

**Appendix C:           Transport Report – Blackburn  
Road, Edenfield**

## Proposed Allocation Site

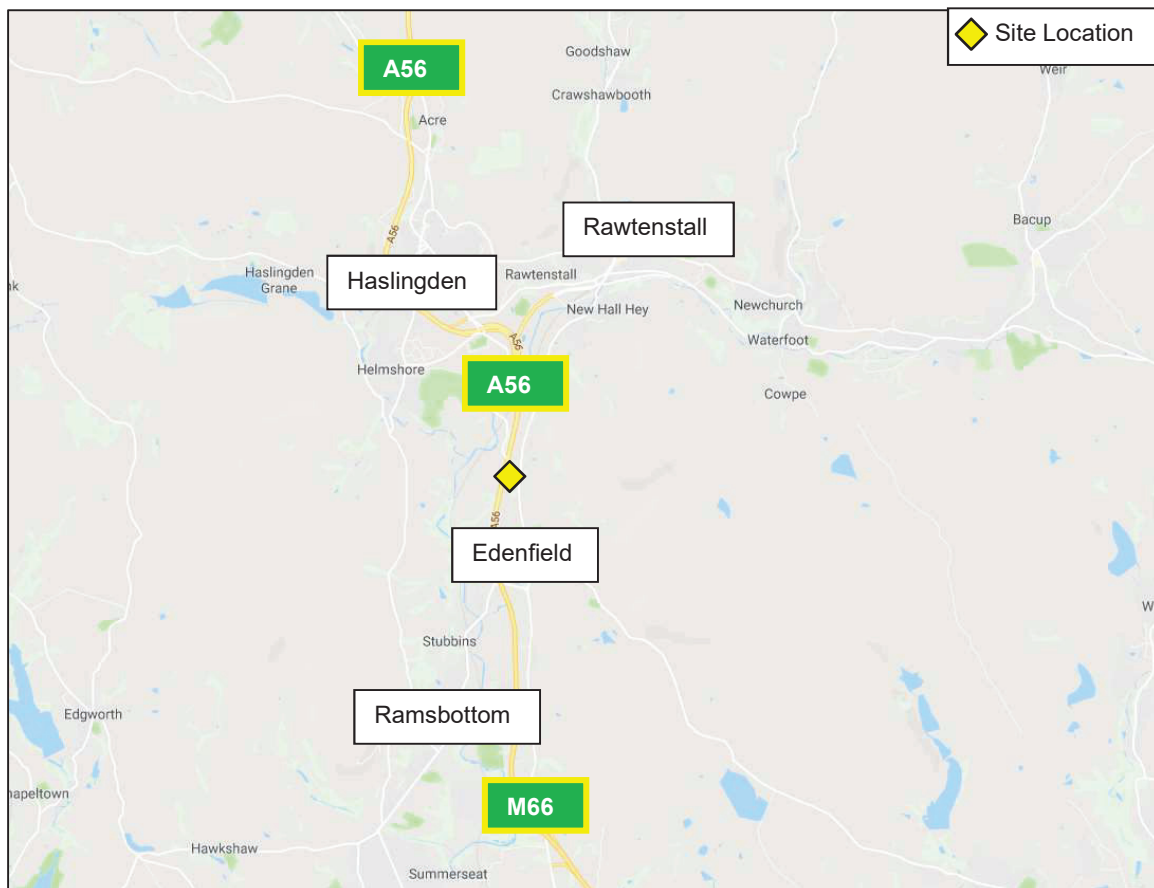
### Land off Blackburn Road, Edenfield, Rossendale

VAL/190545/TN01 - 22 August 2019

### Introduction

1. SCP have been instructed by Peel Holdings (Land and Property) Lt to support the allocation of land to the west of Blackburn Road, Edenfield for residential purposes in the Rossendale Local Plan. The site is located approximately 700m to the north of Edenfield Village and covers an area of approximately 5.4 acres.
2. This technical note has been produced to support the allocation and to demonstrate to the Local Planning and Highway Authority that a safe and suitable access can be provided to serve future residential development on the site.
3. The site location can be seen on **Figure 1**.

**Figure 1 – Site Location**



## Existing Highway Conditions

4. The site is located to the west of Blackburn Road which provides a link between Edenfield in the south and the A56 in the north. In the vicinity of the site, Blackburn Road is subject to a 30mph speed limit, has a carriageway width of approximately 8.6m and benefits from street lighting, footways and on-road marked cycle lanes on both sides of the road. Edenfield CoE Primary School is located to the south of the site with a 20mph speed limit in operation during school pick up / drop off times.
5. The Burnley Road / B6527 Blackburn Road / Market Street signalised junction is located immediately to the south of the site. All movements at this junction are under signal control apart from northbound movement from Market Street to the B6527 Blackburn Road which is under priority control.
6. The most recently available three-year road safety record in the vicinity of the site has been obtained from the database website Crashmap for the period 1<sup>st</sup> January 2014 to 31<sup>st</sup> December 2018. Investigations show that two accidents occurred on Blackburn Road with no accidents being recorded at the Burnley Road / B6527 Blackburn Road / Market Street signalised junction. Given the low number of accidents, the existing road safety record does not lead to any significant concern or demonstrate any discernible pattern that could be affected by allocation proposals.
7. Images of Blackburn Road in the vicinity of the site are shown below:

North from Site Frontage



South from Site Frontage



### **Proposed Access Strategy**

8. Vehicular access to the proposed allocation site can be achieved through the introduction of a simple priority controlled junction on Blackburn Road, as shown on Drawing Number SCP/15254/F02 presented in **Appendix A**.
9. The access provides visibility splays that have an 'x' (minor arm setback distance) of 2.4m and a 'y' (major road visibility) distance of 56m in both directions. Based on guidance contained in the Manual for Streets, the visibility splays are commensurate with a 37mph design speed, which is in excess of the 30mph speed limit of Blackburn Road and therefore acceptable.
10. The proposed access has been located as far to the north as possible, whilst still ensuring sufficient visibility is provided, in order to maximise the spacing / queuing distance between to the Burnley Road / B6527 Blackburn Road / Market Street signalised junction. In addition, 'keep clear' markings are proposed at the access which, should queues do block back from the signal junction, will still allow vehicles to enter and leave the site.
11. Swept path analysis has been undertaken of the site access which demonstrates that the movements of a standard refuse vehicle can be accommodated, as shown on the site access drawing presented in **Appendix A**.
12. Pedestrian / Cycle access to the site will be provided from the same location as the vehicular access, with 2m wide footways provided on both sides of the access road.

### **Accessibility**

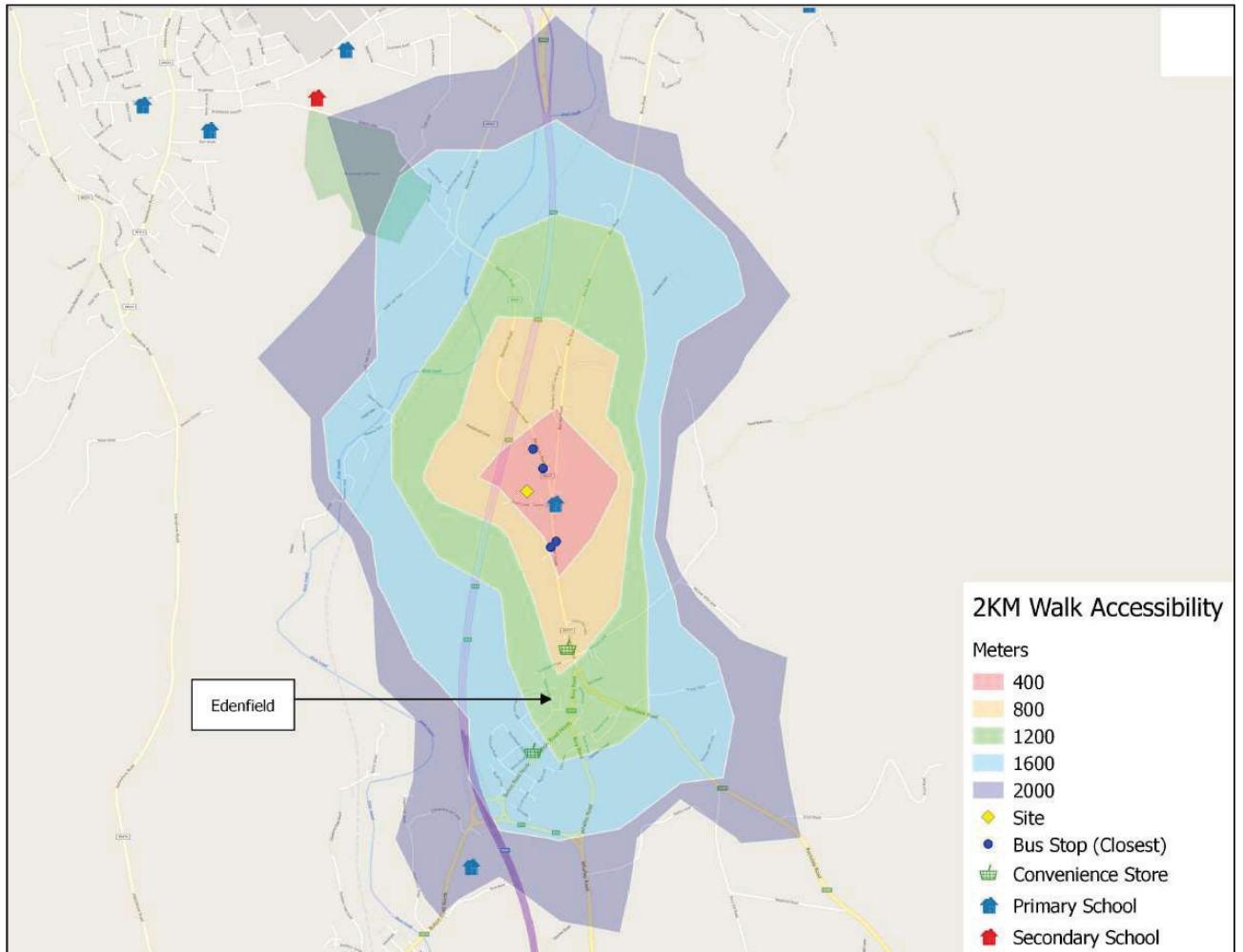
13. The accessibility of the application site by non-car modes is a key consideration in the planning process. The requirement to ensure that sites are accessible by non-car modes of transport is set out in both local and national planning policy (National Planning Policy Framework).

### Walking

14. MfS states that walkable neighbourhoods are typically characterised by having a range of facilities within 10 minutes' (up to about 800m) walking distance of residential areas which residents may access comfortably on foot. However, it goes on to state that this is not an upper limit and that walking offers the greatest potential to replace short car trips, particularly those under 2km.
15. The pedestrian accessibility of the development has been modelled using Geographical Information System (GIS) software to produce isochrone mapping. The purpose of the isochrones is to demonstrate the areas and facilities within an acceptable walk distance of the site, as shown on **Figure 2**.



**Figure 2 – 2km Walk Accessibility**



16. The plan above demonstrates the majority of Edenfield can be reached within a 2km walk distance. **Table 1** demonstrates the facilities within this radius, however the list is not exhaustive but demonstrates the closest key local everyday facilities.

**Table 1 – Facilities within 2km of the site**

Facility	Description	Distance from site (Approximately)
Primary School	Edenfield Church of England Primary School	<100m
Bus Stop	Southbound Blackburn Road	140m
Bus Stop	Northbound Blackburn Road	230m
Pharmacy	Strachan’s Chemist	700m
Convenience Store	Market Street News	700m

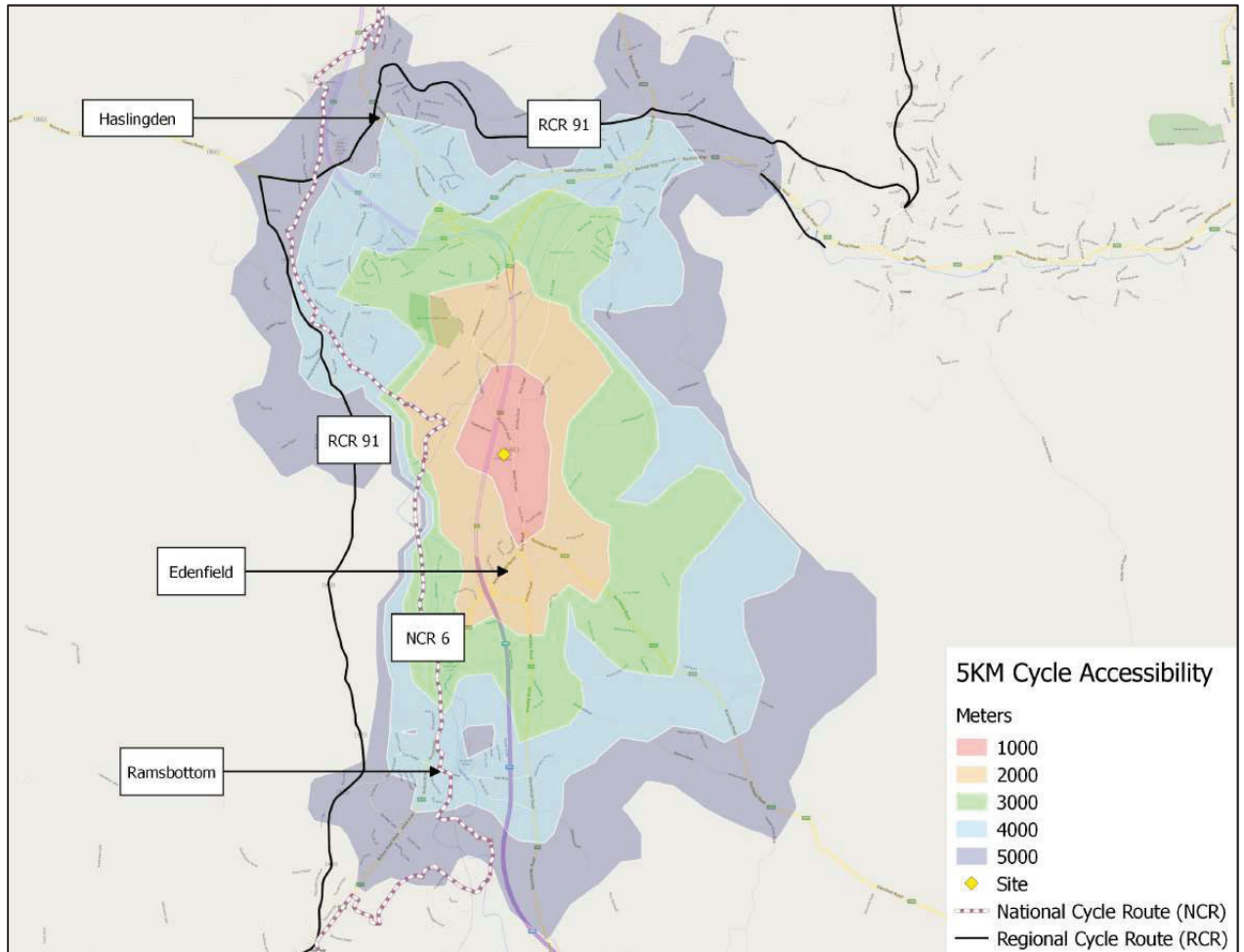
Butchers	Valentine's Butchers	750m
Bakery	Sixsmith Bakery	750m
Leisure	Edenfield Cricket Club	800m
Nursery	Edenfield Nursery	800m
Convenience Store	Edenfield Mini Market (Off-License)	1.2km
Primary School	Stubbins Primary School	1.9km

17. In summary, the site is well located with available opportunity for residents to access a wide range of amenities, leisure and employment opportunities, reducing the requirement to travel by car.

Cycling

18. Cycling is a cheap, efficient and healthy way to travel. Cycling also provides a predictable arrival time which depending on location, can be quicker than driving or using public transport, and is subject to fewer traffic and congestion delays.
19. Transport Policy identifies that cycling represents a realistic and healthy alternative to the use of the private car for making journeys up to 5km as a whole journey or as part of a longer journey by public transport.
20. GIS software has been used to model a 5km cycle catchment from the site and is shown on **Figure 3**. The plan demonstrates that Edenfield, Haslingden and Rawtenstall, amongst other employment areas, are within 5km of the site.

**Figure 3 – 5km Cycle Accessibility**



### Bus

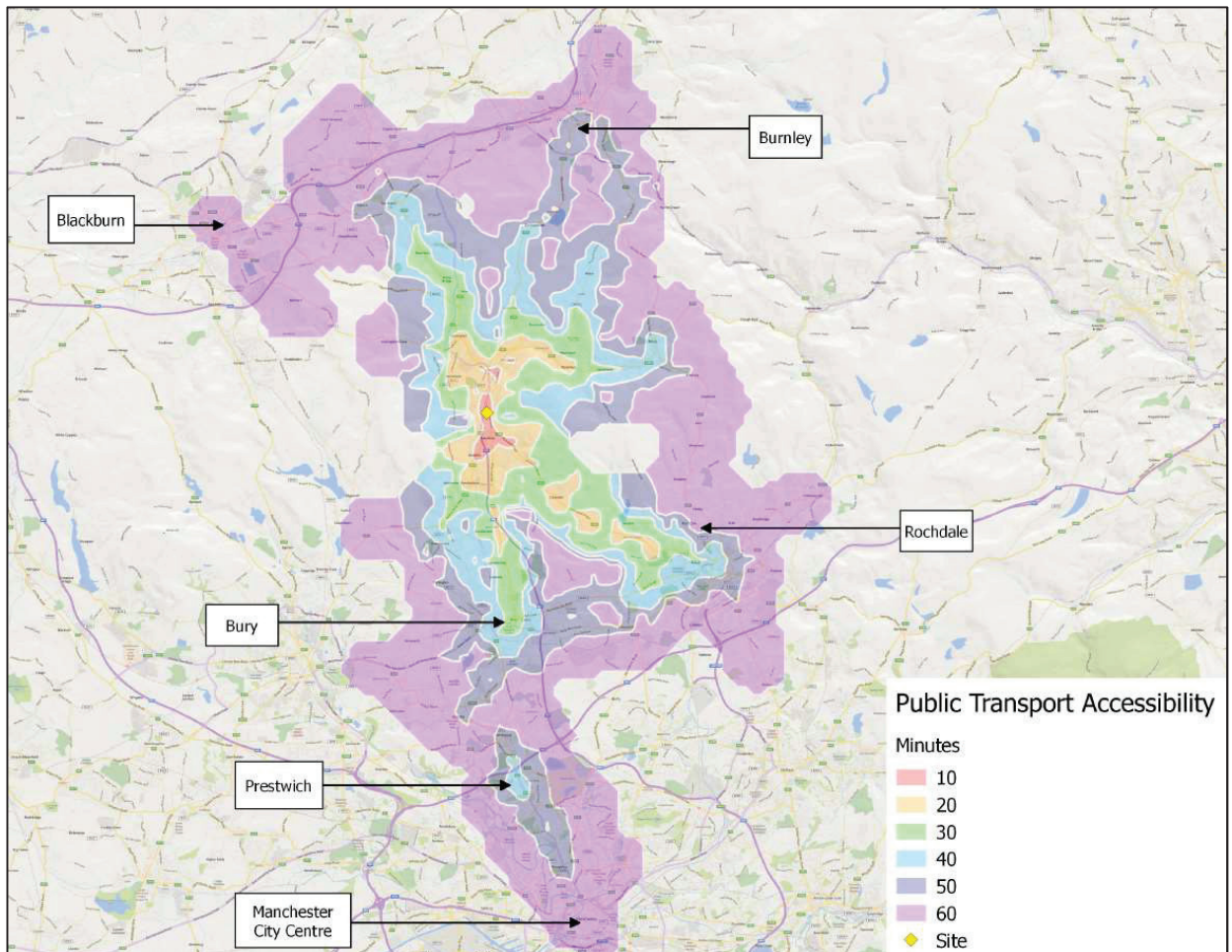
21. Guidance published by the IHT 'Planning for Public Transport in Developments' (1999), recommends that the maximum walking distance to a bus stop should be 400 metres, equating approximately to a five minutes walk.
22. The nearest bus stops to the site are located on Manchester Road approximately 150m to the west of the site (as seen on **Figure 2**)

**Table 2 – Bus Timetable**

Service	Route	Operator	Approximate Frequency (minutes)		
			Mon- Friday	Sat	Sunday
X41 Red Express (Timetable valid from 1/09/2019)	Accrington – Haslingden – Ramsbottom – Prestwich – Manchester	Red Express	60	60	60 (Last service 17:15)

23. TRACC software has been used to map a 60 minutes journey time using public transport, including the walk to the nearby bus stops, and railway stations, and are presented in **Figure 4**. The analysis demonstrates that it is possible to reach a vast array of areas in the north-west region such as Manchester City Centre, Prestwich, Rochdale, Blackburn Royal Hospital and Bury amongst others, within an acceptable 60 minutes commute time.

**Figure 4 – 60 Minutes Public Transport Accessibility**



24. Having regard to the above, it is therefore considered that the site has a good level of accessibility by all the main non-car modes of transport. Access to the site by foot, cycle and public transport is of a good standard which ensures there is no requirement to own or use a car for commuting or leisure purposes.

### Traffic Generation and Highway Impact

25. In order to estimate the number of trips generated by the site in its current use, the Trip Rate Information Computer System (TRICS) database has been used to derive suitable multi-modal trip generation rates.

26. The following criteria were applied to the TRICS category “Residential, Privately owned housing”:

- Sites in London, Republic of Ireland, Northern Ireland were excluded;
- Edge of Town and Suburban areas were included;
- Only surveys on weekdays are included;
- Sites between 6 and 90 dwellings were included; and
- Only the most recent survey was included for each site.

27. The TRICS outputs are presented in **Appendix B** and are summarised in **Table 3** below:-

**Table 3 – Proposed Residential Use Trip Rates (Trips per dwelling)**

Mode	Weekday AM Peak Hour (08:00 to 09:00)		Weekday PM Peak Hour (17:00 to 18:00)	
	Arrivals	Departures	Arrivals	Departures
Vehicles	0.154	0.398	0.352	0.166
Cyclists	0.001	0.027	0.019	0.004
Pedestrians	0.069	0.199	0.107	0.065
Public Transport	0.001	0.027	0.017	0.005

28. The above trip rates have been applied to the potential 65 dwellings which could be provided on the allocation site, as summarised in **Table 4** below.



**Table 4 – Potential Trips Generated by Allocation Site**

Mode	Weekday AM Peak Hour (08:00 to 09:00)		Weekday PM Peak Hour (17:00 to 18:00)	
	Arrivals	Departures	Arrivals	Departures
Vehicles	10	26	23	11
Cyclists	0	2	1	0
Pedestrians	4	13	7	4
Public Transport	0	2	1	0

29. As can be seen from the above, the proposed allocation site could generate a maximum of 36 two-way trips which occurs in the network peak hour. These trips will be distributed both inbound and outbound from the site and to and from the north and to and from the south such that the impact on any part of the network will not be noticeable.

**Summary**

30. Having regard to the analysis presented above, there are considered to be no constraints from a transport planning perspective which would prevent this land from coming forward for residential use.

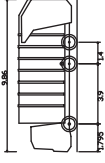
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**APPENDIX A**



NOTES

SITE BOUNDARY



Species: Bus, Vehicle (3 axle)  
 Overall Length: 9.60m  
 Overall Width: 2.45m  
 Overall Height: 3.00m  
 Min. Body Ground Clearance: 0.25m  
 Max. Wheel Track: 3.00m  
 Lock to Lock Time: 4.00m  
 Kerb to Kerb Turning Radius: 9.500m

REVISIONS

REV	DESCRIPTION	DATE	BY
-	-	-	-



Transportation Planning : Infrastructure Design  
 2 North Street, Manchester, M2 5WD, Tel: 0161 832 4000, Fax: 0161 832 5111  
 www.scpplanning.co.uk, Email: info@scpplanning.co.uk

Client Name:

PEEL HOLDINGS LTD

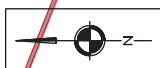
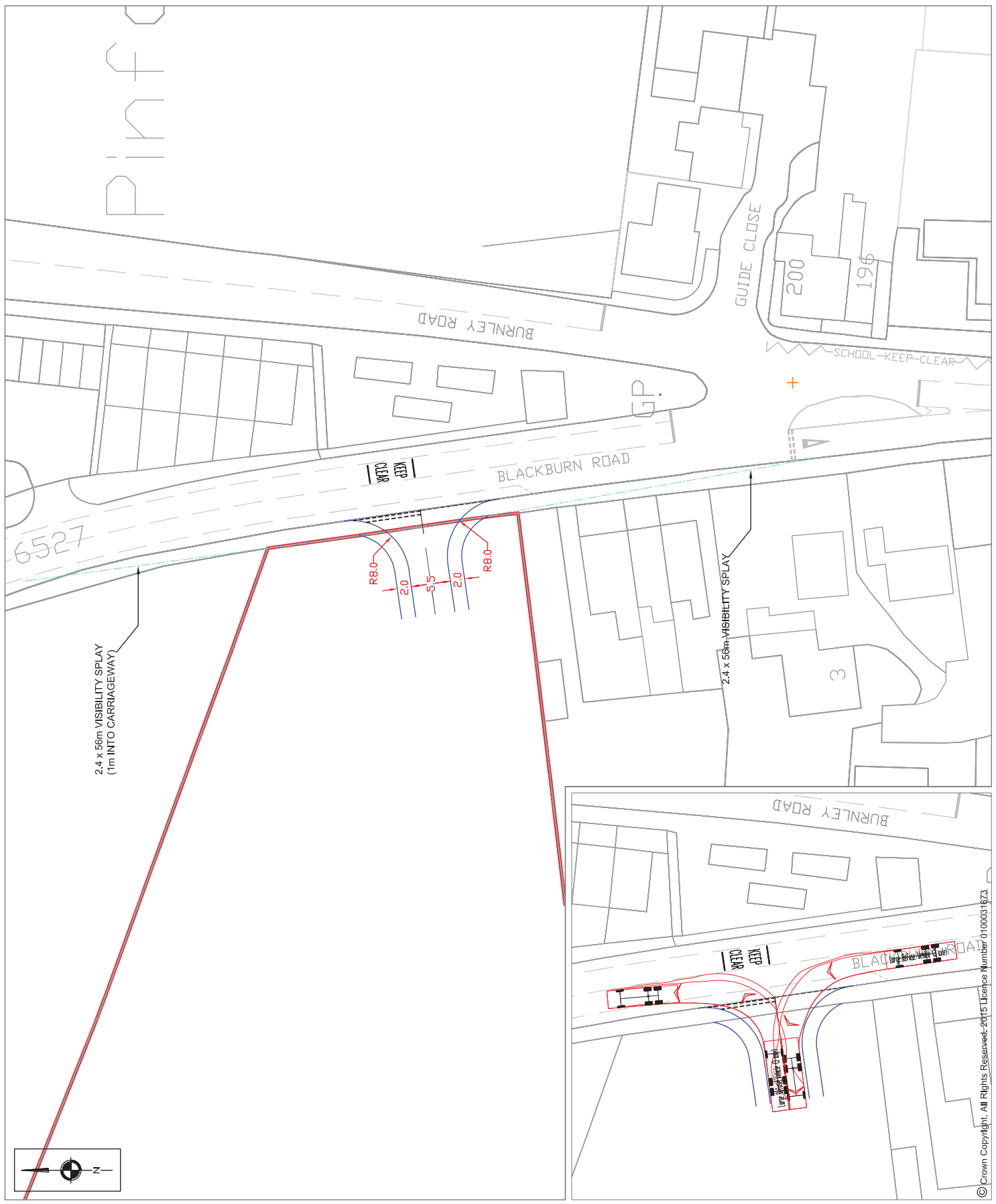
Project Title:

LAND OFF BLACKBURN ROAD,  
 EDENFIELD, ROSSENDALE

Drawing Title:

POTENTIAL SITE ACCESS  
 ARRANGEMENT

Drawn By:	BA	Date:	01.09.2015
Checked:	PT	Scale:	1:500 @ A3
Status:	PLANNING	Approved/Approved:	-
Drawing No.	SCP/152564/F01		
Rev.	-		



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**APPENDIX B**

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

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

**MULTI-MODAL VEHICLES**Selected regions and areas:

<b>02</b>	<b>SOUTH EAST</b>	
	ES EAST SUSSEX	1 days
	HC HAMPSHIRE	3 days
	KC KENT	1 days
	SC SURREY	1 days
	WS WEST SUSSEX	2 days
<b>03</b>	<b>SOUTH WEST</b>	
	DC DORSET	1 days
	DV DEVON	2 days
	SM SOMERSET	1 days
	WL WILTSHIRE	1 days
<b>04</b>	<b>EAST ANGLIA</b>	
	CA CAMBRIDGESHIRE	2 days
	NF NORFOLK	2 days
	SF SUFFOLK	3 days
<b>05</b>	<b>EAST MIDLANDS</b>	
	LN LINCOLNSHIRE	1 days
<b>06</b>	<b>WEST MIDLANDS</b>	
	SH SHROPSHIRE	2 days
	WK WARWICKSHIRE	2 days
<b>07</b>	<b>YORKSHIRE &amp; NORTH LINCOLNSHIRE</b>	
	NY NORTH YORKSHIRE	5 days
	SY SOUTH YORKSHIRE	1 days
<b>08</b>	<b>NORTH WEST</b>	
	CH CHESHIRE	2 days
	GM GREATER MANCHESTER	1 days
	MS MERSEYSIDE	1 days
<b>09</b>	<b>NORTH</b>	
	DH DURHAM	2 days
	TW TYNE & WEAR	1 days
<b>10</b>	<b>WALES</b>	
	PS POWYS	1 days
	VG VALE OF GLAMORGAN	1 days
<b>11</b>	<b>SCOTLAND</b>	
	AG ANGUS	1 days
	FA FALKIRK	1 days
	HI HIGHLAND	1 days
	PK PERTH & KINROSS	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: 6 to 79 (units: )  
 Range Selected by User: 6 to 90 (units: )

Parking Spaces Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/11 to 09/05/19

*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	9 days
Tuesday	10 days
Wednesday	12 days
Thursday	9 days
Friday	4 days

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

Selected survey types:

Manual count	44 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 undertaken using machines.*

Selected Locations:

Suburban Area (PPS6 Out of Centre)	26
Edge of Town	18

*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	43
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	44 days
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*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®.*

Population within 1 mile:

1,001 to 5,000	4 days
5,001 to 10,000	9 days
10,001 to 15,000	9 days
15,001 to 20,000	12 days
20,001 to 25,000	4 days
25,001 to 50,000	6 days

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

**Secondary Filtering selection (Cont.):**Population within 5 miles:

5,001 to 25,000	3 days
25,001 to 50,000	5 days
50,001 to 75,000	5 days
75,001 to 100,000	11 days
100,001 to 125,000	2 days
125,001 to 250,000	12 days
250,001 to 500,000	5 days
500,001 or More	1 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	13 days
1.1 to 1.5	31 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	7 days
No	37 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	44 days
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*This data displays the number of selected surveys with PTAL Ratings.*

LIST OF SITES relevant to selection parameters

<b>1</b>	<b>AG-03-A-01</b>	<b>BUNGALOWS/DET.</b>	<b>ANGUS</b>
	KEPTIE ROAD ARBROATH		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	7	
	Survey date: <i>TUESDAY</i>	22/05/12	Survey Type: <i>MANUAL</i>
<b>2</b>	<b>CA-03-A-04</b>	<b>DETACHED</b>	<b>CAMBRIDGESHIRE</b>
	PETERBOROUGH THORPE PARK ROAD		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	9	
	Survey date: <i>TUESDAY</i>	18/10/11	Survey Type: <i>MANUAL</i>
<b>3</b>	<b>CA-03-A-05</b>	<b>DETACHED HOUSES</b>	<b>CAMBRIDGESHIRE</b>
	EASTFIELD ROAD PETERBOROUGH		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	28	
	Survey date: <i>MONDAY</i>	17/10/16	Survey Type: <i>MANUAL</i>
<b>4</b>	<b>CH-03-A-08</b>	<b>DETACHED</b>	<b>CHESHIRE</b>
	WHITCHURCH ROAD CHESTER		
	BOUGHTON HEATH Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	11	
	Survey date: <i>TUESDAY</i>	22/05/12	Survey Type: <i>MANUAL</i>
<b>5</b>	<b>CH-03-A-09</b>	<b>TERRACED HOUSES</b>	<b>CHESHIRE</b>
	GREYSTOKE ROAD MACCLESFIELD		
	HURDSFIELD Edge of Town Residential Zone		
	Total Number of dwellings:	24	
	Survey date: <i>MONDAY</i>	24/11/14	Survey Type: <i>MANUAL</i>
<b>6</b>	<b>DC-03-A-08</b>	<b>BUNGALOWS</b>	<b>DORSET</b>
	HURSTDENE ROAD BOURNEMOUTH		
	CASTLE LANE WEST Edge of Town Residential Zone		
	Total Number of dwellings:	28	
	Survey date: <i>MONDAY</i>	24/03/14	Survey Type: <i>MANUAL</i>
<b>7</b>	<b>DH-03-A-01</b>	<b>SEMI DETACHED</b>	<b>DURHAM</b>
	GREENFIELDS ROAD BISHOP AUCKLAND		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	50	
	Survey date: <i>TUESDAY</i>	28/03/17	Survey Type: <i>MANUAL</i>
<b>8</b>	<b>DH-03-A-03</b>	<b>SEMI-DETACHED &amp; TERRACED</b>	<b>DURHAM</b>
	PILGRIMS WAY DURHAM		
	Edge of Town Residential Zone		
	Total Number of dwellings:	57	
	Survey date: <i>FRIDAY</i>	19/10/18	Survey Type: <i>MANUAL</i>

LIST OF SITES relevant to selection parameters (Cont.)

<b>9</b>	<b>DV-03-A-01</b>	<b>TERRACED HOUSES</b>	<b>DEVON</b>
	BRONSHILL ROAD TORQUAY		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	37	
	Survey date: WEDNESDAY	30/09/15	Survey Type: MANUAL
<b>10</b>	<b>DV-03-A-03</b>	<b>TERRACED &amp; SEMI DETACHED</b>	<b>DEVON</b>
	LOWER BRAND LANE HONITON		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	70	
	Survey date: MONDAY	28/09/15	Survey Type: MANUAL
<b>11</b>	<b>ES-03-A-02</b>	<b>PRIVATE HOUSING</b>	<b>EAST SUSSEX</b>
	SOUTH COAST ROAD PEACEHAVEN		
	Edge of Town Residential Zone		
	Total Number of dwellings:	37	
	Survey date: FRIDAY	18/11/11	Survey Type: MANUAL
<b>12</b>	<b>FA-03-A-01</b>	<b>SEMI-DETACHED/TERRACED</b>	<b>FALKIRK</b>
	MANDELA AVENUE FALKIRK		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	37	
	Survey date: THURSDAY	30/05/13	Survey Type: MANUAL
<b>13</b>	<b>GM-03-A-10</b>	<b>DETACHED/SEMI</b>	<b>GREATER MANCHESTER</b>
	BUTT HILL DRIVE MANCHESTER PRESTWICH		
	Edge of Town Residential Zone		
	Total Number of dwellings:	29	
	Survey date: WEDNESDAY	12/10/11	Survey Type: MANUAL
<b>14</b>	<b>HC-03-A-20</b>	<b>HOUSES &amp; FLATS</b>	<b>HAMPSHIRE</b>
	CANADA WAY LIPHOOK		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	62	
	Survey date: TUESDAY	20/11/18	Survey Type: MANUAL
<b>15</b>	<b>HC-03-A-21</b>	<b>TERRACED &amp; SEMI-DETACHED</b>	<b>HAMPSHIRE</b>
	PRIESTLEY ROAD BASINGSTOKE HOUNDMILLS		
	Edge of Town Residential Zone		
	Total Number of dwellings:	39	
	Survey date: TUESDAY	13/11/18	Survey Type: MANUAL
<b>16</b>	<b>HC-03-A-22</b>	<b>MIXED HOUSES</b>	<b>HAMPSHIRE</b>
	BOW LAKE GARDENS NEAR EASTLEIGH BISHOPSTOKE		
	Edge of Town Residential Zone		
	Total Number of dwellings:	40	
	Survey date: WEDNESDAY	31/10/18	Survey Type: MANUAL



LIST OF SITES relevant to selection parameters (Cont.)

<b>17</b>	<b>HI-03-A-14</b>	<b>SEMI-DETACHED &amp; TERRACED</b>	<b>HIGHLAND</b>
	KING BRUDE ROAD INVERNESS SCORGUIE Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 40 Survey date: WEDNESDAY 23/03/16		Survey Type: MANUAL
<b>18</b>	<b>KC-03-A-03</b>	<b>MIXED HOUSES &amp; FLATS</b>	<b>KENT</b>
	HYTHE ROAD ASHFORD WILLESBOROUGH Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 51 Survey date: THURSDAY 14/07/16		Survey Type: MANUAL
<b>19</b>	<b>LN-03-A-03</b>	<b>SEMI DETACHED</b>	<b>LINCOLNSHIRE</b>
	ROOKERY LANE LINCOLN BOULTHAM Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 22 Survey date: TUESDAY 18/09/12		Survey Type: MANUAL
<b>20</b>	<b>MS-03-A-03</b>	<b>DETACHED</b>	<b>MERSEYSIDE</b>
	BEMPTON ROAD LIVERPOOL OTTERSPOOL Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 15 Survey date: FRIDAY 21/06/13		Survey Type: MANUAL
<b>21</b>	<b>NF-03-A-01</b>	<b>SEMI DET. &amp; BUNGALOWS</b>	<b>NORFOLK</b>
	YARMOUTH ROAD CAISTER-ON-SEA  Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 27 Survey date: TUESDAY 16/10/12		Survey Type: MANUAL
<b>22</b>	<b>NF-03-A-03</b>	<b>DETACHED HOUSES</b>	<b>NORFOLK</b>
	HALING WAY THETFORD  Edge of Town Residential Zone Total Number of dwellings: 10 Survey date: WEDNESDAY 16/09/15		Survey Type: MANUAL
<b>23</b>	<b>NY-03-A-08</b>	<b>TERRACED HOUSES</b>	<b>NORTH YORKSHIRE</b>
	NICHOLAS STREET YORK  Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 21 Survey date: MONDAY 16/09/13		Survey Type: MANUAL
<b>24</b>	<b>NY-03-A-09</b>	<b>MIXED HOUSING</b>	<b>NORTH YORKSHIRE</b>
	GRAMMAR SCHOOL LANE NORTHALLERTON  Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 52 Survey date: MONDAY 16/09/13		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

<b>25</b>	<b>NY-03-A-10</b>	<b>HOUSES AND FLATS</b>	<b>NORTH YORKSHIRE</b>
	BOROUGHBRIDGE ROAD RIPON		
	Edge of Town No Sub Category		
	Total Number of dwellings:	71	
	Survey date: TUESDAY	17/09/13	Survey Type: MANUAL
<b>26</b>	<b>NY-03-A-11</b>	<b>PRIVATE HOUSING</b>	<b>NORTH YORKSHIRE</b>
	HORSEFAIR BOROUGHBRIDGE		
	Edge of Town Residential Zone		
	Total Number of dwellings:	23	
	Survey date: WEDNESDAY	18/09/13	Survey Type: MANUAL
<b>27</b>	<b>NY-03-A-13</b>	<b>TERRACED HOUSES</b>	<b>NORTH YORKSHIRE</b>
	CATTERICK ROAD CATTERICK GARRISON OLD HOSPITAL COMPOUND Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	10	
	Survey date: WEDNESDAY	10/05/17	Survey Type: MANUAL
<b>28</b>	<b>PK-03-A-01</b>	<b>DETAC. &amp; BUNGALOWS</b>	<b>PERTH &amp; KINROSS</b>
	TULLYLUMB TERRACE PERTH CORNHILL Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	36	
	Survey date: WEDNESDAY	11/05/11	Survey Type: MANUAL
<b>29</b>	<b>PS-03-A-02</b>	<b>DETACHED/SEMI-DETACHED</b>	<b>POWYS</b>
	GUNROG ROAD WELSHPOOL		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	28	
	Survey date: MONDAY	11/05/15	Survey Type: MANUAL
<b>30</b>	<b>SC-03-A-04</b>	<b>DETACHED &amp; TERRACED</b>	<b>SURREY</b>
	HIGH ROAD BYFLEET		
	Edge of Town Residential Zone		
	Total Number of dwellings:	71	
	Survey date: THURSDAY	23/01/14	Survey Type: MANUAL
<b>31</b>	<b>SF-03-A-04</b>	<b>DETACHED &amp; BUNGALOWS</b>	<b>SUFFOLK</b>
	NORMANSTON DRIVE LOWESTOFT		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	7	
	Survey date: TUESDAY	23/10/12	Survey Type: MANUAL
<b>32</b>	<b>SF-03-A-05</b>	<b>DETACHED HOUSES</b>	<b>SUFFOLK</b>
	VALE LANE BURY ST EDMUNDS		
	Edge of Town Residential Zone		
	Total Number of dwellings:	18	
	Survey date: WEDNESDAY	09/09/15	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

<b>33</b>	<b>SF-03-A-07</b> FOXHALL ROAD IPSWICH	<b>MIXED HOUSES</b>	<b>SUFFOLK</b>
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 73 Survey date: THURSDAY 09/05/19		Survey Type: MANUAL
<b>34</b>	<b>SH-03-A-05</b> SANDCROFT TELFORD SUTTON HILL	<b>SEMI-DETACHED/TERRACED</b>	<b>SHROPSHIRE</b>
	Edge of Town Residential Zone Total Number of dwellings: 54 Survey date: THURSDAY 24/10/13		Survey Type: MANUAL
<b>35</b>	<b>SH-03-A-06</b> ELLESMERE ROAD SHREWSBURY	<b>BUNGALOWS</b>	<b>SHROPSHIRE</b>
	Edge of Town Residential Zone Total Number of dwellings: 16 Survey date: THURSDAY 22/05/14		Survey Type: MANUAL
<b>36</b>	<b>SM-03-A-01</b> WEMBDON ROAD BRIDGWATER NORTHFIELD	<b>DETACHED &amp; SEMI</b>	<b>SOMERSET</b>
	Edge of Town Residential Zone Total Number of dwellings: 33 Survey date: THURSDAY 24/09/15		Survey Type: MANUAL
<b>37</b>	<b>SY-03-A-01</b> A19 BENTLEY ROAD DONCASTER BENTLEY RISE	<b>SEMI DETACHED HOUSES</b>	<b>SOUTH YORKSHIRE</b>
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 54 Survey date: WEDNESDAY 18/09/13		Survey Type: MANUAL
<b>38</b>	<b>TW-03-A-02</b> WEST PARK ROAD GATESHEAD	<b>SEMI-DETACHED</b>	<b>TYNE &amp; WEAR</b>
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 16 Survey date: MONDAY 07/10/13		Survey Type: MANUAL
<b>39</b>	<b>VG-03-A-01</b> ARTHUR STREET BARRY	<b>SEMI-DETACHED &amp; TERRACED</b>	<b>VALE OF GLAMORGAN</b>
	Edge of Town Residential Zone Total Number of dwellings: 12 Survey date: MONDAY 08/05/17		Survey Type: MANUAL
<b>40</b>	<b>WK-03-A-01</b> ARLINGTON AVENUE LEAMINGTON SPA	<b>TERRACED/SEMI/DET.</b>	<b>WARWICKSHIRE</b>
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Number of dwellings: 6 Survey date: FRIDAY 21/10/11		Survey Type: MANUAL
<b>41</b>	<b>WK-03-A-02</b> NARBERTH WAY COVENTRY POTTERS GREEN	<b>BUNGALOWS</b>	<b>WARWICKSHIRE</b>
	Edge of Town Residential Zone Total Number of dwellings: 17 Survey date: THURSDAY 17/10/13		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

<b>42</b>	<b>WL-03-A-02</b>	<b>SEMI DETACHED</b>	<b>WILTSHIRE</b>
	HEADLANDS GROVE SWINDON		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	27	
	Survey date: THURSDAY	22/09/16	Survey Type: MANUAL
<b>43</b>	<b>WS-03-A-05</b>	<b>TERRACED &amp; FLATS</b>	<b>WEST SUSSEX</b>
	UPPER SHOREHAM ROAD SHOREHAM BY SEA		
	Suburban Area (PPS6 Out of Centre) Residential Zone		
	Total Number of dwellings:	48	
	Survey date: WEDNESDAY	18/04/12	Survey Type: MANUAL
<b>44</b>	<b>WS-03-A-10</b>	<b>MIXED HOUSES</b>	<b>WEST SUSSEX</b>
	TODDINGTON LANE LITTLEHAMPTON WICK		
	Edge of Town Residential Zone		
	Total Number of dwellings:	79	
	Survey date: WEDNESDAY	07/11/18	Survey Type: MANUAL

*This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.*

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

**MULTI-MODAL VEHICLES****Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	44	34	0.079	44	34	0.309	44	34	0.388
08:00 - 09:00	44	34	0.154	<b>44</b>	<b>34</b>	<b>0.398</b>	<b>44</b>	<b>34</b>	<b>0.552</b>
09:00 - 10:00	44	34	0.151	44	34	0.184	44	34	0.335
10:00 - 11:00	44	34	0.132	44	34	0.153	44	34	0.285
11:00 - 12:00	44	34	0.151	44	34	0.166	44	34	0.317
12:00 - 13:00	44	34	0.170	44	34	0.162	44	34	0.332
13:00 - 14:00	44	34	0.175	44	34	0.179	44	34	0.354
14:00 - 15:00	44	34	0.160	44	34	0.199	44	34	0.359
15:00 - 16:00	44	34	0.256	44	34	0.182	44	34	0.438
16:00 - 17:00	44	34	0.302	44	34	0.173	44	34	0.475
17:00 - 18:00	<b>44</b>	<b>34</b>	<b>0.352</b>	44	34	0.166	44	34	0.518
18:00 - 19:00	44	34	0.254	44	34	0.148	44	34	0.402
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.336			2.419			4.755

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.

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### Parameter summary

Trip rate parameter range selected:	6 - 79 (units: )
Survey date date range:	01/01/11 - 09/05/19
Number of weekdays (Monday-Friday):	44
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	3
Surveys manually removed from selection:	0

*This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.*

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

**MULTI-MODAL CYCLISTS**

Calculation factor: 1 DWELLS

**BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	44	34	0.006	44	34	0.023	<b>44</b>	<b>34</b>	<b>0.029</b>
08:00 - 09:00	44	34	0.001	<b>44</b>	<b>34</b>	<b>0.027</b>	44	34	0.028
09:00 - 10:00	44	34	0.002	44	34	0.009	44	34	0.011
10:00 - 11:00	44	34	0.005	44	34	0.011	44	34	0.016
11:00 - 12:00	44	34	0.004	44	34	0.004	44	34	0.008
12:00 - 13:00	44	34	0.007	44	34	0.006	44	34	0.013
13:00 - 14:00	44	34	0.008	44	34	0.003	44	34	0.011
14:00 - 15:00	44	34	0.005	44	34	0.003	44	34	0.008
15:00 - 16:00	<b>44</b>	<b>34</b>	<b>0.022</b>	44	34	0.003	44	34	0.025
16:00 - 17:00	44	34	0.021	44	34	0.004	44	34	0.025
17:00 - 18:00	44	34	0.019	44	34	0.004	44	34	0.023
18:00 - 19:00	44	34	0.009	44	34	0.005	44	34	0.014
19:00 - 20:00	1	7	0.000	1	7	0.000	1	7	0.000
20:00 - 21:00	1	7	0.000	1	7	0.000	1	7	0.000
21:00 - 22:00	1	7	0.000	1	7	0.000	1	7	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.109			0.102			0.211

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.



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

**MULTI-MODAL PEDESTRIANS****Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	44	34	0.021	44	34	0.075	44	34	0.096
08:00 - 09:00	44	34	0.069	<b>44</b>	<b>34</b>	<b>0.199</b>	<b>44</b>	<b>34</b>	<b>0.268</b>
09:00 - 10:00	44	34	0.053	44	34	0.067	44	34	0.120
10:00 - 11:00	44	34	0.047	44	34	0.063	44	34	0.110
11:00 - 12:00	44	34	0.054	44	34	0.046	44	34	0.100
12:00 - 13:00	44	34	0.060	44	34	0.048	44	34	0.108
13:00 - 14:00	44	34	0.057	44	34	0.057	44	34	0.114
14:00 - 15:00	44	34	0.052	44	34	0.059	44	34	0.111
15:00 - 16:00	<b>44</b>	<b>34</b>	<b>0.166</b>	44	34	0.093	44	34	0.259
16:00 - 17:00	44	34	0.114	44	34	0.067	44	34	0.181
17:00 - 18:00	44	34	0.107	44	34	0.065	44	34	0.172
18:00 - 19:00	44	34	0.073	44	34	0.047	44	34	0.120
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.873			0.886			1.759

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.

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

**MULTI-MODAL PUBLIC TRANSPORT USERS****Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	44	34	0.003	44	34	0.027	<b>44</b>	<b>34</b>	<b>0.030</b>
08:00 - 09:00	44	34	0.001	<b>44</b>	<b>34</b>	<b>0.027</b>	44	34	0.028
09:00 - 10:00	44	34	0.003	44	34	0.013	44	34	0.016
10:00 - 11:00	44	34	0.007	44	34	0.013	44	34	0.020
11:00 - 12:00	44	34	0.007	44	34	0.008	44	34	0.015
12:00 - 13:00	44	34	0.012	44	34	0.013	44	34	0.025
13:00 - 14:00	44	34	0.004	44	34	0.003	44	34	0.007
14:00 - 15:00	44	34	0.014	44	34	0.007	44	34	0.021
15:00 - 16:00	44	34	0.015	44	34	0.006	44	34	0.021
16:00 - 17:00	<b>44</b>	<b>34</b>	<b>0.025</b>	44	34	0.005	44	34	0.030
17:00 - 18:00	44	34	0.017	44	34	0.005	44	34	0.022
18:00 - 19:00	44	34	0.019	44	34	0.001	44	34	0.020
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.127			0.128			0.255

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.

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## **Appendix D: Flood Risk Blackburn Road**

**Our ref: RCEF74462-001 LR Land off Blackburn Road**

8 Exchange Quay  
Salford, Greater Manchester  
M5 3EJ  
T +44 161 786 8550

Date: 22 August 2019

## **Land off Blackburn Road, Edenfield, Rossendale – Development Framework Area**

### **Preliminary note on flood risk and surface water drainage**

#### **Background**

RPS Consulting Services Ltd has been commissioned to update a previous technical note (RPS ref: RCEF26527-003 LR Draft Blackburn Road) to reflect current national planning policy, guidance and best practice in relation to flood risk and drainage at Land off Blackburn Road, Edenfield, Rossendale.

#### **Site Setting**

National Grid Reference (NGR) – 379783, 419946

Site area = approximately 2.2 hectares

The Environment Agency's online Flood Map for Planning indicates the site is wholly located within Flood Zone 1 and is therefore considered to be at a low risk of fluvial flooding.

#### **Site Visit**

A site walkover was undertaken in 2013. During the walkover, some limited areas of standing surface water were noted towards the eastern end of the site (adjacent to Blackburn Road). In general, the site appears to slope slightly towards the west / south west, towards the A56. It is estimated that the slope across the site is approximately 1 in 60.

The area of woodland adjacent to Church Lane is dense and was not entered during the site visit. No connection to surface watercourses were noted at the western area of the site which is the lowest point of the site.

#### **Geology**

Reference to British Geological Survey online mapping (1:50,000 scale) indicates the site is underlain by superficial deposits of Diamicton (Glacial Till). The site is shown to be predominantly underlain by bedrock deposits of Brooksbottoms Grit which is described as sedimentary sandstone. A narrow strip of bedrock identified as the Marsden Formation, described as sedimentary mudstone and siltstone, is shown along the eastern boundary of the site.

#### **Existing Sewers / Water Mains**

United Utilities Asset Location Plans (included as Appendix A) indicate there are no public sewers located within the boundary of the site. The Asset Location Plans indicate a 300 mm diameter combined sewer located in Blackburn Road to the east of the site. This sewer appears to flow in a south to north direction.

A further 225 mm diameter combined sewer is located in Church Lane. This is shown to flow to the east before discharging into the aforementioned combined sewer in Blackburn Road.

United Utilities Asset Location Plans indicate there is an 8 inch diameter distribution main and a 225 mm diameter trunk main located in Blackburn Road. The Asset Plans also indicate there is a 6 inch diameter distribution main and two 12 inch diameter trunk mains located in Blackburn Road.

## Surface Water Management

The Government's planning policy in relation to surface water management is set out within the National Planning Policy Framework (NPPF) and accompanying Planning Practice Guidance (PPG). This is supported by the Non-Statutory Technical Standards for Sustainable Drainage Systems, published by DEFRA in 2015 which states the following in relation to greenfield sites:

*"For greenfield developments, the peak run-off rate from the development to any highway drain, sewer, or surface water body for the 1 in 1 year rainfall event and the 1 in 100 year rainfall event should never exceed the peak greenfield run-off rate for the same event".*

The existing peak greenfield run-off rate for the 1 in 1 and 1 in 100 year rainfall events have been calculated using the Interim Code of Practice for Sustainable Drainage Systems (ICP SuDS) function in MicroDrainage. The existing greenfield run-off rates have been calculated based on a 1 ha area and this rate has subsequently been scaled based on several assumed proposed hardstanding areas, as shown in Table 1 below.

In order to restrict surface water run-off generated by the proposed development to the existing peak run-off rates, attenuation will be required on site for all events up to and including the 1 in 100 year plus 40% climate change event. At this stage, the amount of attenuation has been estimated using the Quick Storage Estimate function in MicroDrainage and the results of this are included in Table 1.

**Table 1 Preliminary surface water attenuation requirements\***

Assumed proposed impermeable area (%)	Assumed proposed impermeable area (ha)	1 in 1 year greenfield run-off rate (l/s)	Attenuation volume required to restrict surface water run-off to 1 in 1 year run-off rate (m <sup>3</sup> )	1 in 100 year greenfield run-off rate	Attenuation volume required to restrict surface water run-off to 1 in 100 year run-off rate (m <sup>3</sup> )
100	2.2	22.66	1399 - 2259	54.340	934 - 1609
90	1.980	20.394	1260 - 2035	48.906	840 - 1448
80	1.760	18.128	1121 - 1810	43.472	745 - 1284
70	1.540	15.862	979 - 1581	38.038	654 - 1127
60	1.320	13.596	840 - 1356	32.604	560 - 965
50	1.100	11.330	701 - 1131	27.170	466 - 804
40	0.880	9.064	559 - 903	21.736	374 - 644

*\*the above estimations assume no infiltration based on a preliminary appraisal of the geology. Once infiltration rates are known pending further investigation, the volume of attenuation may be decreased.*

The PPG identifies that the discharge of surface water run-off should be as high up the following hierarchy of drainage options as reasonably practicable:

1. Into the ground (infiltration);
2. To a surface water body;
3. To a surface water sewer, highway drain, or another drainage system;
4. To a combined sewer.

The published geology (described above) indicates that the use of infiltration drainage techniques may be limited due to the potentially cohesive nature of the underlying strata. Some infiltration may be achievable, however, further investigation (i.e infiltration testing in accordance with BRE365) will be required to confirm site specific infiltration rates.

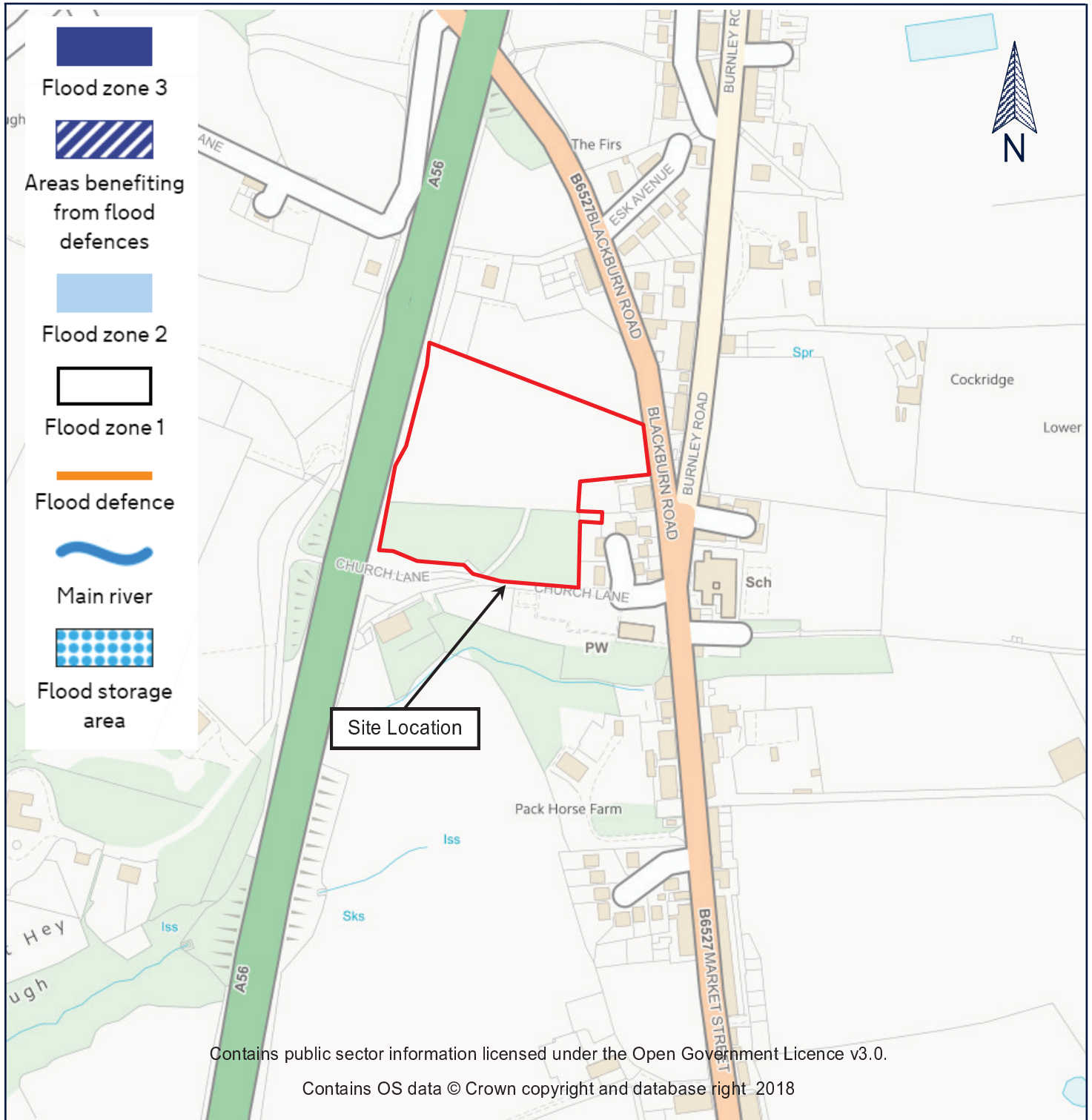
## **Our ref: RCEF74462-001 LR Land off Blackburn Road**

A detailed Topographic Survey will be required to establish whether there is sufficient fall across the site and inform the feasibility of connecting into the existing sewers. Subject to sufficient fall across the site, the likely surface water management solution is to discharge surface water into the United Utilities combined sewers located within Blackburn Road.

Consultation will be required with United Utilities in order to establish the capacity of the public surface water sewer network to accept run-off from the site. At this stage, a pre-development enquiry has been submitted to United Utilities to confirm acceptable surface water pass forward flow rates into the public sewer network and RPS are currently awaiting a response. It should be noted that ground levels may need to be altered in order to achieve gravity drainage across the site.

The Lead Local Flood Authority is likely to require the use of SuDS attenuation techniques within the site in order to restrict surface water run-off. In addition to providing attenuation, the use of SuDS will provide ecological, amenity and visual benefits within the site. The use of SuDs techniques such as basins / ponds for the provision of attenuation should be considered within the site and linear swales to provide conveyance routes.

Where such features are not feasible due to engineering constraints it is likely that hard engineered solutions (such as tanks or oversized pipes) will be required.



8, Exchange Quay, Manchester, M5 3EJ  
 T: +44 (0)161 786 8550 W: rpsgroup.com



Client: Peel L&P Group Management Limited

Date: August 2019

Scale: NTS

Project: Land at Blackburn Road

Figure: 01

Rev: 00

Title: Environment Agency Flood Map for Planning

Job Ref: RCEF74462



## Appendix A

# United Utilities Asset Location Plans

**Joshua Rigby  
Unit 12 Watersedge Business Park  
Modwen Road  
Salford Quays**

**M5 3EZ**

**FAO: J RIGBY**

**United Utilities Water PLC**

Property Searches  
Ground Floor Grasmere House  
Lingley Mere Business Park  
Great Sankey  
Warrington  
WA5 3LP

DX 715568 Warrington  
Telephone 0870 751 0101

Fax Number 0870 7510102

[Property.searches@uuplc.co.uk](mailto:Property.searches@uuplc.co.uk)

Your Ref:

Our Ref: 13/ 971268

Date: 11/10/2013

Dear Sirs

**Location: LAND OFF BURNLEY ROAD EDENFIELD ROSSENDALE BL0 0QL**

I acknowledge with thanks your request dated 10/10/13 for information on the location of our services.

Please find enclosed plans showing the approximate position of our apparatus known to be in the vicinity of this site.

I attach General Condition Information sheets, which details contact numbers for additional services (i.e. new supplies, connections, diversions) which we are unable to deal with at this office. In addition you should ensure they are made available to anyone carrying out any works which may affect our apparatus.

I trust the above meets with you requirements and look forward to hearing from you should you need anything further.

If you have any queries regarding this matter please telephone us on 0870 7510101.

Yours Faithfully,

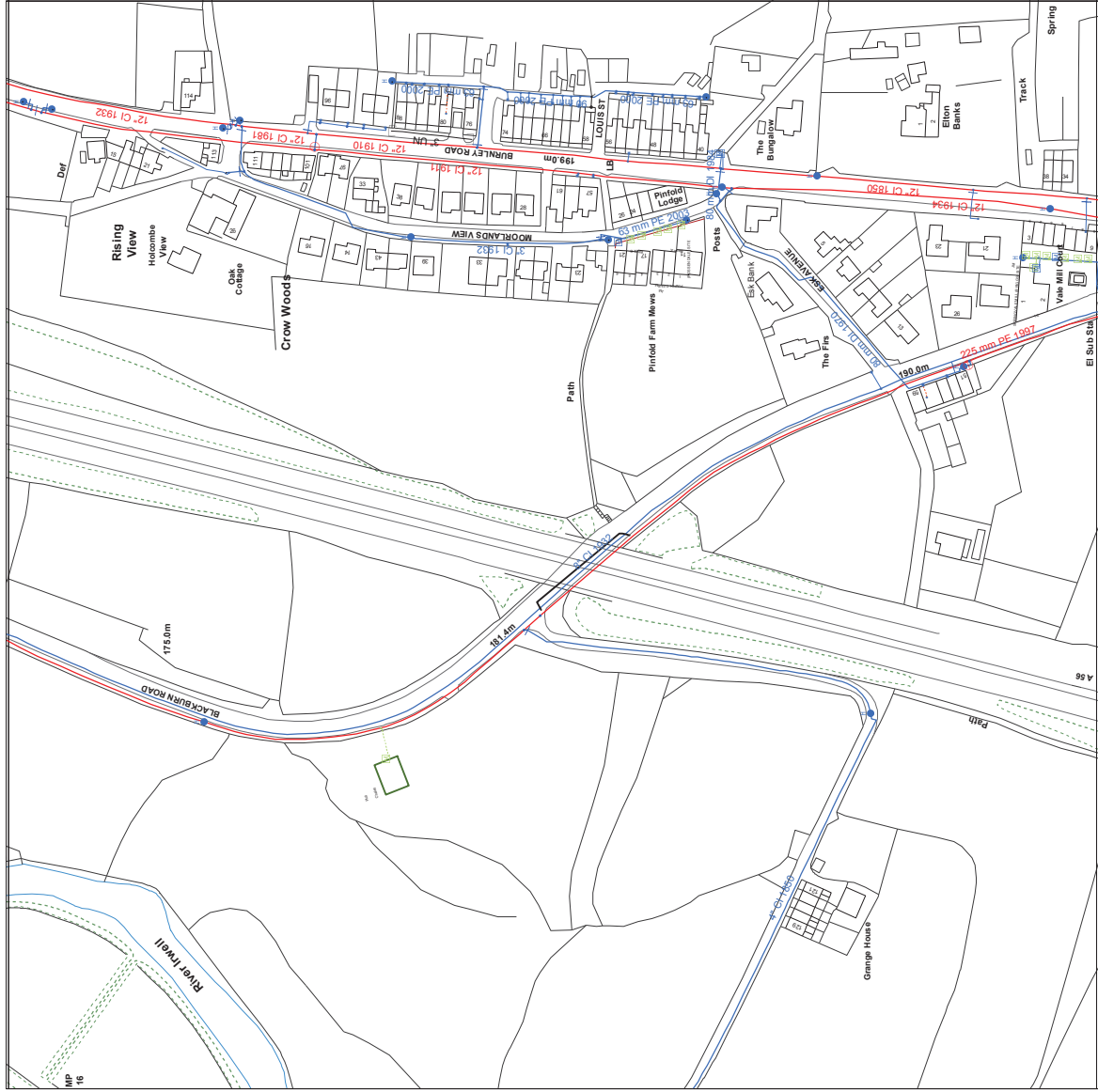
Sue McManus  
Operations Manager  
Property Searches

## TERMS AND CONDITIONS - WASTERWATER & WATER DISTRIBUTION PLANS

These provisions apply to the public sewerage, water distribution and telemetry systems (including sewers which are the subject of an agreement under Section 104 of the Water Industry Act 1991 and mains installed in accordance with the agreement for the self construction of water mains) (UJW apparatus) of United Utilities Water PLC ("UJW").

### **TERMS AND CONDITIONS:**

1. This Map and any information supplied with it is issued subject to the provisions contained below, to the exclusion of all others and no party relies upon any representation, warranty, collateral contract or other assurance of any person (whether party to this agreement or not) that is not set out in this agreement or the documents referred to in it.
2. This Map and any information supplied with it is provided for general guidance only and no representation, undertaking or warranty as to its accuracy, completeness or being up to date is given or implied.
3. In particular, the position and depth of any UJW apparatus shown on the Map are approximate only. UJW strongly recommends that a comprehensive survey is undertaken in addition to reviewing this Map to determine and ensure the precise location of any UJW apparatus. The exact location, positions and depths should be obtained by excavation trial holes.
4. The location and position of private drains, private sewers and service pipes to properties are not normally shown on this Map but their presence must be anticipated and accounted for and you are strongly advised to carry out your own further enquiries and investigations in order to locate the same.
5. The position and depth of UJW apparatus is subject to change and therefore this Map is issued subject to any removal or change in location of the same. The onus is entirely upon you to confirm whether any changes to the Map have been made subsequent to issue and prior to any works being carried out.
6. This Map and any information shown on it or provided with it must not be relied upon in the event of any development, construction or other works (including but not limited to any excavations) in the vicinity of UJW apparatus or for the purpose of determining the suitability of a point of connection to the sewerage or other distribution systems.
7. No person or legal entity, including any company shall be relieved from any liability howsoever and whensoever arising for any damage caused to UJW apparatus by reason of the actual position and/or depths of UJW apparatus being different from those shown on the Map and any information supplied with it.
8. If any provision contained herein is or becomes legally invalid or unenforceable, it will be taken to be severed from the remaining provisions which shall be unaffected and continue in full force and affect.
9. This agreement shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts, save that nothing will prevent UJW from bringing proceedings in any other competent jurisdiction, whether concurrently or otherwise.



LEGEND	
PIPE WORK	
Live	Proposed
Trunk Main - Pressurised/Main	Trunk Main
Raw Water Aqueduct - Pressurised/Main	Raw Water Aqueduct
Raw Water Aqueduct - Gravity/Main	LDTM Raw Water Distribution
LDTM Raw Water Distribution - Pressurised/Main	LDTM Treated Water Distribution
LDTM Raw Water Distribution - Gravity/Main	Private Pipe
LDTM Treated Water Distribution - Pressurised/Main	Distribution Main
LDTM Treated Water Distribution - Gravity/Main	Comms Pipe
Private Pipe - Lateral/Line	Concessionary Service
Distribution Main - Pressurised/Main	
Comms Pipe - Lateral/Line	
Concessionary Service - Lateral/Line	
NODES/FURNITURE	
Live	Proposed
End Cap	Condition Report
CC Valve	Pipe Bridges
AC Valve	Tunnels (non carrier)
Air Valve	Pumping Station
Sluice Valve	Water Treatment Works
Non Return Valve	Private Treatment Works
Pressure Management Valve	Valve House
Change of Characteristic	Water Tower
Anode	Service Reservoir
Chlorination Point	Supply Reservoir
De Chlorination Point	Abstraction Point
Bore Hole	Domestic meter
Inlet Point	Commercial meter
Bulk Supply Point	Telemetry Outstation
Fire Hydrant	
Hydrant	
Private Fire Hydrant	
Pump	
Site Termination	
Service Start	
Service End	
Process Meter	
Stop Tap	
Monitor Location	
Strainer Point	
Access Point	
Hatch Box	
IP Point	
Route Marker	
Sampling Station	
Logger Box	
MATERIAL TYPES	
AC ASBESTOS CEMENT	OT OTHERS
CI CAST IRON	PB LEAD
CU COPPER	PV uPVC
DU DUCTILE IRON	SP UN IRON
GI GALVANISED IRON	ST UNKROWN
GR GREY IRON	UN UNKNOW
	PE POLYETHYLENE
LINING TYPES	
CE CEMENT LINING	ER EPOXY RESIN
FB FIBRE GLASS BITUMEN	
INSERTION TYPES	
DD DIE DRAWN	MO MOLING
DR DIRECTIONAL DRILLING	PI PIPELINE
	SL SLIP LINED

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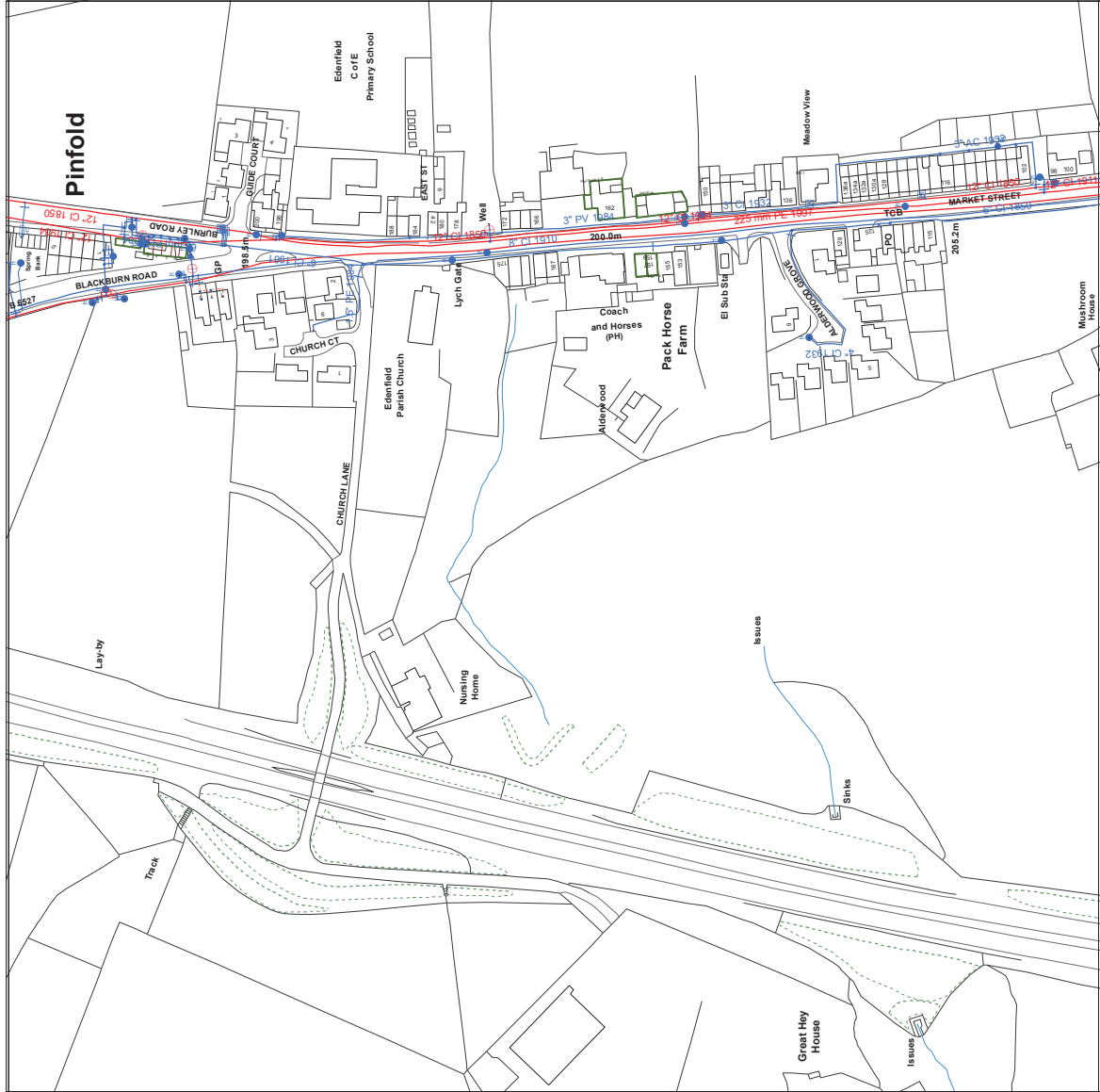
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 Scale: 1:1250  
 Date: 11/10/2013



WATER MAIN RECORDS

OS Sheet No: SD7920SE  
 Scale: 1:1250 Date: 11/10/2013

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LEGEND	
PIPE WORK	
Live	Proposed
Trunk Main - Pressurised/Main	Raw Water Aqueduct - Pressurised/Main
Raw Water Aqueduct - Gravity/Main	LDTM Raw Water Distribution - Pressurised/Main
LDTM Raw Water Distribution - Gravity/Main	LDTM Treated Water Distribution - Pressurised/Main
LDTM Treated Water Distribution - Gravity/Main	Private Pipe - Lateral/Line
Distribution Main - Pressurised/Main	Comms Pipe - Lateral/Line
Concessionary Service - Lateral/Line	
ABANDONED PIPE	
Trunk Main	Raw Water Aqueduct
LDTM Raw Water Distribution	LDTM Treated Water Distribution
Private Pipe	Distribution Main
Comms Pipe	Concessionary Service
NODES/FURNITURE	
Live	Proposed
End Cap	CC Valve
AC Valve	Air Valve
Sluice Valve	Non Return Valve
Pressure Management Valve	Change of Characteristic
Anode	Chlorination Point
Bore Hole	De Chlorination Point
Inlet Point	Bulk Supply Point
Fire Hydrant	Hydrant
Private Fire Hydrant	Pump
Site Termination	Service Start
Service End	Process Meter
Stop Tap	Monitor Location
Strainer Point	Access Point
Hatch Box	IP Point
Route Marker	Sampling Station
SPT	Logger Box
PROPERTY TYPES	
Live	Proposed
Condition Report	Pipe Bridges
Tunnels (non carrier)	Pumping Station
Water Treatment Works	Private Treatment Works
Valve House	Water Tower
Service Reservoir	Supply Reservoir
Abstraction Point	Domestic meter
Commercial meter	Telemetry Outstation
MATERIAL TYPES	
AC ASBESTOS CEMENT	OT OTHERS
CI CAST IRON	PB LEAD
PV uPVC	SPUN IRON
DI DUCTILE IRON	ST UNKNOW
GI GALVANISED IRON	UN UNKNOW
GR GREY IRON	PE POLYETHYLENE
LINING TYPES	
CE CEMENT LINING	ERL EPOXY RESIN
FB FIBRE GLASS BITUMEN	
INSERTION TYPES	
DD DIE DRAWN	MO MILING
DR DIRECTIONAL DRILLING	PI PIPE LINED
	SL SLIP LINED

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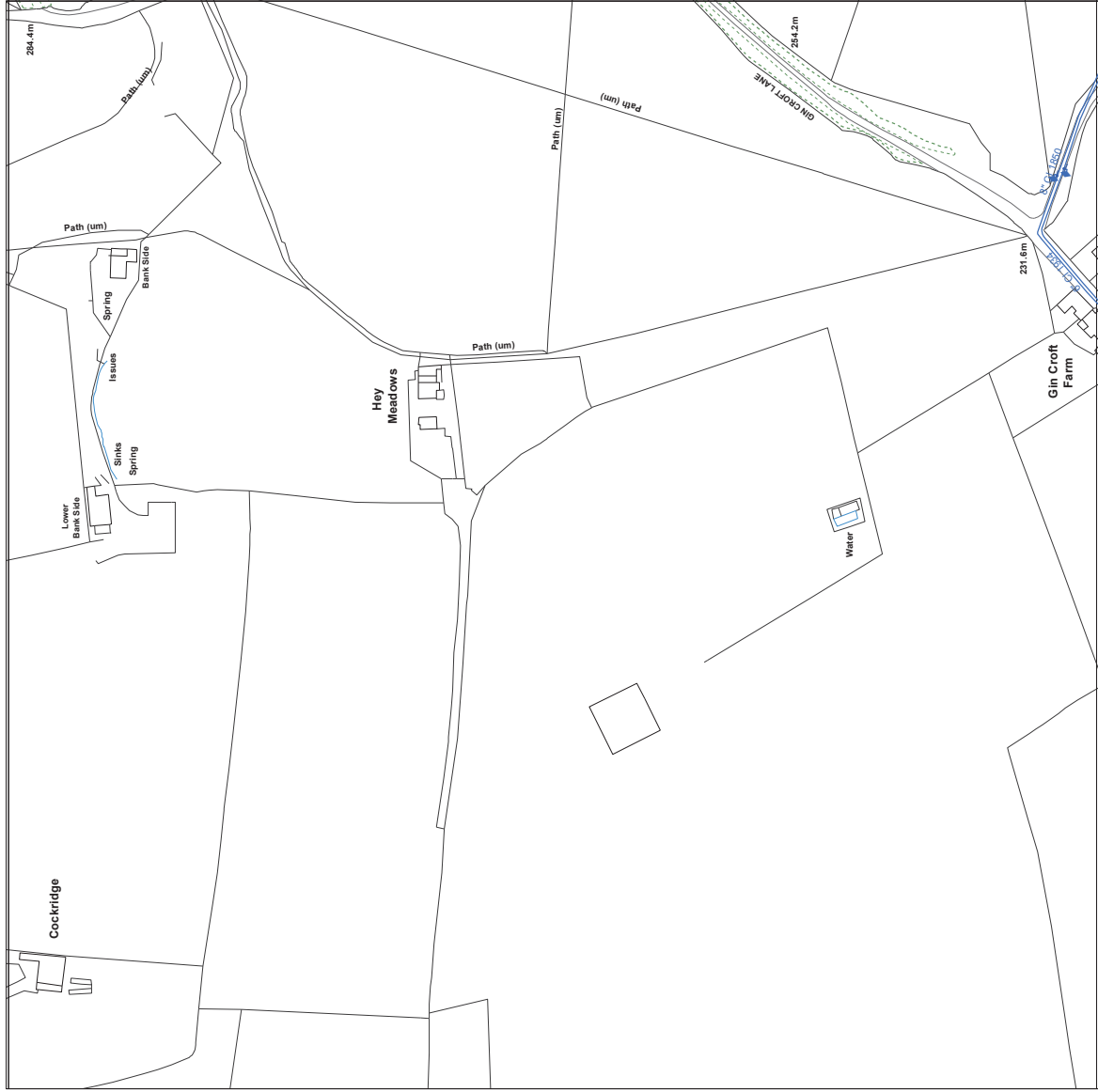
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 Date: 11/10/2013



WATER MAIN RECORDS

OS Sheet No: SD7919NE  
 Scale: 1:1250 Date: 11/10/2013

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LEGEND	
<b>PIPE WORK</b>	
Live	Proposed
Trunk Main - Pressurised/Main	Trunk Main
Raw Water Aqueduct - Pressurised/Main	Raw Water Aqueduct
LDTM Raw Water Distribution - Gravity/Main	LDTM Raw Water Distribution
LDTM Raw Water Distribution - Pressurised/Main	LDTM Raw Water Distribution
LDTM Raw Water Distribution - Gravity/Main	LDTM Raw Water Distribution
LDTM Treated Water Distribution - Gravity/Main	LDTM Treated Water Distribution
LDTM Treated Water Distribution - Pressurised/Main	LDTM Treated Water Distribution
Private Pipe - Lateral/Line	Private Pipe
Distribution Main - Pressurised/Main	Distribution Main
Comms Pipe - Lateral/Line	Comms Pipe
Concessionary Service - Lateral/Line	Concessionary Service
<b>NODES/ FURNITURE</b>	
Live	Proposed
End Cap	Condition Report
CC Valve	Pipe Bridges
AC Valve	Tunnels (non carrier)
Air Valve	Pumping Station
Sluice Valve	Water Treatment Works
Non Return Valve	Private Treatment Works
Pressure Management Valve	Valve House
Change of Characteristic	Water Tower
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Hydrant	
Private Fire Hydrant	
Pump	
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Service Start	
Service End	
Process Meter	
Stop Tap	
Monitor Location	
Strainer Point	
Access Point	
Hatch Box	
IP Point	
Route Marker	
Sampling Station	
Logger Box	
<b>ABANDONED PIPE</b>	
Trunk Main	
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LDTM Raw Water Distribution	
LDTM Treated Water Distribution	
Private Pipe	
Distribution Main	
Comms Pipe	
Concessionary Service	
<b>PROPERTY TYPES</b>	
Live	Proposed
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Domestic meter	
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Telemetry Outstation	
<b>MATERIAL TYPES</b>	
AC ASBESTOS CEMENT	OT OTHERS
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DI DUCTILE IRON	ST UNKNOW
GI GALVANISED IRON	UN UNKNOW
GR GREY IRON	PE POLYETHYLENE
<b>LINING TYPES</b>	
CL CEMENT LINING	ERL EPOXY RESIN
FB FAB ON BITUMEN	
<b>INSERTION TYPES</b>	
DD DIE DRAWN	MO MOLING
DR DIRECTIONAL DRILLING	PI PIPELINE
	SL SLIP LINED

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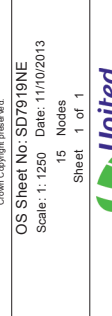
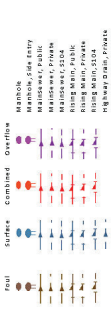


WATER MAIN RECORDS

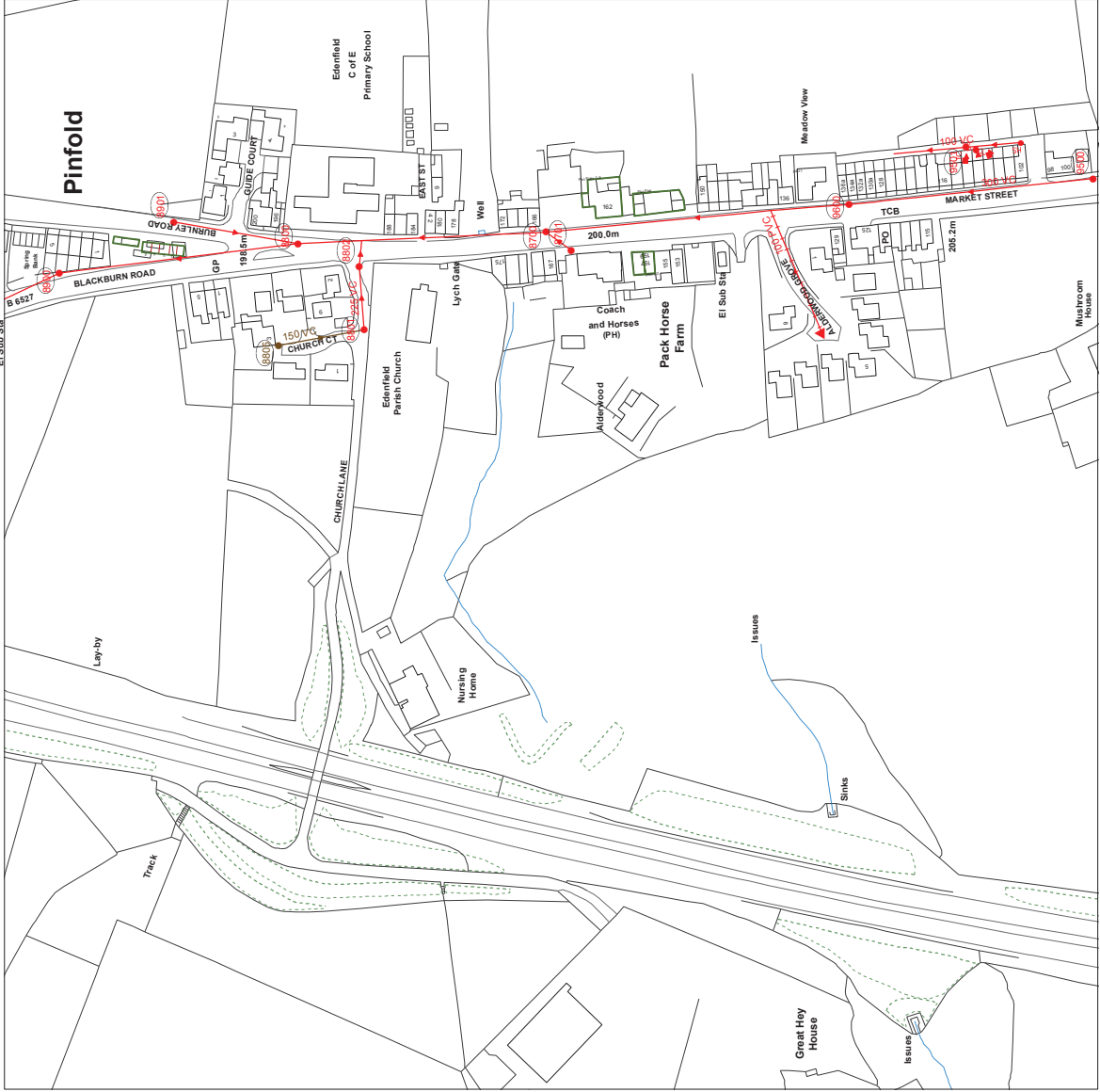
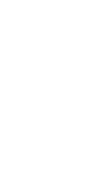
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**WASTE WATER SYMBOLOLOGY**



**LEGEND**



OS Sheet No: SD7919NE  
Scale: 1: 1250 Date: 11/10/2013

15 Nodes  
Sheet 1 of 1



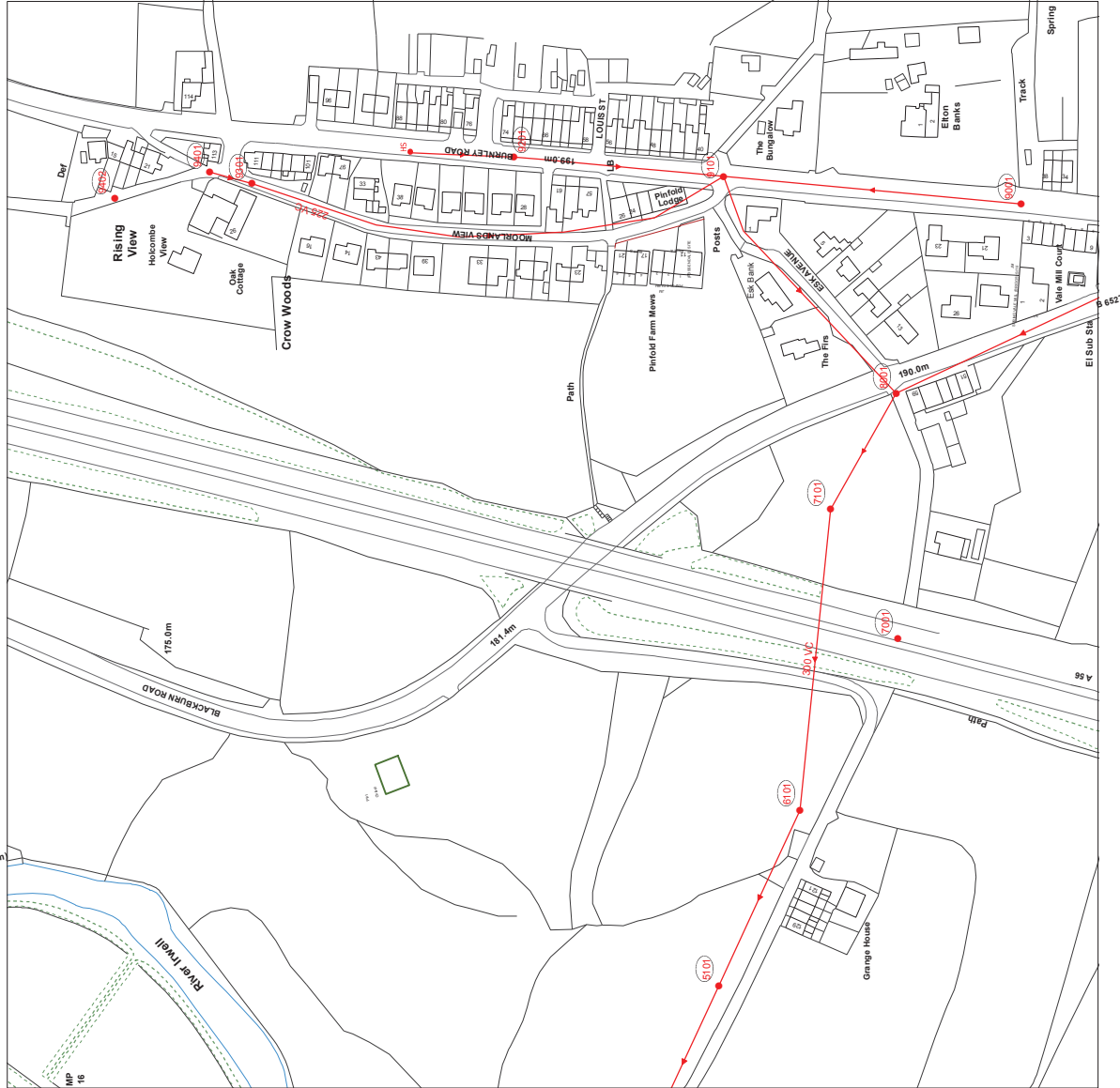
SEWER RECORDS

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Scale: 1: 1250 Date: 11/10/2013

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Plan Date: 02/08/2012  
Plan No: SD7920SE  
Scale: 1:1250  
Date: 11/10/2013  
Sheet: 1 of 1

**WASTE WATER SYMBOLOLOGY**

Manhole	Combined	Overhead
Manhole, 750mm Entry	(Symbol)	(Symbol)
Manhole, 1000mm Entry	(Symbol)	(Symbol)
Manhole, 1250mm Entry	(Symbol)	(Symbol)
Manhole, 1500mm Entry	(Symbol)	(Symbol)
Manhole, 2000mm Entry	(Symbol)	(Symbol)
Manhole, 2500mm Entry	(Symbol)	(Symbol)
Manhole, 3000mm Entry	(Symbol)	(Symbol)

**SEWER SURFACES Combined**

AS	Asbestos Cement
BR	Brick
PE	Polyethylene
RP	Reinforced Plastic Matrix
CO	Concrete
CC	Concrete
CCS	Concrete Segmental Chilled
CCS	Concrete Segmental Chilled
PC	Precast Concrete Box Culvert
GR	Glass Reinforced Concrete
GR	Glass Reinforced Concrete

**ABANDONED PIPE**

(Symbol)	Mansewer
(Symbol)	Ring Main
(Symbol)	Highway Drain
(Symbol)	Sludge Main

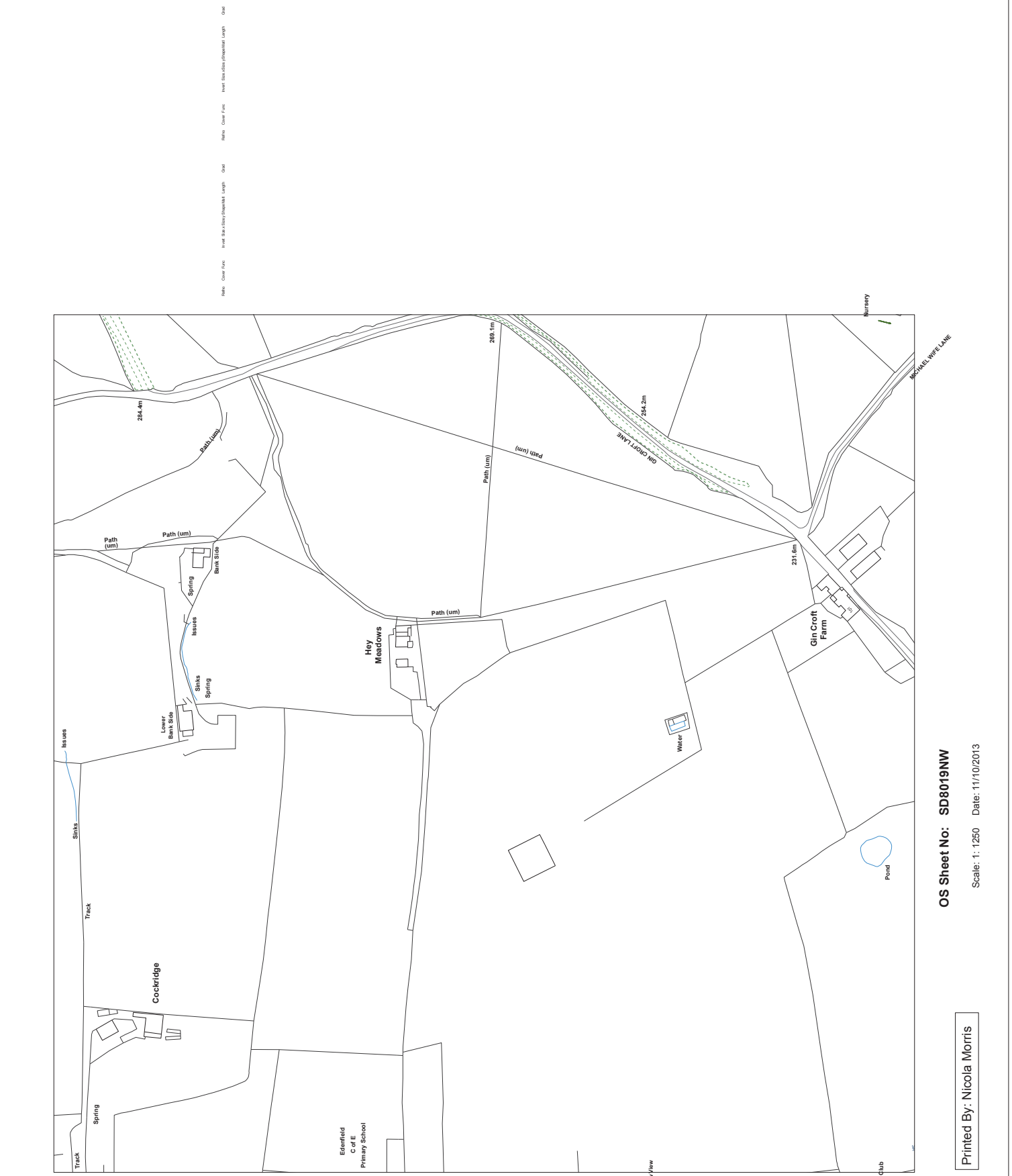
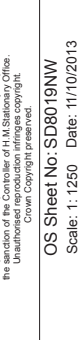
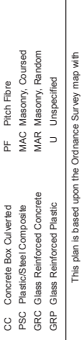
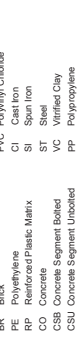
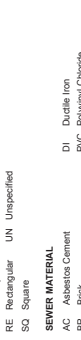
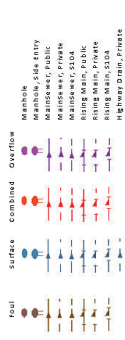
**LEGEND**

MANHOLE FUNCTION	SEWER SHAPE	SEWER MATERIAL
SW	Circular	Asbestos Cement
CO	Circular	Brick
OV	Circular	Polyethylene
TR	Triangular	Reinforced Plastic Matrix
AR	Arch	Concrete
BA	Barrel	Concrete
CV	Circle	Concrete
RE	Rectangle	Concrete
SQ	Square	Concrete

This plan is based on the Original Survey map with the associated specifications and details. It is not intended to be used for any other purpose without the written consent of the Engineer. United Utilities is not liable for any loss or damage arising from the use of this plan.



**WASTE WATER SYMBOLOGY**



OS Sheet No: SD8019NW  
 Scale: 1: 1250 Date: 11/10/2013

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Sheet 1 of 1

0 Nodes

United Utilities

SEWER RECORDS

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## These general conditions and precautions apply to the wastewater network of United Utilities.

**Please ensure that a copy of these conditions is passed to your representative and contractor on site.**

1. United Utilities provides the approximate locations of its sewers according to its records. These records are not necessarily accurate or complete nor do they normally show the positions of every sewer culvert or drain, private connections from properties to the public sewers or the particulars of any private system. No person or company shall be relieved from liability for any damage caused by reason of the actual positions and/or depths being different from those indicated. The records do indicate the position of the nearest known public sewer from which the likely length of private connections can be estimated together with the need for any off site drainage rights or easements.

2. Special requirements relative to our sewers may be indicated. United Utilities employees or its contractors will visit any site at reasonable notice to assist in the location of its underground sewers and advise any precautions that may be required to obviate any damage. To arrange a visit or for further information regarding new supplies, connections, diversions, costing, or any notification required under these General Conditions, please call us on **0845 746 2200**.

3. Where public sewers are within a site which is to be developed and do not take any drainage from outside the area, they are from an operational viewpoint redundant. The developer must identify all redundant sewers affected by the development and apply to United Utilities in writing for these sewers to be formally closed. The developer shall bear all related costs of the physical abandonment work.

4. Public sewers within the site that are still live outside the area will be subject to a "Restricted Building zone". This would normally be a surface area equivalent to the depth of the sewer measured from the centre line of the sewer on either side. No construction will be permitted within that zone. The developer should also note that deep and wide rooted trees must not be planted in close proximity to live sewers. Access to public sewers must be maintained at all times and no interference to manholes will be permitted during construction work.

5. Where there is a public sewer along the line of a proposed development/building, arrangements shall be made by the developer at his cost to divert the sewer around the development. Where this is not possible and as a last resort, a "Building Over Agreement" will need to be completed under section 18 of the Building Act 1984. The developer shall design building foundations to ensure that no additional loading is transferred to the sewer and submit such details both to the Local Authority's Building Control Officer and to United Utilities for approval/acceptance. United Utilities on a rechargeable basis would normally undertake all aspects of design work associated with the diversion of any part of the operational wastewater network. For further advice please call asset protection on **01925 678 306**

6. Where there is a non-main river watercourse/culvert passing through the site, the landowner has the responsibility of a riparian owner for the watercourse/culvert and is responsible for the maintenance of the fabric of the culvert and for all works involved in maintaining the unrestricted flow through it. Building over the watercourse/culvert is not recommended. The developer must contact the local authority before any works are carried out on the watercourse/culvert. Where it is necessary to discharge surface water from the site into the watercourse/culvert the developer shall make an assessment of the available capacity of the watercourse/culvert (based on a 1 in 50 year event) and ensure that the additional flow to be discharged into the watercourse/culvert will not cause any flooding. In appropriate cases, flooding may be prevented by on-site storage. The developer shall submit the relevant details required to substantiate his development proposals. Details of any outfall proposed shall also be submitted to the Environment Agency, PO Box 12, Richard Fairclough House, Knutsford Road, Warrington, Cheshire, WA4 1HT for their approval.

7. Where there is a main river watercourse/culvert passing through the site, the developer shall submit all proposals affecting the river to the Environment Agency at the address stated in paragraph 6 for approval/acceptance.

8. Your attention is drawn also to the following:

• **Private drains or sewers which may be within the site.**

On 1 October 2011 all privately owned sewers and lateral drains which communicate with (that is drain to) an existing public sewer as at 1 July 2011 will become the responsibility of the sewerage undertaker. This includes private sewers upstream of pumping stations that have yet to transfer, but excludes lengths of sewer or drain that are the subject of an on-going appeal or which have been excluded from transfer as a result of an appeal or which are on or under land opted-out by a Crown body. The transfer specifically excludes sewers and lateral drains owned by a railway undertaker. Sewers upstream of such assets, however, are transferred. Such assets may not be recorded on the public sewer record currently as it was not a requirement to keep records of previously private sewers and drains.

• **Applications to make connections to the public sewer.**

The developer must write to United Utilities requesting an application form that must be duly completed and returned. No works on the public sewer shall be carried out until a letter of consent is received from United Utilities.

• **Sewers for adoption.**

If an agreement for the adoption of sewers under Section 104 of the Water Industry Act 1991 is being contemplated, a submission in accordance with "Sewers for Adoption", Seventh Edition, published by the Water Research Centre (2001) Plc, Henley Road, Medmenham, PO Box 16, Marlow, Buckinghamshire, SL7 2HD will be required, taking into consideration any departures from the general guide stipulated by United Utilities.

• **Further consultation with United Utilities.**

Developers wishing to seek advice or clarification regarding sewer record information provided should contact United Utilities to arrange an appointment. A consultation fee may be charged, details of which will be made available at the time of making an appointment.

9. Combined sewers, foul sewers, surface water sewers, and pumped mains. These are shown separately in a range of colours or markings to distinguish them on our drawings, which are extracts from the statutory regional sewer map. A legend and key is provided on each extract for general use, although not all types of sewer will be shown on every extract.

**Combined sewers shown coloured red** carries both surface water and foul sewage, especially in areas where there is no separate surface water sewerage system.

**Foul sewers coloured brown** may also carry surface water and there may be no separate surface water system indicated in the immediate area. Both combined and foul sewers carry wastewater to our treatment works before it can safely be returned to the environment.

**Surface water sewers coloured blue** on our drawings are intended only to carry uncontaminated surface water (e.g. rainfall from roofs, etc) and they usually discharge into local watercourses. It is important for the protection of the environment and water quality that only uncontaminated surface water is connected to the surface water sewers. Improper connections to surface water sewers from sink wastes, washing machines and other domestic use of water can cause significant pollution of watercourses.

**Pumped mains, rising mains and sludge mains** will all be subject to pumping pressures and are neither suitable nor available for making new connections.

**Highway drains, when included, show as blue and black dashed lines.** Highway drains are not assets belonging to United Utilities and are the responsibility of local authorities.

10. For information regarding future proposals for construction of company apparatus please write to United Utilities, PO Box 453, Warrington, WA5 3QN.

11. For information regarding easements, deeds, grants or wayleaves please write to United Utilities Property Solutions, Coniston Buildings, Lingley Mere Business Park, Lingley Green Avenue, Great Sankey, Warrington WA5 3UU (Tel: 01925 731 365).

## These general conditions and precautions apply to the water distribution system of United Utilities.

**Please ensure that a copy of these conditions is passed to your representative and contractor on site.**

1. United Utilities provides approximate locations of its water mains or apparatus according to its records. These records are not necessarily accurate or complete nor do they normally show the positions of private service pipes from the mains to properties. Where service pipes are shown, a blue broken line indicates their approximate position. No person or company shall be relieved from liability for any damage caused by reason of the actual positions and/or depths being different from those indicated.

2. Special requirements relative to our apparatus may be indicated. United Utilities employees will visit any site at reasonable notice to assist in the location of its underground water apparatus and advise any precautions that may be required to obviate any damage. To arrange a visit or for further information regarding new supplies, connections, diversions, costing, future proposals for construction of company apparatus or any notification required under these General Conditions, please telephone us on **0845 746 2200** or write to United Utilities, PO Box 453, Warrington, WA5 3QN.

3. In order to achieve safe working conditions adjacent to any water apparatus the following should be observed;

(a) All water apparatus should be located by hand digging prior to the use of mechanical excavation.

(b) During construction work where heavy plant may have to cross the line of a water main, and the main is not under a carriageway of adequate standard of construction, crossing points should be suitably reinforced with sleepers, steel plates or a specially constructed reinforced concrete raft as necessary. These crossing points should be clearly indicated and crossing the line of the water main at other places should be prevented. United Utilities employees will advise on the type of reinforcement necessary. This is particularly important on agricultural or open land, where tilling or erosion may have significantly reduced the original cover.

(c) No explosive should be used within 32 metres of any United Utilities apparatus without prior consultation with United Utilities.

(d) Where it is proposed to carry out piling within 15 metres of any water main United Utilities should be consulted so that the affected main may be surveyed.

4. During any excavation, it is important that measures should be taken to ensure continued support for any water main:

(a) Where excavation of trenches adjacent to any water main is likely to affect its support, the main must be supported to the satisfaction of United Utilities.

(b) Where a trench is excavated crossing or parallel to the line of a water main, the backfill should be adequately compacted to prevent any settlement which could subsequently cause damage to the main. In special cases it may be necessary to provide permanent support to a main which has been exposed over the length of the excavation before back-filling and reinstatement is carried out. No back-filled concrete should contact the main.

5. No other apparatus should be laid over and along the line of a water main irrespective of clearance. A minimum clearance of 450 millimetres should be allowed between any plant being installed and an existing main, to facilitate maintenance and repair, whether the adjacent plant is parallel to or crossing the main. No manhole, chamber, or other obstruction should be built over or around a water main.

6. Where a water main is coated with special wrapping and the wrapping is damaged, even to a minor extent, United Utilities must be notified, and the excavation must be left open for ready access so that repairs can be made. In case of any material damage to the main itself causing leakage, or weakening of the mechanical strength of the pipe, the person or body responsible should immediately notify United Utilities in order that the necessary remedial work can be carried out. The full cost of the necessary remedial work will be charged to the person or body responsible for the damage.

7. If you propose to change existing levels over water mains you will need to inform us. We will need specific locations to be identified together with precise details as to the scale of the proposed changes to existing ground levels. Changes to existing levels may require the diversion of our apparatus at your cost. However, in certain circumstances we may wish to leave our apparatus where it is. On these occasions you will usually be required to protect our apparatus by means of a concrete raft and either raise or lower any surface boxes affected.

8. Under no circumstances should our surface boxes be either buried or left in a situation where they are raised above finished ground levels. You should re-use and re-set any surface boxes affected by your works into the new surface so that they align over the water apparatus below. You will be responsible for the cost of repairing any damage to our apparatus as a result of your works.

9. Where proposals involve resurfacing, you must notify United Utilities if your excavation will be greater than 750mm in the highway and 300mm in a footpath, verge or other location.

10. For information regarding easements, deeds, grants, licences or wayleaves, please write to United Utilities Property Solutions, Coniston Buildings, Lingley Mere Business Park, Lingley Green Avenue, Great Sankey, Warrington WA5 3UU (Tel 01925 731 365).

#### Tree planting restrictions over water mains

a) Poplar and willow trees have extensive root systems and should not be planted within 10 metres of any water main.

b) The following trees and those of a similar size, whether they are deciduous or evergreen, should not be planted within six metres of any water main:

- Ash, beech, birch, elm, horse chestnut, lime, oak, sycamore;
- Apple trees and pear trees;
- Most conifers.

c) United Utilities requires access to the route of its mains at all times to inspect for leaks and carry out surveys.

We recommend that no shrubs or bushes which might obstruct or interfere with our access should be planted within one metre of the centre line of any water main.

d) There may be instances when both United Utilities and the landowner will wish to plant shrubs or bushes close to the water main for screening or other purposes. The following shallow rooting shrubs would be suitable for this purpose:

- Blackthorn, broom, cotoneaster, elder;
- Hazel, laurel, privet, quickthorn, snowberry;
- Most ornamental flowering shrubs.

e) In areas where soft fruit is grown, blackcurrant, raspberries and gooseberries may be planted close to the main, provided that a path is left clear for inspection access and surveys. United Utilities can give additional advice where required in particular circumstances.

**Appendix E: Land at Blackburn Road,  
Edenfield – Ecological  
Assessment Report**











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## **APPENDICES**

APPENDIX A: Desk Based Assessment Report

APPENDIX B: Target Notes Report

## **DRAWINGS**

7820.001 Phase 1 Habitat Survey Blackburn Road

## Executive Summary

1. TEP Ltd was commissioned in August 2019 by Peel Land and Property Group Management Ltd, to carry out a preliminary ecological assessment of a plot of land at Blackburn Road, Edenfield in Lancashire. The preliminary ecological assessment has been instructed to support an allocation for housing in the Local Plan and will also inform future proposals on the site.
2. The proposed site is a parcel of land of approximately 2.2ha, located in the north of Edenfield village. It is bordered to the west by the A56 and to the east by the B6527 Blackburn Road, along which a number of residential properties are located. To the immediate north of the proposed site are grassland fields and south is a band of semi-natural broadleaved woodland.
3. There are no biodiversity-related allocations on or adjacent to the site under the Rossendale Council Local Development Plan Part 1 and the Emerging Rossendale Local Plan (Submission Version).
4. It is not anticipated that any designated sites would be impacted by the proposed site due to the presence of numerous barriers between the proposed site and the designated sites with very little wildlife connectivity.
5. An Extended Phase 1 habitat survey was carried out in July 2019. The proposed site itself consists of semi-improved neutral grassland. An area of deciduous woodland, listed within the Priority Habitat Inventory, is located within the south of the proposed site. This is designated as an S41 habitat of principal importance. On further detailed inspection during the Phase 1 habitat survey this area of woodland was assessed as plantation mixed woodland.
6. Himalayan balsam *Impatiens glandulifera* was identified within the plantation mixed woodland and along the north and west field boundaries. Himalayan balsam is listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and it is therefore an offence to cause the spread of this species in the wild.
7. The proposed development may have implications on amphibians, badger, bats, birds, hedgehogs and reptiles. Recommendations for each of these are summarised below:
  - Amphibians - Habitat Suitability Index (HSI) assessment and eDNA analysis of water body within 500m. Further mitigation may be required in the form of Reasonable Avoidance Measures (RAMs) based on the results of the HSI and eDNA;
  - Badger - updated badger survey of the site and surrounding 30m prior to planning submission to be undertaken during winter;
  - Bats - If trees and dry stone wall are to be lost as part of the development a ground based roost assessment should be undertaken during the winter months followed by aerial inspections and/or nocturnal surveys if needed;
  - Birds - Clearance of trees, scrub or demolition of walls should be carried out outside of the nesting bird season (March - August inclusive). If it is not possible a nesting bird check must be carried out; and

- Hedgehog and reptiles - Reasonable Avoidance Measures (RAMs) should be implemented during the construction and development phases.
8. Under the National Planning Policy Framework 2019 (NPPF), developments should aim to minimise impacts on biodiversity and provide net gains, where possible. It is also recommended that biodiversity net gain is quantified through the use of a biodiversity metric.

## 1.0 Introduction

- 1.1 TEP Ltd was commissioned in August 2019 by Peel Land and Property Group Management Ltd, to carry out an ecological assessment of a plot of land at Blackburn Road, Edenfield in Lancashire.
- 1.2 This report has the following objectives:
- To describe the existing vegetation and give an overview of the habitats present on the site;
  - To identify whether there are any features of conservation value such as legally protected species or habitats and species of principal importance listed under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006;
  - To identify any further survey requirements;
  - To identify scheme design options to mitigate ecological impacts; and
  - To identify biodiversity enhancement opportunities.

### Site Proposals

- 1.3 This ecological assessment has been instructed to support an allocation for housing in the Local Plan and will also inform future proposals on the site.

### Site Context

- 1.4 The proposed site is a parcel of land of approximately 2.2ha, located in the north of Edenfield village. It is bordered to the west by the A56 and to the east by the B6527 Blackburn Road, along which a number of residential properties are located. To the immediate north of the proposed site are grassland fields and to the south is a band of plantation mixed woodland.
- 1.5 Further west the East Lancashire Railway is located approximately 520m from the proposed site and the River Irwell is located approximately 630m from the proposed site.
- 1.6 In the wider area the main land use is agricultural, with the majority of fields used for livestock grazing. The land further east and west is dominated by moorland.
- 1.7 The proposed site itself consists of semi-improved neutral grassland. A block of plantation mixed woodland is located in the south of the site.
- 1.8 The central grid reference for the site is SD 79751 19953, the site location plan is shown in Figure 1.

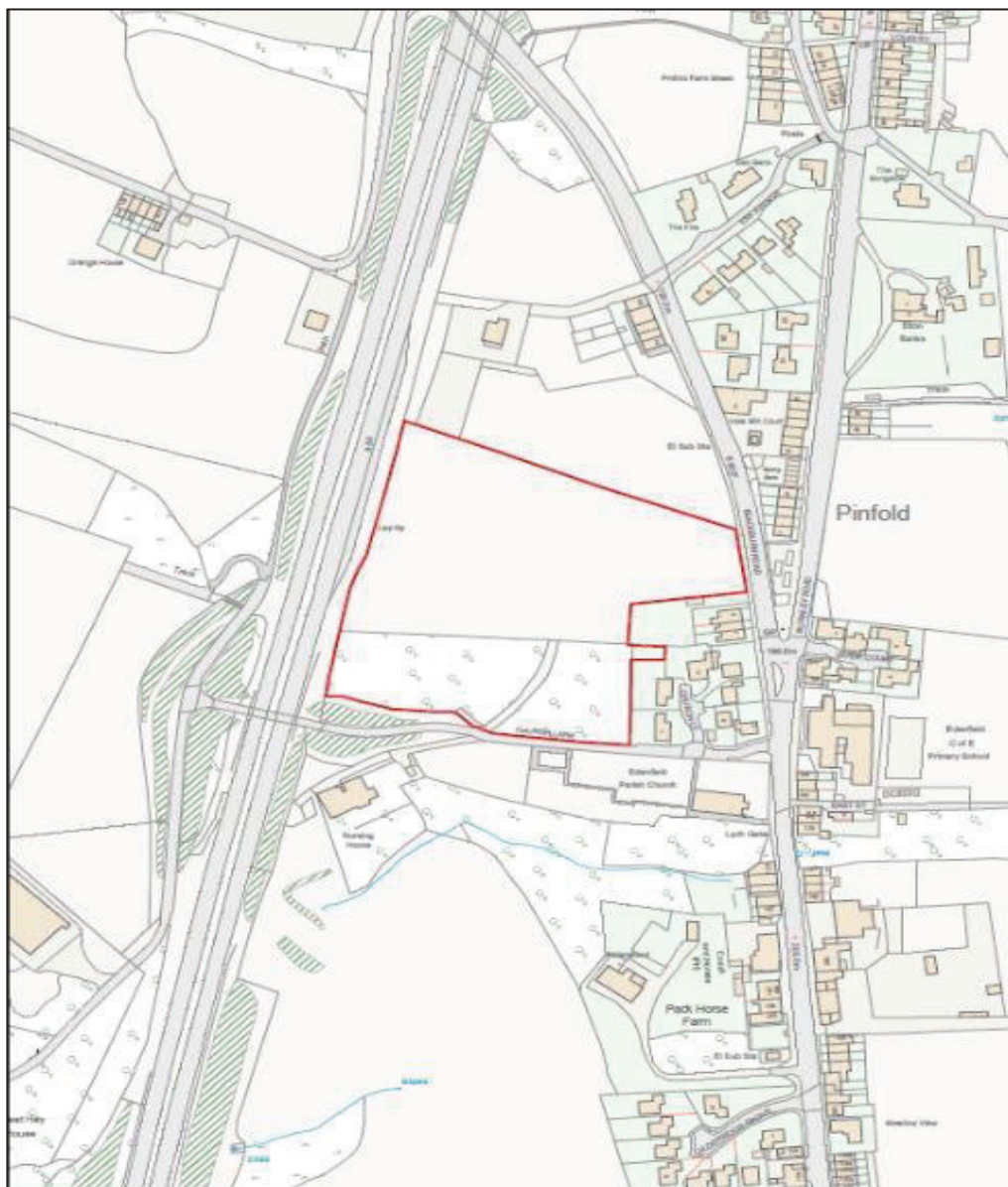


Figure 1: Proposed site location and approximate boundary. Contains OS data © Crown copyright and database right 2019 (Licence Number 100018033).

## 2.0 Methods

### Desk Study

- 2.1 Information regarding historic species records and protected sites was requested/gathered from the sources listed in Table 1. This collated data gives a useful indication of the distribution and abundance of ecological receptors at a given locale. An absence of records does not indicate the absence of protected species from the search area. Our survey work has sought to identify the potential for any protected species to be present.

*Table 1: Sources of ecological information*

Source of Information	Nature of Information
Magic Map	Maps showing internationally designated sites to 10km, nationally designated sites to 5km and habitats of value to biodiversity within and adjacent to the site.
Lancashire Environment Record Network (LERN)	Protected species records and locally designated sites within 2km
Rosendale Council	Land allocations and relevant policies
ArcMap10	Ordnance & Aerial survey mapping

### Habitats and Flora

- 2.2 A Phase 1 habitat survey was carried out by ecologist Lausanne Jenkins (FISC Level 3) on 16<sup>th</sup> July 2019 (optimal period for Phase 1 habitat surveys is April to October). The survey was carried out in accordance with the Phase 1 habitat assessment methods (JNCC 2010<sup>1</sup>) and Guidelines for Preliminary Ecological Appraisal (CIEEM 2017<sup>2</sup>). The method records the habitat types present within and immediately surrounding the site, based on the JNCC descriptions. Plant species were identified in accordance with Stace (2010) and recorded as target notes using the DAFOR scale.

### Fauna

- 2.3 The Phase 1 habitat survey included an extended assessment of the habitats present for their potential to support species of conservation concern, particularly statutorily protected species or species listed under S41. Any signs indicating the presence of these species were recorded.

### Limitations

- 2.4 No limitations were encountered during the survey.

<sup>1</sup> JNCC 2010. Handbook for Phase 1 Habitat Survey: A technique for environmental audit.

<sup>2</sup> CIEEM 2017. Guidelines for Preliminary Ecological Appraisal.



## 3.0 Results

### Desk Study

#### Planning Context

- 3.1 A summary of the results of the desk based assessment (DBA) is set out below. Further details, including maps, are provided in Appendix A (TEP report reference: 7820.001).
- 3.2 The proposed site is currently allocated as Green Belt DS.3 in the existing Rossendale Local Development Plan Part 1 and as Housing Site Allocation (H72) and Green Infrastructure in the Emerging Rossendale Local Plan (Submission Version).

#### *Relevant Planning Policies and Guidance*

- 3.3 There are no biodiversity-related allocations on or adjacent to the site under the Rossendale Council Local Development Plan Part 1 and the Emerging Rossendale Local Plan (Submission Version).
- 3.4 Planning policies applicable to the site and relevant to biodiversity include:

#### **Rossendale Local Development Plan Part 1:**

- Policy 17: Rossendale's Green Infrastructure, which states The Council will promote the protection, enhancement and where appropriate the expansion of the Green Infrastructure network; and
- Policy 18: Biodiversity, Geodiversity and Landscape Conservation, which states The Council will seek to avoid any harmful impacts of development on all aspects of Rossendale's natural environment - including its biodiversity, geodiversity and landscape assets, priority habitats and species and statutory and locally designated sites. Current and future biodiversity and geodiversity assets will be given full appropriate protection, and enhanced where possible.

#### **Emerging Rossendale Local Plan (Submission Version):**

- Policy HS3 - Edenfield: Within the area defined on the Policies Map at Edenfield new residential development will be permitted subject to the following a) Comprehensive development of the entire site is demonstrated through a masterplan and b) The implementation of development in accordance with an agreed Design Code;
- Policy ENV3 - Landscape Character and Quality: The Council will expect development proposals to conserve and , where possible, enhance the natural and built environment, its immediate and wider environment;
- Policy ENV4 - Biodiversity, Geodiversity and Ecological Networks: Development proposals that have potential to affect a national or locally designated site and its immediate environs, or on protected habitats and species will be expected to be accompanied by relevant surveys and assessments detailing likely impacts. Development proposals should

- protect areas of biodiversity, protected species and ecological networks, and where possible enhance sites and linkages; and
- Policy ENV10 - Trees and Hedgerows: Development proposals must seek to avoid the loss of, and minimise the risk of harm to, existing trees, woodland, and or/ hedgerows of visual or nature conservation value.

### Designated Sites

- 3.5 There are no internationally designated wildlife sites within 10km of the proposed site.
- 3.6 There are three nationally designated wildlife sites within 5km of the proposed site. These nationally designated sites are:
- Hodge Clough Site of Special Scientific Interest (SSSI) located 1km south west of the proposed site and designated for its geological features;
  - West Pennine Moors SSSI located 1.8km west of the proposed site and designated for its extensive mosaic of upland and fringe habitats; and
  - Lower Red Lees Pasture SSSI located 2.1km south west of the proposed site and is important as one of the few remaining examples of herb-rich unimproved neutral to slightly acidic pasture typical of south-east Lancashire.
- 3.7 The site lies within the Impact Risk Zone (IRZ) for Hodge Clough SSSI and the West Pennine Moors SSSI. Due to the nature of the proposed development and fact that the development proposals do not fall within the risk categories of the IRZ, it is believed that there will be no impact on Hodge Clough SSSI and the West Pennine Moors SSSI in relation to the proposed development.
- 3.8 There are 19 locally designated wildlife sites within 2km of the proposed site, seven of which are within 1km of the proposed site and include:
- Hodge Clough and Lumb Wood Biological Heritage Site (BHS) located 1km to the south west of the proposed site and designated for its ancient plantation mixed woodland;
  - Stubbins Nature Reserve and Woodland BHS located 0.9km to the south west of the proposed site and designated for its woodland, grassland and artificial habitats along a section of disused railway line;
  - Alder Bottom Bank BHS located 0.7km to the south west of the proposed site and designated for its floristic diversity;
  - Great Hey Clough BHS located 0.6km to the south west of the proposed site and designated for its ancient plantation mixed woodland;
  - East Lancashire Railway Helmshore to Lumb Hall BHS located 0.9km to the north west of the proposed site and designated for a section of the disused East Lancashire Railway, running from the River Ogden Viaduct in the north to Lumb Hill Farm in the south. Some adjoining fields are also included in the site;
  - Blackburn Road Pasture BHS located 0.3km to the north west of the proposed site and designated for mosaic of neutral grassland and tall herb flushes amidst open and dense scrub and mature trees;

- Gincroft Lane Important Wildlife Site located 0.6km to the south east of the proposed site and designated for its mature, well established parallel hedge.

#### Notable Habitats

- 3.9 An area of deciduous woodland, listed within the Priority Habitat Inventory, is located within the south of the proposed site. This is designated as an S41 habitat of principal importance. On further detailed inspection during the Phase 1 habitat survey this area of woodland was assessed as plantation mixed woodland.

#### Notable Flora and Fauna

- 3.10 A number of species spread over a 2km search radius were identified through the data from LERN. Species include those listed under any of the following:
- European Protected Species (EPS);
  - Protected bird species under Schedule 1 of the Wildlife and Countryside Act 1981, as amended (WCA1);
  - Protected animal species under Schedule 5 of the Wildlife and Countryside Act 1981, as amended (WCA5);
  - Protected plant species under Schedule 8 of the Wildlife and Countryside Act 1981, as amended (WCA8);
  - Invasive non-native plant species under Schedule 9 of the Wildlife and Countryside Act 1981, as amended (WCA9);
  - Species of principal importance under Section 41 of the NERC Act 2006 (S41); and
  - Red and Amber listed Birds of Conservation Concern (BRd/BAm);
  - Local Biodiversity Action Plan Species (LBAP).
- 3.11 These records are detailed in the relevant species sections below.

### **Habitats and Flora**

#### Extended Phase 1 Habitat Survey

- 3.12 Results of the Extended Phase 1 habitat survey are provided below, with detailed Target Notes (TN) presented in Appendix B, and displayed on the Phase 1 Habitat Map within the Drawings Appendix (G7820.001).
- 3.13 The habitats present within the site are listed below and brief descriptions of these habitats are also given:
- Poor semi-improved grassland;
  - Plantation mixed woodland;
  - Tall ruderal;
  - Bare ground;
  - Amenity grassland;
  - Dense/continuous scrub;
  - Scattered broad-leaved trees and scattered scrub; and
  - Walls and fences.

*Semi-improved neutral grassland*

- 3.14 Semi-improved neutral grassland (TN1 within Drawing G7820.001) covers the majority of the north of the proposed site. The field is approximately 1.5ha in size and generally lacks undulation. On 16th August 2019 when the Phase 1 habitat survey was undertaken the grassland sward was relatively long and sheep grazed (Figure 2).



*Figure 2: Semi-improved neutral grassland field in the north of the proposed site.*

- 3.15 The species noted within the grassland includes abundant tufted hair-grass *Deschampsia cespitosa* and Yorkshire fog *Holcus lanatus*, with crested dog's-tail *Cynosurus cristatus* and creeping buttercup *Ranunculus repens* also frequently noted. Large areas of soft rush *Juncus effusus* were noted in the north and east of the site (Figure 3) with the ground very waterlogged at the time of the survey. A full species list is provided with the Target Notes in Appendix B.



Figure 3: A large area of soft rush *Juncus effusus* in the east of the proposed site.

#### *Plantation mixed woodland*

- 3.16 Within the south of the site is an area of plantation mixed woodland (TN4 within Drawing G7820.001) of approximately 0.7ha in size. The woodland is separated into two distinct blocks by the access track leading to the adjacent field. The woodland consists of approximately 70% broad-leaved tree species and 30% coniferous tree species. Broad-leaved tree species noted include ash *Fraxinus excelsior*, hazel *Corylus avellana*, beech *Fagus sylvatica* and oak species *Quercus sp.* Coniferous species noted included European larch *Larix decidua* and the non-native sitka spruce *Picea sitchensis*.
- 3.17 The ground flora in the south west of the woodland is heavily vegetated with ground-elder *Aegopodium podagraria*, bramble *Rubus fruticosas agg.* and Himalayan balsam *Impatiens glandulifera* (Figure 4). Elsewhere ground flora was relatively sparse (Figure 5), however Himalayan balsam was noted throughout the woodland.





Figure 4: Woodland in the south west of the proposed site with dense understorey.



Figure 5: Area of the woodland with sparse ground flora.

#### Tall ruderal

- 3.18 Two areas of tall ruderal habitat were noted along the south east (TN2 within Drawing G7820.001) and eastern boundary of the semi-improved neutral grassland field (Figure 6). Both areas contained abundant nettle *Urtica dioica* with occasional creeping thistle *Cirsium arvense* and great willowherb *Epilobium hirsutum*. An area of tall ruderal habitat with abundant great willowherb was also noted along a section of the southern boundary of the plantation mixed woodland. A full species list is provided with the Target Notes in Appendix B.





*Figure 6: Tall ruderal vegetation in the east of the proposed site.*

#### *Bare ground*

- 3.19 A bare ground access track (Figure 7) leads from Church Lane immediately to the south of the proposed site, through the woodland and into the gated semi-improved neutral grassland field. The access track was grassy in places.



*Figure 7: The access track looking south from the semi-improved neutral field.*

*Amenity grassland*

- 3.20 Amenity grassland (TN6 within Drawing G7820.001) is located in the south east of the proposed site. This area currently forms part of a residential garden to a property adjacent to the proposed site and was therefore surveyed from the outside of the garden only.

*Dense/ continuous scrub*

- 3.21 An area of dense continuous scrub dominated by bramble was noted along a small section of the southern boundary of the proposed site.

*Scattered broad-leaved trees and scattered scrub*

- 3.22 Scattered broad-leaved trees and scrub are present adjacent to the western boundary of the proposed site on a verge of the A56 and along Church Lane to the south of the proposed site. A broad-leaved tree was also noted in the residential garden (TN6 within Drawing G7820.001).
- 3.23 The trees and scrub along the western boundary are largely young oak species trees *Quercus sp.* (Figure 8) and hawthorn *Crataegus monogyna* with more mature pedunculate oak *Quercus robur* trees adjacent to the south east of the semi-improved neutral field (Figure 9).



Figure 8: Young oak species trees along the A56 verge looking south west from the proposed site.





*Figure 9: Pedunculate oak tree on the A56 verge looking west from the proposed site.*

3.24 Four ash trees were noted adjacent to the south east of the site along Church Lane.

#### *Walls and Fences*

3.25 The eastern and northern perimeter of the semi-improved neutral field is surrounded by a dry stone wall, the majority of which is intact (Figure 10). A defunct section of a dry stone wall was also noted in the south of the proposed site immediately west of the access track.



*Figure 10: Dry stone wall along the northern boundary of the proposed site.*

- 3.26 The remainder of the site is enclosed by a combination of wooden and stock proof fencing.

Invasive and protected plant species

- 3.27 There are numerous desktop records for plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981) (WCA9) within 2km of the proposed site. This includes Himalayan balsam with 164 records between 1999 and 2018 and 55 records within 1km of the proposed site, the nearest record approximately 470m north west of the proposed site and Japanese knotweed *Fallopia japonica* with 69 records between 1999 and 2018 and 26 records within 1km of the proposed site, the nearest being approximately 340m north west of the proposed site.
- 3.28 Other WCA9 plant species recorded within 2km of the proposed site include cotoneaster species *Cotoneaster sp.*, giant hogweed *Heracleum mantegazzianum*, Spanish bluebell *Hyacinthoides hispanica*, monbretia *Crococsmia x crocosmiiflora*, waterweed species *Elodea sp.* and rhododendron *ponticum*. These records are shown in the Desk Study within Appendix A (7820.001). No records of WCA9 plant species including Japanese knotweed or Himalayan balsam occurred within site itself.
- 3.29 During the Phase 1 habitat survey Himalayan balsam was frequently noted at the proposed site, particularly within the plantation mixed woodland and along the north west field boundary (Figure 11).



Figure 11: Himalayan balsam along the northern field boundary.

- 3.30 Eleven records of bluebell *Hyacinthoides non-scripta* listed on Schedule 8 of the Wildlife and Countryside Act (1981) (WCA8) were recorded within 2km of the proposed site between 1999 and 2018, however no records of bluebell within 1km of the site were returned in the desktop search.

- 3.31 No protected plant species were identified at the proposed site during the Phase 1 habitat survey. However, the survey was undertaken in mid-July when early flowering protected plant species such as bluebell would no longer be identifiable.

Connectivity with the wider landscape

- 3.32 The A56, which is immediately adjacent to the proposed western site boundary and the East Lancashire Railway and River Irwell, which are both located further to the west form significant barriers to wildlife connectivity between the proposed site and the habitats to the west. The disturbance as a result of the persistent traffic noise from the A56 is also likely to discourage wildlife from using the site.
- 3.33 The habitats to the north, south and east of the proposed site are largely grassland fields with small areas of woodland. Blackburn Road and Burnley Road, located immediately to the east of the site are not likely to form a significant barrier to wildlife connectivity, as they are relatively quiet roads other than during the morning and early evening commuting periods.

**Fauna**

- 3.34 The habitats present within the site are suitable for the following species; further consideration is given below to the likelihood for these species to be present within the proposed site:
- Amphibians
  - Badger
  - Bats
  - Birds
  - Hedgehog
  - Invertebrates
  - Reptiles

Amphibians

- 3.35 No records for great crested newt (GCN) *Triturus cristatus* (EPS, WCA5, LBAP) were returned within 2km of the proposed site. One common toad *Bufo* (WCA5, S41, LBAP) record was returned in the 2km desktop records search. The common toad was recorded approximately 786m to the west of the proposed site in 2013. Three common frog *Rana temporaria* (WCA5, LBAP) records were returned in the 2km desktop records, all records were noted within 1km of the proposed site, the closest record being approximately 365m north west of the proposed site.
- 3.36 No evidence of amphibians was observed during the Phase 1 habitat survey.
- 3.37 There are no waterbodies suitable for breeding amphibians at the proposed site. However, the terrestrial habitats including woodland, grassland and dry stone walls may provide suitable cover, foraging and hibernation habitat for amphibians should they be present within the wider area.



- 3.38 A review of aerial and OS imagery identified one water body within 500m of the proposed site, as shown in Figure 12. The rectangular water body is located approximately 320m to the north east of the proposed site, although it is unclear from the aerial and OS imagery if the water body is suitable for breeding amphibians.

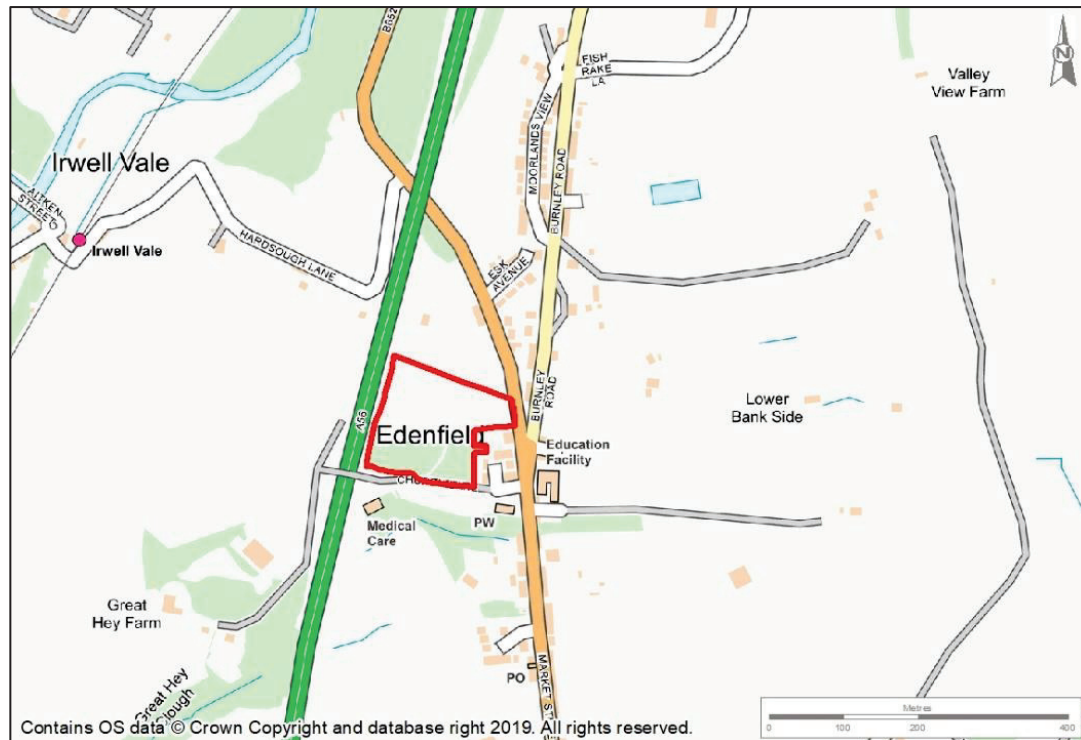


Figure 12: Water bodies within 500m of the proposed site.

### Badger

- 3.39 Ten records of a badger *Meles* (WCA5) recorded between 2013 and 2018 were returned in the 2km desktop records search, with four records noted within 1km of the proposed site, the nearest is approximately 340m north of the proposed site and was recorded in 2013.
- 3.40 The proposed site itself provides some foraging and commuting opportunities for badger. The sloping grass verges of the adjacent A56 and the woodland in the south of the site could provide suitable sett excavation habitat for badgers locally.
- 3.41 During the Phase 1 habitat survey a number of likely badger desire lines were noted moving east from the A56 to Blackburn Road. There was also a repaired section of fencing along the western boundary, which may historically have been used by mammals as an access point into the field. Desire lines were also noted following the eastern boundary into the plantation mixed woodland, however the dense ground flora in the south west of the woodland at the time of the survey meant that it was not possible to assess the area for badger activity. No other badger field signs, such as latrines or snuffle holes were noted during the Phase 1 habitat survey.

### Bats

- 3.42 There are 21 records within the desk study identifying bat species within 2km of site during the last 10 years, with two bat records noted within 1km of the proposed site. 17 of these records are of pipistrelle species (EPS, WCA5, S41, LBAP) the remaining are three records of Daubenton's bat *Myotis daubentonii* (EPS, WCA5, S41, LBAP) and one record of brown long-eared bat *Plecotus auritus* (EPS, WCA5, S41). Six of the 21 records were of roosting bats. The closest roost record is approximately 1.1 km south of the proposed site within a residential house.
- 3.43 The semi-improved neutral grassland and plantation mixed woodland at the proposed site good foraging potential for bats. The mixed woodland and scattered trees and scrub adjacent to the western site boundary also have commuting potential for bats, however the lack of hedgerows along field boundaries within the proposed site and the wider area may limit bat commuting potential.
- 3.44 The trees within the plantation mixed woodland and the dry stone wall around the site boundary may have the potential to support roosting bats.

### Birds

- 3.45 The following bird records have been returned within the 2km of the proposed site:
- Bullfinch *Pyrrhula* (S41, BAm);
  - Dunnock *Prunella modularis* (S41, BAm);
  - House sparrow *Passer domesticus* (S41, BRd);
  - Mistle thrush *Turdus viscivorus* (BRd);
  - Oystercatcher *Haematopus ostralegus* (BAm);
  - Song thrush *Turdus philomelos* (S41, BRd, LBAP);
  - Starling *Sturnus vulgaris* (S41, BRd);
  - Swift *Apus* (BAm); and
  - Willow warbler *Phylloscopus trochilus* (BAm).
- 3.46 Dunnock, house sparrow and starling were recorded within 1km of the proposed site. None of which were observed at the proposed site during the Phase 1 habitat survey.
- 3.47 The plantation mixed woodland within the site provides nesting habitat for a range of bird species. Bullfinch, dunnock, mistle thrush and song thrush are associated with nesting in trees and scrub, however during the Phase 1 habitat survey common and widespread bird species including woodpigeon *Columba palumbus*, robin *Erithacus rubecula*, blue tit *Cyanistes caeruleus* and blackbird *Turdus merula* were noted. The noise from the adjacent A56 may deter birds from nesting in the south west of the woodland by making territorial vocalisations less audible to potential mates.
- 3.48 The trees and shrubs adjacent to the western site boundary along the A56 verge also have the potential to support nesting birds.
- 3.49 The semi-improved neutral grassland within the proposed site provides good foraging habitat for a range of insectivorous bird species. However, the habitat is unlikely to support ground nesting bird species due to its small size and adjacent woodland, with a number of trees that could be used by aerial predators.

3.50 The habitats within the proposed site are also unlikely to support large numbers of wintering birds.

#### Hedgehog

3.51 One hedgehog *Erinaceus europaeus* (S41) record was returned in the 2km desktop records search. The hedgehog was recorded approximately 436m to the north of the proposed site in 2019.

3.52 No hedgehog field signs were observed during the Phase 1 habitat survey, however the grassland and woodland within the site provides good foraging and commuting habitat for hedgehogs. The woodland may also provide hibernation habitat.

#### Invertebrates

3.53 The 2km desktop records search returned six records of S41 moth species approximately 1.4km to the south of the proposed site in 2011. The species include mouse moth *Amphipyra tragopoginis*, powdered quaker *Orthosia gracillis*, sawfly species *Xanthia sp.*, small phoenix *Ecliptopera silaceata*, small square-spot *Diarsia rubi* and white ermin *Spilosoma lubricipeda*.

3.54 Two LBAP invertebrate species records were also returned in the Desk based Assessment, including one record for small heath butterfly *Coenonympha pamphilus* and one records for wood tiger moth *Parasemia plantaginis*.

3.55 No protected invertebrate species records were returned within 1km of the proposed site.

3.56 The habitats at the site are not considered to be suitable for significant invertebrate populations or notable species.

#### Reptiles

3.57 One slow-worm *Anguis fragilis* (WCA5, S41) record was returned in the 2km desktop records search. The record was taken in 2010 approximately 1.0km south of the proposed site.

3.58 No reptiles were observed during the Phase 1 habitat survey.

3.59 The habitats within the proposed site are unsuitable for the majority of reptile species, which tend to prefer a mosaic of habitats, however slow-worm exhibit a wide habitat preference and the grassland and woodland including woodland edge at the proposed site are likely to provide suitable foraging, basking and hibernation habitats for slow-worm.

3.60 The A56 to the west and Blackburn and Burnley Road to the east of the proposed site will act as a barrier to commuting reptiles.

## 4.0 Conclusion

- 4.1 This section concludes the potential impacts on the ecological receptors in and around the proposed development.

### **Planning Context**

- 4.2 The proposed site is allocated as Green Belt DS.3 in the existing Rossendale Local Development Plan Part 1 and as Housing Site Allocation (H72) and Green Infrastructure in the Emerging Rossendale Local Plan (Submission Version).
- 4.3 There are no biodiversity-related allocations on or adjacent to the site.
- 4.4 Policies that apply to the proposed site are listed within Chapter 3 of this report. If the recommendations outlined within Chapter 5 of this document are implemented and biodiversity enhancements are incorporated into the scheme it is anticipated that the requirements of the biodiversity-related planning policies will be met.

### **Designated Sites**

- 4.5 There are no internationally designated wildlife sites within 10km of the proposed site and therefore no implications to internationally designated sites are anticipated as a result of the proposed development.
- 4.6 There are three nationally designated wildlife sites within 5km of the proposed site. These nationally designated sites are Hodge Clough SSSI, West Penine Moors SSSI, and Lower Red Lees Pasture SSSI. Due to the distance between the proposed site and these nationally designated sites and the lack of connectivity between the proposed site and the habitats to the west, it is concluded that no impact on any nationally designated site is anticipated as a result of the development of the proposed site.
- 4.7 The site lies within the Impact Risk Zone (IRZ) for Hodge Clough SSSI and the West Pennine Moors SSSI. Due to the nature of the proposed development and fact that the development proposals do not fall within the risk categories of the IRZ, it is believed that there will be no impact on Hodge Clough SSSI and the West Pennine Moors SSSI in relation to the proposed development. Therefore Local Planning Authorities are not required to consult with Natural England with regard to residential development proposals within these IRZs.
- 4.8 There are seven locally designated wildlife sites within 1km of the proposed site (as identified on Magic Maps and within the desktop records). These sites are not believed to be impacted by the proposed site as detailed below.
- 4.9 Hodge Clough and Lumb Wood Biological Heritage Site (BHS) located 1km to the south west of the proposed site and designated for its ancient plantation mixed woodland. The BHS is separated from the site by the River Irwell, East Lancashire Railway and the A56, with no connectivity to the proposed site itself.

- 4.10 Stubbins Nature Reserve and Woodland BHS located 0.9km to the south west of the proposed site and designated for its woodland, grassland and artificial habitats along a section of disused railway line. The BHS is separated from the site by the River Irwell, East Lancashire Railway and the A56, with no connectivity to the proposed site itself. The bird species associated with the BHS are species associated with nesting in riparian habitats that are not present at the proposed site.
- 4.11 Alder Bottom Bank BHS located 0.7km to the south west of the proposed site and designated for its floristic diversity. The BHS is separated from the site by the A56, with no connectivity to the proposed site.
- 4.12 Great Hey Clough BHS located 0.6km to the south west of the proposed site and designated for its ancient plantation mixed woodland. The BHS is separated from the site by the A56, with no connectivity to the proposed site.
- 4.13 East Lancashire Railway Helmshore to Lumb Hall BHS located 0.9km to the north west of the proposed site and designated for a section of the disused East Lancashire Railway, running from the River Ogden Viaduct in the north to Lumb Hill Farm in the south. Some adjoining fields are also included in the site. The BHS is separated from the site by the A56, with no connectivity to the proposed site.
- 4.14 Blackburn Road Pasture BHS located 0.3km to the north west of the proposed site and designated for mosaic of neutral grassland and tall herb flushes amidst open and dense scrub and mature trees. The BHS is separated from the site by the A56, with no connectivity to the proposed site.
- 4.15 Gincroft Lane Important Wildlife Site located 0.6km to the south east of the proposed site and designated for its mature, well established parallel hedge. There are no hedgerows located at the proposed site therefore it will not impact this important wildlife site.

### **Habitats and Flora**

- 4.16 The woodland in the south of the proposed site is listed within the Priority Habitat Inventory as deciduous woodland, which is designated as an S41 habitat of principal importance. On further detailed assessment during the Phase 1 habitat survey the woodland was assessed as plantation mixed woodland. However, the woodland remains an important ecological feature and should be retained within any future proposals wherever possible. Protection of the woodland should include the root protection zone within the design phase, to ensure that during construction damage to the trees along the woodland edge and the trees adjacent to the western site boundary are not encountered.
- 4.17 The semi-improved neutral grassland habitat within the site is not designated as a habitat of principal importance, but is likely to support foraging and commuting mammals including bats, badger and hedgehog, foraging and commuting habitat for amphibians, foraging birds and a range of invertebrates.
- 4.18 Connectivity between the proposed site and the habitats to the west is poor due to the A56, East Lancashire Railway and River Irwell acting as significant barriers to wildlife.



- 4.19 Connectivity between the proposed site and the habitats to the north, south and east is good, however a lack of linear features such as hedgerows, woodland edge and dry stone walls within the proposed site is likely to limit connectivity to the wider area. Retaining these linear features and creating new features will enhance connectivity and should be incorporated in the design of the proposed site wherever possible.

#### Invasive and Protected Plant Species

- 4.20 Himalayan balsam was identified within the plantation mixed woodland and along the north and west field boundaries. Himalayan balsam is listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and it is therefore an offence to cause the spread of this species in the wild. Measures will need to be put in place to ensure no spread of Himalayan balsam is encountered during construction.
- 4.21 No protected plant species were observed at the proposed site during the Phase 1 habitat survey or returned within the desktop records search there are no implications in relation to the site proposals.

### **Fauna**

#### Amphibians

- 4.22 No amphibian breeding habitat is present at the proposed site. However, the terrestrial habitats including woodland, grassland and dry stone walls may provide suitable cover, foraging and hibernation habitat for amphibians.
- 4.23 A review of aerial and OS imagery identified one water body within 500m of the proposed site. The rectangular water body is located approximately 320m to the north east of the proposed site and would require further survey to determine whether it supports amphibians, including GCN, which could range into the site.
- 4.24 Common frog, common toad and GCN are WCA5 and LBAP species. Common toads and great crested newts are also protected under S41 of the NERC Act 2006, with GCN also an EPS and should be taken into consideration with a view to conserving biodiversity. Therefore there are implications with regard to amphibians and the proposed development.

#### Badger

- 4.25 Four badger records noted within 1km of the proposed site were returned in the Desk based Assessment, the nearest is approximately 340m north of the proposed site and was recorded in 2013.
- 4.26 Desire lines likely to be badger were noted throughout the proposed site during the Phase 1 habitat survey, no other badger field signs were noted during the Phase 1 survey, however the dense ground flora present in the south west of the woodland made it impossible to rule out a badger sett at the proposed site.
- 4.27 The habitats within the site, surrounding site and within the wider landscape do provide suitable habitats for commuting, foraging and sett excavation. Badgers are extremely mobile within their range and therefore despite the current absence of badger on site further surveys will be required. There are currently implications with regard to badgers and the proposed development.

### Bats

- 4.28 Numerous bat records within 1km of the proposed site were returned in the Desk based Assessment. The closest bat roost record is approximately 1.1 km south of the proposed site within a residential house.
- 4.29 The semi-improved neutral grassland and plantation mixed woodland at the proposed site provide good foraging habitat for bats. The mixed woodland and scattered trees and scrub adjacent to the western site boundary also have commuting potential for bats, however the lack of hedgerows along field boundaries within the proposed site and the wider area may limit bat commuting potential.
- 4.30 The trees within the plantation mixed woodland and the dry stone wall around the site boundary may have the potential to support roosting bats and further surveys would be required should they be impacted by any future scheme. The removal of trees and the dry stone wall at the proposed site could result in the loss of a bat roost and therefore should be retained within in any future design if at all possible. Therefore there are implications with regard to bats and the proposed development.

### Birds

- 4.31 Dunnock, house sparrow and starling were recorded within 1km of the proposed site.
- 4.32 During the Phase 1 habitat survey a number of widespread and common place bird species were noted in the plantation mixed woodland.
- 4.33 The removal or modification to trees, other vegetation and the dry stone wall within and adjacent to the site could risk the destruction of bird nests including eggs and young if this is undertaken during the core nesting bird period (March to August inclusive). All wild birds and their nests and eggs are protected under the Wildlife and Countryside Act 1981, as amended. Some species are also protected under S41 of the NERC Act 2006 and should be taken into consideration with a view to conserving biodiversity.
- 4.34 The loss of the woodland, scattered trees, scattered scrub and the dry-stone wall will reduce bird nesting opportunities at the proposed site. The loss of the semi-improved grassland will also reduce the amount of foraging habitat for a small number of foraging birds. Therefore there are implications with regard to birds and the proposed development.

### Hedgehog

- 4.35 One hedgehog was recorded approximately 436m to the north of the proposed site in 2019.
- 4.36 No hedgehog field signs were observed during the Phase 1 habitat survey, however the grassland and woodland within the site provides good foraging and commuting habitat for hedgehogs. The woodland may also provide hibernation habitat.

- 4.37 The removal of grassland and woodland will reduce the foraging habitat available to hedgehog. The removal of woodland will also reduce hibernation habitat and may risk harming hedgehogs during hibernation if undertaken during the hibernation period (October to April). Therefore there are implications with regard to hedgehog and the proposed development.

#### Invertebrates

- 4.38 No protected invertebrate species records were returned within 1km of the proposed site.
- 4.39 The habitats at the site are not considered to be suitable for significant invertebrate populations or notable species. Therefore there are no implications with regard to invertebrates and the proposed development. Invertebrates are not considered further in this report.

#### Reptiles

- 4.40 One slow-worm record was returned in the Desk based Assessment approximately 1.0km south of the proposed site.
- 4.41 No reptiles were observed during the Phase 1 habitat survey.
- 4.42 The habitats within the proposed site are unsuitable for the majority of reptile species, which tend to prefer a mosaic of habitats, however, slow-worm exhibit a wide habitat preference and the grassland and woodland including woodland edge at the proposed site are likely to provide suitable foraging, basking and hibernation habitats for slow-worm. The removal of these areas will reduce the amount of habitat available for slow-worm and construction works may risk harming slow-worms. Therefore there are potential implications with regard to reptiles and the proposed site.

## 5.0 Recommendations

- 5.1 This section provides recommendations to avoid or, where this is not possible, mitigate for any adverse impact on wildlife in relation to the development of the site. Opportunities for appropriate enhancement are also set out.

### **Habitats and Flora**

- 5.2 The plantation mixed woodland in the south of the proposed site is listed within the Priority Habitat Inventory and is designated as an S41 habitat of principal importance. This woodland should be retained within any proposals. Construction within the root protection zone could result in damage to the trees along the woodland edge and the trees adjacent to the western site boundary. Therefore an appropriate root zone protection buffer should be implemented between the proposed development and the woodland edge and also the western site boundary.
- 5.3 All retained trees will be protected from incidental damage and disturbance during construction in accordance with current standards (BS5837:2012 Trees in relation to design, demolition and construction – recommendations).
- 5.4 The dry stone walls should also be retained within any proposals if possible.
- 5.5 Areas of semi-improved neutral grassland should also be retained within any proposals, to provide commuting and foraging routes for terrestrial mammals and amphibians and areas for invertebrates and foraging birds. This habitat can be provided along the woodland edge and other site boundaries to provide connectivity to the wider area.
- 5.6 Himalayan balsam is present within woodland and along the north and west proposed site boundaries. A pre-commencement invasive species walkover will be required to determine if the Himalayan balsam has spread since the initial inspection. Following this site visit an invasive species management plan will be required detailing appropriate removal, disposal and control methods.

### **Fauna**

#### Amphibians

- 5.7 The rectangular water body located approximately 320m to the north east of the proposed site may have suitability for breeding amphibians. A Habitat Suitability Index (HSI) assessment and eDNA analysis of the waterbody to test for the presence or absence of GCN should therefore be undertaken prior to any construction or development. HSI assessments and eDNA analysis should be undertaken between March and June.
- 5.8 Based on the results of the HSI assessment and eDNA analysis mitigation may be required at the proposed development in the form of Reasonable Avoidance Measures (RAMs) to reduce the risk of harm to amphibians.

#### Badger

- 5.9 The habitats within the site, surrounding site and within the wider landscape do provide suitable habitats for badger commuting, foraging and sett excavation.

- 5.10 An updated badger survey of the site and surrounding 30m to ensure that no badgers or their habitat are disturbed or destroyed should be undertaken prior to planning submission. The survey should be carried out during the winter when vegetation cover is minimal.

#### Bats

- 5.11 All woodland, scattered trees, and dry stone walls should be retained within any proposals if at all possible. If any of these features are to be lost at the proposed site a ground based tree roost assessment should be undertaken to determine the suitability for roosting bats.
- 5.12 The ground based assessment of the trees should be undertaken during the winter when the trees are bare of leaf foliage, however the dry stone wall can be assessed at any time of year. Following the ground based assessment, if any trees or the walls are deemed to have suitability for roosting bats, aerial inspections and/or nocturnal surveys will be needed.

#### Birds

- 5.13 All woodland, scattered trees, shrubs and dry stone walls should be retained within any proposals if at all possible to ensure nesting bird habitat is not lost.
- 5.14 Clearance of trees, scrub or demolition of walls should be carried out outside of the nesting bird season (March - August inclusive). If it is not possible to complete works outside of the nesting bird season, a nesting bird check must be carried out by a suitably qualified ecologist no more than 24 hours prior to the works commencing, to establish that no active bird nests will be disturbed or destroyed. If active nests are found all works should be delayed and/or a protective buffer should be retained around vegetation until the young have fledged. The length of time and size of buffer is species-specific.

#### Hedgehog

- 5.15 The habitats within the site, surrounding the site and within the wider landscape do provide suitable habitats for hedgehog commuting, foraging and hibernation.
- 5.16 To reduce the risk of harm to hedgehogs at the proposed site Reasonable Avoidance Measures (RAMs) should be implemented during the construction and development phases at the proposed site.

#### Reptiles

- 5.17 The habitats within the site, surrounding the site and within the wider landscape do provide suitable habitats for slow-worm.
- 5.18 To reduce the risk of harm to slow-worm at the proposed site Reasonable Avoidance Measures (RAMs) should be implemented during the construction and development phases at the proposed site.

## **Opportunities for Biodiversity Enhancement**

- 5.19 Under the National Planning Policy Framework 2019 (NPPF), developments should aim to minimise impacts on biodiversity and provide net gains, where possible. It is also recommended that biodiversity net gain is quantified through the use of a biodiversity metric.
- 5.20 To comply with the NPPF and local policies, a number of opportunities for further habitat enhancements which will benefit biodiversity are identified below.
- 5.21 Enhancement is recommended in the form of bat and bird boxes to compensate the loss of nesting and foraging / commuting habitat within the centre of site. These should be sited at an appropriate height and aspect, close to the suitable habitat upon trees within the development close to woodland edge commuting corridors.
- 5.22 If any trees and shrubs are to be lost within the proposals they should be replaced with native species including berry-bearing or nectar-rich species of locally sourced stock.

## **APPENDIX A: Desk Based Assessment Report**



THE  
ENVIRONMENT  
PARTNERSHIP



## LAND AT BLACKBURN ROAD

## EDENFIELD

## ECOLOGY DESK STUDY

**CONFIDENTIAL**

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## **APPENDIX B: Target Notes Report**

# Target Notes Report

## Land at Blackburn Road Extended Phase 1 Habitat Survey

### Target Note 1 (TN1)

Semi-improved neutral grassland field approximately 1.5ha in size. The field is marshy in places, particularly in the north and east, with patches of tall ruderal vegetation around the edges. Sheep were grazing the field at the time of the Phase 1 habitat survey.

<i>Deschampsia cespitosa</i>	Tufted Hair-grass	A
<i>Holcus lanatus</i>	Yorkshire-fog	A
<i>Juncus effusus</i>	Soft Rush	A
<i>Cynosurus cristatus</i>	Crested Dog's-tail	F
<i>Ranunculus repens</i>	Creeping Buttercup	F
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	O
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Impatiens glandulifera</i>	Himalayan Balsam	O
Moss sp.	Moss species	O
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O
<i>Urtica dioica</i>	Nettle	O
<i>Chamaenerion angustifolium</i>	Rosebay Willowherb	R
<i>Cirsium palustre</i>	Marsh Thistle	R
<i>Cirsium vulgare</i>	Spear Thistle	R
<i>Cynosurus cristatus</i>	Crested Dog's-tail	R
<i>Festuca rubra</i>	Red Fescue	R
<i>Galium aparine</i>	Cleavers	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Juncus conglomeratus</i>	Compact Rush	R
<i>Lolium perenne</i>	Perennial Ryegrass	R
<i>Phleum pratense</i>	Timothy	R
<i>Rumex acetosa</i>	Common Sorrel	R
<i>Rumex crispus</i>	Curled Dock	R
<i>Stellaria graminea</i>	Lesser Stitchwort	R
<i>Urtica dioica</i>	Nettle	R

### Target Note 2 (TN2)

A large area of tall ruderal vegetation along dry-stone wall in the east of the site.

<i>Urtica dioica</i>	Nettle	A
<i>Cirsium arvense</i>	Creeping Thistle	O
<i>Epilobium hirsutum</i>	Great Willowherb	O
<i>Geranium robertianum</i>	Herb-Robert	R
<i>Sambucus nigra</i>	Elder	R

### Target Note 3 (TN3)

Repaired fence along the western field boundary, which has possibly been used by mammals to access the site. The fence has been blocked to prevent livestock escaping. Grid Reference SD 79689 19961 (191m 8m 0m). Fresh desire lines, likely to be badger were present throughout the site.

KEY - D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

#### Target Note 4 (TN4)

0.7ha of dense plantation mixed woodland (70% broad-leaved/ 30% coniferous) in the south of the site.

The woodland is in two distinct blocks separated by the access track leading to the adjacent field to the north.

Frequent Himalayan balsam *Impatiens glandulifera* was noted throughout the woodland, particularly along the western site boundary. Ground elder *Aegopodium podagraria* has also heavily colonised the western section of the woodland.

<i>Aegopodium podagraria</i>	Ground-elder	F
<i>Corylus avellana</i>	Hazel	F
<i>Fraxinus excelsior</i>	Ash	F
<i>Impatiens glandulifera</i>	Himalayan Balsam	F
<i>Crataegus monogyna</i>	Hawthorn	O
<i>Dryopteris</i> sp.	Buckler-fern species	O
<i>Fagus sylvatica</i>	Beech	O
<i>Galium aparine</i>	Cleavers	O
<i>Geranium robertianum</i>	Herb-Robert	O
<i>Ilex aquifolium</i>	Holly	O
<i>Larix decidua</i>	European Larch	O
<i>Moss</i> sp.	Moss species	O
<i>Picea sitchensis</i>	Sitka Spruce	O
<i>Quercus</i> sp.	Oak species	O
<i>Rubus fruticosus</i> agg.	Bramble	O
<i>Sorbus aucuparia</i>	Rowan	O
<i>Urtica dioica</i>	Nettle	O
<i>Aesculus hippocastanum</i>	Horse-chestnut	R
<i>Asplenium scolopendrium</i>	Hart's-tongue	R
<i>Glechoma hederacea</i>	Ground-ivy	R
<i>Hedera helix</i>	Ivy	R
<i>Heracleum sphondylium</i>	Hogweed	R
<i>Iris pseudacorus</i>	Yellow Flag Iris	R
<i>Juncus effusus</i>	Soft Rush	R
<i>Prunus laurocerasus</i>	Cherry Laurel	R
<i>Vicia sepium</i>	Bush Vetch	R

#### Target Note 5 (TN5)

Large area of tall ruderal vegetation.

<i>Epilobium hirsutum</i>	Great Willowherb	A
<i>Impatiens glandulifera</i>	Himalayan Balsam	F
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	O
<i>Cirsium arvense</i>	Creeping Thistle	R
<i>Urtica dioica</i>	Nettle	R

#### Target Note 6 (TN6)

Section of a residential garden comprising amenity grassland and a broad-leaved tree. Not accessed during the survey.

KEY - D = Dominant, A = Abundant, F = Frequent, O = Occasional, R = Rare

## **DRAWINGS**

### **7820.001 Phase 1 Habitat Survey Blackburn Road**



**KEY**

	Survey boundary
	Target note
	Himalayan balsam
	Scattered scrub
	Scattered broad-leaved tree
	Fence
	Wall
	Plantation mixed woodland
	Dense/continuous scrub
	Semi-improved neutral grassland
	Tall ruderal
	Amenity grassland
	Bare ground

**Note:**  
The locations of habitats and habitat features are indicative.

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Rev.	Description	Drawn	Approved	Date

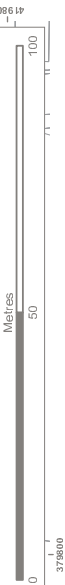


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Project  
**Blackburn and Burnley Road, Edentfield**

The  
**Phase 1 Habitat Survey**  
**Blackburn Road**

Drawing Number  
**G7820.001**



Drawn	Checked	Approved	Scale	Date
SA	IMK	LJ	1:1,000 @ A3	23/08/2019



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