it is proposed that Site A and Site B are connected via an emergency vehicle link and a pedestrian/cycle link. It is proposed that this emergency vehicle link is controlled and/or gated to prevent everyday use by general traffic.

5.8 With regards to Site B, as noted, as a whole it will be accessed via four points of access: two on Leeds Road, one on Chidswell Lane and one on Owl Lane via the adjacent landholding under the control of Barratt David Wilson Homes (KC Local Plan site allocation reference HS47 'Land to the East of Leeds Road, Chidswell').

5.9 As discussed below within this Scoping Note, it is expected that the employment land will attract and generate both HGV and non-HGV vehicle traffic. As such, it is proposed that HGV traffic associated with the employment land is restricted to using Site Access B (Leeds Road (North)), whilst non-HGV employment traffic will be able to use Site Access B, Site Access C (Leeds Road (South)) and Site Access E (Owl Lane) to reduce the potential impact of the proposed development on local junctions to the south-west of the site. Similarly, residential traffic associated with Area 3 (up to 1,354 residential units) will be able to use Site Access B, Site Access C and Site Access E.

6 TRIP GENERATION AND MODE SPLIT

OVERVIEW

6.1 As part of the August 2016 *Interim Transport Assessment* (ITA) that was prepared in the context of the masterplan Site's inclusion within the KC Local Plan, an initial multi-modal trip generation assessment was carried out. The purpose of this was to assess and quantify the potential impact of the proposed development in terms of the number of trips, by mode, and including vehicle-based trips that could be expected to be generated by the proposed development.

6.2 As set out in the ITA, trip rates were derived from the industry-standard TRICS trip rate database. The trip generation approach and methodology, including trip rates, were reviewed by KC Highways Officers and confirmed as being appropriate for the proposed development.

6.3 As those trip rates were calculated in 2016 (TRICS v7.3.1), an exercise was undertaken in this scoping revision (June 2019) to recompute the development trip rates using the same methodology but the current version (v7.6.1, 2019) of TRICS. The result was a reduction in equivalent trip rates of approximately 15-20%. To ensure a robust test case for future trip rate calculations, the (higher) and previously agreed ITA trip rates are therefore proposed to be retained for the TA for the emerging masterplan proposals outline planning applications. A summary of the retained trip generation approach and methodology is set out below.

TRIP GENERATION APPROACH AND METHODOLOGY

6.4 Person trip rates from the TRICS database were derived from selected survey sites identified as sharing characteristics similar to the emerging masterplan proposals, based on a number of criteria. The site selection process was carried out in accordance with the TRICS *Good Practice Guide* (2012).

6.5 For the purpose of the trip generation assessment, the proposed development Site was identified as being within a 'Neighbourhood Centre'. In accordance with the 2012 TRICS *Good Practice Guide*, only survey sites that are categorised as being located within a 'Neighbourhood Centre', 'Edge of Town' or 'Suburban Area' were therefore included in the site selection process. Sites in town centres and edge of town centres were excluded. Sites in Greater London and Ireland were also excluded. Site selection therefore focussed on the North, North West, Yorkshire, Midlands and East Anglia regions within TRICS. Sites in the South West, Wales, Scotland and the South East were only considered where a lack of comparable sites from the other regions was evident.

6.6 With regards to the data range, in accordance with the 2012 TRICS *Good Practice Guide* and with the purpose of using only up-to-date surveys, a cut-off-date of 1st January 2005 was initially applied to exclude any surveys that were considered too old. However, following an initial review and following receipt of feedback from KC Highways Officers, additional surveys were subsequently considered for between 2000 and 2005. This was to ensure that an adequate range of sites was considered.

Residential – C3 Residential Dwellings

6.7 It is expected that the proposed residential units at the site will comprise a mix of privately owned (market) and affordable dwellings and, for the purpose of the TA, it is proposed that 80% will assume to be privately owned and 20% will be in affordable ownership. Trip rates for both 'Privately Owned Houses' and 'Affordable / Local Authority Houses' will therefore be considered to ensure the distinct trip generation characteristics of the two types of dwelling are reflected in the assessment. On this basis, a total of 19 sites were identified within the TRICS database. Residential trip rates generated from the above methodology are summarised in **Table 6.1**.

Employment – B1(a) Business (Office), B1(c) Business (Light Industry), B2 General Industry and B8 Storage or Distribution

6.8 It is expected that the proposed employment uses at the site will comprise a mix of 'B1(a) Business (Office)', 'B1(c) Business (Light Industry)', 'B2 General Industry' and 'B8 Storage or

Distribution' Use Classes. The site selection for each Use Class is derived from the following land use categories contained within the TRICS database:

- **B1(a) Business (Office)** – '02 Employment – (B) Business Park';
- **B1(c) Business (Light Industry)** – '02 Employment – (D) Industrial Estate';
- **B2 General Industry** – '02 Employment – (D) Industrial Estate'; and
- **B8 Storage or Distribution** – '02 Employment – (F) Warehousing (Commercial)'.

6.9 The previously agreed total person trip rates, which it is proposed are retained and used for the TA, are set out in **Table 6.1**.

Table 6.1: TRICS Total Person Trip Rates (Trips per Dwelling or 100m² GFA)[4]

Land Use	Time Period	Arrivals	Departures	Total Two-Way
Residential Dwellings (Private) (C3 Use Class) (trips per dwelling)	08:00 – 09:00	0.233	0.818	1.051
	17:00 – 18:00	0.605	0.390	0.995
	Daily (07:00-19:00)	**4.185**	**4.445**	**8.630**
Residential Dwellings (Affordable) (C3 Use Class) (trips per dwelling)	08:00 – 09:00	0.211	0.669	0.880
	17:00 – 18:00	0.477	0.373	0.850
	Daily (07:00-19:00)	**3.472**	**3.607**	**7.079**
Business (Office) (B1(a) Use Class) (trips per 100m² GFA)	08:00 – 09:00	1.970	0.268	2.238
	17:00 – 18:00	0.218	1.627	1.845
	Daily (07:00-19:00)	**7.148**	**7.022**	**14.170**
Business (Light Industry) (B1(c) Use Class) and General Industry (B2 Use Class) (trips per 100m² GFA)	08:00 – 09:00	0.537	0.277	0.814
	17:00 – 18:00	0.170	0.486	0.656
	Daily (07:00-19:00)	**3.976**	**4.036**	**8.012**
Storage or Distribution (B8 Use Class) (trips per 100m² GFA)	08:00 – 09:00	0.045	0.022	0.067
	17:00 – 18:00	0.020	0.050	0.070
	Daily (07:00-19:00)	**1.402**	**0.962**	**2.364**

TOTAL PERSON TRIPS

6.10 The total person trip rates identified in **Table 6.1** will be used to derive the total number of person trips expected to be generated by the emerging masterplan proposals at the site. The resultant two-way person trips for the residential element of the emerging masterplan are presented in **Table 6.2**.

6.11 As the split between employment Use Classes is not yet fixed, a similar table presenting two-way person trips for the employment element is not yet provided, although it will be provided within the TA.

6.12 At present, the following quantum of development have been assumed:

[4] Derived from TRICS v7.6.1, June 2019; Note: Arithmetic errors due to rounding.

- Up to 1,535 residential units (C3 Use Class) with 80% privately owned (market) units and 20% affordable units; and
- Up to 120,450 square metres (m^2) GFA representing up to 35 ha of employment land, split between B1(a) Business (Office), B1(c) Light Industry, B2 General Industry and B8 Storage or Distribution

6.13 It is noted that the above Use Class splits and consequent GFA relating to the proposals are indicative, as the masterplan continues to emerge at time of writing. Numerical values presented herein are therefore is subject to further change and refinement. Any changes will be reflected in the TA.

Table 6.2: TRICS Total Residential Two-Way Person Trips[5]

Residential Trips	Time Period	Arrivals	Departures	Total Two-Way
Residential (Private) (C3 Use Class) 1,228 dwellings	08:00 – 09:00	286	1,005	1,291
	17:00 – 18:00	743	479	1,222
	Daily (07:00-19:00)	**5,139**	**5,458**	**10,598**
Residential (Affordable) (C3 Use Class) 307 dwellings	08:00 – 09:00	65	205	270
	17:00 – 18:00	146	115	261
	Daily (07:00-19:00)	**1,066**	**1,107**	**2,173**
	17:00 – 18:00	6	15	21
	Daily (07:00-19:00)	**414**	**284**	**698**

MODE SPLIT

6.14 Following the outcomes of the total person trip generation for each proposed land use, the trips will be subdivided into modes. In accordance with the approach and methodology as set out within the August 2016 ITA, it is proposed that this will be based on ONS 2011 Census data for the local area.

Residential – C3 Residential Dwellings

6.15 In accordance with the approach set out and agreed in the August 2016 ITA, the mode split for the residential land use will be derived from ONS 2011 Census data for the Dewsbury East ward (reference no. E05001398), which is considered to be the ward most representative of the site's residential travel characteristics upon first occupation. The Dewsbury East ward existing mode proposed residential mode split for the site are set out in **Table 6.3**.

Table 6.3: ONS 2011 Census Residential Mode Split (%)[6]

Mode	Dewsbury East Ward (%)
Driving a Car or Van	65
Passenger in Car or Van	8
Public Transport	12

[5] Source: WYG Interim Transport Assessment (ITA) (Draft 5), Table 4.2, p. 39, 22 August 2016; derived from TRICS 2016 v7.3.1, July 2016; Note: Arithmetic errors due to rounding.
[6] Source: ONS 2011 Census, QS701EW 'Method of Travel to Work'.

Bicycle	1
On Foot	11
Taxi/Other	3
Total	**100**

Employment – B1(a) Business (Office), B1(c) Business (Light Industry), B2 General Industry and B8 Storage or Distribution

6.16 In accordance with the approach set out and agreed in the August 2016 ITA, the mode split for the employment land uses will be derived from the ONS 'Travel to Work' database for the Kirklees 014 'Middle Layer Super Output Area' (MSOA) (reference no. E02002284), which is considered to be the MSOA most representative of the site's employment travel characteristics upon first occupation. Surrounding districts including Kirklees, Bradford, Leeds, Sheffield and Wakefield have been selected as 'usual residence'. The Kirklees proposed employment mode split for the site are set out in **Table 6.4**.

Table 6.4: ONS 2011 'Travel to Work' Employment Modal Split (%)[7]

Mode	Dewsbury East Ward (%)
Driving a Car or Van	70
Passenger in Car or Van	10
Public Transport	6
Bicycle	2
On Foot	10
Taxi/Other	2
Total	**100**

OTHER LAND USES

Local Centre / Community Hub

6.17 As noted previously within this Scoping Note, the proposals for Site B also include a new local centre / community hub and a new primary school. It is expected that the local centre / community hub will comprise local retail facilities (e.g. a local shop, convenience store, café and/or similar) targeted towards residents and employees within the Site. As noted above, the DfT considers walking to be the most important mode of travel for journeys of a short distance and it is therefore expected that the majority of journeys associated with the new local centre / community hub will be on-foot.

6.18 Given the nature of the proposed local centre / community hub, primarily targeted towards the residents and employees within the proposed masterplan development Site, it is expected that all trips associated with these facilities will be internalised and therefore result in no net impact on the surrounding public transport networks and highway networks.

Primary School

6.19 The proposals for Site B also include a new primary school that it is understood will serve both the proposed development and surrounding existing residential areas. Based on information provided by KC, it is noted that the primary school site is located partly within the Dewsbury East and Batley East primary school place planning areas and, as such, will likely draw some existing pupils from each of these two areas. As part of the TA, an allowance will be made for pupil and staff trips coming into the site from the external transport and highway networks

[7] Source: ONS 2011 Census, WU03EW 'Location of usual residence and place of work by method of travel to work'.

although it is expected that the majority of trips to the school, particularly those of less than 1km, will be on-foot. The school component of the FTP will seek to reinforce this behaviour.

6.20 It is proposed to obtain copies of Travel Plans for existing primary schools within the local area to establish existing staff and parent/pupil travel-to-school mode splits. This information will be used to form a predicted baseline mode split for the primary school, upon first occupation.

7 TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

7.1 Following the determination of total vehicle trips, through applying the ONS 2011 Census 'Driving a Car or Van' mode share to the total person trips, a trip distribution and traffic assignment exercise will be carried out to determine where vehicular traffic associated with the proposed development Site is likely to route when arriving at and departing from the Site.

7.2 Trips will be distributed, and traffic assigned to the surrounding highway network, by establishing the likely end destinations of residents leaving the Site and start origins of employees arriving at the Site, identified by reviewing Census travel-to-work data for the local area. In line with the agreed August 2016 ITA, this methodology consists of considering the likely off-Site routing of new trips to elsewhere in the region (Yorkshire and Humber) for trips originating at the Site, and equivalent from elsewhere to the Site for those trips ending at the Site. 2011 Census data indicates that 89% of residents of the proposed Site are likely to travel to work in the Kirklees, Leeds or Wakefield local authority areas, so this methodology is considered to be robust.

7.3 As the Site is currently undeveloped, travel-to-work data for the existing surrounding area will be reviewed (in line with the previously agreed August 2016 ITA methodology). The Site extent includes areas within two Kirklees MSOAs, however to ensure behaviours representative of the proposed development additional nearby MSOAs (with similar densities and housing types) have been selected. The full list of selected MSOAs is therefore:

- Kirklees 007 (E02002277) and Kirklees 014 (E02002284) within the Local Authority District (LAD) of Kirklees (includes the Site, Hanging Heaton and East Batley);
- Leeds 105 (E02002435), Leeds 106 (E02002436) and Leeds 107 (E02002437) within the LAD of Leeds (includes Tingley, West and East Ardsley, and the southern periphery of Morley); and
- Wakefield 021 (E02002458) within the LAD of Wakefield (includes Flushdyke and north Ossett).

7.4 The spatial arrangement of those MSOAs and their relation to the Site is illustrated in Figure 7.1.

Figure 7.1: Trip Distribution MSOAs and Site extent

8 TRAFFIC MODELLING

JUNCTIONS

8.1 In terms of traffic modelling, it is proposed to undertake standalone junction capacity assessments at each of the five proposed site access junctions plus a number of key local junctions, including the M1 Junction 40 (the Flushdyke Interchange) and the M62 Junction 28 (the Tingley Interchange).

8.2 The proposed junctions to be assessed as part of the TA are as follows:

Site Access Junctions:

- Site Access A – Heybeck Lane – priority T-junction;
- Site Access B – Leeds Road (North) – signal-controlled junction;
- Site Access C – Leeds Road (South) – signal-controlled junction;
- Site Access D – Chidswell Lane – priority T-junction; and
- Site Access E – Owl Lane – priority roundabout.

Off-Site Junctions:

1. M1 Junction 40 (Flushdyke Interchange) – signal-controlled roundabout;
2. M62 Junction 28 (Tingley Interchange) – signal-controlled roundabout;
3. A653 Leeds Road / Heybeck Lane – signal-controlled junction;
4. A653 Leeds Road / Chidswell Lane – priority T-junction;
5. A653 Leeds Road / B6128 Challenge Way / B6128 John Ormsby V C Way (Shaw Cross Junction) – signal-controlled junction, both existing and KC proposed improvement;
6. B6128 Owl Lane / Windsor Road – priority T-junction;
7. A638 Wakefield Road / A638 Chancery Road / B6128 Owl Lane / B6128 Leeds Road – priority roundabout;
8. Chidswell Lane / Windsor Road – priority T-junction;
9. A653 Leeds Road / Owl Lane – signal-controlled junction;
10. B6128 John Ormsby V C Way / B6128 Owl Lane / Horace Waller V C Parade – priority roundabout; and
11. A653 Leeds Road / A6209 Rein Road / A653 Dewsbury Road / Syke Road – signal-controlled junction.

8.3 These off-site junctions are identified in **Figure 8.1** and **Figure 8.2**.

Figure 8.1: Traffic Modelling – Off-Site Junctions Overview[8]

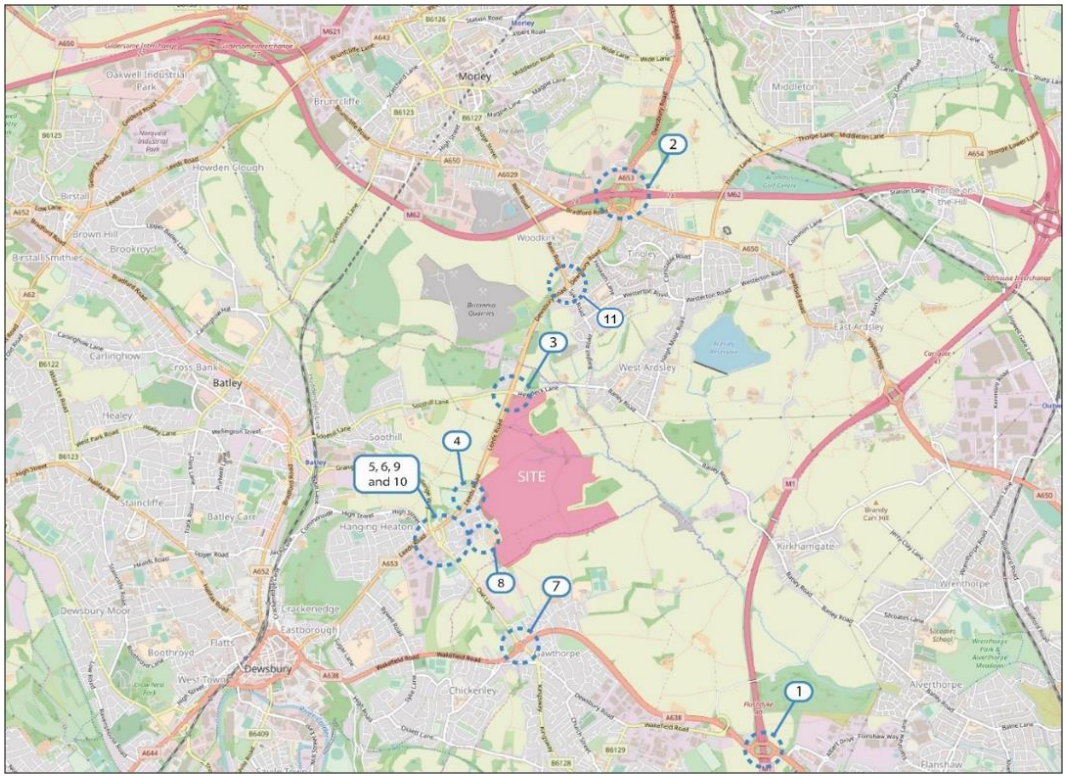
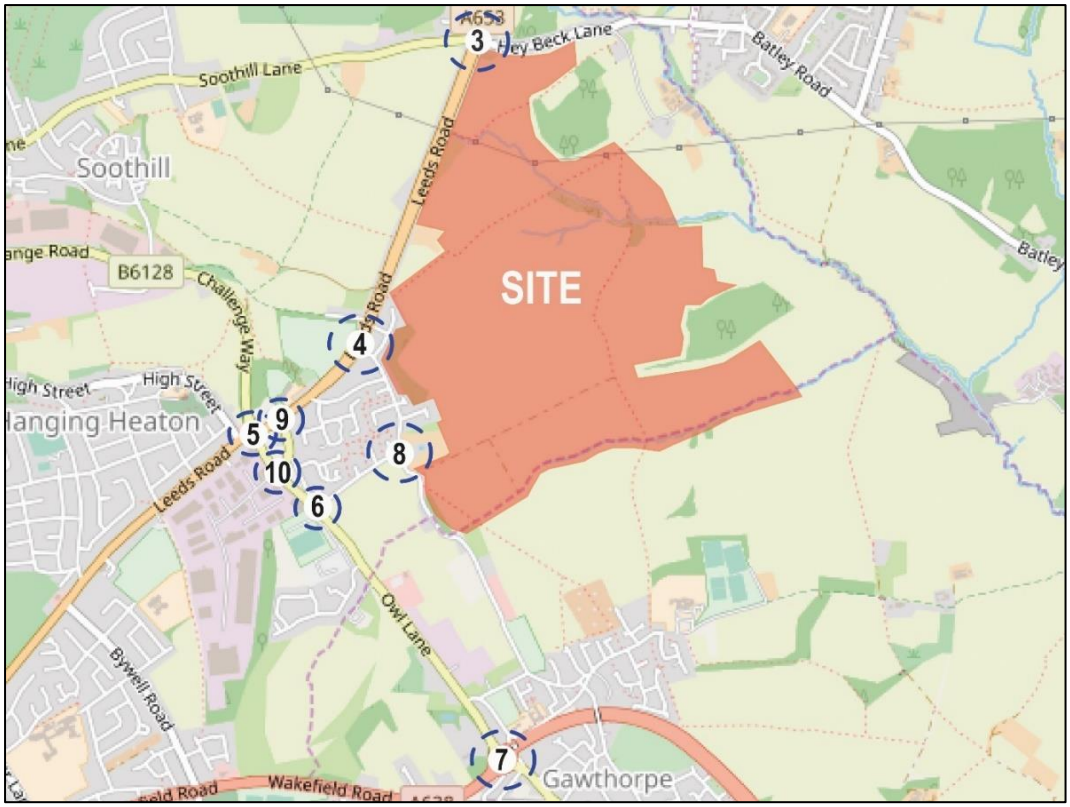


Figure 8.2: Traffic Modelling – Off-Site Junctions Detailed View[9]



[8] Source: OpenStreetMap (http://www.openstreetmap.org), © OpenStreetMap contributors (http://www.openstreetmap.org/copyright), October 2018; with Pell Frischmann annotations.
[9] Source: OpenStreetMap (http://www.openstreetmap.org), © OpenStreetMap contributors (http://www.openstreetmap.org/copyright), October 2018; with Pell Frischmann annotations.

8.5 It is proposed that each of the above junctions is tested using industry-standard standalone junction capacity assessment software, i.e. ARCADY for priority roundabouts, PICADY for priority junctions and LinSig for signal-controlled junctions. It is proposed that each junction is modelled separately, with the exception of the A653 Leeds Road / Heybeck Lane signal-controlled junction and two proposed signal-controlled site access junctions on Leeds Road, which will be modelled as a linked LinSig model.

ASSESSMENT SCENARIOS

Existing Traffic Conditions

8.6 Classified turning count surveys have been undertaken (March 2019) for each of the above listed junctions on a mid-week weekday during term time, to reflect existing, or baseline, traffic conditions. These surveys have been agreed as representative and will therefore be the defined baseline ("2019") traffic scenario for the assessment to follow.

8.7 One minor exception to the above relates to the Tingley Interchange (M62 Junction 28) which was yet to complete long-term capacity enhancement roadworks at time of survey. As those works have been subsequently completed, it has been agreed with HE that this junction will be re-surveyed (in isolation) in Autumn 2019 so as to ensure existing conditions are as representative as possible. Revised modelling outputs will be submitted separately to the main TA document, which will include modelling based upon the original (March 2019) survey baseline.

Future Assessment Years

8.8 The Department for Transport (DfT) Circular 02/2013 'The Strategic Road Network and the Delivery of Sustainable Development' (September 2013), Paragraph 25, states that:

"The overall forecast demand should be compared to the ability of the existing network to accommodate traffic over a period up to ten years after the date of registration of a planning application or the end of the relevant Local Plan whichever is the greater. This is known as the review period."

8.9 In order to support the supporting highway proposals in the Kirklees Local Plan, SATURN highway modelling was commissioned by KC at that time with scenarios in 2015 (the base year for the model), 2020 and 2030[10]. Outputs of this model have been made available to the project team and it has been agreed with KC that these will be used to produce robust future traffic scenarios which reflect the detail of the changing strategic traffic assignment that would not be available if high-level projections (such as TEMPro growth factors) were used and applied to the full extent of the studied area.

8.10 In order to accurately assess the impact of the proposed development, and in accordance with both:

- the approach previously set out within the August 2016 ITA (which was agreed with KC Highways Officers at that time), and
- in recognition of the time which has passed since and the data (i.e. 2019 surveys) which is now available,

it is proposed to assess the traffic impacts of the proposed development on the above listed junctions in two future assessment years; 2024 and 2030. The former (2024) being an interim scenario in which some phases of the development have been delivered, and the latter (2030) being the future year in which all phases of the development are complete and operational.

8.11 To ensure a robust assessment, it is proposed to assess the full impact of the proposed development of Site A (up to 181 residential units) in 2024 and any phased development within Site B likely to be delivered by that time. The full impact of the proposed development of both Site A (up to 181 residential units) and all of Site B (up to 1,354 residential units, up to 35 ha of

[10] Albeit the Local Plan is dated to 2031, 2030 represents the future horizon year for transport that underpins the LP.

employment development plus a new primary school) will be assessed in 2030. Agreement is sought from KC and Highways England officers that this is an acceptable approach.

Scenario Interpolation

8.12 It was previously proposed to use direct SATURN scenarios for future scenarios, however an interim scenario for 2024 is required, and based on feedback from KC, concerns were raised with regard to the direct use of SATURN outputs. The methodology presented below therefore takes these concerns into account by basing future scenarios on actual survey data, but applying growth using the SATURN outputs, rather than using figures extracted directly from the SATURN models.

8.13 The proposed baseline scenario is one based in 2019 and underpinned by March 2019 survey data. In order to generate future scenarios, it is proposed that growth is applied to the 2019 baseline scenario on the basis of growth rates extracted from the SATURN model (in preference to the high-level TEMPro rates identified above). The model allows growth rates to be extracted at a detailed turn-based level (i.e. by comparing scenarios), rather than blanket application of growth across the whole network. This will reflect the strategic changes identified over the period of the SATURN model, but allow the future scenarios to be based more closely on the state of the network that has emerged over the period 2015 to 2019.

8.14 A notional set of SATURN scenarios for 2019 and 2024 were therefore generated to support the 2015, 2020 and 2030 scenarios. These were produced by linearly interpolating the flows between the two adjacent model scenarios. For example, a 2019 scenario is generated by taking 4÷5 (4 years of the 5) of the flow difference between the 2015 and 2020 models, and adding this to the 2015 flows.

8.15 Using this method, growth rates from 2019 to 2024, and from 2019 to 2030 can be derived in detail. For example, growth factors from 2015 to 2019 can be found by dividing the 2019 flows by the 2015 flows; e.g. a 2015 flow of 100pcu and a 2019 flow of 110pcu would have a growth factor of 110÷100 = 1.100. Where flows are absent in the 2015 baseline model, growth rate is set to 1.000 so as to retain any observed flows in our dataset in the future scenarios.

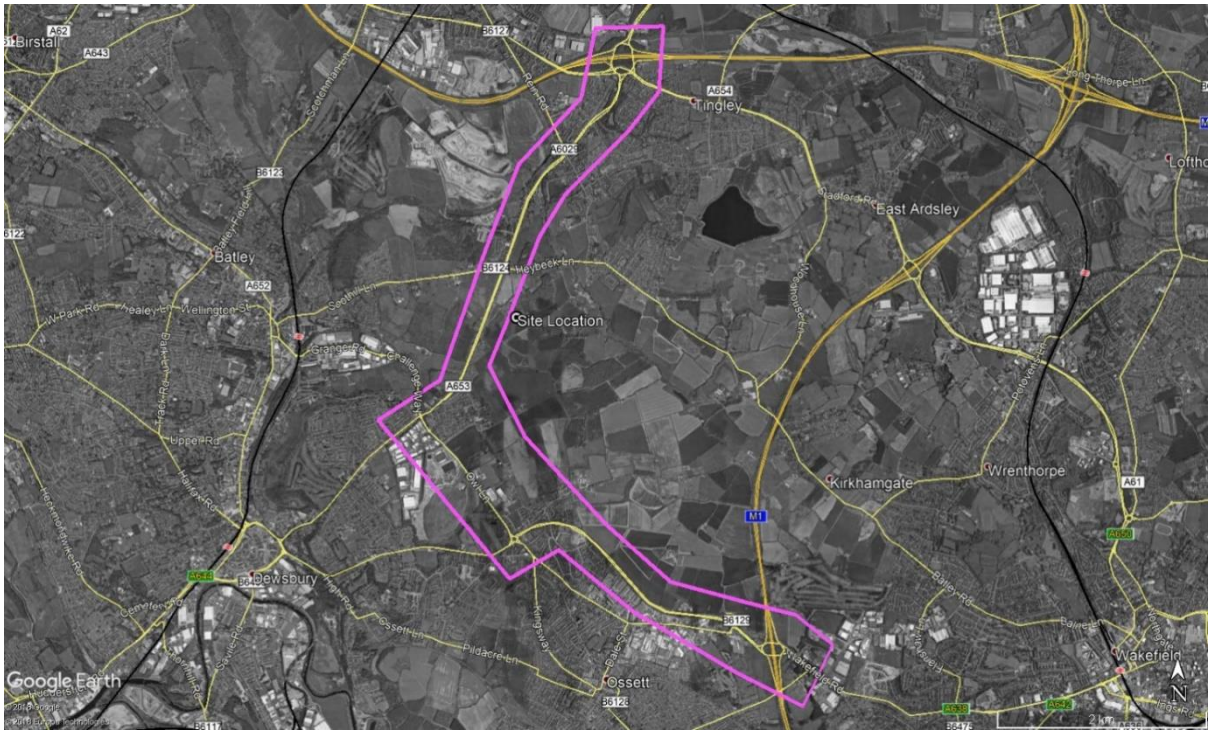
8.16 As the purpose of the SATURN model was to test transport interventions and it cannot be certain that these will be forthcoming, future scenarios are to be derived based on the above process and the use of the 'Do Minimum' SATURN scenarios. A full comparison of scenarios is summarised in **Table 8.1** based on weighted averages across an area cordoned to cover the junctions of interest (illustrated in Figure 8.1). For reference, an equivalent TEMPro rate for the cordoned area is also included. Whilst 'whole-of-scenario' weighted average growth rates are shown, it should be reiterated that actual growth rates are applied on a turn-by-turn junction-by-junction basis.

Table 8.1: SATURN-Derived Trip Rate Growth Summary

Base Year	Future Year	Weekday Peak	Scenario	Weighted Cordon Area Average Growth Rate		Equivalent TEMPro Rate (Car driver trips)[11]	
2019	2024	AM	DM	1.0627	6.3%	1.0555	5.5%
2019	2024	PM	DM	1.0469	4.7%	1.0531	5.3%
2019	2030	AM	DM	1.1070	10.7%	1.0981	9.8%
2019	2030	PM	DM	1.0739	7.4%	1.0966	9.6%

[11] Equivalent TEMPro rate is derived by extracting TEMPro growth for a study area (based on MSOAs) in line with that presented in Section 7.

Figure 8.1: Indicative SATURN Cordon Area for Local Area Growth Rate Estimation



Committed Developments

8.17 The scenarios developed using the above methodology include KC Local Plan growth and other background knowledge that was available at the time of model creation, calibration and validation. However, additional known committed development sites, which are not appropriately reflected in the SATURN models, were identified by have been requested by KC to be added to the baseline. Adding growth due to these sites ensures a more robust consideration of the future traffic situation around the Site.

8.18 KC requested the addition of one site, as follows:

- Barratt David Wilson Homes (BDWH) Site on Owl Lane (KC LP Site Ref: HS47): This site, whilst included in the KC Local Plan allocations, is in an area of the SATURN model of low detail. Considering trip generation due to this development will ensure a robust design of the relevant access junctions (i.e. the proposed priority roundabout on Owl Lane at Site Access E) at the necessary level of detail.

8.19 Leeds City Council (LCC) requested consideration of a number of sites (all references are LCC Planning):

- 06/04892/FU: Capitol Park West (Land north of Capitol Boulevard, Morley): Residual part of site; 2,260sqm B1 offices.
- 12/01332/OT: Land at Bruntcliffe Road, Morley: 173 residential units.
- 12/02470/OT: Unbuilt development that was permitted under the following outline approval: Land at Gelderd Road / Asquith Avenue and Nepshaw Lane, Gildersome.
- 13/01640/OT and 15/00363/OT: Extensions to White Rose Shopping Centre.
- 13/05423/OT: Land off Bradford Road, East Ardsley: 299 residential units and 2-form entry primary school.
- 13/05761/EXT: Land at Capitol Park East (Land off Topcliffe Lane, Morley): 11,535sqm B1 offices.
- 14/01886/RM: Land to the rear of Owler's Farm, Wide Lane, Tingley: 114 residential units.

- 15/04256/FU: Garden Centre on A654 Thorpe Lane.
- 15/05356/FU: 4,884sqm Parcel distribution depot with ancillary areas and office accommodation.
- 16/00865/FU: Albert Road, Morley: 62 residential units.
- 16/02988/OT: Lane Side Farm, Victoria Road, Churwell: 550 residential units.
- 16/03861/FU: Land to the west of Towcester Avenue, Middleton: 93 residential units.
- 16/04733/RM: Land at Low Moor Farm, Albert Drive, Morley: 200 residential units.
- 16/06109/FU: Land at Bruntcliffe Road, Morley: 210 residential units.
- 17/08262/OT: Land off Haigh Moor Road and Westerton Road.

8.20 Of these sites, three were determined to have the potential to have a non-negligible impact within the area of study (generally on M62 J28) and are therefore included in the proposed future scenarios. The remainder of the considered sites within LCC local authority area have been disregarded. Those developments taken forward into the future scenarios were:

- 13/05423/OT: Land off Bradford Road, East Ardsley
- 13/05761/EXT: Land at Capitol Park East (Land off Topcliffe Lane, Morley)
- 16/02988/OT: Lane Side Farm, Victoria Road, Churwell

8.21 Wakefield Council did not request any additional sites for inclusion.

Assessment Scenarios

8.22 Based on the above, it is proposed that the following modelling scenarios will be presented within the TA:

- **2019 Base:** Observed traffic flows based on 2019 traffic surveys;
- **2024 Do Nothing:** Based on '2019 Base' traffic data with 2019-2024 growth factors (derived from the 2019 and 2024 interpolated KC SATURN 'Do Minimum' scenarios) therefore including a proportion of committed Local Plan developments as incorporated in the strategic SATURN model;
- **2024 Do Minimum:** '2024 Do Nothing' scenario plus additional committed developments (i.e. BDWH Site on Owl Lane and LCC's committed developments);
- **2024 With Development 1:** '2024 Do Minimum' plus phased proposed development on the Site.
- **2030 Do Nothing:** Based on '2019 Base' traffic data with 2019-2030 growth factors (derived from the 2019 and 2030 interpolated KC SATURN Do Minimum scenarios) therefore including committed Local Plan developments as incorporated in the strategic SATURN model;
- **2030 Do Minimum:** '2030 Do Nothing' scenario plus additional committed developments (i.e. BDWH Site and LCC committed developments);
- **2030 With Development 1:** '2030 Do Minimum' plus full proposed development on the Site.

Assessment Time Periods

8.23 Based on the proposed traffic surveys (to inform the 2019 Base scenarios) and traffic data extracted from the KC SATURN strategic traffic model, it is proposed to model the following weekday AM and PM time periods:

- Weekday AM peak hour – Network peak hour identified from a review of existing traffic survey data for 07:00-10:00 hours; and

- Weekday PM peak hour – Network peak hour identified from a review of existing traffic survey data for 16:00-19:00 hours.

9 PROPOSED SCOPE OF WORK

9.1 It is expected that the following documents will be required to accompany the two respective outline planning applications from a transport and highways perspective:

- Transport Assessment (TA) Report; and
- Framework Travel Plan (FTP).

9.2 The proposed scope of the TA is as follows:

- Overview and description of the planning context for the site;
- Site location and description;
- Overview and description of the relevant existing and emerging transport planning and highways-related policies at national, regional and local levels, including car, cycle and motorcycle parking standards, where applicable;
- Description of the existing, or baseline, and expected future transport conditions, including a review of walking, cycling and public transport accessibility and accessibility in relation to key local services and facilities;
- Description of the proposed development, including proposed access, internal circulation and parking arrangements;
- Multi-modal trip generation assessment;
- Trip distribution and traffic assignment;
- Standalone junction capacity assessments;
- Identification of mitigation measures, including measures to promote and encourage sustainable travel; and
- Conclusions.

9.3 The proposed scope of the FTP is as follows:

- Overview and description of the planning context for the site;
- Site location and description;
- Overview and description of the relevant existing and emerging Travel Planning and sustainable travel-related policies at national, regional and local levels;
- Description of the existing, or baseline, and expected future transport conditions – the 'Site Assessment' – including a review of walking, cycling and public transport accessibility and accessibility in relation to key local services and facilities;
- Description of the proposed development, including proposed access, internal circulation and parking arrangements;
- Aims, objectives and draft targets (subject to the outcomes of baseline travel surveys once the proposed development is occupied);
- Proposed package of measures for actively promoting and encouraging sustainable travel (including 'hard' and 'soft' measures;
- Travel Plan Monitoring Strategy; and
- Action Plan.

10 SUMMARY

10.1 Pell Frischmann is commissioned by the Church Commissioners for England (the 'Commissioners' and the 'Applicant') to provide transport planning and highways consultancy services in connection with emerging masterplan proposals for a strategic residential-led development on the Commissioners' strategic landholding at Chidswell, Dewsbury (the 'Site').

10.2 The Commissioners' Site is allocated within the KC Local Plan, which was the subject of an Examination in Public (EIP) by a Government-appointed Inspector in February 2018 and which was adopted in February 2019. By way of reference, the Commissioners' site is referred as 'Land East of 932-1110 Leeds Road, Shawcross/Woodkirk, Dewsbury' (KC Local Plan site allocation reference MXS7).

10.3 The Site is split into two development parcels, referred to as 'Site A' and 'Site B'. It is proposed that each of Site A and Site B are the subject of separate outline planning applications, that will be submitted to KC in parallel. This Scoping Note has been prepared to set out the proposed scope and general content of a Transport Assessment (TA) and Framework Travel Plan (FTP) that it is expected will be required to accompany each outline planning application; the TA and FTP will each assess the cumulative impacts of the proposed development of both Site A and B as a whole and each will be submitted twice, once with each planning application.

10.4 The above scope reflects the previously agreed (with KC officers) scope of work and the inclusion of subsequent updates and requirements resulting from feedback and meetings with KC and others, and feedback from a meeting with Highways England (HE) on 20 June 2019. Agreement is now sought from HE (and others) to the revised scope of the TA and FTP as set out within this Scoping Note. This updated Scoping Note is provided to KC officers, for information, and reflects the outcome of discussions with KC officers to-date.

Highways England Review of Pell Frischmann Scoping Note

Pearl Ahrens

From: Bedford, Paula <Paula.Bedford@highwaysengland.co.uk>
Sent: 29 July 2019 14:31
To: Stephen Evans
Cc: Matthew Naylor; Tucker, Nolan (UK - Leeds); Gleave, Pete (UK - Leeds); Paul Smith; Jack Owen; Edwards, Richard/LBA
Subject: RE: Land at Chidswell, Dewsbury - Transport Assessment and Framework Travel Plan Scoping Note
Attachments: A13398-VAA Land at Chidswell TA Scoping Note V2 Final1 090719 with Apps.pdf; DEVWY0010 TM002 Final.pdf

Steve

Please find attached our technical note review of your revised scoping note.

Please let me know if you required any clarification on any of the points raised otherwise I look forward to hearing back from you in due course.

Kind regards

Paula

Paula Bedford, Planning & Development
Highways England | Lateral | 8 City Walk | Leeds | LS11 9AT
Tel: +44 (0) 300 4702337 | **Mobile**: + 44 (0) 7710 366 025
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From: Stephen Evans [mailto:SEvans@pellfrischmann.com]
Sent: 09 July 2019 14:41
To: Bedford, Paula <Paula.Bedford@highwaysengland.co.uk>; Edwards, Richard/LBA <Richard.Edwards@jacobs.com>
Cc: Matthew Naylor <matthew.naylor@churchofengland.org>; Tucker, Nolan (UK - Leeds) <ntucker@deloitte.co.uk>; Gleave, Pete (UK - Leeds) <pgleave@deloitte.co.uk>; Paul Smith <PSmith@pellfrischmann.com>; Jack Owen <JOwen@pellfrischmann.com>
Subject: Land at Chidswell, Dewsbury - Transport Assessment and Framework Travel Plan Scoping Note

Dear Paula and Richard,

Many thanks again for taking the time to meet with us on 20th June to discuss the Church Commissioners for England's strategic development site at Chidswell, Dewsbury. Further to our meeting, as agreed, please find attached an updated version of our Transport Assessment (TA) and Framework Travel Plan (FTP) Scoping Note, that has been updated to provide required additional clarifications. I understand you are waiting for this before providing your written comments following our meeting.

A summary of what has been added/updated since the previous version of our Scoping Note, dated October 2018, is as follows:

- This Scoping Note has been updated to reflect the outcome of pre-application scoping discussions between Pell Frischmann and Highways officers at Kirklees Council since the previous version was issued in October 2018, including an additional junction to be modelled and revised traffic modelling scenarios.
- Confirmation that the proposed trip rates as previously agreed with Kirklees Council remain robust – we have re-checked the TRICS database for more up-to-date trip rates, however these are lower so the ones we propose to use are considered more robust.
- Further information provided regarding how traffic distribution and mode splits for the proposed development have been derived.
- Clarification provided regarding proposed traffic growth rates, i.e. using the Kirklees SATURN strategic traffic model to derive growth rates, that are then applied to 2019 observed traffic flows.
- Confirmation on which additional committed development sites will be included, following the outcomes of discussions with Highways officers at Leeds City Council and Wakefield Council.
- Acknowledgement that works to improve the M62 Junction 28 slip roads have recently been completed and, as such, a further traffic survey will need to be carried out in the autumn and modelling of this junction updated to reflect both the physical changes to the junction (drawing subsequently provided by HE) and altered traffic behaviour. It is understood that existing traffic survey data, together with the new layout (based on drawing provided by HE), can be used to inform the TA and planning submissions in the meantime.

As with the previous version, the attached Scoping Note includes details relating to the proposed site access arrangements, that have been extensively discussed with KC officers. Please note this information is confidential due to agreements between the Church Commissioners and respective property owners, and therefore should not be shared or released into the public domain.

I have copied in KC officers and their transport consultants for information. Now that we have provided you with the attached, we would very much welcome your written comments. If you have any queries, or anything else you would like clarified in advance of providing comments, please do not hesitate to contact me.

Kind regards,

Steve

Stephen Evans
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Proposed Mixed Use Development TA Scoping – Land to the East of Leeds Road, Chidswell, Dewsbury

PREPARED FOR:	Paula Bedford
PREPARED BY:	Jack Fawdington (CH2M)
DATE:	25th July 2019
PROJECT NUMBER:	DEVWY0010
DOCUMENT REF:	TM002
REVIEWED / APPROVED BY:	Richard Edwards (CH2M)

Task Overview

CH2M (on behalf of Highways England) has undertaken a review of a Transport Assessment [TA] scoping note that has been submitted to Kirklees Council [KC] in relation to emerging masterplan proposals for a strategic residential-led mixed use development on land to the east of Leeds Road, Chidswell, Dewsbury. The proposed development is for up to 1,535 residential units distributed across two development parcels, 'Site A' and 'Site B', together with up to 35 Ha of employment land within Site B. Site B will also include a new local centre and Primary School. The scoping note has been prepared by Pell Frischmann [Pell] on behalf of the Church Commissioners for England [the Applicant].

This technical memorandum comments on the suitability of the scoping note, with discussion provided below in relation to whether the TA suitably considers the potential impact of proposals upon the Strategic Road Network [SRN]. For ease of cross referencing, the headings adopted below are the same as those utilised within the scoping note (where relevant to Highways England).

Previous CH2M Comments

CH2M previously provided comments in regard to the EIA Scoping assessment submitted for the site (document ref: 679066.AE.18.64.02 TM001) on the 5th November 2018. In brief, CH2M observed that:

1) A full TA and TP will need to be submitted with any forthcoming planning application which considers the impact of proposals at the SRN;
2) Details of site access will need to be confirmed;
3) The level of development assessed within the TA will need to correlate to that specified on the forthcoming planning application;
4) Details of the quantum of development to come forward within each development phase and how each plot will be accessed will need to be confirmed;
5) Both Wakefield and Leeds City Council will need to be involved in discussions relating to the traffic impact of proposals at junctions within their areas;
6) The full quantum of residential development sought will need to be clarified by the Applicant's consultants;
7) Details of trip generation by all modes must be considered as part of the TA and TP; and

8) A TA scoping report should be prepared by the Applicant's transport consultants so that TA input parameters, particularly trip generation, distribution, extent of study area and assessment years can be agreed in detail prior to TA submission.

Local Plan Position

The proposed development forms part of the proposed mixed-use allocation 'MX1905' in the Publication Draft Kirklees Local Plan which was submitted for examination in April 2017. The Plan was adopted in February 2019 and the site is now MXS7. As was previously noted by CH2M in 679066.AE.18.64.02 TM001, Highways England has already considered this site through assessment work related to the Kirklees Draft Local Plan allocations. Within the site specific considerations, it is identified that additional mitigation on the wider highway network will be required. Development of this site has the potential for a significant impact on the Strategic Road Network. The TA will need to demonstrate that committed schemes can accommodate the additional demand. Where this is not the case the development may need to contribute to additional schemes identified by Highways England and included within the IDP.

Site Location

The site is located to the east of the A653 Leeds Road Dual Carriageway, a key corridor between Dewsbury and Leeds. Leeds Road runs in a north-south direction, adjoining the A638 Wakefield Road to the south and Junction 28 (Tingley Interchange) of the M62 to the north. The site has immediate connectivity to the SRN, with an approximate distance of 2 miles to Tingley Interchange of the M62 to the north, 4 miles to Junction 41 of the M1 to the east and 3 miles to Junction 40 of the M1 to the southeast. The location of the site in relation to the SRN is detailed in Figure 1.1 below.

Figure 1.1 – Site Location Plan

Existing Transport Conditions

Local Bus Services

The scoping note states that there are various existing bus stops located within close proximity to the site, including the northern, western and southern edges of the site, with bus stops situated along the A653 Leeds Road, Heybeck Lane and Chidswell Lane respectively.

The forthcoming TA and TP will need to consider how these existing services will be accessed from the site, or how services may be diverted into the development to serve it directly. In addition, consideration of the mode split for journeys to / from the site will need to be assessed.

Mainline Rail Services

The scoping note observes that there are two mainline railway stations located within close proximity to the site. Batley Railway Station is located 3km to the west of the site and Dewsbury Railway Station 4km to the south-west. Both stations remain accessible by bus, therefore promoting the possibility of multi-modal public transport journeys to / from the site. Consideration to the potential level of use of rail facilities should be included within the TA and TP.

Walking

Paragraph 3.14 of the Scoping Note remarks that the majority of roads surrounding the site, including Leeds Road, Heybeck Lane, Chidswell Lane and Windsor Road, have footways provided on both sides of the carriageway to facilitate pedestrian movement. Pedestrian crossing facilities and streetlighting are provided on the A653 Leeds Road. Heybeck Lane and Chidswell Lane are lit.

Details of likely pedestrian routes should be provided within the TA / TP.

The TA and TP should identify the proposed points of pedestrian accessibility for the development site, and how these points of access link up with existing infrastructure and local transport connections. This detailing should be accompanied by a suitable 2km walking isochrone from the site. Initiatives to incentivise walking as a mode of travel will also need to be included within the TP. Assessment of the level of trips that are likely to be undertaken by foot should be included within the TA and TP.

Cycling

The scoping note identifies that towns such as Wakefield, Horbury, Morley, and Middleton can all be reached by bicycle via existing safe cycle routes and Public Rights of Way [PRoW], while appropriate cycling provision is stated to be provided within the local area, with cycle lanes provided on Leeds Road in order to promote cycling. The Scoping Report acknowledges that the site is surrounded by various National Cycle Network [NCN] routes, namely Route 69 (Dewsbury to Ravensthorpe), Route 66 (Huddersfield to Bradford) and Route 699 (Dewsbury to Ossett), while traffic free cycle routes linking Tingley to Beeston, Middleton and Leeds City Centre exist to the north of the site.

The TA and TP should provide a suitable 5km cycling isochrone from the centre of the proposed site to understand the potential for cycling journeys to / from the site. Details should be provided as to the proposed points of cycle accessibility for the development site, and how these points of access link up with any existing or proposed infrastructure. Details of the traffic free cycle routes to the north of the site should be provided within the TA and TP. An assessment of the likely level of cycling trips to / from the site should be made.

Policy Considerations

Although not identified by the scoping note, Highways England will require all assessments of the proposed development's impact to adhere to the guidance provided within DfT Circular 02/2013 – *The Strategic Road Network and the Delivery of Sustainable Development.* Circular 02/2013 sets out the way in which Highways England will engage with communities and developers to deliver sustainable developer, whilst safeguarding the primary function and purpose of the SRN.

Development Proposals

The site is to be split into two development parcels, understood as 'Site A' and 'Site B'. It is proposed that each of Site A and Site B are the subject of separate outline planning applications, that will be

submitted to KC in parallel. Any forthcoming TA and FTP is intended to assess the cumulative impacts of the proposed development of both Site A and Site B as a whole and each will be submitted twice, once with each planning application. In summary, the following development is proposed:

- 1,535 Residential Units (C3) (distributed across Site A and Site B) – Up to approximately 250 residential units are proposed for Site A.
- 35 Hectares pf Employment Land (within Site B);
- Local Centre / Community Hub (within Site B); and
- Primary School (within Site B).

The specific use classes of the proposed employment land are to be confirmed within future TAs.

Access and Egress Arrangements

Paragraph 5.3 of the scoping note identifies that access and egress for Site A is proposed in the form of a priority T-junction on Haybeck Lane, whilst vehicular access and egress out of Site B is proposed in the form of two signal-controlled junctions on Leeds Road, a priority T-junction on Chidswell Lane and a four-arm roundabout on Owl Lane with a new access road running parallel to Windsor Road between Owl Lane and the southern edge of the site. Continuing, the scoping note comments that the five points of access and egress to and from the site have been previously discussed and agreed in principle with KC Highways Officers, subject to detailed design and the necessary Road Safety Audits (RSAs). Figure 5.2 of the scoping note, seen below, details the development parcels / respective site areas identified for the proposed development.

Figure 5.2: Emerging Concept Masterplan and Development Parcels / Site Areas[3]

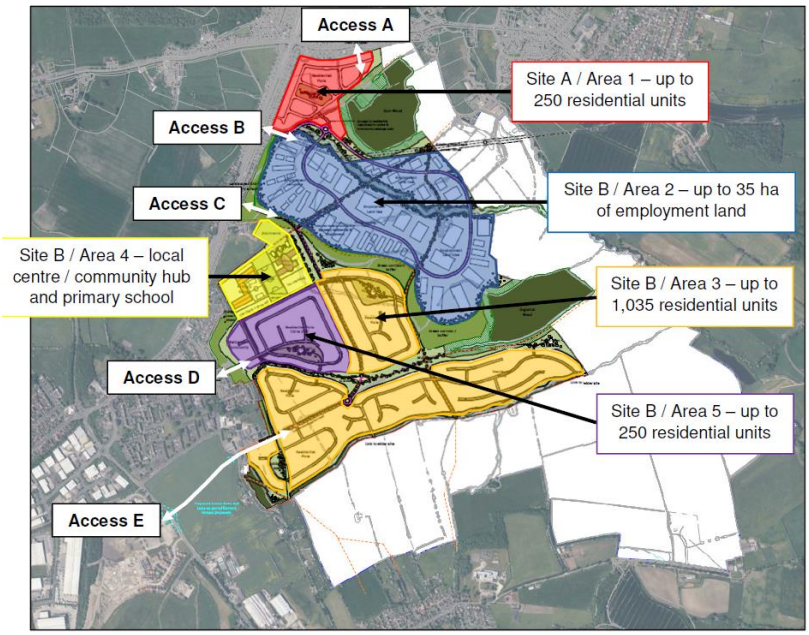

Figure 5.2 – Emerging Concept Masterplan and Development Parcels

A further description of each proposed site access, all taken from the local road network, is provided within the scoping note.

Trip Generation and Mode Split

Paragraph 6.1 of the scoping note comments that as part of the August 2016 'Interim Transport Assessment' [ITA], which was prepared in the context of the site's inclusion within the KC Draft Local Plan, an initial multi-modal trip generation assessment was carried out. Consequently, Paragraph 6.2 notes that the trip generation approach and methodology, including trip rates, were reviewed by KC

highways officers and confirmed as being appropriate for the proposed development. The same trip rates have therefore been identified for use within this scoping assessment and are discussed below.

Paragraph 6.3 recognises that as the aforementioned trip rates were calculated in 2016 (TRICS v7.3.1). An exercise was undertaken to recompute the development trip rates using the same methodology but the existing version of TRICS (v7.6.1, 2019). This is stated to have resulted in a reduction in equivalent trip rates, therefore to ensure a robust assessment, the previously agreed trip rates have been retained for the purposes of this scoping note.

Trip Generation Approach and Methodology

Residential – C3 Residential Dwellings

It is proposed that the residential units will comprise a mix of privately owned and affordable dwellings. For the purpose of the scoping note, it is proposed that 80% of dwellings are assumed to be privately owned (market value) and 20% will be classed as affordable ownership. Trip rates for both privately owned houses and affordable houses have therefore been considered in determining residential trip rates.

Employment – B1(a) Office, B1(c) Light Industry, B2 General Industrial, B8 Storage / Distribution

The site selection for each employment use class for the development TRICS assessment has been derived from the following land use categories:

- B1(a) Office – 02 Employment – (B) Business Park;
- B1(c) Light Industry – 02 Employment – (D) Industrial Estate;
- B2 General Industry – 02 Employment – (D) Industrial Estate; and
- B8 Storage / Distribution – 02 Employment – (F) Warehousing.

The above TRICS classes are seen to be acceptable by CH2M.

Although not previously agreed with Highways England, the proposed trip rates for the development are set out in Table 6.1 of the scoping note, seen below.

Land Use	Time Period	Arrivals	Departures	Total Two-Way
Residential Dwellings (Private) (C3 Use Class) (trips per dwelling)	08:00 – 09:00	0.233	0.818	1.051
	17:00 – 18:00	0.605	0.390	0.995
	Daily (07:00-19:00)	**4.185**	**4.445**	**8.630**
Residential Dwellings (Affordable) (C3 Use Class) (trips per dwelling)	08:00 – 09:00	0.211	0.669	0.880
	17:00 – 18:00	0.477	0.373	0.850
	Daily (07:00-19:00)	**3.472**	**3.607**	**7.079**
Business (Office) (B1(a) Use Class) (trips per 100m² GFA)	08:00 – 09:00	1.970	0.268	2.238
	17:00 – 18:00	0.218	1.627	1.845
	Daily (07:00-19:00)	**7.148**	**7.022**	**14.170**
Business (Light Industry) (B1(c) Use Class) and General Industry (B2 Use Class) (trips per 100m² GFA)	08:00 – 09:00	0.537	0.277	0.814
	17:00 – 18:00	0.170	0.486	0.656
	Daily (07:00-19:00)	**3.976**	**4.036**	**8.012**
Storage or Distribution (B8 Use Class) (trips per 100m² GFA)	08:00 – 09:00	0.045	0.022	0.067
	17:00 – 18:00	0.020	0.050	0.070
	Daily (07:00-19:00)	**1.402**	**0.962**	**2.364**

Table 6.1 – Proposed TRICS Trip Rates

No TRICS data has been supplied with the assessment and the values could not be replicated. These should be included within the TA. With reference to Table 6.1, CH2M note that:

- The private residential dwelling person trip rates appear to be in the correct order;
- The affordable residential dwelling person trip rates are seen to be in the correct order;
- The B1a office person trip rates are seen to be in the correct order;
- The b1(c) light industrial / B2 general industrial person trip rates appear to be low; and
- The B8 storage person trip rates are seen to be low.

Without the detailed evidence of the TRICS data it is considered that the B1(c), B2 and B8 trip rates are low.

Total Person Trips

Paragraph 6.9 of the scoping note identifies that the person trip rates contained within Table 6.1 have been drawn upon to calculate the total two-way person trips for the residential and employment aspects of the proposed development. However, until the above person trip rates for all site land uses have been agreed, CH2M are unable to provide detailed comments on the acceptability of the proposed person trip generation.

Mode Split

Residential

The proposed modal split for the residential land use has been derived from ONS 2011 Census data for the Dewsbury East ward [E05001398] and is set out in Table 6.4, seen below.

Mode	Dewsbury East Ward (%)
Driving a Car or Van	66
Passenger in Car or Van	8
Public Transport	11
Bicycle	12
On Foot	1
Taxi/Other	2
Total	**100**

Table 6.4 – ONS 2011 Census Residential Modal Split

The Dewsbury East ward contains a significant residential area but includes areas which are located more centrally to Dewsbury and therefore are likely to give more sustainable transport options. Accordingly, CH2M have undertaken an independent Nomis interrogation to evaluate the validity of the data contained within Table 6.4. As such, it is noted that:

- Consideration of adjacent MSOAs which contain a reasonable level of residential dwellings show that the mode share could be higher than that proposed.
- The 1% on foot and 12% bicycle mode split proposed by the scoping note would appear unrealistic with the foot mode share being an under estimate and the bicycle mode share being an over estimation.

Employment

The proposed modal split for the employment aspect of the development has been derived from 2011 Census data for the Kirklees MSOA E02002284 and is detailed in Table 6.5 below.

Mode	Dewsbury East Ward (%)
Driving a Car or Van	70
Passenger in Car or Van	10
Public Transport	6
Bicycle	2
On Foot	10
Taxi/Other	2
Total	**100**

Table 6.5 – ONS 2011 Census Employment Modal Split

It is noted that the area chosen for the employment mode split is different from that chosen for the residential mode split. As above, CH2M have undertaken an independent Nomis interrogation to evaluate the validity of the data contained within Table 6.5. As such, it is noted that:

- As the Kirklees E02002284 MSOA contains a sizeable proportion of the Shawcross Business Park and encompasses the southwestern extent of the proposed site, the MSOA is seen as an appropriate area in which to source employment modal split data.
- However, CH2M have been unable to replicate the mode share presented. The independent analysis shows a higher mode share for car drivers.

Other Land Uses

The proposals for Site B include a new local centre / community hub and a new primary school. It is proposed that the local centre / community hub will comprise local retail facilities at such a scale that will be solely targeted to residents and employees within the site. This premise is accepted by CH2M. Accordingly, it is accepted by CH2M that largely all trips associated with these facilities will be internalised and those that are not will be on the local network. No net impact on the SRN is expected form these land uses.

Primary School

The proposals for Site B include a new primary school. While it is acknowledged by the scoping note that the primary school will likely draw existing pupils from areas external to the site, CH2M accept that it remains unlikely that any material quantum of Primary School trips will be undertaken via the SRN.

Trip Distribution and Traffic Assignment

The scoping note indicates that trips will be distributed to the surrounding highway network by establishing the likely end destinations of residents leaving the site and the start origins of employees arriving at the site, in line with Census journey to work data for the local area. It is proposed that 2011 Census journey to work data for MSOAs approximate to the development site will be evaluated. The principle of this is accepted. However, as with CH2M's interrogation of both residential and employment modal splits, it is advised that the most representative MSOAs by way of location and land use characteristics are interrogated for any distribution assessment, opposed to a grouping of six separate MSOAs as is proposed.

Traffic Modelling

It is proposed that standalone LinSig junction capacity assessments will be undertaken for Junction 40 of the M1 (Flushdyke Interchange) and Junction 28 of the M62 (Tingley Interchange). The junctions to be assessed is seen to be acceptable by CH2M, however, when undertaking the traffic distribution assessments as part of any TA to be submitted, consideration of the impact at Junction 41 of the M1 should be included to demonstrate whether there is a need to assess this junction.

The use of LinSig to model the junctions would only be acceptable if the modelling does not show that blocking back would occur between each signal junction on the roundabout. If this is the case then a modelling package that would take this into account should be used.

Assessment Scenarios

Existing Traffic Conditions

It is planned that traffic surveys will be undertaken for the above junctions in October or November 2018. Confirmation should be provided as to whether these surveys were undertaken.

Future Assessment Years

Highways England require any future year assessment carried out to be undertaken ten years following the initial date of registration of the planning application. As such, in line with Paragraph 8.9 of the scoping note, a 2030 future year assessment that assesses the full impact of the proposed development site (all dwellings, employment use and primary school) is considered acceptable.

It must be also be noted that with any future year assessment undertaken, CH2M would wish to suitably review the TEMPro growth rates utilised.

Assessment Scenarios

The critical modelling scenarios that remain pertinent to Highways England as detailed by the scoping note are:

- **2018 Base** (observed traffic flows based on 2018 traffic surveys) – This should be used to validate models to demonstrate that they are suitable for use within assessment. It should be noted that a Congestion Relief Scheme [CRF] has recently been implemented by Highways England at M62 Junction 28. Operation observations will be required to validate the model of the now current layout.
- 2030 Base (based upon traffic data contained within the KN SATURN strategic traffic model which includes flows associated with planned/committed development) – committed development should include all sites within the Kirklees Local Plan and sites likely to come forward within adjacent planning authorities which could impact on the assessed junction. In addition an appropriate level of traffic growth will need to be included.
- **2030 Base + Development**

The two 2030 models will allow an assessment of the impact of the development on the junctions.

Assessment Time Periods

It is proposed to model the following weekday AM and PM time periods:

- Weekday AM peak hour – network peak hour identified from a review of existing traffic survey data for 0700 – 1000; and
- Weekday PM peak hour – network peak hour identified from a review of existing traffic survey data for 1600 – 1900.

This is seen to be acceptable by CH2M.

Proposed Scope of Work

It is intended that both a full Transport Assessment and Framework Travel Plan will accompany any planning application submitted for the proposed development. The identified scope of both documents, as detailed within Paragraphs 9.2 and 9.3 of the scoping note is seen as largely sufficient for the purposes of any application that may be submitted, however, a detailed review as to the acceptability of both documents will be undertaken by CH2M on behalf of Highways England upon their submission to KC.

Summary and Conclusions

This scoping review has highlighted the following:

1) In line with the Local Plan allocation, the site may need to contribute to improvement schemes at the SRN.
2) The trip rates for the B1(c), B2 and B8 land uses appear low. All trip rates used within the TA should be evidenced with supporting TRICS data.
3) The mode split presented for both the residential and employment uses are lower than those obtained independently by CH2M. Justification for the model splits should be provided.
4) It is advised that the most representative MSOAs by way of location and land use characteristics are interrogated for any mode split or distribution assessment.
5) The traffic distribution exercise within the TA should extend to Junction 41 of the M1 to demonstrate whether the impact is at a level that requires assessment or not.
6) Future year assessments should include all other Local Plan sites, as well as significant developments in adjacent authorities which could impact on assessed junctions.
7) Future year assessments should include suitably TEMPro growth rates.

Pell Frischmann Response to Comments August 2019

Pell Frischmann

Land at Chidswell, Dewsbury

Transport Scoping Note (2019)
Response to Comments

Church Commissioners for England

Date: 27 August 2019
Report Ref: RA13398T566-B

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A	Draft for Client / Project Team review and comments.	16.08.2019	CJO	SME	SME
B	Final issue.	27.08.2019	CJO	SME	SME

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1 Introduction

1.1 Background

Pell Frischmann is commissioned by the Church Commissioners for England (herein, the 'Commissioners', and the 'Applicant') to provide transport planning and highways consultancy services in connection with the emerging masterplan proposals for a strategic residential-led development on the Commissioners' strategic landholding at Chidswell, Dewsbury (the 'Site').

The Commissioners' site is allocated within the Kirklees Council (KC) Local Plan, that was the subject of an Examination in Public (EIP) by a Government-appointed Inspector in February 2018 and was adopted in February 2019. By way of reference, the Commissioners' site is referred as 'Land East of 932-1110 Leeds Road, Shawcross/Woodkirk, Dewsbury' (KC Local Plan site allocation reference MXS7). An Interim Transport Assessment (ITA) was prepared in August 2016, together with various other supplementary information, to inform KC Highways officers and the Government-appointed Inspector of the potential transport and highways impacts of a strategic masterplan development at the site.

The Local Planning and Local Highway Authority is Kirklees Council (KC) and the Highway Authority for the Strategic Road Network (SRN), including the nearby M1 and M62 Motorways, is Highways England (HE). Given the scale of the development, and in their position as adjacent local planning and highway authorities, Leeds City Council (LCC) and Wakefield Council (WC) also have an interest in the scope of the subsequent transport planning work to be completed in the context of planning application submissions.

Consequently, on the basis of the emerging masterplan proposals, meetings with stakeholders and other emerging circumstances/policy, a Scoping Note was produced in October 2018 and updated in July 2019. This was circulated to KC, HE and LCC for their review, comment and approval. KC have approved the scope of work proposed. WC Highways officers have also been engaged in the process through discussions with Pell Frischmann and KC officers but, it is understood, have not provided comments on the specifics of the proposals.

HE and LCC have each provided comments with regard to scope and to which this document responds. In general, there is substantial overlap between the two sets of comments and as such this document treats the two together. It is noted, and welcomed, that HE (through their consultants CH2M) consider the proposed scope of work to be *"largely sufficient for the purposes of any application that may be submitted"*. The information provided within the remainder of this document is intended to provide the remaining clarity necessary.

2 Response to Comments

2.1 Trip Rates

2.1.1 TRICS Output Reports

Both HE and LCC raise the issue that full TRICS trip rate reports were not provided in attachment to the Scoping Note. These were available with the 2016 Interim TA (completed at that time in line with the TRICS Good Practice methodology, and agreed by KC at that time), however it is appreciated that these may not have been in hand for review with the Scoping Note. Full TRICS reports for the proposed trip rates are therefore enclosed at **Appendix A**.

2.1.2 Per-Use Trip Rates

Whilst HE consider the rates for residential (private and affordable) and B1(a) (Office) uses to be acceptable, HE raise a concern that the proposed rates for B1(c) (Light Industrial), B2 (General Industrial) and B8 (Storage/Distribution) uses potentially appear to be lower than they might have expected. HE further note that without the full TRICS reports in hand, it is not possible to validate this, and therefore we propose no change to the proposed trip rates prior to HE and LCC's review of the above discussed TRICS reports.

However, in pre-emptive answer to the initial concern already raised, we would note the following items:

- Trip rates were determined in 2016 from the (then current; v7.3.1) TRICS database in accordance with the TRICS Good Practice methodology. This work fed into the KC Local Plan at that time and included review as part of the Examination in Public by a Government-appointed Inspector. An exercise (presented in the Scoping Document) indicated that a repeat of the trip rate determination with then current data (TRICS v7.6.1) would result in a decrease in expected trip rates. We therefore propose to continue to retain the use of the (higher) 2016 rates so as to ensure a robust assessment.

- B1(c), B2 and B8 uses, at the proposed order of magnitude of trip rates, form a small component of the overall trip generation for the Site:

    - Though it is noted that the exact numbers are subject to change as the masterplan emerges, the indicative schedule of accommodation used at the time of the Scoping Document has an overall 07:00-19:00 hours two-way trip generation for all employment uses of 7,253 trips. Of these, 3,424 trips are for B1(c), B2 and B8 uses; i.e. a little under half. Additionally, total residential trip generation is computed at 8,586 two-way person trips over a 07:00-19:00 hours day.

    - Overall then, approximately 22% of all person trips from the development are due to the combined sum of B1(c), B2 and B8 uses. Even if it is determined that these trip rates are quantitatively low, it is considered that a minor change to these rates is unlikely to make a substantial impact on overall scale of trip generation for the development.

With those items in mind, should changes to the sites selected, or methodology applied, be requested, then we would request guidance from HE/LCC as to what alternative rates/sites/methodology would be acceptable.

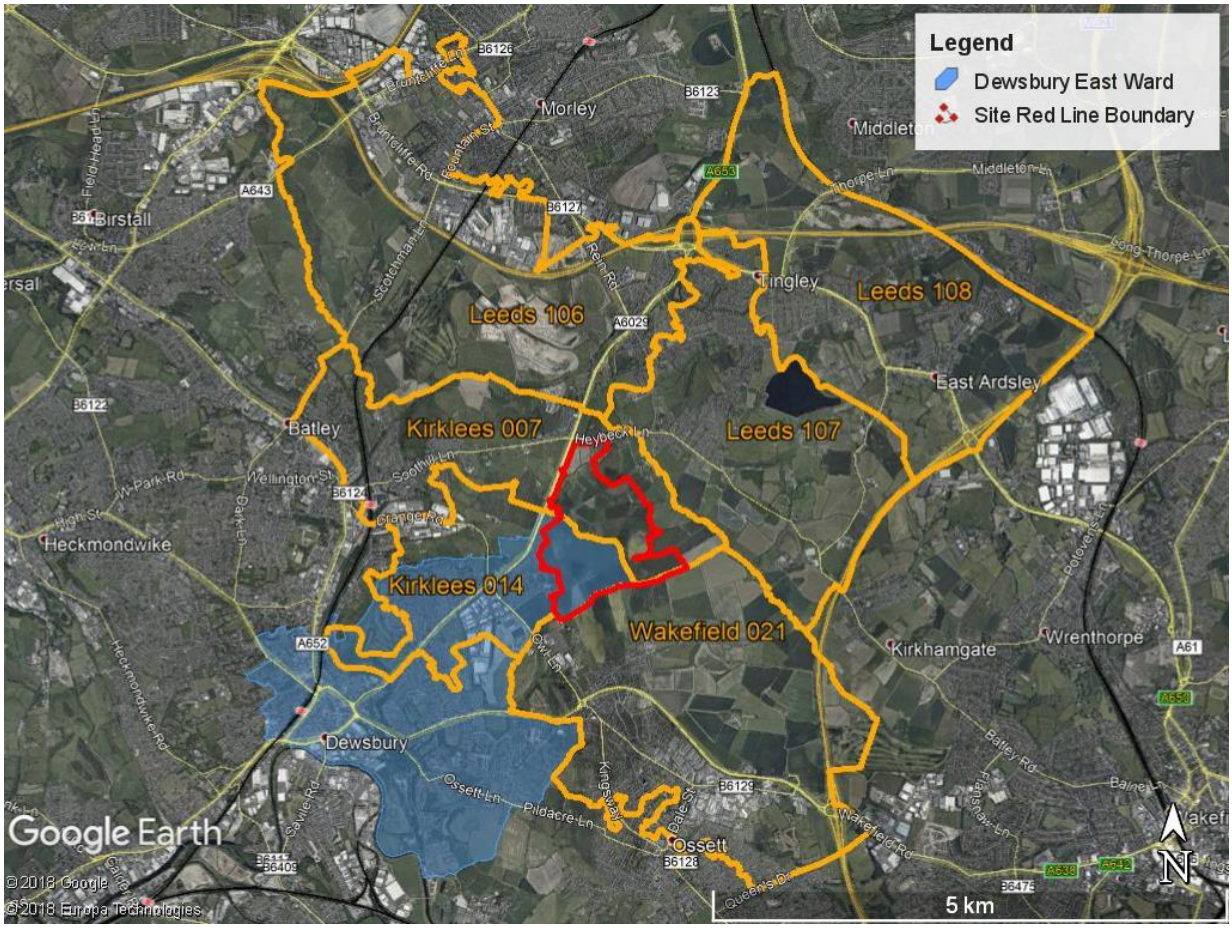
2.2 Mode Split

2.2.1 Residential Journey to Work

The presented residential journey to work mode shares have been queried by both HE and LCC. In general, whilst the principle of using Census data to determine mode shares is agreed, there is some discussion as to which output areas should (or should not) be chosen to provide the mode share estimates.

The Census data (re)presented in the Scoping Document was that used (and agreed with KC) in the 2016 Interim TA to support the Local Plan. This mode share data from the Dewsbury East ward (E05001398) was deemed at that time to be representative of the likely travel behaviours expected of the proposed Site. The Site is partially within the extent of this area. Figure 2.1 illustrates the locations of MSOAs (and Dewsbury East Ward) used in this document relative to the Site, and to one another.

Figure 2.1: Layout of MSOAs[1] (2011 ONS Census definitions) used in this document relative to Site.



HE note that this ward encompasses areas closer to the centre of Dewsbury than the Site and as such might be expected to display a higher sustainable mode share. LCC note similar and propose the alternative use of MSOA(s) to the north of the Site which do not encompass the Site but may (in their view) be expected to exhibit mode shares of a closer proxy than the Dewsbury East ward.

Table 2.1 indicates the previously considered mode share proportions, alongside mode share proportions for the relevant local MSOAs.

[1] Also includes extent of Dewsbury East Ward to allow comparison with MSOA extents and Site location.

Table 2.1: Selected 2011 Census Residential Journey to Work mode shares (Source: ONS Data Set QS701EW)

Method of Travel to Work	Dewsbury East[2] Ward	Kirklees 007[3] MSOA	Kirklees 014[4] MSOA	Leeds 107[5] MSOA	Leeds 108[6] MSOA	Wakefield 021[7] MSOA
Underground, metro, light rail, tram	0%	0%	0%	0%	0%	0%
Train	3%	4%	2%	2%	1%	1%
Bus, minibus or coach	9%	6%	7%	9%	7%	7%
Taxi	2%	1%	1%	1%	0%	1%
Motorcycle, scooter or moped	1%	1%	1%	1%	1%	1%
Driving a car or van	65%	67%	70%	71%	80%	73%
Passenger in a car or van	8%	8%	8%	8%	7%	7%
Bicycle	1%	1%	1%	1%	1%	1%
On foot	11%	11%	9%	7%	3%	9%
Other	0%	1%	1%	0%	0%	0%
Total	100%	100%	100%	100%	100%	100%

A side-by-side comparison of the 2011 Census residential journey-to-work rates confirms LCC/HE comments that Dewsbury East ward has (among other differences) a lower car mode share than Kirklees 014 MSOA. Both these areas encompass the southern part of the Site with the ward-level being part-comprised of the majority of this MSOA and extending over Dewsbury town centre. Similarly, Kirklees 007 MSOA, which includes the northern part of the Site, reports a lower car mode share than Kirklees 014 MSOA but also includes Batley and Batley National Rail Station. Kirklees 014 encompasses Hanging Heaton, Shaw Cross and the Shaw Cross Industrial Estate, but does not extend into the main part of Dewsbury.

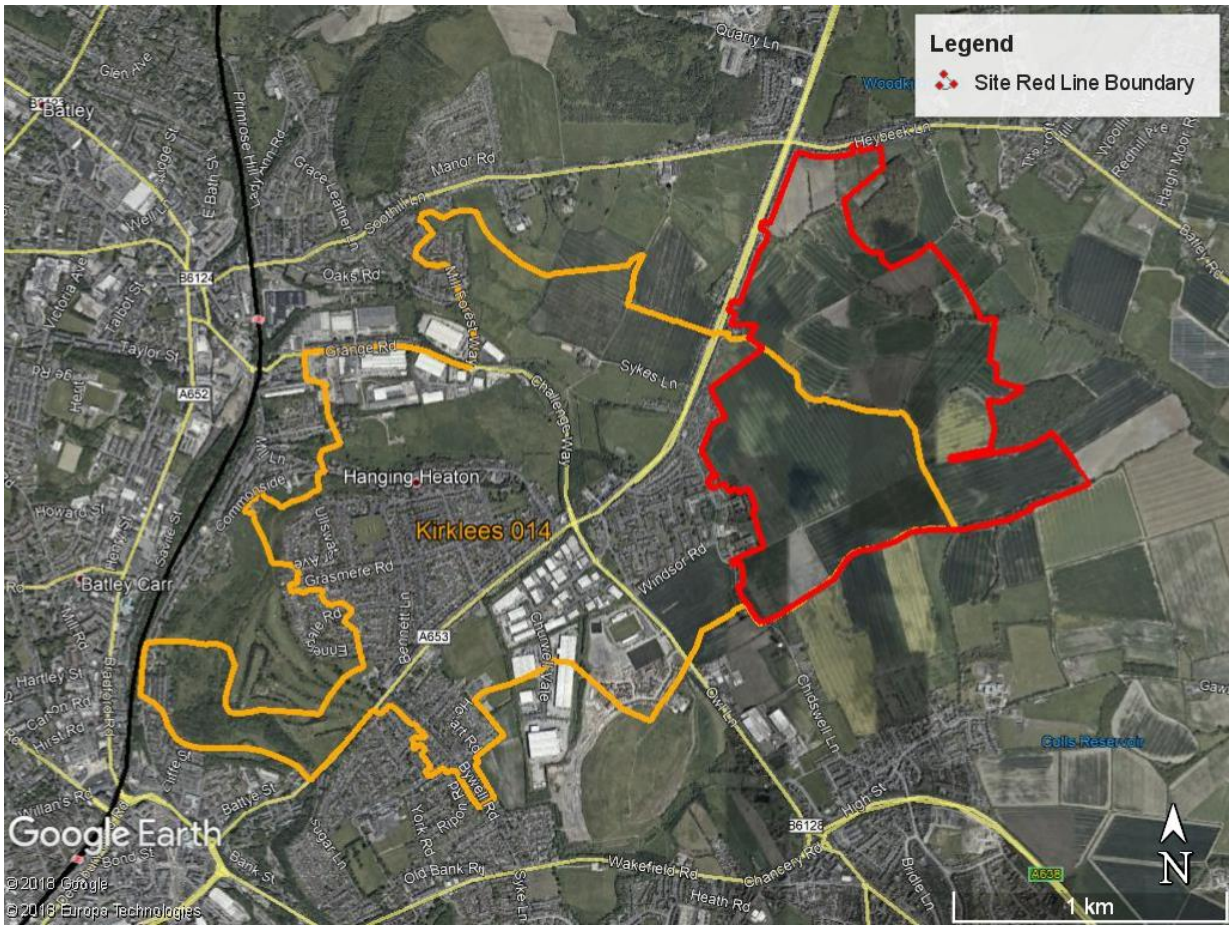
LCC suggest the “West Ardsley and Tingley areas” are a closer analogue for the Site. Leeds 107 MSOA covers the majority of Tingley and West Ardsley and shows a higher rate of car use (71% car driver) with lower rates of sustainable mode shares. LCC suggest Leeds 108 MSOA as another candidate as a proxy for the Site (covers east Tingley and East Ardsley), and this has higher car use rates (80% car driver). Both areas appear to be predominantly residential in nature, therefore the likelihood of internal journey-to-work trips (which are more likely to be completed by walking and cycling) is reduced.

By way of comparison, Table 2.1 also includes mode share data for Wakefield 021 MSOA, which borders the Site to the southeast and which covers North Ossett and Flushdyke. This area is an existing mix of residential and large industrial uses analogous to the proposals for the Site and

[2] ONS Code: E05001398
[3] ONS Code: E02002277
[4] ONS Code: E02002284
[5] ONS Code: E02002436
[6] ONS Code: E02002437
[7] ONS Code: E02002458

is located away from local public transport hubs. Mode shares here are comparable to both Leeds 107 and Kirklees 014 MSOAs.

Figure 2.2: Extent of Kirklees 014 MSOA and layout relative to the Site



To address the concerns of HE and LCC, we therefore propose to adjust the residential journey-to-work mode shares to match those of Kirklees 014 MSOA (Figure 2.2) for the following reasons:

- The southern part of the Site is located within Kirklees 014 and the majority of the residential use of the Site is likely to be in this part.
- Kirklees 014 and Leeds 107 MSOAs have similar car use mode shares, but Kirklees 014 has a lower rate of bus use counterbalanced by a higher rate of walking. Given the large proportion of the Site given to employment, it is likely there will be some element of internal trips and these would most likely be undertaken on foot. Kirklees 014 is therefore likely to be a closer fit.
- Kirklees 014 MSOA includes both residential and significant employment areas. This increases the likelihood of internal trips (i.e. people who both live and work within the MSOA) being included in the data already, avoiding the need for a separate adjustment exercise for those trips within the new Site development.
- Wakefield 021 MSOA (which extends to the south-eastern periphery of the Site and has a similar mix of land use) has comparable mode shares to Kirklees 014.
- Leeds 108 MSOA mode shares (as noted by LCC) are substantively different to Kirklees 014, Leeds 107 and Wakefield 021, and could be considered to overrepresent the potential for car use.

- The Leeds Road corridor forms a part of the larger "M2D2L" (Mirfield to Dewsbury to Leeds) corridor. In the early design and feasibility stages, and funded by 'West Yorkshire plus Transport Fund', there is an aspiration to make changes to this corridor to *"reduce congestion, reduce travel times, improve air quality and enhance public realm"*[8] once implemented post-2021. On this basis it is expected that sustainable transport options are likely to become more appealing over the delivery period and lifetime of the development. This adds uncertainty as to the future applicability of current[9] mode shares in the area, although future mode shares are likely to manifest as an increase in sustainable modes at the expense of current levels car use.

We would appreciate an indication from HE and LCC as to whether this revised mode share assumption (i.e. residential travel equivalent to that of Kirklees 014 MSOA) is acceptable.

2.2.2 Employment Journey to Work

Employment journey-to-work mode shares were previously derived based on the same ward definition (i.e. Dewsbury East) as that for the residential. For the same reasons as those above, it is proposed that the employment journey-to-work mode share be adjusted to match that of the Kirklees 014 MSOA as presented in Table 2.2.

Table 2.2: Selected 2011 Census Employment Journey to Work mode shares (Source: ONS Data Set WU03EW)

Method of Travel to Work	Dewsbury East[10] Ward	Kirklees 014[11] MSOA	Wakefield 021[12] MSOA
Underground, metro, light rail, tram	0%	0%	0%
Train	6%	1%	0%
Bus, minibus or coach		4%	5%
Taxi	2%	1%	1%
Motorcycle, scooter or moped	0%	2%	0%
Driving a car or van	70%	71%	73%
Passenger in a car or van	10%	10%	7%
Bicycle	2%	2%	2%
On foot	10%	9%	11%
Other	0%	0%	0%
Total	100%	100%	100%

Data for Wakefield 021 MSOA, being the only other MSOA considered in Table 2.1 with substantial employment land use, is also included for reference. Mode shares are comparable to those for Kirklees 014 MSOA indicating that these are likely to be a reasonable assumption for the Site. In any case it should also be noted that these are also a relatively close fit to those previously used in the 2016 Interim TA which also covered those additional MSOAs detailed previously.

[8] https://www.kirklees.gov.uk/beta/transport-roads-and-parking/pdf/scheme-location-plan.pdf
[9] In this case, from the 2011 Census.
[10] ONS Code: E05001398
[11] ONS Code: E02002284
[12] ONS Code: E02002458

2.3 Trip Distribution

Both LCC and HE indicate the principle of the proposed methodology, in line with the 2016 Interim TA, is acceptable. HE however note the resulting trip distribution may not be sufficiently representative as notional Site trip ends are based on a wider range of MSOAs than may apply directly to the Site[13]. LCC note they are unable to comment in the absence of further information.

At this time, in response to HE's specific suggestion and in line with the revision to the journey to work mode shares presented above, it is proposed to simplify the MSOA basis for Site trip ends to match that of the mode share assumptions; i.e. to Kirklees 014 MSOA for both residential and employment trips.

A distribution routing exercise has now been completed on that basis (and to include the junction at Dewsbury Road x Lowry Road x Hesketh Lane). This is an update of the work previously completed to inform the 2016 Interim TA and has been completed using the same methodology.

We do not propose extending the consideration for non-Site trip ends outside of the Yorkshire and Humber, nor reducing/increasing the granularity. This and the above therefore involved considering journey-to-work origin-destination (OD) pairs between Kirklees 014 MSOA and: MSOAs in Kirklees, Leeds and Wakefield; and all other local authorities in the Yorkshire and Humber region. Appropriate routes from each Site access to the periphery of the Study Area are determined for each OD pair. The numerical proportion of development trip generation using each route is assigned in proportion with Kirklees 014 trip and mode share (as discussed above). Finally, this development trip generation is assigned to the Study Area network. A set of summary diagrams are included at Appendix B.

2.4 Traffic Modelling Study Area

2.4.1 General Note on Surveys

HE asked for confirmation as to when traffic surveys were undertaken. Following an approval process with KC, surveys were undertaken on Tuesday 5th March 2019 through Monday 11th March 2019 inclusive, with manual classified count data for Wednesday 6th March 2019 being considered appropriate for use to define the baseline scenario.

At that time, some minor roadworks were in place on M62 J28 to (primarily) expand capacity on the M62 westbound off-slip. HE have requested that surveys be re-undertaken now the works are complete. It is anticipated that this survey work will be undertaken in Autumn 2019 (i.e. post school summer holiday period) so as to ensure surveys are undertaken in a 'neutral' period.

Although it is not anticipated that there will be substantive immediate changes in flow volumes due to the new road layout, the associated modelling baseline will be updated to conform to the new arrangements. At time of writing, it is anticipated that this updated modelling will follow separately to the formal planning submission in the form of an addendum. Any increased scope of survey identified below would also be handled in the same manner.

2.4.2 Strategic Road Network (HE)

2.4.2.1 M1 J41

HE consider the proposed assessment of M62 J28 (Tingley Interchange) and M1 J40 (Flushdyke Interchange) to be acceptable. However inclusion of a consideration of whether there is a need to assess an impact on M1 J41 (Carr Gate Interchange) is requested.

[13] The distribution is based on distribution from combined MSOAs: Kirklees 007, Kirklees 014, Leeds 106, Leeds 107, Leeds 108 and Wakefield 021.

Trip distributions, as computed based on 2011 Census journey-to-work data is included at Appendix B. The predicted flow patterns support it being unlikely that any appreciable traffic would use (or cross) M1 J41 related to the Site.

The only traffic flow which departs (or arrives to) the Site in a direction which might have the reasonable potential to interact with M1 J41 is that which leaves to (arrives from) the east on Heybeck Lane. This is expected to be a small number (around 20-30pcu either way in either peak). The most likely routing for this traffic would be either local trips or trips to/from Wakefield. In any case, if all this traffic were to route via M1 J41 (unlikely), a total peak increase of approximately 60pcu would be well within the range of daily variation on the junction[14].

Therefore, it is considered that there is not a need to assess the M1 Junction 41 (Carr Gate Interchange) due to the minimal number of trips expected at the junction.

2.4.2.2 Use of LinSig for junction analysis

HE note that LinSig is only acceptable as a modelling tool for the junctions in question if they are not affected by blocking-back between each set of signals. We have reviewed the preliminary modelling undertaken as part of the 2016 Interim Transport Assessment (ITA) and can confirm that the junction models do not indicate that blocking back is an issue in the base year scenarios. Further modelling undertaken as proposals progress will keep this issue under consideration and where it is identified that issues could develop in the future year scenarios as a result of the proposed development, further modelling consideration and/or appropriate mitigation will be investigated as required.

2.4.3 Local Road Network (LCC)

LCC have indicated concern that the Study Area proposed is not extensive enough and have suggested that at least an additional 5no signal junctions, 4no roundabouts and potentially 1no grade-separated junction be included. Generally, we do not agree that it would be appropriate to include all these junctions (but we accept that some additional junctions may be included). We have considered the junctions as follows:

2.4.3.1 Dewsbury Road, south of the M62

LCC note the exclusion of the Leeds Road x Hesketh Lane x Lowry Road junction. Given that the M28 J28 junction (Tingley Interchange) and junction of Leeds Road x Rein Road x Syke Road are already included, we propose to additionally include this junction per LCC request. We propose to undertake surveys for this junction at the same time as resurvey of the M62 J28 roundabout with associated modelling (using LinSig) to be submitted in a modelling addendum to be submitted following planning submission in Autumn 2019.

2.4.3.2 Dewsbury Road, north of the M62

Development flows in the order of 100pcu in each direction are expected to be assigned to Dewsbury Road north of M62 J28 (see Appendix B). We note the close proximity of the signal junction at Topcliffe Lane (Capitol Park) and therefore note there may be a case for expanding the scope of the M62 J28 junction modelling to include this junction. However, this junction is primarily the access for Capitol Park East.

As requested by LCC and KC officers, we have informally engaged with the transport consultants for Capitol Park East to seek to establish their position so as to avoid duplication of traffic modelling and ensure coordination. Ultimately, we consider it most appropriate, given the

[14] On the northbound M1 off-slip alone, the range of daily variation over each weekday peak hour is in the order of 100 to 300pcu. Source: HE MIDAS count data site M1/4979J w/c 13th May 2019.

proximity of their site and the distance (some 3km) to our Site, that they lead on considerations required at this junction with input from Pell Frischmann.

With regard to the impact of any development-related traffic flow increase further to the north of M62 J28 we note that AADT data available from the Department for Transport[15] (Count Site: 28005) shows annual average daily traffic on this part of the A643 has ranged by ±8000veh over the last 16 years and at most recent manual count, was similar to that in 2005 (at approximately 50000veh per day). In that period, AADT flows as high as ~57500 vehicles per day have been recorded on this road (in 2015). Contribution due to the proposed development is therefore unlikely to increase flows to the extent that has been recorded to operate on this road in the recent past. Of the traffic that arrives to the M62 J28 roundabout, approximately half is expected to continue north with the majority of the remainder joining the motorway.

Furthermore, the corridor suggested: forms a strategic route into south Leeds; is beyond the local access from the Site to the Strategic Road Network; forms a part of the M2D2L corridor already intended for improvement (noted in Section 2.2.1 above); and is likely to be affected by a number of other developments of strategic importance to the north of the M62. Given this, detailed consideration of these junctions is unlikely to provide any information which would not be superseded by LCC's own work and that of other local developers and stakeholders.

Therefore, in light of the minimal traffic contribution and this uncertainty, we do not propose expanding the scope of specific junction assessments further to the north of the M62 along the A653 Dewsbury Road corridor as this would be unlikely to be of any practical value. However, we do accept that increased flows on this corridor would feed more generally into LCC's "emerging approach to cumulative impacts" (including through the M2D2L project) and consequently both anticipate and look forward to providing input into that process.

2.4.3.3 A650: Tingley Common / Bradford Road

Uplift on the A650 (either direction from M62 J28) due to development is anticipated to be negligible and as such we do not propose including any A650 junctions within the assessments.

2.5 Assessment Scenarios

2.5.1 Clarification of Scenarios

We intend to make assessments against the following scenarios:

2019 Baseline: This is survey derived. Surveys completed in March 2019 are considered definitive and this will be reflected in the Transport Assessment at planning submission. M62 J28 is an exception to this as noted above. That junction, and those additional junctions identified to be included above, will be tested against Autumn 2019 surveys with updated related modelling following addendum to the planning submission.

2024 No and Interim Development(s): This consists of 2019 baseline flows factored up by SATURN-derived growth factors to 2024. Multiple development options for partial/staged delivery will be tested against this future year.

2030 No and With Development: This consists of 2019 baseline flows factored up using SATURN-derived growth factors to 2030. Full implementation of complete and operational development will be tested against this future year.

It should be reiterated that we do not propose to use SATURN flows directly. Instead, SATURN flows (including those scenarios which are linearly interpolated between adjacent SATURN scenarios) are used to determine turn-based detailed growth rate factors. This has the benefit

[15] https://roadtraffic.dft.gov.uk/manualcountpoints/28005

of providing a more granular consideration of flow growth (as opposed to an area wide method such as TEMPro), whilst considering the contribution of Local Plan schemes which are incorporated in the future year SATURN models.

TEMPro information was provided in the Scoping Document for reference and as a 'sense check' to our methodology where it is demonstrated that they provide overall similar outcomes. With the benefit of detailed SATURN modelling available, we do not propose the use of TEMPro.

We note that LCC have indicated they may provide further comments with regard the scenario derivation methodology.

Appendix A
TRICS Output Reports

Appendix B
Summary Diagrams from Trip Assignment Exercise

Response to TA Scoping Comments, Proposed Mixed Use Development - Land to the East of Leeds Road, Chidswell, Dewsbury

PREPARED FOR:	Paula Bedford
PREPARED BY:	Jack Fawdington (CH2M)
DATE:	19th September 2019
PROJECT NUMBER:	DevWY0010
DOCUMENT REF:	TM003
REVIEWED / APPROVED BY:	Richard Edwards

Task Overview

CH2M (on behalf of Highways England) has undertaken a review of Transport Assessment [TA] scoping response note that has been submitted to Kirklees Council [KC] in relation to emerging masterplan proposals for a strategic residential-led mixed use development on land to the east of Leeds Road, Chidswell, Dewsbury. The proposed development is for up to 1,535 residential units distributed across two development parcels, 'Site A' and 'Site B', together with up to 35 Ha of employment land within Site B. Site B will also include a new local centre and Primary School. The scoping note has been prepared by Pell Frischmann [Pell] on behalf of the Church Commissioners for England [the Applicant].

This technical memorandum comments on the suitability of the TA scoping response note, with discussion provided below as to whether the matters identified by CH2M in TM002 in relation to the potential impact of proposals upon the Strategic Road Network [SRN] have been addressed. For ease of cross referencing, the headings adopted below are the same as those utilised within the TA, where relevant to Highways England.

Previous CH2M Comments

CH2M previously provided comments in regard to a TA scoping assessment submitted for the site (document ref: DevWY0010 TM002) on the 25th July 2019. In brief, CH2M observed that:

1) In line with the Local Plan allocation, the site may need to contribute to improvement schemes at the SRN.
2) The trip rates for the B1(c), B2 and B8 land uses appear low. All trip rates used within the TA should be evidenced with supporting TRICS data.
3) The mode split presented for both the residential and employment uses are lower than those obtained independently by CH2M. Justification for the model splits should be provided.
4) It is advised that the most representative MSOAs by way of location and land use characteristics are interrogated for any mode split or distribution assessment.
5) The traffic distribution exercise within the TA should extend to Junction 41 of the M1 to demonstrate whether the impact is at a level that requires assessment or not.

6) Future year assessments should include all other Local Plan sites, as well as significant developments in adjacent authorities which could impact on assessed junctions.

7) Future year assessments should include suitably TEMPro growth rates.

Trip Rates

CH2M previously commented that the trip rates for the B1(c), B2 and B8 land uses appeared low and that all trip rates used within the TA should be evidenced with supporting TRICS data. Pell have subsequently provided the necessary TRICS output methodologies and appended these to the TA response note.

The trip rates proposed as part of the scoping exercise previously informed the 2016 Kirklees Local Plan which included review as part of the Examination in Public [EiP]. It is suggested that given the proposed B1(c), B2 and B8 land uses will represent a small component of the overall trip generation for the site, a minor adjustment to these rates is unlikely to make a substantial impact on the overall scale of trip generation for the proposed site.

The acceptability of the proposed trip rates as part of the Kirklees Local Plan does not justify their applicability for a specific planning application. Highway assessments undertaken at a Local Plan level apply archetypal trip characteristics associated with specific land uses over a larger district scale, therefore trip rates informing a Local Plan assessment cannot be understood to be reflective of a site specific location.

It should be noted that the overall area for employment is 35ha which is predicted to accommodate 122,500 sqm of employment. Assessment has assumed that each element (B1, B1(c), B2 and B8) will each have 30,625 sqm. Given trip rates are per 100 sqm the factor to be applied to the B8 trip rate would be 306.25 and that to the B1(c) / B2 trip rate would be 612.5. It is therefore not accepted that small changes in trip generation rates would lead to only small changes in trips.

In terms of the site selection for the B1(c) / B2 trip rates by Pell, it is noted that the date range has been extended back to 2006. This should only be done if site numbers are very small once other sections are made. It is noted that surveys on Mondays and Fridays are included. These days can have non typical working hour patterns and lead to underestimates of peak hour generation. It is noted that several of the sites are classified as B1 or B8 sites. Further consideration should be given to the inclusion of these sites. Site ES-02-D-07 has been deselected with justification.

CH2M has undertaken a TRICS assessment considering the TRICS default dates, surveys on Tuesdays, Wednesdays and Thursdays only and removing sites with more than 20% B8 or 20% B1(a) and B1(b). The results are attached and show that two way people trips are 1.010 and 1.190 in the morning and evening peak respectively. It is therefore concluded that the proposed B1(c) / B2 trip rates are low.

In terms of the site selection for the B8 trip rates by Pell, it is acknowledged that there is a limited volume of TRICS person trip rate survey data applicable to the B8 land use. Again, older sites are used which allows for the inclusion of a single large warehouse. This inclusion completely weights the TRICS assessment towards this individual site.

CH2M has undertaken a TRICS assessment considering the TRICS default dates, which only includes two sites rather than the three within the Pell assessment. The results are attached and show that two way people trips are 0.568 and 0.411 in the morning and evening peak respectively. It is therefore concluded that the proposed B8 trip rates are low.

Mode Split

Residential Journey to Work

Pell propose that the residential journey to work mode shares will now be based upon the Kirklees 014 MSOA to address comments that the formerly selected Dewsbury East Ward contains part of central Dewsbury, affording residents a greater array of sustainable transport options. The southernmost extent of the development site is located within the Kirklees 014 MSOA. The MSOA contains both residential areas and the major employment area of Shaw Cross Business Park. The proposed residential journey to work distribution based on the Kirklees 014 MSOA is detailed below.

Method of Travel to Work	Kirklees 014 MSOA
Underground / Light Rail	0%
Train	2%
Bus, Minibus or Coach	7%
Taxi	1%
Motorcycle, Scooter or Moped	1%
Driving a Car or Van	70%
Passenger in Car or Van	8%
Bicycle	1%
On Foot	9%
Other	1%
Total	100%

Table 1 – Proposed Residential Distribution

An independent Nomis interrogation show the proposed residential mode share is acceptable.

Employment Journey to Work

For consistency, Pell propose to draw upon the same MSOA for calculating employment journey to work trips. The proposed employment journey to work distribution is detailed below.

Method of Travel to Work	Kirklees 014 MSOA
Underground / Light Rail	0%
Train	1%
Bus, Minibus or Coach	4%
Taxi	1%
Motorcycle, Scooter or Moped	2%
Driving a Car or Van	71%
Passenger in Car or Van	10%
Bicycle	2%
On Foot	9%
Other	0%
Total	100%

Table 2 - Proposed Employment Distribution

Given the aforementioned MSOA contains the Shaw Cross Business Park, the trip distribution parameters are considered by CH2M to be likely similar to those generated via the employment aspect of the proposed site. Accordingly, the following an independent Nomis interrogation, the proposed employment mode share is seen as acceptable.

Trip Distribution

CH2M previously identified within TM002 that while the principle of the proposed trip distribution assessment was acceptable, it was advised that the most representative MSOA by way of location and land use characteristics are interrogated for any distribution assessment, opposed to a grouping of six separate MSOAs as was proposed. In response to the above comments, Pell propose to simplify the MSOA basis for site trip ends to match that of mode share assumptions; i.e. utilising the Kirklees 014 MSOA for both residential and employment trips. This approach is seen to be acceptable by CH2M.

With reference to the proposed trip distribution, CH2M note that:

- Pell will need to supply the Excel spreadsheets that evidence the MSOA journey to work origin-destination pairs underpinning the turning proportions detailed in Appendix B.
- Pell propose that Junction 41 of the M1 (Carr Gate Interchange) will not require further junction assessment given the quantum of trips expected to utilise this junction. As above, the calculations undertaken to determine this proposed distribution will need to be supplied.

Traffic Modelling Study Area

General Note on Traffic Surveys

Individual junction traffic surveys were undertaken on Wednesday 6th March 2019 with ATC surveys undertaken between Tuesday 5th March and Monday 11th March. Although the times of the surveys are generally considered appropriate, at that time there were some roadworks on M62 Junction 28. Pell have therefore committed to updating these surveys in Autumn 2019 once the schools are back. This is considered acceptable.

Use of LinSig for Junction Analysis

It was previously noted by CH2M that the use of LinSig to model the junctions would only be acceptable if the modelling does not show that blocking back would occur between each signal junction on the roundabout. If this is the case, then a modelling package that would take this into account should be used.

Pell affirm that following review of the preliminary modelling undertaken as part of the 2016 Interim TA, the existing LinSig models do not indicate that blocking back is an issue in the base year scenarios. It is further proposed that modelling undertaken as proposals progress will keep this issue under consideration with further modelling consideration and / or appropriate mitigation investigated as and when required. It should be noted that recent experience of this junction suggests that blocking back does occur now. However, the approach to keeping it under review is seen to be acceptable.

Assessment Scenarios

Pell affirm that assessments will be made against the following development scenarios:

- **2019 Baseline –** Surveys considered in March 2019 are proposed to be utilised for the upcoming TA. CH2M previously identified that a Congestion Relief Scheme [CRF] has recently been implemented by Highways England at M62 Junction 28, therefore operational observations will be required to validate the model of the now current layout. Accordingly,

Pell propose that this junction will be tested against surveys undertaken in Autumn 2019, with the updated modelling to follow in an addendum to the planning submission. This is seen to be acceptable.

- **2030 With and Without Development -** Pell propose that future year assessment flows will be factored up by SATURN derived growth factors to 2030, with full implementation of complete and operational development tested against this future year. SATURN flows are proposed to be used to determine turn-based detailed growth rate factors which consider the contribution of Local Plan development allocations which are incorporated within the future year SATURN models.

With reference to the proposed assessment scenarios, CH2M note that:

- Should junction mitigation be required as a result of the development coming forward, the SATURN model will need to be suitably reassessed. The implementation of junction mitigation within the SATURN model will likely redistribute and reallocate traffic demand from the immediate highway area through the mitigated junction rather mitigate the actual development impact.
- Pell will need to clarify the assumptions that underpin the operation of the SATURN model. It will need to be evidenced how SATURN has derived the growth factors in question before they can be deemed to be acceptable.
- Given the proximity of the development site to the boundary of Leeds, major committed development sites within Leeds and Leeds Local Plan allocations would need to be considered within the SATURN model. Moreover, Pell will need to evidence which Kirklees Local Plan development allocations have been included within the SATURN Model.
- CH2M will undertake an independent TEMPro assessment to appropriately validate any growth rate proposed by Pell.

Summary and Conclusions

This scoping review has highlighted the following:

1) The proposed person trip rates for the B1(c) / B2 and B8 land uses are still considered to be low.
2) Pell will need to supply the Excel spreadsheets that evidence the MSOA journey to work origin-destination pairs underpinning the turning proportions detailed in Appendix B.
3) Pell propose that Junction 41 of the M1 (Carr Gate Interchange) will not require further junction assessment given the quantum of trips expected to utilise this junction. The calculations undertaken to determine this proposed distribution will need to be supplied.
4) Further detail is required as to the growth rates from the SATURN model.