BRYAN G HALL

CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Green Road, Dodworth

Access Report

August 2016

GREEN ROAD, DODWORTH

J WHITWORTH

ACCESS REPORT

Report by: Roy Goddard

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Ref: 16-288-001.01

August 2016

Report Reference No: 16-288-001.01

	Name	Signed	Date
Report prepared by	R Goddard	R. Goddard	17/8/16
Report checked by	M Crabtree		17/08/16

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Appendix BGH1	Location Plan
Appendix BGH2	Indicative Site Layout
Appendix BGH3	Proposed Site Access Junction
Appendix BGH4	TRICS Output

1.0 INTRODUCTION

1.1 This report has been prepared to address the access issues associated with a proposed residential development on land at Green Road, Dodworth.

1.2 The site is currently occupied by three residential properties with large gardens served from Green Road by way of two private drives – one to the northern end of the site and one to the centre of the site (to the north of Chantry Orchards). All three residential properties will be demolished as part of the development proposals.

1.3 The planning application seeks outline planning permission, including means of access, for the construction a mix of 51 residential dwellings served by way of a new access junction from Green Road.

1.4 This report will assess the adequacy of the proposed access arrangements for the residential development and assess the likely traffic generation from the development.

2.0 DESCRIPTION OF THE SITE AND THE LOCAL HIGHWAY NETWORK

2.1 The application site is located on the south-eastern side of Green Road, Dodworth, some 4 kilometres to the south-west of Barnsley town centre. A site location plan is attached at Appendix BGH1.

2.2 The site is 2.2 hectares in size and roughly rectangular in shape with a long axis running north to north east. It is currently occupied by three residential properties with large gardens which are laid out as formal garden or informal/rough grassland. The site is largely surrounded by residential development on three sides. To the north, the site is bordered by the gardens of a large detached house 'Stonehurst', to the east by the housing on Strafford Walk and to the south by a stream, beyond which are fields and allotments. To the west, the site is bordered at the northern end by Green Road, in the centre by the grounds of the Travellers Inn public house and at the southern end by the housing on Chantry Orchards.

2.3 The site has approximately a 50 metre long frontage (currently formed by a stone wall) onto the B6449 Green Road, which is an all-purpose distributor road providing a link between Dodworth, Silkstone Common and Oxspring. Green Road is predominantly fronted by residential properties, however it also gives access to two churches (Dodworth Methodist Church and Saint John the Baptist Dodworth) and the Travellers Inn public house, before passing into open countryside approximately 300 metres to the south west of the site. Approximately 150 metres to the north east of the site, Green Road becomes Barnsley Road as it passes through the crossroads junction with the B6099 Station Road/High Street. High Street is the principal shopping street in Dodworth.

2.4 The Travellers Inn is situated immediately to the south west of the site frontage and directly opposite the public house is the junction with Baslow Crescent, a residential access road. The Green Road/Baslow Road junction is locally widened to provide short acceleration and deceleration splays rather than standard junction radii.

2.5 In the vicinity of the site frontage, Green Road has a 7.6m wide carriageway flanked by a nearside footway varying in width between 1.0 and 1.4m and a far side footway varying in width between 1.5 and 1.8m. The road is lit, is subject to a 30mph speed limit and the centreline of the road is marked with hazard warning lines. The site is located on the outside of a bend in Green Road and therefore visibility from points along the site frontage is generally good.

3.0 THE PROPOSED DEVELOPMENT

The Development Proposals

3.1 The application is in outline only, however the indicative site layout plan attached at Appendix BGH2 shows that the site could accommodate a mix of 51 residential dwellings. The internal site layout will be a cul-de-sac arrangement and will be designed in accordance with the 'South Yorkshire Residential Design Guide' and 'Manual for Streets' at detailed application stage. The main access road serving the site will be designed to incorporate a 5.5m carriageway and two 2.0m wide footways. A separate footpath link to Green Lane will be provided adjacent to the Travellers Inn public house.

Access Arrangements

3.2 Access to the site will be provided from Green Road by way of a simple priority junction, as shown on the plan attached at Appendix BGH3. The junction will incorporate 6.0m kerb radii and visibility splays of 2.4m x 43m appropriate for a 30mph speed limit, in accordance with MfS standards.

3.3 The proposed access forms a staggered junction with Baslow Crescent, with a separation of about 35 metres, measured centreline to centreline. This is in excess of the 20 metres separation specified in the SY Residential Design Guide. As noted previously, the existing Baslow Crescent junction incorporates short acceleration and deceleration splays.

3.4 In association with the construction of the proposed site access junction, the acceleration and deceleration splays at the Baslow Crescent junction will be removed and replaced by 10m kerb radii to enhance the separation between the two junctions. The existing give-way line at the junction will also be brought forward to improve visibility for drivers turning from Baslow Crescent onto Green Lane. These measures will reduce conflicts and improve safety in the vicinity of the proposed site access junction.

Trip Generation

3.5 As noted previously, three existing residential properties will be demolished as part of the development proposals and therefore there will be a net increase of 48 dwellings. The TRICS database has been interrogated to estimate the likely traffic generation from 48 dwellings. The full TRICS output is attached at Appendix BGH4 and the derived trip rates and traffic generation are summarised in Table 3.1.

Table 3.1 Development Trip Rates and Traffic Generation

Land Use	Trip Rates and Traffic Generation					
	Morning Peak Hour			Evening Peak Hour		
	Arrive	Depart	Two-Way	Arrive	Depart	Two-Way
Trip Rate	0.151	0.412	0.563	0.378	0.221	0.599
Traffic Generation (48 Dwellings)	7	20	27	18	11	29

3.6 It can be seen that the development is expected to generate less than 30 vehicle movements in the peak hours, which equates to approximately one vehicle movement every two minutes. This level of traffic generation does not warrant junction capacity analysis and would not have a material impact on the local highway network.

4.0 SUMMARY AND CONCLUSIONS

4.1 This report has been prepared to address the access issues associated with a proposed residential development on land on the south east side of the B6449 Green Road, Dodworth. The site is located approximately 150 metres south west of the crossroads junction with the B6099 Station Road/High Street and has a frontage on to Green Road immediately to the north east of the Travellers Inn public house.

4.2 The site is 2.2 hectares in size and is currently occupied by three residential properties with large gardens which are laid out as formal garden or informal/rough grassland. All three residential properties will be demolished as part of the development proposals.

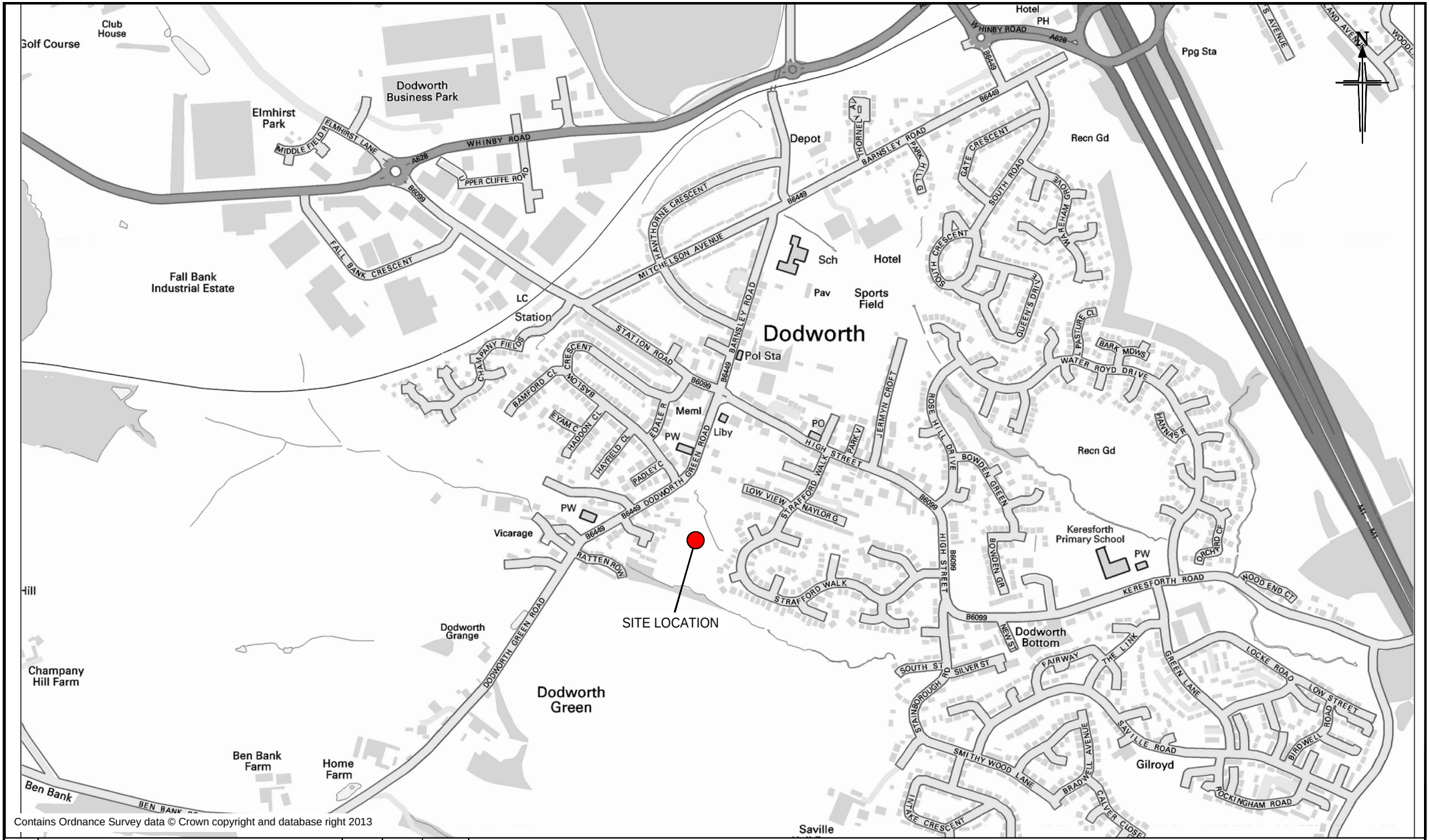
4.3 The planning application seeks outline planning permission, including means of access, for the construction a mix of 51 residential dwellings served by way of a new site access junction from Green Road. The junction will be a simple priority junction and will incorporate 6.0m kerb radii and visibility splays of 2.4m x 43m appropriate for a 30mph speed limit, in accordance with Manual for Streets standards.

4.4 The proposed site access junction forms a staggered junction with Baslow Crescent and it is proposed that the existing acceleration and deceleration splays at the Baslow Crescent junction will be replaced by 10m kerb radii to enhance the separation between the two junctions. The existing give-way line at the junction will also be brought forward to improve visibility for drivers turning from Baslow Crescent onto Green Lane. These measures will reduce conflicts and improve safety in the vicinity of the proposed site access junction.

4.5 The development is expected to generate less than 30 vehicle movements in the peak hours, which equates to approximately one vehicle movement every two minutes. This level of traffic generation does not warrant junction capacity analysis.

4.6 It is concluded that the development can be accessed in a safe and satisfactory manner and the traffic that it is likely to generate would not have a material impact on the local highway network.

APPENDIX BGH 1



Rev:	Amendment:	DRN:	CHK:	Date:

Client: J WHITWORTH

Project: PROPOSED DEVELOPMENT SITE
GREEN ROAD, DODWORTH

Title: SITE LOCATION PLAN

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T 0203 553 2336

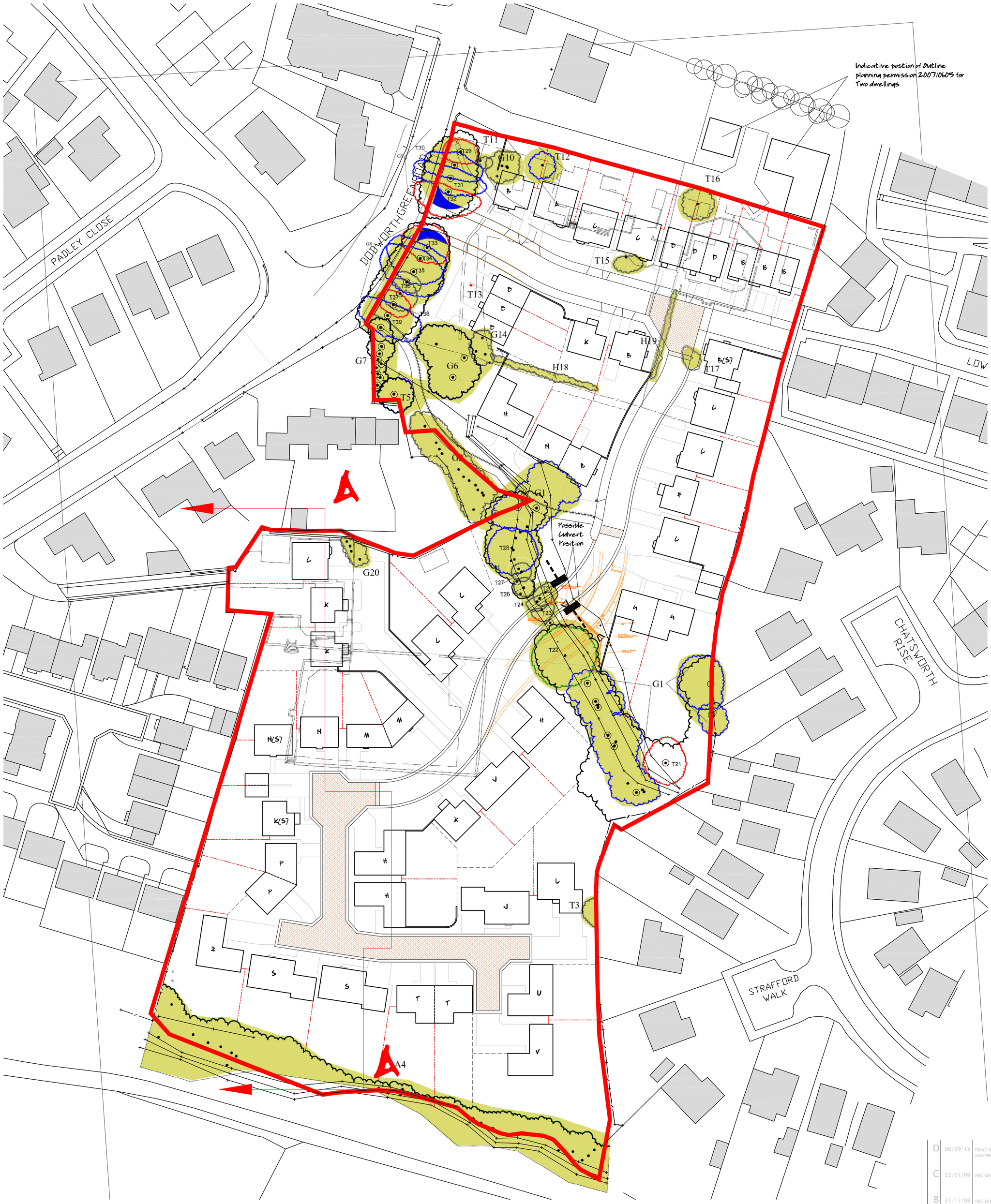
Job No: 16-288 Drawn: RD Checked: RG Date: 16-08-2016

Scale: N.T.S. A4 - 297 x 210 Drawing No: 16/288/LOC/001 Revision:

APPENDIX BGH 2

GREEN ROAD, DODWORTH

PLANNING LAYOUT

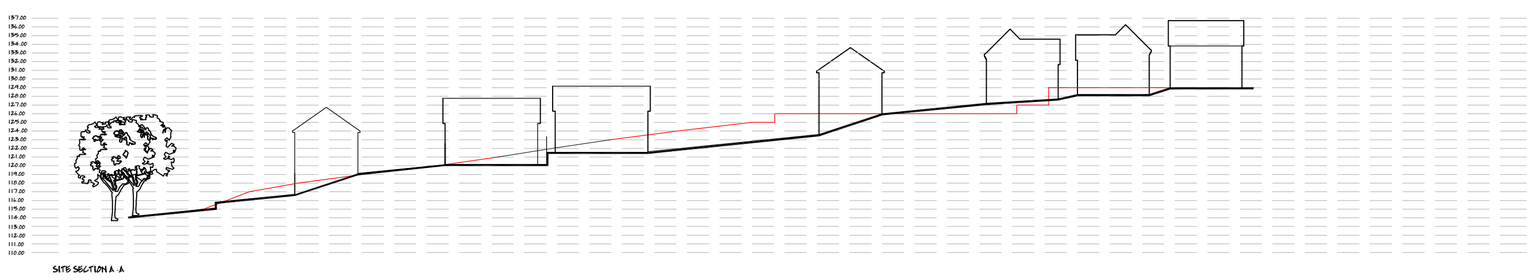


51 No of Units

ROOT PROTECTION AREA

TREES & CANOPY TO BE RETAINED

TREES & CANOPY TO BE REMOVED



SITE SECTION A - A

REV	DATE	AMENDMENTS	BY	CHKD
D	06/09/12	ROAD & CULVERT MOVED TO RETAIN TREE 'T22', HANDING REVERSED ON 2 QTY 'L' HOUSTYPES	KM	LM
C	22/01/09	RED LINE BOUNDARY AMENDED	IH	LM
B	21/11/08	RED LINE BOUNDARY ADDED TO LAYOUT	RAN	CAH
A	19/11/08	ROAD LAYOUT AMENDED, POSSIBLE CULVERT POSITION SHOWN & VARIOUS HOUSETYPES REARRANGED/HANDED	RAN	CAH

architectural design
town planning
landscape architecture

John R Paley Associates

CLIENT

GREEN ROAD DEVELOPMENTS

PROJECT

RESIDENTIAL DEVELOPMENT
GREEN ROAD, DODWORTH

DRAWING OF

PLANNING LAYOUT

MARKETING NAME

drawing no	rev	date
P05:3544:02	D	JULY 08

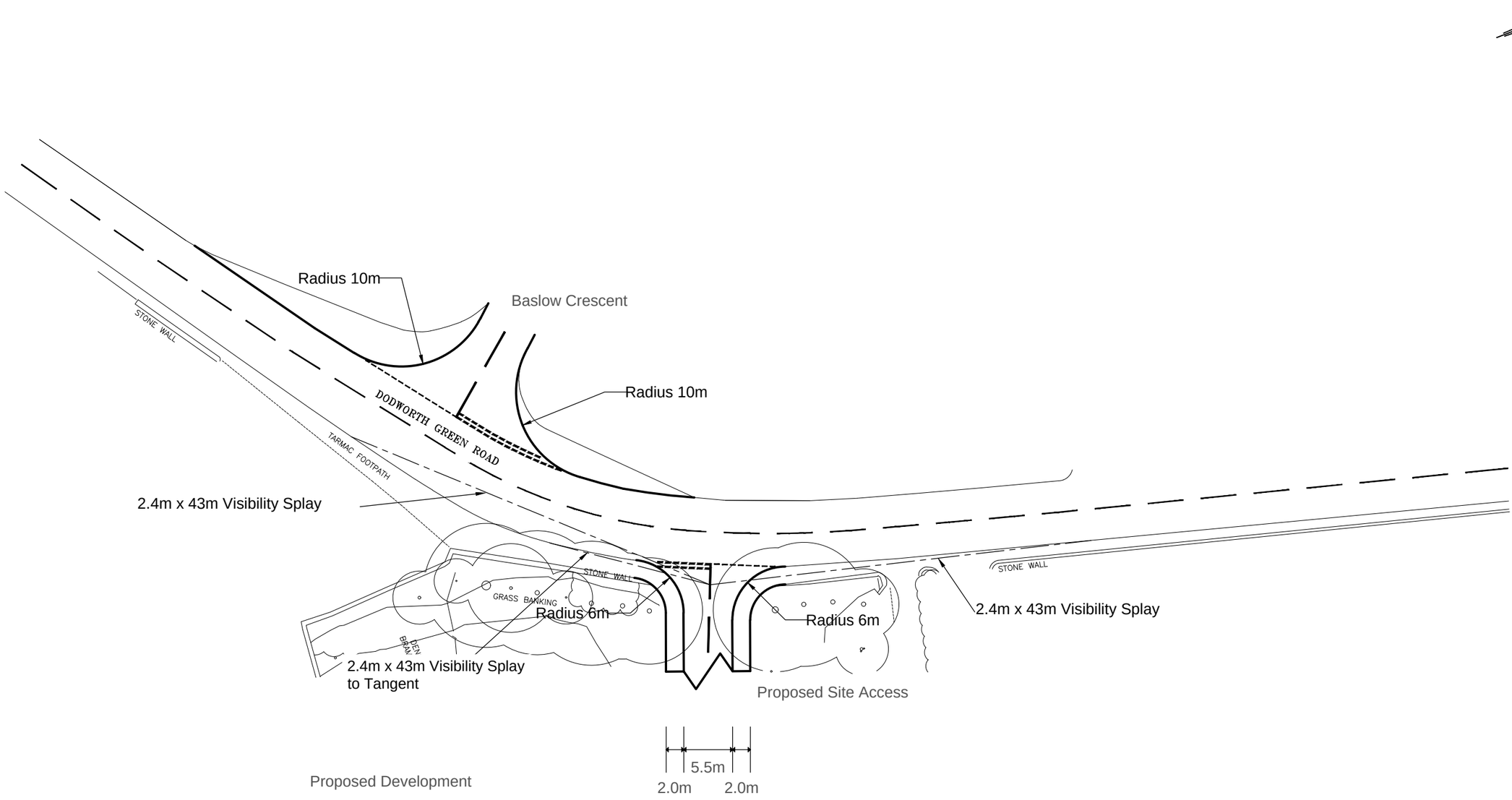
scale @ A1	drawn	check	date
1:500	SSH		

1 Red Hall Crescent
Paragon Business Village
Wakefield
WF1 2DF

t-01924 383322
f-01924 384382
e-info@jrpassoc.co.uk

GREEN ROAD DEVELOPMENTS

APPENDIX BGH 3



Client:

J WHITWORTH

Project:

PROPOSED DEVELOPMENT SITE
GREEN ROAD, DODWORTH

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Title

PROPOSED SITE ACCESS JUNCTION
WITH VISIBILITY SPLAYS

Rev:	Amendment:	Drn:	Chk:	Date:

Job No: 16-288 Drawn: RD Checked: RG Date: 03-08-2016

Scale: 1:500 (A3 - 420 x 297) Drawing No: 16/288/TR/001 Revision:

APPENDIX BGH 4

Calculation Reference: AUDIT-604801-160803-0805

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

Selected regions and areas:

01	GREATER LONDON		
	BT	BRENT	1 days
	HO	HOUNSLOW	1 days
	KI	KINGSTON	2 days
	KN	KENSINGTON AND CHELSEA	1 days
	SK	SOUTHWARK	1 days
	WE	WESTMINSTER	1 days
02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
	EX	ESSEX	1 days
	SC	SURREY	1 days
	WS	WEST SUSSEX	1 days
03	SOUTH WEST		
	CW	CORNWALL	1 days
	DC	DORSET	2 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	2 days
	SF	SUFFOLK	3 days
05	EAST MIDLANDS		
	LN	LINCOLNSHIRE	3 days
06	WEST MIDLANDS		
	SH	SHROPSHIRE	4 days
	ST	STAFFORDSHIRE	1 days
	WK	WARWICKSHIRE	2 days
	WM	WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE		
	NE	NORTH EAST LINCOLNSHIRE	1 days
	NY	NORTH YORKSHIRE	6 days
	SY	SOUTH YORKSHIRE	1 days
08	NORTH WEST		
	CH	CHESHIRE	4 days
	GM	GREATER MANCHESTER	1 days
	MS	MERSEYSIDE	1 days
09	NORTH		
	CB	CUMBRIA	2 days
	TW	TYNE & WEAR	1 days
10	WALES		
	CF	CARDIFF	2 days
11	SCOTLAND		
	AD	ABERDEEN CITY	1 days
	AG	ANGUS	1 days
	EA	EAST AYRSHIRE	1 days
	FA	FALKIRK	2 days
	FI	FIFE	1 days
	HI	HIGHLAND	2 days
	PK	PERTH & KINROSS	1 days
	SR	STIRLING	1 days
12	CONNAUGHT		
	CS	SLIGO	1 days
	MA	MAYO	1 days
	RO	ROSCOMMON	4 days
13	MUNSTER		
	WA	WATERFORD	2 days
14	LEINSTER		
	KD	KILDARE	1 days
	KK	KILKENNY	1 days
	WX	WEXFORD	1 days
15	GREATER DUBLIN		
	DL	DUBLIN	3 days

16	ULSTER (REPUBLIC OF IRELAND)		
	CV	CAVAN	1 days
	DN	DONEGAL	4 days
17	ULSTER (NORTHERN IRELAND)		
	AN	ANTRIM	3 days
	AR	ARMAGH	1 days
	DO	DOWN	1 days

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

Filtering Stage 2 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 437 (units:)
Range Selected by User:	4 to 4334 (units:)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/07 to 11/12/14

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	14 days
Tuesday	23 days
Wednesday	11 days
Thursday	22 days
Friday	14 days

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

Selected survey types:

Manual count	84 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	48
Edge of Town	36

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:

Development Zone	1
Residential Zone	69
Built-Up Zone	1
No Sub Category	13

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.

Filtering Stage 3 selection:

Use Class:

C1	1 days
C3	82 days

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

Population within 1 mile:

1,001 to 5,000	16 days
5,001 to 10,000	13 days
10,001 to 15,000	13 days
15,001 to 20,000	18 days
20,001 to 25,000	8 days
25,001 to 50,000	13 days
50,001 to 100,000	2 days
101,000 or More	1 days

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

Population within 5 miles:

5,000 or Less	4 days
5,001 to 25,000	11 days
25,001 to 50,000	8 days
50,001 to 75,000	7 days
75,001 to 100,000	17 days
100,001 to 125,000	8 days
125,001 to 250,000	9 days
250,001 to 500,000	10 days
500,001 or More	10 days

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

Car ownership within 5 miles:

0.5 or Less	2 days
0.6 to 1.0	24 days
1.1 to 1.5	57 days
1.6 to 2.0	1 days

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

Travel Plan:

Yes	3 days
No	81 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.

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	84	79	0.064	84	79	0.253	84	79	0.317
08:00 - 09:00	84	79	0.151	84	79	0.412	84	79	0.563
09:00 - 10:00	84	79	0.158	84	79	0.221	84	79	0.379
10:00 - 11:00	84	79	0.140	84	79	0.168	84	79	0.308
11:00 - 12:00	84	79	0.159	84	79	0.171	84	79	0.330
12:00 - 13:00	84	79	0.196	84	79	0.179	84	79	0.375
13:00 - 14:00	84	79	0.197	84	79	0.190	84	79	0.387
14:00 - 15:00	84	79	0.205	84	79	0.213	84	79	0.418
15:00 - 16:00	84	79	0.273	84	79	0.207	84	79	0.480
16:00 - 17:00	84	79	0.313	84	79	0.197	84	79	0.510
17:00 - 18:00	84	79	0.378	84	79	0.221	84	79	0.599
18:00 - 19:00	84	79	0.286	84	79	0.204	84	79	0.490
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.520			2.636			5.156

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.

Parameter summary

Trip rate parameter range selected:	6 - 437 (units:)
Survey date date range:	01/01/07 - 11/12/14
Number of weekdays (Monday-Friday):	84
Number of Saturdays:	0
Number of Sundays:	0
Surveys manually removed from selection:	3

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.

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