WYG Transport Planning

part of the WYG group

Transport Statement

Barnsley College,
Barnsley

creative minds safe hands

REPORT CONTROL

Document:	Barnsley College 6th Form Centre Transport Statement
Project:	Barnsley College, Barnsley
Client:	Barnsley College
Job Number:	A085671

Document Checking:

Primary Author:	Tony Harrigan	Initialled:
Checker:	John Booth	Initialled:
Approver:	John Booth	Initialled:

Issue	Date	Status	Checked for Issue
1	16/12/2013	Revision A	
2			
3			
4			

CONTENTS

LIST OF APPENDICES

1 INTRODUCTION

1.1 WYG Transport Planning has been instructed by Barnsley College provide a transport report in support of a proposed 6th form centre at Barnsley College, Barnsley.

1.2 Given the modest size of the development it does not meet the thresholds for a Transport Statement set out in the DfT publication "Guidance on Transport Assessment". However, this report has been prepared for submission with the planning application, as requested by Barnsley Metropolitan Borough Council.

Purpose of the report

1.3 The purpose of this Transport Statement is to assess the characteristics of the adjacent highway network, to outline the development proposals, to assess their transport impacts in terms of access to the site from the adjacent highway network and to identify any improvements to the existing infrastructure that may be required in order to accommodate access to the site.

1.4 The remainder of this report is structured as follows:

- Chapter 2 describes the existing highway conditions within the vicinity of the site;
- Chapter 3 outlines the development proposals and assesses the development in highway terms; and
- Chapter 4 provides a summary to the report and sets out the conclusions.

2 THE EXISTING SITE AND HIGHWAY NETWORK

2.1 The location of the proposed 6th form centre in the context of the wider area around Barnsley is included at Appendix A.

2.2 The 6th form centre will be located adjacent to the main town centre immediately to the west of the Town Hall. It is bounded to the north by a road known as Westgate, to the east by St Marys Place and to the south by Shambles Street. The western boundary is formed with an office development and the Lamp Room Theatre.

2.3 The site is currently occupied by Barnsley Central Library and a number of small retail units, the majority of which are not in use at present.

Vehicular Access

2.4 Westgate is a single carriageway road with a typical width of some 7m in the vicinity of the site and it is lit and subject to a 30mph speed limit. There are continuous footways to both sides of carriageway and dropped crossings with tactile paving at its junctions with the adjacent roads.

2.5 Pay and display short stay on-street parking (1 hour, no return for 3 hours) is located on the southern side of the carriageway and a Traffic Regulation Order prohibiting parking at anytime is in place across its entire northern extent.

2.6 St Mary's Place is a single carriageway road which lies on a predominantly north to south alignment. A one-way traffic flow north bound is in operation from its junction with Shambles Street until it reaches the roundabout with Church Street, some 300m to the north. At its southern end, St Mary's Place forms the northern exit of a signalised junction with Shambles Street.

2.7 In the vicinity of the site, the road is lit, has wide pedestrian footways on both sides of the carriageway and is subject to a 30mph speed limit. No parking is permitted along St Mary's Place at anytime and loading/unloading is prohibited between 8am and 6pm.

2.8 Directly opposite the site on St Mary's Place lies the access to the Town Hall car park.

2.9 Shambles Street forms one of the main corridor links to Barnsley town centre from areas to the west. It is lit and is subject to a 30mph speed limit. Vehicles travelling eastbound towards the town centre are required to turn onto St Mary's Place and continue north where they are able to turn back onto Church Street via Sadler Gate. Westbound vehicles travelling from Barnsley town centre are able to travel along its entire length or turn north onto St Mary's Place.

2.10 At its western end, Shambles Street forms the northwest approach arm of a six arm roundabout. At its eastern end, Shambles Street veers to the north and becomes Church Street.

2.11 Across the site frontage approximately midway along its length there is a lay by for approximately four disabled car parking spaces. It is understood that these spaces will remain once the proposed development is in place.

2.12 In summary, the local highway network in the vicinity of the site is typical of that found in many town centres being heavily trafficked by both pedestrian and vehicular movements.

2.13 A plan showing the location of the proposed development within the context of the local roads which serve Barnsley town centre in the vicinity of the site are included at Appendix B.

Pedestrian Facilities

2.14 The IHT publication "Providing for Journeys on Foot" set out the acceptable, preferred and maximum walk distances to a development for commuting leisure purposes. A summary of these can be seen in Table 2.1 and a plan showing the catchment areas in relation to the site is included at Appendix C.

	Town Centres	Commuting / School	Elsewhere / Leisure
Desirable	200m	500m	400m
Acceptable	400m	1000m	800m
Preferred maximum	800m	2000m	1200m

Table 2.2: IHT Suggested Walking Distances from Development

2.15 Given the central location of the development in Barnsley much of the town centre and indeed the college campus is within walking distance of the site.

2.16 There are a number of pedestrian crossing points in the vicinity of the site which ensure that the site is easily accessible for those travelling on foot. In the vicinity of the site there are good footways throughout the area, as well as several pedestrian controlled crossing facilities on:

- Shambles Street to the west and south of the site;
- St Mary's Place to the north of the site;
- At the junction of St Mary's Place and Shambles Street.

2.17 Furthermore there are convenient and safe pedestrian routes to other areas of the Barnsley College Campus to the north as well as the shops and local facilities in the Town Centre itself, including Barnsley Interchange.

Cycle Access

2.18 There are a number of advisory cycle routes, within the wider area of Barnsley town centre. However, it is evident that there is a good provision of cycle facilities around the site which promote access by cycle into the wider community.

2.19 The plans included at Appendix D show the 5km cycle catchment area around the site as well as an extract of the Barnsley cycle map.

Access by Bus

2.20 There are three bus stops in the immediate vicinity of the site as well as Barnsley Interchange which is located approximately 400m to the east of the proposed development. The locations of these stops and the interchange are shown on the plan included at Appendix E.

2.21 Details of the bus services which operate at these bus stops adjacent to the site are included in Table 2.2.

Service	Destinations	Hours of Operation	Peak Hour Frequency
14	Barnsley – Gilroyd – Barnsley Centre	0826 - 1756	15 mins
20 / 21 /21A /22	Barnsley – Dodworth – Gilroyd – Silkstone – Cubley - Penistone	0600 - 2251	30 mins
23	Barnsley – Thurgoland – Stocksbridge – Penistone – Denby dale – Thurlstone - Holmfirth	0630 - 2310	120 mins
43A / 44	Barnsley – Worsbrough Common – Kingstone - Pogmoor	0620 - 2257	30 mins
92	Barnsley – Gawber – Barugh Green – Cawthorne – Silkstone – Penistone – Millhouse Green – Crow Edge	0625 - 2324	60 mins
93 / 95	Barnsley – Gawber – Wilthorp - Barugh Green – Darton – Kexborough - Mapplewell	0610 - 2315	15 mins
96A	Barnsley – Gawber – Haigh – Kexborough – Sandal - Wakefield	0658 - 1825	60 mins
194	Barnsley – Athersley – Royston – Ryehill – Newstead – Crofton - Wakefield	0543 - 2354	60 mins

Table 2.2 Summary of Bus Services adjacent to the site

2.22 Table 2.2 shows that there is an excellent level of bus service provision in the vicinity of the development with up to 16 buses per hour serving many of the residential and employment areas around Barnsley and beyond.

Barnsley Interchange (Bus and Rail)

2.23 The Barnsley Interchange opened in May 2007 and as such provides a modern, comfortable environment for public transport users. The new building forms the entire new complex of Barnsley Interchange, where rail and bus users can exit the interchange either via the new car park or, for the town centre, the new entrance onto Eldon Street.

Bus

2.24 The bus station features the latest in technology such as the SYPTE scheme of "Your Next Bus", that tracks buses with GPS to check what time they are due to arrive and/or depart. Several shops occupy retail units within the interchange and these include a Lloyd's Pharmacy, GT News, Cowpuccino Espresso Bar, Cooplands and a Subway.

2.25 Work has since been completed on the link road known as Schwäbisch Gmünd Way to enable buses to enter or leave the Interchange quickly without having to use the busy level crossing at Jumble Lane.

Rail

2.26 Rail services operate frequently through Barnsley's Interchange station. On the Hallam line during the day on Monday to Saturday, there are three trains per hour northbound to Wakefield Kirkgate and Leeds. Two services are operated as "fast" therefore not stopping at some stations en route. During the evening and on Sundays there is generally an hourly service.

2.27 On the Penistone line, there is an hourly service northbound to Huddersfield from Monday to Saturday and a two-hourly service on Sundays.

2.28 Southbound there are four trains per hour. Three of these services terminate at Sheffield whilst one carries on to Nottingham.

3 THE PROPOSED DEVELOPMENT

3.1 The recent redevelopment of the Barnsley College as a whole is being undertaken and it is expected that this will provide all existing services and accommodation but in an improved environment for learning and teaching.

Overview

3.2 The development proposals associated with this Transport Statement include for a 7,300m^2 GFA building to house the new 6th Form Centre, of which approximately 4,636m^2 GFA Will be the net usable area.

3.3 A plan showing the proposed development layout and schedule of accommodation is include^{d} at Appendix F.

Access Arrangements

Visibility Splays

3.4 Vehicular access to the development basement car park will be available from the existing priority access junction along the eastern frontage of the site which connects to St Mary's Place meaning that all vehicles will be required to access the site via the eastbound traffic route along Shambles Street.

3.5 Given the nature of St Mary's Place and the access to the proposed development, visibility splays from the site access have been considered in the context of Manual for Streets2 (MfS2).

3.6 MfS2 states that for roads with a speed limit of 30 mph, such as the road on which the proposed site access lies, guidance in MfS can be applied in relation to stopping sight distances which in turn relate to visibility splay requirements. In this case MfS requires that a 2.4m x 43m visibility splay is provided from the centreline of the site access towards the south for oncoming traffic travelling northbound on St Mary's Place. No consideration is necessary to the north as traffic movements southbound along St Mary's Place are prohibited.

3.7 The main pedestrian and cycle access will be by way of lit routes from St Mary's Place along the eastern frontage of the site as well as the proposed vehicular site access.

3.8 Secondary Pedestrian accesses will be located on Westgate and Shambles Street.

Proposed Parking

3.9 BMBC Parking Guidelines state that for non residential development the maximum car parking permitted is 1 space per 2 staff plus 1 space per 15 students. Accessible parking is calculated at 10% of the standard car parking bays.

3.10 However, given the town centre location of the development and in line with BMBC's strategy to reduce car trips it is proposed to minimise car parking across the site.

3.11 Therefore it is proposed to provide 15 standard car parking spaces and 2 accessible spaces in the basement car park.

3.12 All car parking bays have been provided in accordance with the dimensions specified in the BMBC car parking guidance.

3.13 Short stay cycle parking in the form of Sheffield stands will be provided adjacent to the main entrances to the building in accordance with BMBC cycle parking guidelines . The location of the cycle parking ensures that it is overlooked and secure.

3.14 Long stay cycle parking spaces will be provided in the basement car park. Again, this will be provided in accordance with BMBC cycle parking guidelines.

Servicing

3.15 Deliveries to the development will occur outside of normal operating times of the development in line with the loading restrictions which operate between 8am and 6pm and as such it is expected that the impact that deliveries may have on the operation of the highway network will be minimal.

3.16 The service area has been designed to accommodate an articulated goods vehicle. Whilst this may be used to service the site on rare occasions, general deliveries will be made from a smaller goods vehicle.

Traffic Generation

3.17 The computer programme TRICS 2013(b) has been used to determine the traffic generation of the proposed development during the peak hours of operation. The dataset used in the trip rate calculations consist of developments of a similar size and location and also considers sites with comparable access to public transport services.

3.18 A cross test analysis of the sites used in the database was undertaken which showed a nominal variation of 4.2% during the AM peak hour period.

3.19 The resultant trip rates and corresponding vehicular trips for the development are shown in Table 3.1.

3.20 A copy of the full TRICS analysis is included at Appendix G.

	Development Peak Hours			
	Veh trip Rate per 100m2 of net usable area		Veh Trips	
	AM	PM	AM	PM
Arrivals	1.413	0.473	66	30
Departures	0.387	1.035	18	48

Table 3.1: Development Generated Vehicle Trips

3.21 It can be seen from the analysis summary that the site could generate 106 vehicle arrivals and departures during the AM peak hour and 66 vehicle arrivals and departures during the PM peak hour.

3.22 An estimation of the number of trips that the extant uses generates during the same time periods as the peak hours of the college has been undertaken based on the total combined GFA of the retail uses which is estimated as 1,600m2.

3.23 The selection sites within the TRICS analysis have been refined to represent the location of the site. The summary of the analysis is shown in Table 3.2 and a copy of the TRICS output files can be seen at Appendix H.

	Development Peak Hours			
	Veh trip Rate per 100m2		Veh Trips	
	AM	PM	AM	PM
Arrivals	5.123	5.911	82	95
Departures	4.926	6.601	79	106

Table 3.2: Extant Uses Generated Vehicle Trips (Retail)

3.24 Therefore, the level of traffic associated with the proposed scheme is not considered to represent a material intensification in traffic terms and an assessment of the impact of the proposed development on the capacity of the local highway network is not considered to be necessary.

3.25 Furthermore, given the limited car parking at the proposed development, some 15 spaces in total, it is likely that car borne trips will mainly park in the local car parks elsewhere in the town centre.

3.26 Overall there will be a reduction in vehicle trips over the existing vehicle generation of the site due to several factors which include;

- The change of use from public library and retail;
- The removal of approximately 100 parking spaces which are associated with the existing uses.

3.27 It is expected that a car park management plan will be implemented to ensure that the car parking areas are effectively managed in line with the car parking provision. No parking will be allocated to Students at the development.

4 SUMMARY AND CONCLUSIONS

4.1 This Transport Statement has been produced for the proposed 6th Form Centre at Barnsley College, Barnsley.

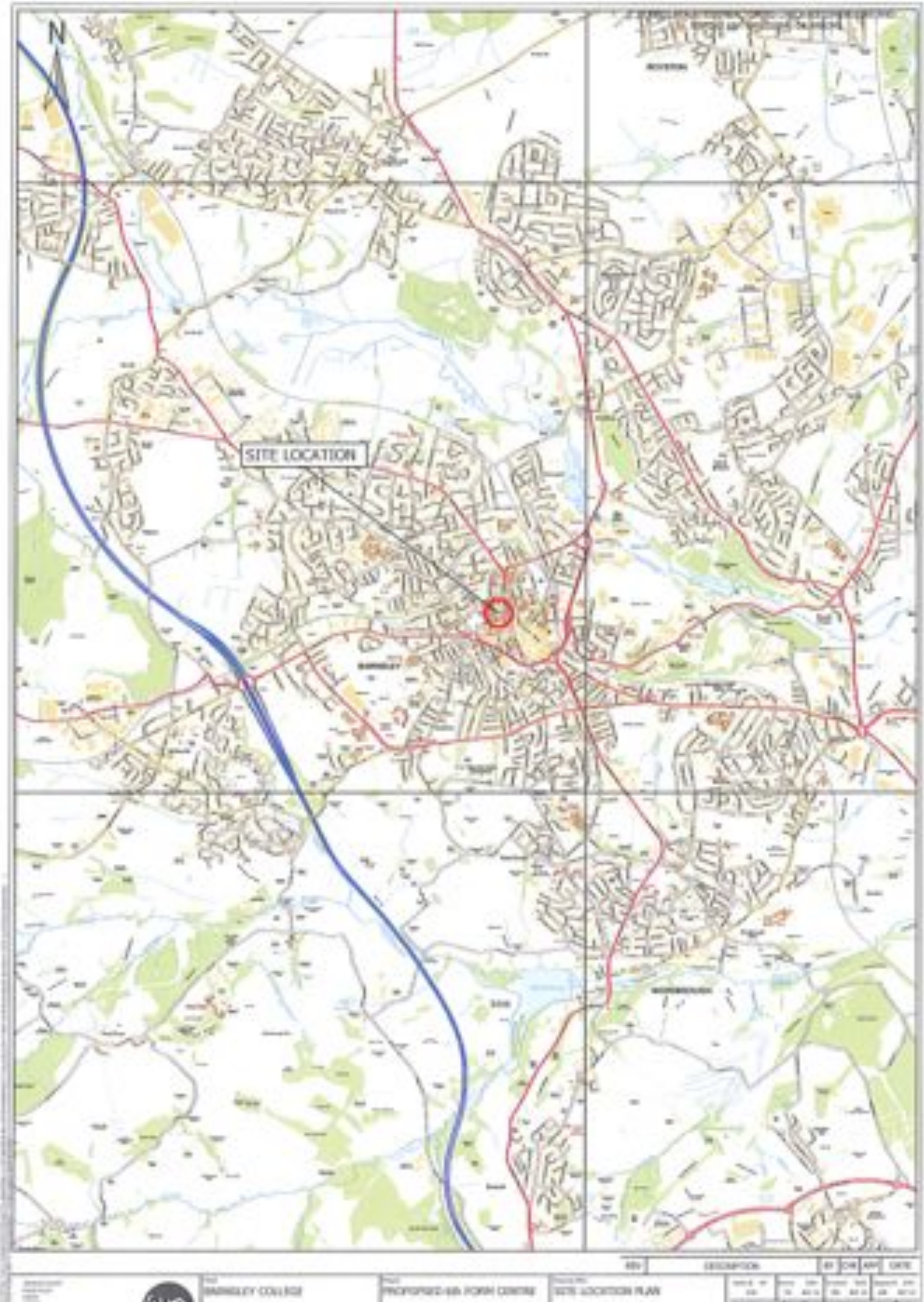
4.2 It has been shown that the site is in a sustainable location and the use of sustainable modes of transport by staff and students has the potential to be highly utilised.

4.3 The development proposals have been outlined in transport terms.

4.4 The peak hour traffic generation for the college has been calculated and, given the existing parking provision on the existing site, it is considered to be an improvement over the existing situation.

4.5 There is therefore no demonstrable reason why the proposed development should be refused planning permission on highway grounds.

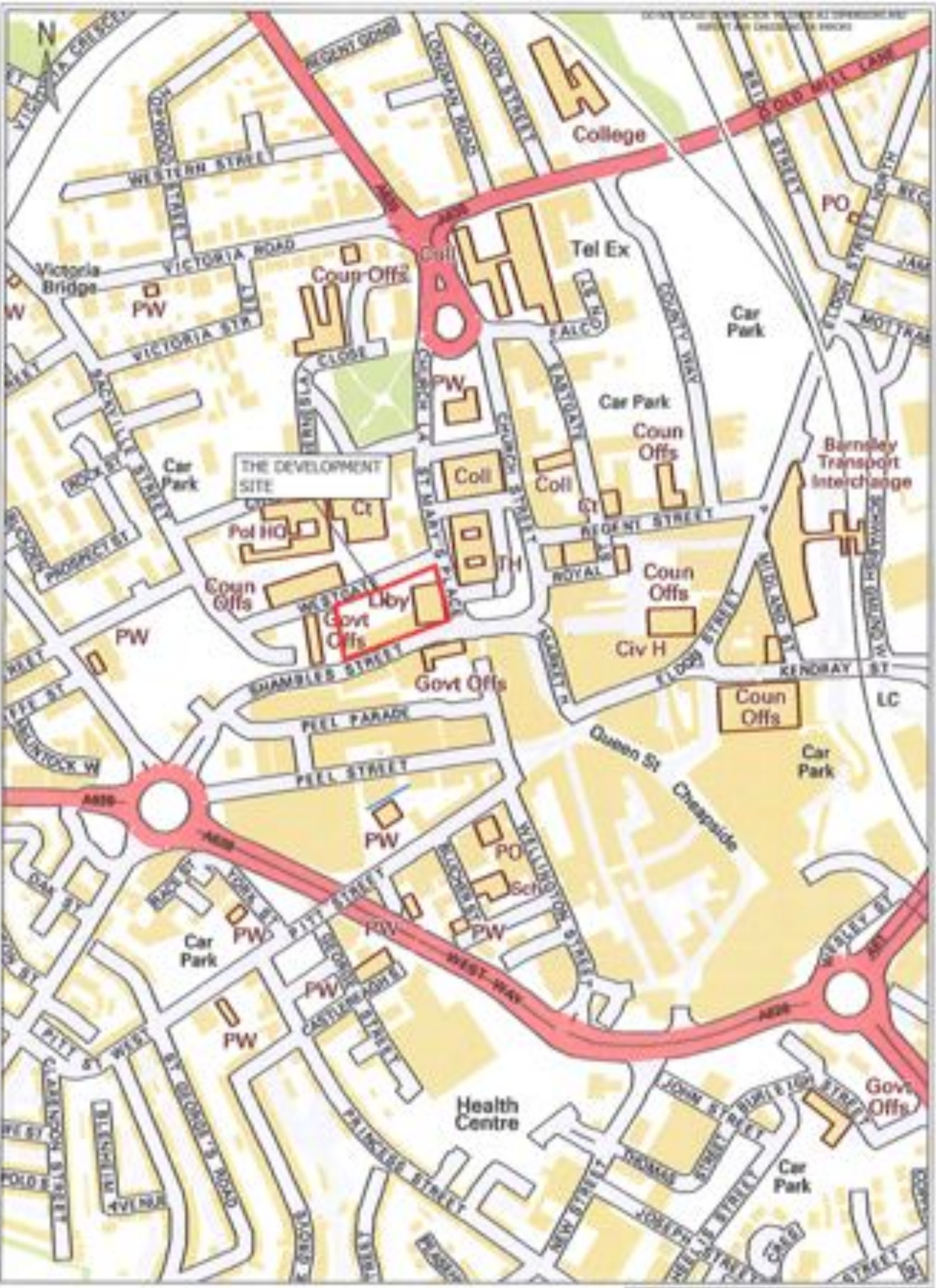
Appendix A



REV	DESCRIPTION	BY	CHK	APP	DATE

	BARNSLEY COLLEGE	PROPOSED 6th FORM CENTRE	SITE LOCATION PLAN	SK 001 A

Appendix B



REV	DESCRIPTION	BY	CHK	APP	DATE

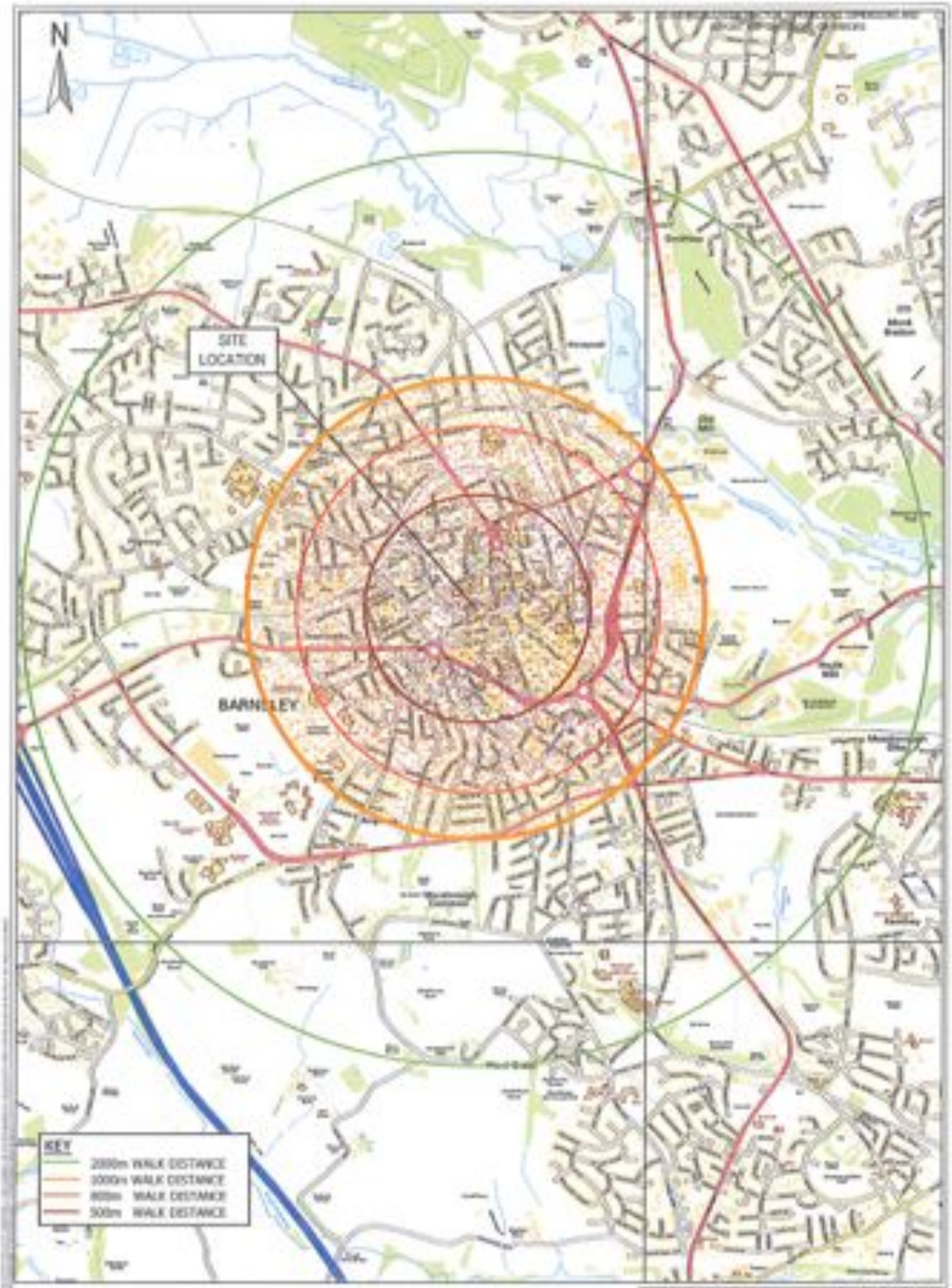
BARNSLEY COLLEGE

PROPOSED 6th FORM CENTRE

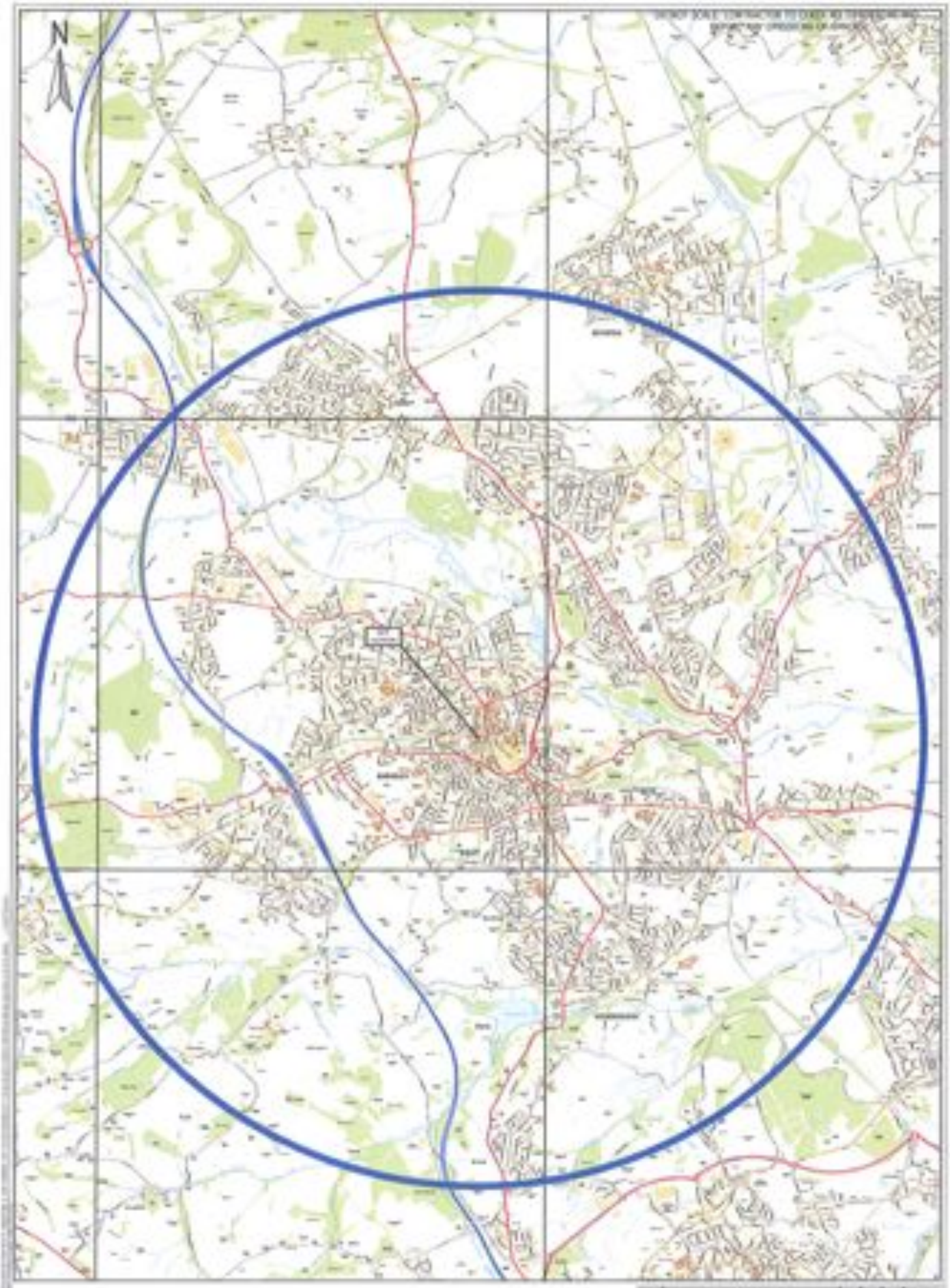
LOCAL HIGHWAY NETWORK

SK 002 A

Appendix C


N
SITE LOCATION
BARNSLEY
KEY
2000m WALK DISTANCE
1000m WALK DISTANCE
800m WALK DISTANCE
500m WALK DISTANCE

Appendix D



REV	DESCRIPTION	BY	CHK'D	APP'D	DATE

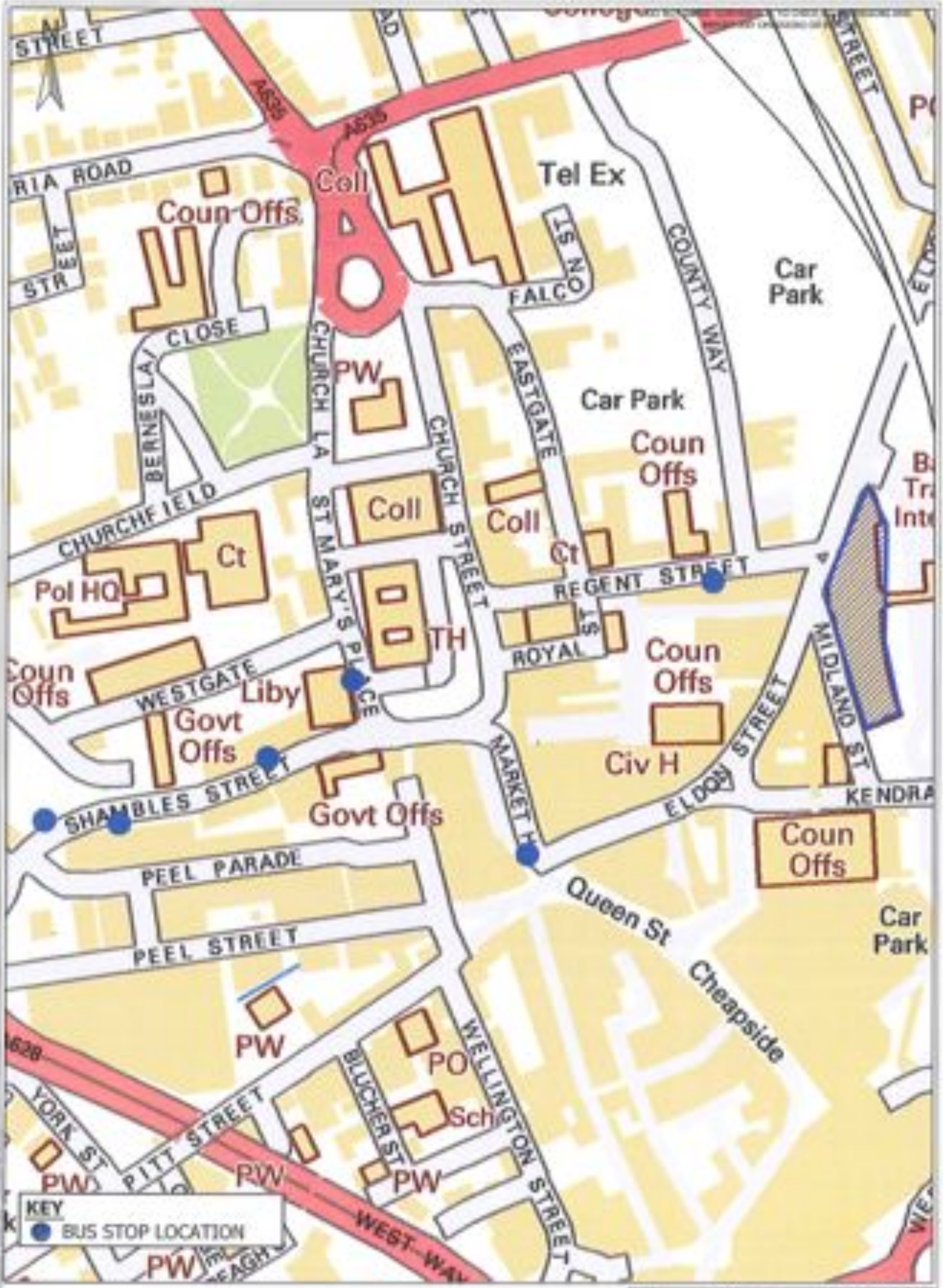
BARNSLEY COLLEGE

PROPOSED 6th FORM CENTRE

5km CYCLE CATCHMENT AREA

A089473 | 23 | P1 | SK 004 | A

Appendix E



BARNSLEY COLLEGE | PROPOSED 6th FORM CENTRE | BUS STOP LOCATION PLAN

Appendix F

Church Studio, Sheffield
Westerham, Kent

T +44 (0)114 266 2040
T +44 (0)1959 567 300

Bond Bryan Architects

Barnsley College
Sixth Form Campus
File ref - 13-133-J06
Revision D3
Date 22/11/13

Outline Brief - Draft BBA Schedule Accomodation

Target Area **7,300** GIA to be agreed with College/TTCM

Areas as BBA floor plans:

BSC-BBA-Z0-GF-DR-A-02001/02002/02003/02004 status S0 rev P1.2

Type of Space	Curriculum Area	Level	Course	Room Title	Assumed No rooms	Space Standard (m2/WP)	Assumed no workplaces	Proposed Area (m2)	% GIA	Comments
Learning	Arts	1	Arts	Learner Base/PLZ	1	3.2	16	**51**		Mixed use group study/computers
Vocational (s)	Arts	GF	Drama and Theatre/Dance	Drama Classroom/Studio	1	3.2	20	**64**		Maximise ceiling height
Flexible guided	Arts	1	Film Studies	Screen Room	1	2.2	26	**58**		needs blackout
Flexible guided	Arts	1	Graphics	Mac Room/Graphics Studio	1	2.5	24	**61**		As per standard computer room with central desk space
Vocational (s)	Arts	1	Fine Art	Art Studio	1	3.2	30	**97**		High ceilings, maximum natural light, washable floor
Flexible guided	Arts	1	Fine Art	Graphics Studio	1	3.2	27	**87**		
Sub Total Arts T&L					**6**	**2.9**	**144**	**418**	**6%**	
Learning	Bus/Accts/Law		Bus/Accts/Law	Learner Base/PLZ						Mixed use group study/computers
Flexible guided	Bus/Accts/Law	1	Accounts	Mock Office	1	2.2	26	**58**		simulated office environment
Flexible guided	Bus/Accts/Law	1	Accounts	Classroom	1	2.2	31	**68**		Standard Classroom (see below)
Flexible guided	Bus/Accts/Law		Business Studies	Classroom	1	2.2	27	**60**		Standard Classroom (see below)
Flexible guided	Bus/Accts/Law		Law	Classroom	1	2.2	26	**58**		Standard Classroom (see below)
Flexible guided	Bus/Accts/Law		Law	Classroom	1	2.2	26	**58**		Standard Classroom (see below)
Sub Total Business/Accounts/Law					**5**	**2.2**	**137**	**302**	**4%**	
Flexible guided	Computing/ICT	1	ICT	Computer room	1	2.5	27	**67**		Computer room (see below)
Flexible guided	Computing/ICT	1	ICT	Computer room	1	2.5	27	**67**		Computer room (see below)
Flexible guided	Computing/ICT	1	ICT	Classroom	1	2.2	23	**50**		
Sub Total Computing/ICT					**3**	**2.4**	**76**	**184**	**3%**	
Learning	English/Languages	2	English/Languages	Learner Base/PLZ	1	3.2	7	**22**		Mixed use group study/computers
Learning	English/Languages	2	English/Languages	Learner Base/PLZ	1	3.2	13	**41**		
Flexible guided	English/Languages	2	English/Languages	Language lab.	1	2.5	25	**62**		Computer room (see below)
Flexible guided	English/Languages	2	English/Languages	Classroom	1	2.2	23	**51**		Standard Classroom (see below)
Flexible guided	English/Languages	2	English/Languages	Classroom	1	2.2	24	**53**		Standard Classroom (see below)
Flexible guided	English/Languages	2	English/Languages	Classroom	1	2.2	25	**55**		Standard Classroom (see below)
Flexible guided	English/Languages	2	English/Languages	Simulated Primary classroom	1	2.2	25	**55**		as per standard classroom
Flexible guided	English/Languages	2	English/Languages	Computer room	1	2.2	29	**63**		
Flexible guided	English/Languages	2	English/Languages	Computer room	1	2.5	28	**69**		Shown as open plan area
Sub Total English/Languages					**9**	**2.4**	**198**	**471**	**6%**	
Flexible guided	Humanities	3	Humanities	Classroom	1	2.2	23	**50**		Standard Classroom (see below)
Flexible guided	Humanities	3	Humanities	Classroom	1	2.2	23	**50**		Standard Classroom (see below)
Flexible guided	Humanities	3	Humanities	Classroom	1	2.2	26	**58**		
Flexible guided	Humanities	3	Humanities	Computer room	1	2.5	30	**75**		
Sub Total Humanities					**4**	**2.3**	**102**	**233**	**3%**	
Flexible guided	Mathematics	3	Mathematics	Classroom	1	2.2	26	**58**		Standard Classroom (see below)
Flexible guided	Mathematics	3	Mathematics	Classroom	1	2.2	26	**58**		
Flexible guided	Mathematics	3	Mathematics	Computer room	1	2.5	27	**68**		Computer room (see below)
Sub Total Mathematics					**3**	**2.3**	**80**	**184**	**3%**	
Learning	Science	3	Science	Learner Base/PLZ	1	3.2	7	**22**		Mixed use group study/computers
Vocational (s)	Science	3	Applied Science	Multi-function laboratory	1	3	30	**90**		Standard Laboratory
Vocational (s)	Science	3	Biology	Bio & Environmental Science Lab	1	3	32	**96**		Standard Laboratory
Vocational (s)	Science	3	Chemistry	Laboratory	1	3	30	**89**		Standard Laboratory
Vocational (s)	Science	3	Physics	Laboratory	1	3	30	**90**		
Vocational (s)	Science	3	Applied Science	Multi-function laboratory	1	3	30	**90**		
Flexible guided	Science	3	Science	Computer room	1	2.5	28	**69**		Currently open plan area
Sub Total Science					**7**	**2.9**	**186**	**546**	**7%**	
Learning	Social Science	2	Social Science	Learner Base/PLZ	1	3.2	23	**75**		Mixed use group study/computers
Flexible guided	Social Science	2	Citizenship	Classroom	1	2.2	24	**53**		Standard Classroom (see below)
Flexible guided	Social Science	2	Health & Social Care	Computer room	1	2.5	23	**58**		Computer room (see below)
Flexible guided	Social Science	2	Psychology	Classroom	1	2.2	31	**68**		Standard Classroom (see below)
Flexible guided	Social Science	2	Psychology	Classroom	1	2.2	26	**58**		Standard Classroom (see below)
Flexible guided	Social Science	2	Psychology	Classroom	1	2.2	26	**58**		Standard Classroom (see below)
Flexible guided	Social Science	2	Sociology	Classroom	1	2.2	24	**53**		Standard Classroom (see below)
Flexible guided	Social Science	2	Sociology	Classroom	1	2.2	24	**53**		Standard Classroom (see below)
Sub Total Science					**8**	**2.4**	**202**	**476**	**7%**	
Flexible guided	Tutorials	1	Tutorials	1-1 room	1	2.5	4	**10**		Small meeting room (can be windowless/internal window)
Flexible guided	Tutorials	1	Tutorials	1-1 room	1	2.5	6	**15**		
Flexible guided	Tutorials	1	Tutorials	1-1 room	1	2.5	3	**7**		
Flexible guided	Tutorials	1	Tutorials	Classroom	1	2.2	26	**57**		sliding foldng screen
Flexible guided	Tutorials	1	Tutorials	Classroom	1	2.2	23	**51**		sliding foldng screen
Flexible guided	Tutorials	2	Tutorials	1-1 room	1	2.5	3	**7**		
Flexible guided	Tutorials	2	Tutorials	Small group	1	2.5	13	**33**		
Flexible guided	Tutorials	3	Tutorials	1-1 room	1	2.5	3	**7**		
Sub Total Tutorials					**8**	**2.3**	**81**	**187**	**3%**	
Flexible guided	Student Facilities	GF	Shared	Multi purpose flexible hall	1	1.3	149	**194**		Retactable seating- occupancy to be confirmed
Flexible guided	Student Facilities	1	Shared	AV control room	1	5	3	**14**		

Learning	Student Facilities	1	Personalised Learning Zone	Study Area	1	3.2	37	**117**		
Learning	Student Facilities	1	Personalised Learning Zone	Multi-function ILT space	1	3.2	18	**56**		
Sub Total Shared Teaching & Learning					**4**	**1.8**	**206**	**381**	**5%**	
TOTAL TEACHING & LEARNING					***57***	***2.4***	***1,413***	***3,382***	***46%***	
Prep	Arts		Prep area	Arts Prep	1	6	3	**18**		wet and dry prep, washable floor
Prep	Science		Science	Prep room	1	6	10	**58**		
Sub Total Prep					**2**	**6.0**	**13**	**76**	**1%**	
Academic Staff		1		Office	1	8	1	**8**		
Academic Staff	Bus/Accts/Law	1	Bus/Accts/Law	Staff resource room	1	4	5.5	**22**		No. workplaces required to be confirmed
Academic Staff	Arts	1	Arts	Staff resource room	1	4	6	**24**		No. workplaces required to be confirmed
Academic Staff		2		Office	1	8	1	**8**		
Academic Staff	Social Science	2	Social Science	Staff resource room	1	4	5.5	**22**		
Academic Staff	English/Languages	2	English/Languages	Staff resource room	1	4	6	**24**		
Academic Staff		3		Office	1	8	1	**8**		
Academic Staff	Humanities	3	English/Languages	Staff resource room	1	4	5.5	**22**		
Academic Staff	Science	3	English/Languages	Staff resource room	1	4	6	**24**		
Sub Total Academic Staff					**9**	**4.3**	**38**	**162**	**2%**	
Store	Arts	GF	Arts	Drama Store	1			**9.2**		store room, can be windowless
Store	Bus/Accts/Law	1	Bus/Accts/Law	Classroom store	1			**3**		
Store	Bus/Accts/Law	1	Bus/Accts/Law	Classroom store	1			**4**		
Store	Bus/Accts/Law	1	Bus/Accts/Law	Classroom store	1			**3.5**		
Store	Bus/Accts/Law	1	Bus/Accts/Law	Classroom store	1			**3.5**		
Store	Bus/Accts/Law	1	Bus/Accts/Law	Classroom store	1			**3**		
Store	Arts	1	Arts	Staff room store	1			**4**		
Store	Arts	1	Arts	Store	1			**18**		
Store	Computing/ICT	1	Computing/ICT	Classroom store	1			**3**		
Store	Tutorials	1	Tutorials	Classroom store	1			**3**		
Store	Tutorials	1	Tutorials	Classroom store	1			**3**		
Store	Social Science	2	Social Science	Classroom store	1			**3**		
Store	Social Science	2	Social Science	Classroom store	1			**4**		
Store	Social Science	2	Social Science	Classroom store	1			**3.5**		
Store	Social Science	2	Social Science	Classroom store	1			**3.5**		
Store	Social Science	2	Social Science	Classroom store	1			**3.5**		
Store	Social Science	2	Social Science	Classroom store	1			**3**		
Store	Social Science	2	Social Science	Classroom store	1			**3**		
Store	English/Languages	2	English/Languages	Staff room store	1			**4**		
Store	English/Languages	2	English/Languages	Classroom store	1			**3**		
Store	English/Languages	2	English/Languages	Classroom store	1			**3**		
Store	English/Languages	2	English/Languages	Classroom store	1			**3**		
Store	English/Languages	2	English/Languages	Classroom store	1			**3**		
Store	Tutorials	2	Tutorials	Classroom store	1			**3**		
Store	Humanities	3	Humanities	Store room	1			**4**		
Store	Central	GF	Central	Chair Store	1			**25**		
Store	Central	GF	Central	Central Stock	1			**30**		
Store	Central	GF	Central	Store	1			**5**		
Store	Central	GF	Central	Store	1			**6.5**		Adjacent stair core
Store	Central	GF	Central	Bin Store	1			**46**		
Store	Central	1	Central	Store	1			**6.5**		Adjacent stair core
Store	Central	1	Central	FM Store	1			**12**		Adjacent stair core
Store	Central	2	Central	Store	1			**6.5**		Adjacent stair core
Store	Central	2	Central	FM Store	1			**12**		Adjacent stair core
Store	Central	3	Central	Store	1			**6.5**		Adjacent stair core
Store	Central	3	Central	FM Store	1			**12**		Adjacent stair core
Sub Total Stores					**36**		**0**	**272**	**4%**	
Business Support Staff	Management	GF	Principal's Office	Office	1	15	1	**15**		
Business Support Staff	Management	GF	Deputy Principal's Office	Office	1	15	1	**15**		
Business Support Staff	Management	GF	Management office	Office	1	6	11	**68**		
Business Support Staff	Student Facilities	1	Student Services	Reception	1	4	2	**8**		in PLZ
Sub Total Business Support Staff					**4**	**6.9**	**15**	**106**	**1%**	
Business Support Staff	Central	GF	Reception	Public reception	1	7	2	**14**		
Meeting rooms/other	Central	GF	Reception	Meeting room/Office	1	5	2	**11**		
Meeting rooms/other	Student Facilities	GF	Shop	Training/Shop unit	1	3	30	**90**		
Meeting rooms/other	Management	GF	Shared	Large meeting/Conference	1	2.2	35	**76**		Maximum occupancy will depend upon layout
Meeting rooms/other	Student Facilities	1	Shared	Meeting room/Tutorial	1	2.5	5	**12**		Adjacent feature stair/lifts
Meeting rooms/other	Student Facilities	2	Shared	Meeting room/Tutorial	1	2.5	5	**12**		Adjacent feature stair/lifts
Meeting rooms/other	Student Facilities	2	Shared	Meeting room/Tutorial	1	2.5	8	**20**		Adjacent feature stair/lifts
Sub Total Meeting/Other					**7**	**2.7**	**86**	**235**	**3%**	
Social/Refectory	Student Facilities	GF	Informal social	Steps/Gathering space	1	2	25	**50**		
Social/Refectory	Student Facilities	GF	Refectory	Café /Social	1	2	135	**269**		
Social/Refectory	Student Facilities	GF	Refectory	Kitchen/servery	1	10	8	**84**		
Sub Total Social/Refectory					**3**	**2.4**	**167.9**	**403**	**6%**	
TOTAL NON TEACHING & LEARNING					***61***	***3.9***	***320***	***1,254***	***17%***	
TOTAL NET USABLE					***118***	***2.7***	***1,732***	***4,636***	***64%***	
Balance Space (Toilets, Circulation, Stairs, Lift, Plant etc)								**2,664**	**36.5%**	
GROSS INTERNAL AREA (GIA)								**7,300**		
Target Area								7,300		
Difference								0		

The 'Green Sprint' - A green street linking key public spaces defined by a line of Fraxinus angustifolia to break up the expanse of road, provide vibrant foliage and compliment the cool tones of the surface materials.
- In accordance with Barnsley Metropolitan Borough Council Street Design Palette

First floor level art studio/exhibition space with viewing balcony on second floor level. Views of balcony activity and planting.

Hopper to biomass store with gated access from westgate.

New electric substation set at Westgate Level (107.5). Size to be confirmed.

Level 104.6, below Louvre vent to plant room

Yorkstone sawn setts, sawn tumbled to be used as needed for definition. Laid in 100mm course. Random lengths to be no greater than 250mm and no less than 150mm. Buff colour with some variation. Wide flush kerb lines add structure and definition.
- In accordance with Barnsley Metropolitan Borough Council Street Design Palette

Proposed resin bound aggregate

Proposed vehicular access into underground carpark

Raised lawn/planted area to accomodate change in levels between spaces and define public/semi-private space in front of the college

Civic Street: Traditional Yorkstone pavements laid normally in 300mm course, buff colour with some variation, sawn/shot blasted. Random lengths to be no greater than 500mm and no less than 200mm. Wide granite kerbs that accommodate vehicular use.
- In accordance with Barnsley Metropolitan Borough Council Street Design Palette

Line of trees along paving band to define property boundary

Second floor level with balcony looking onto first floor. Movement route between classrooms.

Existing tree

Proposed tree

Existing ornamental shrubs

Proposed ornamental shrub planting

Amenity grassland

Existing paving slabs

Proposed Yorkstone paving slabs

Proposed Yorkstone setts

Proposed aggregate

Proposed mixed colour granite

Proposed circular seating around skylights

Proposed seating

Entrance to sixth form college

Gate and secure fence line to prevent access into college area

Proposed bold ornamental planting and trees provides an attractive edge to the balcony with 1100mm glass balustrade. Curved seating is proposed in front of planting, beneath proposed trees.

Proposed raised lawn with vibrant block planting to 450mm high to allow seating around the edge.

Existing steps and ramped access to existing public square

Extension of existing public square provides a pleasant platform between Shambles Street and Westgate.

Proposed south facing grass bank and planting defines the public space and provides a welcoming frontage to shambles street to attract people into the existing space.

Seating around raised angled skylights with low glass railings to provide a back to seating and prevent access onto the glass without disturbing views into the lower level of the building.

rev	date	details
B	06.12.13	BBA landscape comments 6.12.13
A	29.11.13	Pedestrian flow alteration (diagonal), change of surface materials

Dally Henderson Landscape Architects Ltd.
Venture House
103 Arundel Street
Sheffield S1 2NT
Tel: 0114 270 0770
info@dallyhenderson.co.uk
www.dallyhenderson.co.uk
landscape design : planning : urban design

Client Barnsley College

Project Sixth Form Centre, Barnsley

Dwg. title Landscape General Arrangement

Scale 1:250 @A1 **Date** Nov 2013 **Dwg. No.** 471-001B

Appendix G

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 04 - EDUCATION
Category : C - COLLEGE/UNIVERSITY
MULTI-MODAL VEHICLES

Selected regions and areas:

02	**SOUTH EAST**		
	ES	EAST SUSSEX	1 days
04	**EAST ANGLIA**		
	CA	CAMBRIDGESHIRE	1 days
	SF	SUFFOLK	1 days
09	**NORTH**		
	TV	TEES VALLEY	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: Gross floor area
Actual Range: 6000 to 20302 (units: sqm)
Range Selected by User: 2435 to 162000 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/05 to 30/05/12

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:

Tuesday	2 days
Thursday	2 days

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

Selected survey types:

Manual count	4 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:

Town Centre	2
Edge of Town Centre	2

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:

Built-Up Zone	2
No Sub Category	2

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:

D1	4 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:

5,001 to 10,000	1 days
10,001 to 15,000	1 days
15,001 to 20,000	2 days

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

Population within 5 miles:

25,001 to 50,000	1 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	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	3 days
1.1 to 1.5	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	1 days
No	3 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.

LIST OF SITES relevant to selection parameters

1 **CA-04-C-01** **COLLEGE** **CAMBRIDGESHIRE**
CRAWTHORNE ROAD

PETERBOROUGH
Edge of Town Centre
No Sub Category
Total Gross floor area: 6000 sqm
Survey date: THURSDAY *15/05/08* *Survey Type: MANUAL*

2 **ES-04-C-06** **COLLEGE** **EAST SUSSEX**
STATION APPROACH
STATION PLAZA
HASTINGS
Town Centre
Built-Up Zone
Total Gross floor area: 20302 sqm
Survey date: TUESDAY *29/05/12* *Survey Type: MANUAL*

3 **SF-04-C-01** **COLLEGE** **SUFFOLK**
OUT RISBYGATE

BURY ST. EDMUNDS
Edge of Town Centre
Built-Up Zone
Total Gross floor area: 19000 sqm
Survey date: TUESDAY *28/09/10* *Survey Type: MANUAL*

4 **TV-04-C-01** **ART COLLEGE** **TEES VALLEY**
CHURCH SQUARE

HARTLEPOOL
Town Centre
No Sub Category
Total Gross floor area: 6700 sqm
Survey date: THURSDAY *21/04/05* *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 04 - EDUCATION/C - COLLEGE/UNIVERSITY

MULTI-MODAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	4	13001	0.229	4	13001	0.042	4	13001	0.271
08:00 - 09:00	**4**	**13001**	**1.413**	4	13001	0.387	**4**	**13001**	**1.800**
09:00 - 10:00	4	13001	1.083	4	13001	0.473	4	13001	1.556
10:00 - 11:00	4	13001	0.410	4	13001	0.258	4	13001	0.668
11:00 - 12:00	4	13001	0.256	4	13001	0.281	4	13001	0.537
12:00 - 13:00	4	13001	0.506	4	13001	0.690	4	13001	1.196
13:00 - 14:00	4	13001	0.402	4	13001	0.377	4	13001	0.779
14:00 - 15:00	4	13001	0.288	4	13001	0.444	4	13001	0.732
15:00 - 16:00	4	13001	0.367	4	13001	0.712	4	13001	1.079
16:00 - 17:00	4	13001	0.473	**4**	**13001**	**1.035**	4	13001	1.508
17:00 - 18:00	4	13001	0.315	4	13001	0.635	4	13001	0.950
18:00 - 19:00	4	13001	0.362	4	13001	0.246	4	13001	0.608
19:00 - 20:00	3	15101	0.139	3	15101	0.128	3	15101	0.267
20:00 - 21:00	3	15101	0.075	3	15101	0.384	3	15101	0.459
21:00 - 22:00	3	15101	0.020	3	15101	0.336	3	15101	0.356
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			6.338			6.428			12.766

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:	6000 - 20302 (units: sqm)
Survey date date range:	01/01/05 - 30/05/12
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
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 04 - EDUCATION/C - COLLEGE/UNIVERSITY

MULTI-MODAL OGVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	4	13001	0.008	4	13001	0.006	4	13001	0.014
08:00 - 09:00	4	13001	0.002	4	13001	0.004	4	13001	0.006
09:00 - 10:00	4	13001	0.006	4	13001	0.006	4	13001	0.012
10:00 - 11:00	4	13001	0.008	4	13001	0.004	4	13001	0.012
11:00 - 12:00	4	13001	0.010	4	13001	0.008	4	13001	0.018
12:00 - 13:00	4	13001	0.008	4	13001	0.006	4	13001	0.014
13:00 - 14:00	**4**	**13001**	**0.012**	**4**	**13001**	**0.015**	**4**	**13001**	**0.027**
14:00 - 15:00	4	13001	0.006	4	13001	0.008	4	13001	0.014
15:00 - 16:00	4	13001	0.006	4	13001	0.004	4	13001	0.010
16:00 - 17:00	4	13001	0.004	4	13001	0.008	4	13001	0.012
17:00 - 18:00	4	13001	0.002	4	13001	0.002	4	13001	0.004
18:00 - 19:00	4	13001	0.000	4	13001	0.000	4	13001	0.000
19:00 - 20:00	3	15101	0.000	3	15101	0.000	3	15101	0.000
20:00 - 21:00	3	15101	0.000	3	15101	0.000	3	15101	0.000
21:00 - 22:00	3	15101	0.000	3	15101	0.000	3	15101	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.072			0.071			0.143

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:	6000 - 20302 (units: sqm)
Survey date date range:	01/01/05 - 30/05/12
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
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 04 - EDUCATION/C - COLLEGE/UNIVERSITY

MULTI-MODAL PSVS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	4	13001	0.000	4	13001	0.000	4	13001	0.000
08:00 - 09:00	4	13001	0.010	4	13001	0.010	4	13001	0.020
09:00 - 10:00	**4**	**13001**	**0.013**	4	13001	0.010	4	13001	0.023
10:00 - 11:00	4	13001	0.004	4	13001	0.002	4	13001	0.006
11:00 - 12:00	4	13001	0.002	4	13001	0.002	4	13001	0.004
12:00 - 13:00	4	13001	0.000	4	13001	0.000	4	13001	0.000
13:00 - 14:00	4	13001	0.000	4	13001	0.002	4	13001	0.002
14:00 - 15:00	4	13001	0.010	4	13001	0.008	4	13001	0.018
15:00 - 16:00	4	13001	0.012	**4**	**13001**	**0.019**	**4**	**13001**	**0.031**
16:00 - 17:00	4	13001	0.004	4	13001	0.002	4	13001	0.006
17:00 - 18:00	4	13001	0.002	4	13001	0.000	4	13001	0.002
18:00 - 19:00	4	13001	0.000	4	13001	0.000	4	13001	0.000
19:00 - 20:00	3	15101	0.000	3	15101	0.000	3	15101	0.000
20:00 - 21:00	3	15101	0.000	3	15101	0.000	3	15101	0.000
21:00 - 22:00	3	15101	0.000	3	15101	0.000	3	15101	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.057			0.055			0.112

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:	6000 - 20302 (units: sqm)
Survey date date range:	01/01/05 - 30/05/12
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
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 04 - EDUCATION/C - COLLEGE/UNIVERSITY

MULTI-MODAL CYCLISTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	4	13001	0.006	4	13001	0.002	4	13001	0.008
08:00 - 09:00	**4**	**13001**	**0.050**	4	13001	0.010	**4**	**13001**	**0.060**
09:00 - 10:00	4	13001	0.037	4	13001	0.013	4	13001	0.050
10:00 - 11:00	4	13001	0.025	4	13001	0.019	4	13001	0.044
11:00 - 12:00	4	13001	0.015	4	13001	0.017	4	13001	0.032
12:00 - 13:00	4	13001	0.023	4	13001	0.029	4	13001	0.052
13:00 - 14:00	4	13001	0.029	4	13001	0.021	4	13001	0.050
14:00 - 15:00	4	13001	0.021	4	13001	0.033	4	13001	0.054
15:00 - 16:00	4	13001	0.021	4	13001	0.031	4	13001	0.052
16:00 - 17:00	4	13001	0.006	**4**	**13001**	**0.035**	4	13001	0.041
17:00 - 18:00	4	13001	0.017	4	13001	0.021	4	13001	0.038
18:00 - 19:00	4	13001	0.008	4	13001	0.015	4	13001	0.023
19:00 - 20:00	3	15101	0.009	3	15101	0.018	3	15101	0.027
20:00 - 21:00	3	15101	0.000	3	15101	0.004	3	15101	0.004
21:00 - 22:00	3	15101	0.000	3	15101	0.000	3	15101	0.000
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.267			0.268			0.535

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:	6000 - 20302 (units: sqm)
Survey date date range:	01/01/05 - 30/05/12
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
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 04 - EDUCATION/C - COLLEGE/UNIVERSITY

MULTI-MODAL VEHICLE OCCUPANTS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	4	13001	0.240	4	13001	0.042	4	13001	0.282
08:00 - 09:00	**4**	**13001**	**1.698**	4	13001	0.279	**4**	**13001**	**1.977**
09:00 - 10:00	4	13001	1.396	4	13001	0.308	4	13001	1.704
10:00 - 11:00	4	13001	0.475	4	13001	0.256	4	13001	0.731
11:00 - 12:00	4	13001	0.290	4	13001	0.313	4	13001	0.603
12:00 - 13:00	4	13001	0.581	4	13001	0.810	4	13001	1.391
13:00 - 14:00	4	13001	0.460	4	13001	0.404	4	13001	0.864
14:00 - 15:00	4	13001	0.287	4	13001	0.548	4	13001	0.835
15:00 - 16:00	4	13001	0.367	4	13001	0.890	4	13001	1.257
16:00 - 17:00	4	13001	0.421	**4**	**13001**	**1.319**	4	13001	1.740
17:00 - 18:00	4	13001	0.348	4	13001	0.813	4	13001	1.161
18:00 - 19:00	4	13001	0.442	4	13001	0.288	4	13001	0.730
19:00 - 20:00	3	15101	0.168	3	15101	0.170	3	15101	0.338
20:00 - 21:00	3	15101	0.055	3	15101	0.439	3	15101	0.494
21:00 - 22:00	3	15101	0.007	3	15101	0.371	3	15101	0.378
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			7.235			7.250			14.485

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:	6000 - 20302 (units: sqm)
Survey date date range:	01/01/05 - 30/05/12
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
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 04 - EDUCATION/C - COLLEGE/UNIVERSITY

MULTI-MODAL PEDESTRIANS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	4	13001	0.044	4	13001	0.010	4	13001	0.054
08:00 - 09:00	4	13001	0.577	4	13001	0.075	4	13001	0.652
09:00 - 10:00	4	13001	0.688	4	13001	0.235	4	13001	0.923
10:00 - 11:00	4	13001	0.471	4	13001	0.385	4	13001	0.856
11:00 - 12:00	4	13001	0.258	4	13001	0.510	4	13001	0.768
12:00 - 13:00	4	13001	0.727	**4**	**13001**	**1.419**	**4**	**13001**	**2.146**
13:00 - 14:00	**4**	**13001**	**1.238**	4	13001	0.487	4	13001	1.725
14:00 - 15:00	4	13001	0.487	4	13001	0.523	4	13001	1.010
15:00 - 16:00	4	13001	0.238	4	13001	0.442	4	13001	0.680
16:00 - 17:00	4	13001	0.175	4	13001	0.512	4	13001	0.687
17:00 - 18:00	4	13001	0.148	4	13001	0.310	4	13001	0.458
18:00 - 19:00	4	13001	0.169	4	13001	0.142	4	13001	0.311
19:00 - 20:00	3	15101	0.060	3	15101	0.099	3	15101	0.159
20:00 - 21:00	3	15101	0.015	3	15101	0.108	3	15101	0.123
21:00 - 22:00	3	15101	0.000	3	15101	0.046	3	15101	0.046
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			5.295			5.303			10.598

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:	6000 - 20302 (units: sqm)
Survey date date range:	01/01/05 - 30/05/12
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
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 04 - EDUCATION/C - COLLEGE/UNIVERSITY

MULTI-MODAL PUBLIC TRANSPORT USERS

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	4	13001	0.017	4	13001	0.000	4	13001	0.017
08:00 - 09:00	**4**	**13001**	**1.750**	4	13001	0.060	**4**	**13001**	**1.810**
09:00 - 10:00	4	13001	0.958	4	13001	0.150	4	13001	1.108
10:00 - 11:00	4	13001	0.479	4	13001	0.194	4	13001	0.673
11:00 - 12:00	4	13001	0.187	4	13001	0.198	4	13001	0.385
12:00 - 13:00	4	13001	0.306	4	13001	0.396	4	13001	0.702
13:00 - 14:00	4	13001	0.306	4	13001	0.238	4	13001	0.544
14:00 - 15:00	4	13001	0.233	4	13001	0.604	4	13001	0.837
15:00 - 16:00	4	13001	0.208	4	13001	0.896	4	13001	1.104
16:00 - 17:00	4	13001	0.171	**4**	**13001**	**1.331**	4	13001	1.502
17:00 - 18:00	4	13001	0.098	4	13001	0.579	4	13001	0.677
18:00 - 19:00	4	13001	0.038	4	13001	0.069	4	13001	0.107
19:00 - 20:00	3	15101	0.013	3	15101	0.033	3	15101	0.046
20:00 - 21:00	3	15101	0.004	3	15101	0.044	3	15101	0.048
21:00 - 22:00	3	15101	0.000	3	15101	0.002	3	15101	0.002
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.768			4.794			9.562

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:	6000 - 20302 (units: sqm)
Survey date date range:	01/01/05 - 30/05/12
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
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 04 - EDUCATION/C - COLLEGE/UNIVERSITY

MULTI-MODAL TOTAL PEOPLE

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	4	13001	0.308	4	13001	0.054	4	13001	0.362
08:00 - 09:00	**4**	**13001**	**4.075**	4	13001	0.423	**4**	**13001**	**4.498**
09:00 - 10:00	4	13001	3.079	4	13001	0.706	4	13001	3.785
10:00 - 11:00	4	13001	1.450	4	13001	0.854	4	13001	2.304
11:00 - 12:00	4	13001	0.750	4	13001	1.038	4	13001	1.788
12:00 - 13:00	4	13001	1.636	4	13001	2.654	4	13001	4.290
13:00 - 14:00	4	13001	2.033	4	13001	1.150	4	13001	3.183
14:00 - 15:00	4	13001	1.027	4	13001	1.708	4	13001	2.735
15:00 - 16:00	4	13001	0.835	4	13001	2.260	4	13001	3.095
16:00 - 17:00	4	13001	0.773	**4**	**13001**	**3.196**	4	13001	3.969
17:00 - 18:00	4	13001	0.612	4	13001	1.723	4	13001	2.335
18:00 - 19:00	4	13001	0.658	4	13001	0.515	4	13001	1.173
19:00 - 20:00	3	15101	0.249	3	15101	0.320	3	15101	0.569
20:00 - 21:00	3	15101	0.075	3	15101	0.596	3	15101	0.671
21:00 - 22:00	3	15101	0.007	3	15101	0.419	3	15101	0.426
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			17.567			17.616			35.183

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:	6000 - 20302 (units: sqm)
Survey date date range:	01/01/05 - 30/05/12
Number of weekdays (Monday-Friday):	4
Number of Saturdays:	0
Number of Sundays:	0
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.

Appendix H

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
Category : I - SHOPPING CENTRE - LOCAL SHOPS

VEHICLES

Selected regions and areas:

06	**WEST MIDLANDS**		
	WM	WEST MIDLANDS	1 days
10	**WALES**		
	CF	CARDIFF	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:	Gross floor area
Actual Range:	500 to 515 (units: sqm)
Range Selected by User:	210 to 84009 (units: sqm)

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/05 to 21/11/12

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	1 days
Tuesday	1 days

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

Selected survey types:

Manual count	2 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:

Edge of Town	2

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:

Commercial Zone	1
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.

Filtering Stage 3 selection:

Use Class:

A1	2 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:

15,001 to 20,000	2 days

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

Population within 5 miles:

125,001 to 250,000	1 days
250,001 to 500,000	1 days

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

Car ownership within 5 miles:

1.1 to 1.5	2 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.

Petrol filling station:

Included in the survey count	0 days
Excluded from count or no filling station	2 days

This data displays the number of surveys within the selected set that include petrol filling station activity, and the number of surveys that do not.

Travel Plan:

No	2 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.

LIST OF SITES relevant to selection parameters

1 CF-01-I-01 LOCAL SHOPS CARDIFF
MICHAELSTON ROAD

CARDIFF
Edge of Town
No Sub Category
Total Gross floor area: 500 sqm
Survey date: MONDAY *08/10/07* *Survey Type: MANUAL*

2 WM-01-I-02 LOCAL SHOPS WEST MIDLANDS
MARSHALL LAKE ROAD
SHIRLEY
SOLIHULL
Edge of Town
Commercial Zone
Total Gross floor area: 515 sqm
Survey date: TUESDAY *18/09/07* *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 01 - RETAIL/I - SHOPPING CENTRE - LOCAL SHOPS

VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	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	2	508	0.690	2	508	0.394	2	508	1.084
08:00 - 09:00	2	508	5.123	2	508	4.926	2	508	10.049
09:00 - 10:00	2	508	4.729	2	508	4.335	2	508	9.064
10:00 - 11:00	2	508	4.433	2	508	3.842	2	508	8.275
11:00 - 12:00	2	508	4.532	2	508	3.251	2	508	7.783
12:00 - 13:00	2	508	5.714	2	508	6.305	2	508	12.019
13:00 - 14:00	2	508	4.729	2	508	5.911	2	508	10.640
14:00 - 15:00	2	508	3.842	2	508	4.039	2	508	7.881
15:00 - 16:00	2	508	5.320	2	508	4.926	2	508	10.246
16:00 - 17:00	2	508	5.911	2	508	6.108	2	508	12.019
17:00 - 18:00	2	508	5.517	2	508	5.025	2	508	10.542
18:00 - 19:00	**2**	**508**	**6.601**	**2**	**508**	**7.783**	**2**	**508**	**14.384**
19:00 - 20:00	2	508	6.601	2	508	5.714	2	508	12.315
20:00 - 21:00	2	508	2.759	2	508	3.744	2	508	6.503
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			66.501			66.303			132.804

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:	500 - 515 (units: sqm)
Survey date date range:	01/01/05 - 21/11/12
Number of weekdays (Monday-Friday):	2
Number of Saturdays:	0
Number of Sundays:	0
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.