HEARING STATEMENT – MATTER 14 (A) HOUSING SITE ALLOCATIONS: EDENFIELD, HELSMHORE, IRWELL VALE AND EWOOD BRIDGE

ROSSENDALE LOCAL PLAN EXAMINATION

TAYLOR WIMPEY (UK) LTD

(ALLOCATION H72 – EDENFIELD)

Date: August 2019

Pegasus Reference: (KW/GL/MAN.0299/R011A)

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1. INTRODUCTION

1.1 Pegasus Group have been instructed on behalf of their client, Taylor Wimpey (UK) Ltd, to prepare Hearing Statements to the Rossendale Local Plan Examination (EiP) in support of their land interests in the Borough. This relates to the following sites, which are both allocated in the submitted plan:

- **Land west of Market Street, Edenfield (within Housing Allocation H72);** and
- Grane Village, Helmshore (within Housing Allocation H74).

1.2 This Statement deals with Matter 4 'Housing Site Allocations: Edenfield, Helmshore, Irwell Vale and Ewood Bridge' which addresses the following issue:

Issue - Are the proposed housing allocations in Edenfield, Helmshore, Irwell Vale and Ewood Bridge justified, effective, developable/deliverable and in line with national policy?

1.3 Given this Matter covers both the above allocations in detail, we have split this Statement into two separate documents for clarity. This document deals with Edenfield (hereafter referred to as **Matter 14A)**, as highlighted above, and below we provide some additional background on the site and the plans and documents submitted to date.

Land West of Market street Edenfield (within Allocation H72)

1.4 Taylor Wimpey are the freehold owner of a 12.5 Ha central parcel within the H72 allocation (as shown on the site plan over the page), which was submitted to the call for sites process in 2016 and included within the SHLAA (Ref: 16262) with an indicative capacity of 273 dwellings. The allocation as a whole proposes 400 dwellings.

1.5 Taylor Wimpey provided additional detail on the site within Development Statement in September 2016 (attached at **Appendix 1**) including an illustrative masterplan showing a capacity of approximately 240 units within their ownership.

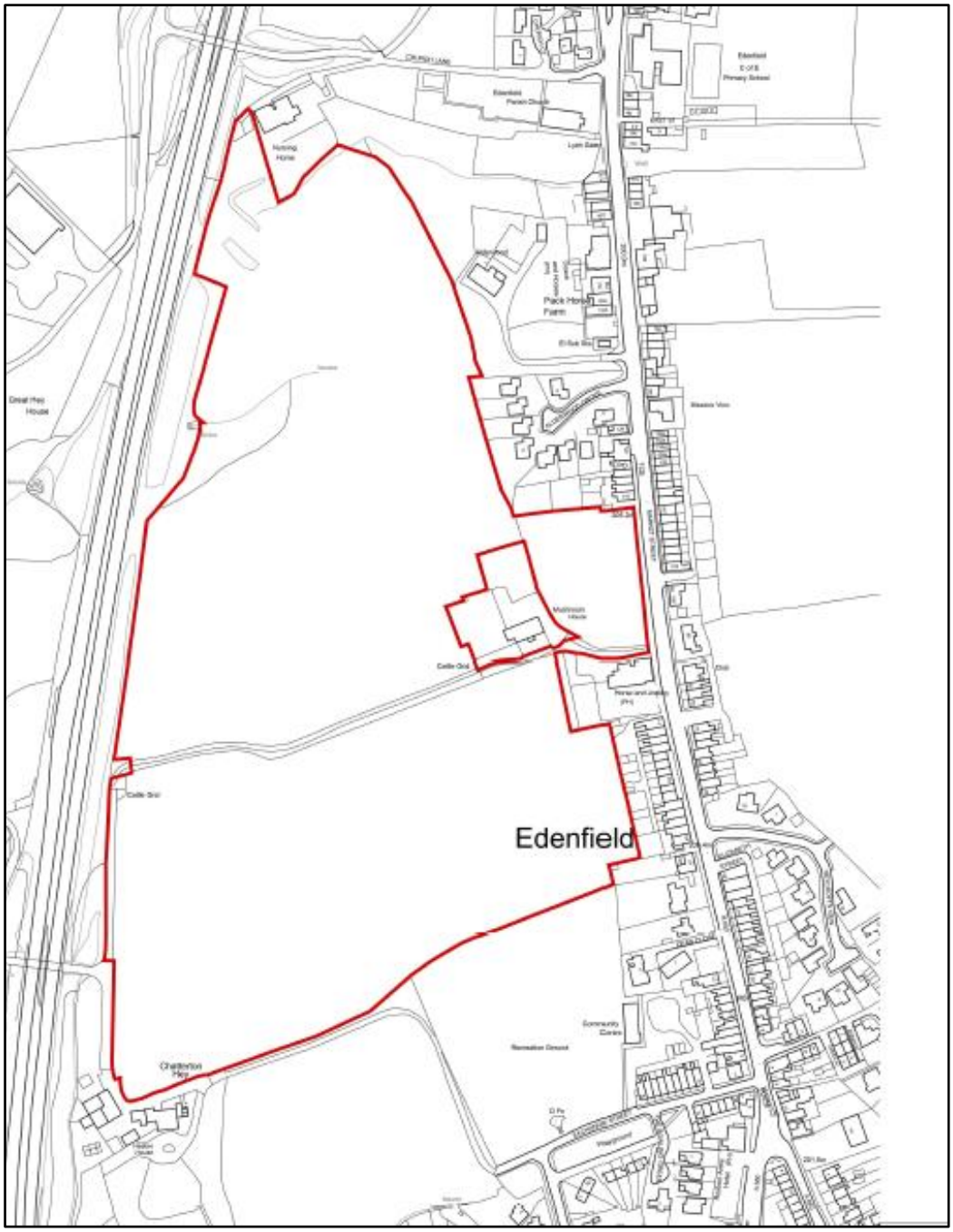
1.6 A Combined Illustrative Masterplan was then submitted at the Regulation 19 Stage (attached at **Appendix 2**). This showed a total red line area of 21.3 Ha (covering the Taylor Wimpey land, the Methodist Church Land to the south and the Peel Holdings land to the north), with a net developable area of 10.8 Ha. This generates an indicative capacity of 378 units, based on net density of 35 dph. This excludes the parcel known as the Horse and Jockey fronting Market Street, which is under construction for a further 10 dwellings.

1.7 In respect of the attached appendices we note that Appendices 1, 2, 3, 4 and 6 have all been submitted before through the Local Plan process and should therefore be in front of the Inspector already, however we have attached them all again for clarity.

1.8 Appendix 5 (the EFM Education Report) is an update of an earlier report and therefore forms new evidence which is not in front of the Inspector, which has been produced to address the 2019 Infrastructure Delivery Plan and recent correspondence with the Council.

1.9 Appendix 7 is a Heritage Note which responds to the Council's HIA for this site and also forms new evidence.

1.1 Taylor Wimpey ownership within Edenfield allocation (H72)



2. MATTER 14: EDENFIELD QUESTION A – LOCAL LANDSCAPE CHARACTER

H72 – Land west of Market Street, Edenfield/ Policy HS3: Edenfield

a) What effect would the proposed housing allocation H72 have on local landscape character and appearance, and the setting of the village? Could impacts be mitigated?

2.1 At the outset it must be noted that beyond the sites Green Belt status, the allocation is not subject to any other statutory or local landscape designations, nor any heritage designations (i.e. Edenfield is not a Conservation Area), and is therefore not afforded any additional protection of relevance to this question.

2.2 In respect of landscape impacts, Taylor Wimpey have submitted detailed representations to earlier Local Plan consultations, including a Landscape Assessment by Randall Thorp, which formed a rebuttal to the Council's Landscape Assessment (provide by Penny Bennett Landscape Architects, dated January 2015) which is within the 'Lives and Landscape, Volume 2: Site Assessments' (July 2017) **(EB025)**.

2.3 The Council's Assessment concluded that the majority of the Taylor Wimpey site, referred to as Area A is *'not suitable for development on landscape grounds'*, whilst the other 3 parcels were considered suitable (with mitigation for the Church and Peel Holdings parcels). The recommendations in respect of Area A state that the site is:

> *"unsuitable for development, because the effects on the landscape would be significant, and would be uncharacteristic of the local landscape character area, 8b Irwell Valley south. Nor could it be effectively mitigated against because of the sites openness. Long views west from Burnley Road and eastwards from the far side of the valley would be affected and there would be significant adverse effects on attractive well used walks in the area. In addition a visually prominent and well kept sports field would be destroyed".*

2.4 The Randall Thorp Assessment strongly disputes these findings and is attached again at **Appendix 3** for ease of reference, with the key conclusions below (our emphasis):

> *"The Assessment's description of the landscape context of the site places strong emphasis and value on openness and ribbon development in the area around the site, however we consider that in the wider context, appropriate development on the site would extend the existing nucleated settlement at the south of Edenfield in a logical northward manner, which is constrained by a strong established western boundary in the form of the A56 dual carriageway.*
>
> *There would be a reduction in the extent of ribbon development along Market Street/ Burnley Road, however this would result in substitution of one existing characteristic which is already present in the landscape for another. Some ribbon development would remain in the northern part of Edenfield, however it is questionable how much value should be placed on ribbon development as an urban form, which is essentially urban sprawl and is not currently promoted as good design.*

The existing sports field mentioned in the recommendations is not part of the proposed Taylor Wimpey site and would not be affected by this development.

Good design principles incorporated into the masterplan, as presented within the submitted Development Statement, would ensure that:

- *long views across the valley to the west from Market Street and the Public footpaths within the site can be retained through appropriate placement of open space and consideration of building scale within the development;*
- *intrusive noise of the A56 can be reduced through acoustic screening and landscape buffer treatments, effectively improving the quality of existing public routes through the site;*
- *existing Public Rights of Way through the site are retained on their current alignment and set within an attractive, high quality setting, and that these routes are supplemented by additional public routes to maintain the accessibility of the site and enhancing its recreational value;*
- *existing valued features of the site, such as dry stone walls, are retained as features within the proposed development;*
- *new landscape treatments along the western site boundary can strengthen the western edge of Edenfield and the interface with the Green Belt, softening eastward views to the development from the wider landscape.*

There would be some loss of openness as a result of development, as would occur with the development of any green-field site, however the resulting developed character of the site would not conflict with its surroundings and would become an extension of the urban form which already exists in the southern part of Edenfield. In the broader context of the site, development would not extend the developed area any higher up the valley sides than already exists along Market Street, nor would development extend into the undeveloped River Irwell valley, which is located to the west of the A56 dual-carriageway.

We therefore consider that mitigation, in the form of good design principles as outlined above, can reduce the potential adverse effects of development upon landscape character and views to an acceptable level, and that the Assessment should conclude that the site at Market Street, Edenfield is suitable for development with appropriate mitigation."

2.5 As such, Taylor Wimpey have demonstrated, through design work undertaken to date and proposed mitigation features listed above, that appropriate development within H72 would not result in any significant adverse effects upon local landscape character and appearance, or the setting of Edenfield.

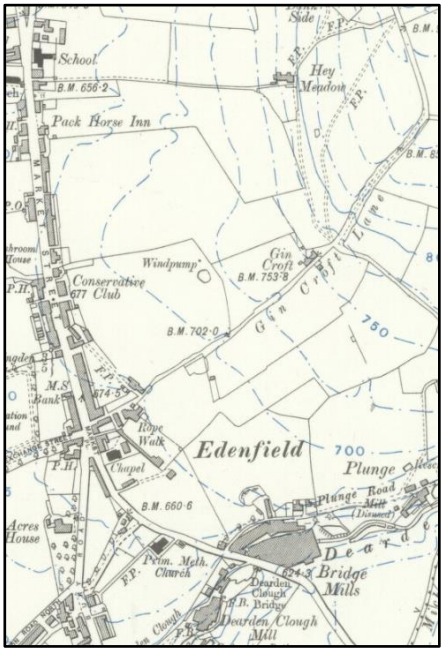
2.6 In respect of the setting of the village, we presume the question relates to morphology and form rather than heritage matters (given the lack of heritage designations). Historically Edenfield grew as a quarry village with predominantly linear/ ribbon growth of quarry cottages along Market Street,

similar to several other villages (such as Water, Lumb, Shawforth etc) which developed in a linear fashion along valley floors, drive by Rossendale's topography.

2.7 This is shown clearly on the historic maps below, with more nucleated growth around the village centre beginning in the late 1800's. Clearly this nucleated growth has accelerated during the 20th century to provide the village with its current form. As such, development of Allocation H72 will simply continue this process of nucleation and provide a logical extension and rounding off of the settlement, with the A56 providing a defendable boundary to prevent further sprawl.

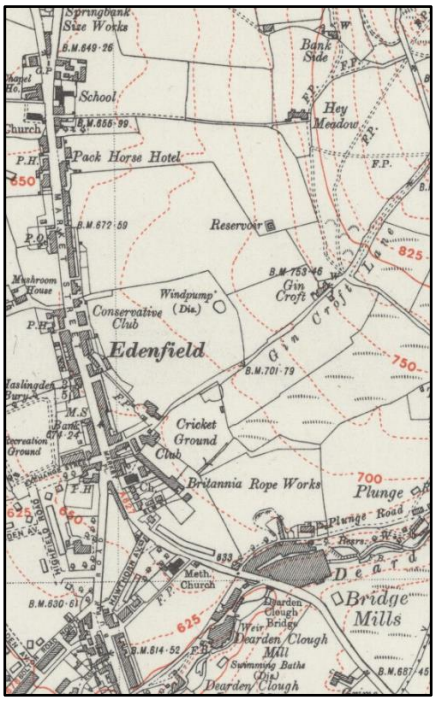
Fig 2.1 Historic Map 1895 (Surveyed 1891)

Historic Map 1912 (Revised 1908);



Historic Map 1930 (Revised 1927)

Historic Map 1947 (Revised 1938);



3. MATTER 14 – EDENFIELD QUESTION B – SCALE & DEVELOPMENT HIERARCHY

b) Is the scale of the proposal consistent with the development hierarchy and the sustainability of its village location? What proportional growth does it represent for Edenfield? What effect would the scheme have on the function, form and identity of the village?

3.1 Policy SS outlines the Spatial Strategy for the Borough, which contains both a 'top down' and 'bottom up' approach to growth. The top down approach directs development towards settlements which are identified as the most sustainable in terms of services and facilities. The bottom up approach relates to major sites, including Edenfield, which have been allocated due to being suitable, viable and deliverable sites.

3.2 Whilst it is acknowledged that Edenfield does not have the level of local services that higher tier settlements such as Rawtenstall have as per the 'top down' approach, it does contain several suitable, viable and deliverable sites, as confirmed through the detailed site assessment process that underpins the 'bottom up' approach, and as such is justified given the geographical (topography and flood risk) and viability/ market constraints which are present in Rossendale, which limit the number of sustainable sites within the higher tier settlements).

3.3 We address the issue of geographic constraints, and their impact on distribution and the spatial strategy, in more detail within question b of our **Matter 2 Statement**.

3.4 Given these constraints, the addition of 400 dwellings to Edenfield is also justified in the wider context of ensuring that the Local Plan will be able to deliver Rossendale's emerging development requirements.

3.5 In respect of the viability/ market constraints the Council provide additional justification in their response to 'Response to Question 10 of Pre-Hearing Note 1' **(EL1.002e.ii)** (our emphasis):

> *"The importance of having a balanced housing and employment supply in a District with challenging geography and viability issues in the east of the Borough has influenced the approach to release of Green Belt land (see also Green Belt Topic Paper for further details). It is considered that this site plays an important role in contributing to a balanced housing supply in the following ways:*
>
> - *It is located in the popular south west of the Borough where there is high demand.*
> - *Given the substantial number of houses proposed in the East of the Borough the site helps to ensure a balanced supply between the east and west of the Borough.*
> - *The site is large enough to ensure a mix of housing types and sizes, including affordable provision in an area of the Borough where affordability ratios are highest. The site is in a viable location with willing landowners. It is recognised that a strategic Masterplan led approach is required, including landscaping and infrastructure provision, and this is set out in Policy HS3."*

3.6 The 2019 NPPF places a strong emphasis on identifying a supply of deliverable sites annually throughout the Plan Period (paragraph 73). This site is highly deliverable with willing landowners, a matter which must be given significant weight when assessing the deliverability of the Plan and its development requirements as a whole, not just consistency with the Spatial Strategy policy in isolation. The allocation of this highly deliverable site ensures that the Plan will be effective (paragraph 35 NPPF) contributing to its soundness.

3.7 Furthermore, whilst Edenfield is not categorised as a high-ranking settlement in the defined hierarchy, Edenfield still has a number of local facilities present including a primary school, pharmacy, public house and public transport facilities. Please refer to the Development Statement contained at **Appendix 1** for full details. All of these local facilities help to support future growth in Edenfield, and it is also notable that Policy HS3 outlines the infrastructure provision which the Council expect to see delivered as part of the Edenfield allocation. In combination, both will ensure that the development proposals can be sustainably accommodated within the settlement.

3.8 Moving on to the issue of proportional growth, the built up urban area of Edenfield had a population of 2,053. As such using an average household size of 2.4 the proposed allocation will generate an additional 960 people over the course of the plan period, increasing the population to 3,013 which represents an increase of **47%.**

3.9 Whilst we accept that this overall level of population growth is significant, in reality it will grow incrementally over several years, with our latest trajectory estimate within **Matter 19** (question a part ii) suggesting a 9 year build period, commencing in 2021/22 and finishing in 2029/30, with annual delivery rates ranging from 38 to 60 (equating to between 90 and 140 additional people per year.

3.10 In terms of its effect on the function of the settlement, this will not really change, as the resultant population will still be in line with its village status which falls within the 'other settlement tier'. In fact it would bring Edenfield more in line with other villages and settlements within the borough.

Fig 3.1 – Population Size/ Function of Settlements in Rossendale

Hierarchy	Settlement	Geography uses	2011 Population
Key Settlement	Rawtenstall / Waterfoot	Built up area	23,128
Key Settlement	Haslingden	Built up area	15,969
Key Settlement	Bacup	Built up area	13,323
Key Settlement	Whitworth	Built up area	7,500
Other Settlement	Rising Bridge	Ward	6,034
Other Settlement	Helmshore	Ward	5,805
Other Settlement	Goodshaw Loveclough / Crawshawbooth	Ward	4,033
Other Settlement	Stacksteads	Ward	3,789
Other Settlement	Shawforth	Ward	3,586
Other Settlement	Edenfield	Built up area	2,053 (up to 3,013)
Other Settlement	Weir	Built up area	1,251
Other Settlement	Water	Built up area	872

3.11 Furthermore, it is still no where near a scale to be considered a higher order 'key settlement' as it will only be 40% the size of the smallest key settlement (Whitworth) and just 13% of the size of the largest (Rawtenstall), and this again is before planned growth in these settlements is accounted for). As such, the proposed growth of Edenfield would not alter the Borough's established settlement hierarchy or the role of Edenfield within that hierarchy.

3.12 In respect of the form of the settlement, the previous section has demonstrated that this wont change hugely, with nucleation to the north of the settlement simply continuing the nucleation of the remainder of the village that has occurred over the last century.

3.13 In respect of identity, there are multiple opportunities to maintain and enhance this through the Neighbourhood Plan process and the masterplanning provisions within policy HS3 (subject to these being justified in line with our comments on **Matter 16**, question a)

4. MATTER 14: EDENFIELD QUESTION C – GREEN BELT

c) What effect would the proposed boundary change and allocation have on the Green Belt and the purposes of including land within it? Does the assessment in the Council's Green Belt Review give appropriate recognition to the site's strategic role in preventing the unrestricted sprawl of Manchester? What are the exceptional circumstances that justify altering the Green Belt in this case?

4.1 As outlined in the Randall Thorp report contained at **Appendix 3**, the potential level of harm caused by the release of Taylor Wimpey's site from the Green Belt is low**.** This is because the site scores:

- Weak contribution against purposes 1a, 1b of the Council's Green Belt Methodology (to check the unrestricted sprawl of large built-up areas)
- Weak contribution against purpose 2 (to prevent neighbouring towns merging into one another)
- Weak contribution against purpose 3 (to assist in safeguarding the countryside from encroachment)
- No contribution against purpose 4 of the Green Belt (to preserve the setting and special character of historic towns)

4.2 The Council's Green Belt Assessment (**EB022**) did not assess purpose 5 of the Green Belt (encouraging the recycling of derelict and other urban land) on a parcel by parcel basis. All parcels were concluded to make an equally significant contribution to this purpose, and this an approach we support and endorse.

4.3 The Council's assessment of Taylor Wimpey's land interest (parcel 43) does not specifically refer to the sites strategic role in preventing the unrestricted sprawl of Manchester. However, this is entirely justified, because the size of this green belt release site is not of strategic importance in terms of preventing the unrestricted sprawl of Manchester, with a number of settlements (such as Bury and Ramsbottom) playing a greater role given their locations further south, adjoining the Greater Manchester conurbation). The Council's Green Belt review is therefore entirely appropriate in this regard.

4.4 Furthermore, releasing Green Belt through the Local Plan is entirely the right process to ensure that urban expansion is not unrestricted and is instead fully planned, evidenced and consulted, before being subject to an independent examination. As such Green Belt release in this way represents controlled expansion.

4.5 In respect of exceptional circumstance, please refer to our **Hearing Statement 8** which justify the altering the Green Belt boundary in this location, and within the wider borough. In summary, these are:

- Housing need over the emerging plan period (see detailed commentary **Statement 3**);
- Insufficient land supply (see detailed commentary within **Statement 19**);

- Housing choice and balance in the market- providing more aspirational family housing in this higher value area (see commentary on question b above); and
- The resulting harm that will occur from failing to meet these housing needs- including slower economic growth, lack of labour force mobility, affordability issues, disruption to commuting patterns and the delivery of housing choice.

4.6 There is a compelling case for exceptional circumstances to release this site from the Green Belt and we fully endorse the Council's recognition of this in their Green Belt Topic Paper **(EB023).**

5. MATTER 14: EDENFIELD QUESTION D – GREEN BELT ENHANCEMENTS

d) What range of mechanisms to enhance the Green Belt are expected from developers, as set out in section e in Policy HS3? How does this fit with the requirement for developer contributions, as set out in Policy SD2? Is the specified enhancement of land between the site and Rawtenstall/Haslingden justified and deliverable?

5.1 This matter is reflective of paragraph 138 of the NPPF, which relates to offsetting the impact of removing land from the Green Belt by compensatory improvements to remaining Green Belt.

5.2 The NPPF makes it clear that it is strategic policy-making authorities/Local Plans which should be considering this matter, therefore the onus is not on the developer/ landowner to put forward mechanisms which would help to improve access to remaining Green Belt land within their land ownership.

5.3 However, the Council have not set out the range of mechanisms it expects from developers within policy HS3, nor has it confirmed how this relates to Policy SD2 and as such we would request more clarity on this.

5.4 The specified enhancement of land between the site and Rawtenstall and Haslingden is not justified within the plan or supporting text, although it is assumed that rationale is that this location is towards the centre of the authority area and close to the two largest urban centres, thus maximising access to the countryside.

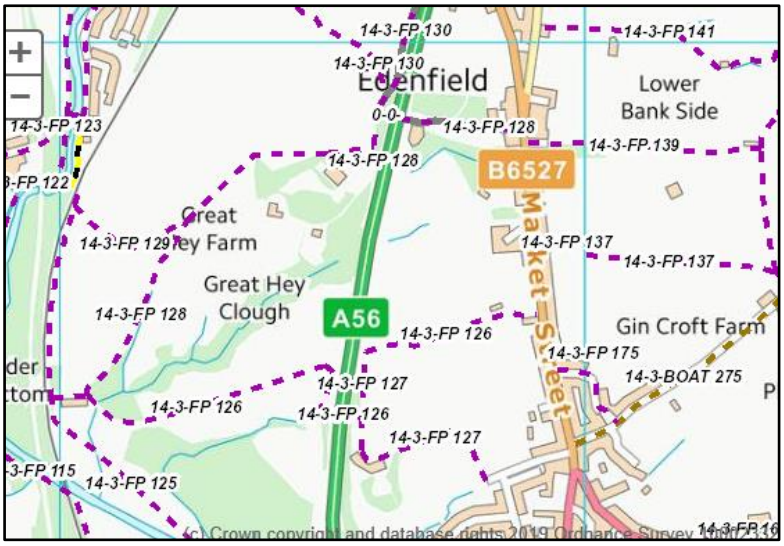
5.5 Furthermore, in the case of the Taylor Wimpey land ownership, this is unlikely to be deliverable on-site, as the site does not provide direct access to the green belt areas to the north (Rawtenstall/Haslingden area). The deliverability of off-site contributions are also unclear as this would be subject to the Council having control of third-party land.

5.6 As such, the requirements for compensatory improvements in policies HS3 and SD2 are not sufficiently explained or justified, and we would welcome clarity on this, and reserve the right to comment further on this matter once this is provided.

5.7 In terms of opportunities for enhancement, there is a comprehensive public right of way and footpath network in the area around Edenfield, extending in all directions (as is clearly shown on the plan at **Appendix 2** and the Lancashire PROW map below), with three crossing the wider H72 allocation, and one crossing the Taylor Wimpey site.

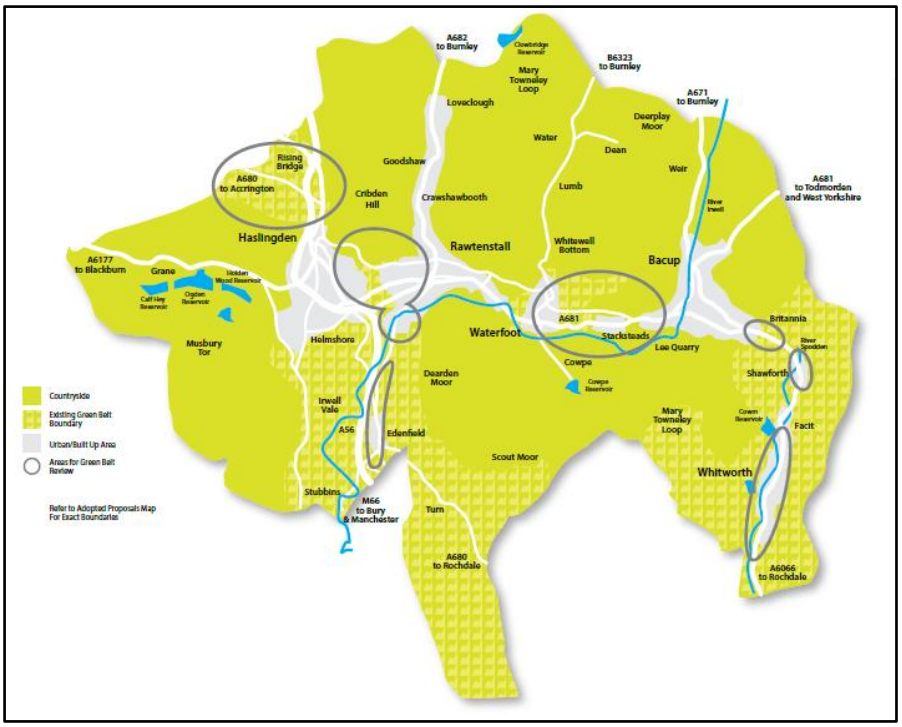
5.8 As such, where these PROWs cross the site they can be enhanced and maintained with additional opportunities to improve visibility from the main road and provide signposting and information (potentially an information board), whilst off-site contributions may be appropriate to improve the wider network, where they are in LCC control. This would aid the ability of the existing community to access the open countryside/ Green Belt.

Fig 5.2 – Lancashire Public Rights of Way Map



5.9 Furthermore, it is worth pointing out that Green Belt only forms a small part of the non-urban area in Rossendale (23% of the total area according to **EB023**), with its main function being to prevent urban sprawl from Greater Manchester to the south, rather than providing access to the countryside. Indeed, large swathes of Rossendale is open countryside (over 50%), which is directly accessible from majority of the settlements, particularly in the north of the borough.

Fig 5.2 - Plan showing distribution of Green Belt and Open Countryside in Rossendale



5.10 As such, it is arguable whether access and enhancements to the Green Belt are justified over general improvements to the open countryside in Rossendale.

6. MATTER 14: EDENFIELD QUESTION E – TRANSPORT INFRASTRUCTURE

e) What are the key transport and access infrastructure requirements/costs associated with the proposed scheme? Are there any delivery issues or phasing implications? Has any necessary third-party land been secured for access? What is Lancashire County Council's and the Highways Agency's latest position?

6.1 Taylor Wimpey can confirm that there are no deliverability issues in relation to their land interests and will proactively work with the Council and adjoining landowners to agree phasing and infrastructure matters. Policy HS3 includes appropriate and effective wording for this.

6.2 No third-party access is required for Taylor Wimpey's land interest, nor for adjoining land owners.

6.3 In October 2018 we submitted a Highways Note (Croft) to the Council (**Appendix 4**, which assessed traffic impact in response to the Council's 2018 Highways Capacity Study (**EB040**). Croft's Highways Note confirms that:

> *"The Council's highways study concluded that intervention may be required by the end of the plan period for the Market Street/Bury Road/Rochdale Road mini-roundabout. The Crofts note tests this further and concludes that the Market Street/Rochdale Road/Bury Road mini-roundabout can accommodate the likely levels of traffic associated with the draft allocation sites without any significant impacts on the surrounding highway network."*

6.4 We also note that further Traffic Surveys carried out in June 2019 further reinforce this position as they suggest lower traffic flows than the 2017 surveys obtained as part of **EB040.**

6.5 An updated 2019 Infrastructure Delivery Plan (**SD014**) has been provided by the Council. Table 6 of the document confirms that their latest position is that mitigation is required for the Rochdale Road/Market Street Roundabout junction (T8). It is stated that the cost of this is unknown, therefore we reserve the right to comment on this matter at a later date and will work proactively with the Council to find a suitable mitigation package should this still be deemed necessary.

7. MATTER 14 – EDENFIELD QUESTION F – PRIMARY SCHOOL

f) What scale and form of additional primary school provision would be needed to support the development? Is an expansion of Edenfield Primary School justified, deliverable and consistent with the Green Belt status of the land? If a new school is required, is there scope to accommodate this within the proposed allocation site, or elsewhere? What impact would on-site provision have on housing capacity? What provision is required for early years/childcare and secondary education facilities? What is Lancashire County Council's latest position?

7.1 Policy HS3 (part b, criteria t) requires provision for a one form entry primary school if Edenfield Primary School cannot be expanded to the required level, to be agreed through the masterplanning process. However, the need for this is not justified, either in the policy, or in the Council's updated 2019 Infrastructure Delivery Plan **(SD014)** which simply states (our emphasis):

> *"There are two options considered for Edenfield either expansion of existing primary schools or provision of a new school. Funding for school expansion would need to be secured through Section 106 contributions and the Basic Needs Allocation. Timing of the development will need to be carefully considered to meet the pupil yield of the early development phases whilst ensuring existing schools are not destabilised. A new school may be required depending on the circumstances of the housing. The emerging Local Plan is seeking to protect land adjoining the existing school should expansion be necessary."*

7.2 The cost of a new primary school is estimated at £4.5 million in the 2019 IDP, increased from £4 million in the previous version.

7.3 The previous 2018 Infrastructure Delivery Plan **(SD015)** confirmed at page 8 that" *LCC would initially look to provide expansions at existing school sites where appropriate"* confirming this as the favoured option, along with the fact that a new school would be a Free School and would fall outside the local education authorities control; however this preference has not been carried forward within the 2019 document, and no updated education evidence has been provided by LCC to support a change in position.

7.4 This is despite several requests from ourselves for a meeting or an 'Educations Contribution Assessment' of the proposed development based on an indicative housing mix (of 20% 2 bed/50% 3 bed and 30% 4 bed). If LCC provide updated evidence through Hearing Statements we reserve the right to comment on these at the EiP.

7.5 Given the absence of up to date evidence from LCC, we provide our own Education Report prepared by EFM (attached at **Appendix 5**), which forms an update to the report submitted at Regulation 19 stage to take account of up to date roll and capacity information.

7.6 This report notes the following key points in respect of primary school provision:

- Based on the indicative housing mix of (of 20% 2 bed/ 50% 3 bed and 30% 4 bed) a 400 dwelling development in this location will generate a need for **84** primary school places,

which equates to a total contribution of **£1,348,245.36** (based on Lancashire standard per place calculations, which EFM support in this instance).

- Looking at capacity in surrounding schools, rolls at the two nearest schools (Edenfield Church of England Primary School and Stubbins Primary School) are forecast to fall in the coming years, which is expected to generate spare capacity of 41 units by 2022/2023 which would absorb approximately half this demand.
- There are potential expansion opportunities at both these schools which could potentially utilise these funds to accommodate the remaining need, with land at Edenfield Primary School already set aside for this purpose within the submitted Local Plan.
- In respect of a new school, this development is only expected to generate 20% of a 2FE School's worth of children (which is the favoured format of a new school) and just 41% of the 1FE school noted in the policy, and as such would only fund that proportion of the school, meaning the remaining provision would have to be purchased by LCC at full market value, which is unlikely to be cost effective for LCC. If the above contribution is set against the estimated £4.5 million cost of a new school this would leave a shortfall of **£3.15 million** to be met by LCC.

7.7 Overall the report draws the following conclusions on primary, secondary and early years provision (our emphasis):

> *"From a Primary School perspective, planning obligations are justified due to a lack of spare places currently available to serve this development. There are options for how this contribution could be utilised: expanding existing provision at one of the local schools, relocating existing provision on to this site, or creating new provision on this site. Due to the number of pupils this development is expected to generate, the cost implications of the projects, and the fact that rolls are expected to fall in the local Primary schools nearest to the development site, it would make most sense to expand existing provision. This would also remove the need for land to be provided on this development, much of which would need to be purchased by LCC at full market value. Further discussions would need to be undertaken with LCC in order to establish their preference, and the feasibility of school expansions.*
>
> *From a Secondary perspective, planning obligations are justified due to the current lack of capacity at the catchment Secondary School, and the forecast increase in rolls by the time this development is expected to generate pupils. LCC will need to identify a scheme at a school that will serve this development to ensure that the obligation is CIL Regulation 122 compliant.*
>
> *From an Early Years/SEN perspective, planning obligations are not justified. and are unlikely to be requested."*

7.8 Therefore the attached evidence demonstrates that the need for a new school has not been justified and that expansion of existing facilities represents the most logical, deliverable and cost effective option.

7.9 As such we have not included provision of a new school within our masterplanning exercise to date, although policy HS3 is sufficiently flexible to allow this if contrary evidence is provided.

7.10 That said, we would request that the wording is updated to take account of capacity in other nearby schools:

> *"t) provision of a one form entry primary school on the site if Edenfield Primary School, or other nearby primary schools, cannot be expanded to the required level"*

7.11 In respect of on-site provision, the EFM report confirms that a 2FE school would require land take of 1.8 - 2 ha, whilst a 1FE school would require land take of 1.2 ha. Based on average net densities this would reduce residential capacity within the site by between 40 and 70 units, unless the school could be located within the existing recreation ground, with the open space off-set to the expansion land adjacent to the existing school.

7.12 An alternative would be to make the expansion land available for residential development to off-set the loss within the main allocation site, albeit this could have additional landscape and Green Belt impacts.

7.13 Finally, in terms of whether the expansion of Edenfield Primary School (or Stubbins school for that matter) is justified given the Green Belt status of the land we would argue that it is, as the same exceptional circumstances that support the release of Gren Belt for housing support release for supporting facilities such as education, particularly given the EFM report has exhausted all other non-Gb options in the local area. Furthermore, whilst the 2019 NPPF attaches great importance to Green Belt in paragraph 133, it also gives great weight to the need to create, expand or alter schools in paragraph 94 (part a), and as such the two uses/ designations have a status in national policy.

7.14 The expansion land at Edenfield Primary School has already been identified on the Policies Map of the submitted plan, whilst the expansion land at Stubbins Primary School is making a limited contribution to the Green Belt as it is contained by the M66 and development, with the M66 boundary to the west providing a more logical and defendable boundary.

8. MATTER 14: EDENFIELD QUESTION G – OTHER INFRASTRUCTURE

g) What other infrastructure provision is needed to support the development? Should the level of provision/further detail be specified in Policy HS3?

8.1 Beyond highways and education, the 2019 Infrastructure Report (**SD014**) does not indicate any other infrastructure requirements specific to Edenfield.

8.2 Any additional requirements that are identified should be detailed in Policy HS3, albeit it has some flexibility within it, and we are happy with the wording in respect of general infrastructure (notwithstanding our comments in the previous section on education and other sections of the policy).

9. MATTER 14: EDENFIELD QUESTION H - GEOTECHNICAL WORK

h) What geotechnical work has been undertaken on the proposed site? What mitigation measures are necessary to ensure effective development and to resolve the concerns of Highways England?

9.1 Please see attached at **Appendix 6** correspondence between ourselves and Highways England which sets out the geotechnical work that has been undertaken and the agreed position going forward (we have not included the actual documents due to file size but can provide on request).

9.2 In summary, the three main promoters of allocation H72 met with the Council and Highways England on 5th December 2018, to address the concerns raised by Highways England in their representations to the Regulation 19 Plan in October 2018. This led to submission of the following technical documents:

1) Preliminary Sources Study Report (covering Taylor Wimpey site), prepared by Betts Geo;

2) Edenfield Geotech Summary Sheet (covering full allocation), prepared by Betts Geo; and

3) Desktop Geo-Technical Appraisal (covering Methodist Church land), prepared by Hydrock.

9.3 The key findings of these are set out below:

- The proposed masterplan shows significant stand-offs (45m +) from the slopes along the A56, and there are no other changes (topography, crossings, etc) proposed at this boundary, so the slope conditions and loading regime will not change.
- There are no existing slope instabilities noted which may affect the A56.
- Development of the site will allow an appropriate drainage strategy to be implemented, which takes account of ground conditions adjacent to the A56.
- The Woodcliffe slope failure is located 1km north of the site; whilst Commerce Street is located 4.5 km north in Haslingden, where the geological setting is clearly different, so these issues are not relevant to the Edenfield site.
- The Peel site is at grade with the A56, so no potential for land slip/ slope failure.

9.4 Betts therefore concluded:

"No significant Geotechnical Risks have been identified to the A56 from the proposed development which should prevent the site from being formally 'allocated' within the Rossendale Development Plan.

Desk based studies indicate that the site generally poses a low risk to the proposed development from both environmental and geotechnical issues. This risk classification will be assessed further at planning stage (subject to allocation) through appropriately designed intrusive ground investigations".

9.5 We received a response from Highways England on 25th January 2019 confirming that:

> *"it would be prudent to ensure that a comprehensive (and intrusive) site survey and geotechnical assessment is carried out before planning decisions affecting the development layout (and therefore quantum of development) are taken....*
>
> *Overall, we are content that, in principle, the indicative layout outlined within the masterplan drawing referred to above would be unlikely to cause instability to our asset provided that the development layout, earthworks (e.g. land regrading), site drainage and construction operations are suitably designed, planned for and executed. That way, it is possible that the risk of geotechnical problems within the site can be engineered-out….*
>
> *Highways England is now satisfied in principle that the emerging Rossendale Local Plan site allocation H72 could be developed for housing without adverse impact upon the A56 trunk road, provided that a careful approach is taken to its planning and construction."*

9.6 This confirms that Highways England are no longer objecting to the allocation of the site and are happy for detailed geotechnical work to be undertaken at the planning application stage in line with their recommendations.

9.7 These recommendations include forms of mitigation (such as avoiding land loading or having SUDs ponds close to the A56 etc) which will be taken account of at the detailed design stage, within the levels and drainage work.

10. MATTER 14: EDENFIELD QUESTION I – OTHER CONSTRAINTS

i) Have other constraints including heritage, biodiversity and trees, flood risk, drainage, noise, air quality and contamination been satisfactorily investigated and addressed? Are related mitigation measures/requirements necessary and clearly expressed in Policy HS3?

10.1 As set out in chapter 6 of the Development Statement contained at **Appendix 1**, and summarised below, initial technical work suggests there are no site constraints which prevent this site coming forward. The site is highly suitable for development and mitigation measures, such as for landscape and noise, can be implemented where required in line with the provisions of policy HS3, which is considered to be comprehensive.

- **Heritage:** The Grade II Listed* is the only designated asset in close proximity of the site and is well screening by existing tree cover and can be further mitigated through the detailed design stage.
- **Biodiversity and Trees:** The site is not within or near any designated ecological areas, nor is it subject of any TPOs.
- **Flood Risk & Drainage:** The site is entirely in Flood Zone 1 so at low risk from flooding; whilst a detailed sustainable drainage strategy will be developed at the planning application stage (taking account of Highways England comments on stability adjacent to the A56).
- **Noise:** Initial assessments suggest noise impacts can be mitigated through a strong development buffer along the western boundary, with the latest masterplan showing a stand-off of 45m+; along with acoustic fencing and glazing where required on the western edge of the development.
- **Air Quality:** The site is not in an Air Quality Management Area, whilst a strong buffer with the A546 will minimise the impacts of pollutants from this source.
- **Contamination:** Initial assessments have not detected any contamination risks that would preclude development, and a full Site Investigation is now underway (with the potential for initial results to be reported verbally at the Hearings if required).

10.2 Notwithstanding our conclusions above we note that the Council's Heritage Impact Assessment of the site (SHLAA ref: 16262) suggests that the development of the whole site would cause substantial harm to the setting of the church, and that numbers should be substantially reduced to just the area south of Mushroom House.

10.3 We strongly dispute this conclusion, and Pegasus Heritage have provided a Heritage Note to rebut this attached at Appendix 7, which concludes:

> *"In conclusion, the development of the Land West of Market Street, as illustrated in the Combined Illustrative Masterplan, would result in, at most, minor harm to the heritage significance of Edenfield Parish Church, at the low end of the less than substantial harm*

spectrum. The Council's assessment of substantial harm is not reasonable or justified when guidance and case law is considered. As such, the requirement to dramatically reduce the number of houses allocated to the site is not considered to be justified."

11. MATTER 14: EDENFIELD QUESTION J – DEVELOPABLE AREA

j) What is the net developable area (15.25 hectares) based on, and is it justified? Does it take account of potential future road widening on the A56, as identified in the Local Plan Highways Capacity Study?

11.1 It is unclear what the 15.25 Ha net developable area within the allocations table in HS2 is based on, as it doesn't correspond with our figures or those within the SHLAA assessments. That said the detailed housing trajectory at Appendix B of the 'Response to Question 13 of Pre-Hearing Note 1' **(EL1.002j.iii)** provides updated figures suggesting a gross site area of 23.19 Ha and a net developable area of 13.74 Ha which seems to reflect the SHLAA assumptions more closely, giving a net density of 29 dph for the full allocation site at 400 dwellings.

11.2 Based on our calculations from the Combined Illustrative Masterplan attached at **Appendix 2**, we measure a gross site area of 21.3 Ha across the 3 main parcels of the site, with a net developable area of 10.8 Ha. This generates an indicative capacity of 378 units using a standard 35 dph net density calculation.

11.3 As noted previously, this excludes the Horse And Jockey parcel fronting Market Street as this is already under construction and not applicable to this joint process, however planning application 2015/2038 confirms a site area of 0.23 Ha with 10 dwellings approved.

11.4 So in combination, based on the layout and development parcels the full allocation shown has an approximate capacity of 388 dwellings.

11.5 The layout and estimated capacity does not take account of potential future widening of the A56 identified within the Local Plan Highways Capacity Study 2018 **(EB040**) for the following reasons:

- This is a recommendation within an evidence base document, which is not referenced or carried forward within the Submission Plan, nor have LCC or Highways England approached the landowners within the Edenfield allocation to discuss any sort of scheme. As such, this carries little weight, and should not compromise a much needed housing allocation.
- It looks at three potential options with supporting plans, which include a reference advising 'Lane gain to next junction', however none of the plans show the section adjacent to the Edenfield allocation. As such, there is no indication or justification that land to the east of the A56 is required.
- Equally, there is no justification that the widening could not be accommodated by expanding to the west of the A56, where there is a lack of urban development here (as opposed to the land on the east which is closely abutted by the existing urban area of Edenfield, including Langley House and properties on Water Lane and Oaklands Road – as per the plan over the page).

Fig 11.1 – Proximity of development to east of A56 (and lack of development to west)

11.6 Notwithstanding this, the Combined Illustrative Masterplan does show a significant stand-off of up to 45m from the A56 boundary, and as such would not directly prejudice some widening of the A56 to the east in the future, subject to a satisfactory scheme being justified and costed, and suitable mitigation measures put in place to ensure the amenity of future residents of the Edenfield allocation is not compromised.

11.7 However, as things stand the requirement for this road widening has simply not been justified within the current Local Plan process, and must not compromise the delivery of this much needed allocation.

12. MATTER 14: QUESTION K – EDENFIELD SITE CAPACITY

k) Is the site capacity of 400 dwellings appropriate, taking account of constraints and infrastructure provision?

12.1 As noted in the previous section, the Combined Illustrative Masterplan and existing Horse and Jockey consent suggest an overall capacity for the allocation of 388 dwellings; however it must be noted that this plan includes generous stand-offs and buffers throughout for landscape, noise and heritage mitigation as well as SUDs features.

12.2 Due to the stage of the process, many of these constraints have been considered on a desktop/ high level basis, and as such we have taken a cautionary 'worse case' scenario approach to mitigation, to ensure that all these constraints are addressed but with an element of flexibility in the proposals.

12.3 In light of this, it is highly likely that this developable area could be increased at the detailed design stage once more detailed technical work is complete, and therefore the suggested capacity of 400 is entirely realistic and appropriate.

12.4 Based on our assessments to date, there are no constraints that would prevent development of the site, subject to mitigation measures and infrastructure provision which can be agreed through the masterplan process in line with Policy HS3.

13. MATTER 14: QUESTION L – EDENFIELD SITE BOUNDARY

l) Why is the northern boundary of the site allocation, as shown on the Policies Map, different to the proposed development area on the Combined Illustrative Masterplan? Is the northern section no longer required for development purposes? What is the gross and net site area shown in the Masterplan?

13.1 We would welcome clarification from Peel Holdings on this matter, however our understanding is that the whilst the full land ownership of this northern parcel extends up to the junction of the A56 (as shown on the Council's policies map), the land that is being promoted for development has only ever been that shown on the Combined Illustrative Masterplan, so cut-off about half way up that parcel.

13.2 Measured off the Joint Concept Plan, the gross area of the red line is 3.7 Ha, with the net developable area shown totalling 1.4 Ha; albeit earlier submissions from Peel suggest a net area of 2.2 Ha and capacity of approximately 65 dwellings.

14. MATTER 14: EDENFIELD QUESTION M – DELIVERY TIMESCALES

m) Is the site available and deliverable in the timescales envisaged?

14.1 The whole allocation site is available now, given that the Methodist Church, Taylor Wimpey and Peel are all actively promoting the site for housing allocation; whilst the Horse And Jockey site is under construction and due to complete this year.

14.2 The Council's latest housing trajectory evidence **(EL1.002j.iii)** indicates delivery in years 1-15, except for the 10 dwellings which have been permitted under planning application 2015/0238, anticipated delivery 2019-2020.

14.3 We can confirm that Taylor Wimpey intend to submit a full planning application upon adoption of the Local Plan. This will therefore help to deliver some housing on this site early on in the Plan Period, which is hugely beneficial in helping the Council achieve their deliverability targets.

14.4 In terms of trajectory our **Matter 19 Statement** confirms that a start on site in 2021/22, as suggested by the Council, is reasonable. In terms of delivery rate the Council have assumed 30 dpa, but Taylor Wimpey predict a rate of 38 dpa on their site alone based on current TW sales rate and data, without accounting for the other 2 parcels. Whilst we cannot accurately predict delivery across the full site we would suggest a maximum average rate of 60 dpa based on multiple outlets delivering simultaneously (two outlets delivering at slightly reduced rates of 30 dpa each, or three outlets at 20 dpa each), which is eminently achievable given the nature of the site which has direct road access to all three parcels.

14.5 The total capacity of the site is likely to remain around 400 units. Based on the estimated capacities of each parcel, we estimate the site to be fully built out by 2029/30 instead of 2033/34 as anticipated by the Council, due to elevated delivery rates (we have assumed each will deliver 20 dpa from 2020/21, with Taylor Wimpey increasing to 38 dpa once the 2 smaller parcels are complete in 2024/25).

APPENDIX 1 – MARKET STREET EDENFIELD - DEVELOPMENT STATEMENT

Taylor Wimpey

Market St Edenfield

Development Statement

September 2016

Taylor Wimpey

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Pegasus Group

RANDALLTHORP

croft Transport Solutions

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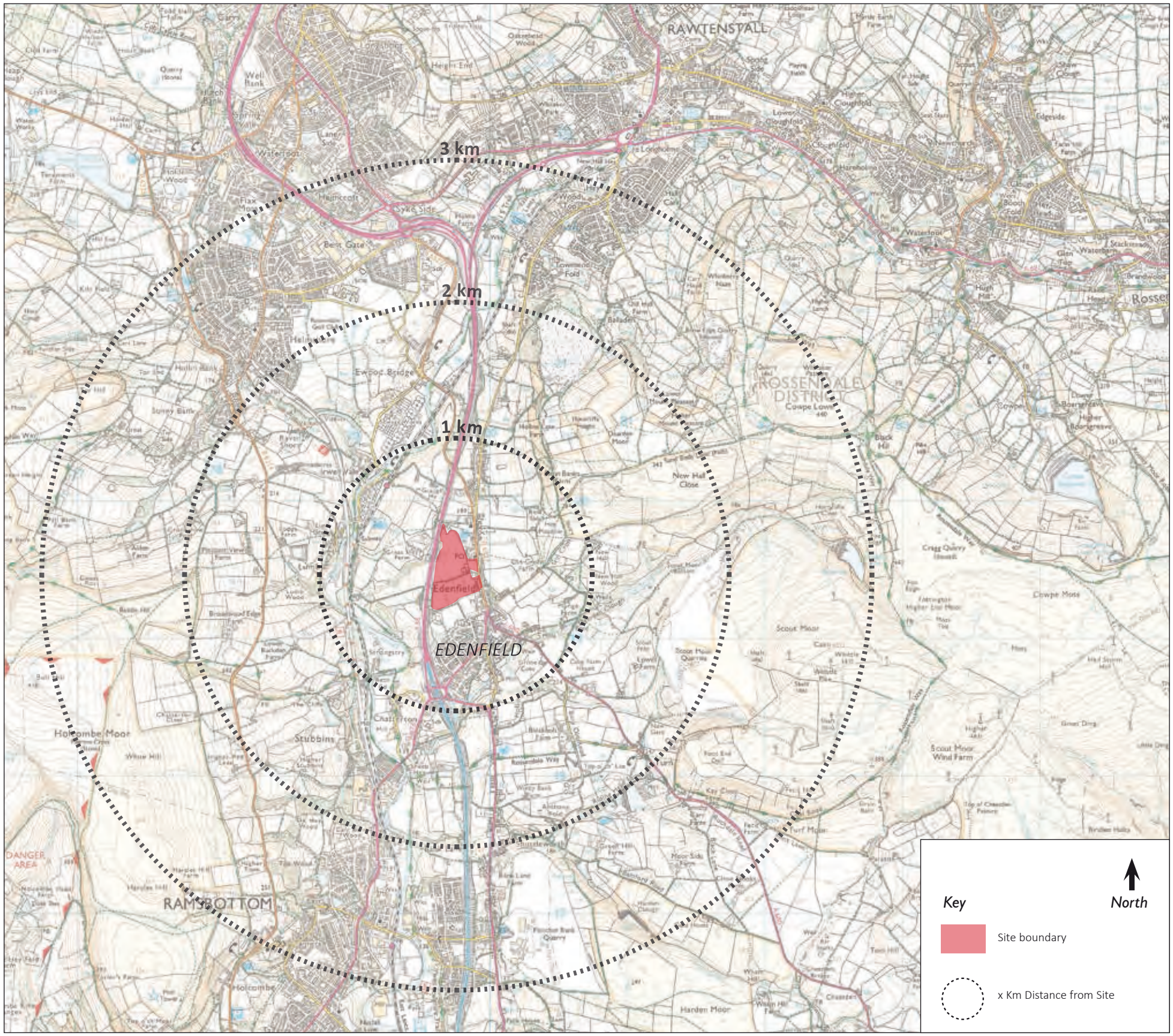
This Development Statement has been prepared by Taylor Wimpey UK Limited ("Taylor Wimpey") to support the release from the Green Belt of the land west of Market Street, Edenfield ("the site") to deliver approximately 240 new family and affordable homes during the next plan period. The site extends to 12.5 Ha and is located to the north west of the village of Edenfield, bounded by Market Street to the east and the A56 to the west.

The case for allocating this site for housing development as part of the emerging Rossendale Local Plan is clearly presented within this Development Statement, including the exceptional circumstances that support the need to amend the Borough's Green Belt. The allocation of this site for residential development will deliver open market and affordable housing of a type, quantity and quality that will make a significant contribution to the future growth needs of Rossendale.

1

1.0
Introduction

Figure 1: Site context plan



1.0 Introduction

Vision

The Market Street site presents an excellent opportunity to release 12.5 hectares of land to deliver a high quality sustainable housing site that will sensitively meet the future housing needs of the Borough. The vision for the site is to develop a landscape led masterplan that complements the surrounding site context, and creates a high quality family and affordable community to meet the needs of the Borough, whilst providing a stronger and more defensible Green Belt boundary to the west of Edenfield.

To support the vision, this Development Statement clearly articulates the opportunity presented by the site. In summary, it demonstrates that:

- **There are exceptional circumstances that support an alteration to the Green Belt in the Borough; including the absence of a 5 year supply of housing land, a lack of affordable homes and insufficient urban land to meet housing need during the Plan Period.**
- **There is a compelling case to remove the site from the Green Belt, when tested against the National Planning Policy Framework ("NPPF"). The site represents a logical extension to north west of Edenfield which works within existing physical boundaries.**
- **The site has access to a range of services and facilities in the centre of Edenfield, 350m south of the site, with Ramsbottom 3 km to the south and Rawtenstall 3.5 km to the north.**
- **There are no identified technical or environmental constraints that would prevent the site coming forward for development.**
- **The site is deliverable, achievable and available for housing development in accordance with guidance contained in the NPPF.**
- **A vision and masterplan for the site illustrates how the site can deliver a sympathetic, sustainable development that complements its village setting.**
- **A sensitive design-led masterplan for the site will complement, respond to and integrate key landscape features adjacent to the site.**
- **The site will deliver a landscape and open space solution that relates to the existing urban grain and responds to the key natural features and topography of the site.**
- **The proposals for the site can deliver integrated open space that complements and strengthens links to the existing open land to the south.**
- **The proposals will create a range and mix of housing types that will make a positive contribution towards the Borough's housing requirements; providing both open market and affordable housing, and generating significant social and economic benefits for the local area.**

The Case for Green Belt Release

The site no longer fulfils its purpose as Green Belt land as established at paragraph 80 of the NPPF and, as such, there is a compelling case for its release. Its allocation for future development would:

1. **Not result in the unrestricted sprawl of large built-up areas.** The A56 dual carriageway forms a strong physical boundary to the west of Edenfield, and already restricts sprawl by ensuring that the urban area will not spread further west, whilst existing developments provide defensible boundaries to the north, east and south.
2. **Not cause the merger of neighbouring towns.** The immediate area is characterised by rural villages with large green gaps between them, with the nearest towns some distance away. The development of the site would not reduce the gap with the nearest settlement anyway. As such the development of this site will not cause any towns or smaller settlements to merge, and significant green gaps will be maintained around Edenfield.
3. **Not create unacceptable encroachment into the countryside.** The A56 Road already safeguards Edenfield from encroaching into the countryside, as it provides a strong physical boundary to the west, whilst the site is surrounded by development on the remaining 3 sides. As such the site serves little function as countryside.
4. **Not impact on the special character of historic towns.** There are no historic towns within the vicinity of the site and the development of the site could be sensitively designed to ensure the character of the Listed Church and wider settlement are respected.
5. **Not discourage urban regeneration.** The evidence suggests that the supply of deliverable brownfield sites is becoming exhausted and consequently, Green Belt release will be required over the life of the plan period.

There are also exceptional circumstances which support an alteration to the Green Belt. These include:

- An inability to demonstrate a five year supply of housing land.
- Insufficient land within the urban area to meet the Borough's need, due to topography and other constraints.
- An acute need for affordable housing and sites that have the capacity and viability to deliver new affordable homes.
- The delivery of a development of up to 240 high quality new homes that will deliver significant social and economic benefits in accordance with the provisions of the NPPF.

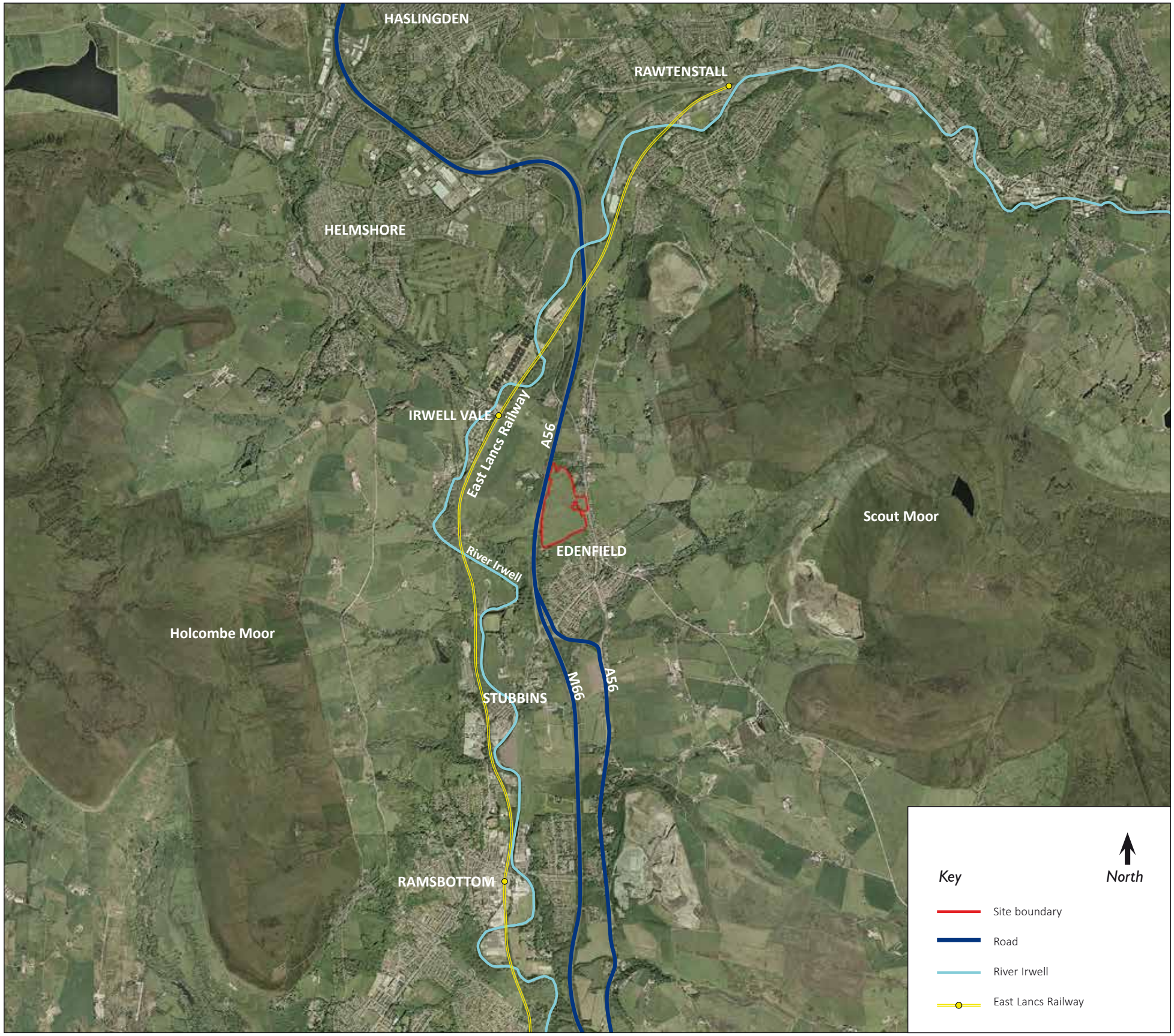
Summary

The development of the site at Market Street, Edenfield provides a highly sustainable opportunity to boost the supply of new housing in accordance with a new Local Plan for the Borough. The site will deliver the quantity, type and quality of homes that is required across the Borough and can demonstrate exceptional circumstances that support an alteration to the existing Green Belt without impacting on its core functions. Taylor Wimpey is committed to working collaboratively with the Council and Key Stakeholders to ensure that the Borough's housing need is met in a sensitive and sustainable manner.

2

2.0
Site & Surroundings

Figure 2: Aerial Photograph Showing Site Context



2.0 Site and Surroundings

The site is located to the north west of Edenfield, a village in the southern part of Rossendale, close to the district boundary with Bury. The site is outside the existing urban boundary, but is well contained by existing physical features, and forms a natural and logical extension to the village.

The Site

The site comprises 12.5 Ha of agricultural land which gently slopes down from the eastern boundary with Market Street to the western boundary with the A56. It is broadly triangular in shape, narrowing as it extends northwards between the two converging roads.

The central part of the site fronts directly onto Market Street, and wraps around an existing residential property, Mushroom House, which is set back from the road and accessed via a public right of way that cuts across the site, then continues along the eastern and southern boundaries. The site itself will take access through to the north of Mushroom House.

The site is characterised by open pasture land which is largely even, although there are some steeper, uneven sections to the north west. There is also some made ground in the north west corner which may have been used for landfill in the past. There is tree cover around the periphery of the site, particularly at the northern boundary and around Mushroom House, but no internal boundaries, other than a dry stone wall which lines the public right of way and separates the site into two parcels.

The site is in a sustainable location on the north west edge of Edenfield, approximately 350m north of the Neighbourhood Centre which provides local shops and facilities, and 500m south of a primary school. There are also bus stops within 220m with regular services to Accrington, Burnley, Bury and Rawtenstall.

A greater range of shops and facilities can be found in the nearby Town Centres of Rawtenstall, which is 3.5km to the north, and Ramsbottom, 3km south west.

Site Surroundings

The site is bounded by the urban area of Edenfield to the south and east, with Green Belt to the north and west. In the wider context, Edenfield adjoins the district boundary with Bury to the south and is surrounded by Green Belt on all sides, with the A56 forming a further physical boundary to the west.

The urban area is characterised by terraced stone cottages reflecting Edenfield's history as a quarry village, although there are a range of other housing types from 1930s semis to modern detached properties. The centre of village is nucleated in form with more linear development running north along Market Street.

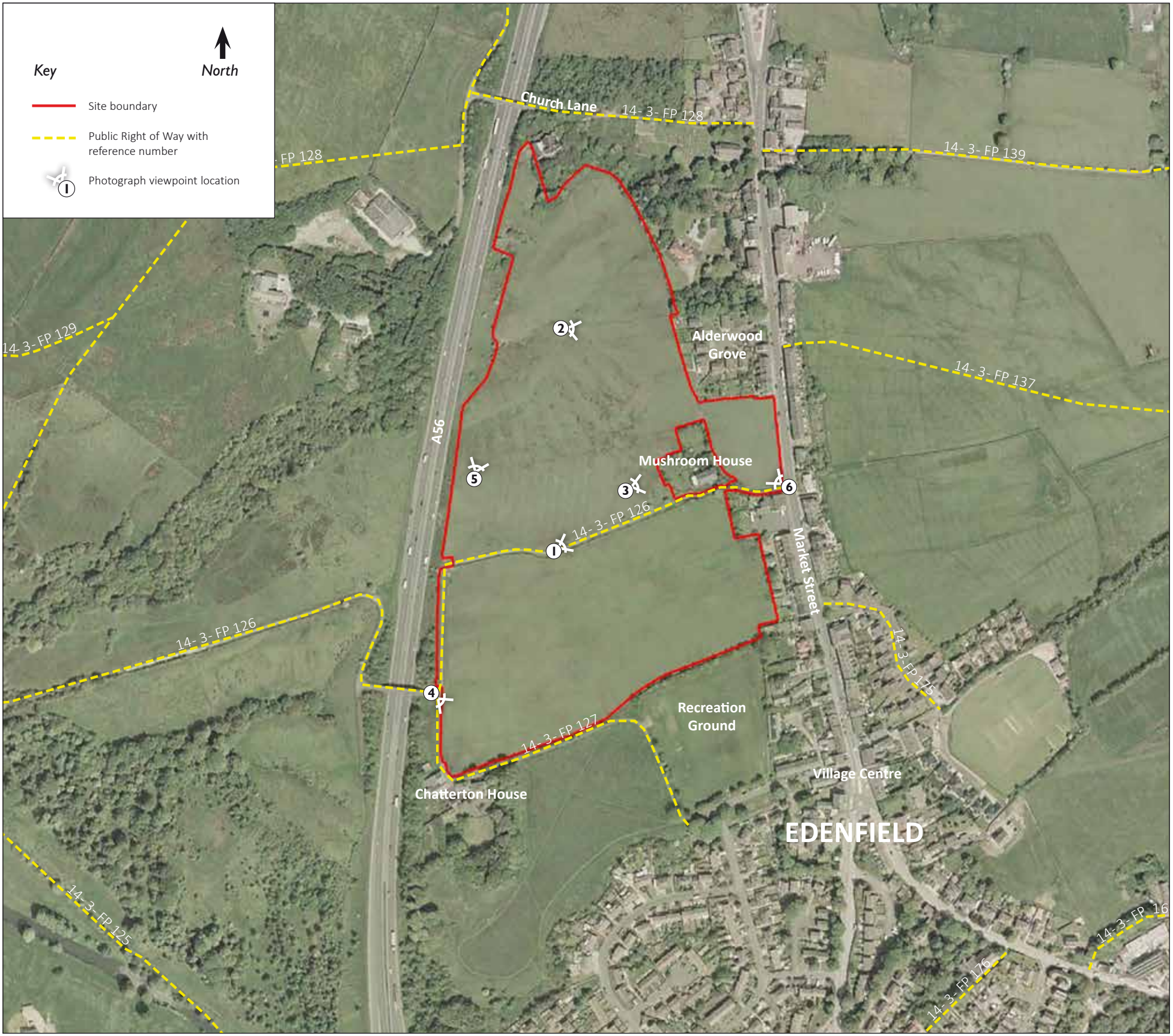
To the immediate north of the site is a Nursing Home and a wooded area around Edenfield Parish Church.

The A56 dual carriageway forms the eastern boundary, along with part of a public right of way which crosses the road via a bridge. The road is screened by trees at the northern and southern ends, with open fields beyond.

To the south there is a Recreation Ground, which is well screened by trees, and additional open land. A public right of way also runs along the southern boundary and links with Exchange Street. Further south is the main urban area of Edenfield and the Neighbourhood Centre.

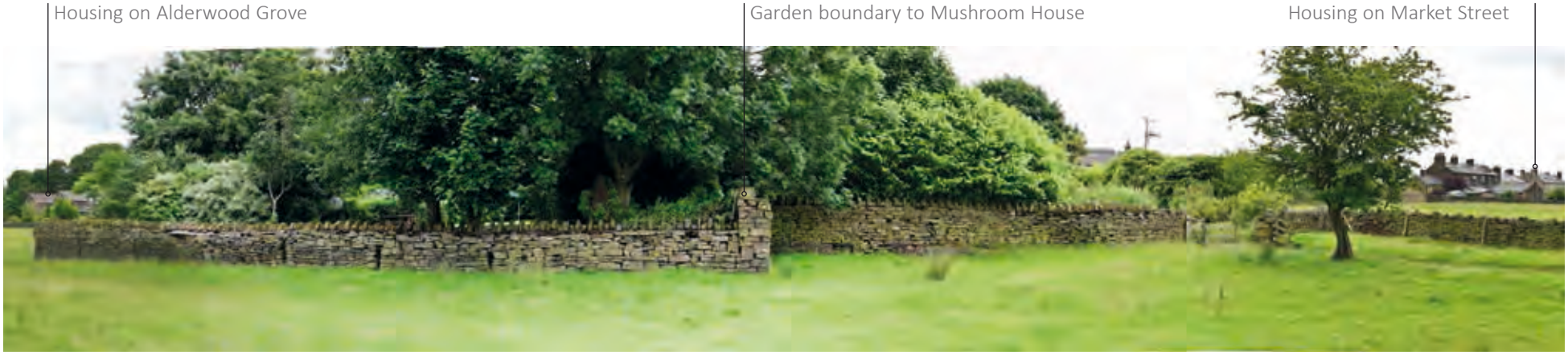
The site is bounded by Market Street to the west, and the rear of several residential properties that front it, and other uses including Pack Horse Farm. There are also residential properties on the east side of Market Street facing the site, with open Green Belt land further east.

Figure 3: Site Context Plan



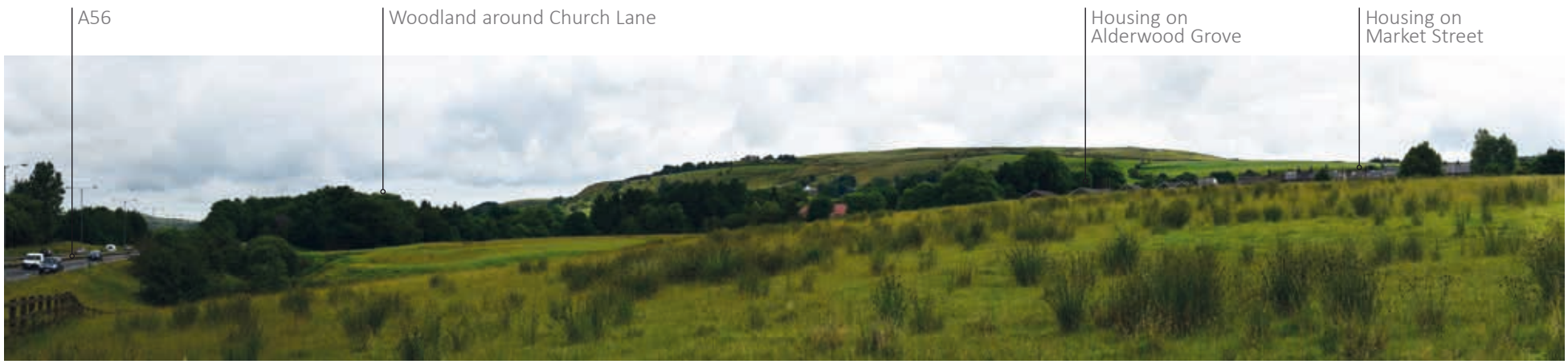
Photograph 1 - View from PROW 14-3-FP 126 looking east towards Edenfield

Photograph 2 - View from the site looking east towards housing on Alderwood Grove which backs onto the site

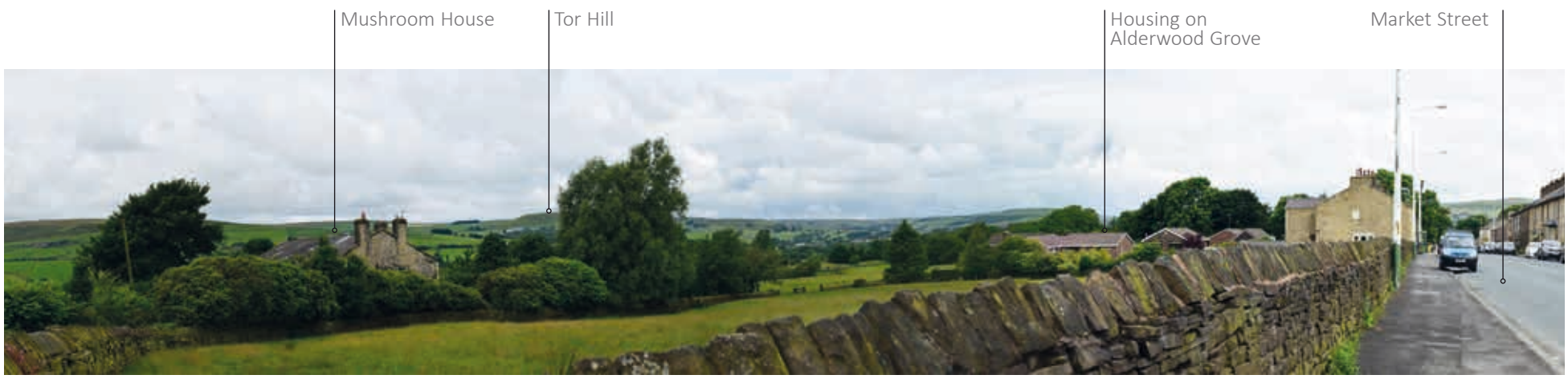


Photograph 3 - View from the site looking east towards Mushroom House garden boundary

Photograph 4 - View from PROW 14-3-FP 127 looking south-east towards Chatterton House



Photograph 5 - View from the site looking north towards existing woodland around Church Lane



Photograph 6 - View from Market Street, looking over the existing stone wall, across the site

View looking north along Market Street

View looking south along Market Street

3

3.0
The Need for Development in the Green Belt

3.0 The Need for Development in the Green Belt

There is a compelling case for removing land west of Market Street, Edenfield from Rossendale's Green Belt. The need to release the site from the Green Belt is justified by the emerging planning policy and housing supply position, exceptional circumstances that support alterations to the Green Belt and the fact that the site fails to adequately fulfil the Green Belt functions.

National Planning Policy

The National Planning Policy Framework (NPPF), published in March 2012, outlines the Government's core objectives for the planning system, which include the need for local authorities to boost their supply of housing. Releasing the Market Street, Edenfield site from the Green Belt to facilitate new housing development would be consistent with the core objectives of the NPPF because:

- It would meet the three pillars of sustainable development by delivering economic, social and environmental benefits (NPPF paragraph 7);
- It would be entirely consistent with the presumption in favour of sustainable development- the golden thread for both plan making and decision taking (NPPF paragraph 14);
- It would offer a sustainable location, in Edenfield, which is accessible to a range of sustainable transport modes, and a range of services and facilities (NPPF Paragraphs 29-41);
- It would boost significantly the supply of housing and provide a deliverable site that is available, suitably located, achievable and viable (NPPF Paragraph 47);
- It will provide a wide range of market and affordable housing of various types and tenures promoting mixed and inclusive communities (NPPF Paragraph 50); and
- There are exceptional circumstances that justify the removal of the site from the Green Belt in accordance with Chapter 9 of the NPPF (Paragraph 83), whilst also taking account of sustainable patterns of development (Paragraph 84).

Local Planning Context

Rossendale Core Strategy

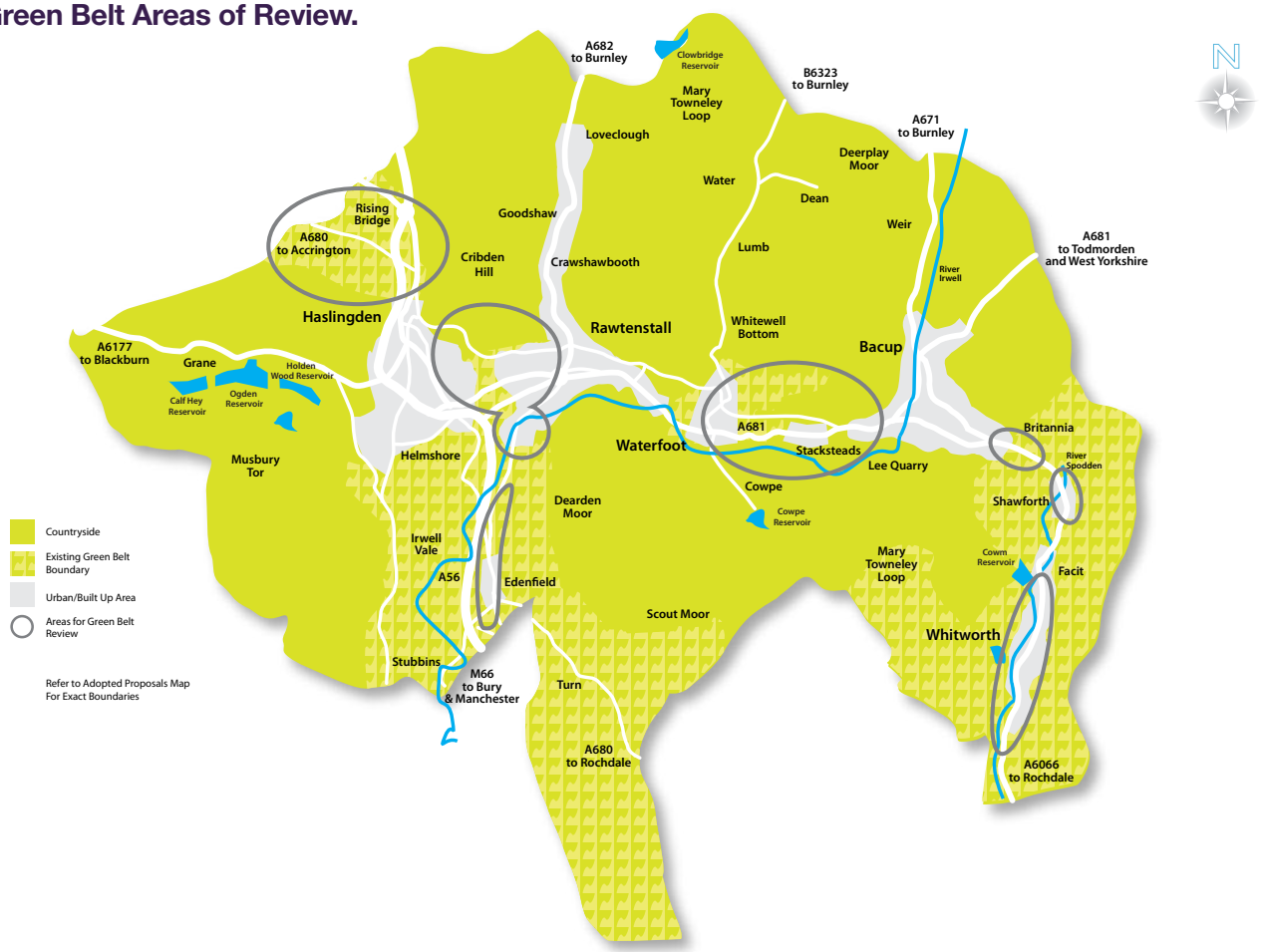
The Development Plan comprises the Rossendale Core Strategy, which was adopted in November 2011, and covers the plan period 2011 to 2026. Core Strategy Policy 2 set a housing requirement of 3,700 across the period, equating to 247 dwellings per annum, which was based on the Regional Spatial Strategy target which has since been revoked. The majority of development was focussed on the larger urban settlements of Rawtenstall, Bacup, Haslingden and Whitworth.

Edenfield was included in the South West Rossendale vision area covered under policy AVP5, where it was considered as a Neighbourhood Centre, suitable for small scale infill development and the reuse of previously developed land.

Site Allocations and Development Management DPD

The Council then began work on the 'Local Plan Part 2- Site Allocations and Development Management Policies DPD' in 2012, which included a review of urban and Green Belt boundaries. Edenfield was one of 7 'Green Belt Areas of Review' identified within the Core Strategy, however the Green Belt Review only sought minor amendments and corrections to the Green Belt boundaries in Edenfield, as it did in most other settlements; on the basis that the majority of the Borough's Core Strategy requirement could be met within existing urban boundaries.

Figure 4: Rossendale Core Strategy – Green Belt Areas of Review.



The Draft Site Allocations and Development Management Policies document was published for consultation in July 2015, and sought two small residential allocations within the amended urban boundary of Edenfield. Some Green Belt sites were proposed for release in this document, which states (at Page 4 of the Housing Chapter):

"Green Belt releases have been avoided wherever possible. However it is recognised that some releases will be required to meet the housing requirements."

Therefore, the Council have accepted that exceptional circumstances exist for Green Belt release, based on the Core Strategy housing requirement, which is now out of date and not compliant with the NPPF approach to housing need.

In December 2015 the Council decided to begin work on a new Local Plan, after new housing need evidence suggested that the borough's Housing Market Area had changed, and that the Core Strategy housing requirement no longer reflected the full objectively assessed need (FOAN) of the area, and would need to be increased. Accordingly, the Site Allocations DPD was withdrawn in February 2016.

Emerging Local Plan (2019-2034)

Following withdrawal of the Site Allocations DPD, the Council began work on a new Local Plan to replace the Core Strategy, covering the period 2019-2034. The Council's last evidence base work from 2015 suggested that the Core Strategy target of 247 dpa was now beneath the minimum required to meet basic demographic growth and would need to be increased to somewhere between 285 and 370 dpa, over the period 2011 to 2031, to meet the full objectively assessed need (including the relevant uplifts for affordable housing and economic growth).

Applying this to a 15 year period suggests a total need of up to 5,550; which could require additional land to be identified for up 1,850 new dwellings, over and above the sites put forward as part of the Site Allocations process.

There is also a suggestion that Rossendale's Housing Market Area is no longer self-contained so will need to consider need across neighbouring areas, which include Greater Manchester, and the emerging Greater Manchester Spatial Framework (GMSF) which is due to go on consultation in Autumn 2016. This is particularly relevant in Edenfield where there is a clear market overlap with Ramsbottom and other parts of northern Bury. Therefore the new Local Plan will also need to take account of patterns of growth within the GMSF, which may require a further uplift to housing numbers.

In light of this increased need, the Council undertook a 'call for sites' exercise in March 2016 and confirmed that they would consider all sites for future allocation including Green Belt, again confirming that exceptional circumstances exist.

Housing Supply

The Council's latest Five Year Housing Land Supply Statement (covering the period 2015-2020, with a base date of 31st March 2015), suggests a 6.9 year supply based on the annual Core Strategy requirement.

However, this included all the sites proposed within the Site Allocations document, which has since been withdrawn, and these allocations made up 65% of this supply figure. Removing these sites from the supply means that the Council can only demonstrate a 2.4 year supply, and this figure is reduced to around 2 years based on the approach advocated in the latest national guidance. The increasing requirement in the emerging Local Plan will further reduce this supply figure which clearly demonstrates the urgent need to release sites.

The 5 year supply statement also notes that housing completions have not kept pace with requirements since 2011, with just 743 completions over 4 years, generating a shortfall of 245 against the Core Strategy requirement. Therefore, it is clear that the existing housing supply is not delivering the scale of development required to meet the Council's current housing targets, let alone its emerging targets which are due to increase significantly up to 2034.

The proposed residential development of this site will help to address this shortfall over the next 5 years and beyond and this should be considered as a key benefit of the scheme.

Figure 5: Green Belt Plan

Demonstrating The Exceptional Circumstances for Green Belt Release

Paragraph 83 of the NPPF states that once the extent of a Green Belt has been established, it should only be altered in exceptional circumstances, through the Local Plan process, and the Council have acknowledged that such circumstances exist in Rossendale. The exceptional circumstances which support the release of land at Market Street, Edenfield are as follows:

Housing Need

The principal exceptional circumstance relating to the release of Green Belt land in Rossendale is directly tied to the need to accommodate the Borough's projected needs over the new plan period up to 2034, which will also require them to consider growth patterns in the adjacent GMSF area.

As demonstrated in the previous section, the Council are unable to demonstrate a 5 year supply of deliverable sites going forward, and have consistently failed to deliver against their Core Strategy target in the past.

The emerging Local Plan must consider the implications of not releasing sufficient land from the Green Belt, and the harm that will occur from failing to meet the identified needs in the Borough; such as slower economic growth, a lack of labour force mobility, affordability issues, disruption to commuting patterns and the delivery of housing choice.

The proposed residential development of this site will help to address this shortfall over the next 5 years and this should be considered as a key benefit of the scheme.

Insufficient Land

Based on current supply evidence, Rossendale have less than 2 years supply of deliverable housing land. Between 2011 and 2014, over 70% of Rossendale's housing completions were on previously developed land, however the Council acknowledge that this will not continue as:

"the supply of sites without significant constraints within urban areas is relatively limited"

The major constraint in Rossendale is topography, as the Borough is characterised by a series of interlocking valleys where settlements have developed along valley floors, and therefore the majority of undeveloped land is on steep valley slopes or moorland tops. Poor ground conditions and flood risk are also significant issues. There are also significant areas of Green Belt in the south of the Borough, to separate Rossendale's settlements from the Greater Manchester conurbation, which is a further constraint.

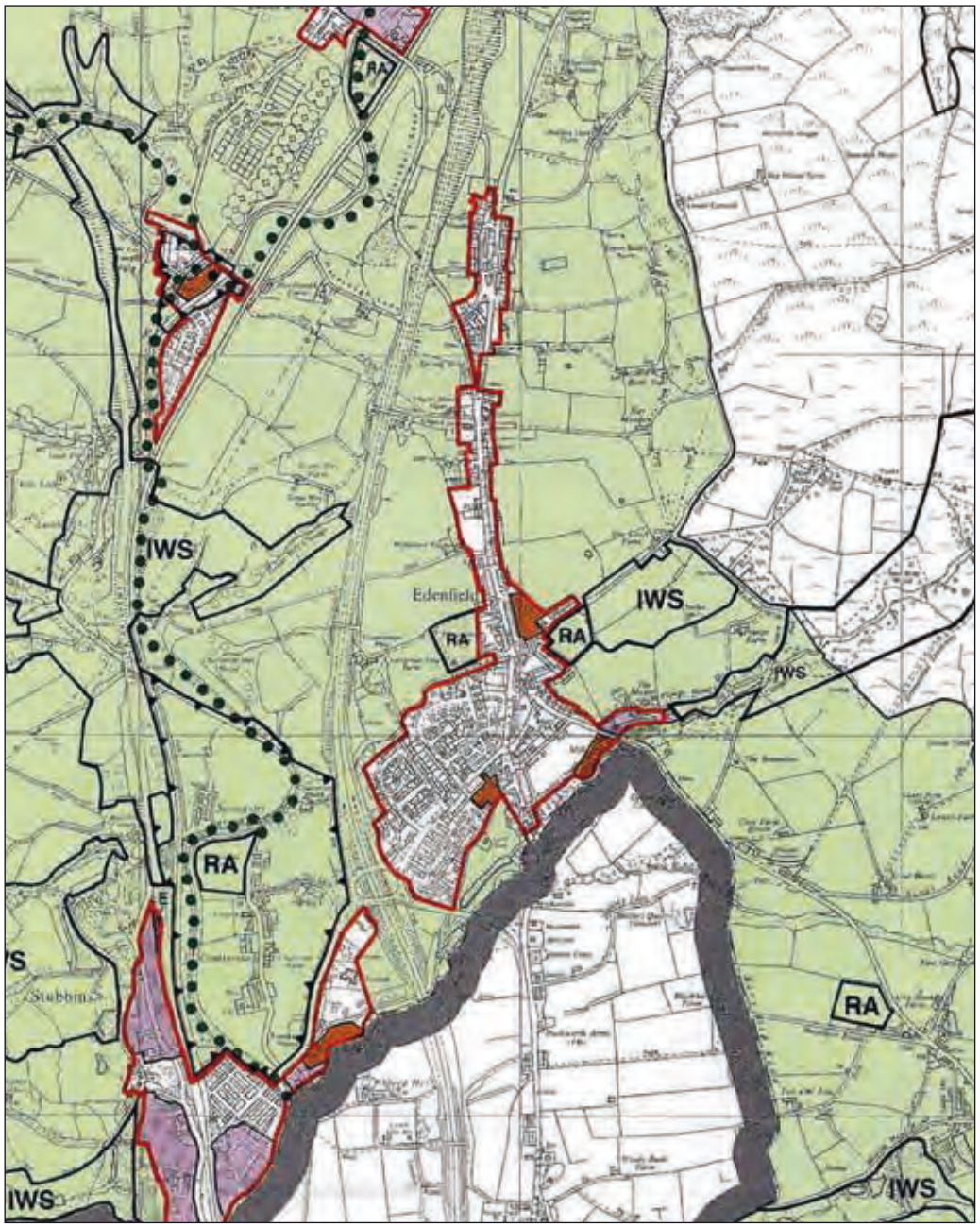
Therefore it is clear that there is not enough land within Rossendale's urban areas to meet the future development requirements of the emerging Local Plan.

Affordable Housing Need

The 2008 SHMA confirmed that there was a chronic lack of affordable homes within the Borough, and suggested a net need of 327 dpa, a figure which exceeds the total Core Strategy housing target and would generate a need for nearly 5,000 affordable dwellings over the emerging plan period. Affordable completions between 2011 and 2014 totalled 181, equating to 60 dpa, which is clearly insufficient and is likely to have compounded affordability issues. The Council is in the process of updating the SHMA, to provide a more up to date position on affordable needs within the Borough.

It is clear that the delivery of large sites such as Market Street, Edenfield, which are viable, deliverable and available, will make a significant contribution to affordable needs within the Borough, whatever the figure identified in the updated SHMA.

Figure 6: Extract from proposals map



The Purposes of the Green Belt

To establish whether it would be appropriate to release a site from the Green Belt, it is relevant to examine how its development would impact on the five purposes of the Green Belt which are listed at paragraph 80 of the NPPF:

- To check the unrestricted sprawl of large built up areas;
- To prevent neighbouring towns from merging into one another;
- To assist in safeguarding the countryside from encroachment;
- To preserve the setting and special character of historic towns;
- To assist in urban regeneration, by encouraging the recycling of derelict and other land;

It is clear that the development of this site fails to fulfil these five purposes as it:

Will not result in unrestricted sprawl of large built up areas

The A56 dual carriageway forms a strong physical boundary to the west of Edenfield, and already restricts sprawl by ensuring that the urban area will not spread further west, whilst existing development provides defensible boundaries to the north and east, with a designated recreation area to the south, and development beyond that.

The presence of this major road and existing boundaries makes this site a logical extension to the village, as it will provide infill development up to road, to round off the settlement.

Will not cause neighbouring towns to merging into one another

The immediate area is characterised by rural villages with substantial green gaps between them. The nearest towns are some distance away, with the built up area of Ramsbottom 2km to the south west, and Helmshore 2.5 km to the north west, so development of this site will not affect them.

The A56 forms a strong physical boundary to the west of the site, and prevents Edenfield from merging with Irwell Vale, which is the nearest village. In fact, development of the site would not even close the gap between Irwell Vale and Edenfield as the closest point between the 2 settlements is further north (with an off-set of 540m, as shown on the Green Belt Plan).

As such the development of this site will not cause any towns or smaller settlements to merge, and significant green gaps will be maintained around Edenfield.

Will not cause unacceptable encroachment into the countryside

The A56 dual carriageway already safeguards Edenfield from encroaching into the countryside, as it provides a strong physical boundary to the west, whilst the site is surrounded by development on the remaining 3 sides. As such the site currently serves little function as countryside and its development will provide a more logical and tangible boundary to the west.

This is clearly demonstrated in the next section which provides a landscape and visual analysis of the site and surrounding area.

Will not impact on the special character of historic towns

There are no historic towns within the vicinity of the site, and whilst Edenfield is a Quarry Village with its own unique heritage, it does not contain any Conservation Areas, and is not subject to any statutory heritage designations. There is a Listed Church nearby, but this heavily screened by trees which ensure that development of the site will have minimal impact on its setting.

As such, the site could be sensitively designed to ensure the character of the Listed Building and wider settlement are respected.

Will not discourage urban regeneration

Rossendale Council accept that the supply of deliverable brownfield sites is becoming exhausted and consequently, Green Belt release will be required over the life of the plan period.

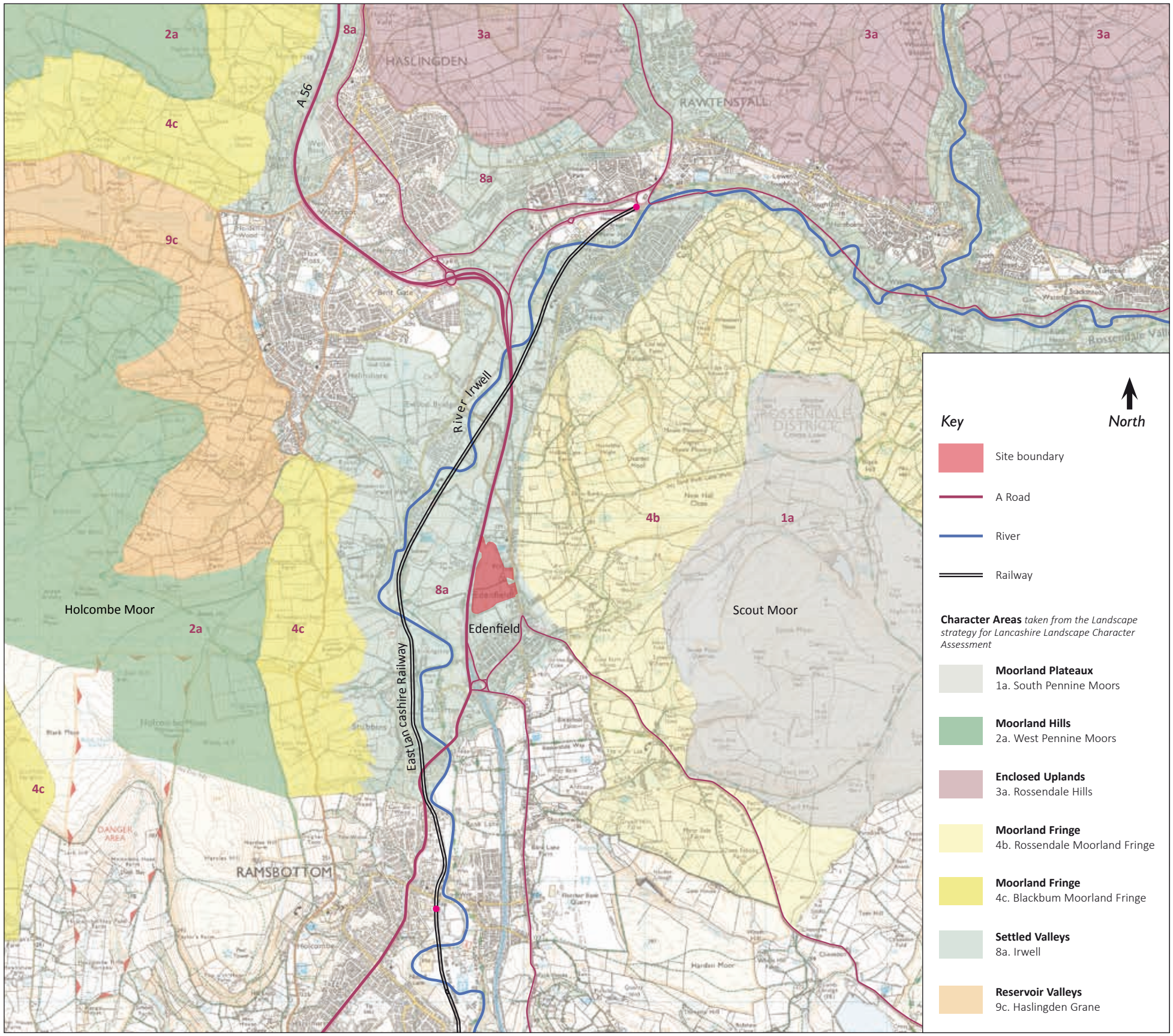
The latest housing evidence set out in this section has demonstrated that there is insufficient land within Rossendale's existing urban areas to meet the development needs of the emerging Local Plan. This represents a clear exceptional circumstance for Green Belt release, which the Council fully acknowledge.

Given that the Market Street site does not fulfil the five purposes for including land in the Green Belt and is a sustainable and deliverable site, it is recommended that it be released from the Green Belt through the Local Plan process to help meet future housing needs.

4

4.0
Landscape and Visual Analysis

Figure 7: Wider Landscape Character



4.0 Landscape and Visual Analysis

Wider landscape character

Figure 7 illustrates the site in its wider landscape context as interpreted from the Landscape Strategy for Lancashire.

The site lies within the ‘Settled Valleys’. These are ‘high sided valleys of the River Irwell and its tributary streams which dissect the high moorland plateau of the Rossendale Hills’. The valley includes railways and roads, and urban development is clustered along the transport corridors on the valley floor. Woodland along the River provides some enclosure and a wooded setting to settlements.

Around Edenfield, higher land either side of the Settled Valleys is characterised as ‘Moorland Fringe’. This is a rolling landscape of marginal pastures. Tree cover is sparse and settlement is confined to isolated farmsteads.

The highest land which contains the valley to the east and west is ‘Moorland Plateau’ and ‘Moorland Hills’. These are large scale sweeping exposed landscapes. Land cover is typically blanket bog and trees are generally absent.

The context of the site within the Settled Valley Landscape

The site is located on the lower west facing slopes of the valley, generally below the level of existing development along Market Street.

The River Irwell meanders through the valley to the west of Edenfield. The sloping land surrounding the river forms a wide valley below the 200m contour. Land uses within the valley mainly comprise farmland, transport corridors, Edenfield village, other small settlements and some industrial land uses close to the river.

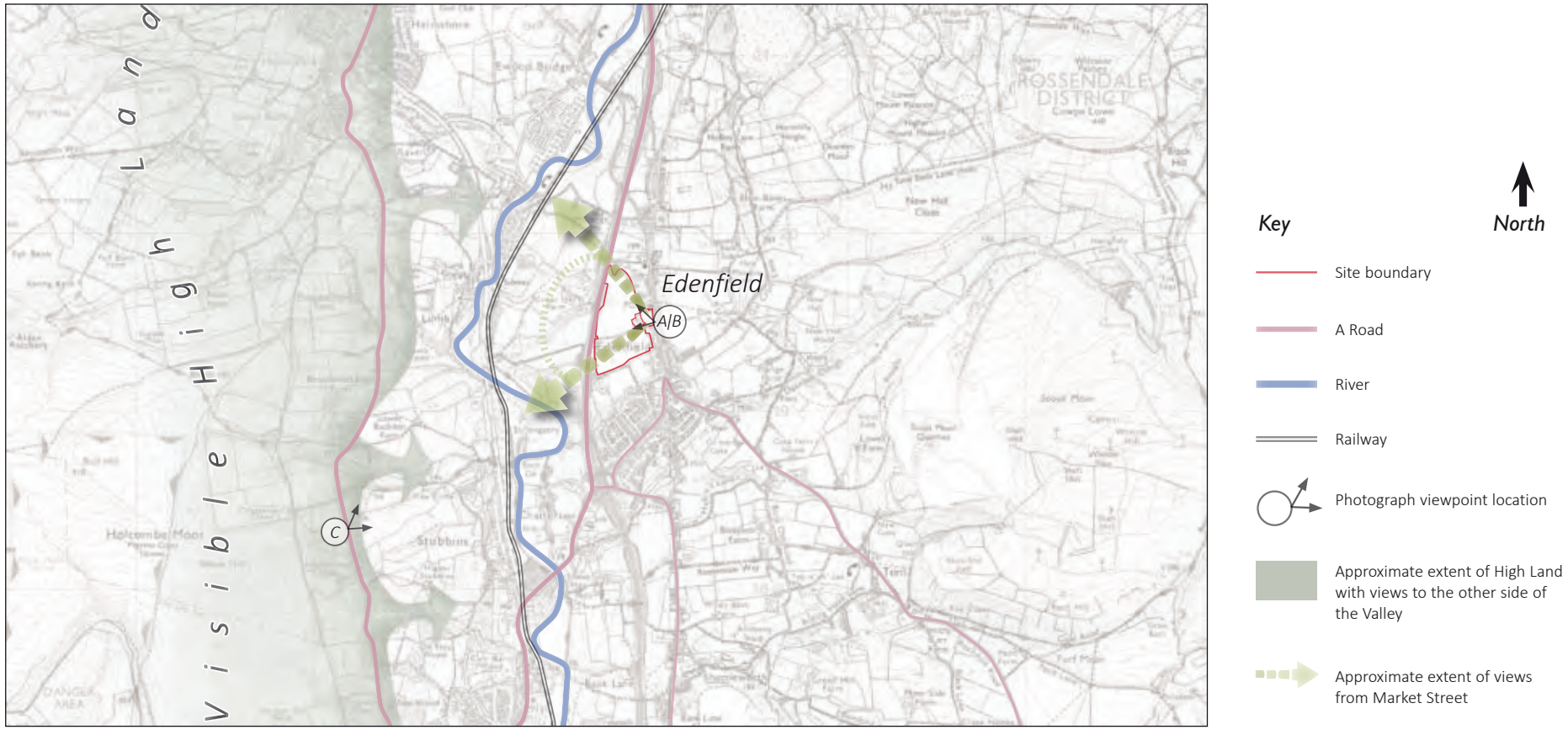
The East Lancashire railway follows the valley bottom. The M56/A56 corridor also lies within the valley to the east of the river and to the west of Edenfield. The A56 is a dual carriageway with two lanes in each direction. This is a dominant feature of the landscape.

The river corridor and its tributaries are well wooded creating a pattern of woodlands which extend along the valley bottom and up into the higher reaches of the valley. The railway, road corridors and urban areas are often framed with vegetation providing some sense of enclosure.

Edenfield village centre lies at the intersection of three main roads. Historic maps from the 1850’s show settlement in this area and extending north along Market Street. Around the 1920’s housing areas extended north and south from Bolton Road North, infilling the area between the A56 and the village centre, giving the southern part of the village its current widened form.

There are a range of housing types within the village, including traditional stone terraced housing, 1930’s semi’s, post war housing and detached houses built within the last 50 years. A recent planning approval for 10 houses on the former Horse and Jockey pub site on Market Street includes a single detached house and a mix of terraced and semi-detached houses arranged within a cul-de-sac.

Figure 8: Visual Context



Visual context

Figure 8 illustrates the main visual relationship between the site and the surrounding landscape.

The site is not visible from low lying land between the River Irwell and the A56 corridor due to topography and enclosure provided by significant belts of woodland within the valley.

The site is not visible from rising land to the East of Edenfield due to topography and existing development within the village.

The main locations from which the site is visible in the wider landscape are:

- From the site frontage to Market Street looking west;
- From high land to the west of Edenfield.

Views from Market Street

Market Street is generally developed on both sides with terraced housing which restricts most views to the east and west. The part of the site which borders Market Street remains as a rectangular area of open grassland contained by a stone wall approximately 1.5m tall. The wall generally screens views of the site from passing vehicles, however the high land to the west of Edenfield is visible above the wall providing a visual connection with the wider landscape (Photograph A).

Photograph B illustrates the view into the site over the boundary stone wall which can be experienced by pedestrians on Market Street. The roof of Mushroom House, the boundary wall and vegetation which surround it are visible at the back of the open field in the foreground. This property screens views to most of the site beyond. To the right of Mushroom House, as ground levels fall westwards, the lower parts of the site are partially visible and the A56 can just be seen. Vegetation on the west side of the A56 is visible, screening the river corridor beyond.

The value of the view from Market Street lies in the long and panoramic views across to high land on the far western side of the valley. Development of the site which ensures that the visual connection between Market Street and the high land to the west is retained would not be inappropriate.

Views to the site from the west

On higher land to the west of the River Irwell, Helmshore Road runs roughly parallel to the A56 at around 200m AOD. The alignment of Helmshore Road approximately defines the lower extent of views to Edenfield from the west, below this level views are increasingly screened by topography and intervening areas of vegetation. Views to the site from Helmshore Road occur at a distance of just over 1km and are seen in a wide panoramic context. Views from higher land to the west of Helmshore Road occur at distances greater than 1km.

Photograph C is taken from a public footpath close to Helmshore Road. The photograph illustrates the wide scale panoramic views across the valley, with Scout Moor and the Rossendale Hills visible as a backdrop. Urban development within the ‘Settled Valley’ is visually prominent on the lower slopes of the valley, with the urban edge generally softened by tree planting. The A56 corridor can just be delineated at a slightly lower level than Edenfield, often framed by woodland. The lower valley, in front of the A56, comprises pasture and woodland and is generally free from development.

Development of the site could be expected to result in a limited increased amount of urban development within a broad scale panoramic view which already features urban development and road infrastructure. Integration of new woodland planting at the boundary of the site along the A56 would tie into existing woodland areas, providing a strong boundary to the development and would assist in assimilating the development into the landscape.

Photograph A - View from Market Street looking towards site

Photograph B - View from Market Street looking over stone wall towards site

Photograph C - View from Helmshore Road near to PRoW 14-3 FP 117

5

5.0
Vision for the Site

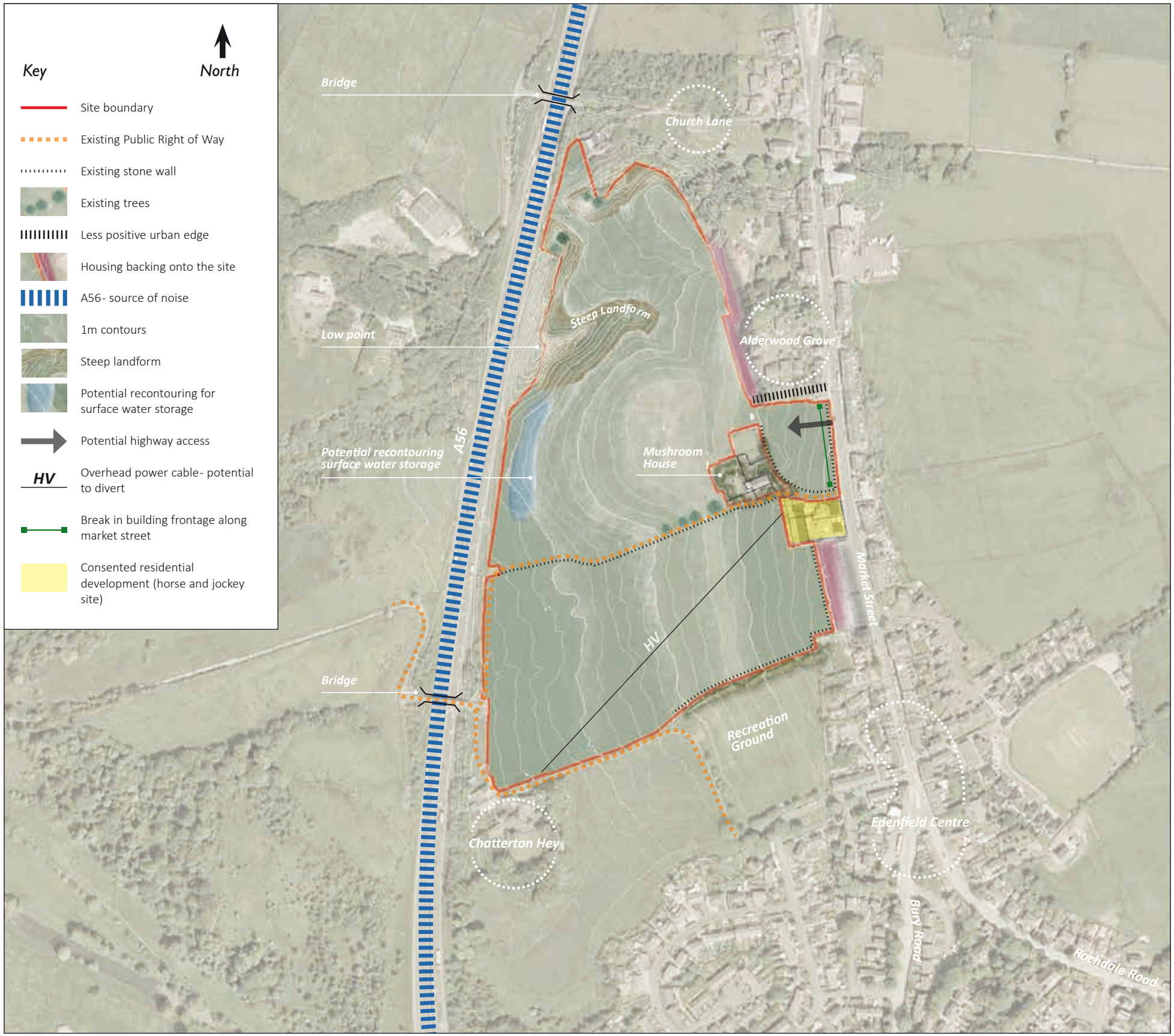
5.0 Vision for the Site

An attractive housing development with distinctive local character offering a choice of high quality new homes to meet local needs.

Taylor Wimpey's vision for the site seeks to meet the following goals:

- **Delivery of quality new family homes which make the best use of available land and meets the needs of Rossendale;**
- **Achieve a choice of housing with a mix of house types, tenures and sizes to meet identified local needs;**
- **Respect the character of the site and its setting;**
- **Provide high quality, accessible green space for the benefit of existing and future residents;**
- **Facilitate cycle and pedestrian links to community facilities, green spaces and the wider landscape;**
- **Invest in the community with the creation of additional direct and indirect employment both during and after the development. Taylor Wimpey UK Limited will also employ staff locally through the construction of the development;**
- **Create a safe and desirable place to live with an attractive environment that builds upon the strength of the local community;**
- **Provide high quality design which will complement and enhance the existing environment and create a good standard of amenity and living environment;**
- **Protect existing residential amenity; and**
- **Capitalise on site assets such as long views, characterful stone walls and an existing public right of way.**

Figure 9: Site Analysis Plan



Approach

Taylor Wimpey has developed a visionary masterplan for the site which meets these objectives and is shown in this section. It demonstrates how the design and form of development will respond sensitively to the characteristics of the site and the wider area, and explains the contribution that the site could make to Edenfield. It is intended that these ideas will evolve further in consultation with the local community and key stakeholders at the appropriate time.

Site Opportunities and Constraints

The vision for the site derives from a careful analysis of the characteristics of the site, its context, and the opportunities and constraints which arise.

The highest part of the site which adjoins Market Street provides a break in built form along the road. Here the stone wall at the site frontage limits close views of the site, however there are views above the wall to the distant hilltops on the western side of the valley. There is an opportunity to retain and enhance the visual connection between Market Street and the wider landscape, potentially lowering the stone wall at the site frontage to open up views into the field at the entrance to the site.

Steep landform in the north western part of the site is unlikely to be suitable for development, however this part of the site can accommodate new woodland planting to assist in assimilating the development into the landscape. The lowest parts of the site, at the western edge, will be the most appropriate location for any potential surface water storage areas on the site.

The site abuts existing residential development along most of the eastern boundary. The need to preserve residential amenity of existing properties will need to be considered as part of any development. There is an opportunity to improve the existing urban edge at the southern boundary of Alderwood Grove which is visible from Market Street.

The southern site boundary adjoins Edenfield recreation ground. Edenfield village centre is located to the east of the recreation ground. There is an opportunity to improve pedestrian connections to these areas.

The western site boundary runs parallel to the A56. Land further north and south features woodland planting which assists in visually obstructing the A56 and provides a wooded setting to Edenfield. Development of the site provides an opportunity to extend woodland planting along the A56 corridor, assisting with both noise and visual screening.

Within the site is a residential property called Mushroom House. The property is accessed along a track from Market Street, which is also a public right of way linking to a bridge over the A56. Mushroom House is well contained by stone walls and vegetation which restricts most outward views from the property. A stone wall runs along the access track to Mushroom House and continues along the public footpath as far as the western site boundary. Retention of these features will create a characterful development to complement Edenfield.

Highway access into the site can be safely taken from Market Street, ensuring that the existing access track to Mushroom House is not subject to any increase in traffic. The track could potentially be upgraded to provide a controlled emergency access into the site if required.

An overhead power line bisects the southern field of the site. This can be diverted and will not restrict development.

The key principles of development arising from the opportunities and constraints are:

- The retention of part of the open field adjacent to Market Street to provide a break in built form and to retain visual connection to the hill tops to the west of the valley;
- The protection of the amenity value of the existing PROW and Mushroom House;
- The preservation of residential amenity of existing properties directly bordering on to the site;
- Consideration of the topography of the site and how residential development can complement this;
- Retention of existing stone walls within the site;
- The provision of a woodland and greenspace buffer area along the western site boundary to assist in screening the development from the wider landscape and to screen noise and views to the A56;
- Potential to improve footpath and cycle connections through the site and into the wider area.

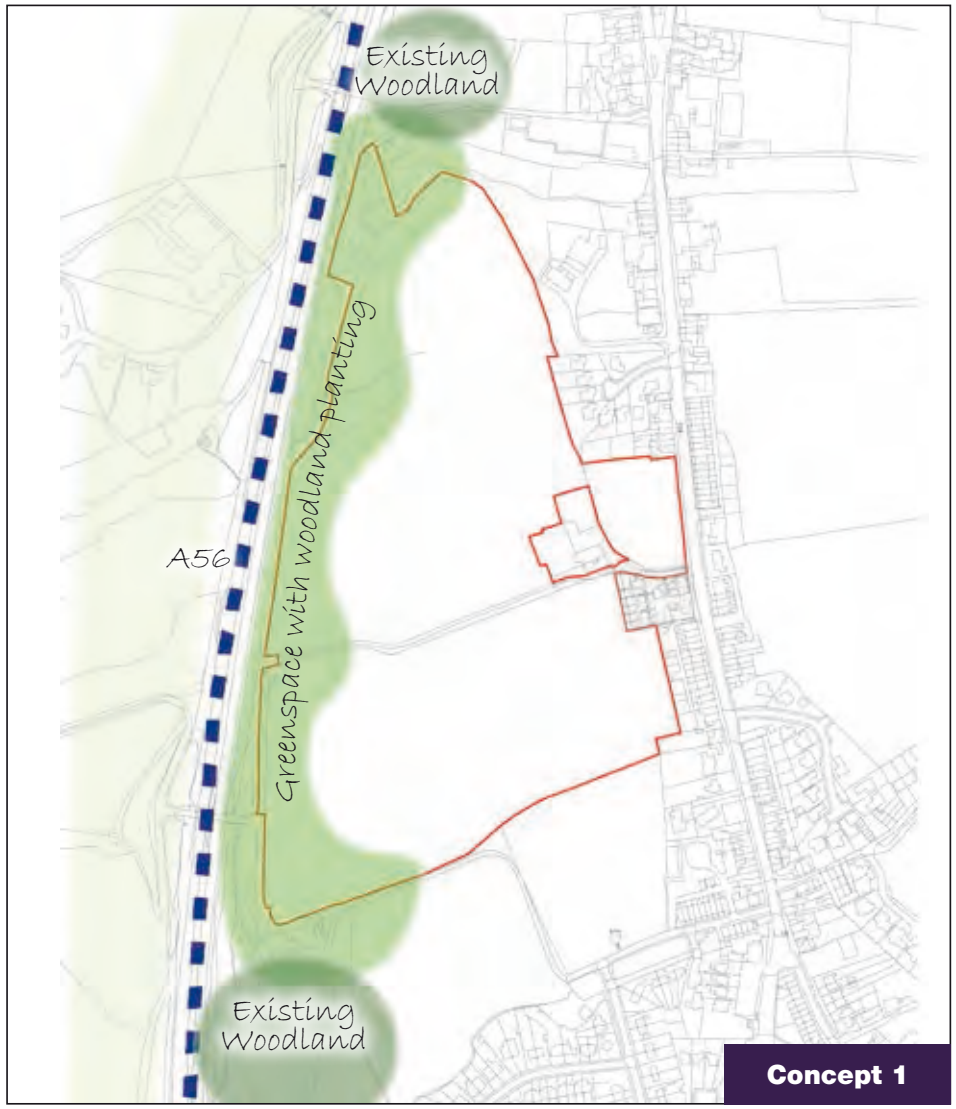
There is potential on this site to develop a high quality residential scheme with a coherent landscape structure which conserves the natural assets present on the site as well as enhancing opportunities for recreation and pedestrian/cycle movement.

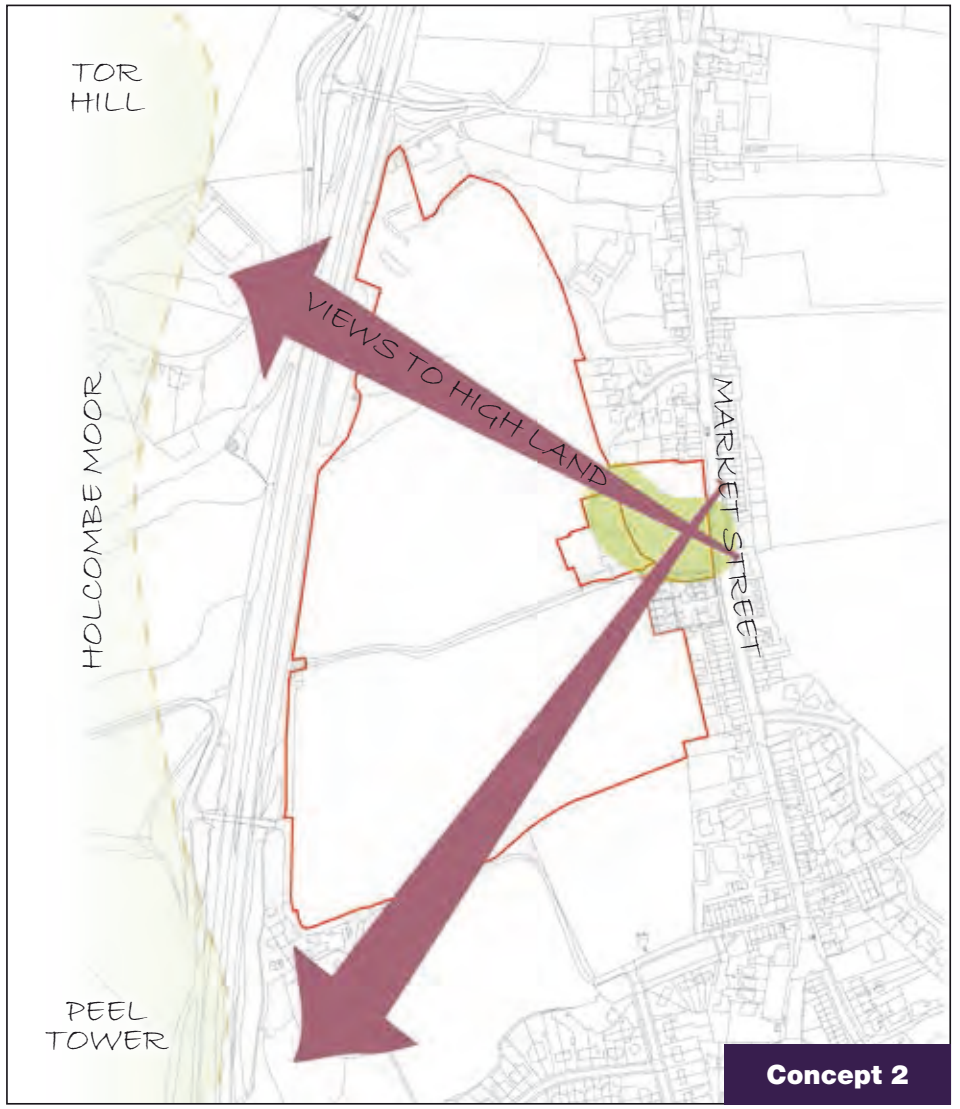
Figure 10: Concept Plans

Development Concepts

The concepts which underpin the masterplan respond directly to the characteristics of the site.

Four key concepts can be identified:



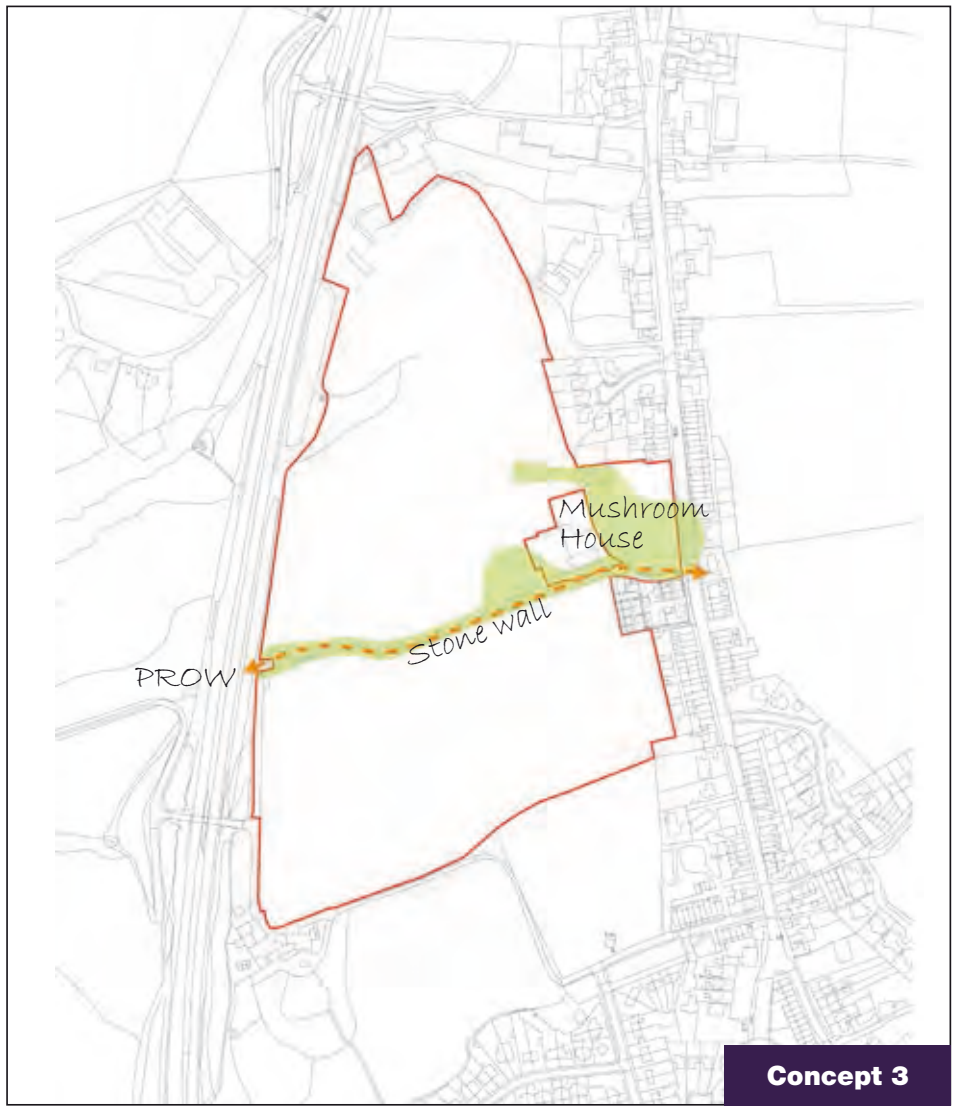


Concept 1:

Create a greenspace with new woodland planting along the western edge of the site. This will extend existing woodland areas, providing a strong buffer between development and the A56, and will soften the urban edge of Edenfield in views from the west.

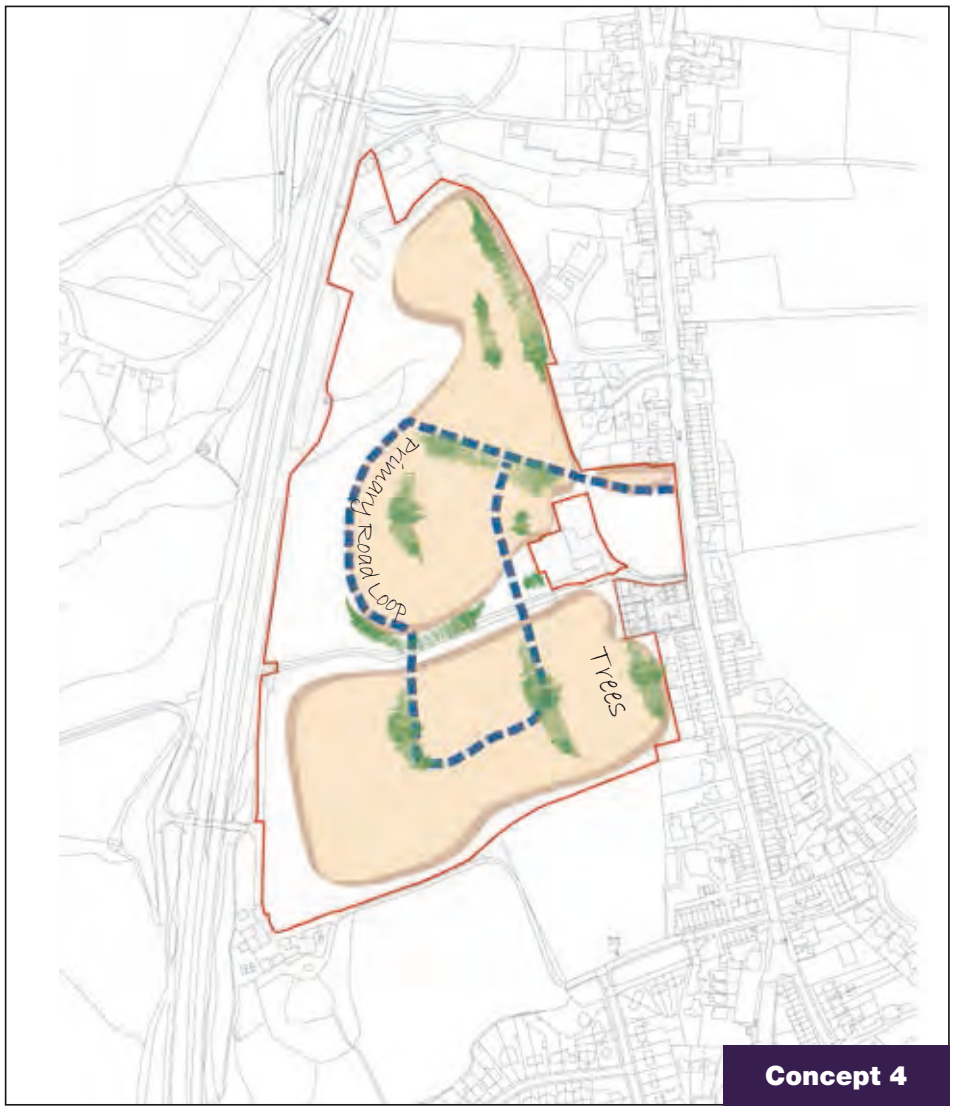
Concept 2:

Retain an area of open space adjacent to Market Street which provides a break in development and enables long views to the hill tops of Holcombe Moor to the west of Edenfield which contribute to a distinct sense of place.



Concept 3:

Protect the setting of Mushroom House and the existing Public Right of Way and stone wall within the site.



Concept 4:

Create a residential area which broadly follows the contours of the site. Integrate tree planting throughout the development to break up the roofscape and embed the development into the landscape.

North

Figure 11: Illustrative Masterplan

Illustrative Masterplan

The masterplan illustrates how the site could be laid out to ensure that the objectives illustrated by the key concepts can be met. An attractive residential area which will complement Edenfield is proposed. A highway access point into the site will be provided from Market Street. A large proportion of the field at the site entrance will be retained as open space with a soft village green character, allowing views to the distant hill tops to the west and retaining an attractive view to Mushroom House and its characterful stone wall setting. A new row of housing will be provided along the northern edge of the field creating a positive edge to this part of Edenfield when viewed from Market Street.

Within the site two green 'lanes' will link the entrance green to the western edge of the site. One of these will be aligned to point in a north westerly direction focussing the eye on distant views towards Tor Hill, the second will follow the route of the existing Public Right of Way through the site and its companion stone wall. This green corridor will open up at Mushroom House enabling the characterful stone walls at the property boundary to be appreciated while also ensuring that the property does not become enclosed by development.

A further greened street is proposed to link the existing Public Right of Way to Edenfield recreation ground. This will promote the use of this greenspace and will also facilitate connectivity to the shops and services in the village centre.

The western edge of the site will provide a broad greenspace corridor. The corridor will include wide belts of woodland planting to frame and enclose the site. The woodland will provide an appropriate screen to hide any fencing or landform which may be necessary to reduce noise from the A56, and will assist in blending the development into its surroundings when viewed from high land on the west of the valley. Gentle landform modelling would enable the creation of sustainable draining ponds as part of the development. The greenspace also has potential to accommodate new pedestrian and cycle routes through the site and into the wider area.

Internally the development will be served from a road loop which will in turn link to a hierarchy of shared surface roads, cul-de-sacs and private drives. The road alignment throughout the development is proposed to loosely run along the contour lines to complement the urban form in the settled valleys. Tree planting would be integrated throughout the development to further embed it into the landscape.

The high quality residential scheme proposed will deliver the following key features:

- Approximately 240 dwellings at a net density of 30 dwellings per hectare;
- Over 4 hectares of safe and multifunctional greenspace, providing recreational and environmental benefits;
- An enhanced and accessible village 'green' on Market Street;
- Extensive new footpaths and cycleways;
- Extensive new tree and hedgerow planting;
- Noise screening to the A56 for the benefit of existing and future residents.

The masterplan demonstrates that the site is capable of delivering a high quality scheme which will complement the wider area and deliver a range of attractive benefits.

Figure 12: Illustrative Hand Drawn Sketches.

View 1: View north west from Market Street

View 2: View east along public right of way

Character Areas

Development character is a function of layout, building style, and landscape treatments, which combine to create a sense of place. Three different areas will result from the masterplan as illustrated on the adjacent plan.

Edenfield Lanes:

The Edenfield Lanes comprise the housing areas which front onto the Market Street village 'green' and the green routes through the site which branch off from the green. The housing in these areas will be medium density comprised largely of detached and semi-detached properties with front gardens. Properties will be restricted to 2 storeys to ensure that views to western hill tops are retained from Market Street. Building materials will strongly complement the prominent building materials used along Market Street to create a well linked and cohesive character. Greenspaces will be semi-formal in character featuring mown grass and individual tree planting. Stone wall details will be incorporated into boundary treatments at appropriate locations.

Lower Valley Edge:

The Lower Valley Edge includes the housing area which fronts onto the western greenspace. The housing along this frontage should be medium-high density with a tight built form. Some 2.5 and 3 storey properties may be appropriate on this lowest part of the site to complement the scale of the adjacent greenspace and woodland, and to punctuate the street scene.

Inner Squares:

The Inner Squares are development areas with a limited visual connection with the wider landscape. These areas have a greater flexibility over the type of housing and materials used. Housing may be served by a combination of road types, including main streets, shared surface roads, cul-de-sacs and private drives, as appropriate to the location within the site. Development at higher densities is likely to be appropriate with a more urban character than the other character areas of the site.

Figure 13: Character Areas

Figure 14: Phasing Plan

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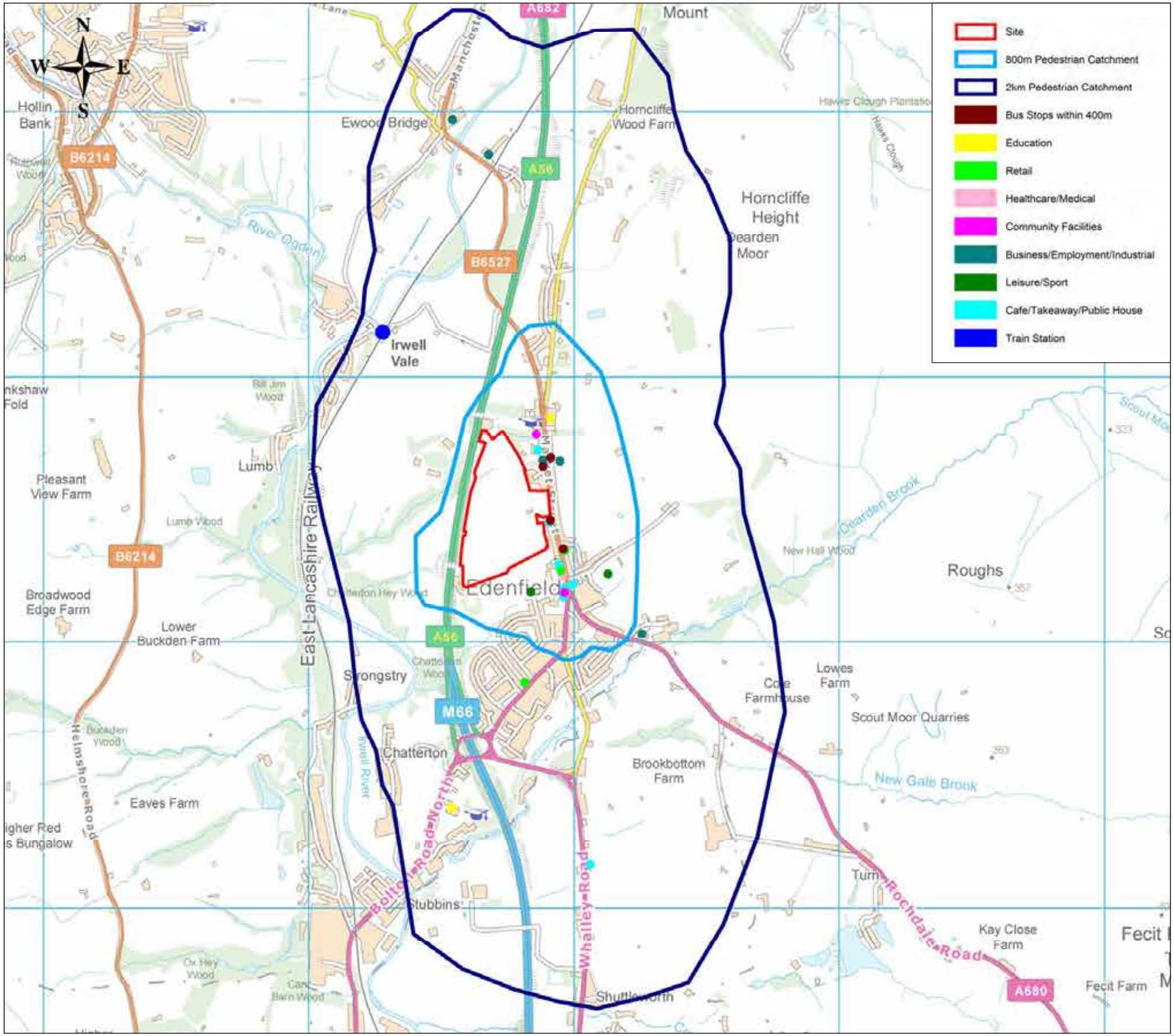
Phasing

It is anticipated that the site would be built out over a 4 to 5 year period. Three phases of development are indicated on Figure 14. The development phases would logically and gradually extend Edenfield in a westward and northward direction from the village centre up towards Church Lane.

6

6.0
Sustainable Development Principles

Figure 15: Sustainability Plan



6.0 Sustainable Development Principles

The Market Street site represents a highly sustainable solution to the Borough's housing needs which will generate economic, social and environmental benefits in accordance with the three pillars of sustainable development, whilst delivering the type, quality and quantity of new homes to support the growth of Rossendale over the Local Plan period.

Location and Accessibility

The site is situated to the east of Market Street in Edenfield. The site is approximately 350m north of the centre of Edenfield, which is designated as a Neighbourhood Centre in the adopted Core Strategy.

A variety of local facilities and amenities are available within the local catchment, with Table 7.1 providing examples of walking distances to key amenities.

Local Amenity	Distance (metres)
The Coach & Horses public house	370
Edenfield Parish Church	450
Market St Newsagents	450
Edenfield Village Pharmacy	460
Edenfield Church of England Primary School	500
Edenfield Cricket Club	620
Edenfield Mini Market	930
The Duckworth Arms	1,500

Table: Distance from Site to Local Facilities

The site is well served by the existing public transport network. The nearest bus stop to the site is located to the east of the site on Market Street, approximately 220 metres walking distance from the centre of the site. Further bus stops are located to the north east and south east of the site along Market Street.

These bus stops offer up to 6 services per hour, providing direct access to destinations including Burnley, Rawtenstall, Accrington and Bury. Bury bus station, and the adjacent Metrolink station, provide links to a wider range of local and regional destinations. The bus services operate from 6:30 am until 7pm, proving the opportunity for residents to travel by public transport for commuting and leisure trips.

There is a train station in Irwell Vale within 2km of the site; however this is part of the East Lancashire Heritage Railway between Heywood and Rawtenstall and does not provide a commuter service. That said, there was an aspiration in the Site Allocations and Development Policies document to develop this into a commuter link, and the development of this site would fully support this aspiration through increased patronage at Irwell Vale station. There are also opportunities to improve pedestrian links between the site and the station via the existing public rights of way and the bridge across the A56.

With regard to cycling, National Route 6 is located around 750 metres west of the site, whose route passes through Manchester to the south and Blackburn and Preston to the north. Additionally, Regional Route 91, the 'Lancashire Cycle Way', is situated approximately 1.4 kilometres west of the site, which is ideal for recreational cycling and provides links to numerous destinations across Lancashire.

Community Facilities

The site is located in close proximity to a number of community facilities that could be accessed and utilised by residents.

Edenfield Primary School is 450m north of the site and Stubbins Primary School is 1.5km to the south. The nearest secondary school is 2.4km to the north and accessible by bus, including dedicated school buses.

Other community facilities include the Recreation Ground to the south which is in use as a nursery, Edenfield Parish Church 450m to the north, and Edenfield Cricket Club, 620m south east of the site.

The site is a sustainably located development opportunity located within easy access of a range of local services, employment opportunities and public transport routes.

Economic Investment

The development of the site will contribute to building a strong, responsive and competitive economy. In particular, the development of approximately 240 dwellings will secure a number of economic benefits in terms of job creation, tax revenues to the Council and increased expenditure in the local economy.

Housing supply can play a key role in the flexibility of the local labour market which is an important component in local economic competitiveness and maintaining a dynamic economy. This is because a shortage of housing or lack of affordability can act as a barrier to people accessing employment opportunities or result in long distance commuting and associated sustainability impacts.

The development of the Market Street site will support the local labour market, and will generate the following specific benefits:

Direct construction-related employment:

The proposed development could support around 233 person years of direct employment within the construction sector. This translates into 39 Full Time Equivalent (FTE) roles on-site per annum over the estimated six-year build programme.

Construction impact in the supply chain:

A further 54 FTE jobs could be supported each year locally through indirect and induced effects during the construction phase.

Contribution of construction phase to economic output:

The proposed development could contribute an additional £4.4million of gross value added (GVA) annually to the local economy during the construction period.

Household spend:

Once fully built and occupied, the households are estimated to generate expenditure in the region of £5.8 million per annum. This could support additional shops and services within the centre of Edenfield, and elevate its role as a service centre. It would also support the Council's aspiration to develop the East Lancashire Railway into a commuter service as it could greatly increase patronage at Irwell Vale station.

Increased Council Tax income:

The construction of the new homes could generate around £374,000 per annum in additional Council Tax revenue for Rossendale Borough Council, once fully developed and occupied.

New Homes Bonus revenue:

The proposed development has the potential to generate in the region of £1.7million in New Homes Bonus revenue for Rossendale Borough Council and £422,000 for Lancashire County Council.

Community Benefits

The development of the site will also perform a social role by generating the following community benefits:

- Provide a range of open market housing comprising various types to meet the needs of the local community.
- Provide up to 72 affordable homes of a range and type to meet the identified need in the Rossendale area.
- Provide over 4 Ha of public open space and outdoors sports provision for future residents and the wider community in accordance with Rossendale's policy requirements. The proposals for the site can deliver integrated open space that complements and strengthens links to the existing Recreation Areas to the south.
- Assist in the provision of other facilities where there is an identified need, in accordance with development plan policies.

Taylor Wimpey in the Community

Taylor Wimpey is committed to making a difference in the local community and working with local educational establishments and job seeking agencies in order to facilitate local apprenticeships and training initiatives, and to ensure that employment generated from the development is sourced from and directly benefits the local area.

Environmental Considerations

Landscape & Visual Impact

As confirmed within the landscape analysis, the site is not subject to any formal landscape designations, other than its location in the Green Belt which is addressed in Chapter 4. The site lies on the northern fringe of Edenfield within a character type referred to as 'Settled Valleys'. This landscape character type includes the 'high sided valleys of the River Irwell and its tributary streams which dissect the high moorland plateau of the Rossendale Hills'.

In terms of visual impacts, whilst there are some long distance views into site, these can be maintained and mitigated through sensitive masterplanning.

As such, it is not anticipated that the development of the site will have a significant impact on landscape character or visual amenity.

Ecology and Trees

The site is not within or near to any designated ecological area, and as such is unlikely to have an adverse ecological impact.

The site is not subject to any Tree Preservation Orders (TPO's), and the majority of trees and vegetation are found around the perimeter of the site, with many of these falling outside the site boundary (such as those belonging to Mushroom House, the Nursing Home to the north and the Recreation Ground to the south). The site is predominantly open pasture land with patches of vegetation.

That said, all trees and vegetation within the site will be retained where possible, and significant new planting will be proposed as part of the development, for biodiversity purposes as well as screening and landscaping.

Therefore, there are no ecological or arboricultural constraints preventing the development of the site and appropriate mitigation will be provided where necessary.

Archaeology & Heritage

There are no Listed Buildings, Conservations Areas or other designated archaeological features either within or directly adjacent to the site. The Grade II Listed Edenfield Parish Church is located 100m north west of the site, however this is not visible from the site and is so well screened by existing tree cover that the proposed development will have a negligible impact on its setting.

A full archaeological assessment will be undertaken at planning application stage to identify if any mitigation measures are required, however at this stage there are no archaeological constraints that would prevent development of this site.

Flooding & Drainage

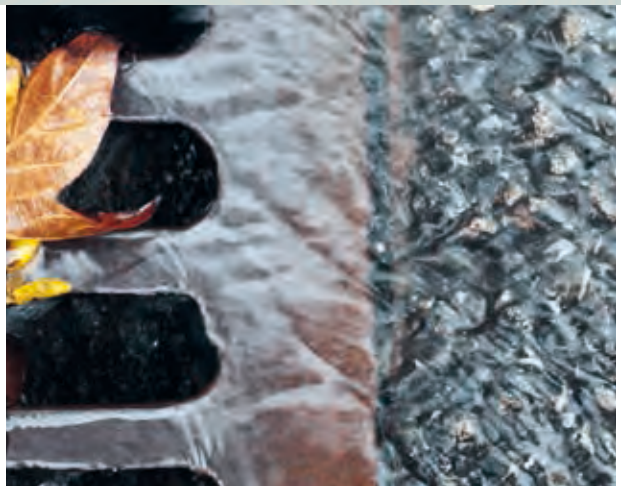
The site is entirely within Flood Zone 1, which means it has a low probability of fluvial flooding and is suitable for all types of land use, including residential, in accordance with the NPPF, and therefore there are no flooding constraints preventing the development of this site.

Noise

The main source of existing noise comes from the adjacent A56 dual carriageway. As such an initial Acoustic Assessment has been undertaken, which confirmed that the noise impacts from the A56 can be mitigated through a strong development buffer to the western boundary, as reflected in the Illustrative Masterplan, and attenuation features such as barriers and tree cover. As such, there are no noise constraints preventing the development of the site.

Ground Conditions

A desktop assessment suggests that the site has not been subject to intensive development, reflective of its use as agricultural pasture land, albeit there is evidence of a potential landfill area in north west corner of the site; which will require further intrusive investigation at planning application stage, although this will not prevent development on the wider site.



Agricultural Land Classification

A review of Lancashire's land mapping confirms that the site is Grade 4 Agricultural Land, which is defined as poor agricultural land and not the best and most versatile. Therefore, there are no agricultural land constraints preventing the sites development

Highways

Initial assessments of the adjoining highway network undertaken by Croft, confirm that there is sufficient capacity within the existing strategic highway network to accommodate this development of approximately 240 homes, with minimal highway improvements required within the highway boundary. Taylor Wimpey will consult with the local highway authority, Lancashire County Council, on appropriate mitigation to the local highway network.

The site boundary incorporates frontage to the B6527 Market Street adopted highway. Vehicular access to the site could be provided for off Market Street in the form of a simple priority controlled junction, in the location identified on the current Illustrative Masterplan. The proposed vehicle access would have a 5.5 metre wide carriageway, 2 metre footways on either side and would incorporate 10 metre corner radii.

Consideration has also been given to the potential to provide a priority junction with right turn lane, should this be requested by the local highway authority. Although this would result in the access being moved further south along the site frontage.

Separate emergency access can also be accommodated from Market Street.

The development proposals will promote pedestrian connectivity by maintaining the existing right of way through the site, whilst creating new pedestrian links and connecting to the nearby rights of way. The site will also link with the existing footway network and local amenities in the vicinity of the site.

In terms of wider access issues, it is noted that potential exists to enhance the current level of services while improving overall infrastructure that will serve the wider community as well as new residents.

There are no existing highways constraints preventing the site coming forward. However, where required, off-site highway improvements will be undertaken in agreement with the Highway Authority.

Utilities

An initial assessment of existing Utilities has confirmed that electricity, gas, water and telecommunications can be provided to the site without adversely impacting on the provision of services to the wider community. There is also an overhead power line that bisects the southern field, but this can be diverted and will not restrict development.

Therefore, the provision of services will not constrain the development of the site.

Sustainability Conclusions

There is a compelling need to deliver the development needs of the Rossendale Borough in an appropriate way. The future development of the site would deliver a range of sustainability benefits whilst creating no adverse local impacts. The development of this site is a wholly appropriate and sustainable outcome, which in itself delivers a wide range of local benefits, not least an increase in market and affordable housing. Moreover, the development will deliver significant inward investment from the private sector.

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7.0 Deliverability

7.0 Deliverability

The site will make a valuable contribution with the delivery of approximately 240 dwellings to meet the Borough's housing needs requirements as well as meeting the qualitative need to provide family and affordable housing within the area. It is therefore important that the site is deliverable in accordance with the requirements of the NPPF.

The NPPF and NPPG specify that local planning authorities supply sufficient specific deliverable sites to deliver housing in the first 5 years. To be considered deliverable, sites should, at the point of adoption of the relevant local development document:

- **Be Available:** there is confidence that there are no legal or ownership problems.
- **Be Suitable:** offer a suitable location for development and would contribute to the development of sustainable and mixed communities.
- **Be Achievable:** there is a reasonable prospect that housing will be developed on the site at a particular point in time.

This is a judgement about the economic viability of a site and the capability of a developer to provide housing within a defined period, taking into account marketing, cost and deliverability factors.

Available

Taylor Wimpey UK Ltd has legal control of the site, and is seeking to develop the site at the earliest opportunity. The site is therefore in the control of a major national housebuilder and could deliver 240 new homes that will be critical to meeting housing need during the Plan Period.

If the site were to be released from the Green Belt and allocated for housing, Taylor Wimpey would seek to develop the site immediately, which would contribute considerably to the Borough's 5 year housing land supply and deliver highly anticipated new homes early in the Plan Period. This commitment to delivery is demonstrated by Taylor Wimpey's track record of the efficient delivery of high quality greenfield housing schemes across the North West.

This is particularly relevant in Rossendale, where the Council has persistently failed to achieve its annual housing target over the past 4 years, and therefore has a shortfall to address within the next 5 years.

Suitable

The site is suitable for housing development because it:

- offers a suitable location for development and can be developed now;
- would consolidate and round-off the settlement to the west of Edenfield, and infill up to the existing physical boundary provided by the A56;
- can utilise existing infrastructure surrounding the site with no utilities or drainage constraints preventing the site coming forward for development;
- can accommodate satisfactory vehicular access, existing bus stops are in close proximity and the local highway can accommodate the provision of 240 additional dwellings;
- will deliver generous areas of open space for use by residents and the local community;
- is not subject to any ecological or environmental constraints preventing development on the site; and
- is sustainably located with several local facilities within walking distance of the site boundary, including a primary school, shops, and recreation uses.

The site is therefore suitable in accordance with the NPPF.

Achievable

The delivery of approximately 240 dwellings would make a significant contribution towards meeting the housing needs of the Borough. An assessment of the site constraints has been undertaken which illustrates that delivery of the entire site is achievable and deliverable, and a professional team of technical experts has been appointed to underpin this assessment and support the delivery of the site moving forward. Where any potential constraints are identified, Taylor Wimpey has considered the necessary mitigation measures and required investment in order to overcome any deliverability barriers.

Taylor Wimpey has reviewed the economic viability of the proposal in terms of the land value, attractiveness of the locality, potential market demand and the projected rate of sales in Edenfield; as well as the cost factors associated with the site including preparation costs and site constraints.

Taylor Wimpey can, therefore, confirm that the development of the site is economically viable in accordance with the NPPF and NPPG. As a consequence, the company is committed to investing in the site and is confident that residential development can be achieved within 5 years.

8

8.0
Conclusions

8.0 Conclusions

The Market Street Edenfield site presents an exceptional opportunity to meet the future housing needs of Rossendale in a location that would not undermine the purpose and function of the Green Belt. This Development Statement sets out the case for allocating the site for housing development within the emerging plan period, as well as the exceptional circumstances that support the alteration of the Green Belt in the Borough, a position the Council support.

The allocation of this site for residential development will deliver open market and affordable housing of a type, quantity and quality that will make a significant contribution to the future growth needs of Rossendale.

Key Benefits

Accordingly, this Development Statement has demonstrated that the Market Street site:

- is entirely suitable, deliverable and viable for housing development; and will deliver a mix of housing types, including both market and affordable homes;
- is sustainably located in proximity to a range of amenities, services and facilities;
- is supported by clear exceptional circumstances for Green Belt release, including an urgent need for new market and affordable homes, and a shortage of available land within existing urban areas;
- is entirely appropriate for Green Belt release and allocation as a residential development site, as it is well contained by existing physical features and forms a logical extension to the village, without compromising the core purposes of the Green Belt;
- is not subject to any technical or environmental constraints that would prevent the delivery of housing;
- can deliver a landscape led masterplan that complements the surrounding site context, and creates a high quality housing development;
- will provide a network of high quality open spaces, with links to the existing Recreation Areas to the south.
- will create a more natural and defensible Green Belt boundary to the west of Edenfield; and
- generates significant socio-economic benefits by providing housing choice, and stimulating job creation and economic investment. Increased consumer spending will also help to support additional shops and services within Edenfield, which could elevate its role as a service centre.

Summary

The development of the site at Market Street, Edenfield provides a highly sustainable opportunity to support the national growth agenda and to assist in providing adequate land to deliver a new Local Plan for the Borough. The site will deliver the quantity, type and quality of homes that is required across the Borough and can demonstrate exceptional circumstances that support an alteration to the existing Green Belt without impacting on its core functions.

Taylor Wimpey is committed to working collaboratively with the Council and Key Stakeholders to ensure that the Borough's housing need is met in a sensitive and sustainable manner.

A

Appendices

Appendix I: Taylor Wimpey UK Limited

Appendix I:
Taylor Wimpey UK Limited

Taylor Wimpey UK Limited is a dedicated homebuilding company with over 126 years' experience, we have an unparalleled record in our industry. We aim to be the homebuilder of choice for our customers, our employees, our shareholders and for the communities in which we operate.

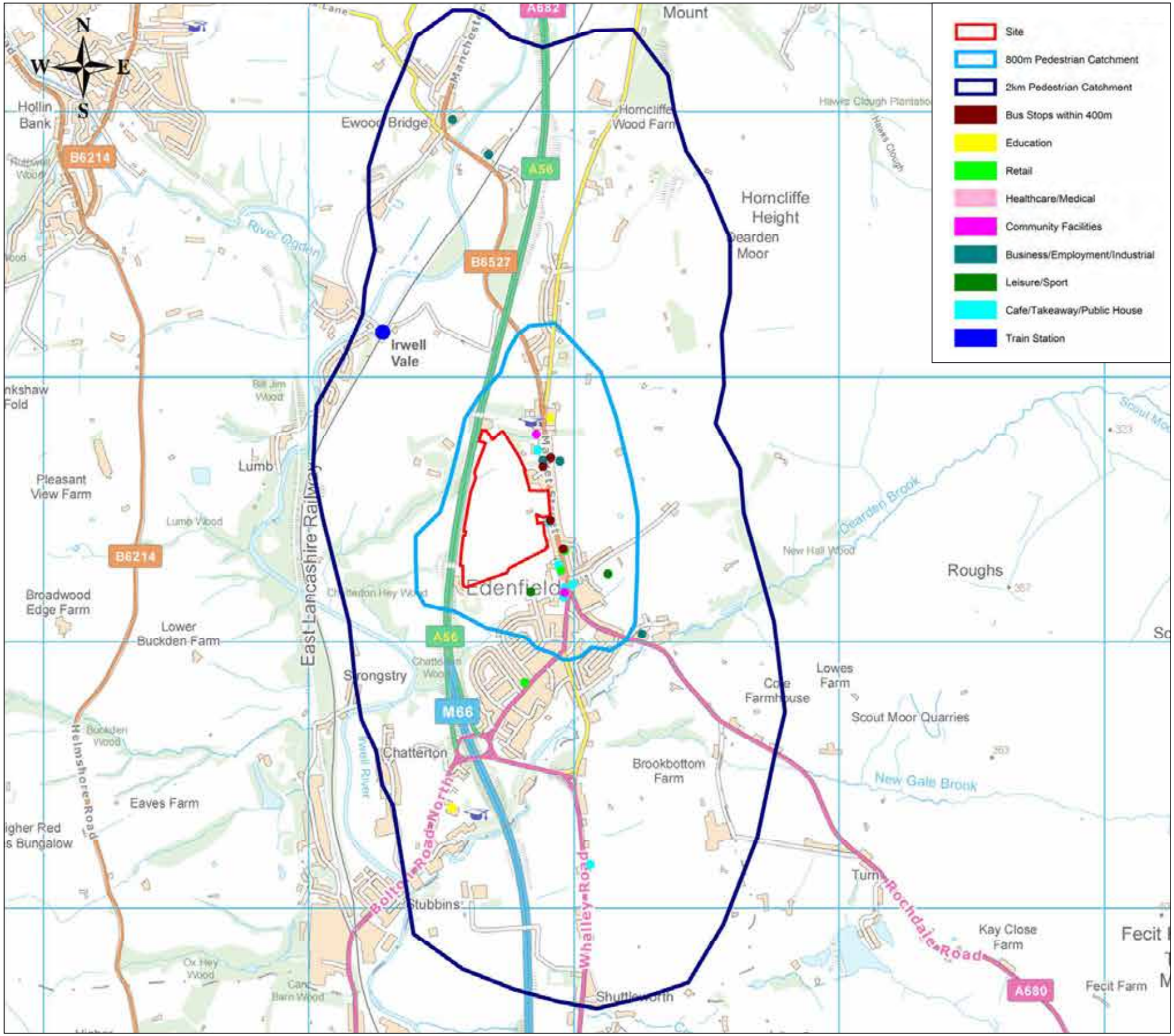
We have expertise in land acquisition, home and community design, urban regeneration and the development of supporting infrastructure which improves our customers' quality of life and adds value to their homes. We draw on our experience as a provider of quality homes but update that, to the expectations of today's buyers and strive to provide the best quality homes, while setting new standards of customer care in the industry. Our 24 regional businesses in the UK give our operations significant scale and truly national geographic coverage.

Each business builds a range of products, from one bedroom apartments and starter homes to large detached family homes for every taste and budget and as a result, our property portfolio displays a surprising diversity. The core business of the company is the development for homes on the open market, although we are strongly committed to the provision of low cost social housing through predominantly partnerships with Local Authorities, Registered Social Landlords as well as a variety of Government bodies such as the Homes and Communities Agency.

With unrivalled experience of building homes and communities Taylor Wimpey today continues to be a dedicated house building company and is at the forefront of the industry in build quality, design, health and safety, customer service and satisfaction. Taylor Wimpey is committed to creating and delivering value for our customers and shareholders alike. Taylor Wimpey combines the strengths of a national developer with the focus of small local business units. This creates a unique framework of local and national knowledge, supported by the financial strength and highest standards of corporate governance of a major plc.

Taylor Wimpey Strategic Land, a division of the UK business, is responsible for the promotion of future development opportunities, such as this site, through the planning system. The local business unit that will, in conjunction with Strategic Land, carry out housing and related development as part of this is Taylor Wimpey North West based in Warrington.

Sustainability Plan



Appendix 2:
Site Sustainability

Access to Education Facilities

Education facilities are shown in yellow on the Sustainability Plan and described below:

There are two primary schools within 2km of the site comprising:-

- Edenfield Church of England Primary School (0.5km);
- Stubbins Primary School (1.5km).

The Haslingden High School falls just beyond the 2km catchment (2.4km from the centre of the site). In addition, the Recreation Ground to the immediate south of the site is in use as a nursery.

The Market Street site is therefore well located in relation to education facilities and thereby accords with national planning guidance on the location of housing development.

Access to Retail Facilities

The site is located within close proximity of a variety of services and facilities, meeting local shopping and employment requirements for the site. The below listed retail facilities are indicated in light green on the Sustainability Plan.

Neighbourhood stores in the vicinity of the site include:

- Market Street News (450m);
- Valentine's Butchers (530m);
- Sixsmiths Bakery (550m);
- Edenfield Mini Mart (1km).

The Village Pharmacy is located approximately 450m south of the site.

The Market Street site is therefore well located in relation to local shops and services and thereby accords with national planning guidance and the emerging LDF on the location of housing development.

Access to Sports and Recreation Facilities

Sports and recreation facilities are shown in green on the Sustainability Plan. The site is located in close proximity to the following key sports and recreation sites:-

- Children's play area (Exchange Street) (0.6km);
- Edenfield Cricket Club (0.6km).

The Market Street site is therefore well located in relation to sports and recreation facilities and thereby accords with national planning guidance and the emerging LDF on the location of housing development.

Access to Healthcare & Community Facilities

The community facilities listed below are shown in pink on the Sustainability Plan opposite:

- The Village Pharmacy (450m).

The site is located in close proximity to a number of public houses, restaurants and takeaways:

- The Drop Off Cafe (350m);
- The Coach and Horses (350m);
- Golden Kitchen (430m);
- Bizzy Plaice Fish and Chips (480m);
- Rostron Arms (530m).

The site is also around 450m of Edenfield Parish Church.

The Market Street site is therefore well located in relation to community services and thereby accords with national planning guidance and the emerging LDF on the location of housing development.

Taylor Wimpey

Market St Edenfield

Published by Taylor Wimpey UK Limited

APPENDIX 2 – EDENFIELD ALLOCATION – COMBINED ILLUSTRATIVE MASTERPLAN

Steelworks
River Irwell
A56
Blackburn Rd
Burnley Road
Land between Blackburn Road and A56
Potential school expansion on existing site
Church Lane
Market Street
Land west of Market Street
Existing POS/ Recreation ground
Cricket ground
Land off Exchange Street
Exchange Street
Chatterton Heys
Bury Road
EDENFIELD
Rochdale Road
River Irwell

Scale 1:5,000
N
0m 50 100 150 200 250m 500m

RANDALL THORP

LANDSCAPE ARCHITECTURE
ENVIRONMENTAL PLANNING
MASTERPLANNING
URBAN DESIGN

Canada House, 3 Chepstow Street,
Manchester M1 5FW
0161 228 7721 mail@randallthorp.co.uk
www.randallthorp.co.uk

KEY:

- Draft housing allocation boundary
- Existing Public Right of Way
- Existing vegetation
- Proposed development cell
- Proposed indicative frontage
- Proposed green space
- Proposed woodland
- Proposed highway access
- Proposed primary road
- Proposed secondary road
- Proposed pedestrian /cycle routes
- Potential footpath links
- Potential pedestrian/ cycle/emergency connection
- Potential area for SuDS (subject to drainage strategy)

Date: 01.10.2018
Drawn by: SR
Checker: JF
Rev by:
Rev checker:
QM Status: checked
Product Status: Issue

North West Edenfield Local Plan Representations

Combined Illustrative Masterplan

Drwg No: 610C-02C Scale: 1: 5,000 @ A3

APPENDIX 3 – RANDALL THORP LANDSCAPE REBUTTAL – EDENFIELD

LANDSCAPE ARCHITECTURE
ENVIRONMENTAL PLANNING
MASTERPLANNING
URBAN DESIGN

RANDALL THORP
CHARTERED LANDSCAPE ARCHITECTS

Rossendale Draft Local Plan

Rebuttals to Council's Evidence Base relating to Market Street, Edenfield

18 September 2017

Prepared for:

Taylor Wimpey

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Document date	2017-09-18
Author	NJ
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QM Status	Checked
Product Status	Confidential client issue

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Contents

1. Introduction

1.1. Land west of Market Street, Edenfield is being promoted by Taylor Wimpey for the delivery of approximately 240 new family and affordable homes during the next plan period. The site extends to 12.5 Ha and is located to the north west of the village of Edenfield, bounded by Market Street to the east and the A56 to the west.

1.2. The case for allocating this site for housing development as part of the emerging Rossendale Local Plan has been presented within a Development Statement relating to the site which was submitted to Rossendale Borough Council in September 2016. The Development Statement outlines the exceptional circumstances that support the need to amend the Borough's Green Belt. The allocation of this site for residential development will deliver open market and affordable housing of a type, quantity and quality that will make a significant contribution to the future growth needs of Rossendale.

1.3. The site has been included as a draft allocation within the new Draft Local Plan, which we strongly support, however we have concerns over the analysis and conclusions in relation to the site as presented within the following evidence base documents for the Draft Local Plan:

- **Rossendale Green Belt Review (November 2016);**
- **Lives and Landscapes Assessment for Rossendale Borough Council (July 2015)**

1.4. This note considers the assessment of the site within these two reports, drawing attention to analysis and/or conclusions with which we disagree, or where we consider that further clarification or detail is required within the evidence base documentation.

2. Rossendale Green Belt Review (November 2016)

The study and its aims

2.1. The Taylor Wimpey site, referred to as 'Market Street, Edenfield' is currently designated as Green Belt and is therefore subject to assessment as part of the Rossendale Green Belt Review (November 2016).

2.2. The site is referenced as **parcel 43** for the purposes of the Green Belt Assessment. This land parcel includes some buildings and woodland at its northern extent which are outside of the proposed Taylor Wimpey site.

2.3. The purpose of the Green Belt Review is to '*assess the extent to which the land within the Rossendale Green Belt performs the purposes of Green Belts, as set out in paragraph 80 of the National Planning Policy Framework (NPPF)*'. These are:

- **Purpose 1**: To check the unrestricted sprawl of large built up areas;
- **Purpose 2**: To prevent neighbouring towns merging into one another;
- **Purpose 3**: To assist in safeguarding the countryside from encroachment;
- **Purpose 4**: To preserve the setting and special character of historic towns;
- **Purpose 5**: To assist urban regeneration, by encouraging the recycling of derelict and other urban land.

2.4. The NPPF attaches great importance to Green Belts and stresses that their essential characteristics are '*openness and permanence'*.

2.5. One of the key aims of the Rossendale Green Belt Review is to '*provide clear conclusions on the relative performance of Green Belt which will enable Rossendale Borough Council to consider whether there are 'exceptional circumstances' (under paragraph 8, NPPF) to justify altering Green Belt boundaries through the Local Plan process, i.e. to enable existing Green Belt land to contribute to meeting Rossendale's housing needs.'*

The report conclusions in respect of the site

2.6. The overall conclusion of the assessment in relation to parcel 43 is that the site does have potential to be released from the Green Belt. The resulting degree of harm to the Green Belt has been assessed to be '*medium*'.

2.7. Medium degree of harm is defined as a site which '*makes a MODERATE contribution to one or more GB purposes. No STRONG contribution to any purpose'*.

2.8. The following table indicates the assessment ratings for parcel 43 against the purposes of Green Belt:

Parcel reference	Assessed contribution to Green Belt Purposes				
	Purpose 1a	Purpose 1b	Purpose 2	Purpose 3	Purpose 4
	To check the unrestricted sprawl of large built up areas		To prevent neighbouring towns merging into one another	To assist in safeguarding the countryside from encroachment	To assist in urban regeneration, by encouraging the recycling of derelict and other urban land
	Does the parcel exhibit evidence of **existing** urban sprawl and consequent loss of openness?	Does the parcel protect open land from the **potential** for urban sprawl to occur?			
43	Moderate	Moderate	Weak	Moderate	No contribution

The contribution of the site to Green Belt Purpose 1: to check the unrestricted sprawl of large built up areas

2.9. Appendix 4.1 of the Green Belt Review contains the 'Detailed Green Belt Assessment' for each site.

2.10. Against purpose 1 the notes for land parcel 43 state *'there are a limited number of urbanising features within the parcel',* and conclude that the site provides a '*moderate*' contribution to Green Belt purpose 1.

2.11. It is accurate to state that the site itself has limited urbanising features, however the assessment gives limited consideration to the influence of the immediate surroundings upon the site. The site is currently 'sandwiched' between residential properties within Edenfield on higher land to the east, which overlook the site, and the A56 dual-carriageway to the west which is a source of noise and features visible street lighting. These urbanising features detract from the existing sense of openness within the site (as is acknowledged in the Assessment) and provide an urban-fringe character to the site itself.

2.12. The urban-fringe nature of the site, and its physical severance from the wider open landscape to the west, beyond the A56 dual-carriageway, mean that the site has potential to accommodate appropriately designed residential development without the development appearing as urban sprawl.

2.13. Existing built form in the north of Edenfield currently presents the form of 'ribbon development' extending northwards from a more 'rounded' southern part of the village. Ribbon development can, in itself, be considered as a form of urban sprawl. Appropriate development of the site would result in a 'rounding-off' of development in the northern part of Edenfield. Development would be extended up to a strong and permanently defensible boundary in the form of the A56, with no further potential for urban sprawl to occur beyond

the land parcel to the west. As the Assessment concludes at Table 4.4 *'this could create a stronger Green Belt boundary and settlement edge'.*

2.14. Land to the south of the site is currently part recreation land, presenting some urban characteristics, and part agricultural land in the form of a small field which is influenced by existing surrounding housing to the south, and framed by woodland to the west. This land is also being considered for Green Belt release and is assessed in the Green Belt Assessment as land parcel 44.

2.15. On the basis of the above, it is our consideration that land parcel 43 provides a limited and therefore 'weak' contribution to the overall purpose 1 of the Green Belt: to check the unrestricted sprawl of large built up areas, particularly if considered along with the strategic release of the immediately adjacent land parcel P44 to the south.

The contribution of the site to Green Belt Purpose 3: to assist in safeguarding the countryside from encroachment

2.16. Appendix 4.1 of the Green Belt Review contains the 'Detailed Green Belt Assessment' for each site.

2.17. Against purpose 3 the notes for land parcel 43 state *'there is a sense of encroachment within the parcel as a result of a small number of detached properties located along the eastern boundary, and the visual influence of the adjoining settlement edge to the east, and the presence of the A56 dual-carriageway which defines the western boundary. The majority of the parcel comprises farmland it displays the characteristics of the open countryside but lack a strong and intact rural character'.* The notes conclude that the site provides a '*moderate*' contribution to Green Belt purpose 3.

2.18. The Assessment acknowledges the urbanising influences upon the site, but undervalues the detachment from the wider countryside that the site has due to the A56 dual-carriageway. As already discussed, the site presents an urban-fringe character relating more strongly to the urban settlement than the wider countryside, which is considered to be the low lying River Irwell valley to the west of the A56 dual carriageway and the rising hills of Holcombe Moor beyond, which are strongly rural and open in character. The A56 dual carriageway provides a strong and permanently defensible boundary to the open countryside to the west which would safeguard the true 'open countryside' from encroachment.

2.19. On the basis of the above, it is our opinion that although land parcel 43 contains characteristics of the countryside it is influenced by urban development (roads with street lighting, existing housing, and a formal recreation area) on all sides. The urban influences compromise the sites openness and create an 'urban fringe' character rather than an 'open countryside' character. It is therefore our consideration that the site makes a limited and 'weak' contribution to purpose 3 of the Green Belt: to assist in safeguarding the countryside from encroachment.

Resulting degree of harm to the Green Belt

2.20. Based upon the above, we consider that the site provides only 'weak' contributions to the purposes of the Green Belt and therefore the potential level of harm caused by the release of the site from Green Belt in accordance with the 'Framework for assessing harm' at Table 4.2 of the Assessment should be 'low'.

Appropriate design mitigation

2.21. At Table 4.5, the Green Belt Assessment considers potential mitigation measures which could be applied to minimise effects on the wider Green Belt designation (if the sites were to be released).

2.22. The Assessment considers that development within the parcel should be limited to *'appropriate small scale and low density housing',* and that *'new properties should be a maximum of two storeys to minimise the negative impact on the openness of neighbouring Green Belt land'.*

2.23. We consider that the masterplan, as presented within the submitted Development Statement, demonstrates that appropriate placement of housing and open space are the most critical considerations to appropriate development of this site. These factors can ensure that valued views are retained within any proposed development.

2.24. Valued views have been identified as:

- Views to distant hills from the existing break in development on Market Street;
- Views to Edenfield from the wider landscape to the west – ensuring that new development does not protrude above the existing development skyline of Edenfield.

2.25. In order to protect valued views building height should be considered in the development of a masterplan, however due to the sloping nature of the site it may not be necessary to restrict all proposed properties to 2 storeys. While we assume that the majority of development within the site would be 2 storeys, it may be appropriate to include some 2.5 storey dwellings on lower or less visible parts of the site. These can add interest to a street scene

2.26. We disagree that development density is a critical consideration in the potential development of this site. 'Low density' development is not a guarantee of high design quality. Development upon this site does not need to be low density to avoid adverse effects upon the wider Green Belt.

3. Lives and Landscapes Assessment for Rossendale Borough Council (July 2015)

The study and its aims

3.1. 'Lives and Landscapes Assessment' contains landscape appraisals of all sites which *'have potential landscape sensitivity within the Borough'.* The sites include those identified by both the Council and potential developers.

3.2. The Assessment draws conclusions for each assessed site, concluding that a site is either:

- Undevelopable area;
- Developable area with mitigation;
- Developable area.

3.3. Within the 'Lives and Landscapes Assessment', the site at Market Street, Edenfield is assessed as part of a larger parcel of land called *'land east of the motorway Edenfield'.* This land parcel includes the Taylor Wimpey site in the north, a small parcel of land associated with the former Horse and Jockey pub on Market Street, the recreation ground to the south of the Taylor Wimpey site, and the grass field to the south-west of the Taylor Wimpey site. The sub-parcels of the site are referred to as areas A-D in the Assessment.

3.4. The Taylor Wimpey site is referred to as areas A and C.

Landscape character types

3.5. The report generally considers the landscape context of Rossendale as set out within Lancashire County Council's Lancashire Landscape Strategy, which locates Edenfield and its surroundings (including the site) within a landscape character type referred to as 'The Settled Valley', however the Assessment considers that this landscape character type is not an accurate description of the landscape of the southern section of the Irwell Valley between Rawtenstall and Edenfield *'which is more rural in nature and importantly has little or no development in the valley bottom'.* The Assessment therefore introduces a new Settled Valleys character area, referred to as '8b Irwell Valley south', the relevant characteristics are summarised as:

- The valley opens out and the profile of the lower valley sides becomes less steep;
- The density of housing and industry becomes much less, with extensive areas of open pasture and woodland within the valley bottom;
- Some ribbon development continues along the main roads but it is not continuous;
- There are views across the valley which are predominantly rural in character with a lesser proportion of the view being made up of built development; in some places long views to the surrounding hills and moorland reinforce the South Pennine Rural character.

The report conclusions in respect of the site

3.6. The Assessment concludes that the majority of the Taylor Wimpey site, referred to as Area A is *'not suitable for development on landscape grounds'.*

3.7. The recommendations state that the site is *'unsuitable for development, because the effects on the landscape would be significant, and would be uncharacteristic of the local landscape character area, 8b Irwell Valley south. Nor could it be effectively mitigated against because of the sites openness. Long views west from Burnley Road and eastwards from the far side of the valley would be affected and there would be significant adverse effects on attractive well used walks in the area. In addition a visually prominent and well kept sports field would be destroyed.'*

3.8. The Assessment's description of the landscape context of the site places strong emphasis and value on openness and ribbon development in the area around the site, however we consider that in the wider context, appropriate development on the site would extend the existing nucleated settlement at the south of Edenfield in a logical northward manner, which is constrained by a strong established western boundary in the form of the A56 dual-carriageway.

3.9. There would be a reduction in the extent of ribbon development along Market Street/ Burnley Road, however this would result in substitution of one existing characteristic which is already present in the landscape for another. Some ribbon development would remain in the northern part of Edenfield, however it is questionable how much value should be placed on ribbon development as an urban form, which is essentially urban sprawl and is not currently promoted as good design.

3.10. The existing sports field mentioned in the recommendations is not part of the proposed Taylor Wimpey site and would not be affected by this development.

3.11. Good design principles incorporated into the masterplan, as presented within the submitted Development Statement, would ensure that:

- long views across the valley to the west from Market Street and the Public footpaths within the site can be retained through appropriate placement of open space and consideration of building scale within the development;
- intrusive noise of the A56 can be reduced through acoustic screening and landscape buffer treatments, effectively improving the quality of existing public routes through the site;
- existing Public Rights of Way through the site are retained on their current alignment and set within an attractive, high quality setting, and that these routes are supplemented by additional public routes to maintain the accessibility of the site and enhancing its recreational value;
- existing valued features of the site, such as dry stone walls, are retained as features within the proposed development;
- new landscape treatments along the western site boundary can strengthen the western

edge of Edenfield and the interface with the Green Belt, softening eastward views to the development from the wider landscape.

3.12. There would be some loss of openness as a result of development, as would occur with the development of any green-field site, however the resulting developed character of the site would not conflict with its surroundings and would become an extension of the urban form which already exists in the southern part of Edenfield. In the broader context of the site, development would not extend the developed area any higher up the valley sides than already exists along Market Street, nor would development extend into the undeveloped River Irwell valley, which is located to the west of the A56 dual-carriageway.

3.13. We therefore consider that mitigation, in the form of good design principles as outlined above, can reduce the potential adverse effects of development upon landscape character and views to an acceptable level, and that the Assessment should conclude that the site at Market Street, Edenfield is suitable for development with appropriate mitigation.

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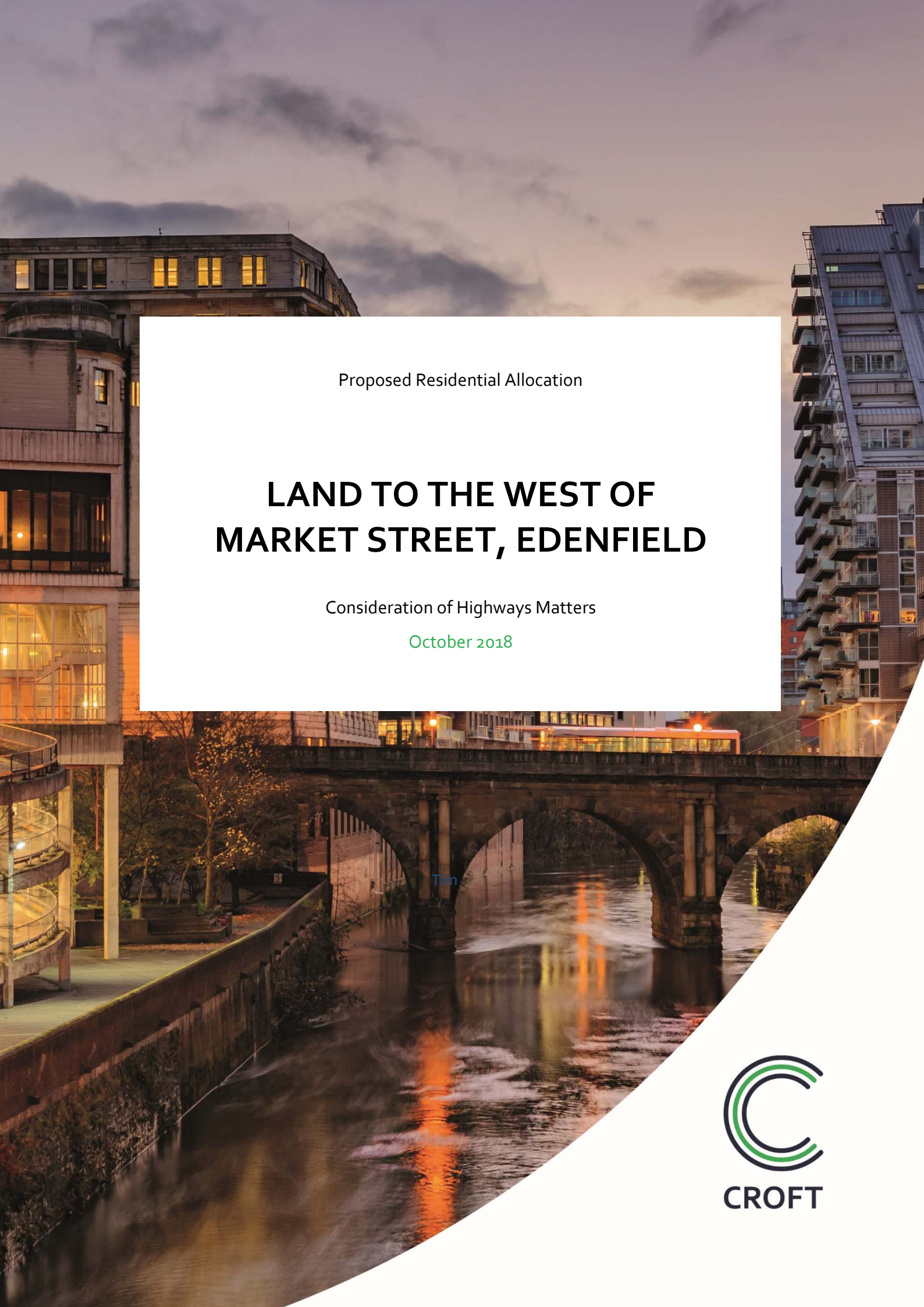
APPENDIX 4 – CROFT - CONSIDERATION OF HIGHWAYS MATTERS



Proposed Residential Allocation

LAND TO THE WEST OF MARKET STREET, EDENFIELD

Consideration of Highways Matters

October 2018

Tim

CROFT

REPORT CONTROL

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4			

Contents

Contents

1 INTRODUCTION

1.1 Introduction

1.1.1 This document has been prepared by Croft Transport Planning & Design on behalf of Taylor Wimpey UK Limited and Methodist Church to support the release of the land in Edenfield for the delivery of new family and affordable homes during the next plan period.

1.1.2 The site is located to the north west of the village of Edenfield, bounded by Market Street to the east and the A56 to the west.

1.1.3 The Rossendale Draft Local Plan identifies draft allocation H72 as follows:

Housing Allocation Ref	Site Name	Net Developable Area (Ha)	No. of Units	Delivery Timescales
H72	Land west of Market Street	15.25	400	Years 6-15

Table 1.1 – Summary of Draft Housing Allocation within Edenfield

1.1.4 This submission considers the highways implications of the draft allocation H72.

1.1.5 The location of the site is shown on **Plan 1**.

1.2 Potential Development

1.2.1 For the purpose of the following analysis, the number of units identified within the Rossendale Draft Local Plan and set out in Table 1.1. above would be provided, i.e. a total of 400 units.

1.2.2 It is anticipated that these units would be delivered over three separate land parcels, namely land west of Market Street, land off Exchange Street and land to the west of Blackburn Road, and it is assumed that each of the land parcels would be served by separate vehicular access points.

1.2.3 The land off Exchange Street would be served via an extension to Exchange Street. The land west of Market Street would be served via a new priority controlled junction located along Market Street. The land to the west of Blackburn Road would be served via a new priority controlled junction located along Blackburn Road.

1.2.4 Whilst it is not anticipated that a vehicular connection will be provided between the land off Exchange Street and the land west of Market Street, a pedestrian, cycle and emergency vehicle link will be provided to ensure permeability by sustainable modes of transport.

1.2.5 An Illustrative Masterplan has been prepared and is shown at **Plan 2**.

1.2.6 The following provides a consideration of traffic impact of the three land parcels on the local highway network.

2 TRAFFIC IMPACT

2.1 Introduction

2.1.1 The following section of this report will discuss the potential traffic generation of the potential allocation sites as well as providing an assessment of the general impact on the local highway network.

2.1.2 A highway capacity study has been undertaken by Mott MacDonald (MM) on behalf of Rossendale Council, which considers the impact of the draft allocations on key junctions within the borough, as agreed with Lancashire County Council (LCC), the local highway authority, and Highways England.

2.1.3 With regard to junctions in the vicinity of Edenfield, the Market Street/Bury Road/Rochdale Road mini-roundabout has been identified, along with the M66/A56 roundabout.

2.1.4 The results of the MM study conclude that substantial spare capacity exists at the M66/A56 roundabout even at the end of the draft plan period, i.e.2034. The Market Street/Bury Road/Rochdale Road mini-roundabout is more constrained and it was concluded within the report that intervention may be required by the end of the plan period.

2.1.5 However, given the complexities of assessing the impact of all of the draft allocations, broad assumptions have been made with regard to, for example, the location of potential access points.

2.1.6 Given the allocation site that is considered within this report will be served by several access points, which will influenced the distribution of traffic locally, the following provides a review of the likely impact of the proposals on the local highway network, in particular the Market Street/Bury Road/Rochdale Road mini-roundabout.

2.2 Surveyed Flows

2.2.1 In order to establish the existing levels of traffic that occur on the local highway network, 2017 traffic survey data for the Market Street/Bury Road/Rochdale Road junction has been obtained from MM. This data has been agreed as being appropriate with LCC. The data is included at **Appendix 1**.

2.2.2 Analysis of this data reveals the peak flows at the junction occurred between 0730-0830 during the weekday AM peak and 1645-1745 during the weekday PM peak.

2.2.3 **Figures 1** and **2** show the 2017 surveyed flows, converted into passenger car units (PCUs)

2.3 Growthed Flows

2.3.1 The draft local plan covers the period up to 2034, and the impact of the allocation sites has therefore been considered at that assessment year. Consideration has also been given to an interim 2024 assessment year.

2.3.2 In order to growth the 2017 surveyed flows to the assessment years, reference has been given to TEMPro/National Transport Model growth factors.

2.3.3 It should, however, be recognised that a large proportion if not all of the increase in households and jobs contained within TEMPro will be associated with the existing local plan allocations. These will, however, be superceded by the emerging local plan allocations.

2.3.4 Therefore, for the purposes of this traffic impact analysis it has been assumed that there will no increase in households and jobs during this period and that solely the background growth assumed for the MSOA be applied to the highway network. The background growth represents the change in trips of existing land uses due to factors including changes in car use, fuel prices and income. Windfall developments are also included within background growth as their specific locations are unknown.

2.3.5 The resultant growth factors based on this methodology are shown below:

- 2017 to 2024 AM peak - 1.0407;
- 2017 to 2024 PM peak - 1.0351;
- 2017 to 2034 AM peak - 1.0740;
- 2017 to 2034 PM peak - 1.0642.

2.3.6 The resulting **Figures 3** and **4** show the 2024 growthed flows for the weekday AM and PM peaks respectively, whilst **Figures 5** and **6** shows the 2034 growthed flows for the weekday AM and PM peaks respectively.

2.4 Committed Development

2.4.1 No committed developments exist in the vicinity of the draft allocation sites under consideration.

2.4.2 As such, the growthed flows represent the base flows for the assessment years.

2.5 Allocation Site Trip Rates

2.5.1 Within their Highway Capacity Study, MM derived residential vehicular trips rates based on trip rates derived by reference to a number of Transport Assessments prepared in support of previous planning applications. The resulting trip rates were then applied to each of the draft residential allocations within the borough.

2.5.2 Given the myriad residential sites identified within the emerging local plan, this is considered a reasonable approach when preparing a borough wide study, but this may result in an overestimate of development trips in a specific location.

2.5.3 As such, consideration has been given the potential trips that would occur as a result of potential residfential development within Edenfield.

2.5.4 First, the TRICS database was interrogated for 'Houses Privately' owned, with sites from Greater London and Ireland being excluded along with Town Centre and Edge of Town Centre sites. The TRICS output is included at **Appendix 2**.

2.5.5 Based on the TRICS database, the weekday AM and PM peak period all person trip rates (i.e. two-way) per household are as follows:

- AM Peak Period = 0.975 Two-way Person Trip Rate Per Household; and
- PM Peak Period = 0.902 Two-way Person Trip Rate Per Household.

2.5.6 It is important to note that the development peak periods identified within TRICS and set out above are based on 0800-0900 hours and 1700-1800 hours. These are slightly different to the highway peak established from the traffic survey, but adding the development peak traffic onto the highway peak will add robustness to the assessment.

2.5.7 On the premise that up to 400 dwellings are proposed within the allocation sites under consideration, the sites have the potential person trip generation during both peak periods as follows:

- AM Peak Period = 390 two-way person trips; and
- PM Peak Period = 361 two-way person trips.

2.5.8 In addition, Table NTS0502 of the 2017 National Travel Survey identifies the percentage trips by trip purpose during the weekday AM and PM peak periods. Based on this information, the purpose split for each peak period is presented in Table 2.1 below.

2.5.9 For the purpose of the analysis, the following groupings were made when collating this data:

- Work = Commuting and Business;
- Education = Education and Escort Education;
- Shopping = Shopping; and
- Other = Other Work/ Other Escort and Personal Business, Visiting Friends/ Entertainment/ Sport, Holiday/ Day Trip/ Other.

Trip Purpose Percentage				
Peak Period	**Work**	**Education**	**Shopping**	**Other**
AM Peak	24%	51%	4%	21%
PM Peak	37%	5%	12%	46%

Table 2.1 2017 National Travel Survey – Peak Hour Trips by Journey Purpose

2.5.10 Therefore, based on the aforementioned, the weekday AM and PM peak hour person trips for 400 dwellings by purpose is shown in Table 2.2 below.

Person Trips by Purpose (400 dwellings)				
Peak Period	**Work**	**Education**	**Shopping**	**Other**
AM (08:00 – 09:00)	94	200	15	80
PM (17:00 – 18:00)	133	17	44	167

Table 2.2 Peak Hour Person Trips by Journey Purpose

Mode Split

2.5.11 By reference to the 2011 census Travel To Work data for the Middle Super Output Area Rossendale 008, the mode split for the commuting and business trips has been calculated.

2.5.12 As no mode split data is available for the remaining trip purposes, Table NTS0409 of the 2017 National Travel Survey was referenced for the mode split of non-work trips. A breakdown of the mode split for all purposes is presented in Tabe 2.3 below.

Person Trip Mode Split by Purpose				
Mode	**Work**	**Education**	**Shopping**	**Other**
Walk	10.0%	44.3%	27.1%	27.6%
Cycle	1.7%	1.3%	0.9%	1.5%
Car Driver	73.5%	21.5%	45.8%	37.7%
Passenger	7.4%	22.8%	18.7%	26.9%
Rail	0.3%	1.6%	1.0%	1.5%
Local Bus	5.5%	6.1%	5.2%	2.8%
Others	1.7%	2.6%	1.2%	1.9%
Total	100%	100%	100%	100%

Table 2.3 Summary of Person Trip Mode by Journey Purpose

2.5.13 Using the previously mentioned trip generations, trip purpose percentages and modal split percentages, the two-way multi-modal trips are presented in Table 2.4 below.

Two-way Trip Generation (400 Dwellings)										
Mode	Work		Education		Shopping		Other		Total by Mode	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Walk	9	13	88	7	4	12	22	46	124	79
Cycle	2	2	3	0	0	0	1	2	6	5
Car Driver	69	98	43	4	7	20	30	63	150	185
Passenger	7	10	46	4	3	8	22	45	77	67
Rail	0	0	4	0	0	0	1	2	5	4
Local Bus	5	7	12	1	1	2	2	5	20	15
Others	1	1	5	0	0	0	1	3	9	7
Total	94	133	200	17	15	44	80	167	390	361

Table 2.4 Summary of Two-way Multi Modal Peak Hour Trips by Journey Purpose

2.5.14 The TRICS output contained within Appendix B also provides the arrival / departure profile for the two-way person trip rates per household during each peak period and this has been summarised in Table 2.5 below.

AM and PM Arrival/Departure Profile			
Peak Period	**Arrivals**	**Departures**	**Two-way**
AM Peak	0.186	0.789	0.975
	19%	81%	100%
PM Peak	0.604	0.298	0.902
	67%	33%	100%

Table 2.5 Peak Hour Arrival/Departure Profile

2.5.15 Based upon these trip generations and arrival / departure profile, the predicted multi-modal trip generations for the AM and PM peak periods are set out in Table 2.6.

AM Multi-modal Trips (400 Dwellings)										
Mode	Work		Education		Shopping		Other		Total by Mode	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Walk	2	8	17	72	1	3	4	18	24	101
Cycle	0	1	1	2	0	0	0	1	1	4
Car Driver	13	56	8	35	1	6	6	25	29	121
Passenger	1	6	9	37	1	2	4	18	15	62
Rail	0	0	0	2	0	0	0	1	1	4
Local Bus	1	4	2	10	0	1	0	2	4	16
Others	0	1	1	3	0	0	0	1	1	7
Total	18	76	38	162	3	13	15	65	74	316
PM Multi-modal Trips (400 Dwellings)										
Mode	Work		Education		Shopping		Other		Total by Mode	
	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep	Arr	Dep
Walk	9	4	5	2	8	4	31	15	53	26
Cycle	1	1	0	0	0	0	2	1	4	2
Car Driver	66	32	2	1	13	7	42	21	124	61
Passenger	7	3	3	1	5	3	30	15	45	22
Rail	0	0	0	0	0	0	1	1	2	1
Local Bus	5	2	1	0	2	1	3	2	10	5
Others	1	0	0	0	0	0	2	1	4	3
Total	89	44	11	6	29	14	112	55	242	119

Table 2.6 Weekday AM and PM Peak Multi-Modal Trip Generations by Journey Purpose

2.5.16 Based on the above, it can be seen that the allocation sites under consideration would result in 29 vehicular arrivals and 121 vehicular departures during the weekday AM peak period, and 124 vehicular arrivals and 61 vehicular departures during the weekday PM peak.

2.5.17 Table 2,7, below, provides a breakdown of these trips based on each of the sites under consideration.

Site	Weekday AM Peak		Weekday PM Peak	
	Arrivals	Departures	Arrivals	Departures
Land to the west of Blackburn Road	4	19	19	9
Land west of Market Street	19	81	83	41
Land off Exchange Street	5	21	21	11
Total	29	121	124	61

Table 2.7 – Summary of Peak Hour Vehicular Trips by Land Parcel

2.6 Trip Distribution

2.6.1 In order to assign the light vehicles to the network, reference has been made to the 2011 census data, and consideration given to the origin of those employed in the middle upper output area (MSOA) workplace zones of Rossendale 008. This reveals the percentage of staff trips that are likely to originate within the MSOA workplace zones within the borough of Rossendale and within the wider boroughs.

2.6.2 The routes vehicles are likely to take from each of these locations to the application development site has then been predicted by reference to route planning software. The census data and routing assumptions are included at **Appendix 3**.

2.6.3 As the allocation sites will be served by different access points, there will be a slight variation in the distribution of traffic to/from each land parcel.

2.6.4 **Figure 7** shows the anticipated trip distribution for the Church land, **Figure 8** shows the distribution for the TW land and **Figure 9** shows the distribution for the Peel land.

2.6.5 The proposed vehicle trips for each site, as shown in Table 2.7, have been assigned to the network based on the site specific trip distribution.

2.6.6 The resulting trips are shown in **Figure 10** and **11** for the Church land, **Figures 12** and **13** for the TW land, and **Figures 14** and **15** for the Peel land. The predicted trips for each site have been combined to produced total allocation trip and these are shown in **Figure 16** and **17** for the weekday AM and PM peaks respectively.

2.6.7 The total allocation trips have been added to the growthed flows to produce 'with draft allocation' flows. **Figures 18** and **19** show the 2024 'with draft allocation' flows for the weekday AM and PM peaks respectively, whilst **Figures 20** and **21** show the 2034 'with draft allocation' flows for the weekday AM and PM peaks respectively.

2.7 Capacity Assessments

2.7.1 Having derived base and 'with draft allocation' flows, capacity assessments of the Market Street/Bury Road/Rochdale Road mini-roundabout have been undertaken.

2.7.2 The analysis has been undertaken using the industry-standard ARCADY computer program. A summary the results in provided in Table 2.8 and 2,9, below, for the 2024 and 2034 assessment years respectively. The full output is provided at **Appendix 4**.

Arm	2024 Base Flows						2024 'With Allocation' Flows					
	Weekday AM			Weekday PM			Weekday AM			Weekday PM		
	Max RFC	Max Queue	Delay (secs)	Max RFC	Max Queue	Delay (secs)	Max RFC	Max Queue	Delay (secs)	Max RFC	Max Queue	Delay (secs)
Market Street	0.64	2	11	0.34	1	6	0.71	2	13	0.37	1	6
Rochdale Road	0.88	7	43	0.71	2	16	0.93	11	70	0.74	3	18
Bury Road	0.47	1	8	0.84	5	27	0.49	1	8	0.93	11	59

Table 2.8 – Summary of Capacity Analysis of the Market Street/Rochdale Road/Bury Road Mini-Roundabout – 2024 Analysis

Arm	2034 Base Flows						2034 'With Allocation' Flows					
	Weekday AM			Weekday PM			Weekday AM			Weekday PM		
	Max RFC	Max Queue	Delay (secs)	Max RFC	Max Queue	Delay (secs)	Max RFC	Max Queue	Delay (secs)	Max RFC	Max Queue	Delay (secs)
Market Street	0.66	2	11	0.35	1	6	0.73	3	14	0.39	1	6
Rochdale Road	0.92	10	60	0.73	3	17	0.97	17	106	0.76	3	19
Bury Road	0.49	1	8	0.87	6	34	0.51	1	9	0.97	17	84

Table 2.9 – Summary of Capacity Analysis of the Market Street/Rochdale Road/Bury Road Mini-Roundabout – 2034 Analysis

2.7.3 As can be seen from the above tables, the Market Street/Rochdale Road/Bury Road mini-roundabout is predicted to operate within capacity at 2024 and 2034 base years and would continue to operate within capacity following the addition of traffic associated with the draft allocation sites.

2.7.4 The junction is predicted to experience modest increases in queuing compared with the base scenarios, however, it is not considered that the resulting increase in delay would substantially impact upon overall journey times.

2.7.5 Based on the above, it can be concluded that the Market Street/Rochdale Road/Bury Road mini-roundabout can accommodate the likely levels of traffic associated with the draft allocation sites.

2.8 Sensitivity Analysis

2.8.1 The trip rates adopted for the above analysis havce been derived by reference to travel to work data obtained for the Super Middle Output Area specific to Edenfield. This reveals vehicular trip rates slightly lower than those adopted by MM within their borough wide highway capacity study but are considered appropriate for the purpose of considering the potential impact of the draft allocations within Edenfield.

2.8.2 Indeed, no account has been taken for the potential internalisation of education trips that may occur should additional primary school provision be provided within the immediate vicinity of the draft allocation sites.

2.8.3 Notwithstanding the above, a sensitivity assessment has been undertaken using the residential trips rates adopted within the MM highway capacity study. These are shown in Table 2.10, below, together with the sensitivity trips based on 400 units.

	Weekday AM Peak		Weekday PM Peak	
	Arr	Dep	Arr	Dep
Trip Rate	0.142	0.416	0.404	0.221
Trips	57	166	162	88

Table 2.10 – Sensitivity Trip Rates and Trips

2.8.4 The sensitivity trips have been assigned to the network based on the trip distributions shown in Figures 7 to 9. The resulting sensitivity allocation trips for each site are shown in **Figures 22** to **27,** with the total sensitivity allocation trips being shown in **Figures 28** and **29** for the weekday AM and PM peaks respectively.

2.8.5 The total sensitivity allocation trips have been added to the growthed flows to produce 'with draft allocation' sensitivity flows. **Figures 30** and **31** show the 2024 'with draft allocation' sensitivity flows for the weekday AM and PM peaks respectively, whilst **Figures 32** and **33** show the 2034 'with draft allocation' sensitivity flows for the weekday AM and PM peaks respectively

2.8.6 Sensitivity capacity assessments have been undertaken using the sensitivity traffic flows and the results are summarised in Tables 2.11 and 2.12, below. The full output is provided at **Appendix 5**.

Arm	2024 Base Flows						2024 'With Allocation' Flows					
	Weekday AM			Weekday PM			Weekday AM			Weekday PM		
	Max RFC	Max Queue	Delay (secs)	Max RFC	Max Queue	Delay (secs)	Max RFC	Max Queue	Delay (secs)	Max RFC	Max Queue	Delay (secs)
Market Street	0.64	2	11	0.34	1	6	0.73	3	14	0.39	1	6
Rochdale Road	0.88	7	43	0.71	2	16	0.95	14	88	0.75	3	19
Bury Road	0.47	1	8	0.84	5	27	0.51	1	9	0.97	17	85

Table 2.11 – Summary of Capacity Analysis of the Market Street/Rochdale Road/Bury Road Mini-Roundabout – 2024 Sensitivity Analysis

Arm	2034 Base Flows						2034 'With Allocation' Flows					
	Weekday AM			Weekday PM			Weekday AM			Weekday PM		
	Max RFC	Max Queue	Delay (secs)	Max RFC	Max Queue	Delay (secs)	Max RFC	Max Queue	Delay (secs)	Max RFC	Max Queue	Delay (secs)
Market Street	0.66	2	11	0.35	1	6	0.76	3	16	0.40	1	7
Rochdale Road	0.92	10	60	0.73	3	17	1.00	23	140	0.77	3	21
Bury Road	0.49	1	8	0.87	6	34	0.53	1	9	0.99	25	121

Table 2.12 – Summary of Capacity Analysis of the Market Street/Rochdale Road/Bury Road Mini-Roundabout – 2034 Sensitivity Analysis

2.8.7 As can be seen from the above tables, the analysis based on the sensitivity trip rates predicted that the junction would operate within capacity during the 2024 assessment year following the additional of traffic associated with the draft alloction sites.

2.8.8 The assessment indicates that the junction would only just reach capacity at 2034 following the additional of traffic associated with the draft allocation site, however, even then, increases in delay are unlikely to impact on overall journey times.

2.8.9 Notwithstanding the above, as set out in the MM highway capacity study, the junction performance could benefit from the formalisation of the existing uncontrolled crossing on the Bury Road North arm of the junction into a demand controlled signalised crossing, if this is considered necessary by the local highway authority at the time of a planning future planning application(s).

3 CONCLUSIONS

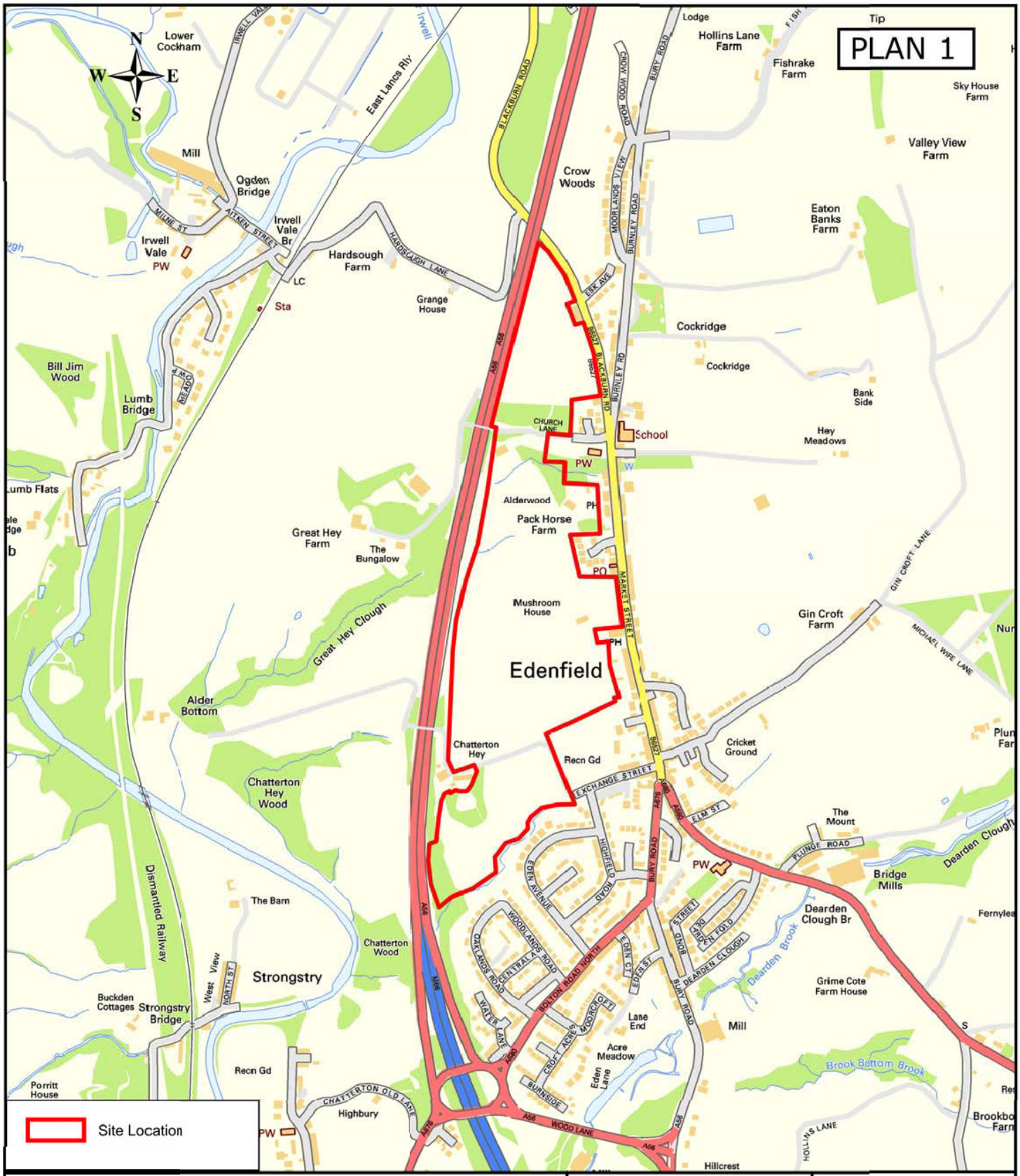
3.1.1 This document has considered the potential traffic impact of the release of the land in Edenfield for the delivery of new family and affordable homes during the next plan period on the local highway network.

3.1.2 The analysis has examined that likely levels of traffic associated with the proposals and the likely routing of traffic on the network based on the anticipated access strategy.

3.1.3 The study has considered the impact of the proposals on the key junction within Edenfield, namely the Market Street/Rochdale Road/Bury Road mini-roundabout, at both 2024 and 2034 assessment years.

3.1.4 Based on the above, it can be concluded that the Market Street/Rochdale Road/Bury Road mini-roundabout can accommodate the likely levels of traffic associated with the draft allocation sites without any significant impacts on the surrounding highway network.

PLANS



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CROFT

DRAWN:	DATE	CHECKED	DATE:	SCALE	DRAWING NUMBER:	REVISION:
GM	19.10.18	TR	19.10.18	N.T.S	1537-01	.

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LANDSCAPE ARCHITECTURE
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KEY:

- Draft housing allocation boundary
- Existing Public Right of Way
- Existing vegetation
- Proposed development cell
- Proposed indicative frontage
- Proposed green space
- Proposed woodland
- Proposed highway access
- Proposed primary road
- Proposed secondary road
- Proposed pedestrian /cycle routes
- Potential footpath links
- Potential pedestrian/ cycle/emergency connection

Date: 01.10.2018
Drawn by: SR
Checker: JF
Rev by:
Rev checker:
QM Status: checked
Product Status: Client Review

North West Edenfield Local Plan Representations

Combined Illustrative Masterplan

Drwg No: 610C-02B Scale: 1: 5,000 @ A3

FIGURES

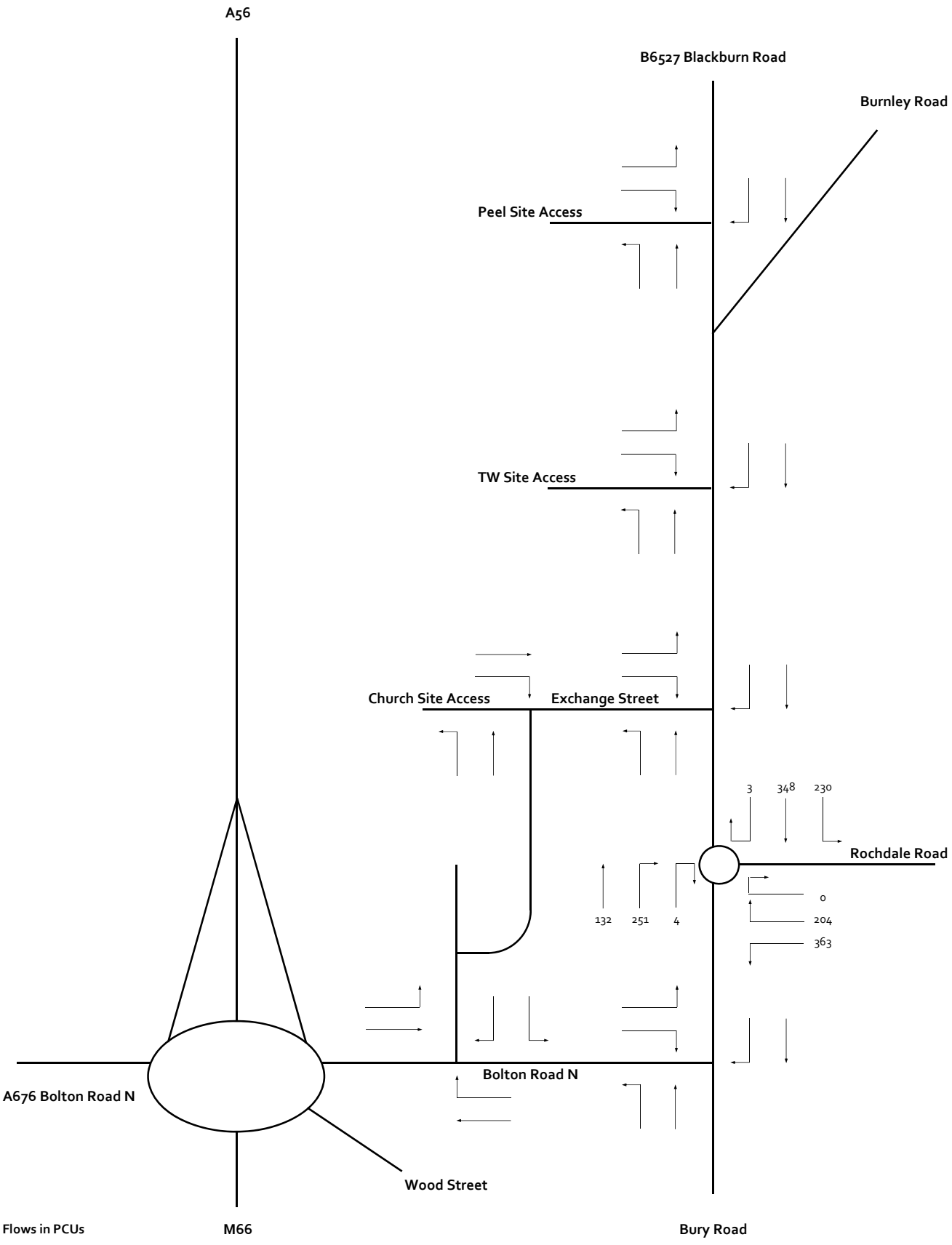

Figure 1 2017 Surveyed Flows - Weekday AM Peak (0730-0830)

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

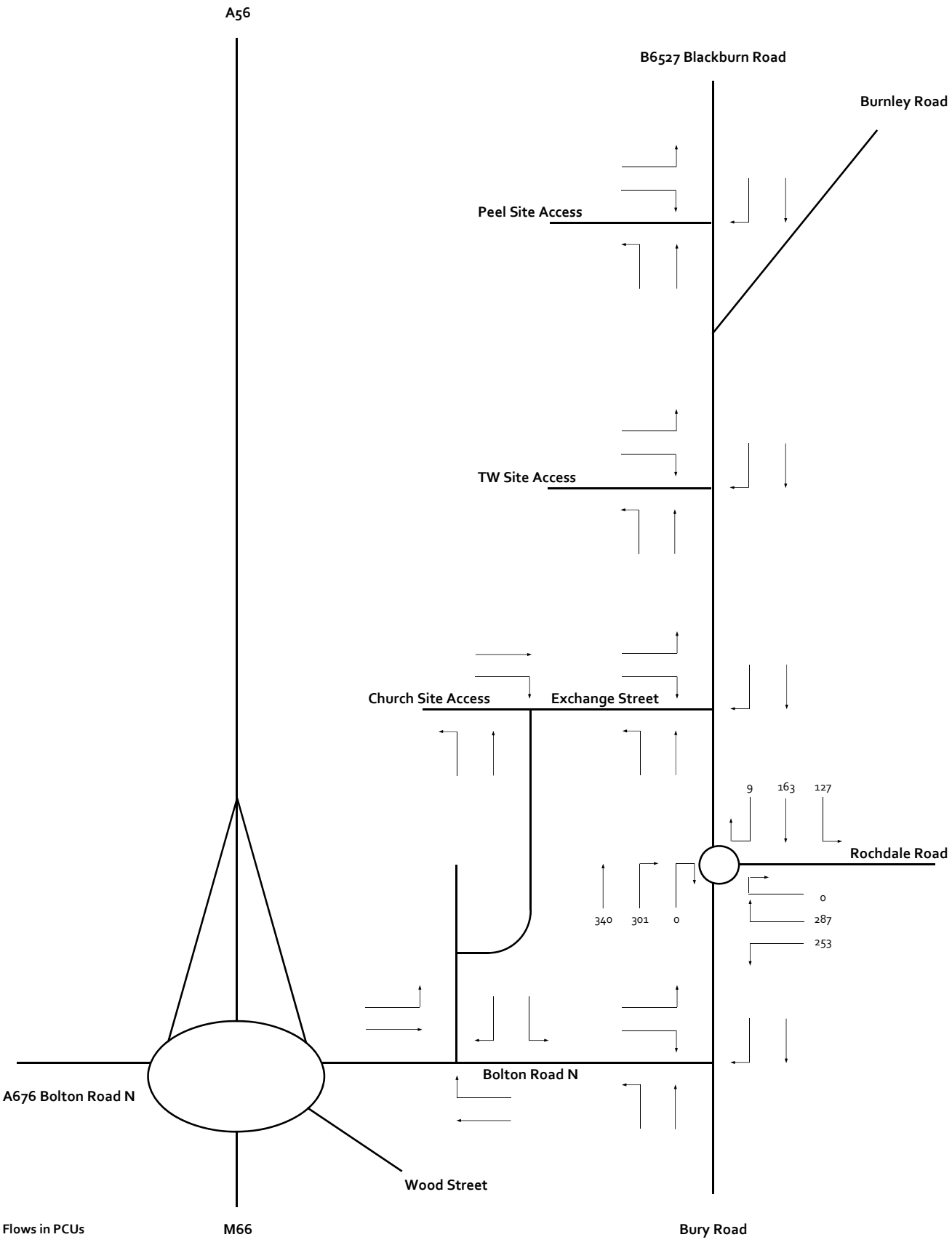

Figure 2 2017 Surveyed Flows - Weekday PM Peak (1645-1745)

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

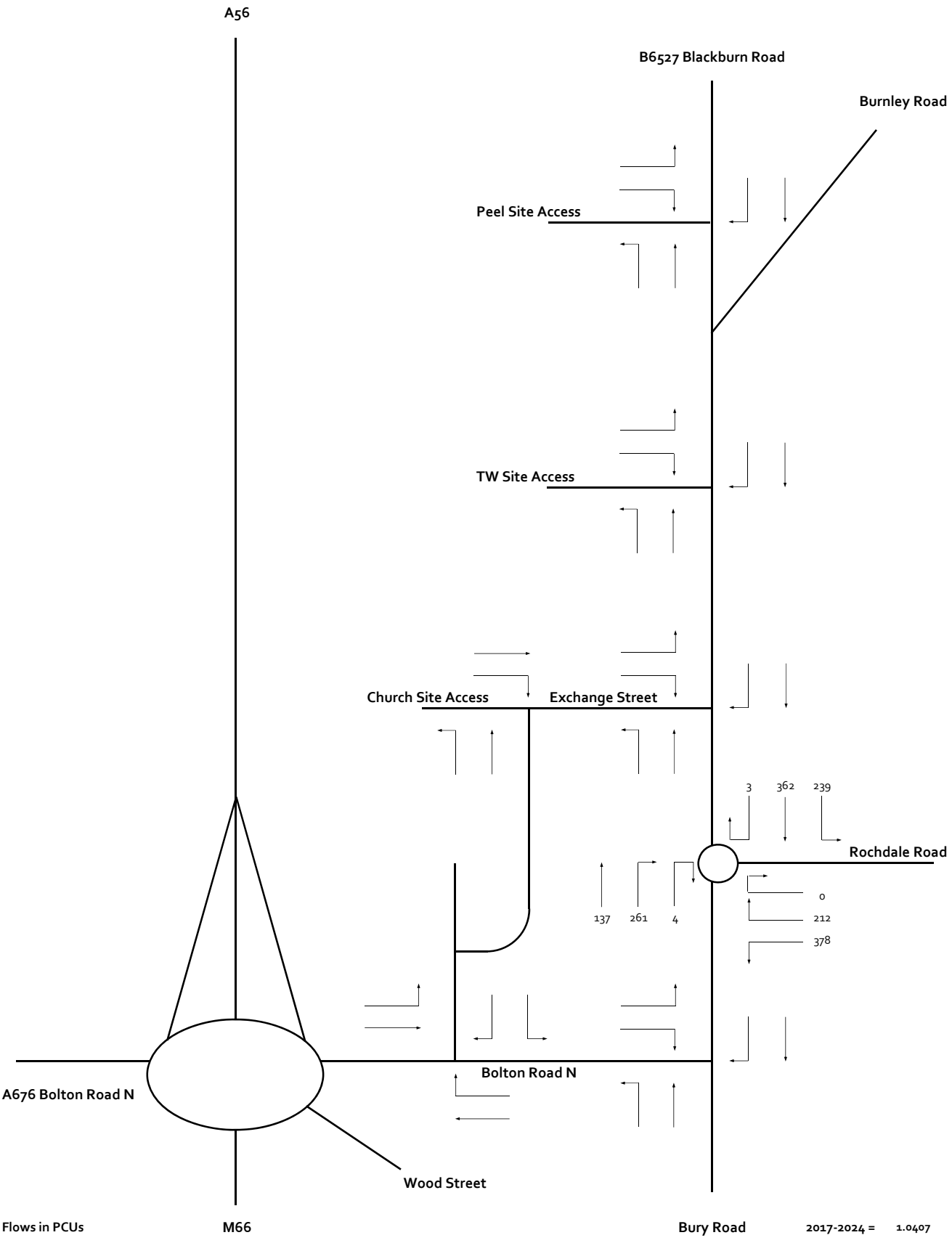

Figure 3 2024 Growthed Flows - Weekday AM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

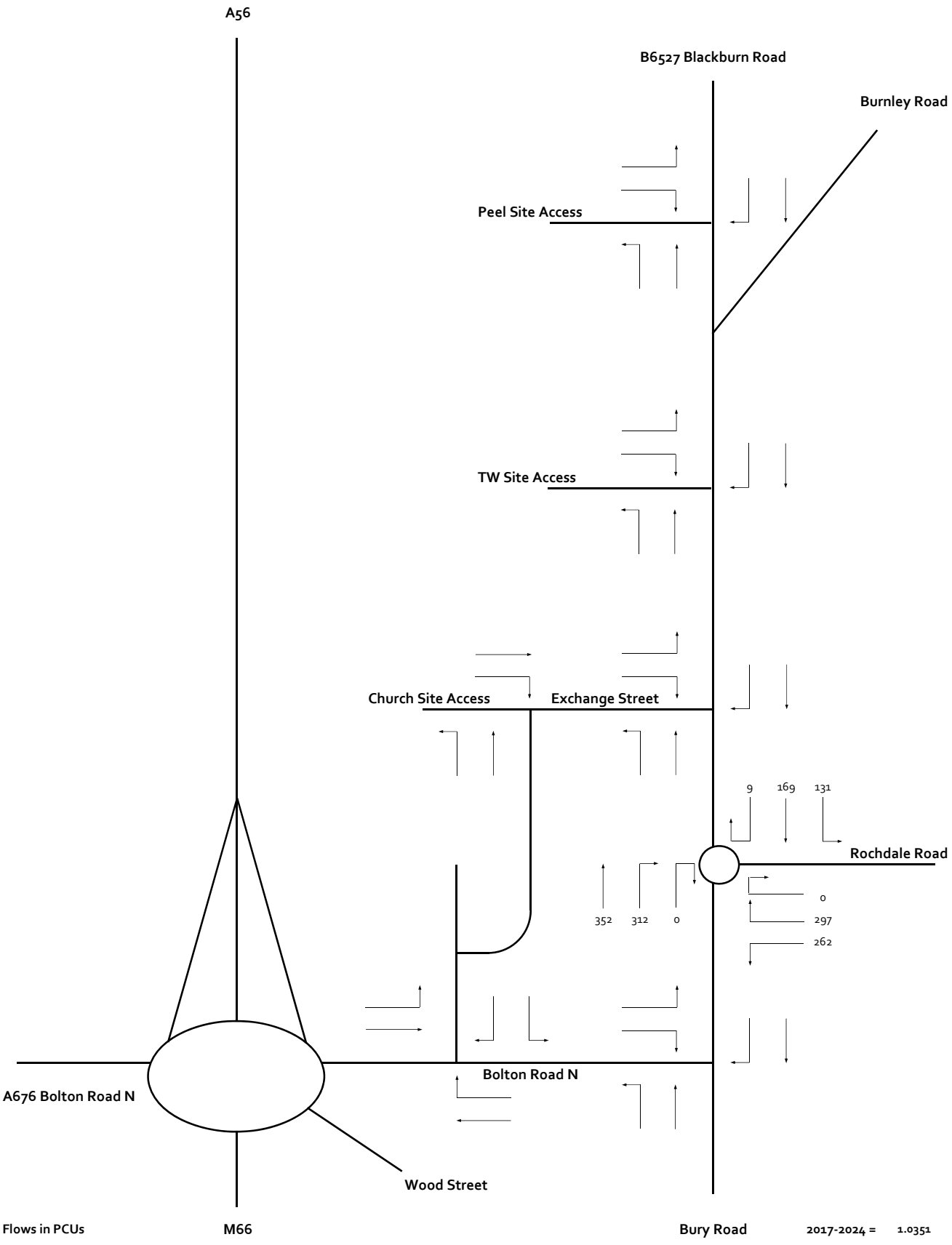

Figure 4 2024 Growthed Flows - Weekday PM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

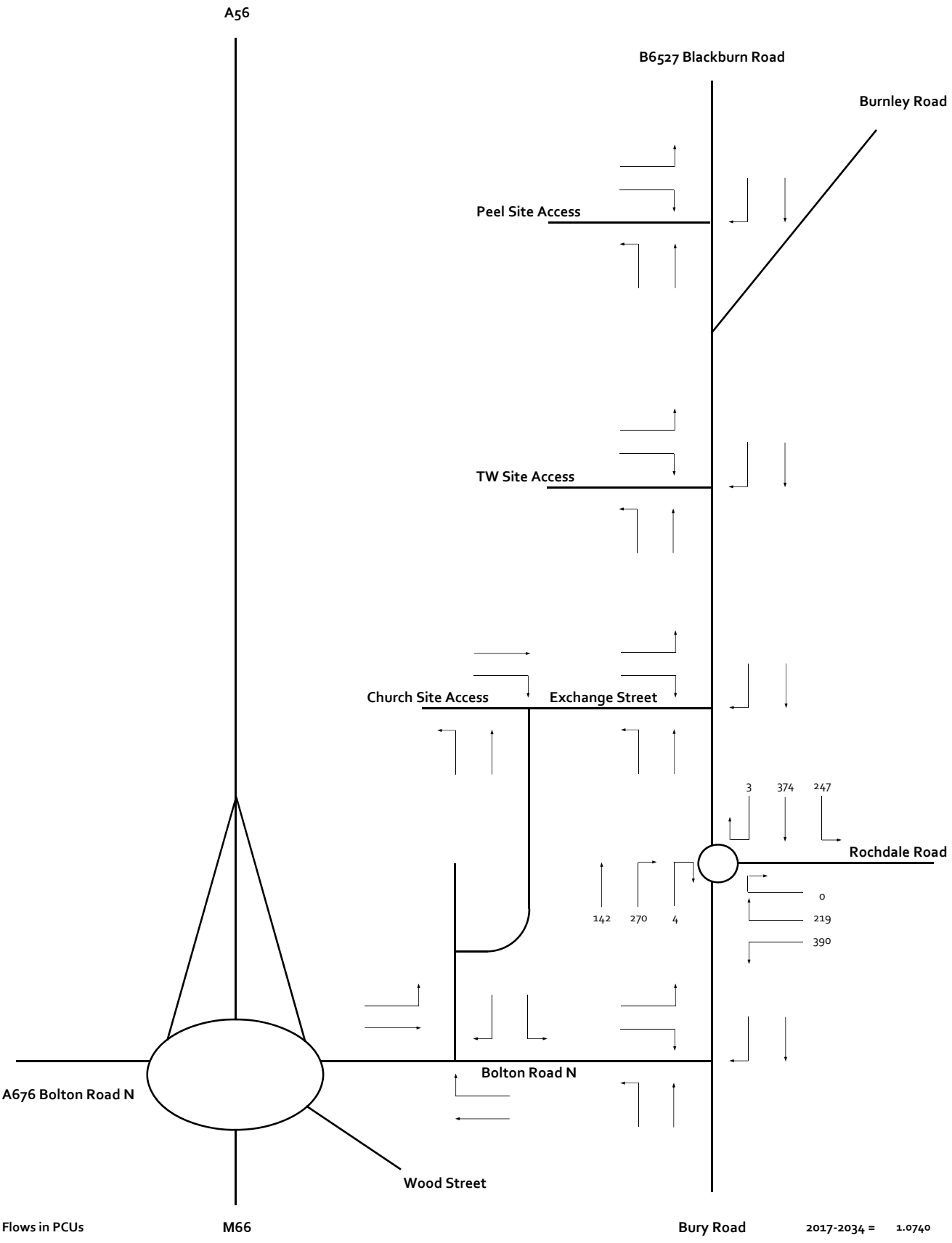

Figure 5 2034 Growthed Flows - Weekday AM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

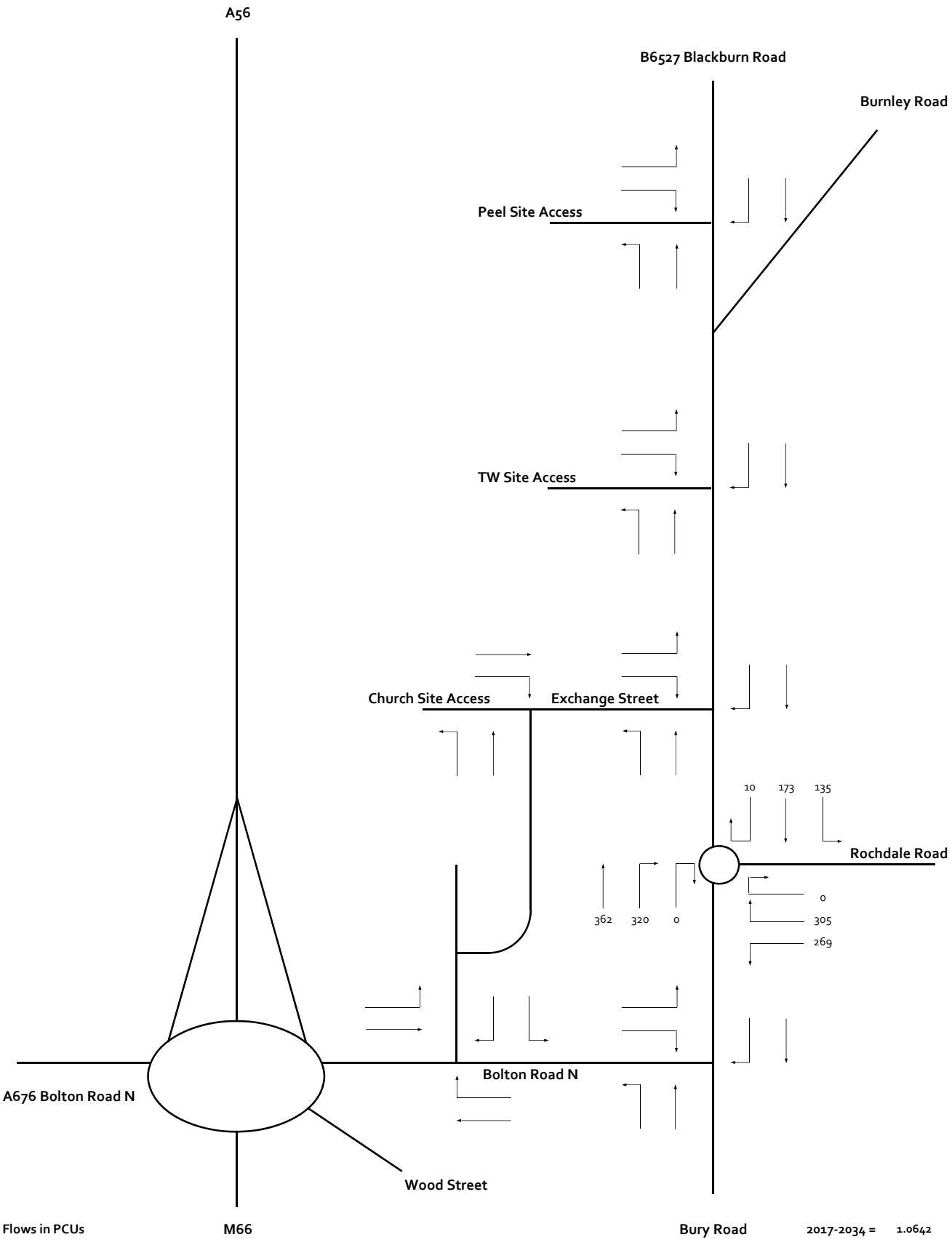

Figure 6 2034 Growthed Flows - Weekday PM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

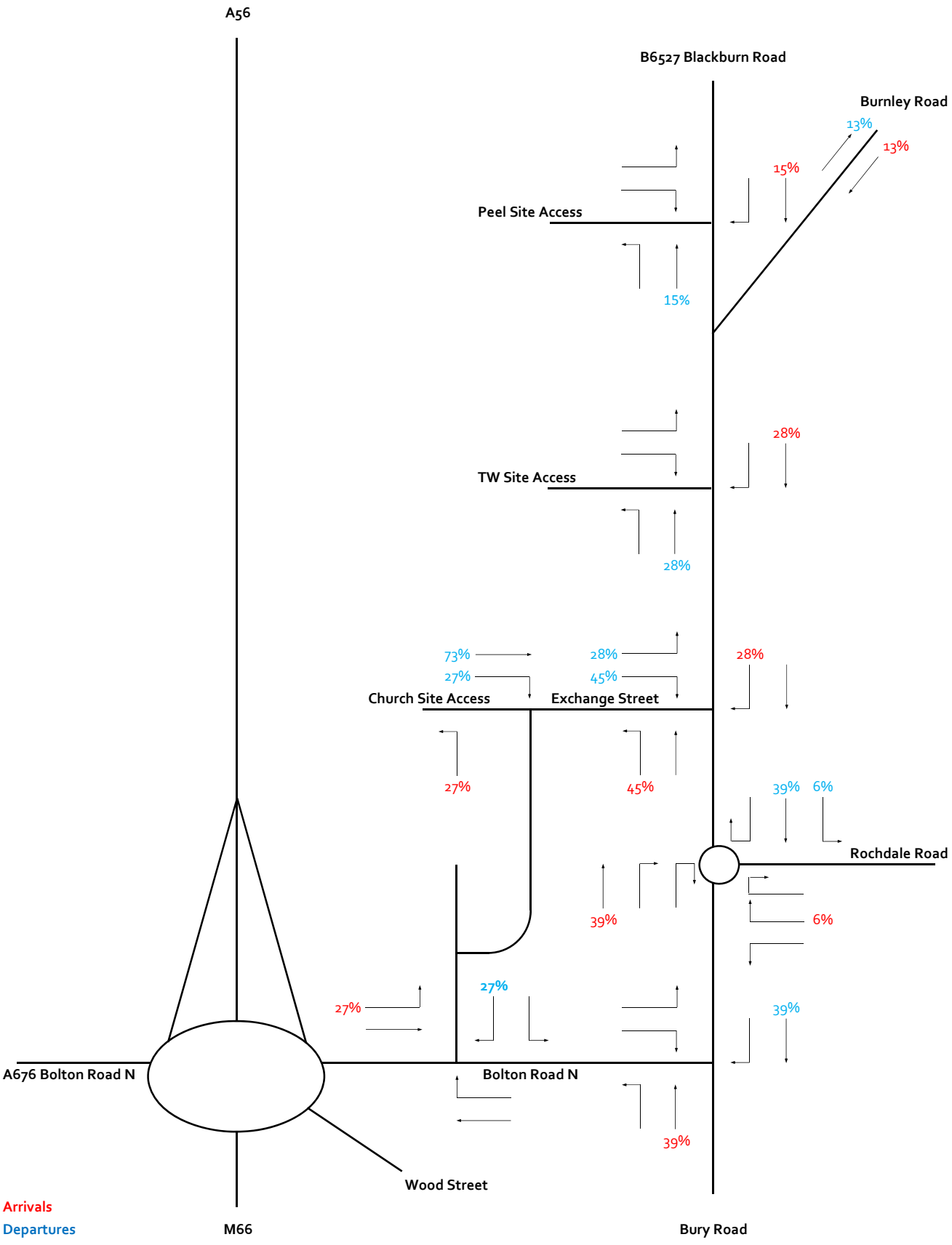

Figure 7 Proposed Church Land Vehicular Distribution

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

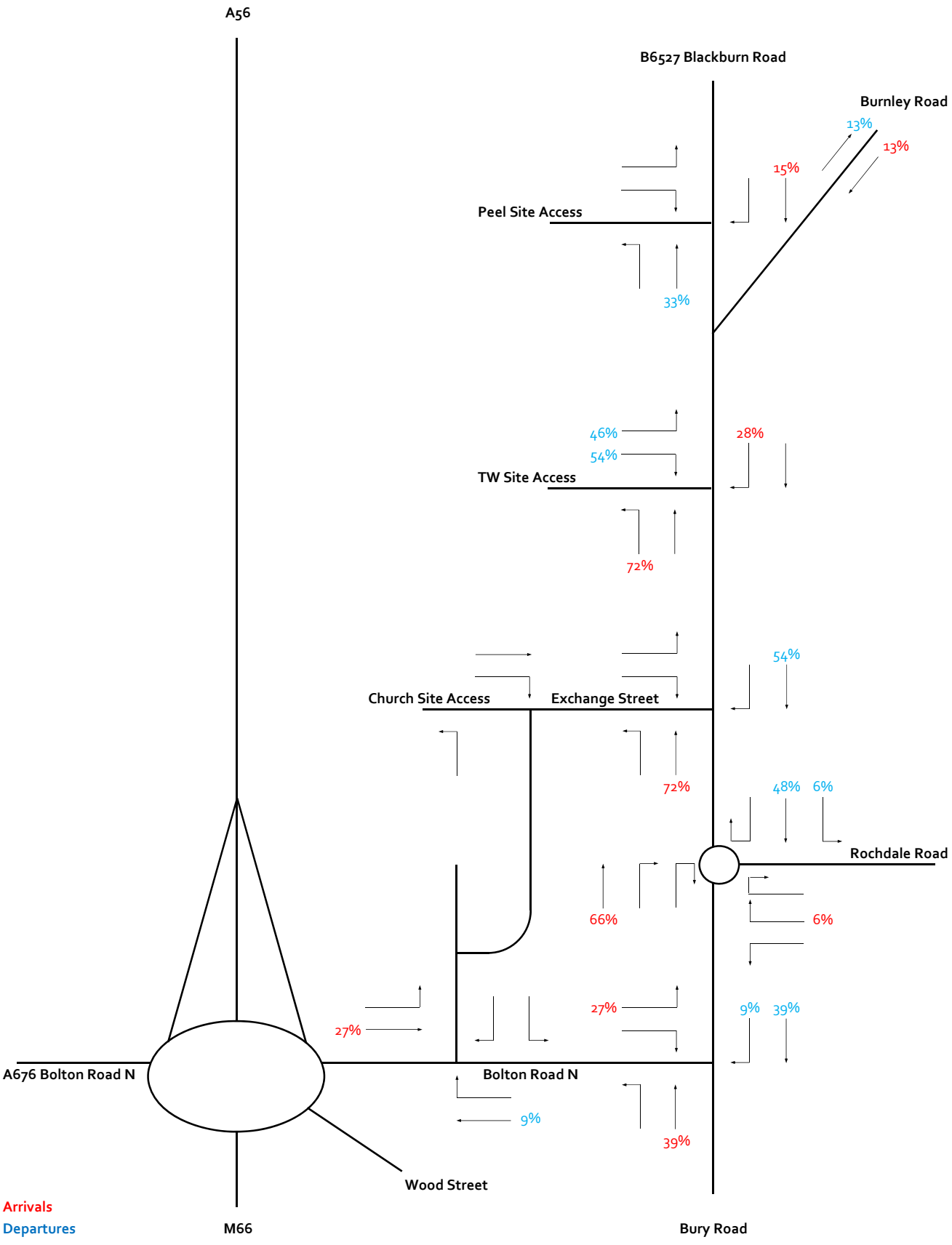

Figure 8 Proposed TW Land Vehicular Distribution

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

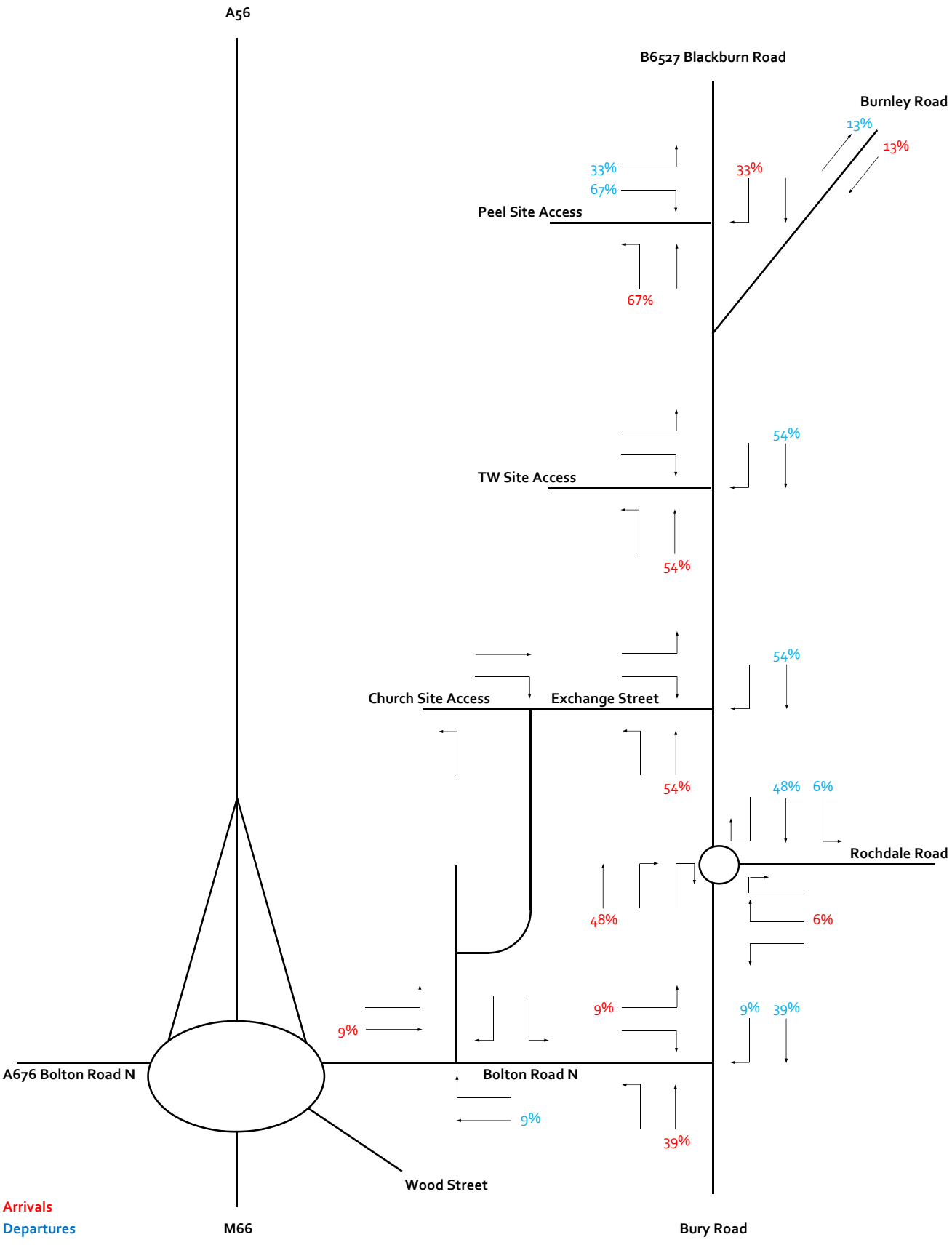

Figure 9 Proposed Peel Land Vehicular Distribution

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

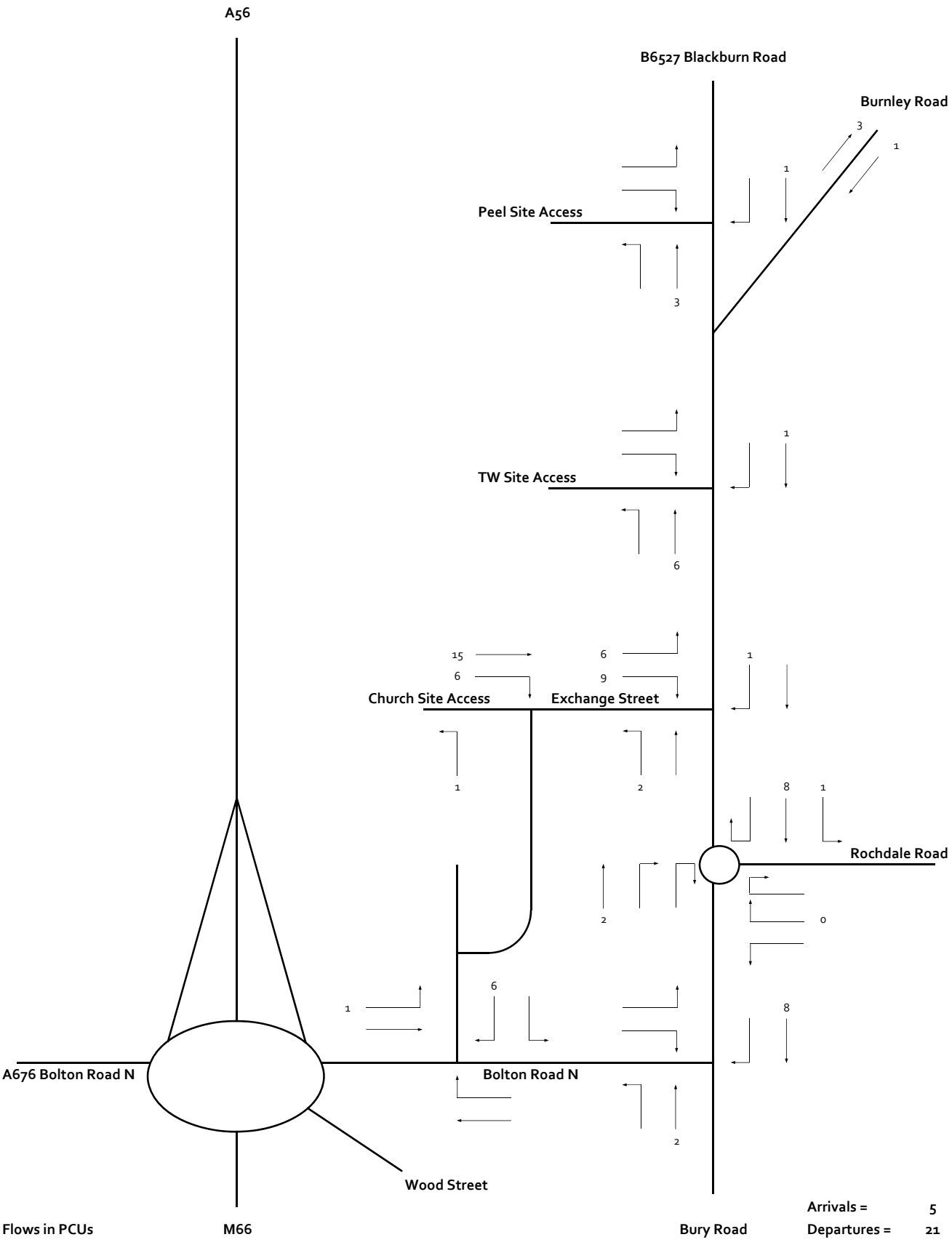

Figure 10 Proposed Church Land Trips - AM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

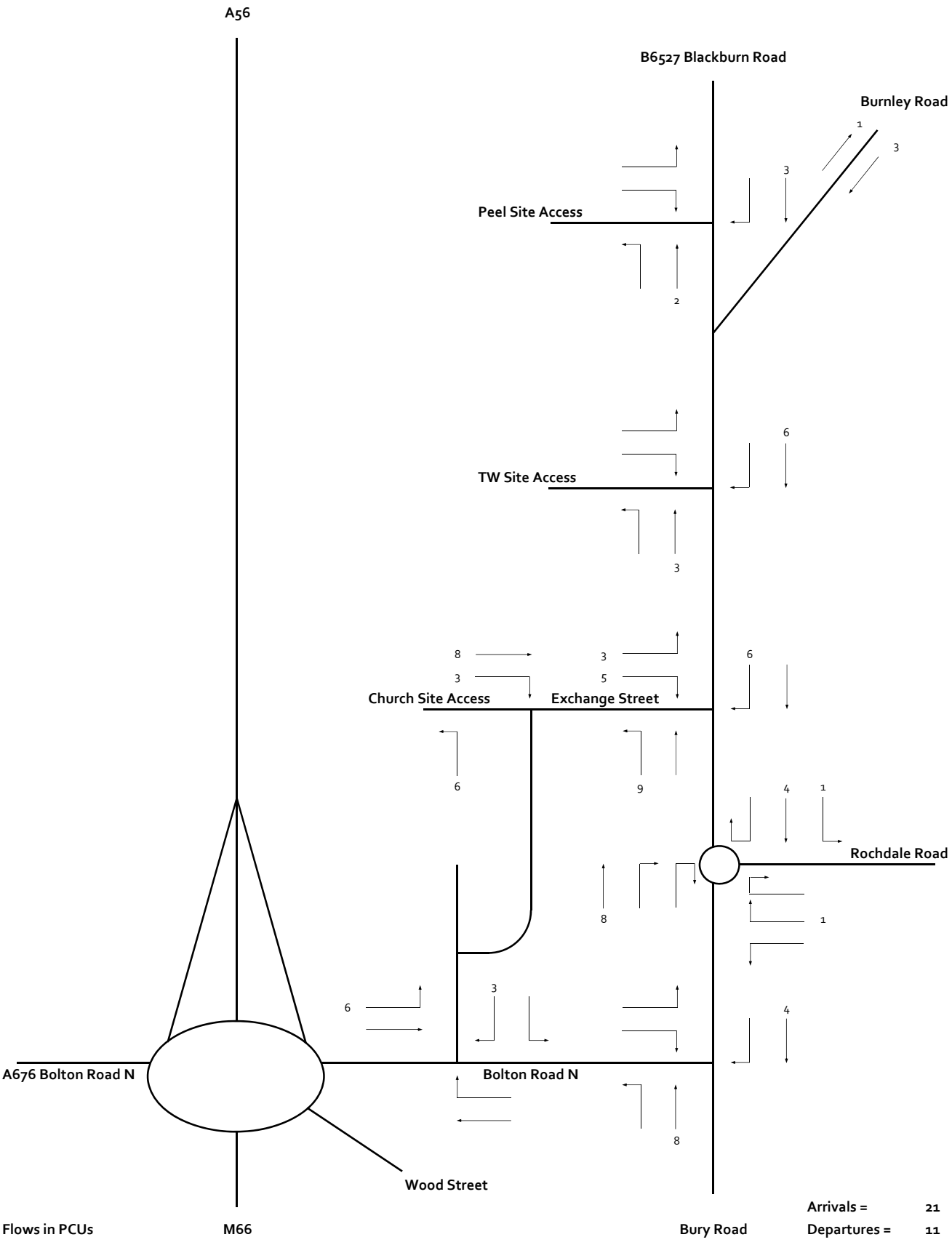

Figure 11 Proposed Church Land Trips - PM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

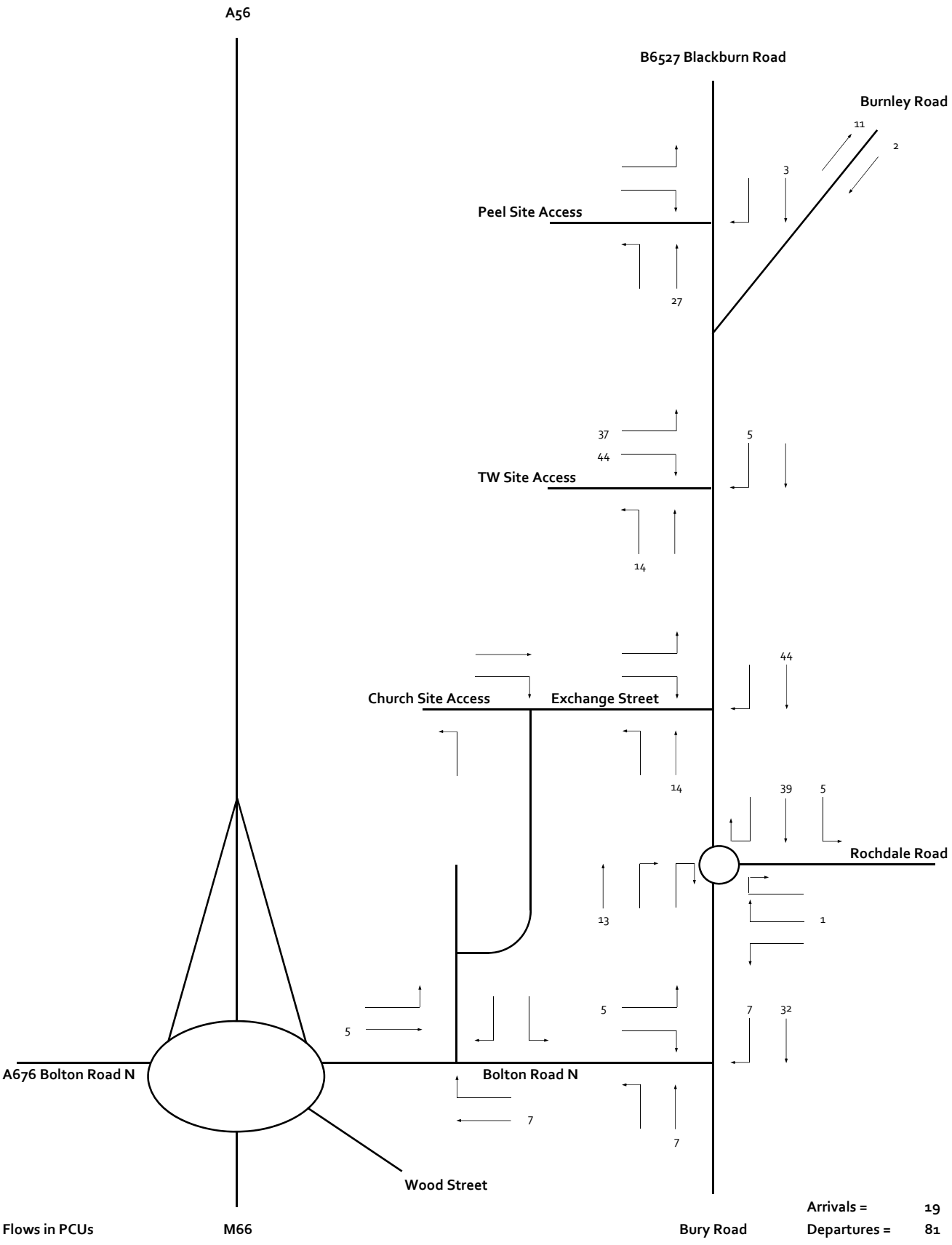

Figure 12 Proposed TW Site Trips - AM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

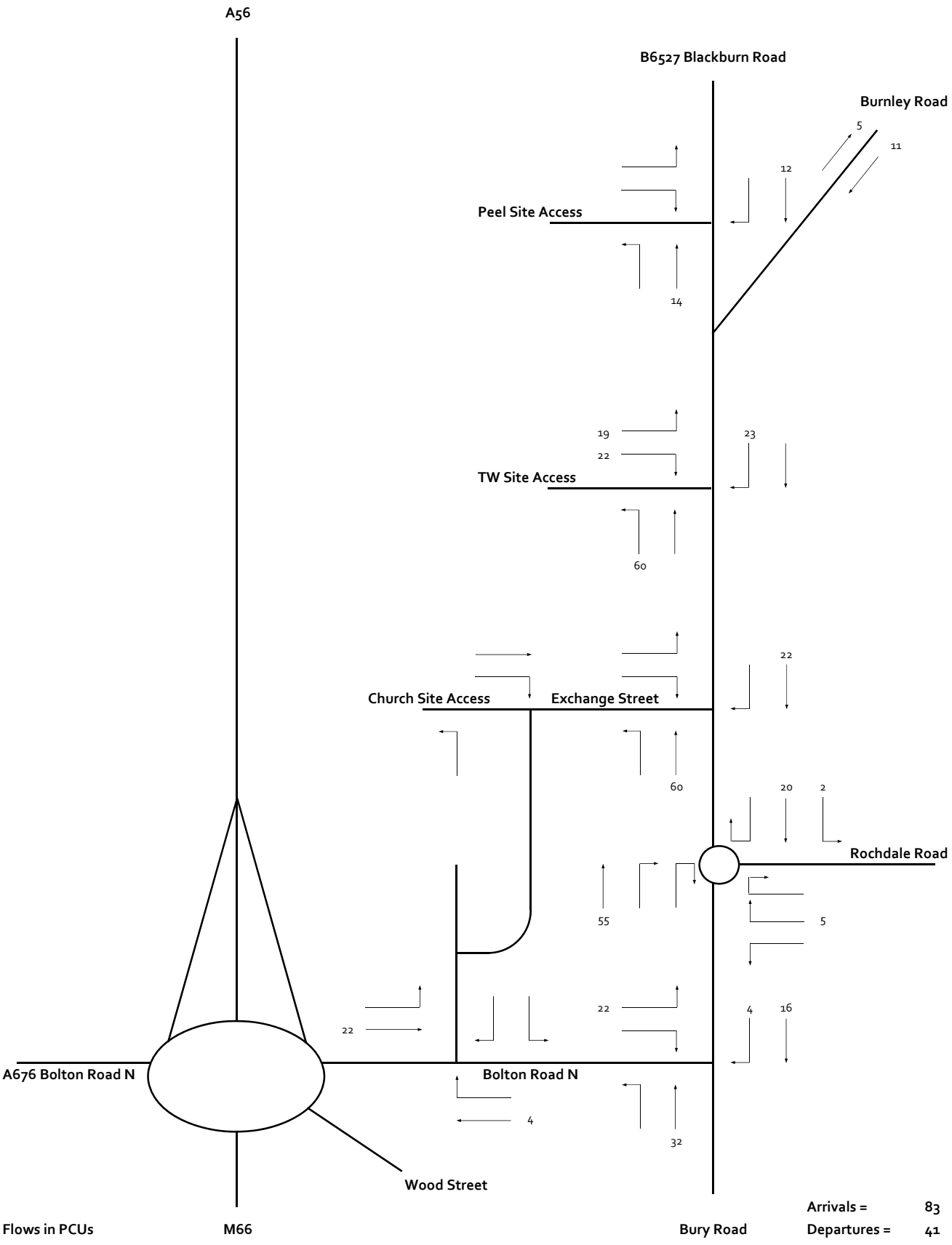

Figure 13 Proposed TW Land Trips - PM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

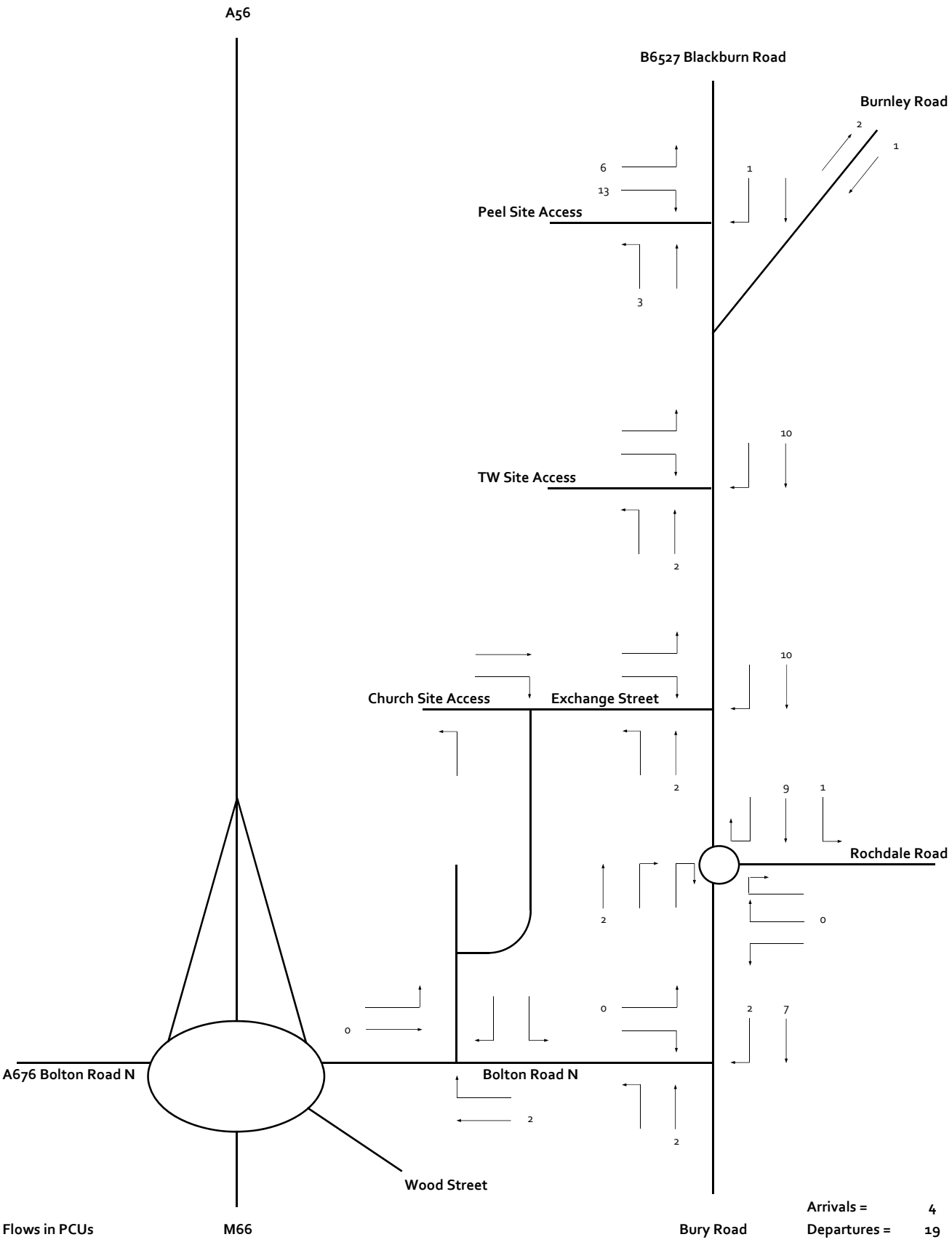

Figure 14 Proposed Peel Land Trips - AM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

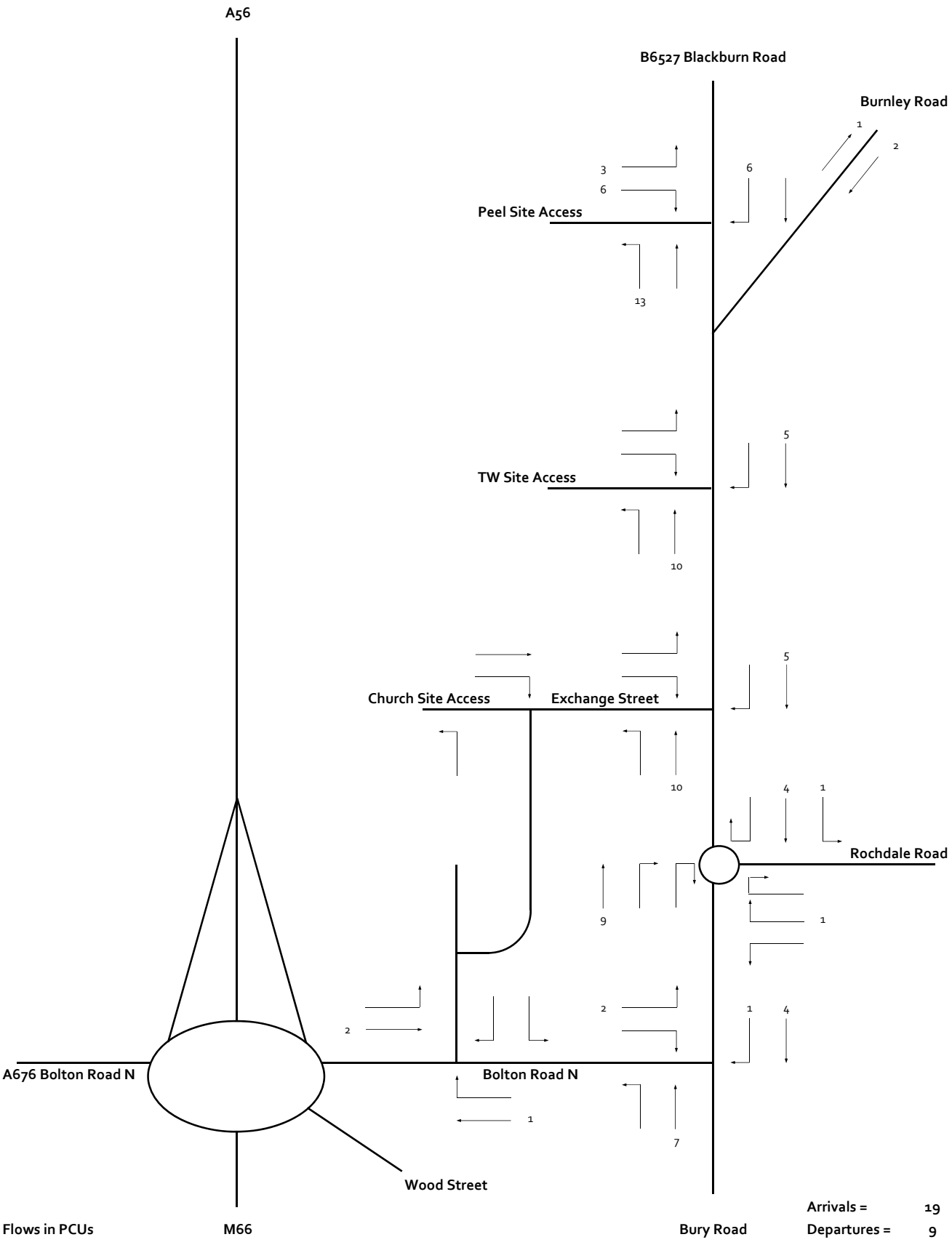

Figure 15 Proposed Peel Land Trips - PM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

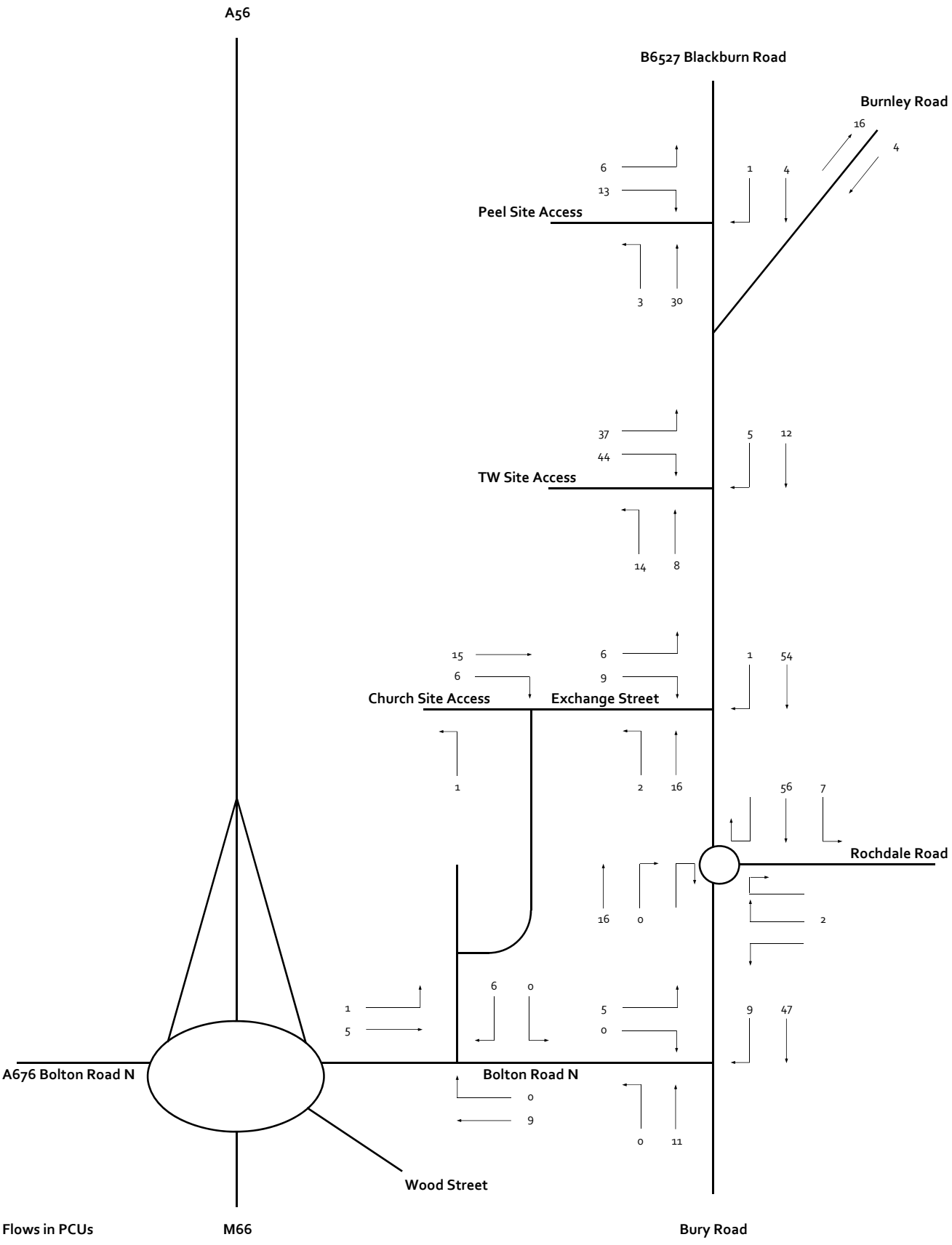

Figure 16 Total Proposed Residential Allocation Trips - AM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

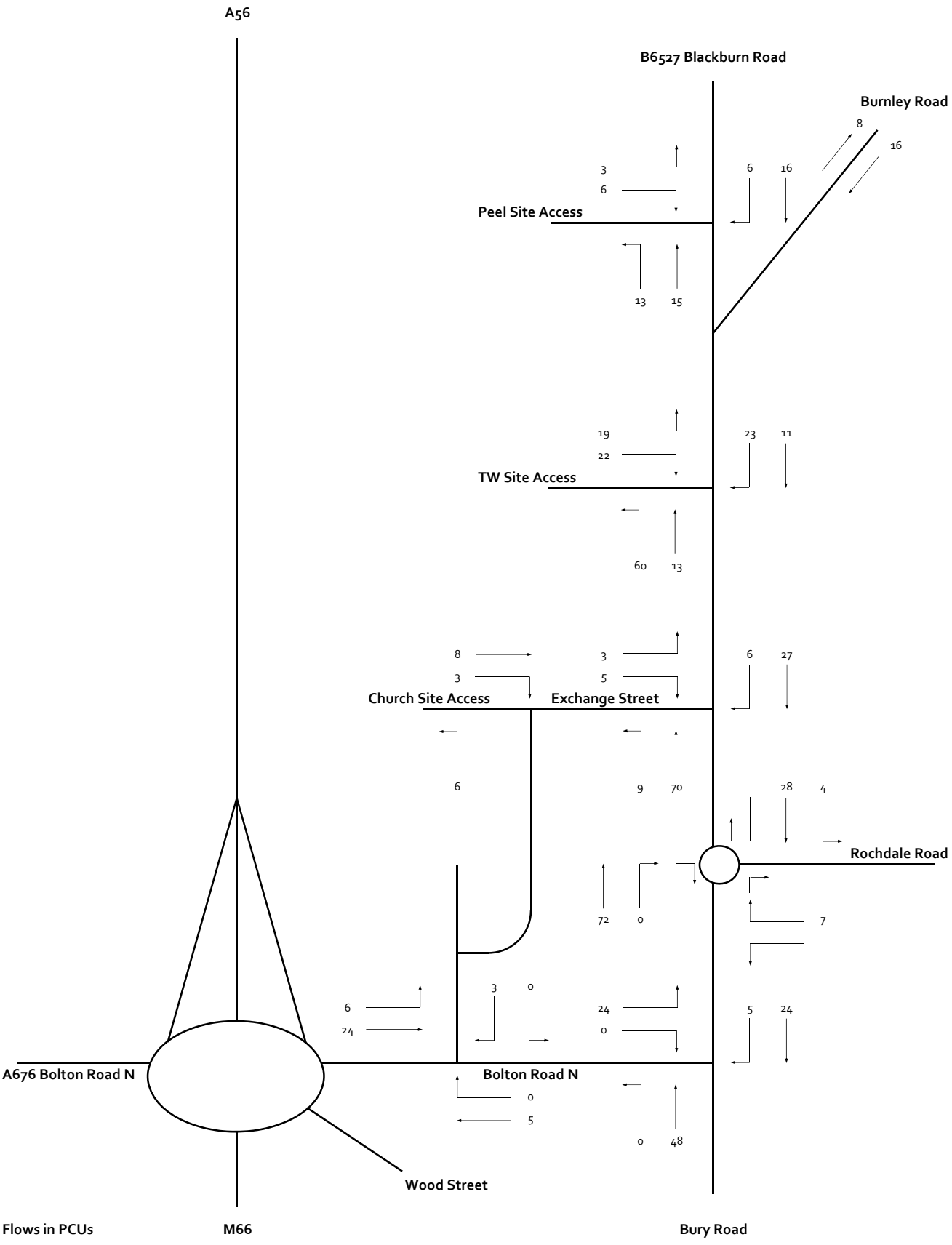

Figure 17 Total Proposed Residential Allocation Trips - PM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

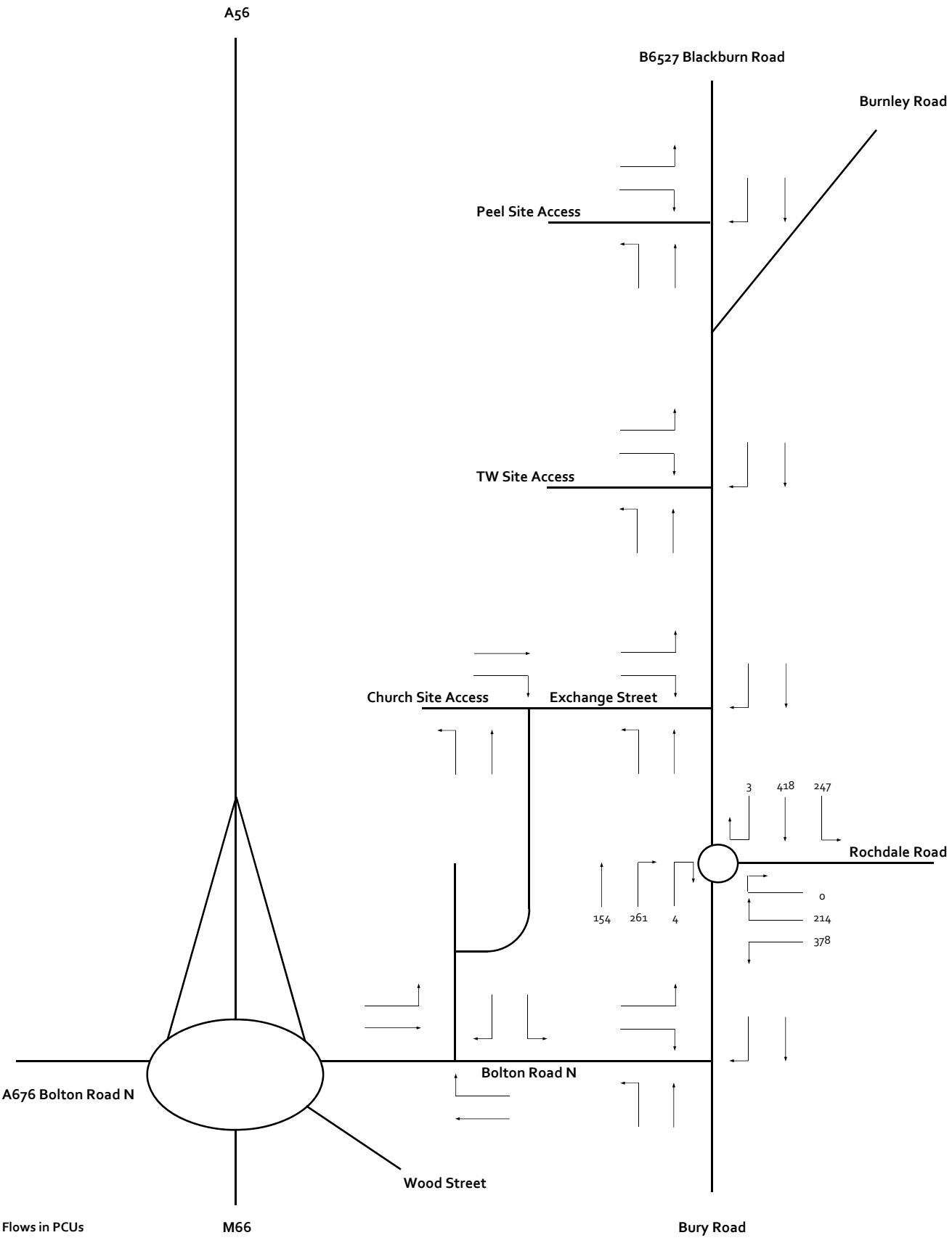

Figure 18 2024 'With Allocation' Flows - Weekday AM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

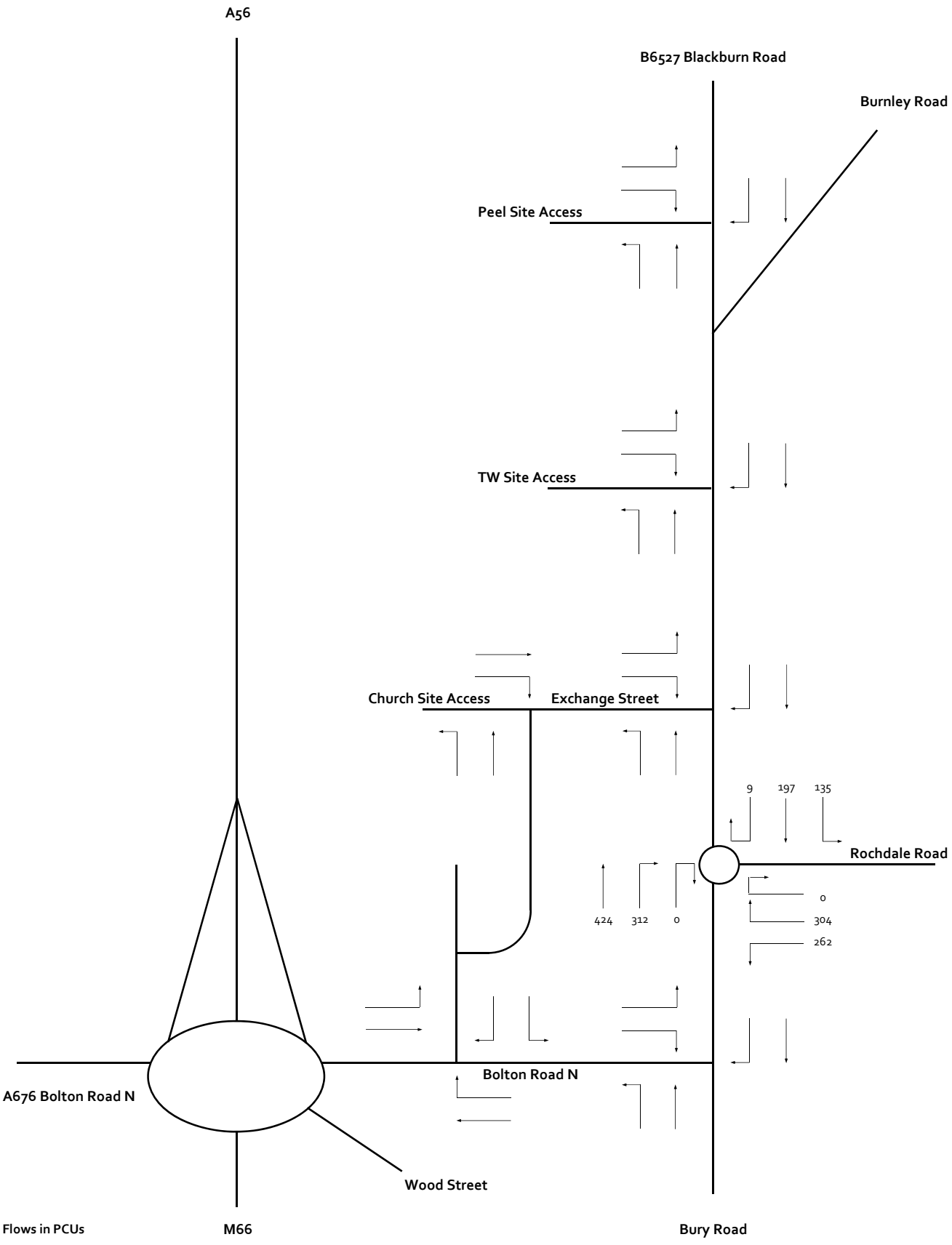

Figure 19 2024 'With Allocation' Flows - Weekday PM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

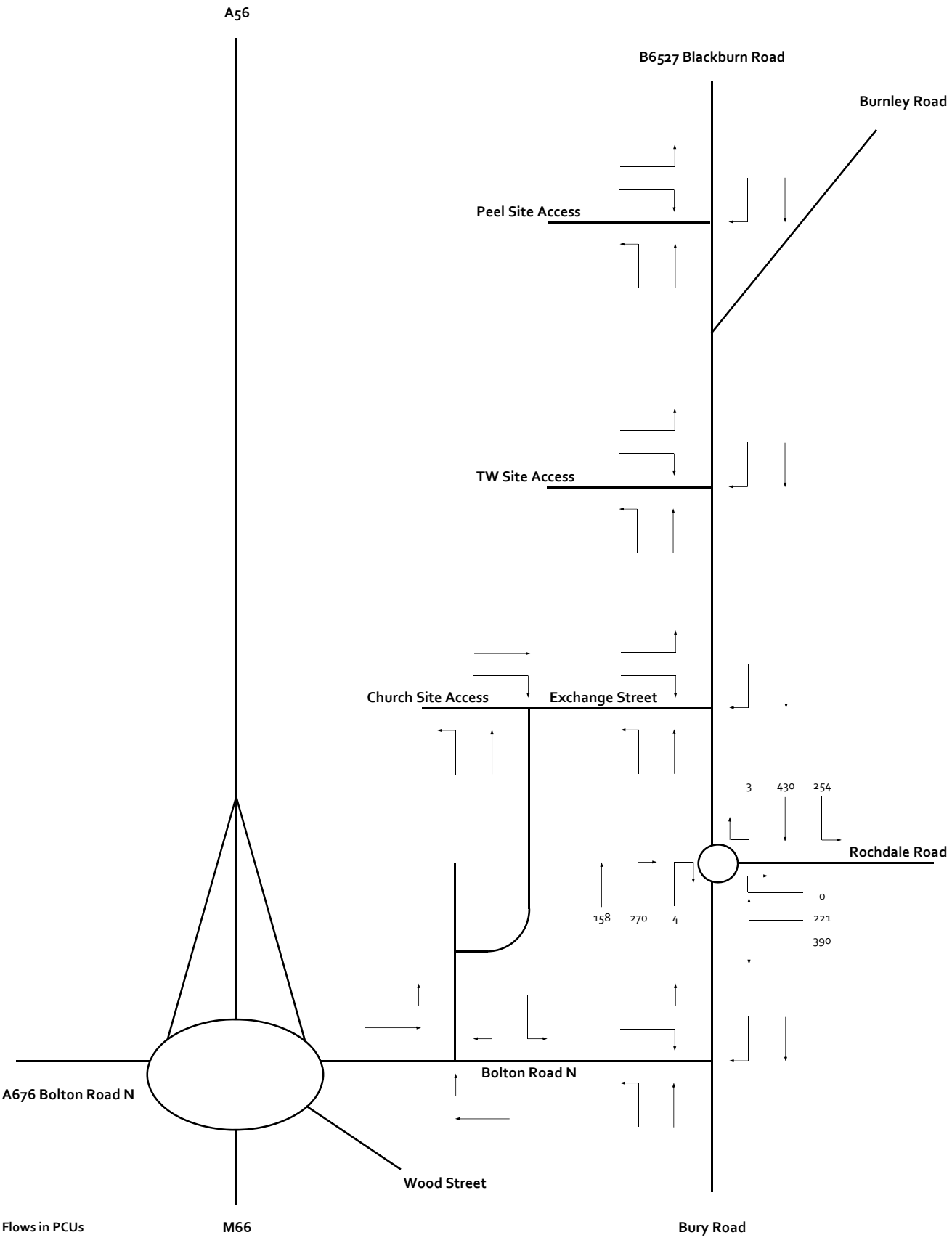

Figure 20 2034 'With Allocation' Flows - Weekday AM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

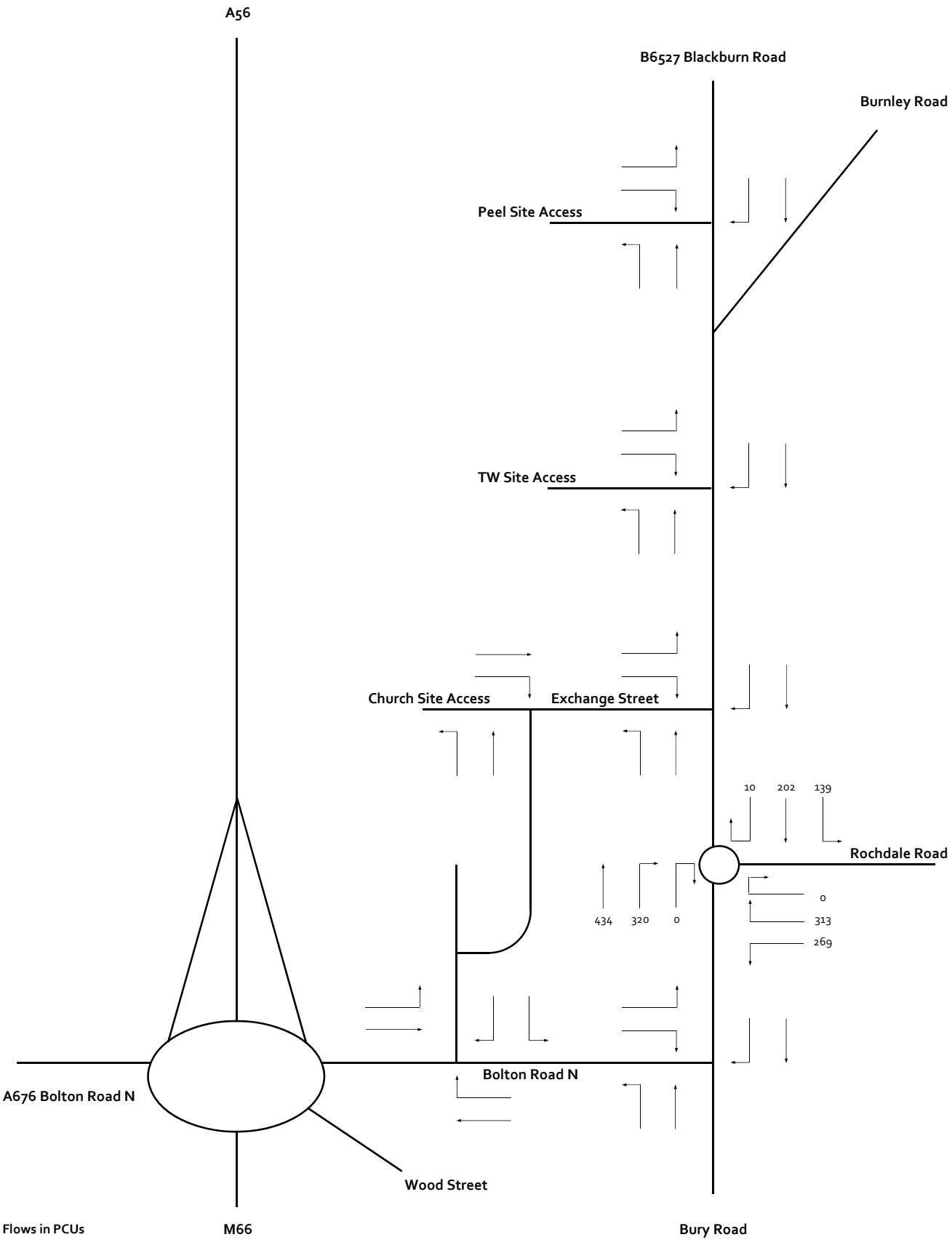

Figure 21 2034 'With Allocation' Flows - Weekday PM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

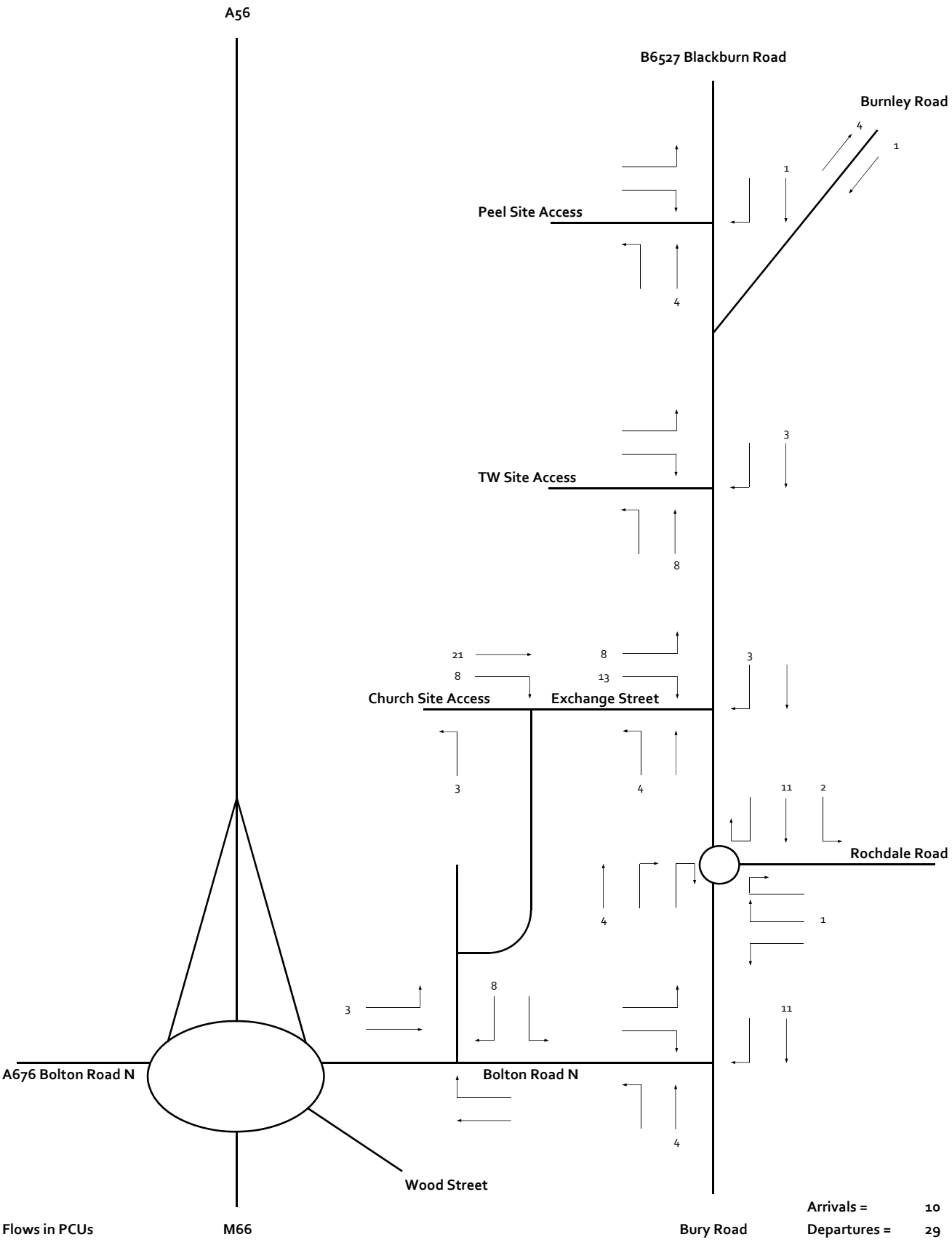

Figure 22 Proposed Church Land Sensitivity Trips - AM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

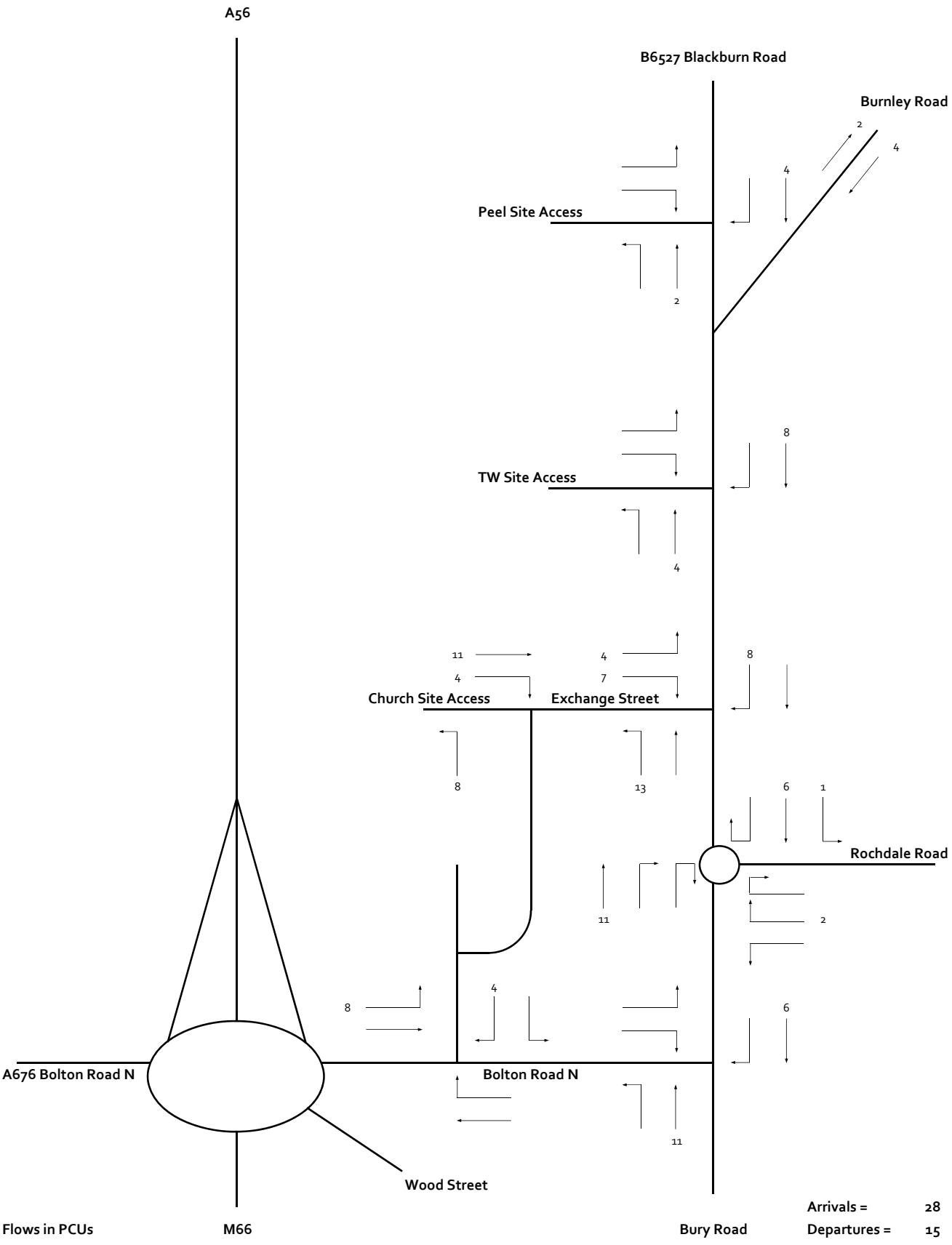

Figure 23 Proposed Church Land Sensitivity Trips - PM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

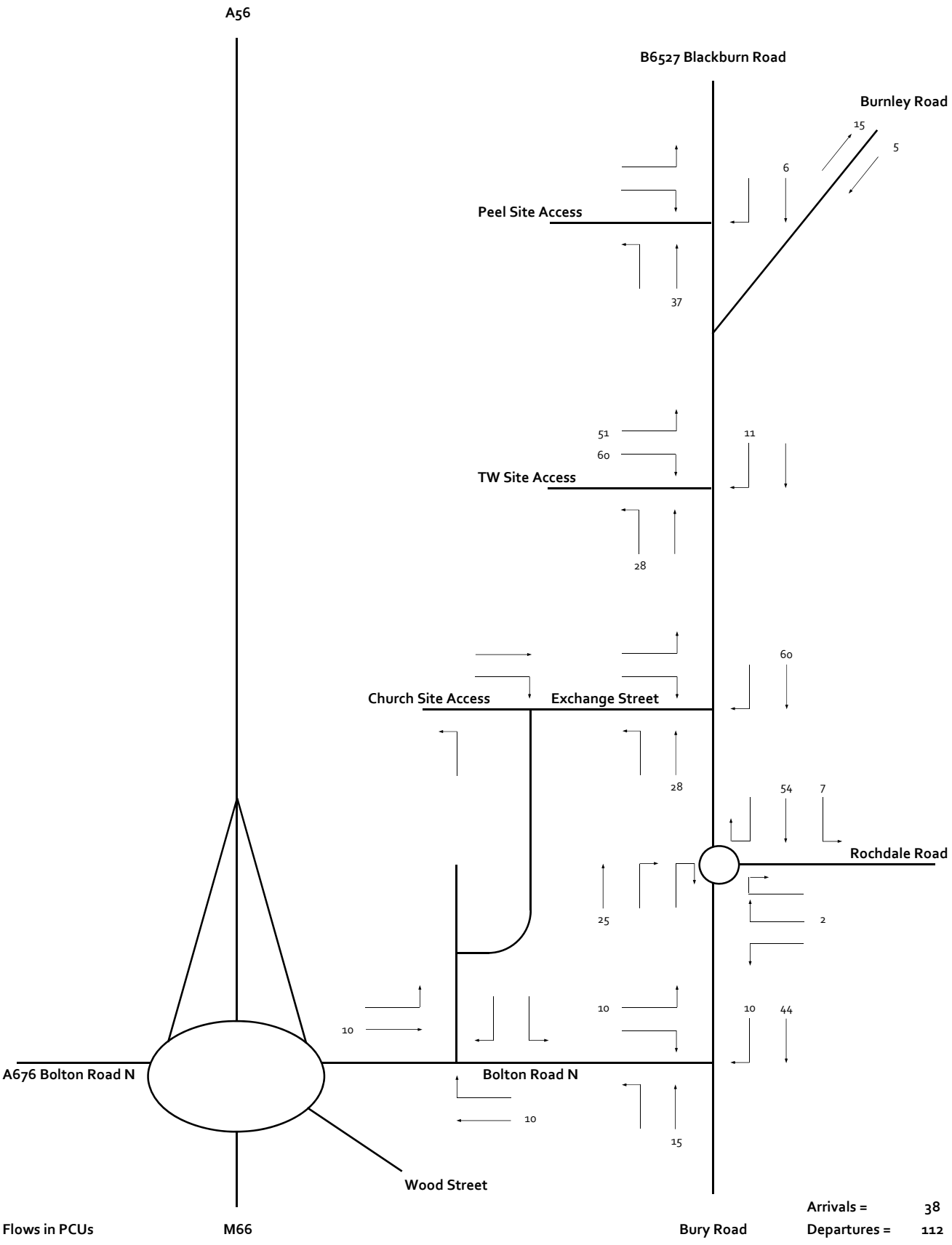

Figure 24 Proposed TW Land Sensitivity Trips - AM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

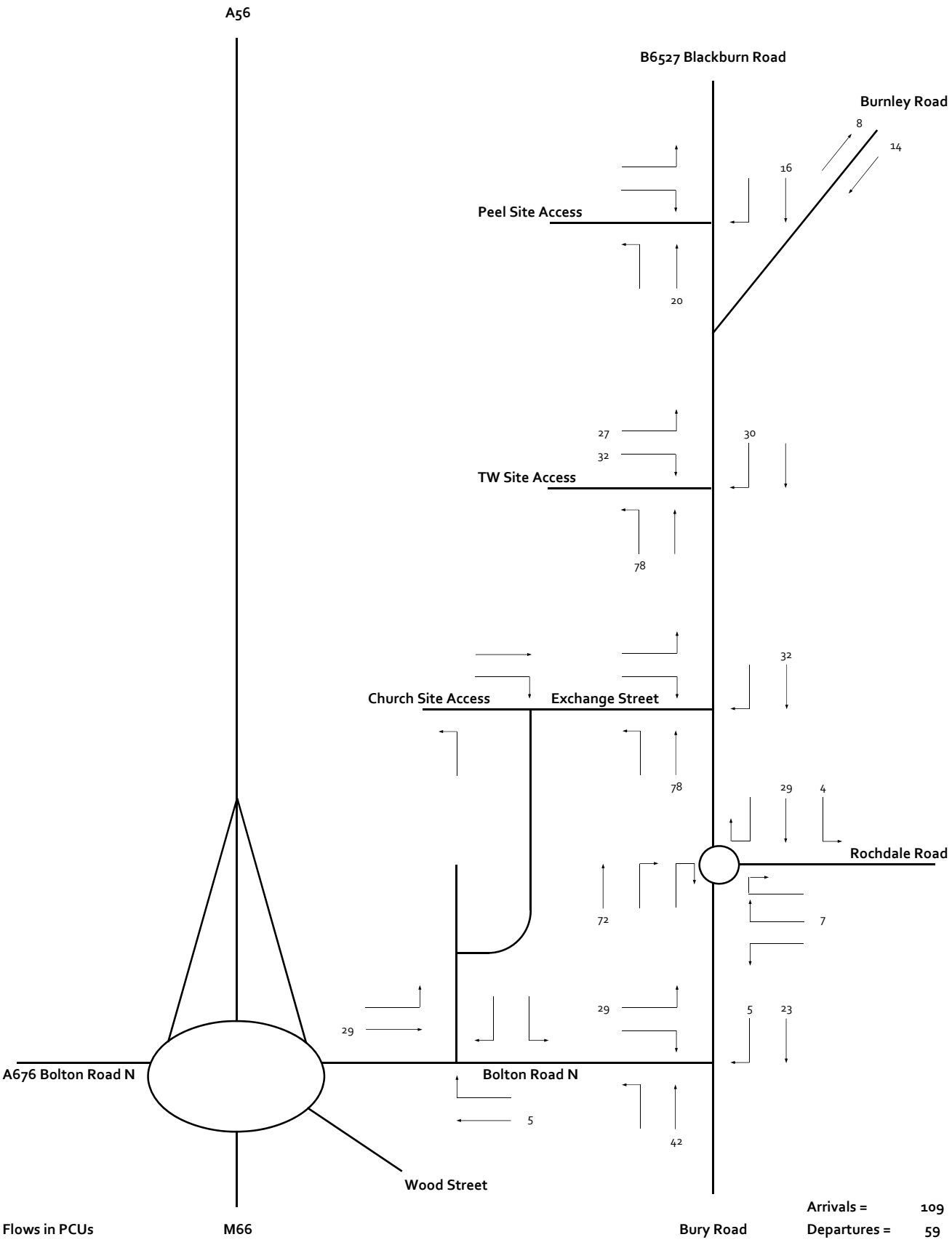

Figure 25 Proposed TW Land Sensitivity Trips - PM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

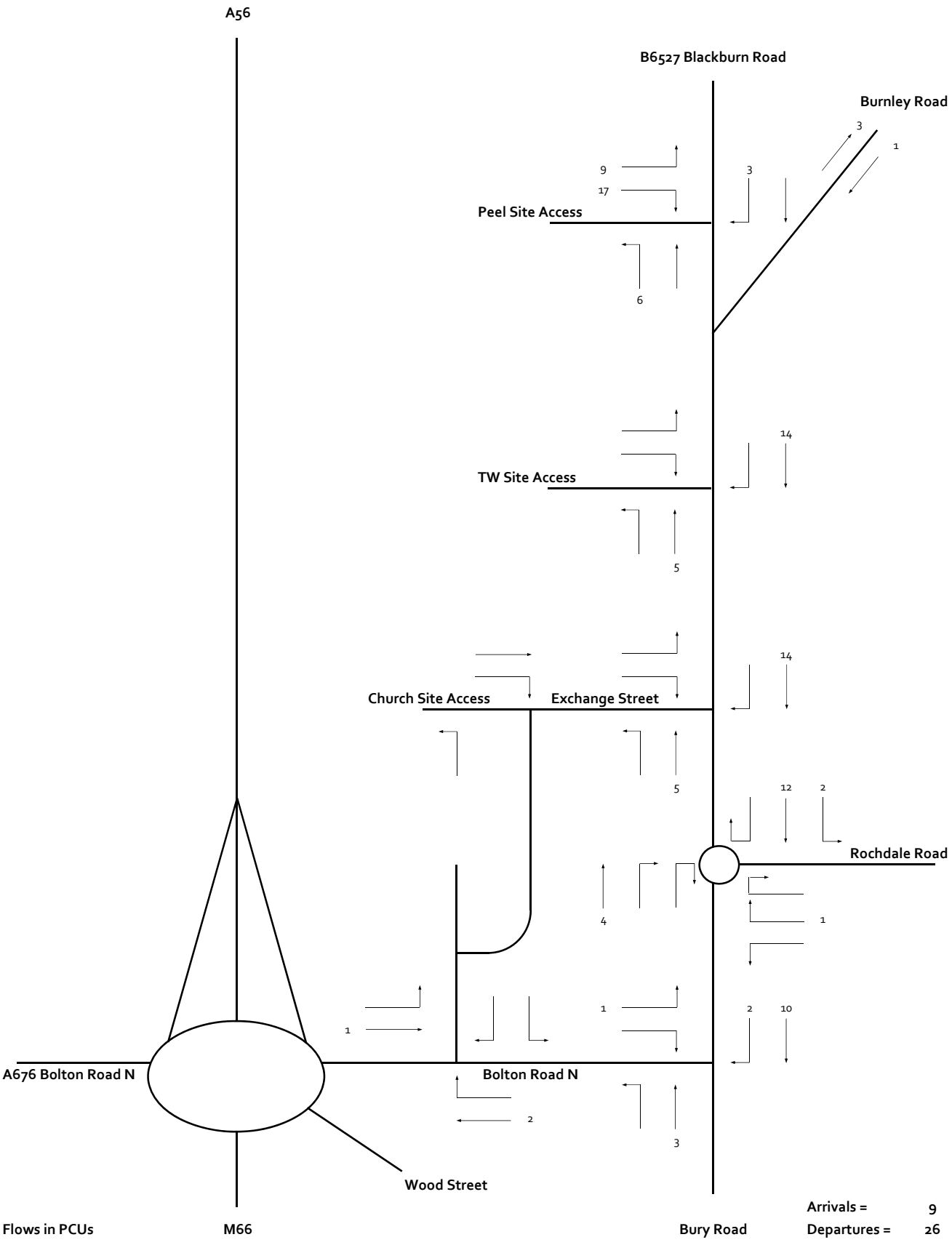

Figure 26 Proposed Peel Land Sensitivity Trips - AM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

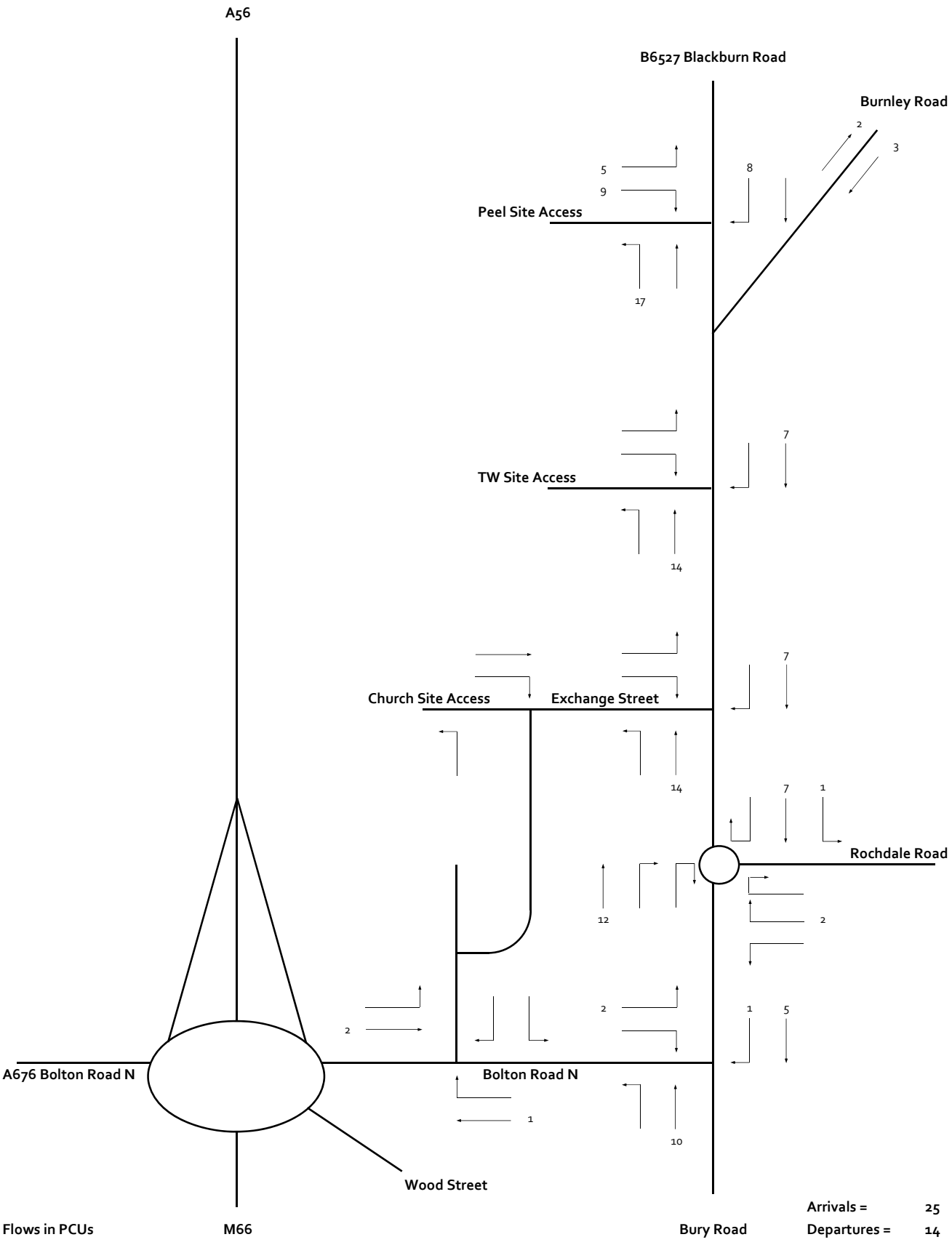

Figure 27 Proposed Peel Land Sensitivity Trips - PM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

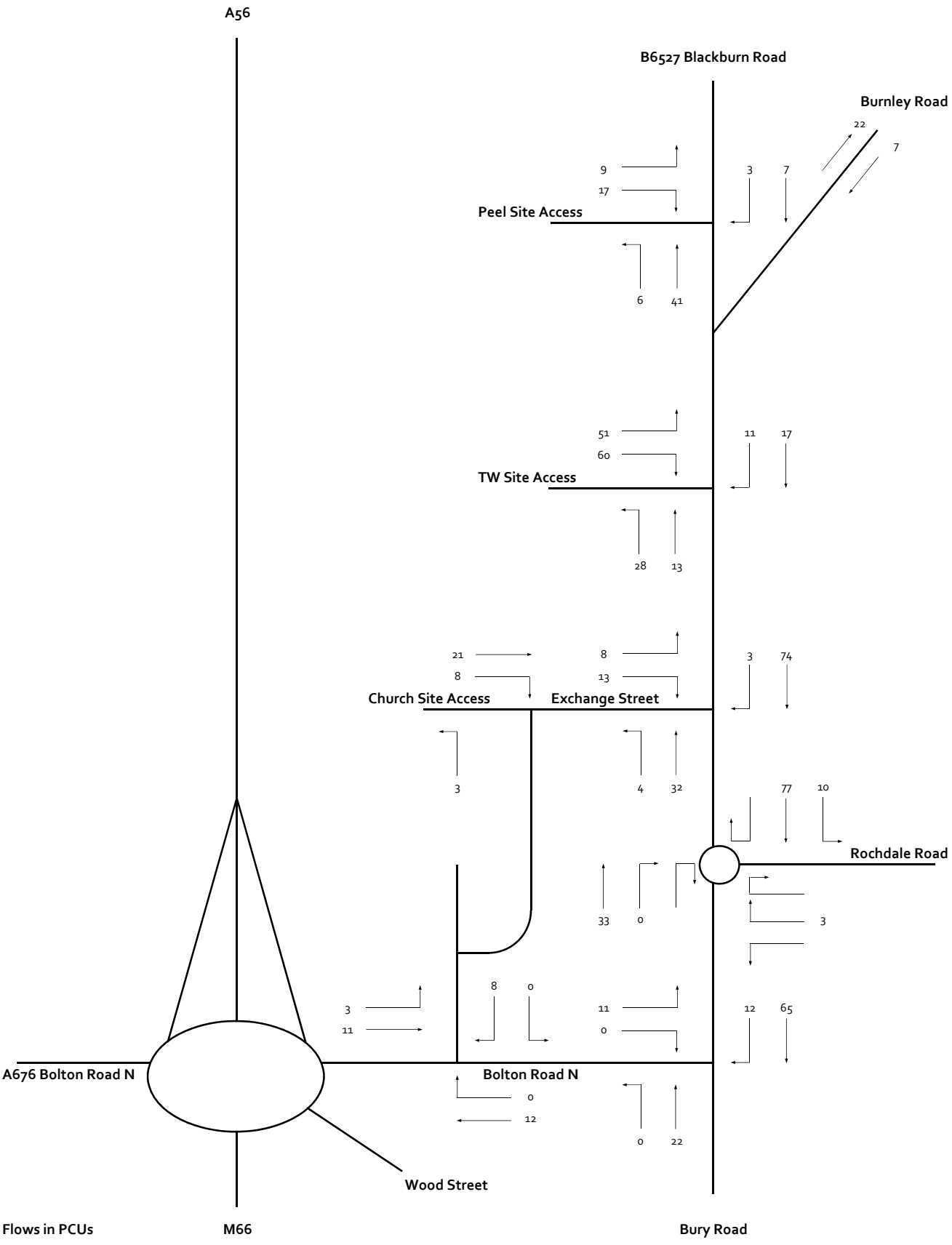

Figure 28 Total Proposed Residential Allocation Sensitivity Trips - AM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

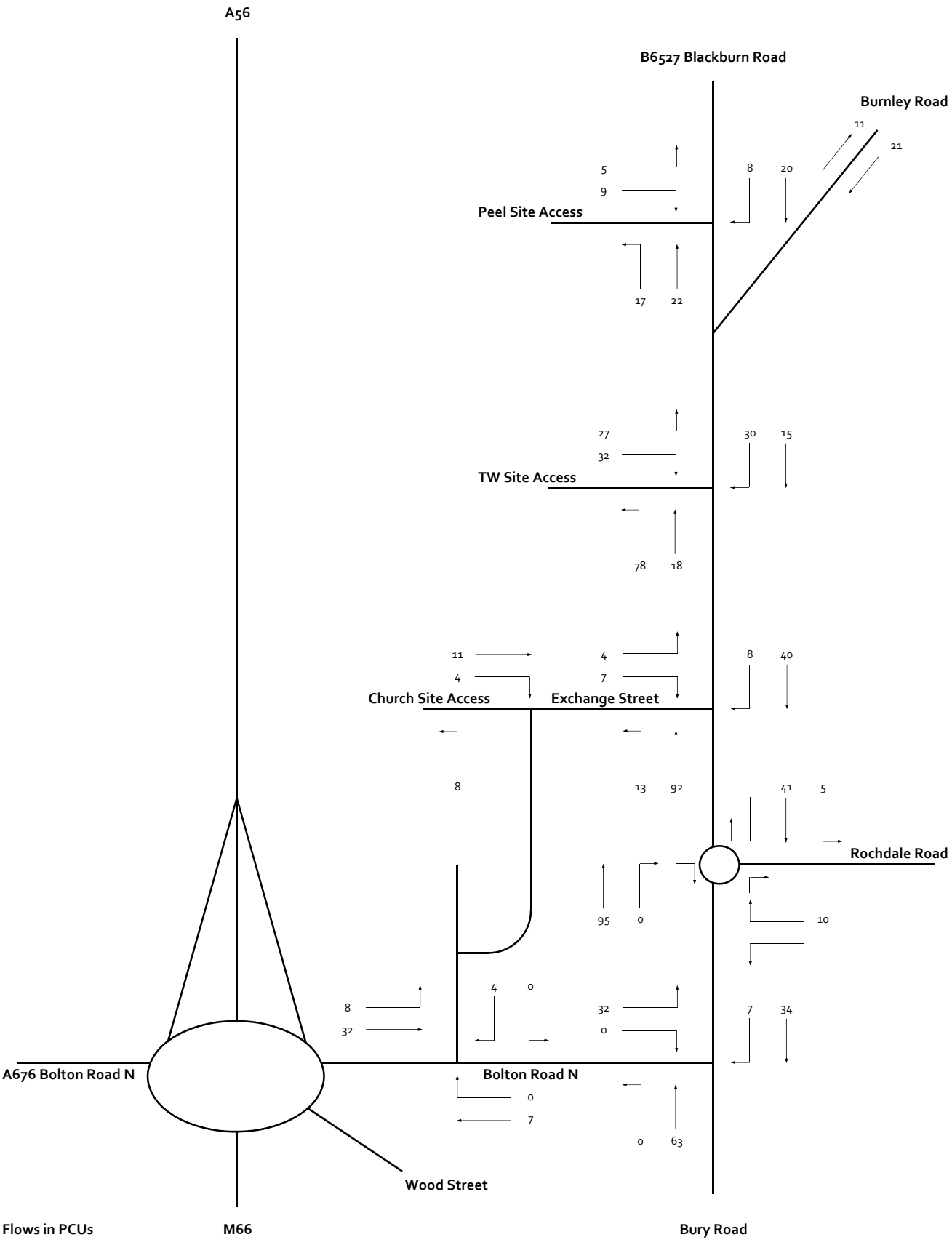

Figure 29 Total Proposed Residential Allocation Sensitivity Trips - PM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

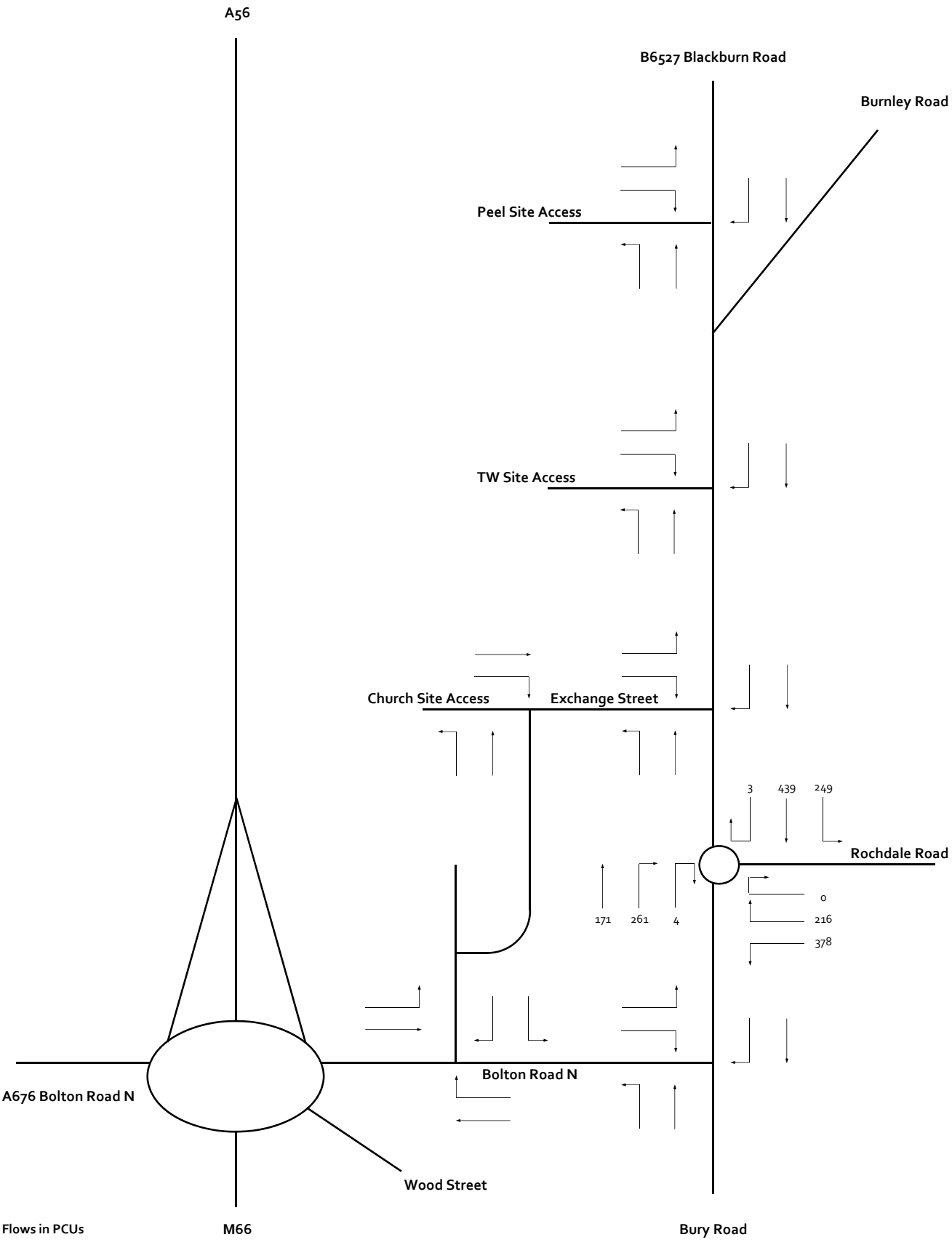

Figure 30 2024 'With Allocation' Sensitivity Flows - Weekday AM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

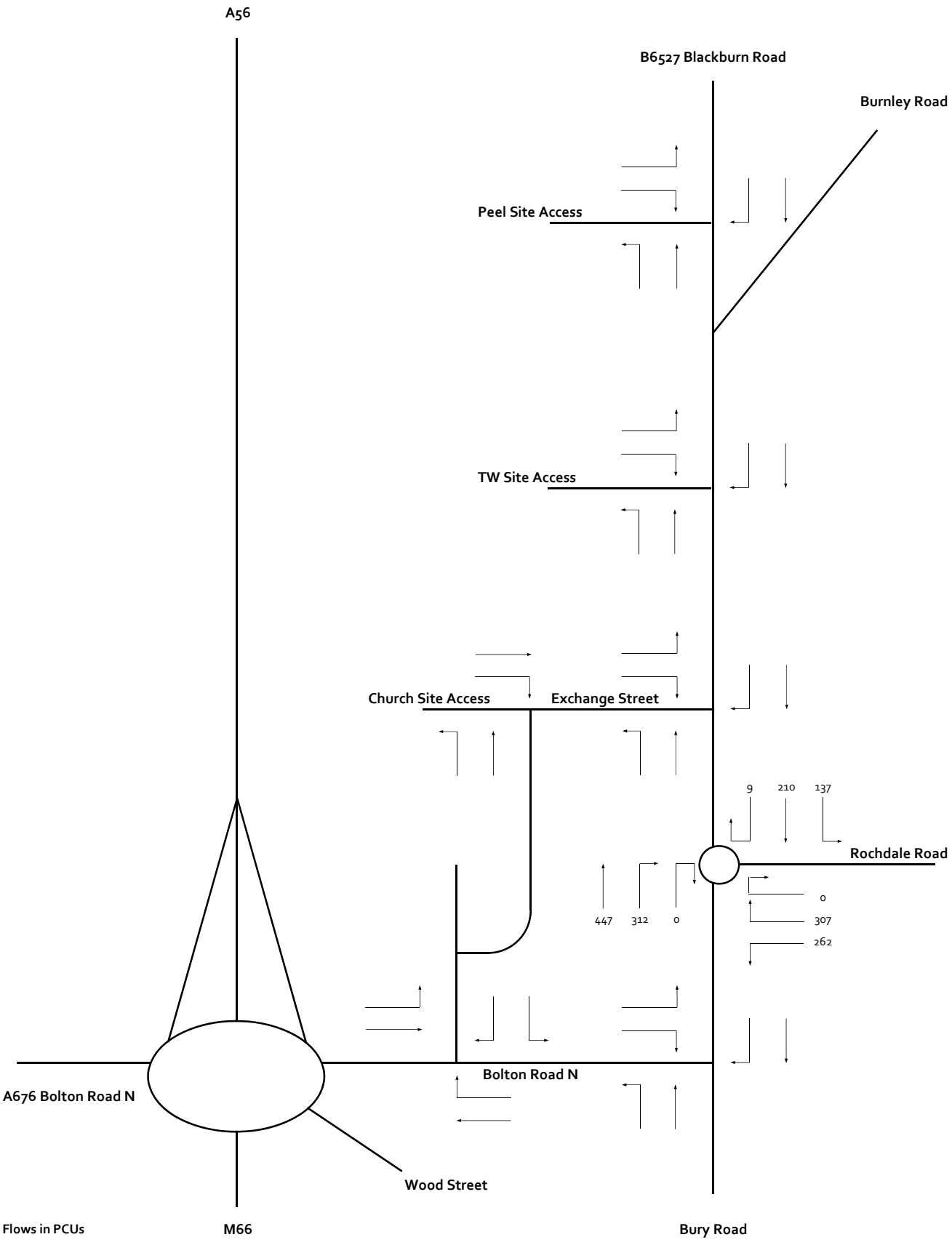

Figure 31 2024 'With Allocation' Sensitivity Flows - Weekday PM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

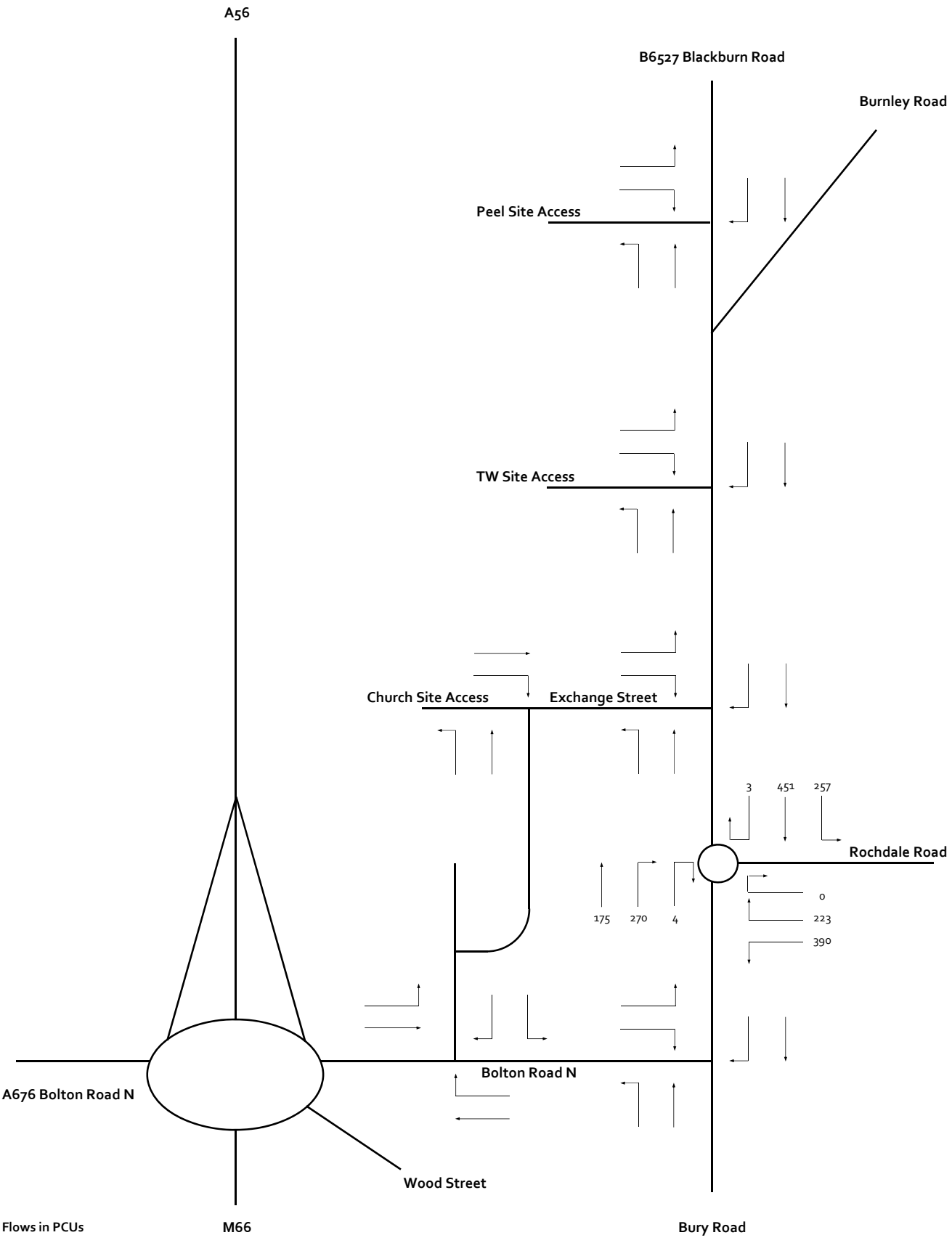

Figure 32 2034 'With Allocation' Sensitivity Flows - Weekday AM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

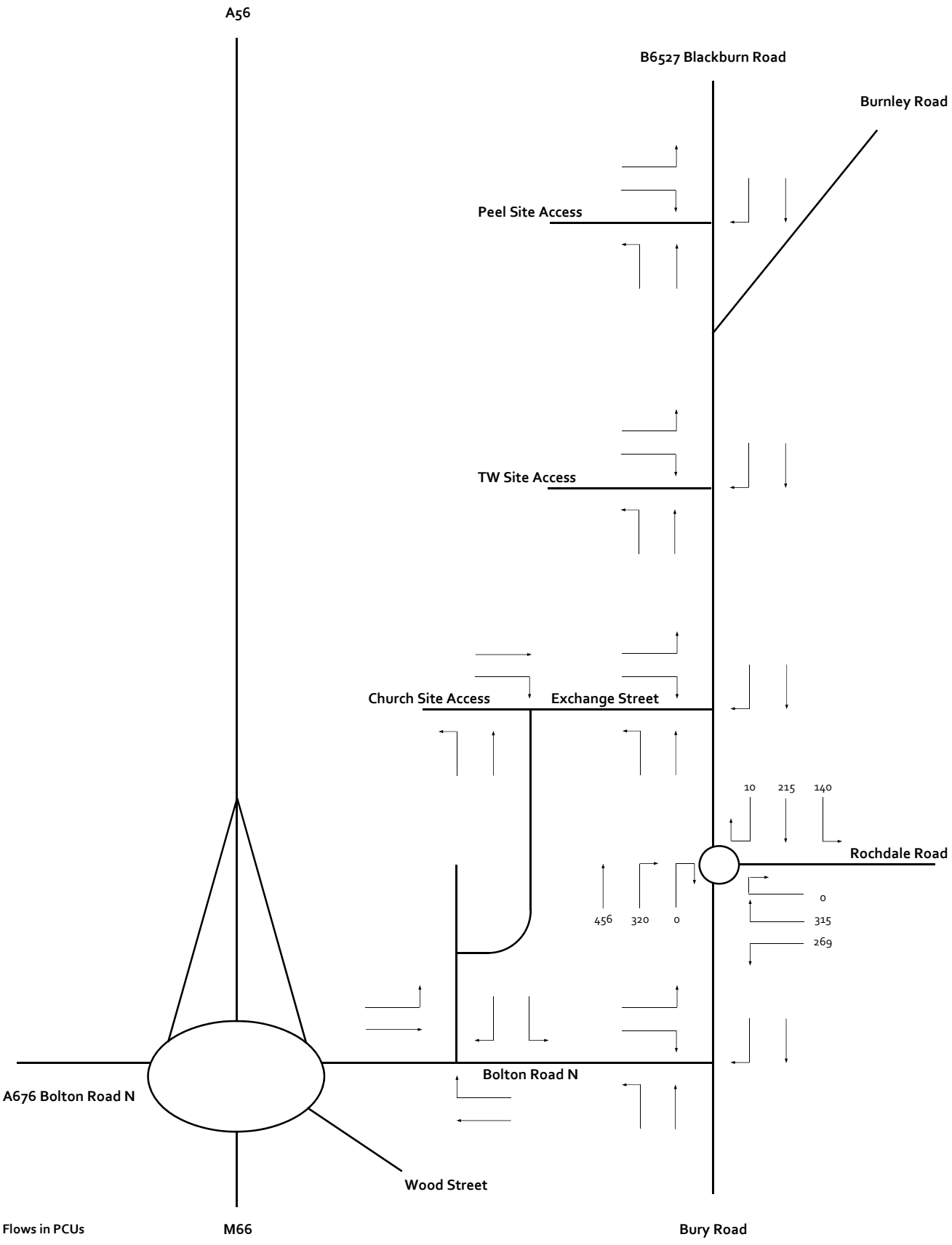

Figure 33 2034 'With Allocation' Sensitivity Flows - Weekday PM Peak

Croft Transport Planning & Design
Hill Quays
9 Jordan Street
Manchester
M15 4PY

APPENDICES

APPENDIX 1

Survey Data

	B652 Market Street (North Arm)							
	Bear Left Turn							Bear Left T
Interval	Bicycles on	Motorcycle	Cars	Light Good	Single-Unit	Articulated	Buses	
07:00	0	0	29	3	0	0	0	32
07:15	0	2	40	7	0	0	1	50
07:30	0	0	61	6	0	0	0	67
07:45	0	0	38	10	1	0	0	49
08:00	0	0	51	7	3	0	0	61
08:15	0	0	44	3	1	0	1	49
08:30	0	0	40	4	0	0	0	44
08:45	0	0	41	8	0	0	0	49
16:00	0	0	22	4	0	0	1	27
16:15	0	0	36	3	1	0	0	40
16:30	0	0	23	1	0	0	0	24
16:45	0	0	22	4	0	0	0	26
17:00	0	1	33	2	0	0	0	36
17:15	0	0	25	3	2	0	0	30
17:30	0	0	32	3	0	0	0	35
17:45	0	0	26	3	2	0	0	31
Grand Tota	0	3	563	71	10	0	3	650

urn Total	Bear Right Turn							Bear Right
	Bicycles on	Motorcycle	Cars	Light Good	Single-Unit	Articulated	Buses	
	0	1	49	2	1	1	1	55
	0	0	68	6	1	1	4	80
	0	0	75	11	1	0	2	89
	0	1	90	7	4	1	2	105
	1	1	63	6	3	0	2	76
	1	1	54	10	0	0	2	68
	0	2	60	10	1	0	1	74
	0	0	46	4	0	0	0	50
	0	0	38	5	0	0	0	43
	0	0	41	5	0	0	0	46
	2	0	31	4	0	1	1	39
	0	0	28	7	0	0	1	36
	0	2	35	2	0	0	0	39
	0	0	45	1	1	0	2	49
	0	0	33	4	0	0	0	37
	2	1	36	2	0	0	1	42
	6	9	792	86	12	4	19	928

Turn Total	U-Turn							U-Turn Tota
	Bicycles on	Motorcycle	Cars	Light Good	Single-Unit	Articulated	Buses	
	0	0	1	0	0	0	0	1
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	1	0	0	0	0	1
	0	0	1	0	0	0	0	1
	0	0	1	0	0	0	0	1
	0	0	1	1	0	0	0	2
	0	0	1	0	0	0	0	1
	0	0	1	0	0	0	0	1
	0	0	2	0	0	0	0	2
	0	0	1	0	0	0	0	1
	0	0	2	0	0	0	0	2
	0	0	1	0	0	0	0	1
	0	0	3	0	0	0	0	3
	0	0	3	0	0	0	0	3
	0	0	0	0	0	0	0	0
	0	0	19	1	0	0	0	20

	A680 Bury Rd (Northeastbound)							
al	Bear Left Turn							Bear Left Tı
	Bicycles on	Motorcycle	Cars	Light Good	Single-Unit	Articulated	Buses	
	0	0	7	0	1	0	1	9
	1	0	12	0	1	0	0	14
	0	2	12	4	0	0	2	20
	0	0	26	3	2	0	1	32
	0	0	20	6	1	1	1	29
	1	0	38	4	1	0	1	45
	0	0	32	5	0	0	1	38
	0	0	33	11	0	0	1	45
	0	0	45	9	1	0	1	56
	0	2	41	5	0	0	3	51
	1	2	52	3	0	1	3	62
	0	0	63	12	0	1	2	78
	0	1	78	10	0	0	2	91
	0	1	75	3	0	0	0	79
	0	2	74	7	0	0	3	86
	0	0	63	7	0	0	1	71
	3	10	671	89	7	3	23	806

urn Total	Right Turn							Right Turn
	Bicycles on	Motorcycle	Cars	Light Good	Single-Unit	Articulated	Buses	
	0	0	31	5	1	2	1	40
	0	0	35	9	1	0	1	46
	1	1	50	9	4	0	0	65
	0	0	32	12	6	0	0	50
	0	0	68	4	6	0	0	78
	0	0	40	2	5	1	0	48
	0	0	47	7	3	1	0	58
	0	0	40	11	3	1	1	56
	0	0	50	7	0	0	0	57
	0	0	48	17	2	1	0	68
	0	0	43	15	2	0	0	60
	0	1	67	8	1	0	0	77
	0	2	53	14	1	1	0	71
	0	0	74	9	0	0	0	83
	0	0	59	8	0	0	1	68
	0	0	71	4	0	0	0	75
	1	4	808	141	35	7	4	1000

Total	U-Turn							U-Turn Tot
	Bicycles on	Motorcycle	Cars	Light Good	Single-Unit	Articulated	Buses	
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	1	0	1	0	0	2
	0	0	1	0	0	0	0	1
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	1	0	0	0	0	1
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	3	0	1	0	0	4

al	A680 Rochdale Rd (Northwestbound)							
	Left Turn							Left Turn T
	Bicycles on	Motorcycle	Cars	Light Good	Single-Unit	Articulated	Buses	
	0	1	75	2	0	0	0	78
	0	0	55	16	0	1	0	72
	0	0	67	13	5	0	0	85
	0	3	78	9	0	1	0	91
	1	0	83	12	3	2	0	101
	0	1	65	4	6	1	0	77
	0	0	61	11	2	4	0	78
	0	0	55	12	2	1	0	70
	0	0	44	10	0	2	0	56
	0	0	54	8	4	0	0	66
	0	1	59	13	1	0	0	74
	0	0	57	9	1	0	0	67
	0	0	59	13	0	0	0	72
	0	0	44	5	0	0	0	49
	0	0	59	5	0	0	0	64
	0	0	49	6	3	0	0	58
	1	6	964	148	27	12	0	1158

otal	Bear Right Turn							Bear Right
	Bicycles on	Motorcycle	Cars	Light Good	Single-Unit	Articulated	Buses	
	0	0	22	4	0	0	0	26
	0	0	33	5	0	0	0	38
	0	0	35	6	2	0	0	43
	0	0	34	6	1	0	1	42
	0	0	43	6	1	0	2	52
	0	0	54	8	0	0	0	62
	0	0	36	5	1	0	0	42
	0	0	33	5	0	0	0	38
	0	0	35	3	1	0	0	39
	0	0	40	6	0	0	0	46
	1	0	30	7	1	0	0	39
	0	0	53	11	0	0	0	64
	0	1	76	6	1	0	1	85
	0	0	59	4	1	0	0	64
	0	0	66	4	2	0	0	72
	1	0	40	7	1	0	0	49
	2	1	689	93	12	0	4	801

Turn Total	U-Turn							U-Turn Tota
	Bicycles on	Motorcycle	Cars	Light Good	Single-Unit	Articulated	Buses	
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0

	Grand Total
al	
	241
	300
	371
	371
	398
	350
	336
	309
	279
	320
	299
	350
	395
	357
	365
	326
	5367

APPENDIX 2

TRICS Output

Calculation Reference: AUDIT-851401-180927-0943

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
	KC	KENT	2 days
	WS	WEST SUSSEX	3 days
06	**WEST MIDLANDS**		
	ST	STAFFORDSHIRE	1 days
07	**YORKSHIRE & NORTH LINCOLNSHIRE**		
	NE	NORTH EAST LINCOLNSHIRE	1 days
11	**SCOTLAND**		
	FA	FALKIRK	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Secondary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter: Number of dwellings
Actual Range: 151 to 805 (units:)
Range Selected by User: 150 to 805 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/10 to 19/04/18

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	2 days
Wednesday	4 days
Thursday	3 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	9 days
Directional ATC Count	0 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Suburban Area (PPS6 Out of Centre)	2
Edge of Town	7

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	8
No Sub Category	1

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Secondary Filtering selection:

Use Class:

C3	9 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Secondary Filtering selection (Cont.):

Population within 1 mile:

5,001 to 10,000	2 days
10,001 to 15,000	5 days
20,001 to 25,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

50,001 to 75,000	3 days
75,001 to 100,000	3 days
100,001 to 125,000	1 days
125,001 to 250,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	2 days
1.1 to 1.5	7 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	3 days
No	6 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	9 days

This data displays the number of selected surveys with PTAL Ratings.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 1 DWELLS

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	9	316	0.129	9	316	0.492	9	316	0.621
08:00 - 09:00	9	316	0.186	**9**	**316**	**0.789**	**9**	**316**	**0.975**
09:00 - 10:00	9	316	0.221	9	316	0.276	9	316	0.497
10:00 - 11:00	9	316	0.190	9	316	0.242	9	316	0.432
11:00 - 12:00	9	316	0.198	9	316	0.247	9	316	0.445
12:00 - 13:00	9	316	0.247	9	316	0.238	9	316	0.485
13:00 - 14:00	9	316	0.260	9	316	0.255	9	316	0.515
14:00 - 15:00	9	316	0.275	9	316	0.310	9	316	0.585
15:00 - 16:00	9	316	0.566	9	316	0.295	9	316	0.861
16:00 - 17:00	9	316	0.546	9	316	0.295	9	316	0.841
17:00 - 18:00	**9**	**316**	**0.604**	9	316	0.298	9	316	0.902
18:00 - 19:00	9	316	0.523	9	316	0.357	9	316	0.880
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.945			4.094			8.039

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

APPENDIX 3

Census Data and Routing Assumptions

Rossendale 008

	Driving a car or van	Percentage	Route
E02005278 : Rossendale 001	27	1%	Market St N - Bury Road
E02005279 : Rossendale 002	107	5%	Market St N - B6527 Blackburn Road
E02005280 : Rossendale 003	22	1%	Market St N - Bury Road
E02005281 : Rossendale 004	144	6%	Market St N - Bury Road
E02005284 : Rossendale 007	33	1%	Market St N - B6527 Blackburn Road
E02005285 : Rossendale 008	156	7%	Market St N - B6527 Blackburn Road
E02005286 : Rossendale 009	10	0%	Market St S - A680 Rochdale Road
E02006884 : Rossendale 010	75	3%	Market St N - Bury Road
Bolton	89	4%	Market St S - Bolton Road - Ramsbottom
E02001019 : Bury 001	74	3%	Market St S - Bolton Road - Ramsbottom
E02001020 : Bury 002	13		Market St S - Bury Road - Whalley Road
E02001021 : Bury 003	23		Market St S - Bury Road - Whalley Road
E02001022 : Bury 004	14		Market St S - Bury Road - Whalley Road
E02001023 : Bury 005	5		Market St S - Bury Road - Whalley Road
E02001024 : Bury 006	5		Market St S - Bury Road - Whalley Road
E02001025 : Bury 007	48		Market St S - Bury Road - Whalley Road
E02001026 : Bury 008	74		Market St S - Bury Road - Whalley Road
E02001027 : Bury 009	14		Market St S - Bury Road - Whalley Road
E02001028 : Bury 010	1		Market St S - Bury Road - Whalley Road
E02001029 : Bury 011	63		Market St S - Bury Road - Whalley Road
E02001030 : Bury 012	4		Market St S - Bury Road - Whalley Road
E02001031 : Bury 013	36	16%	Market St S - Bury Road - Whalley Road
E02001033 : Bury 015	3		Market St S - Bury Road - Whalley Road
E02001034 : Bury 016	21		Market St S - Bury Road - Whalley Road
E02001035 : Bury 017	4		Market St S - Bury Road - Whalley Road
E02001036 : Bury 018	4		Market St S - Bury Road - Whalley Road
E02001037 : Bury 019	1		Market St S - Bury Road - Whalley Road
E02001038 : Bury 020	6		Market St S - Bury Road - Whalley Road
E02001039 : Bury 021	2		Market St S - Bury Road - Whalley Road
E02001040 : Bury 022	7		Market St S - Bury Road - Whalley Road
E02001041 : Bury 023	4		Market St S - Bury Road - Whalley Road
E02001042 : Bury 024	2		Market St S - Bury Road - Whalley Road
E02001044 : Bury 026	3		Market St S - Bury Road - Whalley Road
Manchester	174	8%	Market St S - Bury Road - Whalley Road
Oldham	45	2%	Market St S - Bury Road - Whalley Road
E02001132 : Rochdale 001	2		Market St S - A680 Rochdale Road
E02001133 : Rochdale 002	2		Market St S - A680 Rochdale Road
E02001134 : Rochdale 003	1		Market St S - A680 Rochdale Road
E02001135 : Rochdale 004	4		Market St S - A680 Rochdale Road
E02001136 : Rochdale 005	6		Market St S - A680 Rochdale Road
E02001137 : Rochdale 006	3		Market St S - A680 Rochdale Road
E02001138 : Rochdale 007	2		Market St S - A680 Rochdale Road
E02001139 : Rochdale 008	7	4%	Market St S - A680 Rochdale Road
E02001140 : Rochdale 009	6		Market St S - A680 Rochdale Road
E02001141 : Rochdale 010	24		Market St S - A680 Rochdale Road
E02001142 : Rochdale 011	3		Market St S - A680 Rochdale Road
E02001143 : Rochdale 012	4		Market St S - A680 Rochdale Road
E02001145 : Rochdale 014	4		Market St S - A680 Rochdale Road
E02001146 : Rochdale 015	6		Market St S - A680 Rochdale Road
E02001147 : Rochdale 016	3		Market St S - A680 Rochdale Road
E02001148 : Rochdale 017	9		Market St S - A680 Rochdale Road
E02001149 : Rochdale 018	8		Market St S - Bury Road - Whalley Road
E02001150 : Rochdale 019	15	2%	Market St S - Bury Road - Whalley Road
E02001151 : Rochdale 020	16		Market St S - Bury Road - Whalley Road
E02001152 : Rochdale 021	2		Market St S - A680 Rochdale Road
E02001153 : Rochdale 022	1	1%	Market St S - A680 Rochdale Road
E02001154 : Rochdale 023	2		Market St S - A680 Rochdale Road
E02001155 : Rochdale 024	15		Market St S - A680 Rochdale Road
Salford	66	3%	Market St S - Bury Road - Whalley Road
Stockport	24	1%	Market St S - Bury Road - Whalley Road
Tameside	36	2%	Market St S - Bury Road - Whalley Road
Trafford	64	3%	Market St S - Bury Road - Whalley Road
Wigan	12	1%	Market St S - Bolton Road - Ramsbottom
Blackburn with Darwen	105	5%	Market St S - Bolton Road - A56 (N)
Burnley	103	5%	Market St S - Bolton Road - A56 (N)
Hyndburn	99	4%	Market St S - Bolton Road - A56 (N)
Pendle	64	3%	Market St S - Bolton Road - A56 (N)
Other	214		
Total	**2245**		

APPENDIX 4

Capacity Analysis

Junctions 9

ARCADY 9 - Roundabout Module

Filename: Bury Road - Rochdale Road Mini.j9
Path: Z:\projects\1537 Market Street, Edenfield\Arcady
Report generation date: 25/10/2018 15:12:55

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Base Flows							
Arm 1	1.8	10.54	0.64	B	0.5	5.95	0.34	A
Arm 2	6.7	43.14	0.88	E	2.4	15.77	0.71	C
Arm 3	0.9	8.00	0.47	A	4.9	27.65	0.84	D
	2034 Base Flows							
Arm 1	2.0	11.41	0.66	B	0.5	6.10	0.35	A
Arm 2	9.5	59.58	0.92	F	2.7	17.13	0.73	C
Arm 3	1.0	8.33	0.49	A	6.1	33.54	0.87	D
	2024 With Allocation Flows							
Arm 1	2.4	12.96	0.71	B	0.6	6.28	0.37	A
Arm 2	10.7	69.12	0.93	F	2.7	17.63	0.74	C
Arm 3	1.0	8.32	0.49	A	11.4	59.13	0.93	F
	2034 With Allocation Flows							
Arm 1	2.7	14.25	0.73	B	0.6	6.44	0.39	A
Arm 2	17.2	106.42	0.97	F	3.1	19.49	0.76	C
Arm 3	1.0	8.65	0.51	A	16.6	83.82	0.97	F

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	17/10/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	Cadworkstation4\Kyle
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2024 Base Flows	AM	FLAT	08:00	09:00	60	15
D2	2024 Base Flows	PM	FLAT	17:00	18:00	60	15
D3	2034 Base Flows	AM	FLAT	08:00	09:00	60	15
D4	2034 Base Flows	PM	FLAT	17:00	18:00	60	15
D5	2024 With Allocation Flows	AM	FLAT	08:00	09:00	60	15
D6	2024 With Allocation Flows	PM	FLAT	17:00	18:00	60	15
D7	2034 With Allocation Flows	AM	FLAT	08:00	09:00	60	15
D8	2034 With Allocation Flows	PM	FLAT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2024 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	21.95	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	Bury Road (N)	
2	Rochdale Road	
3	Bury Road (S)	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	4.20	4.20	6.30	7.2	15.00	8.00	0.0	
2	2.70	2.70	4.30	7.0	15.00	5.00	0.0	
3	4.80	4.80	4.80	0.0	15.00	3.00	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.678	1125
2	0.614	896
3	0.658	994

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2024 Base Flows	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	604	100.000
2		✓	590	100.000
3		✓	402	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	3	239	362
	2	212	0	378
	3	137	261	4

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.64	10.54	1.8	B
2	0.88	43.14	6.7	E
3	0.47	8.00	0.9	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	604	263	947	0.638	597	1.7	10.107	B
2	590	365	672	0.878	568	5.5	30.177	D
3	402	207	858	0.469	399	0.9	7.792	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	604	265	945	0.639	604	1.7	10.531	B
2	590	369	670	0.881	587	6.2	40.660	E
3	402	214	853	0.471	402	0.9	7.982	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	604	265	945	0.639	604	1.7	10.538	B
2	590	369	670	0.881	589	6.6	42.373	E
3	402	215	853	0.471	402	0.9	7.993	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	604	265	945	0.639	604	1.8	10.540	B
2	590	369	670	0.881	589	6.7	43.136	E
3	402	215	852	0.472	402	0.9	7.996	A

2024 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	18.94	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2024 Base Flows	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	309	100.000
2		✓	559	100.000
3		✓	664	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	9	131	169
	2	297	0	262
	3	352	312	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.34	5.95	0.5	A
2	0.71	15.77	2.4	C
3	0.84	27.65	4.9	D

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	309	304	919	0.336	307	0.5	5.863	A
2	559	177	788	0.710	550	2.3	14.622	B
3	664	301	796	0.835	647	4.3	22.117	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	309	311	914	0.338	309	0.5	5.949	A
2	559	178	787	0.710	559	2.4	15.725	C
3	664	306	792	0.838	662	4.7	27.000	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	309	312	914	0.338	309	0.5	5.952	A
2	559	178	787	0.710	559	2.4	15.759	C
3	664	306	792	0.838	663	4.9	27.468	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	309	312	914	0.338	309	0.5	5.953	A
2	559	178	787	0.710	559	2.4	15.772	C
3	664	306	792	0.838	664	4.9	27.647	D

2034 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	28.42	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D3	2034 Base Flows	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	624	100.000
2		✓	609	100.000
3		✓	416	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	3	247	374
	2	219	0	390
	3	142	270	4

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.66	11.41	2.0	B
2	0.92	59.58	9.5	F
3	0.49	8.33	1.0	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	624	272	941	0.663	616	1.9	10.856	B
2	609	376	665	0.916	581	6.9	35.692	E
3	416	212	854	0.487	412	0.9	8.078	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	624	274	939	0.664	624	1.9	11.396	B
2	609	381	662	0.919	603	8.4	53.003	F
3	416	220	849	0.490	416	0.9	8.309	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	624	274	939	0.664	624	2.0	11.408	B
2	609	381	662	0.920	606	9.1	57.318	F
3	416	221	848	0.490	416	1.0	8.324	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	624	274	939	0.664	624	2.0	11.410	B
2	609	381	662	0.920	607	9.5	59.581	F
3	416	221	848	0.491	416	1.0	8.330	A

2034 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	22.01	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D4	2034 Base Flows	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	318	100.000
2		✓	574	100.000
3		✓	682	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	10	135	173
	2	305	0	269
	3	362	320	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.35	6.10	0.5	A
2	0.73	17.13	2.7	C
3	0.87	33.54	6.1	D

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	318	310	915	0.348	316	0.5	5.992	A
2	574	182	785	0.732	564	2.6	15.667	C
3	682	310	790	0.863	661	5.1	25.003	D

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	318	319	909	0.350	318	0.5	6.092	A
2	574	183	784	0.732	574	2.6	17.061	C
3	682	315	787	0.867	680	5.7	32.209	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	318	320	908	0.350	318	0.5	6.096	A
2	574	183	784	0.732	574	2.7	17.110	C
3	682	315	787	0.867	681	6.0	33.153	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	318	320	908	0.350	318	0.5	6.098	A
2	574	183	784	0.732	574	2.7	17.129	C
3	682	315	786	0.867	681	6.1	33.536	D

2024 With Allocation Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	31.60	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D5	2024 With Allocation Flows	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	668	100.000
2		✓	592	100.000
3		✓	419	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	3	247	418
	2	214	0	378
	3	154	261	4

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.71	12.96	2.4	B
2	0.93	69.12	10.7	F
3	0.49	8.32	1.0	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	668	263	947	0.705	659	2.3	12.141	B
2	592	419	639	0.927	563	7.4	38.501	E
3	419	206	858	0.488	415	0.9	8.064	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	668	265	945	0.707	668	2.3	12.935	B
2	592	425	635	0.932	585	9.2	59.530	F
3	419	214	853	0.491	419	1.0	8.297	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	668	265	945	0.707	668	2.4	12.956	B
2	592	425	635	0.932	588	10.1	65.675	F
3	419	216	852	0.492	419	1.0	8.314	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	668	265	945	0.707	668	2.4	12.964	B
2	592	425	635	0.932	590	10.7	69.116	F
3	419	216	852	0.492	419	1.0	8.321	A

2024 With Allocation Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	33.87	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D6	2024 With Allocation Flows	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	341	100.000
2		✓	566	100.000
3		✓	736	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	9	135	197
	2	304	0	262
	3	424	312	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.37	6.28	0.6	A
2	0.74	17.63	2.7	C
3	0.93	59.13	11.4	F

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	341	298	923	0.370	339	0.6	6.138	A
2	566	205	771	0.735	556	2.6	16.065	C
3	736	307	791	0.930	704	8.0	33.714	D

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	341	309	916	0.372	341	0.6	6.264	A
2	566	206	770	0.735	566	2.7	17.553	C
3	736	313	788	0.934	729	9.9	51.524	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	341	310	915	0.373	341	0.6	6.275	A
2	566	206	770	0.735	566	2.7	17.611	C
3	736	313	788	0.934	732	10.8	56.442	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	341	311	914	0.373	341	0.6	6.279	A
2	566	206	770	0.735	566	2.7	17.630	C
3	736	313	788	0.934	734	11.4	59.134	F

2034 With Allocation Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	45.40	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D7	2034 With Allocation Flows	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	687	100.000
2		✓	611	100.000
3		✓	432	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	3	254	430
	2	221	0	390
	3	158	270	4

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.73	14.25	2.7	B
2	0.97	106.42	17.2	F
3	0.51	8.65	1.0	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	687	271	941	0.730	677	2.6	13.161	B
2	611	431	632	0.967	572	9.6	46.256	E
3	432	210	856	0.505	428	1.0	8.343	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	687	274	939	0.731	687	2.6	14.202	B
2	611	437	628	0.973	597	13.1	80.717	F
3	432	219	850	0.508	432	1.0	8.612	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	687	274	939	0.731	687	2.7	14.237	B
2	611	437	628	0.973	602	15.4	95.810	F
3	432	221	849	0.509	432	1.0	8.639	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	687	274	939	0.731	687	2.7	14.248	B
2	611	437	628	0.973	604	17.2	106.421	F
3	432	221	848	0.509	432	1.0	8.652	A

2034 With Allocation Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	45.53	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D8	2034 With Allocation Flows	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	351	100.000
2		✓	582	100.000
3		✓	754	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	10	139	202
	2	313	0	269
	3	434	320	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.39	6.44	0.6	A
2	0.76	19.49	3.1	C
3	0.97	83.82	16.6	F

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	351	303	920	0.382	349	0.6	6.278	A
2	582	211	767	0.759	570	2.9	17.423	C
3	754	317	785	0.960	714	10.0	39.231	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	351	315	912	0.385	351	0.6	6.418	A
2	582	212	766	0.760	582	3.0	19.373	C
3	754	323	781	0.965	741	13.2	66.255	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	351	317	910	0.386	351	0.6	6.434	A
2	582	212	766	0.760	582	3.1	19.462	C
3	754	323	781	0.965	746	15.2	76.838	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	351	318	910	0.386	351	0.6	6.442	A
2	582	212	766	0.760	582	3.1	19.495	C
3	754	323	781	0.965	748	16.6	83.818	F

APPENDIX 5

Sensitivity Capacity Analysis

Junctions 9

ARCADY 9 - Roundabout Module

Filename: Bury Road - Rochdale Road Mini - ST.j9
Path: Z:\projects\1537 Market Street, Edenfield\Arcady
Report generation date: 25/10/2018 15:03:07

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	2024 Base Flows							
Arm 1	1.8	10.54	0.64	B	0.5	5.95	0.34	A
Arm 2	6.7	43.14	0.88	E	2.4	15.77	0.71	C
Arm 3	0.9	8.00	0.47	A	4.9	27.65	0.84	D
	2034 Base Flows							
Arm 1	2.0	11.41	0.66	B	0.5	6.10	0.35	A
Arm 2	9.5	59.58	0.92	F	2.7	17.13	0.73	C
Arm 3	1.0	8.33	0.49	A	6.1	33.54	0.87	D
	2024 With Allocation Flows ST							
Arm 1	2.7	14.13	0.73	B	0.6	6.44	0.39	A
Arm 2	13.7	87.73	0.95	F	2.9	18.63	0.75	C
Arm 3	1.0	8.68	0.51	A	17.1	85.46	0.97	F
	2034 With Allocation Flows ST							
Arm 1	3.1	15.73	0.76	C	0.7	6.58	0.40	A
Arm 2	23.0	139.71	1.00	F	3.3	20.60	0.77	C
Arm 3	1.1	9.02	0.53	A	25.3	120.86	0.99	F

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	
Location	
Site number	
Date	17/10/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	Cadworkstation4\Kyle
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Mini-roundabout model	Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
JUNCTIONS 9			0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2024 Base Flows	AM	FLAT	08:00	09:00	60	15
D2	2024 Base Flows	PM	FLAT	17:00	18:00	60	15
D3	2034 Base Flows	AM	FLAT	08:00	09:00	60	15
D4	2034 Base Flows	PM	FLAT	17:00	18:00	60	15
D5	2024 With Allocation Flows ST	AM	FLAT	08:00	09:00	60	15
D6	2024 With Allocation Flows ST	PM	FLAT	17:00	18:00	60	15
D7	2034 With Allocation Flows ST	AM	FLAT	08:00	09:00	60	15
D8	2034 With Allocation Flows ST	PM	FLAT	17:00	18:00	60	15

Analysis Set Details

ID	Network flow scaling factor (%)
A1	100.000

2024 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	21.95	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Arms

Arms

Arm	Name	Description
1	Bury Road (N)	
2	Rochdale Road	
3	Bury Road (S)	

Mini Roundabout Geometry

Arm	Approach road half-width (m)	Minimum approach road half-width (m)	Entry width (m)	Effective flare length (m)	Distance to next arm (m)	Entry corner kerb line distance (m)	Gradient over 50m (%)	Kerbed central island
1	4.20	4.20	6.30	7.2	15.00	8.00	0.0	
2	2.70	2.70	4.30	7.0	15.00	5.00	0.0	
3	4.80	4.80	4.80	0.0	15.00	3.00	0.0	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1	0.678	1125
2	0.614	896
3	0.658	994

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D1	2024 Base Flows	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	604	100.000
2		✓	590	100.000
3		✓	402	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	3	239	362
	2	212	0	378
	3	137	261	4

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.64	10.54	1.8	B
2	0.88	43.14	6.7	E
3	0.47	8.00	0.9	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	604	263	947	0.638	597	1.7	10.107	B
2	590	365	672	0.878	568	5.5	30.177	D
3	402	207	858	0.469	399	0.9	7.792	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	604	265	945	0.639	604	1.7	10.531	B
2	590	369	670	0.881	587	6.2	40.660	E
3	402	214	853	0.471	402	0.9	7.982	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	604	265	945	0.639	604	1.7	10.538	B
2	590	369	670	0.881	589	6.6	42.373	E
3	402	215	853	0.471	402	0.9	7.993	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	604	265	945	0.639	604	1.8	10.540	B
2	590	369	670	0.881	589	6.7	43.136	E
3	402	215	852	0.472	402	0.9	7.996	A

2024 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	18.94	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D2	2024 Base Flows	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	309	100.000
2		✓	559	100.000
3		✓	664	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	9	131	169
	2	297	0	262
	3	352	312	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.34	5.95	0.5	A
2	0.71	15.77	2.4	C
3	0.84	27.65	4.9	D

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	309	304	919	0.336	307	0.5	5.863	A
2	559	177	788	0.710	550	2.3	14.622	B
3	664	301	796	0.835	647	4.3	22.117	C

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	309	311	914	0.338	309	0.5	5.949	A
2	559	178	787	0.710	559	2.4	15.725	C
3	664	306	792	0.838	662	4.7	27.000	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	309	312	914	0.338	309	0.5	5.952	A
2	559	178	787	0.710	559	2.4	15.759	C
3	664	306	792	0.838	663	4.9	27.468	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	309	312	914	0.338	309	0.5	5.953	A
2	559	178	787	0.710	559	2.4	15.772	C
3	664	306	792	0.838	664	4.9	27.647	D

2034 Base Flows, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	28.42	D

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D3	2034 Base Flows	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	624	100.000
2		✓	609	100.000
3		✓	416	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	3	247	374
	2	219	0	390
	3	142	270	4

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.66	11.41	2.0	B
2	0.92	59.58	9.5	F
3	0.49	8.33	1.0	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	624	272	941	0.663	616	1.9	10.856	B
2	609	376	665	0.916	581	6.9	35.692	E
3	416	212	854	0.487	412	0.9	8.078	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	624	274	939	0.664	624	1.9	11.396	B
2	609	381	662	0.919	603	8.4	53.003	F
3	416	220	849	0.490	416	0.9	8.309	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	624	274	939	0.664	624	2.0	11.408	B
2	609	381	662	0.920	606	9.1	57.318	F
3	416	221	848	0.490	416	1.0	8.324	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	624	274	939	0.664	624	2.0	11.410	B
2	609	381	662	0.920	607	9.5	59.581	F
3	416	221	848	0.491	416	1.0	8.330	A

2034 Base Flows, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	22.01	C

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D4	2034 Base Flows	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	318	100.000
2		✓	574	100.000
3		✓	682	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	10	135	173
	2	305	0	269
	3	362	320	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.35	6.10	0.5	A
2	0.73	17.13	2.7	C
3	0.87	33.54	6.1	D

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	318	310	915	0.348	316	0.5	5.992	A
2	574	182	785	0.732	564	2.6	15.667	C
3	682	310	790	0.863	661	5.1	25.003	D

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	318	319	909	0.350	318	0.5	6.092	A
2	574	183	784	0.732	574	2.6	17.061	C
3	682	315	787	0.867	680	5.7	32.209	D

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	318	320	908	0.350	318	0.5	6.096	A
2	574	183	784	0.732	574	2.7	17.110	C
3	682	315	787	0.867	681	6.0	33.153	D

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	318	320	908	0.350	318	0.5	6.098	A
2	574	183	784	0.732	574	2.7	17.129	C
3	682	315	786	0.867	681	6.1	33.536	D

2024 With Allocation Flows ST, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	38.15	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D5	2024 With Allocation Flows ST	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	691	100.000
2		✓	594	100.000
3		✓	436	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	3	249	439
	2	216	0	378
	3	171	261	4

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.73	14.13	2.7	B
2	0.95	87.73	13.7	F
3	0.51	8.68	1.0	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	691	263	947	0.730	681	2.6	13.064	B
2	594	439	626	0.948	560	8.5	42.831	E
3	436	207	858	0.508	432	1.0	8.377	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	691	265	945	0.731	691	2.6	14.088	B
2	594	446	623	0.954	584	11.0	70.812	F
3	436	215	852	0.512	436	1.0	8.645	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	691	265	945	0.731	691	2.7	14.119	B
2	594	446	622	0.954	588	12.6	81.163	F
3	436	217	851	0.512	436	1.0	8.669	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	691	265	945	0.731	691	2.7	14.131	B
2	594	446	622	0.954	590	13.7	87.730	F
3	436	217	851	0.513	436	1.0	8.680	A

2024 With Allocation Flows ST, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	46.19	E

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D6	2024 With Allocation Flows ST	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	356	100.000
2		✓	569	100.000
3		✓	760	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	9	137	210
	2	307	0	262
	3	448	312	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.39	6.44	0.6	A
2	0.75	18.63	2.9	C
3	0.97	85.46	17.1	F

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	356	295	925	0.385	354	0.6	6.275	A
2	569	217	763	0.746	558	2.7	16.810	C
3	760	310	790	0.962	719	10.2	39.521	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	356	307	917	0.388	356	0.6	6.413	A
2	569	219	762	0.747	569	2.8	18.527	C
3	760	316	786	0.967	747	13.5	67.129	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	356	309	916	0.389	356	0.6	6.429	A
2	569	219	762	0.747	569	2.9	18.600	C
3	760	316	786	0.967	752	15.6	78.118	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	356	310	915	0.389	356	0.6	6.436	A
2	569	219	762	0.747	569	2.9	18.625	C
3	760	316	786	0.967	754	17.1	85.457	F

2034 With Allocation Flows ST, AM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	56.90	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D7	2034 With Allocation Flows ST	AM	FLAT	08:00	09:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	711	100.000
2		✓	613	100.000
3		✓	449	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	3	257	451
	2	223	0	390
	3	175	270	4

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.76	15.73	3.1	C
2	1.00	139.71	23.0	F
3	0.53	9.02	1.1	A

Main Results for each time segment

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	711	271	941	0.756	699	2.9	14.288	B
2	613	451	620	0.989	568	11.1	51.660	F
3	449	210	856	0.525	445	1.1	8.670	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	711	274	939	0.757	711	3.0	15.661	C
2	613	458	615	0.996	593	16.1	96.632	F
3	449	219	850	0.528	449	1.1	8.974	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	711	274	939	0.757	711	3.0	15.715	C
2	613	458	615	0.997	598	19.9	120.672	F
3	449	221	849	0.529	449	1.1	9.005	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	711	274	939	0.757	711	3.1	15.733	C
2	613	458	615	0.997	601	23.0	139.712	F
3	449	221	848	0.529	449	1.1	9.019	A

2034 With Allocation Flows ST, PM

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	untitled	Mini-roundabout		1, 2, 3	62.73	F

Junction Network Options

Driving side	Lighting	Road surface	In London
Left	Normal/unknown	Normal/unknown	

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time period length (min)	Time segment length (min)
D8	2034 With Allocation Flows ST	PM	FLAT	17:00	18:00	60	15

Vehicle mix source	PCU Factor for a HV (PCU)
HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1		✓	365	100.000
2		✓	584	100.000
3		✓	776	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		1	2	3
From	1	10	140	215
	2	315	0	269
	3	456	320	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		1	2	3
From	1	0	0	0
	2	0	0	0
	3	0	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.40	6.58	0.7	A
2	0.77	20.60	3.3	C
3	0.99	120.86	25.3	F

Main Results for each time segment

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	365	299	922	0.396	362	0.6	6.403	A
2	584	223	759	0.769	572	3.1	18.206	C
3	776	318	784	0.989	726	12.5	45.387	E

17:15 - 17:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	365	311	914	0.399	365	0.7	6.554	A
2	584	225	758	0.770	583	3.2	20.443	C
3	776	325	780	0.995	754	17.9	84.466	F

17:30 - 17:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	365	313	913	0.400	365	0.7	6.573	A
2	584	225	758	0.770	584	3.2	20.558	C
3	776	325	780	0.995	760	21.9	104.853	F

17:45 - 18:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1	365	315	912	0.400	365	0.7	6.582	A
2	584	225	758	0.770	584	3.3	20.596	C
3	776	325	780	0.995	763	25.3	120.858	F

CROFT

Croft Transport Solutions

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APPENDIX 5 - EDENFIELD ALLOCATION – EDUCATION REPORT

Education Report

Land West of Market Street, Edenfield, Rossendale

Taylor Wimpey

BEN HUNTER
BA DipMS

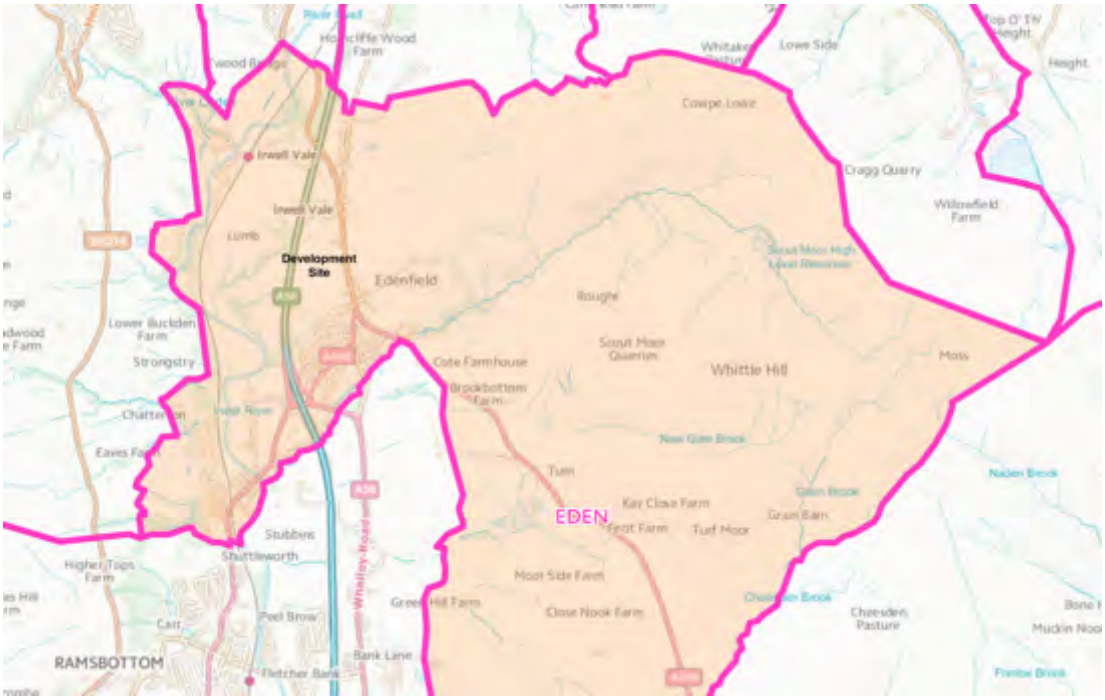
Mobile: E-Mail:

1.0 Introduction

1.1 This report relates to a proposed development of approximately 400 dwellings on land west of Market Street, Edenfield, Rossendale. Edenfield is a village 1 mile north of Ramsbottom, 2.5 miles south of Rawtenstall, and 6 miles west of Norden. The approximate development outline can be seen below in Map 1:

Map 1: Proposed Development Site

1.2 The development is located the north west of the Eden Ward ("the Ward") within the Rossendale Borough Council ("RBC") planning area. The Education Authority for the area is Lancashire County Council ("LCC"). The Ward boundaries, and the development's location within the Ward, can be seen below in Map 2:



Map 2: Ward Boundaries

1.3 This note looks in detail at the trends in dwelling delivery, of births and the age of the population over the last decade to create a context for this proposed development. The history of dwelling delivery identifies the likely proportion of new households, which are characterised by a younger population. The trend in birth numbers, too, is often linked to dwelling delivery and if rising, to younger populations. Births also indicate the future demand for school places. Finally, the trend in the median age of the population is an indicator of the nature of the area and how sustainable it is. The assumption is that the population should reflect national norms, which includes its ageing. When the balance of dwelling delivery does not maintain the median age of the population at around the national norm, there are implications for social infrastructure.

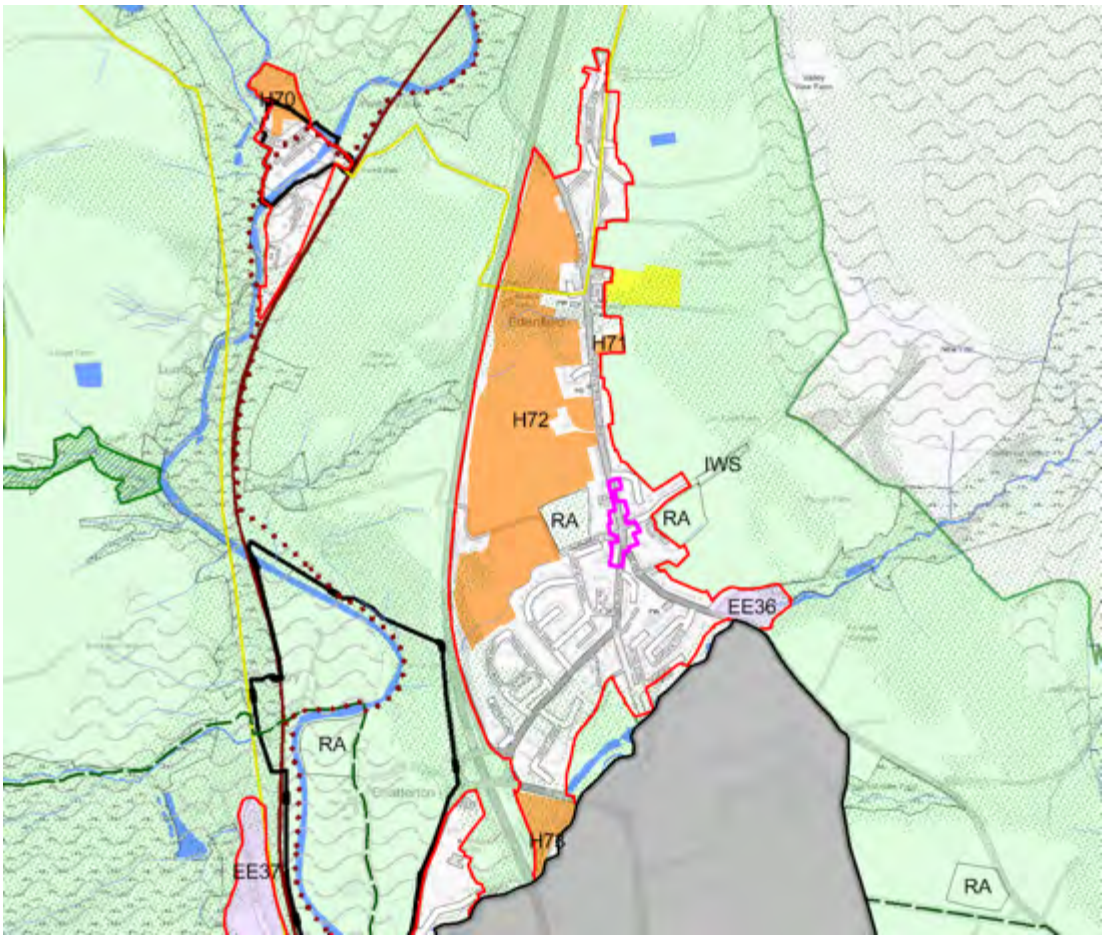
1.4 Existing local schools are identified and mapped with Google Earth, providing the approximate walking distances from the proposed development. The relevant schools, having been sorted by distance, are then described for capacity, numbers of pupils by age, and occupancy levels, all at January 2019 (the academic year 2018/19).

1.5 RBC is currently working on updating their Local Plan. The Council submitted the Rossendale Local Plan 2019-2034 to the Planning Inspectorate on Monday 25th March 2019. Policy HS3 of the emerging Local Plan covers Edenfield. This development is Housing Allocation H72:

Housing Allocation Ref.	Site name	Net developable area (ha)	No. of units proposed	Density (dwellings per hectare)	Delivery Timescale	Greenfield/Brownfield	Allocation	Policy
H72	Land west of Market Street, Edenfield	15.25	400	26	Years 6-15	Mixed but largely greenfield	Housing	HS3

Table 1: Policy H72 in RBC Emerging Local Plan

1.6 The location of the development within Edenfield can be seen in the RBC Policy Map below:



Map 3: RBC Policy Map - Edenfield

1.7 RBC does not have an adopted Community Infrastructure Levy ("CIL"). Policy SD3 of the Emerging Local Plan discusses Planning Obligations, and states the following:

Policy SD3: Planning Obligations

Where developments will create demands for additional services, facilities and infrastructure or exacerbate an existing deficiency the Council may seek a contribution or legal agreement to address this issue where it cannot be suitably addressed through the use of planning conditions or other mechanisms. Where sought such contributions will reflect the most up to date national guidance and may include, but not exclusively, the following issues:

- Affordable Housing
- Public Open Space
- Green infrastructure
- Sustainable transport
- Schools and Educational facilities
- Health infrastructure
- Sports and recreation facilities

1.8 Accordingly it is assumed that any development mitigation will be delivered via Section 106 Planning Obligation. This report continues on that basis.

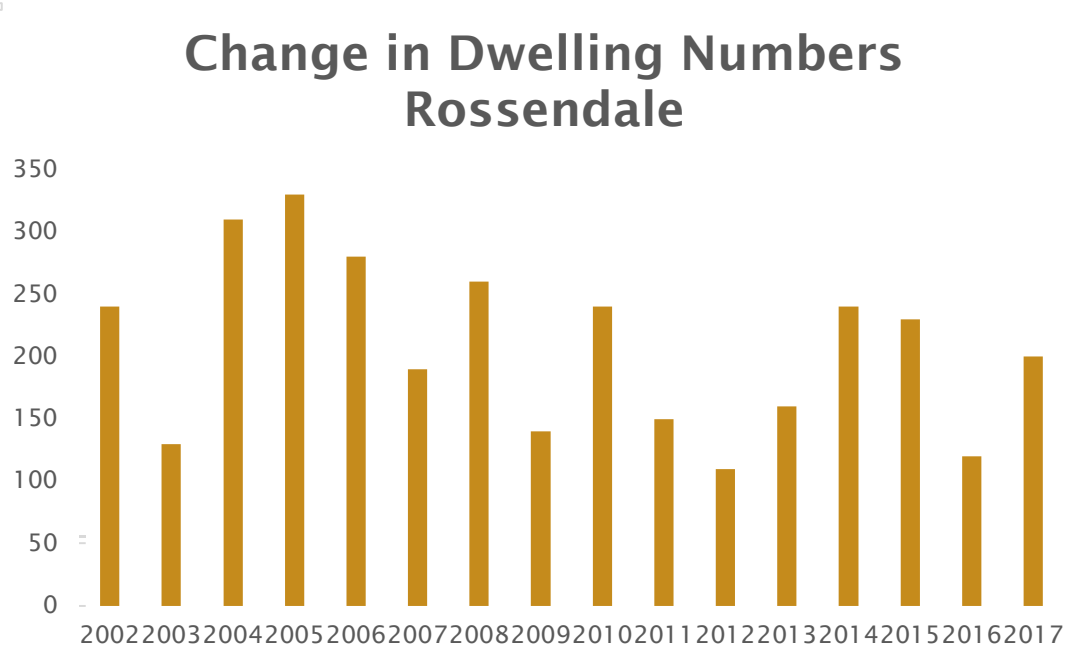
2.0 Dwellings

2.1 In 2017, the RBC administrative area consisted of 31,910 dwellings, according to Council Tax Returns from the Office for National Statistics. In 2001 the area consisted of 28,580 dwellings, indicating an increase of 3,330 dwellings (11.7%) in the seventeen-year period. This is an average of 196 new dwellings per year. The increase per year can be seen below on Table 2:

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
28,580	28,820	28,950	29,260	29,590	29,870	30,060	30,320	30,460	30,700	30,850	30,960	31,120	31,360	31,590	31,710	31,910

Table 2: Occupied Dwellings in RBC

2.2 From a trend perspective, the change per annum has been relatively consistent. The peak of housing delivery was between 2004-2006, with 2005 seeing the highest number of new dwellings at 330. The lowest number of dwellings was seen in 2012 at 110. New dwelling delivery has never dropped below 100 per annum, and only exceeded 300 twice in the period reviewed. This can be seen below in Graph 1:



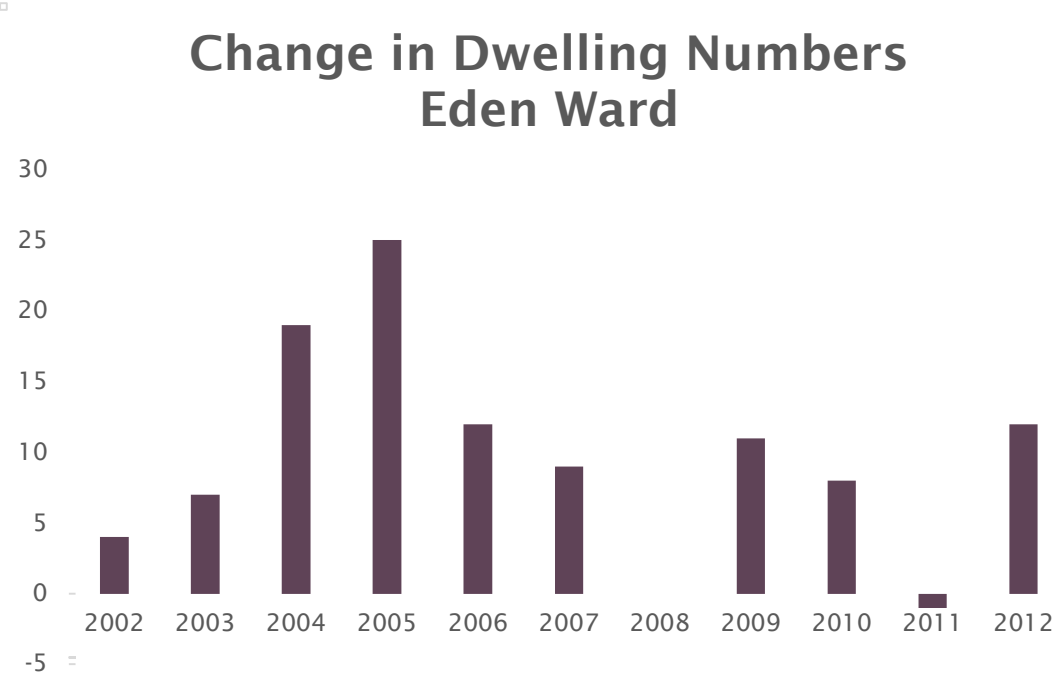
Graph 1: Change in Dwellings RBC

2.3 From a Ward perspective, new dwelling delivery has been very low, and in some years non-existent. 2008 saw no change on the previous year, and 2011 actually saw a decrease in the number of dwellings in the Ward. Dwelling delivery peaked in 2005 at 25 showing that dwelling delivery has been insignificant.

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1,524	1,528	1,535	1,554	1,579	1,591	1,600	1,600	1,611	1,619	1,618	1,630

Table 3: Dwelling Numbers – The Ward

2.4 The change in dwelling numbers between 2001 and 2012 can be seen below. The average number of new dwellings per year was 9 per annum:



Graph 2: Change in Dwellings – Eden Ward

2.5 By 2018 (according to Postcode Data from the Post Office) the number of dwellings had increased to just 1,642, or 12 additional dwellings in five years (just 2-3 dwellings per year on average). It's clear that the Ward has not seen any substantial development in the current or previous decade.

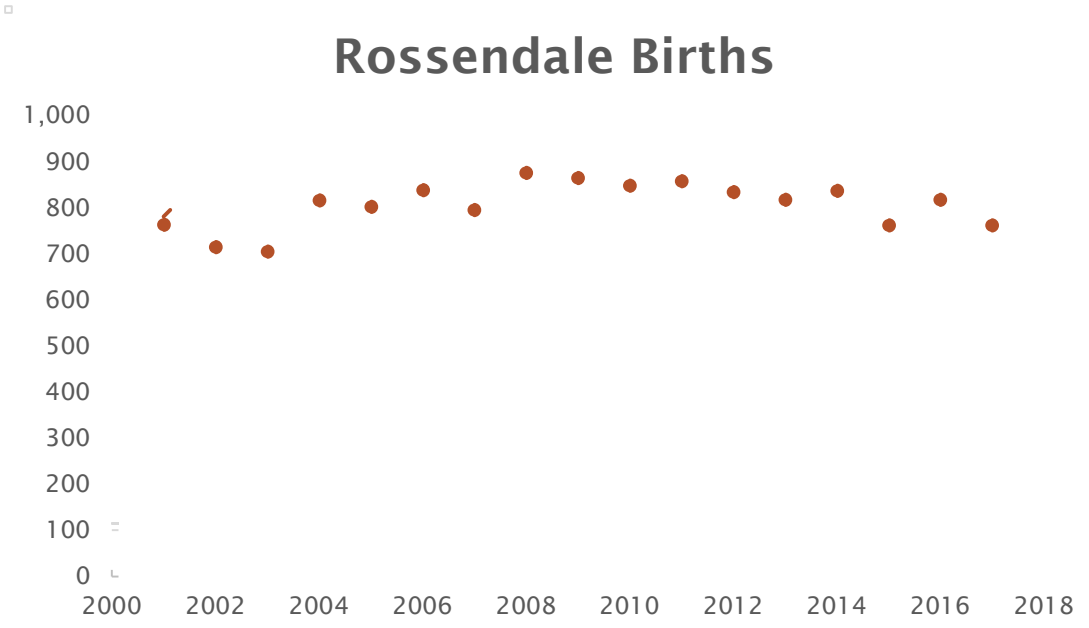
3.0 Births

3.1 When looking at births in the RBC administrative area over the same period, the numbers have been reasonably consistent. Births have not dropped below 700; 2003 saw the lowest number of births at 706. Births have not exceeded 900; 2008 saw the highest number of births at 876. The average number of births per annum was 807.

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
764	715	706	817	803	839	796	876	865	849	859	835	818	837	763	818	763

Table 4: New Live Births - RBC

3.2 Graph 3 plots the births across the review period. It demonstrates a slightly rising trend, but generally consistent:



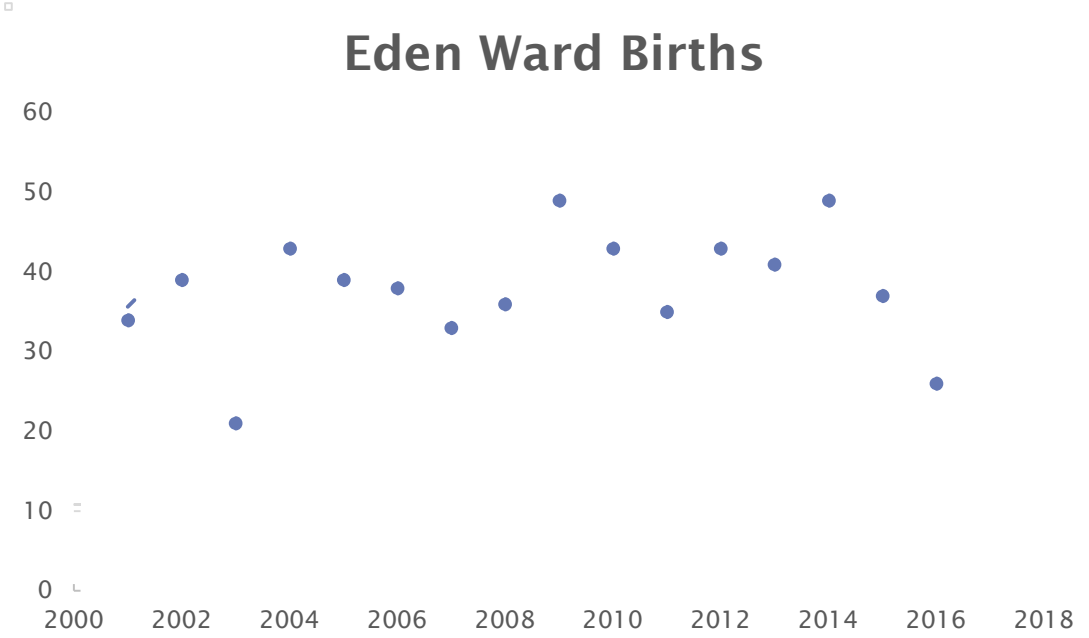
Graph 3: New Live Births - RBC

3.3 From a Ward perspective, births have also been consistent although at much lower numbers. 2009 and 2014 both saw the highest number of births at 49. Births have never exceeded this number in the review period. The lowest number of births in the Ward was seen in 2003 at 21. The average number of births per year was 38:

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
34	39	21	43	39	38	33	36	49	43	35	43	41	49	37	26

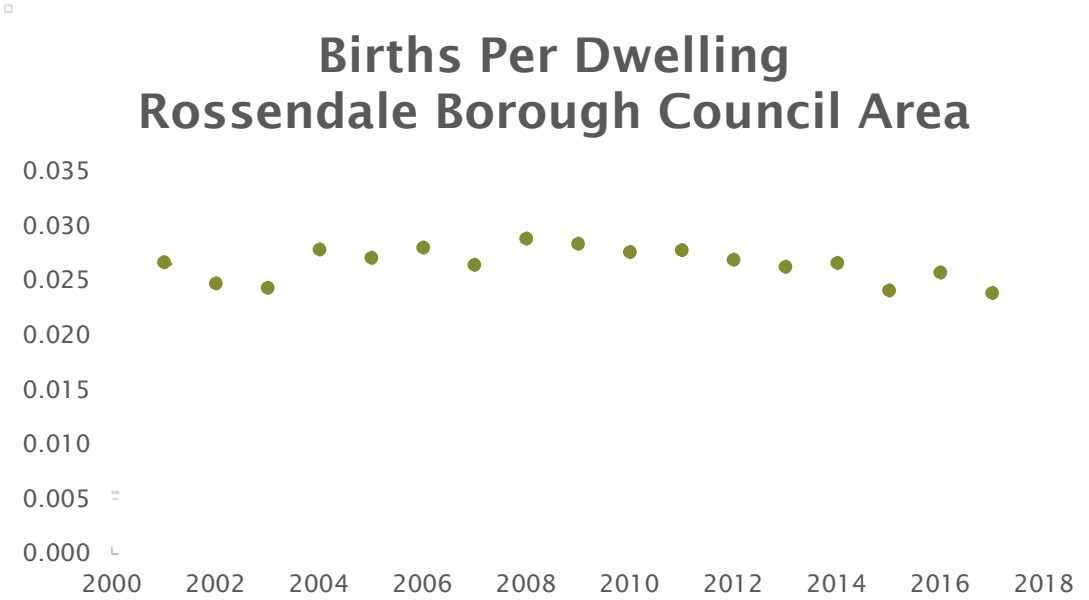
Table 5: New Live Births – Eden Ward

3.4 Graph 4 plots the births across the review period. It demonstrates a slightly rising trend, but generally consistent, which concurs with the picture in the Borough:



Graph 4: New Live Births – Eden Ward

3.5 Graph 5 charts the average number of births per dwelling in the RBC area over the review period 2001-2017. This shows the highest numbers of births per dwelling were achieved between 2008 and 2011 before dropping off, but generally speaking the trend is one of consistency.



Graph 5: Births per Dwelling – RBC

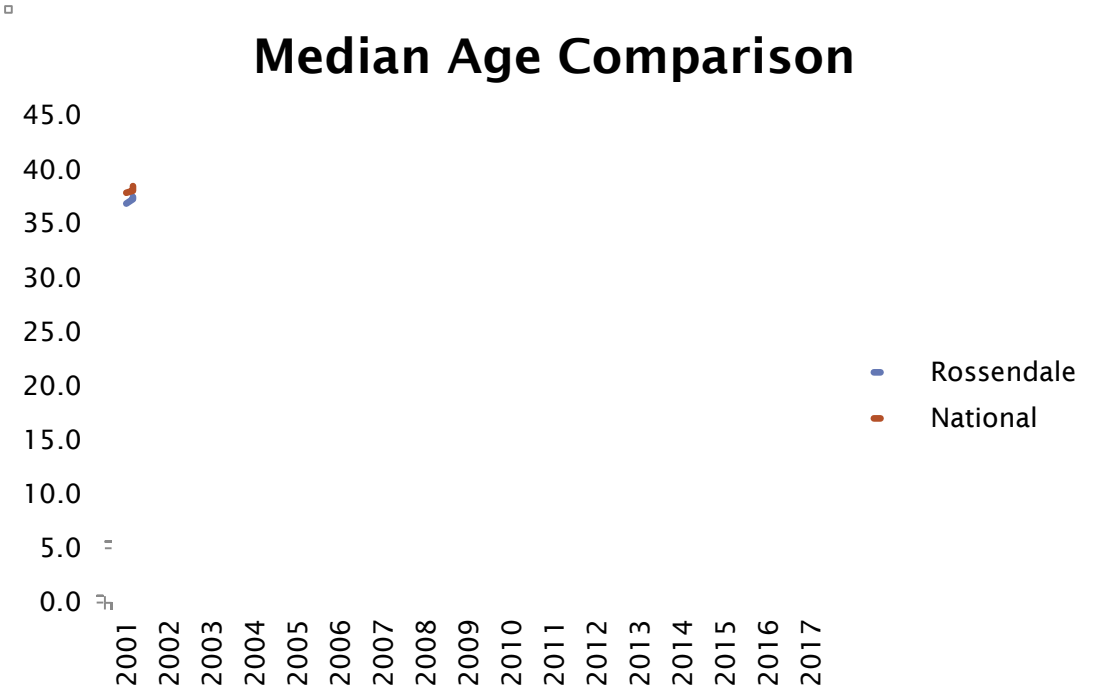
4.0 Age

4.1 From the Census in 2001, the median age of the population of RBC area was 1.0 year younger than the national picture. By 2017, this difference had changed to 1.2 year older than the national picture. This demonstrates that while the area has consistently been very similar to the national picture in terms of age profile, the RBC area is ageing slightly faster. However, as demonstrated in Table 6, the difference is negligible:

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Rossendale	36.9	37.3	37.6	37.9	38.1	38.4	38.7	39.2	39.4	39.6	40.0	40.2	40.5	40.7	40.9	41.2	41.5
National	37.9	38.1	38.4	38.6	38.8	39.0	39.2	39.3	39.5	39.7	39.9	40	40	40	40.2	40.2	40.3
Difference	1.0	0.8	0.8	0.7	0.7	0.6	0.5	0.1	0.1	0.1	-0.1	-0.2	-0.5	-0.7	-0.7	-1.0	-1.2

Table 6: Median Age RBC

4.2 Graph 6 demonstrates the change over the review period:



Graph 6: Median Age in RBC

4.3 From a Ward perspective, the Eden Ward had an average age of 38 in 2001, which was consistent with the national picture. By 2017, however, this had increased to 43.7, which is 3.5 years older than the national picture. This shows that Ward was ageing faster than both the Borough and nationally, and if it continues the birth rate

would be expected to drop due to lower fertility rates generally seen in older populations.

4.4 To summarise the demographic picture of the area: in the Borough, dwelling delivery is relatively consistent, births are rising, and the population is aged similarly to the nation as a whole; from a Ward perspective, housing growth is practically non-existent, births are steady and the area is ageing faster than the national picture.

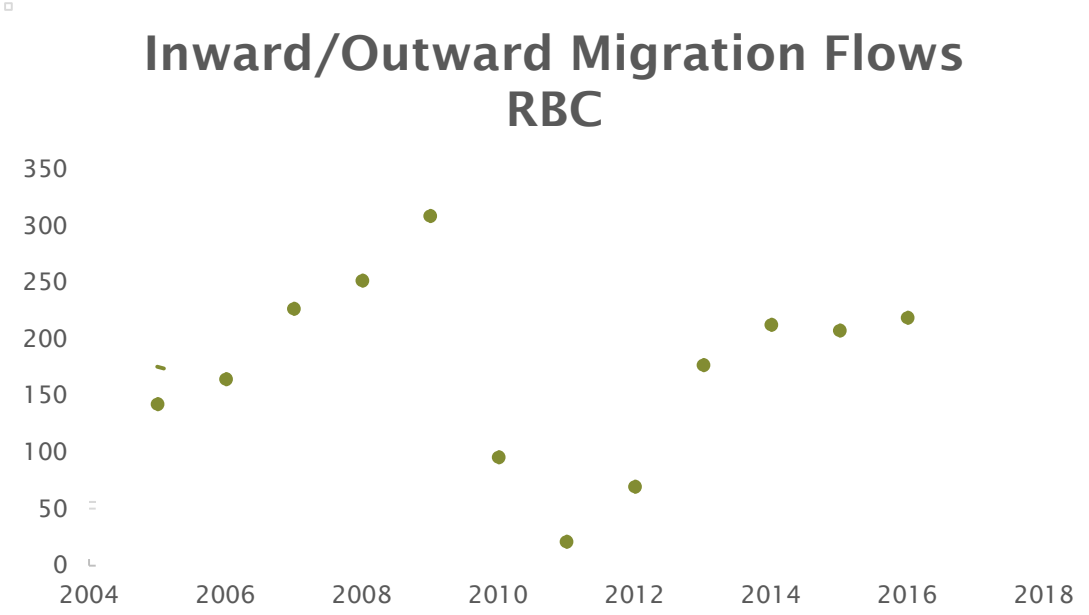
5.0 Migration

5.1 ONS estimate that between the financial years 2004/05 and 2016/17, the RBC area was a net importer of people, with every year seeing an increase of people into the administrative area. The average across the years was an additional 198 new people entering the area per annum, as shown below:

RBC	Mid Year Population	Long-Term International Migration		Internal Migration (within UK)			
Year	Estimate	Inflow	Outflow	Inflow	Outflow	Change	
2004/05	65,872	50	151	2,947	2,703	**143**	**0.22%**
2005/06	66,199	169	131	2,826	2,699	**165**	**0.25%**
2006/07	66,623	130	154	3,139	2,888	**227**	**0.34%**
2007/08	67,063	113	133	2,902	2,630	**252**	**0.38%**
2008/09	67,479	116	125	2,913	2,595	**309**	**0.46%**
2009/10	67,824	95	77	2,919	2,841	**96**	**0.14%**
2010/11	68,053	146	107	2,860	2,878	**21**	**0.03%**
2011/12	68,366	98	53	3,070	3,045	**70**	**0.10%**
2012/13	68,744	96	95	3,031	2,855	**177**	**0.26%**
2013/14	69,168	108	73	3,296	3,118	**213**	**0.31%**
2014/15	69,487	118	75	3,131	2,966	**208**	**0.30%**
2015/16	69,886	114	45	3,245	3,095	**219**	**0.31%**
2016/17	70,365	125	52	3,698	3,300	**471**	**0.67%**

Table 7: Migration Flows RBC (ONS)

5.2 From a trend perspective, whilst every year has seen a net influx of people, with varying numbers (between +471 to +21) the trend is one of consistency, as seen in Graph 7:



Graph 7: Inwards Migration Trend RBC

5.3 When looking at individual ages between 0-16 years (pre-school and school age) between the years of 2013 and 2018, RBC is generally a net importer of most age groups. From a 0-3-year-old perspective (Pre-school) the average was 4 children per annum (negligible numbers of no consequence to RBC). When looking at 4-10-year-old children (Primary age), this number increases to 18; and 11-15-year old children (Secondary age) 17 per year. Not particularly large numbers. What is evident is that generally speaking parents do not like moving house with 0-year-old children, as shown below:

	NET MIGRATION children						
Age	2013	2014	2015	2016	2017	2018	Average
0	-4	2	5	12	-19	-5	-2
1	-2	17	2	7	-27	6	1
2	5	22	-3	-27	-45	29	-3
3	4	10	18	-2	-17	33	8
4	13	-13	-10	34	-16	-18	-2
5	16	-2	14	-1	-14	13	4
6	4	4	14	1	-19	3	1
7	10	-2	1	-28	-35	23	-5
8	0	21	5	-1	-18	17	4
9	12	14	17	43	-3	8	15
10	5	5	-1	5	-19	8	1
11	-1	17	-6	-22	-35	-4	-9
12	7	6	11	11	-4	12	7
13	24	4	7	11	-3	24	11
14	2	3	-5	8	-8	8	1
15	16	3	24	17	-3	-21	6
16	0	-9	6	2	-8	3	-1
0-3	3	51	22	-10	-108	63	4
4-10.	60	27	40	53	-124	54	18
11-15.	48	33	31	25	-53	19	17

Table 8: Migration Flows RBC (ONS)

5.4 When looking at the 2014 Population Projections for the RBC area, in 2014 the number of people equated to 69,200. This is expected to increase to 74,900 in 2039. This is an increase of 5,700 over the 25-period shown in Table 9, or an average of 228 per annum. The number of households is expected to increase from 29,735 in 2014 to 33,777 in 2039. This is an additional 4,042 in the 25-year period, or 162 per annum. Finally, the average household size is expected to fall from 2.33 to 2.22 in the same time period[1]:

[1] The 2016 based forecasts tell the same story albeit at a slightly lower rate. For town planning purposes, the Government position is to retain the 2014 based forecasts.

Area	ROSSENDALE												
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Population	69200	69400	69700	70000	70400	70700	71000	71400	71700	72000	72300	72500	72700
Households	29735	29924	30115	30309	30526	30722	30924	31101	31277	31462	31633	31816	31984
Av Household Size	2.33	2.32	2.31	2.31	2.31	2.3	2.3	2.3	2.29	2.29	2.29	2.28	2.27
Age 0-4	4400	4300	4300	4200	4200	4200	4200	4200	4200	4200	4200	4100	4100
Age 5-9	4400	4500	4500	4600	4600	4600	4600	4500	4500	4400	4400	4400	4400
Age 10-14	4000	4000	4200	4300	4400	4500	4600	4700	4800	4800	4800	4700	4700
Natural Household Growth		189	191	194	217	196	202	177	176	185	171	183	168
Local Plan													

	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039
Population	73000	73200	73400	73500	73700	73900	74000	74200	74300	74500	74600	74800	74900
Households	32159	32330	32488	32652	32806	32950	33091	33215	33335	33452	33570	33679	33777
Av Household Size	2.27	2.26	2.26	2.25	2.25	2.24	2.24	2.23	2.23	2.23	2.22	2.22	2.22
Age 0-4	4100	4100	4100	4000	4000	4000	4000	4000	4000	4000	4000	4000	4100
Age 5-9	4400	4400	4400	4400	4400	4300	4300	4300	4300	4300	4300	4200	4200
Age 10-14	4600	4600	4600	4600	4600	4600	4600	4600	4500	4500	4500	4500	4500
Growth	175	171	158	164	154	144	141	124	120	117	118	109	109

Table 9: 2014 Population Projections

5.5 When comparing the 2016 population projections to the 2014 version shown above, they are lower, with the population being forecast to be 72,246 in 2039 compared to 2014's forecast of 74,900.

6.0 Child Yield

6.1 In April 2019, LCC revised their Education Contribution Methodology document (Infrastructure and Planning Annex 2). This document seemed to be updated prior to the DfE's PPG on Education Planning Obligations (April 2019) which will be discussed further in this section.

6.2 LCC's pupil yield for each size of house can be seen in the table below:

No of Bedrooms	Yield per development - Primary	Yield per development – Secondary
1	0.01	0.00
2	0.07	0.03
3	0.16	0.09
4	0.38	0.15
5+	0.44	0.23

Table 10: LCC Pupil Generation Multipliers

6.3 LCC state in their Policy document:

If the bedroom information is not available at the time of assessment, an assumption will be made that all dwellings will be eligible 4-bedroom housing and the development will be assessed on this basis. The application will then be reassessed once accurate bedroom information becomes available - this could be at the Reserved Matters stage of the application.

6.4 Working on the basis above LCC forecast the following for this development:

- 400 dwellings x 0.38 = **152 Primary School pupils**

- 400 dwellings x 0.15 = **60 Secondary School pupils**

6.5 When applying the indicative housing mix (20% 2 bed/50% 3 bed/30% 4 bed) provided to inform this report to the LCC Pupil Yield you get the following:

- (80 x 2-bed dwellings) x 0.07 = 6
- (200 x 3-bed dwellings) x 0.16 = 32
- (120 x 4-bed dwellings) x 0.38 = 46

- **TOTAL = 84 Primary School Pupils**

- (80 x 2-bed dwellings) x 0.03 = 3
- (200 x 3-bed dwellings) x 0.09 = 18
- (120 x 4-bed dwellings) x 0.15 = 18

- **TOTAL = 39 Secondary School Pupils**

6.6 These latter figures will be used as they are likely to be more reflective of what LCC will actually be expecting, as the four-bed multiplier almost doubles the expected child yield.

6.7 LCC detail the Primary School cost per place at £16,050.54, and the Secondary School cost at £24,185.16 per place. When applying these figures to the pupil yield, you get the following:

- 84 x £16,050.54 = **£1,348,245.36**
- 39 x £24,185.16 = **£943,221.24**

- **TOTAL = £2,291,466.60**

6.8 The Ministry of Housing, Communities & Local Government ("MHC&LG") has produced two Planning Policy Guidance documents for education; the DfE papers "Delivering schools to support housing growth" and "Securing developer contributions

for education". It is presumed that the LCC's Policy will be updated/amended to comply with the new PPGs. A key point in the Guidance is that pupil yield factors should be based on up-to-date evidence from recent local housing developments. This raises a question mark over the use of a county-wide projection model. At its paragraph 15, the Guidance recommends costs to be based on the published 'scorecards'. These are DfE published financial statements of school places delivery via extensions and new schools on an individual school and number of places basis, standardised to a regional factor of 1.00 and a common date.

6.9 When first considering the child yield multiplier: EFM's own forecast trajectory for this development is based on a different methodology and measures the likely number of new children resident, whereas the LCC multiplier indicates a county-wide average for new enrolment in local schools. Of course, a proportion of households moving to new developments do not move very far and their children do not change schools. The EFM demographic model, working at District level, identifies a 1-year peak, which is greater than the LCC formula. In this instance, the EFM model serves merely to substantiate that the number of pupil places associated with this development from the education authority is reasonable; the LCC child yield fulfills these criteria.

6.10 There has been a significant change in the child yield from new housing, particularly in the London commuter belt, on Sustainable Urban Extensions across the Country, and where fast transport is provided. The numbers of children in new housing developments have risen dramatically and is now apparent in the published data. There are a number of reasons: a more commercially focussed dwelling mix; a decade of very low interest rates; the Help to Buy programme; a broader range of shared ownership options; novel mortgage arrangements skewed towards younger households; the way that new housing is marketed; and the spare room penalty applicable to social rented homes. An additional effect is a concentration of families with young children on new housing developments, despite a fall in the number of births and as a consequence fewer children overall. On reflection, the HCC child yield should be accepted.

6.11 Moving on to the planning obligation multipliers: Nationally, there have been 87 recent Secondary School expansion projects adding 18,772 places at a cost of £402m. This is equivalent to £21,448 per pupil, as shown in Table 11 (2015/16 and 2016/17 academic years). With regards to Primary School expansions, there were 95,815 places added in 858 individual projects in the same time period, at an average cost per pupil place of £16,871. The difference between the national pictures and the cost multipliers applied by LCC is not significant, suggesting the amounts are appropriate.

Region	LA Name	Academic Year Available	School Name	Project Phase	Number of Places Provided	Cost Per Place	Accommodation Category	Total Cost Adjusted
LONDON	Barking and Dagenham	2015/16	Jo Richardson Community School	Secondary	300	£10,490.23	Permanent expansion	£3,147,070.31
LONDON	Barking and Dagenham	2015/16	Robert Clack School	Secondary	1908	£20,543.51	Permanent expansion	£39,197,024.89
LONDON	Barking and Dagenham	2016/17	Dagenham Park CofE School	Secondary	150	£21,559.86	Permanent expansion	£3,233,979.14
EAST OF ENGLAND	Bedford	2015/16	Biddenham International School and Sports College	Secondary	90	£12,634.06	Permanent expansion	£1,137,065.64
SOUTH EAST	Bracknell Forest	2015/16	Garth Hill College	Secondary	352	£26,868.53	Permanent expansion	£9,457,721.55
SOUTH EAST	Buckinghamshire	2015/16	Royal Latin School	Secondary	81	£14,414.25	Permanent expansion	£1,167,553.86
SOUTH EAST	Buckinghamshire	2016/17	Sir William Ramsay School	Secondary	186	£23,202.50	Permanent expansion	£4,315,664.31
SOUTH EAST	Buckinghamshire	2016/17	St Michael's Catholic School	Secondary	143	£32,695.27	Permanent expansion	£4,675,424.03
EAST OF ENGLAND	Cambridgeshire	2015/16	Swavesey Village College	Secondary	150	£23,432.94	Permanent expansion	£3,514,941.63
EAST OF ENGLAND	Central Bedfordshire	2015/16	Etonbury Academy	Secondary	420	£24,145.09	Permanent expansion	£10,140,937.13
EAST OF ENGLAND	Central Bedfordshire	2015/16	Holywell School	Secondary	60	£17,089.60	Permanent expansion	£1,025,376.27
EAST OF ENGLAND	Central Bedfordshire	2016/17	Edward Peake CofE VC Middle School	Secondary	120	£24,194.21	Permanent expansion	£2,903,305.58
EAST OF ENGLAND	Central Bedfordshire	2016/17	Leighton Middle School	Secondary	120	£42,291.27	Permanent expansion	£5,074,952.80
NORTH WEST	Cheshire West and Chester	2015/16	Bishop Heber High School	Secondary	200	£20,135.97	Permanent expansion	£4,027,194.12
SOUTH WEST	Devon	2015/16	Coombeshead Academy	Secondary	30	£6,472.75	Permanent expansion	£194,182.52
SOUTH WEST	Devon	2016/17	Exmouth Community College	Secondary	60	£16,895.57	Permanent expansion	£1,013,734.47
SOUTH WEST	Devon	2016/17	Ivybridge Community College	Secondary	20	£22,600.36	Permanent expansion	£452,007.27
SOUTH WEST	Dorset	2015/16	Twynham School	Secondary	120	£6,165.98	Permanent expansion	£739,917.70
SOUTH WEST	Dorset	2015/16	Shaftesbury School	Secondary	150	£4,175.08	Permanent expansion	£626,262.63
LONDON	Ealing	2016/17	Elthorne Park High School	Secondary	270	£35,239.81	Permanent expansion	£9,514,748.61
LONDON	Ealing	2016/17	Brentside High School	Secondary	420	£22,066.73	Permanent expansion	£9,268,025.57
EAST OF ENGLAND	Essex	2015/16	The Gilberd School	Secondary	150	£17,835.50	Permanent expansion	£2,675,325.33
EAST OF ENGLAND	Essex	2015/16	The Appleton School	Secondary	150	£15,966.68	Permanent expansion	£2,395,002.55
EAST OF ENGLAND	Essex	2015/16	The King John School	Secondary	150	£15,706.02	Permanent expansion	£2,355,903.50
SOUTH EAST	Hampshire	2015/16	Calthorpe Park School	Secondary	300	£46,350.10	Permanent expansion	£13,905,031.41
SOUTH EAST	Hampshire	2016/17	Brookfield Community School	Secondary	45	£24,603.17	Permanent expansion	£1,107,142.86
LONDON	Harrow	2015/16	Bentley Wood High School	Secondary	180	£32,076.81	Permanent expansion	£5,773,826.63
EAST OF ENGLAND	Hertfordshire	2015/16	Sandringham School	Secondary	188	£18,010.05	Permanent expansion	£3,385,888.89
EAST OF ENGLAND	Hertfordshire	2016/17	Bushey Meads School	Secondary	190	£19,035.09	Permanent expansion	£3,616,666.67
EAST OF ENGLAND	Hertfordshire	2016/17	St Clement Danes School	Secondary	168	£37,297.37	Permanent expansion	£6,265,957.45
LONDON	Hillingdon	2016/17	Northwood School	Secondary	180	£30,896.04	Permanent expansion	£5,561,286.50
SOUTH EAST	Kent	2016/17	Sittingbourne Community College	Secondary	150	£43,901.58	Permanent expansion	£6,585,236.33
NORTH WEST	Lancashire	2015/16	Southlands High School	Secondary	150	£14,398.12	Permanent expansion	£2,159,717.47
EAST MIDLANDS	Leicestershire	2016/17	South Charnwood High School	Secondary	20	£8,647.07	Permanent expansion	£172,941.49
EAST MIDLANDS	Leicestershire	2016/17	Woodbrook Vale School	Secondary	30	£2,790.28	Permanent expansion	£83,708.37
NORTH WEST	Liverpool	2015/16	St Hilda's Church of England High School	Secondary	105	£21,155.83	Permanent expansion	£2,221,362.00
EAST OF ENGLAND	Luton	2015/16	ardinal Newman Catholic School A Specialist Science Colleg	Secondary	110	£13,813.66	Permanent expansion	£1,519,502.41
NORTH WEST	Manchester	2015/16	Manchester Academy	Secondary	300	£5,845.59	Permanent expansion	£1,753,677.07
SOUTH EAST	Milton Keynes	2015/16	Denbigh School	Secondary	300	£19,476.52	Permanent expansion	£5,842,956.51
SOUTH EAST	Milton Keynes	2015/16	Oakgrove School	Secondary	300	£16,442.36	Permanent expansion	£4,932,707.22
SOUTH EAST	Milton Keynes	2015/16	Shenley Brook End School	Secondary	388	£20,685.88	Permanent expansion	£8,026,121.43
EAST OF ENGLAND	Norfolk	2016/17	Wymondham High Academy	Secondary	150	£6,976.83	Permanent expansion	£1,046,524.82
EAST MIDLANDS	Nottinghamshire	2015/16	The Joseph Whitaker School	Secondary	22	£8,380.70	Permanent expansion	£184,375.33
EAST MIDLANDS	Nottinghamshire	2015/16	Redhill Academy	Secondary	62	£18,223.60	Permanent expansion	£1,129,863.04
SOUTH EAST	Oxfordshire	2015/16	Bartholomew School	Secondary	150	£15,860.43	Permanent expansion	£2,379,064.76
SOUTH EAST	Oxfordshire	2016/17	Cheney School	Secondary	150	£11,915.74	Permanent expansion	£1,787,361.62
LONDON	Redbridge	2015/16	Oaks Park High School	Secondary	420	£24,531.54	Permanent expansion	£10,303,247.04
LONDON	Redbridge	2016/17	Ilford County High School	Secondary	420	£25,849.83	Permanent expansion	£10,856,929.96
LONDON	Redbridge	2016/17	Woodford County High School	Secondary	420	£26,736.43	Permanent expansion	£11,229,299.55
NORTH WEST	Rochdale	2016/17	Hollingworth Academy	Secondary	100	£11,395.26	Permanent expansion	£1,139,525.69
NORTH WEST	Rochdale	2016/17	Cardinal Langley Roman Catholic High School	Secondary	150	£8,080.49	Permanent expansion	£1,212,073.82
YORKSHIRE	Rotherham	2015/16	Wickersley School and Sports College	Secondary	275	£14,942.26	Permanent expansion	£4,109,120.45
YORKSHIRE	Sheffield	2015/16	Oasis Academy Don Valley	Secondary	1222	£19,051.21	Permanent expansion	£23,280,580.42
WEST MIDLANDS	Solihull	2015/16	Arden	Secondary	150	£13,161.91	Permanent expansion	£1,974,286.51
SOUTH WEST	Somerset	2015/16	Kingsmead Academy	Secondary	150	£6,207.53	Permanent expansion	£931,129.14
WEST MIDLANDS	Staffordshire	2016/17	John Taylor High School	Secondary	130	£10,601.13	Permanent expansion	£1,378,147.40
WEST MIDLANDS	Staffordshire	2016/17	The de Ferrers Academy	Secondary	150	£11,427.01	Permanent expansion	£1,714,051.22
EAST OF ENGLAND	Suffolk	2015/16	Stowupland High School	Secondary	180	£12,012.19	Permanent expansion	£2,162,193.74
EAST OF ENGLAND	Suffolk	2016/17	Sybil Andrews Academy	Secondary	600	£48,001.54	Permanent expansion	£28,800,924.06
EAST OF ENGLAND	Suffolk	2016/17	King Edward VI Church of EnglandUpper School	Secondary	440	£4,557.45	Permanent expansion	£2,005,276.75
SOUTH EAST	Surrey	2015/16	Esher Church of England High School	Secondary	150	£74,372.66	Permanent expansion	£11,155,899.52
SOUTH EAST	Surrey	2016/17	Weydon School	Secondary	280	£55,123.57	Permanent expansion	£15,434,598.66
SOUTH EAST	Surrey	2016/17	The Bishop David Brown School	Secondary	150	£8,590.30	Permanent expansion	£1,288,545.54
LONDON	Sutton	2015/16	Sutton Grammar School	Secondary	105	£13,973.05	Permanent expansion	£1,467,169.82
LONDON	Sutton	2015/16	Nonsuch High School for Girls	Secondary	210	£13,124.45	Permanent expansion	£2,756,135.26
LONDON	Sutton	2016/17	St Philomena's Catholic High School for Girls	Secondary	201	£14,602.63	Permanent expansion	£2,935,127.67
LONDON	Sutton	2016/17	Carshalton High School for Girls	Secondary	210	£11,430.90	Permanent expansion	£2,400,488.76
LONDON	Sutton	2016/17	Carshalton Boys Sports College	Secondary	210	£12,292.32	Permanent expansion	£2,581,387.94
LONDON	Sutton	2016/17	Wallington County Grammar School	Secondary	105	£10,999.93	Permanent expansion	£1,154,992.55
LONDON	Sutton	2016/17	The John Fisher School	Secondary	180	£13,885.58	Permanent expansion	£2,499,403.88
LONDON	Sutton	2016/17	Glenthorne High School	Secondary	185	£13,479.73	Permanent expansion	£2,493,749.55
SOUTH WEST	Swindon	2015/16	Highworth Warneford School	Secondary	25	£94,391.47	Permanent expansion	£2,359,786.68
NORTH WEST	Tameside	2015/16		Secondary	150	£20,159.79	Permanent expansion	£3,023,968.79
NORTH WEST	Tameside	2016/17	St Damian's RC Science College	Secondary	50	£5,940.69	Permanent expansion	£297,034.45
LONDON	Wandsworth	2015/16	Saint John Bosco College	Secondary	576	£19,229.83	Permanent expansion	£11,076,383.03
WEST MIDLANDS	Warwickshire	2015/16	Southam College	Secondary	112	£10,607.66	Permanent expansion	£1,188,058.10
WEST MIDLANDS	Warwickshire	2016/17	Southam College	Secondary	38	£8,754.11	Permanent expansion	£332,656.27
WEST MIDLANDS	Warwickshire	2016/17	Shipston High School	Secondary	150	£12,609.26	Permanent expansion	£1,891,388.50
SOUTH EAST	West Sussex	2015/16	Tanbridge House School	Secondary	300	£23,859.85	Permanent expansion	£7,157,956.43
SOUTH EAST	West Sussex	2015/16	Davison Church of England High School for Girls, Worthing	Secondary	240	£16,666.84	Permanent expansion	£4,000,042.52
SOUTH EAST	West Sussex	2015/16	Durrington High School	Secondary	210	£27,568.19	Permanent expansion	£5,789,320.53
NORTH WEST	Wigan	2016/17	St Peter's Catholic High School	Secondary	150	£10,504.64	Permanent expansion	£1,575,695.97
NORTH WEST	Wigan	2016/17	Westleigh High School	Secondary	270	£10,721.55	Permanent expansion	£2,894,819.78
SOUTH WEST	Wiltshire	2016/17	The Wellington Academy	Secondary	180	£21,165.36	Permanent expansion	£3,809,764.71
NORTH WEST	Wirral	2015/16	Birkenhead High School Academy	Secondary	30	£22,503.46	Permanent expansion	£675,103.70
YORKSHIRE	York	2015/16	Fulford School	Secondary	60	£126,648.90	Permanent expansion	£7,598,934.02
					18,772			**£402,629,440.00**
								£21,448.40

Table 11: Secondary School Scorecard

7.0 Education

7.1 In our assessment, we consider all Primary schools within a 2-mile walking distance[2], and all Secondary schools that lie within a 3-mile walking distance of the development. The 2 and 3-mile criteria are the distances prescribed in the Education Act beyond which local authorities are required to provide/fund transport where the nearest available school is further away. It is the intention of the planning system and the provision of state-funded schools that the ideal mode of travel to and from school is walking or cycling. The NPPF made this plain at paragraph 38. Paragraph 38 has been replaced by paragraph 104A in NPPF2 with an exhortation to minimise the number and length of journeys. The words 'within walking distance of most properties' have been removed.

Map 4: Two- and Three-Mile Radius Around Development Site

[2] Distances have been calculated based upon a postcode to the south of the development. Once the development is built, some parts of the site may be further/closer than shown.

7.2 The authority is required to make pupil forecasts to the Department for Education on a year of age basis by 'school planning area' and identify each school in the cluster and its capacity. The forecasts cover the period for which birth data is available. Forecasts covered by Section 106 agreements submitted separately to avoid double funding. For Primary School age pupils, the current published data runs to 2022/23 and for Secondary School aged pupils 2024/25. These are known as the School Capacity ("SCAP") returns. This is how Government allocates its funding for additional school places that are its responsibility to provide.

7.3 Schools should be operationally full to meet the financial audit requirement for best value from public assets. This is demonstrative of a properly functioning school system. School funding is predicated on the number of pupils that are on a school's roll, so it is in the best interest of schools to maximise intake within their capacity. Accordingly, many schools take from a wide catchment area and some enroll over capacity.

7.4 The statutory rules on enrolment are that whilst schools may have a catchment area and ordered criteria for admissions, the rules only apply if the school is oversubscribed. Otherwise, whoever applies is admitted irrespective of where they live. This is known as 'More Open Enrolment'. It fosters parental choice of school.

7.5 The overarching duty to provide sufficient schools and school places rests with central Government. (Education Act 1996 Section 11) The duty excludes those otherwise provided for (private education, home schooling, those in new housing with a **Section 106/CIL in place** (my emphasis).

7.6 The education authority's duty in such matters is to secure sufficient schools and school places for their area (Education Act 1996 Section 14). 'For their area':

The duties of a [local] education authority do not require the authority to secure the provision of schools for pupils from outside the area of the authority, even though it may be convenient for a pupil to attend a school in an area other than that in which he lives.[3]

7.7 Within the State-funded school sector there are Community Schools funded by the local authority and there are other providers than the local authority; these are the Academy, Free School Voluntary Sector (e.g. Church Schools) and Foundation Schools. Academies and Free schools are funded directly by Central Government: Church Schools and foundation Schools are maintained by the local authority.

7.8 The provision of school places, where there is a shortfall, is made via a funding stream from the Department for Education ("DfE") known as Basic Need. Basic Need

[3] Law of Education

funding is allocated as 'a number of pupil places times a unit cost', differentiated by school phase and local building costs. Allocations are made on the basis of projected shortfalls in local School Planning Areas against current pupil numbers and the actual numbers of school places in that Planning Area. Each planning area is treated as a discrete area and shortfalls met through the allocation of resources.[4] A surplus in one school planning area is not offset against another with a shortfall. In this case, providing housing in the Rossendale/Ramsbottom Planning Area (for whatever planning reason) will be reflected in the forecasts for the Rossendale/Ramsbottom Planning Area and nowhere else.

8.0 Primary Education

8.1 Five Primary Schools have been reviewed for capacity data. Three of these schools are in the RBC administrative area, two are over the border in Bury. The location of these schools in relation to the development site can be seen below:

Map 5: Primary Schools in relation to the Development Site

[4] Capital Funding for School Places by 2021 – explanatory note on methodology

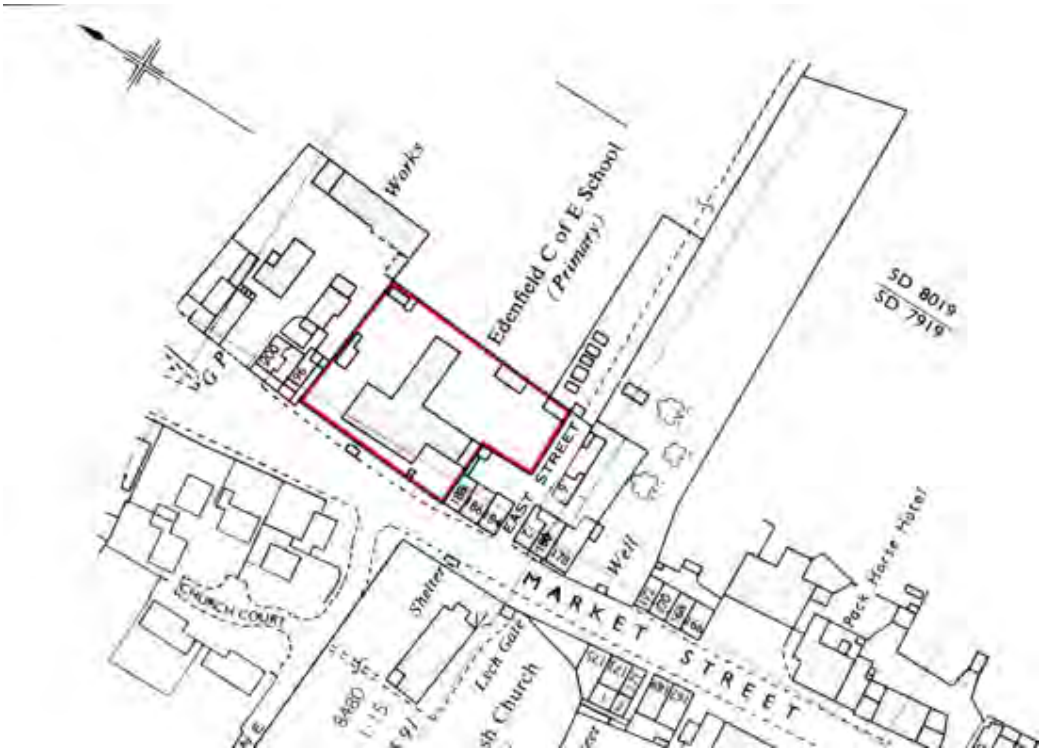
8.2 The most recent rolls (in the public domain) of the schools that will serve this development can be seen below in Table 12:

Primary School Name	Postcode	LA Name	Distance (miles)	Capacity	PAN	NoR	Yr R	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Edenfield CofE Primary School	BL0 0HL	Lancashire	0.3	175	25	192	29	25	26	29	28	27	28
Stubbins Primary School	BL0 0NA	Lancashire	0.8	210	30	207	30	29	30	30	29	32	27
Balladen Primary School	BB4 6DX	Lancashire	2	210	30	213	31	29	30	30	31	32	30
Peel Brow Primary School	BL0 0BJ	Bury	1.8	210	30	138	14	22	29	17	16	12	28
Emmanuel Holcombe C.E. Primary	BL8 4PA	Bury	2.3	112	16	101	14	12	17	12	14	16	16
TOTAL				917	131	851	118	117	132	118	118	119	129
Suplus							13	14	-1	13	13	12	2
Available Surplus %							9.92%	10.69%	-0.76%	9.92%	9.92%	9.16%	1.53%

Table 12: School Rolls – January 2019
PAN = Planned Admission Number; NoR = Number on Roll

8.3 The nearest school to this development is Edenfield Church of England Primary School. This school is smaller than a standard 1FE at 25 pupils per year group. The school is currently oversubscribed by 17 places, and full in every year group.

8.4 The site plan from the Land Registry can be seen below. The footprint of the building(s) is very small for a standard 1FE school at 0.23ha, whereas a standard 1FE site is in the region of 1.1ha (according to Building Bulletin 103). The playing pitches and outside space are adjacent to the school buildings, but are not in the ownership of the Diocese, as they are owned by LCC (land that equates to approximately 0.85ha):



Map 6: Edenfield Primary Site Map (via Land Registry)

8.5 The school is not hampered by being landlocked. There is considerable land that could potentially be acquired to the east of the school site that could accommodate an expansion to the school to take it up to 2FE. A standard 2FE site in the region of 1.8ha-2ha (BB103), so the availability of the land, and the willingness of the Faith-based school to expand, in conjunction with LCC, will ultimately dictate whether this expansion is possible.

Map 7: Edenfield Primary Site Map (via Google Maps)

8.6 From information received to inform this report, it has been discussed that a potential relocation of this school on to this development site has been broached by LCC. The website of the school states the following:

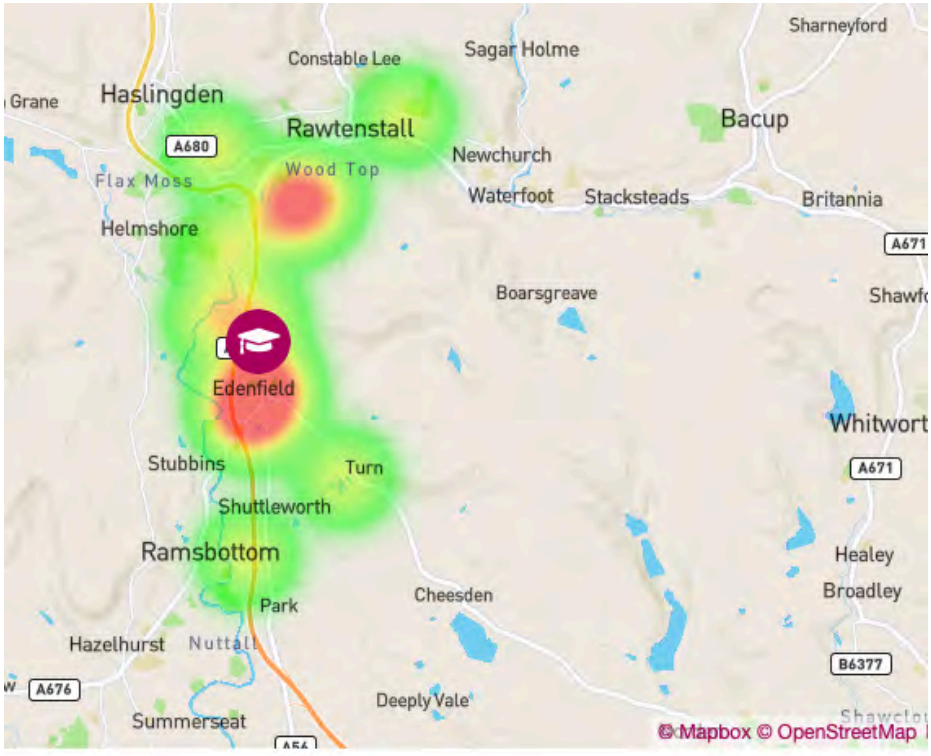
We are extremely fortunate to be housed in a beautiful building within a picturesque rural setting. An extensive refurbishment has significantly improved the school, and we now benefit from additional classrooms and enhanced facilities.

8.7 The planned admission number for the school is 25 per year group (0.83FE) and this hasn't changed since at least 2013/14, so any refurbishment has been undertaken to improve the buildings rather than to increase capacity. If the school has undertaken improvements to the existing buildings this may impact their willingness to then relocate.

8.8 From a relocation perspective, the cost of this project over an expansion is considerable. When looking at the school cost underlying data for Lancashire, a 1FE expansion would be expected to cost in the region of £2.5-3m plus land costs. A new 2FE school (which would only add 1FE's worth of additional provision) would cost in the region of £7m plus land costs. The difference in land costs could also be considerable. For example, if this development site was to provide 2ha for a 2FE school, only 20% of the land would be provided by the development gratis, whereas the remaining 1.6ha would need to be purchased by LCC at full market value for housing. However, if expansion land adjacent to the existing school was to be acquired, there is the possibility that it would be less expensive than acquiring land on the development site.

8.9 If this school was to relocate, the Church would remain the responsible body for running the school. Any school can relocate within a 3-mile straight line without the need for consultation, as schools are not fixed to specific locations. The issue is related to land ownership. The Diocese owns the land on which the school currently resides, and there may need to be a land swap, which adds an additional complication that would need to be agreed.

8.10 From a catchment area perspective, this development is ideally placed for pupils to be able to gain a position at the school, as shown below:



Map 8: Edenfield Primary Catchment Area Heat Map

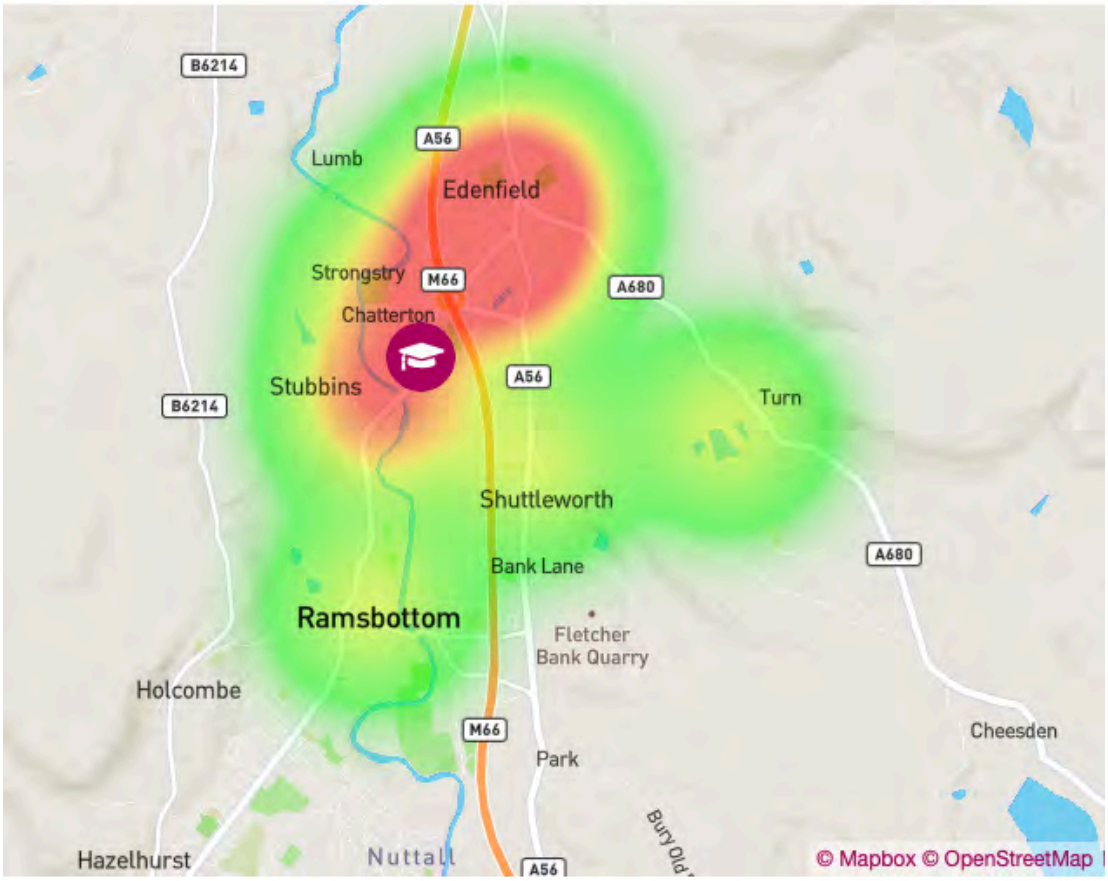
8.11 The second nearest school to the development is Stubbins Primary School. This is a 1FE school and is full. When looking at the site plan for the school, the school is on a site of approximately 1.67ha. A site of this size could likely accommodate extended provision, and it would make sense for an expansion project to be undertaken at this site. The shape of the site is irregular, which may hamper additional provision. A 0.5FE expansion could be undertaken, which would be more than sufficient to accommodate the expected pupil yield of this development. LCC may prefer to undertake whole expansions though rather than having split classrooms.

Map 9: Stubbins Primary Site Map (via Land Registry)

8.12 The school is not totally landlocked, as there seems to be space to south and south east of the development that could potentially be acquired to allow for additional playing pitch space. Some of this land does appear to be woodland, so that would need further investigation in order to establish whether it was feasible:

Map 10: Stubbins Primary Site Map (via Land Registry) – 1.67ha

8.13 From a catchment area perspective, this development is comfortably within the current locality this school draws from, and is closer than some of the settlements in which pupils that attend this school reside, as demonstrated in Map 11:



Map 11: Stubbins Primary Catchment Area Heat Map

8.14 When looking at the other schools in the vicinity of the development:

- Balladen Primary School is a 1FE school two-miles walking distance from the development site, and is full;

- Peel Brow Primary School is over the administrative border in Bury, 1.8 miles walking distance from the development site, and has capacity in most year groups. LCC will not consider this school as capacity for the development, as they are only concerned with schools in their area. However, the school could provide additional options for parents on this site as spare capacity can be utilised by anyone that wants it providing admissions criteria does not need to be applied;

- The final school reviewed for capacity is Emmanuel Holcombe C.E. Primary, also in Bury. This is a small school (approximately 0.5FE) with very little spare

capacity, 2.3 miles walking distance from the site. This school should therefore not be relied upon for capacity for this development.

8.15 This development is expected to start around 2021, which means that the school system will start to be impacted in the years that follow, so LCC will be cognisant of school projections when it comes to forecasting the need for planning obligations.

8.16 The two nearest schools to the development site are in their own Primary Planning area. Collectively they have a capacity of 385:

LA Name	School Name	Phase	May 18 NOR	Net Capacity	Net Cap Total	NOR Total
Lancashire	Ramsbottom Stubbins Primary	PS	208	210	385	396
Lancashire	Edenfield Church of England Primary	PS	188	175	385	396

Table 13: Rossendale/Ramsbottom Primary Planning Area

8.17 In the 2017/18 academic year, the schools had a roll of 396, indicating that they were oversubscribed. In the 2018/19 academic year, the schools had a roll of 399. However, LCC is forecasting that rolls are falling at the schools, so that by the 2022/23 academic year, the schools will have a combined roll of 344 places, which is a spare capacity of 41 places. That is half of the child yield of this development accommodated without the need for expansion. Birth numbers are falling nationwide, and this is being seen in the data in the Rossendale/Ramsbottom area:

LA 888 **Area Code** 8881403

LA Name Lancashire **Area Name** Rossendale/Ramsbottom

Primary Change -52

Year Group	R		
Actual 1718	59	Sum 1718	396
Forecast 1819	60	Sum 1819	401
Forecast 1920	50	Sum 1920	400
Forecast 2021	43	Sum 2021	385
Forecast 2122	35	Sum 2122	368
Forecast 2223	35	Sum 2223	344

Table 14: SCAP Projections - LCC

8.18 When looking further afield, Balladen Primary School is combined with nine additional schools to form the Rossendale/Rawtenstall Primary Planning Area. These schools have a combined capacity of 2,179:

LA Name	School Name	Phase	May 18 NOR	Net Capacity	Net Cap Total	NOR Total
Lancashire	Water Primary School	PS	114	140	2179	2055
Lancashire	Waterfoot Primary School	PS	311	315	2179	2055
Lancashire	Rawtenstall Balladen Community	PS	207	210	2179	2055
Lancashire	Crawshawbooth Primary School	PS	314	315	2179	2055
Lancashire	Rawtenstall St Paul's Church of	PS	280	270	2179	2055
Lancashire	St Mary's CofE Primary School	PS	197	199	2179	2055
Lancashire	Rawtenstall Newchurch Church of	PS	140	180	2179	2055
Lancashire	St Anne's Church of England Primary	PS	134	204	2179	2055
Lancashire	St Peter's Roman Catholic Primary	PS	149	140	2179	2055
Lancashire	St James-the-Less Roman Catholic	PS	209	206	2179	2055

Table 15: Rossendale/Rawtenstall Primary Planning Area

8.19 By 2022/23, these schools are forecast to be at capacity. Additional development will impact these schools further, and require the need for additional provision:

LA 888 **Area Code** **8881404**

LA Name Lancashire **Area Name** Rossendale/Rawtenstall

Primary Change 156

Year Group	R		
Actual 1718	298	Sum 1718	2063
Forecast 1819	295	Sum 1819	2093
Forecast 1920	339	Sum 1920	2152
Forecast 2021	293	Sum 2021	2186
Forecast 2122	296	Sum 2122	2204
Forecast 2223	296	Sum 2223	2219

Table 16: SCAP Projections - LCC

8.20 As discussed in this report, planning obligations towards additional Primary School provision are justified. At present, LCC apply a cost per pupil place for Primary Education of £14,217.31. When applying this to the pupil yield detailed in Section 6, you get the following:

- 84 x £16,050.54 = **£1,348,245.36**

8.21 There are a number of options for projects with which to utilise these funds. This includes acquiring additional land at Edenfield Primary School and expanding the existing provision; also, expanding the provision at Stubbins Primary School. Both of these prospective projects have been discussed. There is also the possibility of a new facility on a portion of land on this development. This suggestion is broached in the Emerging Local Plan, which states:

Provision for a one form entry Primary School on site if Edenfield Primary School cannot be expanded to the required level

8.22 If a school site was to be reserved on this development, a site large enough to accommodate 2FE would likely be required to allow for future expansion (safeguarding future places). This is in line with the preferred approach of the Education and Skills Funding Agency (ESFA the operations arm of the Department for Education), who want 2FE schools as a default for new facilities[5]. A 2FE site would be in the region of 1.8-2ha; a 1FE school site is approximately 1.2ha.

8.23 However, as discussed in Section 6 of this report, this development is only expected to generate 20% of a 2FE School's worth of children (41% of a 1FE). Accordingly, beyond the monetary planning obligation, only 20% of a 2FE site would be provided for free as part of this development's mitigation. The rest would be purchased by LCC at full market value for housing. Whether LCC would be prepared to agree to this level of expenditure when cheaper options are available is questionable. The fact that rolls are forecast to fall at the two schools closest to this development further throws the need for a new school in to question.

8.24 Should a 2ha site be reserved on this development, LCC would favour a regular shape (square or rectangular), preferably not landlocked, and fully remediated. The site would need to be accessible, preferably close to commencement of development so that LCC can manage the build and ensure capacity is there when it's needed.

8.25 The RBC Infrastructure Delivery Plan states the following for Primary provision:

LCC have indicated that if the planned level of development proposed at Edenfield goes ahead they may require either a school extension or a new school. The cost of a new School would be in the region of £4 million. Any standalone new primary school (i.e. not a multi-site element of an existing school) brought forward would be a Free School and not maintained by education authority.

8.26 The £4m discussed here is related to a 1FE facility, not 2FE, which as discussed may not be supported by the ESFA. Even if this level of provision was delivered, this development would only be responsible for funding their portion of it. Beyond that would not be "fairly and reasonably related in scale and kind to the development".

8.27 New schools are rarely popular with existing schools as it means additional competition. Parents often favour new builds so that may draw future pupils away from the more established schools. As schools are funded on a per pupil basis, a

[5] The default position for new schools is that they are Academies – independent state-funded schools. To establish a Free School Academy, the local authority seeks an operator and recommends same to the Education Secretary of State. The ESoS then enters into a Funding Agreement with the operator and thereafter provides the operating revenue funding. It is difficult to secure an operator for a 1fe school due to funding levels not meeting operating costs. The Small Schools Budget Uplift used by local authorities to help small schools is not available.

reduction in school rolls can have a detrimental impact on the ability of schools to operate effectively. This may explain LCC's discussions regarding relocation rather than delivering a new Academy. However, a school expansion, if possible, would be more cost effective, and would provide an appropriate additional level of provision, whereas a new school may over-provide provision (again the falling rolls indicate this would be the case), and a relocation would not be cost effective or appropriate bearing in mind the recently refurbished Edenfield Primary School building.

9.0 Secondary Education

9.1 Five schools have been reviewed for capacity data, four of which are in Lancashire, with the southernmost school over the administrative border in Bury. The location of the schools in relation to the development site can be seen below:

Map 12: Secondary Schools in relation to the Development Site

9.2 The most recent roll numbers in the public domain for these schools can be seen below in Table 17:

Secondary School Name	Postcode	LA Name	Distance (miles)	Capacity	PAN	NoR 7-11	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Post 16
Haslingden High School	BB4 4EY	Lancashire	1.6	1,493	270	1,343	278	272	271	262	260	234
All Saints RC High School	BB4 6SH	Lancashire	2.5	588	116	477	101	101	102	87	86	0
Alder Grange	BB4 8HW	Lancashire	3.3	902	135	702	151	136	140	139	136	137
Bacup and Rawtenstall Grammar	BB4 7BJ	Lancashire	3.8	1,121	180	902	180	180	180	181	181	374
Woodhey High School	BL0 9QZ	Bury	2.8	1,161	210	1,110	224	224	226	221	215	0
TOTAL				5,265	911	4,534	934	913	919	890	878	745
Suplus							-23	-2	-8	21	33	
Available Surplus %							-2.52%	-0.22%	-0.88%	2.31%	3.62%	

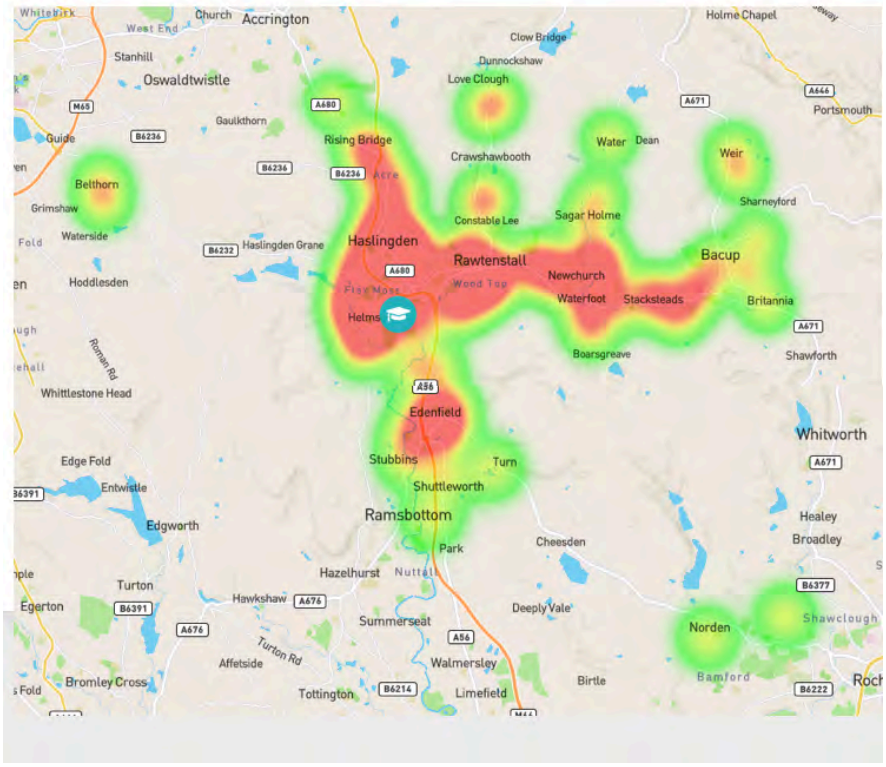
Table 17: School Rolls – January 2019
PAN = Planned Admission Number; NoR = Number on Roll

9.3 The nearest school to the development site is Haslingden High School. The linked areas to this school can be seen below:

Haslingden High School and Sixth Form – (14/109)

This school mainly services the area of HASLINGDEN - Haslingden, Helmshore, Rising Bridge, Edenfield, Stubbins, Turn, Chatterton and Strongstry.

9.4 Haslingden High School accommodates 270 pupils per year group (9FE) meaning it is already quite a large Secondary School. As of January 2019, the school was full or oversubscribed in every year group. The Map below shows the current catchment area of the school:



Map 13: Haslingden High School Catchment Area Heat Map

9.5 When looking at the other schools in the vicinity of the development:

- All Saints RC High School currently has 111 surplus places across five year groups and is currently operating at 81% capacity. The school is 2.5 miles walking distance from the development site;
- Alder Grange has a planned admission number of 135 and is oversubscribed in every year group;
- Bacup and Rawtenstall Grammar School has a selective admissions criterion and is therefore not reliable capacity. They currently accommodate 180 per year group (6FE) and are completely full;
- Woodhey Secondary is a 7FE Secondary school over the border in Bury and is oversubscribed.

9.6 From a projection perspective, four of the five schools reviewed are grouped with two additional schools to form the Rossendale Secondary Planning Area. The schools have a collective capacity of 5,786.

LA Name	School Name	Phase	May 18 NOR	Net Capacity	Net Cap Total	NOR Total
Lancashire	Alder Grange School	SS	860	902	5786	5048
Lancashire	Fearns Community Sports College	SS	278	1024	5786	5048
Lancashire	Whitworth Community High School	SS	623	650	5786	5048
Lancashire	Haslingden High School and Sixth	SS	1573	1501	5786	5048
Lancashire	All Saints' Roman Catholic High	SS	453	588	5786	5048
Lancashire	Bacup and Rawtenstall Grammar	SS	1261	1121	5786	5048

Table 18: Rossendale Secondary Planning Area

9.7 In the 2017/18 academic year, the schools had a combined roll of 5,083, equating to a combined surplus capacity of 703. By 2024/25, the school rolls are expected to increase to 5,496, reducing the surplus capacity to 290 places. However, the surplus capacity is likely to be in schools too far from this development to be considered surplus capacity:

LA 888 **Area Code** 8880014

LA Name Lancashire **Area Name** Rossendale Secondary

Secondary Change 413

Year Group	7		
Actual 1718	892	Sum 1718	5083
Forecast 1819	940	Sum 1819	5122
Forecast 1920	974	Sum 1920	5245
Forecast 2021	916	Sum 2021	5317
Forecast 2122	965	Sum 2122	5396
Forecast 2223	961	Sum 2223	5480
Forecast 2324	949	Sum 2324	5510
Forecast 2425	925	Sum 2425	5496

Table 19: SCAP Projections - LCC

9.8 In terms of planning obligations, LCC would currently be justified in requesting Secondary School development mitigation. The nearest school to the development (which is the catchment school) is full. The roll at all of the schools in the vicinity of the development and beyond are expected to increase. New provision will likely be required. LCC will need to ensure that the planning obligations are justified by applying them to a school that will serve this development ("directly related").

9.9 The projections and rolls at the Secondary Schools should be reviewed when the application is made and the Section 106 negotiated in order to ensure they are still justifiable and required, as the falling rolls forecast in the Primary sector may impact on the Secondary School numbers as they move through the Year Groups.

10.0 Early Years

10.1 Under the Childcare Act 2006, local authorities have specific duties to secure:

- Sufficient and suitable childcare places to enable parents to work, or to undertake education or training which could lead to employment
- Sufficient and suitable early years places to meet predicted demand
- Free early years provision for all 3 and 4-year olds (and more recently the 40% most vulnerable 2-year olds) of 15 hours per week 38 weeks per year.

10.2 The Childcare Act 2016 includes an extension to the current entitlement and, from September 2017, provides an additional 15 hours (per week 38 weeks per year) of free childcare for 3 and 4-year old children from working families who meet the following criteria:

- Both parents are working (or the sole parent is working in a lone parent family);

- Each parent earns, on average, a weekly minimum equivalent to 16 hours at national minimum wage and less than £100,000 per year.

10.3 LCC's most recent Child Sufficiency Assessment published in the public domain (2016-2017) states the following:

Data suggests Lancashire has a good spread of places across age groups, provider type and across all districts. Vacancy data suggests that there is childcare available across each age group within each district.

10.4 This states that there is no specific need for new provision in the LCC administrative area, which indicates that no planning obligations are required.

10.5 There are two exceptions to this: firstly, if a new school is delivered on site. New Primary schools tend to include provision for Early Years. This would be planned into the design of the school and would take up no more than 0.2ha of the total build project. Early Years perspective, provision is provided in a number of ways. Basic pre-school nursery classes (part-time education for 3 and 4-year old children) appears in the baseline designs for schools issued nationally. Alternatively, a stand-alone Nursery (potentially in the local centre) in the form of space could be operated by a private provider. The building, or space within a building, is then provided for rent. This could fulfill the requirements of this element of provision, should LCC stipulate the need to provide it. However, planning obligations towards this provision is unlikely to be required.

11.0 Special Education Needs

11.1 It is very difficult to ascertain whether any children with SEN would come forward from this development. If direct need cannot be identified, then a planning obligation is not required. When calculating the requirement for mainstream primary and secondary education needs of children that are likely to be located in the proposed housing development, there is a plausible link between the numbers of places that are likely to be required, and the local school(s) that will be, in the main, asked to accommodate these children. The link between the development, the requirement, and the location of the schools is direct, and proportionate. Additionally, the arrangements for funding additional mainstream school places includes the mechanism to advise the funding body (ESFA) of the numbers of pupil places covered by S106 contributions that are then discounted from the allocation, to avoid double funding.

11.2 In order for a SEN contribution to fulfil the tests of Regulation 122 it would be necessary for the developers to fund the individual places of pupils proven to be located at housing within the new development at a school within the Lancashire administrative area. The developers, however, are unable to investigate the number of SEN pupils who may be located on this development, as to do so would be a clear invasion of privacy of such families. The contribution cannot be deemed fairly related and proportionate without this. Plus, the EHC Plan for a child with SEN names the 'school' identified by a gamut of experts within the authority and externally (health in particular) plus the parents/guardians. No one can anticipate which institution will be named. Again, it falls at the CIL Reg 122 hurdle.

12.3 There is no precedent to refer to where LCC have requested Special Needs contributions from new developments. Additionally, it is very difficult to ascertain whether any children with SEN would come forward from this development. If direct need cannot be identified, then a planning obligation is not required.

12.0 Conclusion

12.1 From a Primary School perspective, planning obligations are justified due to a lack of spare places currently available to serve this development. There are options for how this contribution could be utilised: expanding existing provision at one of the local schools, relocating existing provision on to this site, or creating new provision on this site. Due to the number of pupils this development is expected to generate, the cost implications of the projects, and the fact that rolls are expected to fall in the local Primary schools nearest to the development site, it would make most sense to expand existing provision. This would also remove the need for land to be provided on this development, much of which would need to be purchased by LCC at full market value. Further discussions would need to be undertaken with LCC in order to establish their preference, and the feasibility of school expansions.

12.2 From a Secondary perspective, planning obligations are justified due to the current lack of capacity at the catchment Secondary School, and the forecast increase in rolls by the time this development is expected to generate pupils. LCC will need to identify a scheme at a school that will serve this development to ensure that the obligation is CIL Regulation 122 compliant.

12.3 From an Early Years/SEN perspective, planning obligations are not justified and are unlikely to be requested.

APPENDIX 6 – HIGHWAYS ENGLAND CORRESPONDENCE

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25 January 2019

Anne Storah
Rossendale Borough Council
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Bacup
Lancashire
OL13 0BB

Dear Anne,

CONSULTATION ON THE PRE-SUBMISSION PUBLICATION VERSION OF THE LOCAL PLAN

HIGHWAYS ENGLAND COMMENTS ON PROPOSED HOUSING SITE ALLOCATION H72 (LAND WEST OF MARKET STREET, EDENFIELD)

Highways England is charged with operating, managing capacity, maintaining and improving England's motorways and major A roads, which form the Strategic Road Network (SRN). The SRN in Rossendale comprises the northernmost stretch of the M66 motorway and the A56 corridor; from a point south of M66 Junction '0' to a point north of the A56 roundabout junction with the A680 at Rising Bridge. This north-south corridor is a route of regional significance that links Greater Manchester with Lancashire.

In our letter dated 4th October 2018, we provided consultation comments on the Rossendale Borough Council (RBC) Pre-Submission stage Local Plan. This consultation response commented on several areas covering RBC's Highway Capacity Study, as well as viability matters linked to geotechnics and ground conditions concerning three proposed allocations. It is on this latter aspect on which we now write; specifically in respect of comments made about the housing site allocation reference 'H72' known as 'Land West of Market Street, Edenfield'.

Our previous letter expressed serious concern regarding the physical impact that developing allocation H72 may have on the stability of the earth cuttings of the adjacent A56 trunk road, particularly given the absence of a detailed ground investigation survey and assessment within the Council's supporting evidence base. Those comments were made from our standpoint as an infrastructure provider with knowledge and experience of the uniquely difficult ground conditions found in the Rossendale valley. This is emphasised by the land slip problem that we are managing at the Woodcliffe cutting. Our borehole records for the remainder of the A56 path adjacent to the allocation indicates the presence of similar ground material.

Since our letter of 4th October 2018, RBC has engaged with Highways England on these matters. The purpose of this letter is therefore to update the Council on Highways England's position on the H72 site allocation proposal following those discussions.

Firstly, Highways England now notes that the portion of the proposed allocation to the north of Blackburn Road, situated above the A56 cutting at Woodcliffe referred to above, has been removed from the Preferred Options Local Plan. Highways England strongly welcomes this change, and would not have supported the Plan otherwise.

Highways England has therefore now considered the revised site allocation based on the masterplan drawing entitled 'North West Edenfield Local Plan Representations Combined Illustrative Masterplan' Drawing No. 610C-02C prepared by Randall Thorp on behalf of the three landowning interests in the amended site. We have also considered desktop ground investigation reports and preliminary site surveys that have been submitted to us, and prepared on behalf of, those interests in the central and southern parcels of the allocation. These are:

- Preliminary Sources Study Report prepared by Betts Geo on behalf of Taylor Wimpey (Report No.18TAY043/PSSR – dated November 2018 for central and partial northern site portion owed by Peel Holdings)
- Edenfield Geotechnical Summary Sheet (covering full allocation), prepared by Betts Geo on behalf of Taylor Wimpey (Reference 18TAY043 for central and partial northern site portion)
- Desktop Geotechnical Appraisal prepared by Hydrock on behalf of Nexus Planning (Document Reference ESE-HYD-XX-XX-RP-GE-0001 dated 19th December 2018 for southern site portion)

We are aware of stability issues within our cutting slope immediately to the west of Chatterton Heys (within the Hydrock survey area), although this is some distance from the proposed housing development itself judging by the masterplan. The report by Betts also describes some relic landslips in a slope towards the northern end of the proposed site allocation (see photo 23 within the section 11 photo location plan PDF drawing on page 60). Although not significant for the A56, it demonstrates our overall point about ground stability risks within the site.

From our own route geotechnical records of the adjoining A56, we have made RBC aware of the presence of laminated clays below the general area of the site. An abundance of laminated clay may change the building foundation conditions locally and engender differential ground settlement. For housing development, special attention therefore also needs to be taken to building foundations; perhaps deeper and pile-driven for example. The level of moisture content within the ground is also important; higher moisture content generally indicating lower strength material giving lower bearing capacities, increased settlement under load and a higher risk of instability (e.g. landslip). Laminated clay is also typically an unsuitable fill material and is therefore inappropriate for structural re-use elsewhere without appropriate stabilisation treatment.

Whilst development of the areas away from the A56 fringe may not in itself affect the trunk road, the presence of these deposits (and the evidence of some instability in the HE slopes adjacent to the site) demonstrates ground stability risks are present in the general area. It therefore underlines the need for a high level of caution and technical awareness in any approach to preparing a development application for this site to avoid causing instability or damage to Highways England's asset (as well as ground problems within the wider development away from the trunk road for that matter).

We therefore counsel RBC that it would be prudent to ensure that a comprehensive (and intrusive) site survey and geotechnical assessment is carried out before planning decisions affecting the development layout (and therefore quantum of development) are taken.

Consequently, we remain content with the statement in our previous letter that there is a *"realistic possibility the disturbance caused by earthworks and loading of the surrounding land by building upon (if not considered and managed correctly) would trigger further land slippage problems along the A56 boundary. This is of course a safety concern, both in relation to the users of the trunk road and the residents of any housing – the results of a sudden land failure would be catastrophic. That is beside any gradual movement to the dwellings themselves'*.

We now comment on proposed allocation of site H72 purely from the perspective of impacts on the safety and integrity of the A56 trunk road, and not in relation to any consequences of developing the land elsewhere within the site.

Overall, we are content that, in principle, the indicative layout outlined within the masterplan drawing referred to above would be unlikely to cause instability to our asset provided that the development layout, earthworks (e.g. land regrading), site drainage and construction operations are suitably designed, planned for and executed. That way, it is possible that the risk of geotechnical problems within the site can be engineered-out. We would therefore require any development to:

- Be based upon a comprehensive site ground investigation survey and geotechnical assessment incorporating new ground investigation and borehole surveys.

- Submit plans for all earthworks and drainage in the vicinity of the A56 boundary upon a full assessment under the Design Manual for Roads and Bridges standard HD22/08 'Managing Geotechnical Risk'.

- Avoid loading land adjoining the A56, for example with excavated material.

- Demonstrate that the natural form of the slopes within the site along the A56 boundary around the head of Great Hey Clough and along the boundary with the adjoining A56 embankments either remain undisturbed or their stability is improved.

- Demonstrate how both the culverts of the Great Hey Clough watercourse and unnamed brook to the south west of the site (which pass under the under the A56), together with our A56 embankment toe-drainage apparatus, will be protected from damage and blocking-up during construction (Highways England would be happy to provide RBC and any subsequent planning applicant involving this land with copies of our drainage and 'as-built' records for this section of the A56).

- Avoid the use of sustainable urban drainage systems (SUDS) within the site along the boundary with the A56, as indicated in the masterplan. Given the properties of the existing ground material (referred to above as likely to be found in this area) are such that ground stability is significantly reduced by increasing pore pressure. Highways England does not support the use of SUDS within a zone where it could adversely influence the stability of the A56 cutting slopes. Indeed, we would advise that any intention employ SUDS within the wider site should be approached carefully.

Finally, it is worth pointing out that RBC's Local Plan Highway Capacity Study refers to there being a future need (towards the end of the Local Plan period) to widen the adjoining section of the A56 to three lanes in each direction. This future network requirement is also something which Highways England is aware could be needed towards the early 2030s. Highways England has no proposals to take forward such a scheme at this time, but of course has the right to do so in the future. In theory, as a scheme could be completed within only 10 years of any future

dwellings being occupied, RBC and any future developer(s) of the H72 site may wish to consider this when planning the permanent internal layout and landscaping of a 'new' development.

In conclusion then, Highways England is now satisfied in principle that the emerging Rossendale Local Plan site allocation H72 could be developed for housing without adverse impact upon the A56 trunk road, provided that a careful approach is taken to its planning and construction.

We hope that this letter clarifies our position and enables the Council to make progress with this element of its emerging Local Plan. If you would like to discuss anything about this letter, please feel free to contact me.

Yours sincerely,

Warren Hilton

Warren Hilton
North West Asset Development Team
Email: warren.hilton@highwaysengland.co.uk

GL/MAN.0299/L007

31 January 2019

Anne Storah
Forward Planning
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The Business Centre
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Sent via email

Dear Anne,

Highways England Response to Rossendale Pre-Submission Local Plan -25.01.2019
Allocation H72 - Land west of Market Street, Edenfield

I am writing in respect of the Highways England consultation comments, dated 25th January 2019, regarding Allocation H72, Land west of Market Street, Edenfield in the Rossendale Draft Local Plan.

This response forms an update to Highway England's initial consultation response to the Draft Plan on 4th October 2018 and was informed by a meeting that took place on 5th December 2018 (between Highways England, Rossendale Borough Council and the three landowners/ promoters of allocation H72), and the subsequent submission of three technical reports on 21st December 2018, as listed in the HE letter.

These technical reports are listed below and enclosed for clarity, and we would ask that they, and the contents of this letter, are submitted to the Inspector alongside Highways England's response to provide additional context.

1. Preliminary Sources Study Report (covering Taylor Wimpey site), prepared by Betts Geo

2. Edenfield Geotech Summary Sheet (covering full allocation), prepared by Betts Geo

3. Desktop Geo-Technical Appraisal (covering Methodist Church land), prepared by Hydrock

We also enclose the combined illustrative masterplan for the site, which is also referred to in the HE letter.

4. Edenfield Allocation Combined Illustrative Masterplan, prepared by Randall Thorp

To be clear, these technical reports were commissioned to rebut and address the concerns raised in Highways England's initial response letter from 4th October 2018, and the key findings are set out below:

- The proposed masterplan shows significant stand-offs (45m +) from the slopes along the A56, and there are no other changes (topography, crossings, etc) proposed at this boundary, so the slope conditions and loading regime will not change.

- There are no existing slope instabilities noted which may affect the A56.

- Development of the site will allow an appropriate drainage strategy to be implemented, which takes account of ground conditions adjacent to the A56.

- The Woodcliffe slope failure is located 1km north of the site; whilst Commerce Street is located 4.5 km north in Haslingden, where the geological setting is clearly different, so these issues are not relevant to the Edenfield site.

- The Peel site is at grade with the A56, so no potential for land slip/ slope failure.

Betts therefore concluded:

> *"No significant Geotechnical Risks have been identified to the A56 from the proposed development which should prevent the site from being formally 'allocated' within the Rossendale Development Plan.*
>
> *Desk based studies indicate that the site generally poses a low risk to the proposed development from both environmental and geotechnical issues. This risk classification will be assessed further at planning stage (subject to allocation) through appropriately designed intrusive ground investigations".*

I trust the above comments and enclosed information is clear, but if you have any queries, please do not hesitate to contact me on the details below.

Yours sincerely,

Graham Lamb
Associate Planner

APPENDIX 7 – HERITAGE NOTE (PEGASUS GROUP)

Land west of Market Street H72 (Ref:SHLAA16262) Note on Heritage (Appendix 7)

REF: GS **DATE:** August 2019

Introduction

1.1 This note responds to the Council's Historic Impact Assessment (HIA) for the site.

1.2 The HIA states that:

- *The site contributes to the heritage significance of the asset through setting as there are views from the A56 to the asset.*
- *The loss of views resulting from the development of the whole site would cause substantial harm to the setting of the church.*
- *Secondary effects also include an increase in infrastructure, traffic movement/management and footfall, and the development urbanising the countryside.*
- *They request that the number of dwellings be substantially reduced, with the boundary pulled south of Mushroom House, as well as requesting the use of specific materials, height specifications and landscaping.*

Our response

1.3 The Council's assessment of harm is very strongly disputed, and cannot be held to be reasonable when relevant guidance and case law is considered.

1.4 The heritage significance of the church is primarily embodied in its fabric, which has evidential, aesthetic, historic and communal values. Setting does contribute to the heritage significance of the asset, but to a lesser degree.

1.5 Those elements of the setting of the asset that make the greatest contribute to its heritage significance comprise:

- Its grounds and graveyard from where it is best appreciated and understood.
- The adjacent roads of Church Lane and Market Street, from where it is readily appreciated.
- The settlement which it served historically.

1.6 The church is very largely screened from the wider area by vegetation and existing built form. The wider land, including the site, across which there are heavily filtered glimpsed views to the tower, makes a minimal contribution to the heritage significance of the asset through setting.

1.7 As such, the change of character within the site will result in a minimal impact on the heritage significance of the asset, being, at most, minor harm at the low end of the less than substantial harm spectrum.

1.8 Substantial harm, which the Council alleges is a high test. It has been clarified in a High Court Judgement of 2013[1] that this would be harm that would 'have such a serious impact on the significance of the asset that its significance was either vitiated altogether or very much reduced'. To allege such harm when the significance of the asset is primarily embodied in the fabric of the asset; the asset will not be physically harmed; and the development will not affect those elements of the setting that make the greatest contribution to the significance of the asset is not reasonable or justified.

1.9 Rather, our consideration of the asset in line with Historic England Guidance[2] (above) has determined that the impact of the proposed allocation (as shown on the combined illustrative masterplan) of the heritage significance of the asset would be, at most, minor, being at the low end of the less than substantial harm spectrum.

1.10 In light of this, the requirement for the development to be greatly reduced is not reasonable or justified. Rather the small amount of harm should be weighed against the public benefits of the proposed scheme, in line with paragraph 196 of the NPPF.

1.11 The judgement in 'Mordue'[3] has clarified that, with regards to the setting of Listed Building, where the principles of the NPPF are applied, this is in keeping with the requirements of the 1990 Planning (Listed Buildings and Conservation Areas) Act.

Conclusion

1.12 In conclusion, the development of the Land West of Market Street, as illustrated in the Combined Illustrative Masterplan (**Appendix 2** of the main Hearing Statement), would result in, at most, minor harm to the heritage significance of Edenfield Parish Church, at the low end of the less than substantial harm spectrum. The Council's assessment of substantial harm is not reasonable or justified when guidance and case law is considered. As such, the requirement to dramatically reduce the number of houses allocated to the site is not considered to be justified.

[1] *EWHC 2847, R DCLG and Nuon UK Ltd v. Bedford Borough Council*
[2] *Historic England, The Setting of Heritage Assets, Second Edition, 2017*
[3] *Jones v Mordue Anor (2015) EWCA Civ 1243*