BRYAN G HALL

CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS







Land West of Wakefield Road Mapplewell, Barnsley

Residential Travel Plan

September 2019

PROPOSED RESIDENTAL DEVELOPMENT
LAND WEST OF WAKEFIELD ROAD
MAPPLEWELL
BARNSLEY

PIPESTONE LTD

RESIDENTIAL TRAVEL PLAN

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Ref: 19-122-001.02

September 2019

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1.0 INTRODUCTION

1.1 This Travel Plan (TP) has been prepared by Bryan G Hall on behalf of Pipestone Limited for up to 250 dwellings on land to the west of A61 Wakefield Road, Mapplewell. A plan showing the location of the site in relation to the highway network is attached at **Appendix TP1.**

1.2 The site is located 4 kilometres to the north of Barnsley town centre. The site will be accessed from the A61, Wakefield Road. A site layout plan is attached at **Appendix TP2.**

1.3 A TP (ref no: 11-338-002.02) was prepared by Bryan G Hall in August 2013 to accompany the planning application. This TP has been written in accordance with the 2013 TP and is required to discharge Condition 11 of planning permission 2014/0249, as set out below:

"No development shall commence until full details of the measures set out in the Travel Plan and to encourage the use of public transport in accordance with policy CSP25 by providing the first principle occupant of each dwelling a one year annual South Yorkshire Travelmaster pass for the Barnsley area have been submitted to and approved in writing by the Local Planning Authority. Once approved the scheme shall be implemented until all the dwellings are first occupied."

1.4 The South Yorkshire Travelmaster pass for the Barnsley area is no longer available. Discussions have taken place with Barnsley Metropolitan Borough Council (BMDC) and it has been agreed that the first occupant of each dwelling will be offered three 28 day TravelMaster Barnsley tickets instead.

1.5 The main aim of this TP is to minimise single occupancy vehicle trips to and from the site and to promote modes of sustainable travel to residents on site.

1.6 A TP is not a static document, it evolves over time and adapts to reflect new guidance and emerging best practice. A Travel Plan Coordinator (TPC) will be put in place and the TPC will be responsible for the implementation, travel surveys, monitoring and review, and incorporating best practice within the TP where appropriate.

1.7 Following this introduction, this TP is divided into the following sections:

- Section 2.0: provides a review of national and local planning policy;
- Section 3.0: sets out the accessibility of the site particularly in relation to walking, cycling and public transport;
- Section 4.0: summarises the details of the role of the TPC and provides appropriate contact details;
- Section 5.0: details the TP targets and associated forms of monitoring; and
- Section 6.0: describes the measures to be implemented on site and provides an initial action plan.

2.0 PLANNING POLICY

National Policy

National Planning Policy Framework, June 2019

2.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how they are expected to be applied. It was originally published in 2012 and revised in June 2019. At the heart of the NPPF is a presumption in favour of sustainable development.

2.2 In relation to transport, the NPPF states that significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes (paragraph 103). This can help to reduce congestion and emissions and improve air quality and public health. It is noted however that opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this needs to be taken into account. This development is considered to be situated in a sustainable location in line with the expectations of the NPPF.

2.3 Development should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to, inter alia:

- Give priority first to pedestrian/cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitate access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;
- Address the needs of people with disabilities and reduced mobility in relation to all modes of transport; and
- Create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standard (paragraph 110).

2.4 This TP details the provision of infrastructure in place for walking and cycling, as well as the public transport in the vicinity of the site in line with the NPPF.

Planning Practice Guidance

2.5 This guidance was released in March 2014 by the Department for Transport to bring together planning practice guidance for England in an accessible and usable way.

2.6 This guidance states that TPs should identify the specific required outcomes, targets and measures, and set out clear future monitoring and management arrangements all of which should be appropriate. They should also consider what additional measures may be required to offset unacceptable impacts if the targets should not be met.

2.7 It goes on to suggest that all TPs should evaluate and consider:

- Benchmark travel data including trip generation databases;
- Information concerning the nature of the proposed development and the forecast level of trips by all modes of transport likely to be associated with the development;
- Relevant information about existing travel habits in the surrounding area;
- Proposals to reduce the need for travel to and from the site via all modes of transport; and
- Provision of improved public transport service.

2.8 This TP addresses the existing travel habits of those residing in the area of the development using census data. There are proposals in terms of measures and an action plan in order to reduce single occupancy travel to and from the site.

Local Policy

South Yorkshire Cycling Action Plan

2.9 Following Tour de France making its way through the region in 2014, there has been an increase in recreational cycling and an increase in the number of people cycling to school and to work.

2.10 The Action Plan aims to increase the mode share of cycling to 10% of all journeys by 2025 and to 25% by 2050. This TP will assist with working towards this target and promote cycling to and from site.

2.11 The plan recognises that through realising the economic potential of cycling, improving health and reducing health inequalities, improving cycle safety and providing leadership and partnership, cycling will increase across the city.

Barnsley Local Plan 2019 to 2033

2.12 Barnsley's Local Plan provides local planning policy for the future development of Barnsley up to the year 2033.

2.13 The Local Plan explains that new developments will be expected to be designed and built to provide all transport users within and surrounding the development with safe, secure and convenient access and movement. A TP can assist with implementing measures to influence travel behaviour.

Barnsley Transport Strategy 2014 to 2033

2.14 Barnsley's Transport Strategy identifies and prioritises transport interventions associated with sustainable development to meet aspirations as set out in Barnsley's other plans, such as the Local Plan.

2.15 The strategy states that: "*by 2033, Barnsley will have well connected employment, recreation, social and housing locations with connections to high speed rail and regional transport hubs. The road network will perform in the most effective way and it is acknowledged that the provision of accessible and frequent public transport plays a key part in ensuring inclusion and opportunities*".

Barnsley Active Travel Strategy 2019 to 2033

2.16 Barnsley Active Travel Strategy aims to make active travel an attractive and realistic choice for short journeys to enable and encourage people to walk and cycle as part of their daily lives.

2.17 Although predominantly focussed on active travel, the strategy promotes the modes of walking and cycling within the borough, and feeds into the active travel aspirations of Sheffield City Region who announced in July 2018 the vision of *"getting more people walking, running or cycling on short journeys".*

2.18 The strategy recognises that effective interventions such as Travel Plans assist with encouraging people to make active travel choices, others include:

- Safe, attractive and direct walking routes and pedestrian facilities to public transport,
- Provision of safe and attractive off-road cycling facilities where appropriate;
- Well-positioned and maintained facilities such as cycle stands;
- Positive messages and promotions, emphasising the health benefits of active travel which are known to be more effective than 'environmental' messages; and

- Making active travel achievable for all sections of the community, including by ensuring active travel routes are accessible and inclusive for all.

2.19 The above local policies and strategies have been considered when preparing this TP.

3.0 SITE ACCESSIBILITY

Site Location

3.1 The site is located to the west of the A61, Wakefield Road, 4 kilometres to the north of Burnley town centre. The site is bounded to the north and south by residential properties, and to the west by allotment gardens.

Pedestrian Accessibility

3.2 The Chartered Institution of Highways and Transportation (CIHT) publication ''Planning for Walking'' (March 2015) states that after driving, walking is the most common form of travel in Britain accounting for 22% of all journeys in 2012. Approximately 80% of journeys shorter than 1 mile (1.6 kilometre) are made wholly on foot.

3.3 Walking is also an essential part of public transport travel, with bus stops, and in this instance a railway station, being readily accessible on foot. Promoting sustainable, integrated transport involves ensuring good pedestrian links to the public transport facilities, which are currently available to the development site.

3.4 The CIHT Guidelines describe 'acceptable' walking distances for pedestrians without any mobility impairment. The recommended desirable, acceptable and preferred maximum walking distances for commuting/school and other journeys, such as retail/shopping, are shown in Table 3.1.

Table 3.1: CIHT Recommended Walking Distances

	Trip Purpose	
	Commuting/School	**Other Journeys (Retail/Shopping)**
Desirable Maximum Distance	500 metres	400 metres
Acceptable Maximum Distance	1,000 metres	800 metres
Preferred Maximum Distance	2,000 metres	1,200 metres

3.5 Pedestrian access to the site will be provided via footways on both sides of the vehicular access from A61, Wakefield Road. The vehicular access will incorporate a pedestrian dropped crossing with tactile paving and a pedestrian refuge island,

allowing pedestrians to cross in two stages. The footways will tie into the existing footway present on the western side of the A61, Wakefield Road.

3.6 Within the site, there will be a mix of footways and shared surfaces to facilitate pedestrian movement around the site. There will also be a footpath running north-east to south-west through the green space in the centre of the site.

3.7 To the west of the site, there is a Public Right of Way, highlighted as an unmarked path which is to be upgraded as part of the proposals. This path allows access into existing residential areas and onto Blacker Road to the south (via Hope Street or Maythorne Close/Cloverlands Drive) which runs in a north-west / south-east direction through the area of Mapplewell and into Staincross.

3.8 A walking Accessibility Plan prepared using the Visography TRACC multi-modal transport accessibility software is attached at **Appendix TP3** highlighting the areas accessible within 2 kilometre of the site, in 400m segments. Within 1200m, residents can access the local facilities located in Mapplewell and Staincross, including a Co-op with an ATM, Church, Village Hall, takeaways, restaurants and other employment areas. There is a pharmacy located on Darton Lane, 1400m from the site using the public right of way.

3.9 Mapplewell Primary School is located to the west of the site, within an 800m walking distance. Wellgate Primary School is located within a 1,200m distance and Athersley North Primary School within a 2,000m distance. All of these schools are within the preferred maximum distance for commuting/school shown in Table 3.1.

Cycle Accessibility

3.10 As set out in the DfT Cycling and Walking Investment Strategy (2017) it is accepted that cycling is an ideal mode of transport for journeys under 8 kilometres and that cycling has clear potential to substitute for short car trips, particularly those under 5 kilometres, and to form part of a longer journey by public transport.

3.11 Cycling is considered to offer an attractive and effective mode of travel for journeys that are less than 8 kilometres. Typically 8 kilometres equates to a cycling journey time of approximately 30 minutes. The Cycling Accessibility Plan showing the 5 kilometre and 8 kilometre cycle isolines is attached at **Appendix TP4**. The plan shows that Staincross, Royston, Darton and the north of Barnsley town centre are accessible within 5 kilometres and Chaplethorpe, Shafton, Worsbrough, Kexbrough are accessible within 8 kilometres.

3.12 Cycle parking will be provided on site. For each dwelling with a garage, cycles can be stored within.

Public Transport Accessibility

3.13 The Public Transport Accessibility Plans attached at **Appendix TP5** highlight the areas accessible by public transport within a 60 minute catchment. It shows that during the peak hours, the whole of Barnsley is accessible within 40 minutes and Sheffield and Leeds are accessible within 60 minutes.

Bus

3.14 The IHT publication 'Guidelines for Public Transport in Development' recommends that residents from new developments should be able to access a public transport route and preferably bus stops on that route within a 400 metre recommended maximum walking distance of the site.

3.15 The nearest bus stops to the site are located on both sides of Blacker Road to the south of the site. These stops are recognised by a bus shelter on the northern side and a bus shelter and bus layby on the southern side.

3.16 Traveline journey planner shows that the bus stops on Blacker Road are served by bus numbers 1 and X10 the former of which provides a 10 minute frequency service to and from Barnsley, the principal local destination and the latter provides an hourly service between Barnsley and Leeds.

3.17 There are a number of services operating to and from Darton Academy at peak school times. This provides opportunity for secondary school children to travel to and from school on the bus.

Train

3.18 The nearest railway station to the development site is Darton Railway Station which is located on Station Road some 2.7 kilometres (walking distance via footways) from the western end of the site. A further station is located in Barnsley which is approximately 4.5 kilometres from the eastern end of the site. Both of these stations are within the recommended cycling distance and have potential to make up part of a longer journey.

3.19 Darton Railway Station offers hourly services to Leeds and Sheffield, via Wakefield, Castleford, Wombwell and Chapeltown (South Yorkshire).

3.20 Barnsley Railway Station offers services approximately every half hour to Leeds, in addition to journeys to Sheffield every 40 minutes and Huddersfield, Lincoln Central and Nottingham every hour.

4.0 TRAVEL PLAN COORDINATOR

4.1 It is widely recognised that a TPC plays a key role in the success of any TP. The TPC will be responsible for the overall management and implementation of the TP including the measures contained in this report and the future monitoring and review process. The appointment of a TPC will commence 6 months prior to occupation and the appointment will remain in place for at least 5 years thereafter.

4.2 Contact details for the TPC will be provided to the relevant officer at BMDC and South Yorkshire Passenger Transport Executive. The TPC will be responsible for overseeing the implementation of the TP. The TPC will contact BMDC to advise that they have begun work on the TP.

4.3 If the TPC changes, the requirement to fulfil this role will be part of any subsequent appointment. BMDC will be informed of any changes of management.

Travel Plan Budget

4.4 The TPC will have a dedicated budget available for implementation and promoting sustainable modes of travel to residents. This budget will be identified in due course.

Contact Details

4.5 Bryan G Hall will be the TPC for the site and contact details are as follows:

Travel Plan Coordinator
Bryan G Hall
Suite E15
Josephs Well
Hanover Walk
Leeds
LS31AB
tpc@bryanghall.co.uk
0113 246 1555

5.0 TARGETS AND MONITORING

5.1 One of the indicators by which the success of the TP will be measured is through the modal shift towards sustainable modes of travel. Baseline modal split proportions will first need to be identified before realistic targets can be set and used to measure any shift in travel patterns.

5.2 In the absence of any baseline data, the presumed modal split for the development has been derived from National Statistics Census 2011 data for Method of Travel to Work by usual place of residence, for the Middle Super Output Area (MSOA) of Barnsley 004.

Table 5.1 - National Statistics Census 2011 Ward Data
MSOA Barnsley 004 - Method of Travel to Work

Mode	Modal Split
Train	2%
Bus	5%
Motorcycle	1%
Driving (Single Occupancy)	77%
Passenger	6%
Bicycle	1%
On Foot	8%

5.3 Single occupancy car travel is the most used mode of travel to work in the Barnsley 004 MSOA. As part of the TP, measures will be put in place to minimise the number of single occupancy vehicle trips to/from the site. As part of this, targets have been applied to the existing census data and can be seen in Table 5.2 overleaf.

Table 5.2 - National Statistics Census 2011 Ward Data
MSOA Barnsley 004 - Method of Travel to Work Targets

Mode	Modal Split	Target
Train	2%	2%
Bus	5%	7% (+2%)
Motorcycle	1%	1%
Driving (Single Occupancy)	77%	72% (-5%)
Passenger	6%	7% (+1%)
Bicycle	1%	2% (+1%)
On Foot	8%	9% (+1%)

5.4 The modal split is based on a 5% reduction of single occupancy car trips and subsequent increase in other more sustainable modes. Targets will be reviewed following the first survey and will be agreed with BMDC.

5.5 Travel surveys will be undertaken once 50% occupation is reached on site, or a year after first occupation, whichever is sooner. A period of monitoring will be in place for 5 years and an annual monitoring report will be produced.

6.0 MEASURES

6.1 A programme of monitoring and review will be implemented by the Travel Plan Co-ordinator to generate information by which the success of the Residential Travel Plan can be evaluated.

Site Design

The site will be designed to maximise the potential for sustainable travel. The footways to and from the site provide opportunity for journeys on foot, as set out in chapter 3.0. The existing footpath to the south west on the site will be upgraded as part of the proposals.

The proposed site is well located to enable residents to utilise the existing local facilities.

Measure 1 – Travel Guide

A resident travel welcome pack will be prepared, agreed with BMDC and provided to all new residents (one per property) on occupation. This travel welcome pack will contain a site specific travel guide, information on local initiatives and infrastructure, and contact details for the TPC. A map will be prepared and included in the pack summarising, where appropriate, local walking and cycling routes, local bus stops, the direction of and distance to Darton Railway Station. The resident travel pack will be distributed to all new residents via the sales suite so that they have time to consider their options for travel to and from the site as part of their planning process to move in.

Measure 2 – Personalised Travel Planning

In order to complement the residents travel pack a letter will be sent to all new residents within one month of occupation/commencing work to offer personalised travel planning with the TPC. It is anticipated that one month post occupation residents will have had time to deal with any issues associated with moving home and may be in a position to consider their travel options and travel initiatives in more detail.

Measure 3 – Residents Group

The TPC will organise a residents meeting, at least once a year as a minimum. This will provide a forum where residents of the development can talk about the development and any improvements they see necessary. A representative from BMDC and from interested third parties (such as bus service operators) will also be invited.

Measure 4 - Newsletter

A travel newsletter will be produced and distributed to all residents as a minimum, twice per year, this frequency could increase if demand exists. This will act as a means of updating residents of National and Local events, changes to infrastructure or local services, and remind residents of the other measures contained within this Travel Plan.

Measure 5 – Promote Walking Apps

Walking apps will be promoted within the newsletter to encourage residents to take up walking locally and further afield. Apps can track movement, distance and offer a competitive element to increase the distance and regularity of walking. Apps can also offer great walking tips.

Examples such as MapMyWalk, Nike+Running App and Walkmeter are summarised and available for Android or iOS.

Measure 6 – Secure Cycle Parking

Secure cycle parking will be provided in line with South Yorkshire Residential Design Guide standards, where all dwellings should have adequate cycle parking. Where dwellings have a garage, these will be sufficient for cycle storage.

Measure 7 – Trial Public Transport Ticket

The first occupant of each dwelling will be offered three 28 day TravelMaster Barnsley public transport ticket so that they can trial using the bus for free. Three tickets will be available per property, details of this incentive will be outlined in the residents travel pack and the letter sent to residents offering personalised journey planning. The cost of the trial public transport tickets will be met by the developer. By trialling a different mode of travel for free, this can show residents

how easy it is to catch the bus from near the development. The map provided in the residents travel pack will highlight the location of the closest bus stops, which will be useful for people choosing to utilise the public transport ticket.

The TPC will work alongside SYPTE to ensure that residents at the development are able to partake in any public transport ticketing schemes.

Measure 8 – Car Sharing Club

The TPC will explore the possibility of creating an informal car sharing scheme at the development for residents use. The regular travel needs of residents will be identified and a database will be established enabling those having the same destination to be identified, promoting multiple occupancy car journeys.

In addition to any on-site based car sharing scheme, the TPC shall promote the dedicated pool for sharers at Liftshare using www.southyorkshire.liftshare.com and www.liftshare.com/uk/journeys/from/Barnsley

Measure 9 – Promote Working from Home

Broadband wireless internet provision is now widely available through a standard telephone line and this facility allows residents to work or study from home and also takes advantage of a wide range of home shopping opportunities.

In order to reduce the need to travel, the STPC will promote to all residents the advantages that internet use and home delivery services can provide in terms of reducing the number of trips to and from the development particularly during peak periods on the local highway network.

6.2 The development and implementation of the above measures is key to the success of the TP. The measures will be reviewed and refined in conjunction with BMDC as this TP evolves.

Action Plan

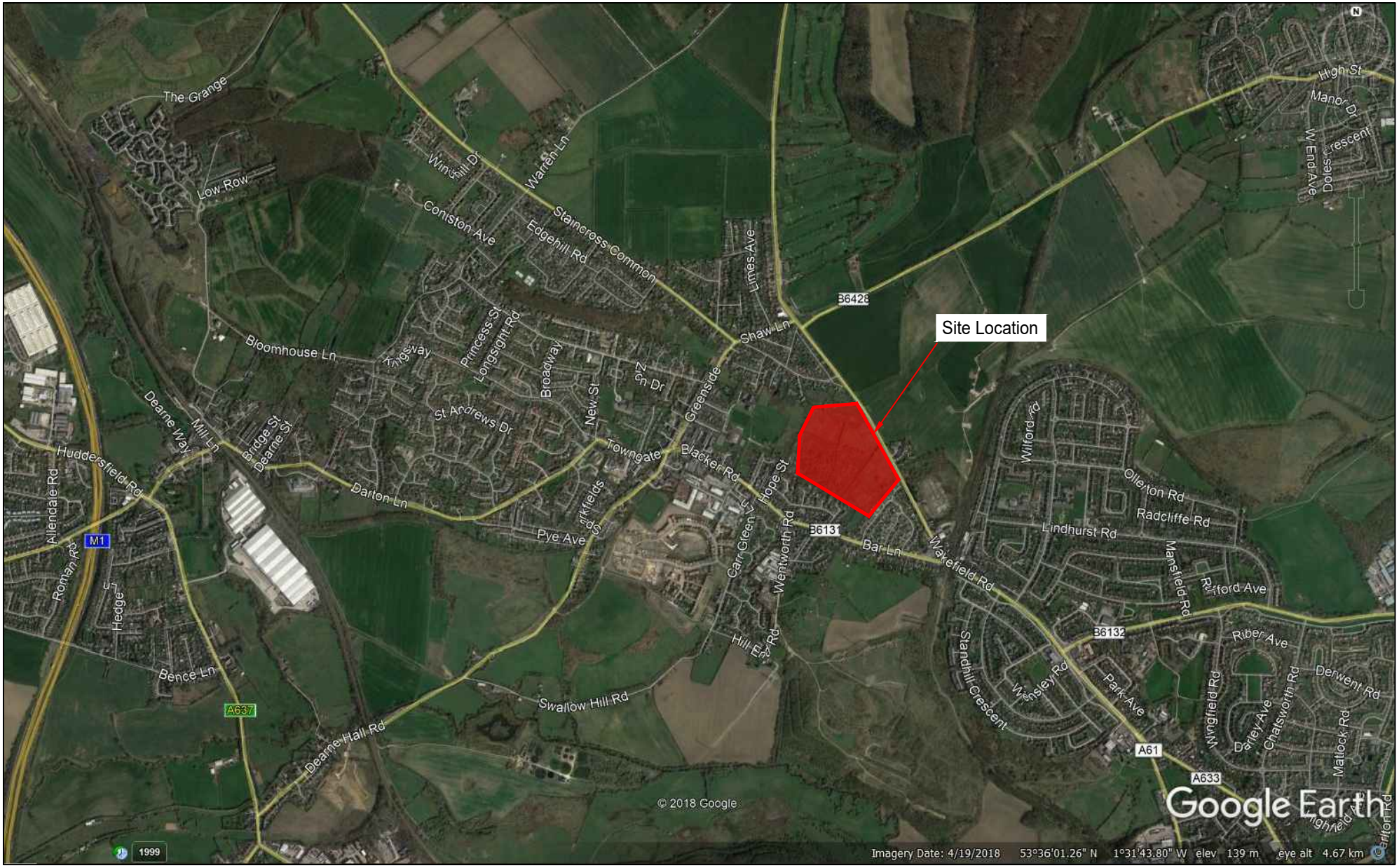
6.3 The TPC has developed an Action Plan based upon this TP and this will be reviewed annually. The Action Plan sets out the programme of measures and tasks involved, person responsible and a date by which this will be achieved. The aim of the approved TP, prior to first occupation, is to implement the measures and opportunities for sustainable travel as identified within the timeframes of this TP.

6.4 It will be the responsibility of the TPC to manage the Action Plan between annual reviews and ensure that the tasks are being carried out in accordance with the programme. At every anniversary following first occupation, the TP will be reviewed in conjunction with BMDC and the annual Action Plan will be updated, agreeing where particular measures, monitoring and initiatives can be amended, added and removed as necessary.

Initial Action Plan

Action	Date	Responsibility
Appoint TPC	Prior to first occupation	Bryan G Hall
Liaison with SYPTE regarding bus, train and tram posters, leaflets and timetable information	Prior to first occupation	TPC
Produce Travel Welcome Packs	Prior to first occupation	TPC
Provide Personal Travel Planning Service	Within one month of occupation	TPC
Trial Public Transport Tickets for residents	Upon first occupation	TPC
Carry out Travel Surveys	At 50% occupation or 1 year after first occupation	STPC
Review TP and Action Plan in conjunction with BMDC	One year after first occupation	TPC and BMDC

APPENDIX BGH 1



Rev:	Amendment:	DRN:	CHK:	Date:

Project: LAND WEST OF WAKEFIELD ROAD
MAPPLEWELL, BARNSLEY

Title: SITE LOCATION PLAN

Client: PIPESTONE LTD

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NTS			
Size: A4 - 297 x 210	19-122	19/122/LOC/001	-

APPENDIX BGH 2



LANDSCAPE PROPOSALS KEY:

- Proposed Tree - Semi Mature
- Proposed Tree - Extra Heavy Standard
- Native Hedge Planting
  Mixed species Hawthorn hedge to replace removed hedgerows. Planted to open space boundaries.
- Ornamental Hedge Planting
  Used to define the boundary between public and private realm.
- Proposed Bulb Planting
- Shrub Planting
  A selection of evergreen and semi-evergreen shrub planting within private gardens. Planting is used to define private realm, soften built form and aid legibility.
- Amenity Grass from seed or turf
- Grass - Species Rich Wildflower Mix
- H4 Existing Trees Retained
  (Reference as used on Biodiversity Mitigation Plan)
- Trees to be Removed

Landscape Proposals

This drawing illustrates the landscape strategy for the site based on the wider masterplan and green infrastructure, the aims are:

- To mitigate the visual impact of the development on the surrounding open land, transport routes and residential areas
- To provide an attractive and legible development for users
- To create a sequence of linked green spaces
- To mitigate any loss of trees/hedgerows and provide ecological enhancements

FOR DETAILS OF SUDS AREA PLANTING PLEASE REFER TO BIODIVERSITY MITIGATION AND ENHANCEMENT PLAN DOCUMENT BY ECUS.

Ornamental Shrub Planting
The landscape proposals show the location of ornamental shrub planting beds within the dwelling plots.
Planting beds are designed to provide an attractive environment for the site users. A selection of evergreen and semi-evergreen shrub planting around car parking areas creates legible boundaries between units and softens structural elements.

Topsoil shall be spread in layers not exceeding 150mm to a depth of 450mm over all shrub planting beds. Topsoil to be treated with non-residual herbicide in advance of planting. All planting beds and hedges to receive 75mm consolidated depth of medium grade ornamental bark mulch after planting. Where/if slopes exceed a gradient of 1:4 mulch matting secured by pegs/pins must be used.

Native Hedge Planting
The hedges will be planted as staggered double rows at 45 cm centres planted in random groups of 3-9. Herbaceous and woody climbing plants will be scattered through as individuals. To ensure that the herbaceous species are not lost through routine hedgerow maintenance during the establishment period (herbicide application) these will be clearly marked and kept competition free through the use of mulch mats.

Tree Planting
All Extra Heavy Standard (or larger) trees to be secured with underground guys. After planting cover a circular area of 500 mm radius, measured from the tree stem, with medium grade bark mulch.
Standard trees are to be secured by a single stake, rubber cushion and tie.

Species-Rich Grassland
Soil spreading in the areas to be treated with wildflower meadow seeding will need to be different from the soils used in the remainder of the site to establish amenity grassland and landscape tree and shrub planting. Soil to be spread in wildflower areas shall consist of neutral subsoil, this is likely to constitute subsoil taken from existing soil profiles. Wildflower seeding will comprise of a general meadow seed mix with a good variety of native flower species along with a range of native grasses typical of higher value grassland habitat. The Emorsgate E3 "Special General Purpose Meadow Mixture" or an equivalent mix would suit the seeded areas based on the sites existing value and grasslands typical of the wider area.
The wildflower mix balances the creation of what would once have been locally prevalent plant communities with the need to create visually attractive, showy grasslands with high habitat value for invertebrates. The mix will be sown at 25 kg per ha.

Planting Specification

Topsoil shall be spread in layers not exceeding 150mm to a depth of 450mm over all shrub planting beds. Topsoil to be treated with non-residual herbicide in advance of planting. All planting beds and hedges to receive 75mm consolidated depth of medium grade ornamental bark mulch after planting. Where/if slopes exceed a gradient of 1:4 mulch matting secured by pegs/pins must be used. All Extra Heavy Standard (or larger) trees to be secured with underground guys. After planting cover a circular area of 500 mm radius, measured from the tree stem, with medium grade bark mulch.

Foundation design of new buildings shall accommodate proposed tree and shrub planting in accordance with NHBC standards.

Establishment Maintenance and Management for Soft Landscape

Public Realm
Public realm to be maintained by a management company to an approved management plan.
Management activities to include:

- All planting should be monitored for a period of 5 years following completion. Any failed plants should be replaced during the following planting season.
- Planted areas to be maintained weed free
- Litter to be removed from all public realm areas
- Tree staking and ties to be checked and adjusted as necessary
- Mowing to be carried out in accordance with a management plan for different grass types

Private Realm
Private realm to be maintained by the property owner

- All planting should be monitored for a period of 5 years following completion. Any failed plants should be replaced during the following planting season.
- Restrictive covenants to be applied to plots with strategic tree, hedge and shrub planting to ensure the planting is retained and maintained in a uniform way.

Native Hedgerows (public & private)
Objectives:
To ensure the healthy establishment of new hedgerows.
To encourage bushy side growth of hedgerow and maintain A- shaped profile once established.
To provide more fruit, berries, flowers and nesting opportunities.
To maintain to a maximum height of 1.8m.
Operations:
Establishment pruning during first year (newly planted hedges only) - heavy trim sides first year to encourage bushy side growth followed by light trimming to sides until established - November to March.
Established hedges - Trim alternate sides on an annual basis to promote fruiting - November to February, annually.

FOR MANAGEMENT OF SUDS AREA PLEASE REFER TO BIODIVERSITY MITIGATION AND ENHANCEMENT PLAN DOCUMENT BY ECUS (APPENDIX 2).

REV	DATE	DESCRIPTION	BY	CHECK
C	05.12.17	BIODIVERSITY ENHANCEMENT DETAIL ADDED TO PLAN ALONG WITH VARIOUS OTHER CHANGES IN RESPONSE TO LPA OFFICER COMMENTS	LB	LM
B	04.12.17	HEDGE PLANTING SIGNIFICANTLY INCREASED TO BOUNDARIES OF CENTRAL & SOUTHERN OPEN SPACES	LB	LM
A	30.06.17	PLAN UPDATED TO REFLECT REVISED BIODIVERSITY MITIGATION AND ENHANCEMENT PLAN HEDGE MANAGEMENT NOTES ADDED HEDGE REFERENCES ADDED	LB	LB

jrp ARCHITECTURE | PLANNING | LANDSCAPE

NORTH

1:1250 SCALE
10m 100m

CLIENT:
NETHERTON HOMES

PROJECT:
PHASE 2 LAND WEST OF
WAKEFIELD ROAD, MAPPLEWELL

DRAWING:
LANDSCAPE MASTERPLAN

DRAWING NUMBER:
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SCALE @ A1:
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DRAWN: LB **DATE:** 13.04.17

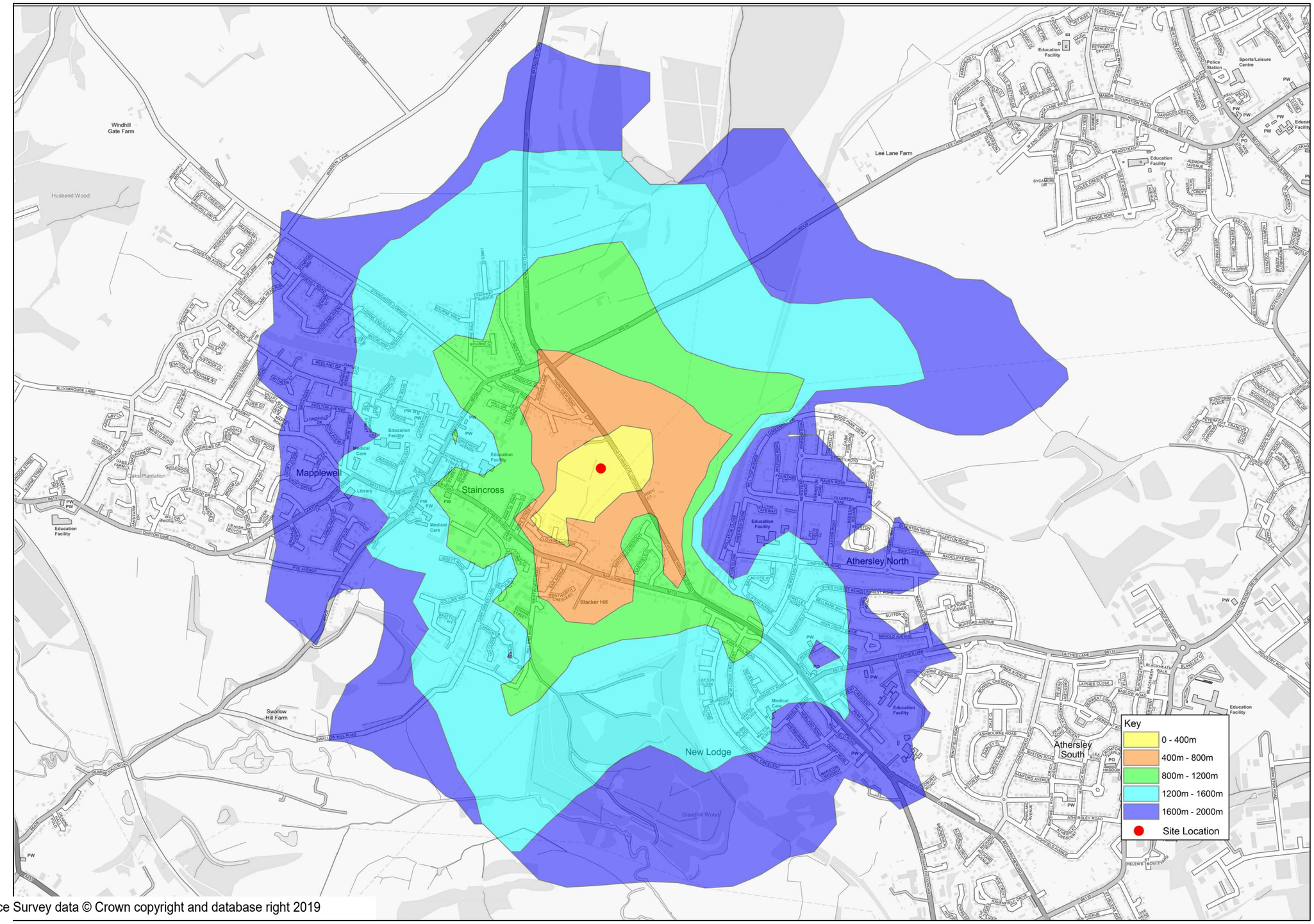
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101 / LANDSCAPE MASTERPLAN

APPENDIX BGH 3



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Client: PIPESTONE LTD

Project: LAND WEST OF WAKEFIELD ROAD, MAPPLEWELL, BARNSLEY

Title: TRACC WALKING ACCESSIBILTY PLAN, 2KM

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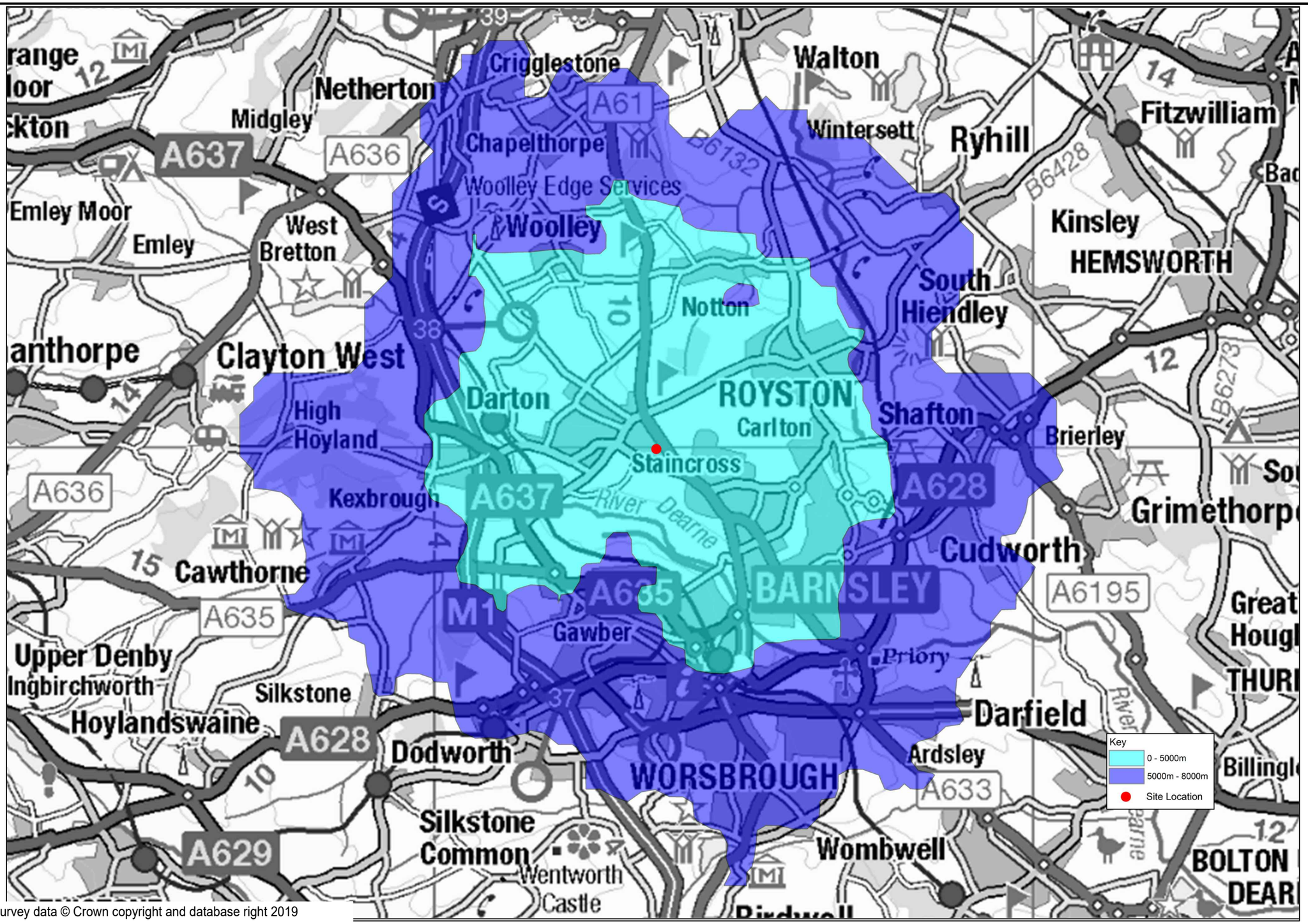
Rev:	Amendment:	Drn:	Chk:	Date:

Drawn: KP Chkd: RCB Appvd: Date: 26/03/2019

Scale: NTS Job No: Drawing No: Revision:

Size: A3 - 420 x 297 19-122 19/122/ACC/001 -

APPENDIX BGH 4



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Client: PIPESTONE LTD

Project: LAND WEST OF WAKEFIELD ROAD, MAPPLEWELL, BARNSLEY

Title: TRACC CYCLING ACCESSIBILTY PLAN, 5KM & 8KM

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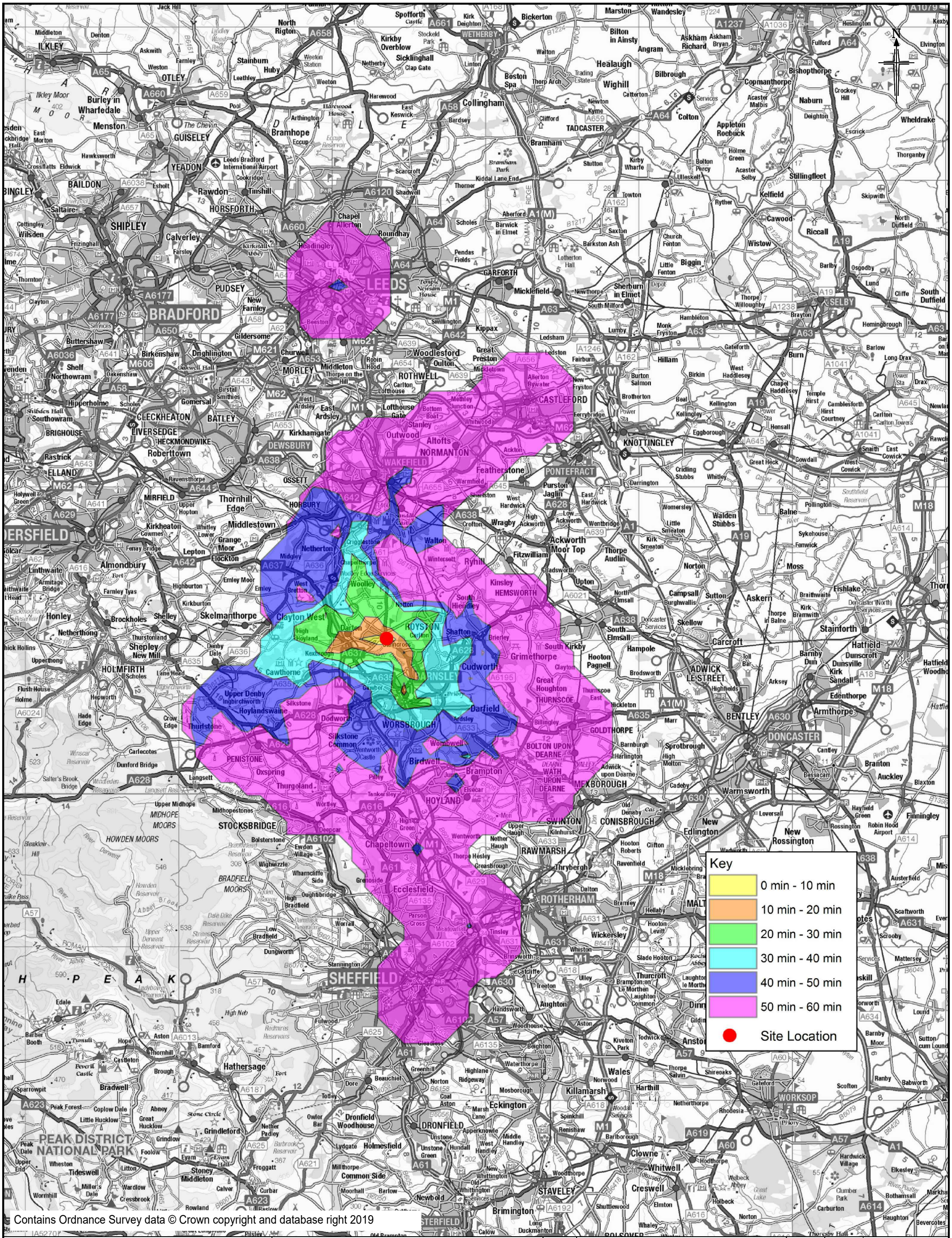
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Drawn: KP Chkd: RCB Appvd: Date: 26/03/2019

Scale: NTS Job No: 19-122 Drawing No: 19/122/ACC/002 Revision: -

Size: A3 - 420 x 297

APPENDIX BGH 5



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Client: PIPESTONE LTD

Project: LAND WEST OF WAKEFIELD ROAD, MAPPLEWELL, BARNSLEY

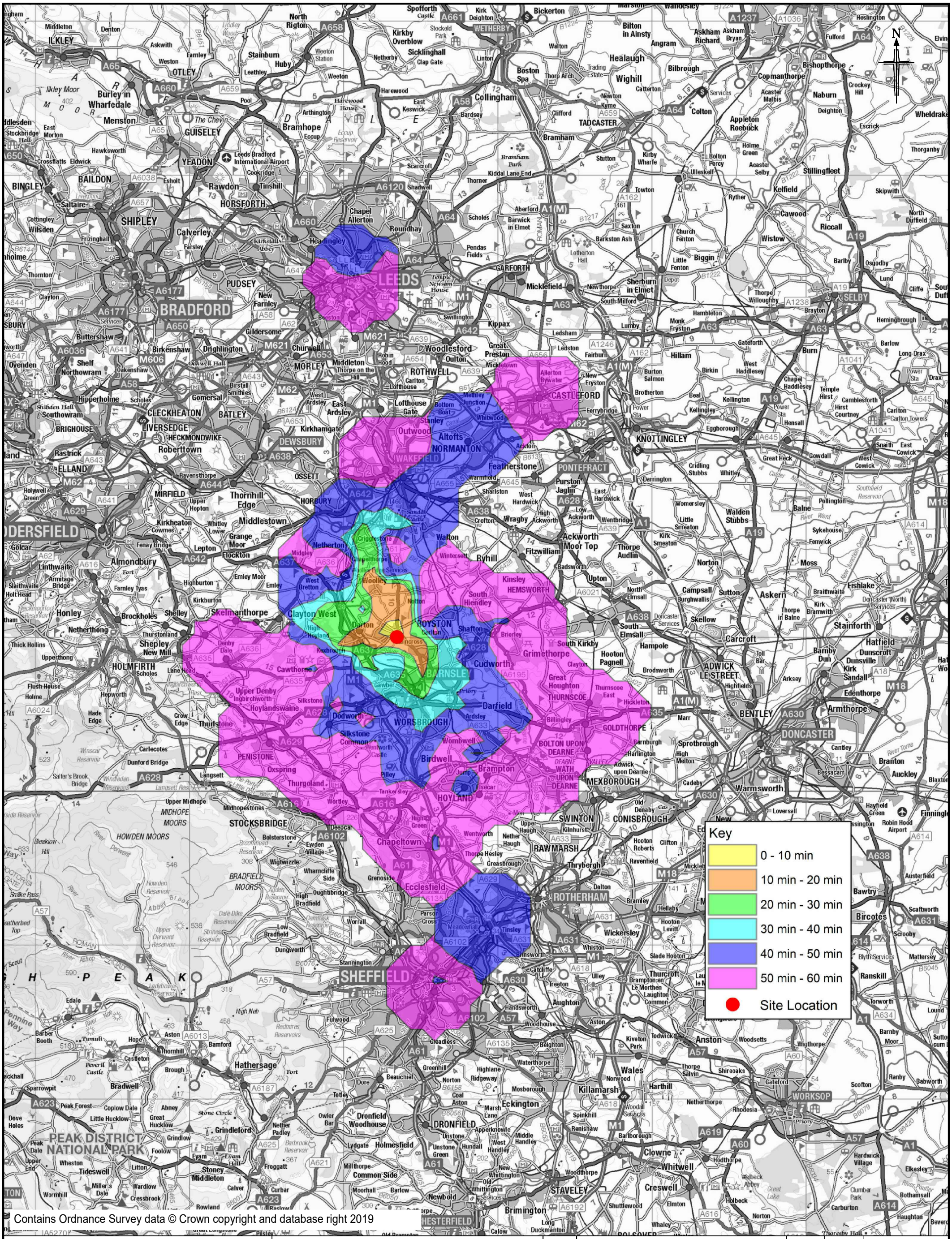
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Rev:	Amendment:	Drn:	Chk:	Date:

Drawn: KP Chkd: RCB Appvd: Date: 26/03/2019

Scale: NTS Job No: Drawing No: Revision:

Size: A3 - 420 x 297 19-122 19/122/ACC/003 -



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Client: PIPESTONE LTD

Project: LAND WEST OF WAKEFIELD ROAD, MAPPLEWELL, BARNSLEY

Title: TRACC PUBLIC TRANSPORT PM ACCESSIBILITY PLAN

Rev:	Amendment:	Drn:	Chk:	Date:

Drawn: KP Chkd: RCB Appvd: Date: 26/03/2019

Scale: NTS Job No: 19-122 Drawing No: 19/122/ACC/004 Revision: -

Size: A3 - 420 x 297

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