Press & Starkey

Campus West Decked Car Park

Transport Statement

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1 Introduction

Ove Arup & Partners Ltd (Arup) has been appointed by Press and Starkey to provide transport advice for the proposed redevelopment of Campus West Car Park, located in Welwyn Garden City. The planning authority is Welwyn Hatfield Borough Council (WHBC) and the highways authority is Hertfordshire County Council (HCC).

1.1 Context

The application site (the site) is located on the north-western side of The Campus. The site comprises surface level car parking with a total of 334 spaces provided within the red line boundary. The car park is owned and operated by WHBC and is primarily used by visitors to Campus West, and permit parking for commercial users and staff.

The car park is adjacent to the Campus West complex, which is an entertainment venue with a cinema, roller skating, soft play, theatre, café and bar. The Welwyn Garden City Central Library is located adjacent to Campus West to the northeast.

There are other car parks in the town centre, including Campus East on the north-eastern side of The Campus which has 584 parking spaces. This car park largely used by permit holders and weekday long stay car parking.

1.2 Application Summary

A consolidation of town centre car parking at Campus West is proposed to enable a residential development at Campus East. This proposal seeks to provide additional decked car parking at Campus West to mitigate the loss of Campus East parking necessary to facilitate development. The proposal will help to facilitate the delivery of homes at Campus East, which is located within close proximity to public transport and local amenities enabling sustainable travel behaviour.

The majority of the Campus East car park will close when the new Campus West decked car park opens. Part of the Campus East car park (110 spaces) is currently under a long lease and will be retained as part of the future residential development. This will result in an overall net reduction in town centre car parking as shown in **Table 1**.

Table 1 – Car Parking Numbers

Car Parks	Existing	Proposed	Net Change
Campus West	334	490	+156
Campus East	584	110	-474
Total	918	600	-318

In total, there will be a net reduction of 318 spaces. Both Campus West and Campus East car parks are most used during weekdays by long stay staff and permit holders. The lower levels of car parking will be managed and the approach of consolidating and reducing car parking is supported by HCC policy.

Furthermore, WHBC will be implementing changes to the way their staff will work, providing flexible working arrangements across the working week. This could result in many staff only working from Welwyn Garden City for only 3 or 4 days a week. This means, on average, there will be a reduction of around 100 to 200 staff using the car parks each day. This approach is in keeping with the HCC LTP Policy 1 to maximises opportunities to reduce travel demand and the need to travel.

This Transport Statement provides a review of the existing transport conditions, policy context, the development proposals and assesses the local highways redistribution of vehicles on the network resulting from the proposals.

1.3 Consultation

A Transport Scoping Note was issued to HCC on 1st June 2020 and discussed at a pre-application meeting held on the 17th July 2020. HCC provided a pre-application written response dated 11th August 2020 and further email correspondence on 21st January 2021.

The original consultation with HCC was for an additional two decks of car parking at Campus West. Further information on the current proposals with a single deck was subsequently provided to HCC on 19th March 2021. HCC provided pre-application written response on 30th March 2021 and the comments have been addressed in this report where appropriate.

1.4 Report Structure

This report is structured as follows:

- **Chapter 2: Existing transport conditions** – assesses the site accessibility by different transport modes.
- **Chapter 3: Policy context** – provides a summary of the local and national transport policies against which the proposals are assessed.
- **Chapter 4: Development proposals** – provides details of the development proposals, including access, parking and servicing arrangements.
- **Chapter 5: Trip attraction and distribution** – provides a trip attraction and distribution assessment for the proposed development.
- **Chapter 6: Assessment** – provides an assessment of the proposed redistributed trips on the local transport network.
- **Chapter 7: Summary and conclusions**

2 Existing Conditions

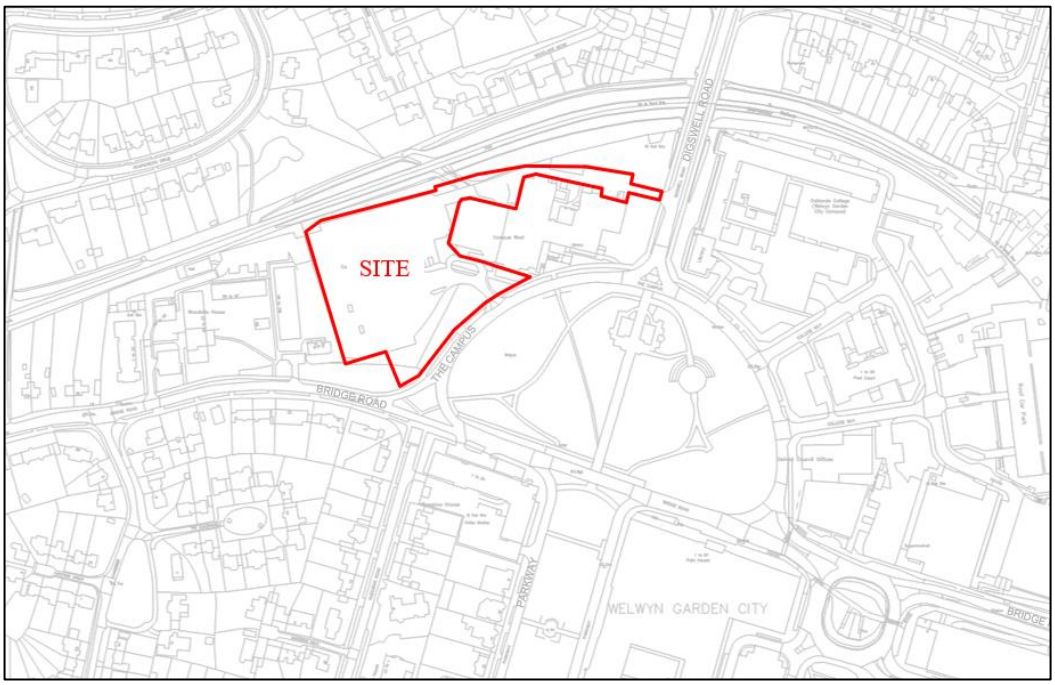
2.1 Introduction

This chapter describes the existing transport and access conditions at the Campus West Car Park.

2.2 Site Location

The site location is shown in **Figure 1**. It comprises surface level car parking with a total of 334 spaces (including 8 advisory disabled bays) provided within the red line boundary.

Figure 1 - Site Location Plan



The car park is owned and operated by WHBC and is primarily used by visitors to Campus West, and permit parking for commercial users and staff. The car park is adjacent to the Campus West complex, which is an entertainment venue with a cinema, roller skating, soft play, theatre, café and bar. The Welwyn Garden City Central Library is located adjacent to Campus West to the northeast.

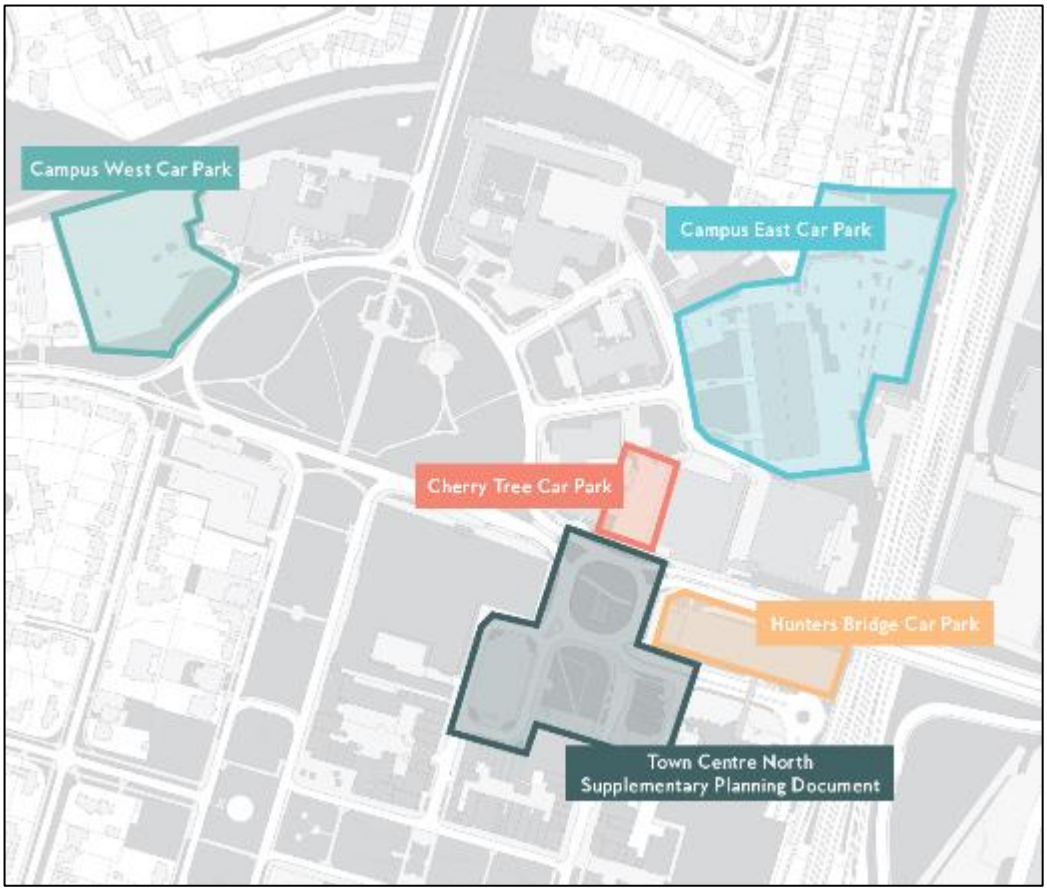
2.3 Wider Site Planning Context - WGC 2120

Whilst the proposed application is for a standalone development, it should be viewed in part as a component of WHBC's emerging vision and strategy for the town centre, known as WGC 2120.

WGC 2120 comprises a selection of key opportunity sites in Welwyn Garden City, namely Campus West car park, Campus East car park, Cherry Tree car park,

Hunters Bridge multi-storey car park, and Town Centre North Supplementary Planning Development (SPD) site, as shown in **Figure 2**.

Figure 2 – WGC 2120 Plots



Source: https://one.welhat.gov.uk/WGC2120

Arup is part of the team advising WHBC on the WGC 2120 and WHBC wishes to see the entire area of north of the town centre developed in a coordinated manner which will reduce any disruption to occupiers and visitors. WGC 2120 is expected to be delivered in several phases, with the developments of Campus West Car Park, Campus East Car Park and Cherry Tree Car Park anticipating completion in Phase 1, while Hunters Bridge Car Park and the Town Centre North SPD site due for completion in Phase 2.

Campus East, Cherry Tree and Hunters Bridge car parks are within the red line for proposed site allocation (site HAN40a) in the Local Plan. The promoted capacity is 480 dwellings and at this stage, it is expected that a residential development will be provided at Campus East, with a retail development at Cherry Tree.

The following changes to town centre car parking are expected for WGC 2120:

- Campus East car park currently provides 584 spaces, primarily used by permit holders (staff and commercial users). The car park will be replaced by a residential development. Part of the car park (110 spaces) is currently leased to a third party and will be retained at Campus East. The future of

these leased spaces will be subject to the planning application of the residential development.

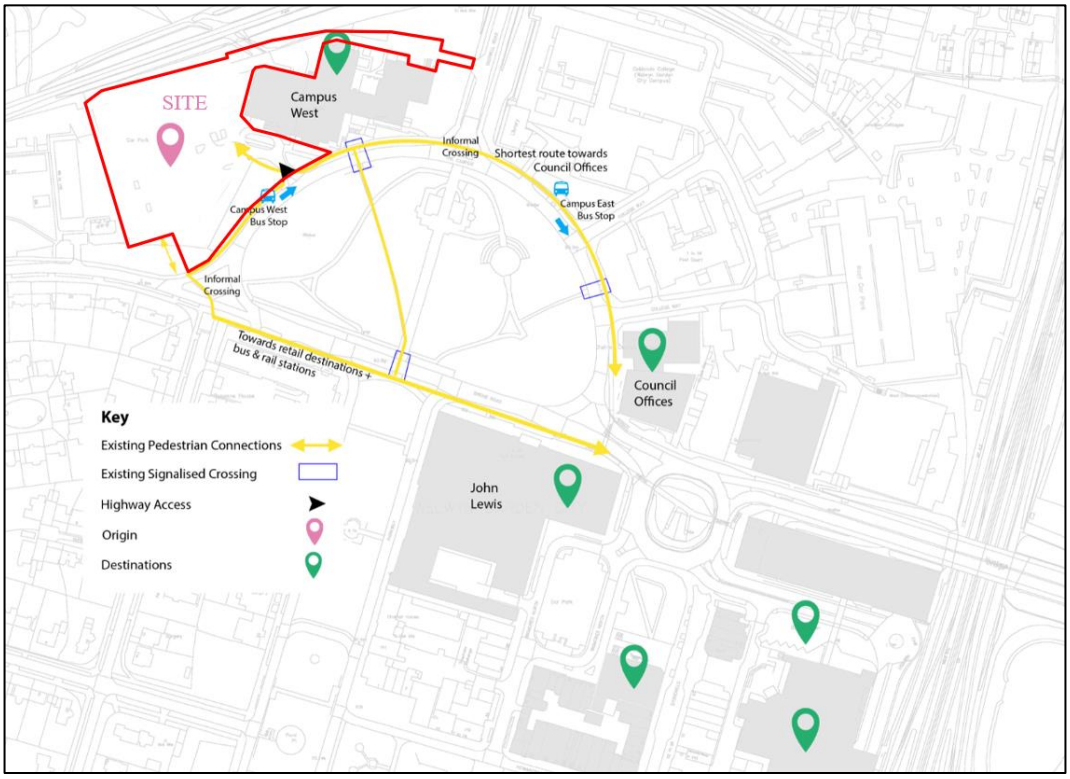
- Cherry Tree car park has 51 spaces (44 standard bays, four disabled bays and three taxi bays). The car parking is primarily for WHBC councillors. There will be minor car parking loss of around 20 to 25 spaces, in order to provide retail units.
- The existing Hunters Bridge car park (651 spaces) will require refurbishment or reconstruction due to structural issues.

This proposed Campus West development application is to facilitate residential development at Campus East car park.

2.4 Pedestrian Access

The existing pedestrian connections from Campus West to key destinations are shown in **Figure 3**.

Figure 3 - Pedestrian Connections to Key Destinations



There is a direct pedestrian route between the car park and the Campus West complex. Footways are provided on the northern side of the car park access to The Campus. To the south, there is a footpath to the corner of Bridge Road / The Campus. To the north of the car park, connections are provided to the Greenway which is a traffic-free route between Digswell Road and Stanborough Reedmarsh.

Destinations, other than Campus West, are mostly expected to be in the south-east direction towards the Council Offices and around the retail area (a 5-minute walk). The shortest route towards the Council Offices is along the northern

footway on The Campus from the main Campus West car park entrance, as indicated by **Figure 3**.

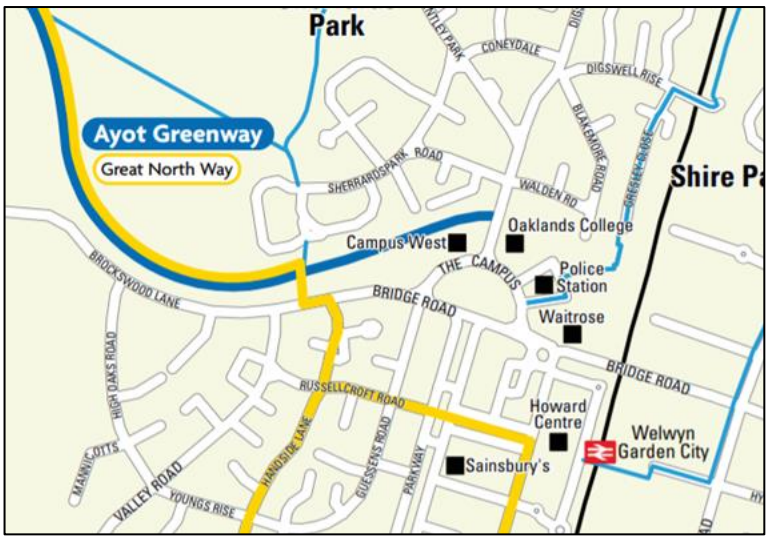
As requested by HCC at pre-app, a review of the pedestrian routes has been undertaken and details are included in Appendix A.

2.5 Cycling Access

There are 18 cycle parking spaces (9 Sheffield Stands) located by the library which forms part of the Campus West complex. The nearest cycle route is National Cycle Network (NCN) Route 12, which runs along the Greenway off Bridge Road to the west of the car park.

To the north of the site, there are two access points to the Ayot Greenway. The access at the north-western corner is stepped and the access to the rear of the existing Campus West complex is step-free. **Figure 4** shows the local cycle routes.

Figure 4 – Ayot Greenway and local cycle routes



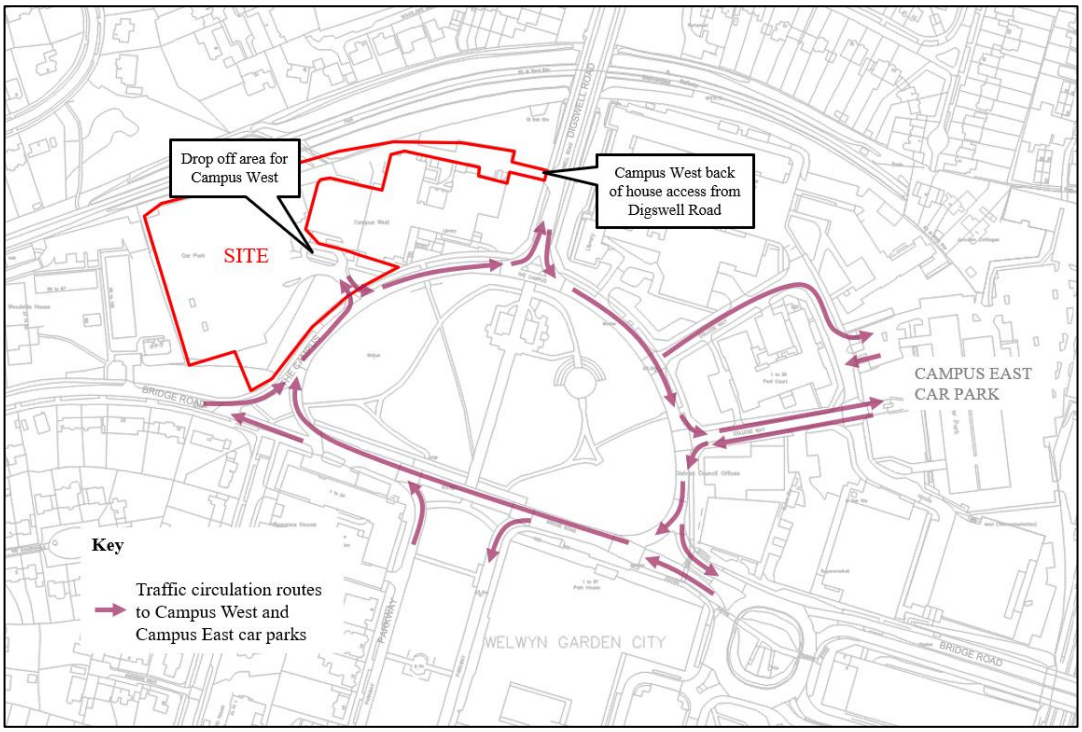
Source: HCC Cycle Map for Recreation and Commuting (2017)

The emerging South Central Growth and Transport Plan (January 2020) also includes cycle improvements in the form of Welwyn Garden City Active Travel Improvements (PK13) and Bridge Road Transformation (PK14). PK13 includes improvement of the town cycleway network, such as completing missing links, improved infrastructure, signage and wayfinding. PK14 includes facilitating the development of cycleways along Bridge Road.

2.6 Highway Network

Vehicular access to the existing car park is from The Campus at a left in / left out priority junction. The Campus operates one-way clockwise and there are two traffic lanes by the Campus West access. This is illustrated in **Figure 5** below.

Figure 5 - Traffic Circulation Routes



A drop-off area is provided outside the Campus West building, just outside of the Campus West car park entrance. There is also a vehicle access off Digswell Road which provides access to a small number of the back of house / operational parking for Campus West and the library.

As part of the overall Town Centre North work, junction traffic turning counts were undertaken for the peak periods on Thursday 4th and Saturday 6th April 2019. Automatic Traffic Counters (ATC) were installed week commencing 29th April 2019. The extent of the highway surveys is included in Appendix B.

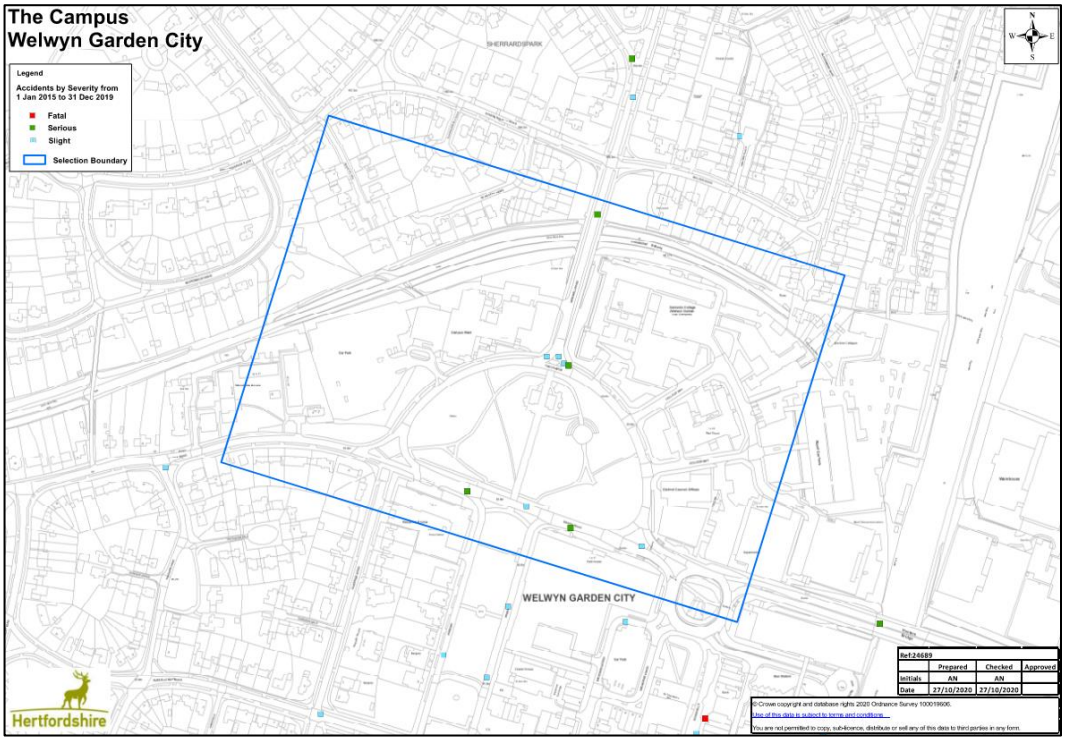
Given the current travel restrictions due to Covid-19, the left in / left out traffic flows at the Campus West car park access junction has been derived using the adjacent junction counts and the car park survey counts summarised in the next section. The existing peak hour traffic flow diagrams are included in Appendix B.

2.6.1 Personal Injury Accident Data

As requested as part of the HCC pre-application, personal injury accident data (PIAs) has been requested and reviewed for the local highway network to determine whether there are any existing highway safety issues. The extent covers the whole of The Campus and the approaches. Data was requested from HCC for a five year period (January 2015 to December 2019).

There was a total of 11 reported PIAs on the local highway network, of which seven resulted in ‘slight’ injuries and four resulted in ‘serious’ injuries. The locations of the PIAs are shown in **Figure 6**.

Figure 6 – PIA locations (5 years)



Of the total 11 PIAs, four were located at The Campus / Digswell Road priority junction, four occurred along Bridge Road, one on Digswell Road to the north, one on Parkway and one on Wigmores North.

All the PIAs were due to human errors, included sudden braking, failure to look properly, misjudged person's path or speed, aggressive driving, disobeyed road sign and pedestrians impaired by alcohol.

Given that there were not significant clusters of PIAs with similar causal factors, the data does not indicate a particular road safety issue that needs to be addressed.

2.7 Car Parking

WHBC operates Campus West, Campus East, Hunters Bridge and Cherry Tree car parks. Car park accumulation data from Campus West and Campus East are provided below. Following HCC pre-application comments, information from Hunters Bridge and Cherry Tree are also presented to provide a broader view of the car park usage in the town centre, but it should be noted that these are outside the scope of this application.

In terms of permit holders, as requested by HCC, WHBC data from 2019 has been reviewed. This showed that there are around 1,000 permits issued for the WHBC car parks (Campus East, Campus West, Hunters Bridge and Cherry Tree) which also operate on a pay and display basis. There is a total of approximately 1,600 spaces in WHBC car parks. Approximately 50% of the permits are allocated to council staff, and the remainder of the permits are allocated to commercial users, with a small proportion (5%) to commuters and students. The commercial permits support the operation of the town centre and the permit holders include NHS,

Network Rail, Police, Herts Building Services, local estate agents and some retail units. The permits are subject to renewal.

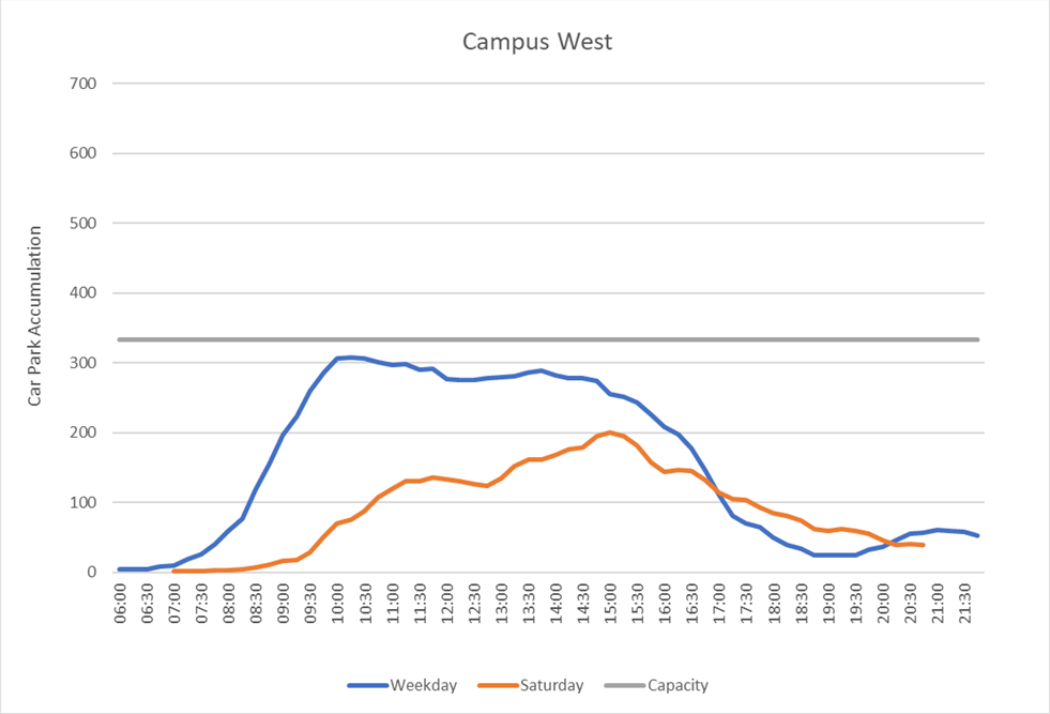
2.7.1 Campus West Car Park

Car park accumulation surveys were also undertaken in the town centre in April 2019. The survey counted total entry and exit movements at the access off The Campus. This would include any drop off movements outside Campus West. The Campus West car parking accumulation is shown in the following table and illustrated in **Figure 7**.

Table 2 - Campus West Car Park Accumulation

Campus West Car Park (334 spaces)								
Times	**Thursday 4th April**				**Saturday 6th April**			
	Entry	**Exit**	**CP accum.**	**% occupied**	**Entry**	**Exit**	**CP accum.**	**% occupied**
			3	at Start			2	at Start
06:00	6	0	9	3%	-	-	-	-
07:00	33	1	41	12%	1	0	3	1%
08:00	120	5	156	47%	10	2	11	3%
09:00	140	10	286	86%	50	9	52	16%
10:00	82	67	301	90%	82	26	108	32%
11:00	65	74	292	87%	70	42	136	41%
12:00	55	69	278	83%	90	102	124	37%
13:00	74	63	289	87%	100	62	162	49%
14:00	54	69	274	82%	110	77	195	58%
15:00	46	94	226	68%	84	121	158	47%
16:00	17	97	146	44%	56	82	132	40%
17:00	31	112	65	19%	64	103	93	28%
18:00	11	52	24	7%	7	38	62	19%
19:00	18	10	32	10%	19	25	56	17%
20:00	44	19	57	17%	21	38	39	12%
21:00	10	14	53	16%	-	-	-	-
Total	**806**	**756**	-	-	**764**	**727**	-	-

Figure 7 - Campus West Car Park Usage (April 2019)



The above shows that the existing car park operates close to capacity on a weekday, with a maximum occupancy of 90%. It should be noted that there is a small increase in occupancy in the evening, reflecting the nature of the leisure uses at Campus West. On a Saturday, the usage is lower, and the highest occupancy was 58%.

From the surveys, the average dwell times were derived to be 3.1 hours on a weekday and 1.7 hours on a Saturday.

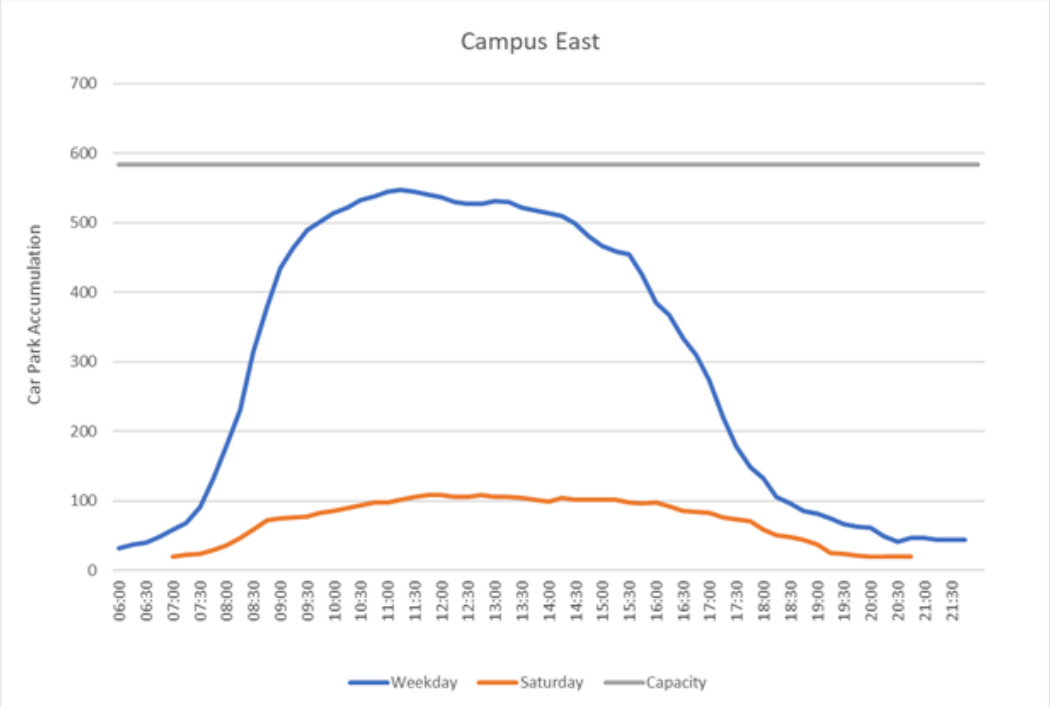
2.7.2 Campus East Car Park

Campus East car park has a total of 584 spaces, including the upper and lower decks and 110 long leased spaces. The proposed decked car park is expected to replace the existing long stay car parking in Campus East. Therefore, car park accumulation and usage data for Campus East is also provided below in **Table 3** and **Figure 8**.

Table 3 - Campus East Car Park Accumulation

Campus East Car Park (584 spaces)								
Times	Thursday 4th April				Saturday 6th April			
	Entry	Exit	CP accum.	% occupied	Entry	Exit	CP accum.	% occupied
			28	at Start			19	at Start
06:00	20	1	47	8%	-	-	-	-
07:00	85	1	131	22%	12	2	29	5%
08:00	258	10	379	65%	43	0	72	12%
09:00	136	13	502	86%	12	2	82	14%
10:00	50	14	538	92%	20	5	97	17%
11:00	45	42	541	93%	22	11	108	18%
12:00	33	47	527	90%	10	10	108	18%
13:00	31	41	517	89%	11	17	102	17%
14:00	19	56	480	82%	13	14	101	17%
15:00	13	68	425	73%	7	12	96	16%
16:00	13	129	309	53%	3	15	84	14%
17:00	5	165	149	26%	7	20	71	12%
18:00	2	66	85	15%	3	31	43	7%
19:00	4	26	63	11%	3	25	21	4%
20:00	6	23	46	8%	1	2	20	3%
21:00	4	7	43	7%	-	-	-	-
Total	724	709	-	-	167	166	-	-

Figure 8 - Campus East Car Park Usage (April 2019)



The above shows that Campus East operates as a long stay car park during the week, with a maximum occupancy of 93% during the week, and 18% on a Saturday.

From the surveys, the average dwell times were derived to be 6.6 hours on a weekday and 6.1 hours on a Saturday. This supports that the car park is used for long stay car parking.

2.7.3 Other WHBC Car Parks

There are other WHBC car parks in the town centre which are also within the wider WGC 2120 proposals. A summary of usage is provided for Hunter's Bridge and Cherry Tree car parks which were surveyed on the same dates in April 2019:

- **Hunters Bridge Car Park** – This car park has 651 spaces. It reached a maximum occupancy of 82% on the weekday and 70% on a Saturday. The average dwell times were derived to be 4.2 hours on a weekday and 2.1 hours on a Saturday.
- **Cherry Tree Car Park** – This car park has 44 standard bays, four disabled bays and three taxi bays (51 bays in total). Two of the bays are electric charging bays and e-Car Club operates in this car park. The car park is primarily used by councillors. Car park accumulation survey showed that up to 51% of the bays were occupied on a weekday and 25% on a Saturday. The average dwell times were derived to be 4.2 hours and 2.1 hours on a Saturday.

2.7.4 On-Street Parking

There are restrictions on the immediately surrounding highway network which do not allow on-street parking to take place. The Campus, Bridge Road and Digswell Road have double yellow lines. The single yellow lines on Bridge Road, to the west, is no waiting Monday to Saturday, 8am to 5pm.

Other residential roads such as Sherrardspark Road, Walden Road and Guessens Road are controlled by double or single yellow lines (no waiting Monday to Saturday, 8am to 5pm). Gresley Close, which can be access via a footpath to the north of Campus East car park, is for residential permit holder only (zone AV) Monday to Friday, from 8am to 6pm.

There are on-street parking bays on Parkway, which allows a maximum stay of one hour Monday to Saturday, 8am to 6pm, and no return within one hour.

2.7.5 Weekday and Weekend Data

HCC agreed during the pre-application process that the Saturday peak does not require assessment as the weekday traffic and car parking demand is higher. However, it was requested that Sundays should be investigated.

Sunday car parking data is not available, but both Campus East and West operates as a long stay car park for staff during the week which has much higher demand than the Saturday. Sunday is also therefore expected to have much lower demand than a weekday.

ATCs were laid on Bridge Road to the west and east of Osbourn Way (as shown in **Error! Reference source not found.**) from 30th April to 6th May 2019. Bridge Road to the west of Osbourn Way is westbound only and the weekday, Saturday

and Sunday traffic flow profiles are provided in **Figure 9**. Bridge Road east of Osbourn Way is two-way and the traffic profiles are provided in **Figure 10**.

Figure 9 – Bridge Road, west of Osbourn Way, ATC Data (April 2019)

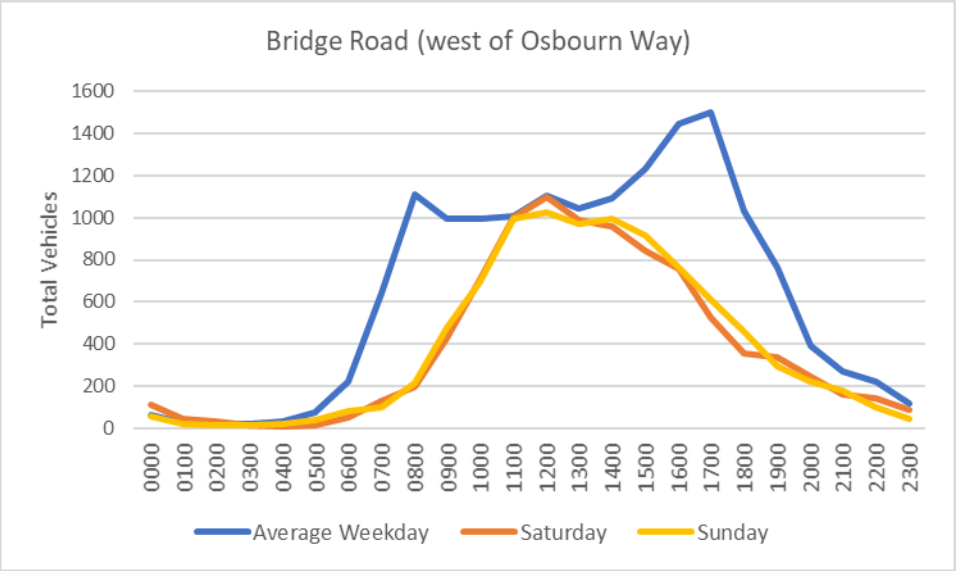
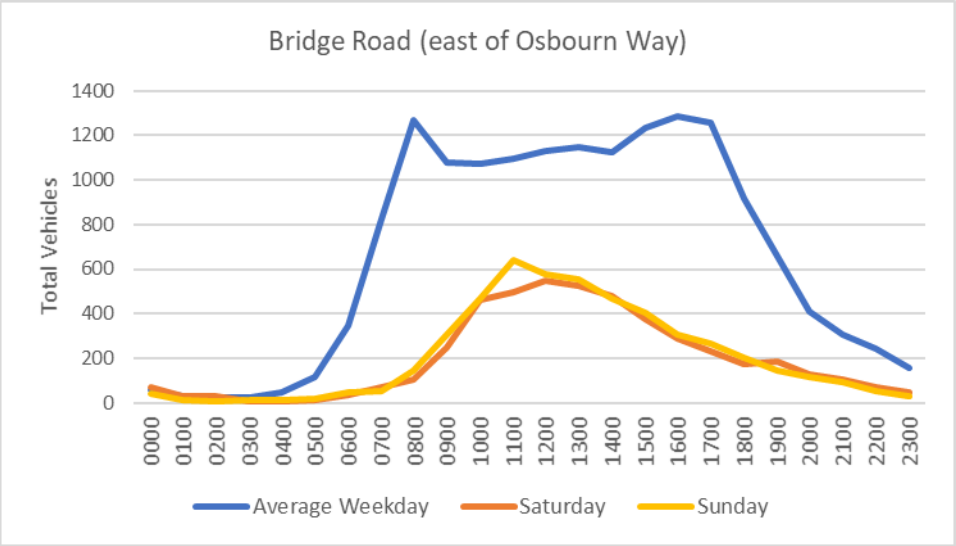


Figure 10 – Bridge Road, east of Osborn Way, ATC Data (April 2019)



The ATC on Bridge Road to the west of Osbourn Way (**Figure 9**) appears to show tidal traffic movements with higher traffic flows in the PM peak because of the one-way operation of The Campus.

Both the ATC data shows that Saturday and Sunday have very similar traffic volumes and profiles, and the peak is lower than both than weekday AM and PM peak hours. On this basis, together with the lower usage of long stay car parking expected on weekdays, the inclusion of a Sunday assessment is not expected to alter the findings of this Transport Statement.

2.7.6 Car Park Signage

There is existing signage to the car parks along The Campus, and at the Bridge Road / Osbourne Way / Wigmores North roundabout. Both Campus East and West are currently signed for shoppers and long stay.

3 Planning Policy Context

This section outlines the relevant national, regional and local transport policies and planning guidance documents upon which the proposed development has been considered. These include the documents identified by HCC as part of the pre-application response.

3.1 National Policy

3.1.1 National Planning Policy Framework (NPPF)

The National Planning Policy Framework (NPPF) was adopted in February 2019. The NPPF sets out the Government planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced.

The NPPF sets out a presumption in favour of sustainable development which should be delivered with three main dimensions: economic; social and environmental (Paragraph 8 and 11).

In considering development proposals, paragraph 108 of the NPPF states that in assessing sites for specific applications for development, it should be ensured that:

a) *"appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;*

b) *safe and suitable access to the site can be achieved for all users; and*

c) *any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree"*

Paragraph 109 states that:

"Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe."

Paragraph 110 states that applications for development should:

a) *"give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;*

b) *address the needs of people with disabilities and reduced mobility in relation to all modes of transport;*

c) *create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;*

d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and

e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations."

3.2 Regional Policy

3.2.1 Hertfordshire County Council (HCC) Local Transport Plan 4 (2018)

The Local Transport Plan 4 (LTP4) sets out how transport can help deliver a positive future vision of Hertfordshire. This plan accelerates the transition from a previous transport strategy that was largely car based to a more balanced approach which caters for all forms of transport and seeks to encourage a switch from the private car to sustainable transport (e.g. walking, cycling and passenger transport) wherever possible.

LTP4 is considered by HCC to be a break from the plans that have preceded it, seeking to set the county on a different path in the development of its transport system. It is a transition in how the county can plan for a future transport system in two aspects:

- A move away from a focus on car-based investment and capacity enhancement.
- A growing appreciation that transport is on the verge of great change.

Whilst highways intervention will still be required, a blended strategic approach combining improvements in walking, cycling, passenger transport and highways provision is seen as optimum, accompanied by efforts to achieve travel behaviour change. Although this approach was common to previous LTPs it has not achieved modal shift. The new plan seeks to go further in striking a more appropriate balance between highway provision and support for more sustainable modes of travel.

Changing travel behaviour in the county is a core theme of this LTP, and it is acknowledged previous strategies have not been sufficient in this respect. Instead, comprehensive packages are required which manage demand and encourage people to change their travel behaviour. Major schemes and physical improvements alone are not sufficient.

Policy 1: Transport User Hierarchy - To support the creation of built environments that encourage greater and safer use of sustainable transport modes, the county council will in the design of any scheme and development of any transport strategy consider in the following order:

- Opportunities to reduce travel demand and the need to travel
- Vulnerable road user needs (such as pedestrians and cyclists)
- Passenger transport user needs

- Powered two-wheeler (mopeds and motorbikes) user needs
- Other motor vehicle user needs

Policy 4: Demand Management - The county council considers greater traffic demand management to be essential in the county's urban areas in the next five years to achieve modal shift and improve sustainable travel provision. This can only currently be achieved efficiently and effectively through parking restrictions and charging applied to on-street, off-street and potentially at workplace parking. The county council will work with the district and borough councils and other key stakeholders to develop locally appropriate strategies.

3.2.2 Emerging South Central Growth and Transport Plan (2020)

The South Central Growth & Transport Plan (SCGTP) is a new transport strategy to help direct and plan transport improvements and investment in Welwyn Hatfield, Hertsmere and St Albans, developed in line with forecast development to 2031.

Within the context of the site, the following packages have been identified:

- **PK13 Welwyn Garden City Active Travel Improvements**: The overarching aim of this package is to transform Welwyn Garden City into a town that facilitates safe, attractive, and convenient journeys by active and sustainable transport modes. The package consists of improving conditions for pedestrians and cyclists, improve the town cycleway network and development of a town bus network.
- **PK14 Bridge Road Transformation – Welwyn Garden City Town Centre**: The overarching aim of this package is to transform Bridge Road into a sustainable spine that enhances connections on foot, by bike and by bus between the Welwyn Garden City town centre and the employment zone east of the rail line, and reduce the dominance of motorised traffic. The package includes the reduction of vehicular traffic to one lane in each direction, facilitating the development of cycleways and widened footways, and improved bus stops along Bridge Road.

3.3 Local Policies

3.3.1 Welwyn Hatfield District Plan (2005)

The Welwyn Hatfield District Plan is the current adopted Local Plan. The emerging New Local Plan will gradually replace the District Plan saved polices. The overall aim is for a more sustainable pattern of movement. Policy TCR4 is on the Town Centre North Development Site and the key transport objectives that the development needs to achieve good pedestrian access and linkage on surrounding roads, ensure efficient vehicle movement on surrounding roads, provide adequate car parking to meet the needs of the development and seek to improve passenger transport provision in the town centre.

3.3.2 WHBC Draft Local Plan Proposed Submission (2016)

The Welwyn Hatfield Local Plan will be the blueprint for future growth in the borough. The council submitted the Local Plan for examination in May 2017. In April 2019, the council wrote to the Inspector with a revised Local Plan timetable and the examination hearing sessions took place in December 2019.

The Local Plan seeks to achieve sustainable pattern of development within the borough that minimises the need to travel by directing growth to those areas with good transport networks and which are well served by jobs, services and facilities. It also seeks to address climate change through, among other things, putting in place improved opportunities for travelling by public transport, walking and cycling.

Policy SP4 on Transport and Travel states that the Council will seek to support both planned growth and existing development with appropriate transport infrastructure, with the emphasis on promoting the use of sustainable modes of travel and on improving safety for all highway users.

Policy SADM 2 on Highway Network and Safety states that development proposals will be permitted provided:

- There would be no unacceptable impacts on the local and /or strategic transport network;
- There would be no negative impacts on highway safety;
- They are designed to allow safe and suitable means of access and site operation; and
- They provide satisfactory and suitable levels of parking.

Policy SADM 3 on Sustainable Travel for All sets out the requirement for a Travel Plan and the requirements for development proposals to provide for cyclists, pedestrians, public transport, servicing and emergency vehicles and electric charging points. Public Rights of Way should also be safeguarded.

Policy SADM 19 is on Town Centre North and in terms of transport and movement, it states that the council will require any development to be designed to:

- Achieve good pedestrian access and linkage with the rest of the town centre.
- Ensure efficient vehicle movement on surrounding roads.
- Provide adequate car parking to meet the needs of the development.
- Improve passenger transport provision in the town centre.

3.3.3 Welwyn Garden City Urban Transport Plan (2008)

The Urban Transport Plan sets out the proposed transport improvements for Welwyn Garden City. HCC has advised that whilst the document is dated, it

remains valid until a Growth and Transport Plan (GTP) for the area is adopted. Consultation on the GTP is expected in 2020 and Welwyn Garden City will be part of the South Central Hertfordshire GTP.

3.3.4 WHBC Interim Policy for Car Parking Standards and Garage Sizes (2014)

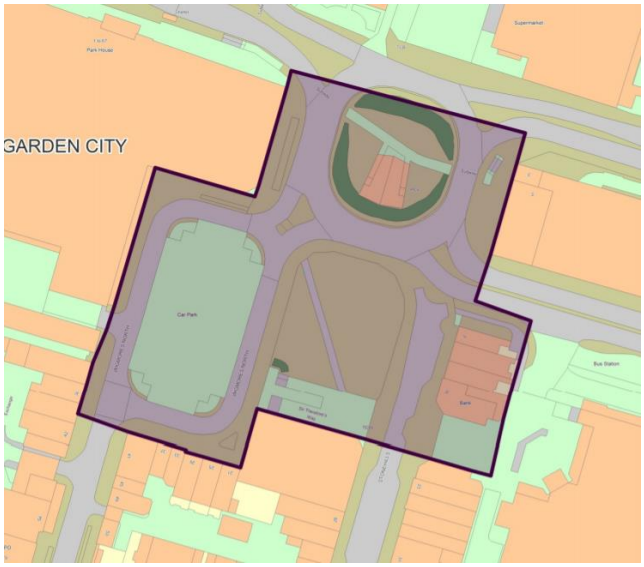
This 2014 policy document states that the Council will treat all car parking standards set out in the Welwyn Hatfield Parking Standards Supplementary Planning Guidance (2004) as guidelines, rather than maximums. Planning applications will be determined on a case-by-case basis to achieve a sensible level of provision taking account of existing SPG standards, NPPF guidance, the relevant circumstances of the proposal, its site context and its wider surroundings.

3.3.5 Welwyn Garden City Town Centre North Supplementary Planning Guidance (2015)

The Welwyn Garden City Town Centre North Supplementary Planning Document (SPD) aims to provide detailed information to guide developers on the type of development, design and layout constraints and other requirements for the Welwyn Garden City Town Centre North development site.

The boundary of the Town Centre North development site is shown in **Figure 11** and it is outside the scope of the current application at Campus West.

Figure 11 – Town Centre North SPD extent



3.4 Guidance

The following guidance documents were also referenced in the HCC pre-application response and have been reviewed:

- National Planning Practice Guidance
- Roads in Hertfordshire Highway Design Guide 3rd Edition

- Department for Transport, Local Transport Note (LTN) 1/20 ‘Cycle infrastructure design’ (2020)
- Department for Transport, “Gear change: a bold vision for cycling and walking” (2020)

4 Development Proposals

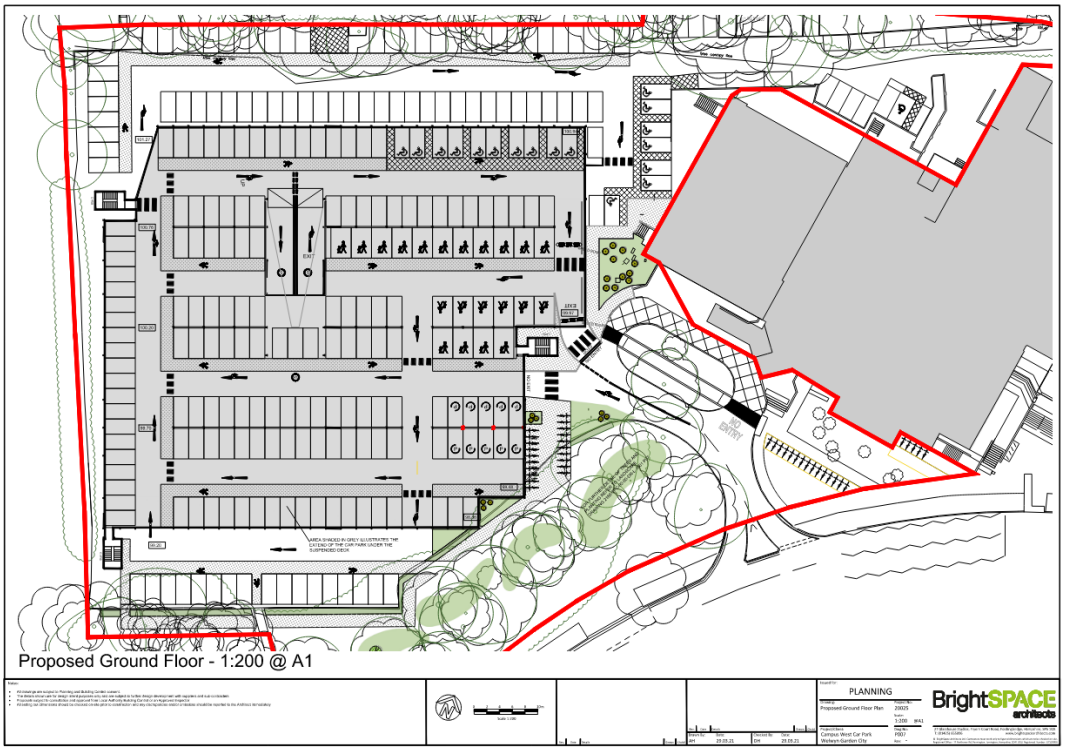
4.1 Introduction

This section describes the proposed development and the arrangements for vehicular, pedestrian and cyclist access.

4.2 Proposed Development

The proposed development will provide a decked level to the existing car park and increase the provision by 156 spaces. A total of 490 spaces will be provided, including 30 disabled bays and 21 parent and child bays. An extract of the proposed ground floor plan is shown in **Figure 12** below and a scaled drawing is included in Appendix C.

Figure 12 - Proposed Ground Floor Layout



Bourne Parking Ltd are the designers of the car park and the layout follows the principles of 6.0m aisle width, with standard bay dimensions of 2.4m by 4.8m. As requested by HCC, pedestrian routes are marked throughout the car park with a width of 2.0m.

There are 10 electric charging parking spaces proposed. This is the maximum number of charging points that can be provided without the requirement of a new substation. This equates to 1.4% of total car parking and it is proposed that additional passive provision for future charging points will be provided so that 10% electric charging could be delivered in the future. This level of active provision cannot be provided from the onset because of the limited capacity of the existing UKPN sub-station. However, WHBC has applied for a grant under the

UKPN Green Recovery Fund to allow the existing sub-station to be upgraded to provide the supply for additional electric vehicle charging points.

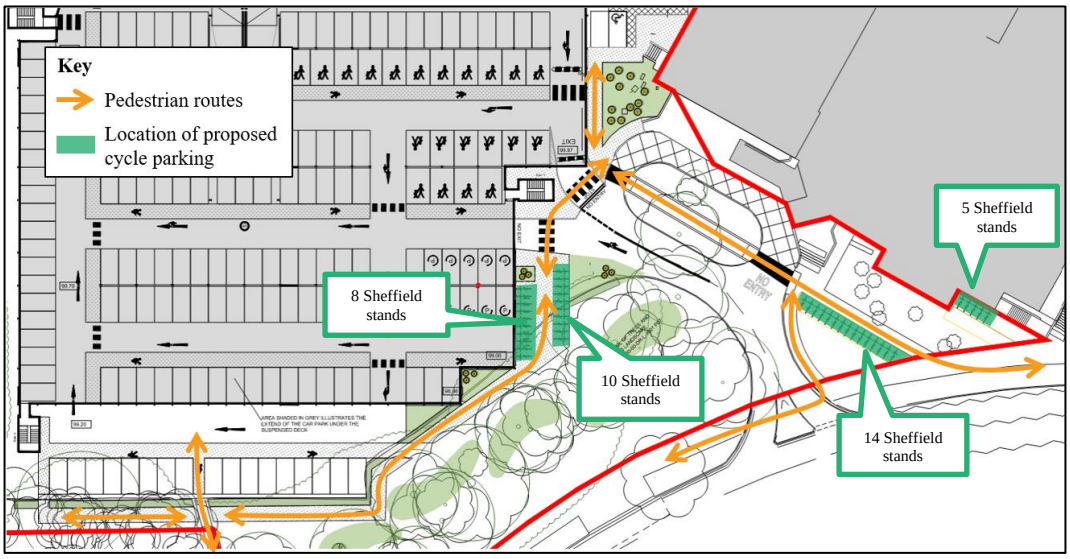
The vehicular access to the car park will remain as existing with a barrierless access control arrangement proposed. The car park would operate on a permit / pay and display system. The existing drop-off area outside Campus West will be retained. The design allows for a fire tender to manoeuvre around the car park and turning areas are provided where required and the technical drawings are submitted separated with this planning application.

4.3 Pedestrian Access

Pedestrian access and connections will remain unchanged. As the additional car parking is expected to replace the long stay staff and commercial car parking at Campus East, the key pedestrian route is expected to be the WHBC offices to the east of The Campus. The shortest route is along the northern side of the site access and the northern side of The Campus, as shown in **Figure 3**.

The development will include pedestrian improvements within the red line boundary, consisting of improved landscaping by The Campus, improved footpath surfacing along the southern boundary to connect to the existing footway to Bridge Road, and pedestrian crossings will be provided at the access to the car park to improve pedestrian amenity and permeability. As requested by HCC, the pedestrian visibility splays at the crossings have been checked and a drawing is provided in Appendix C. The pedestrian routes are shown in **Figure 13**.

Figure 13 - Proposed Pedestrian Improvements and Cycle Parking Locations



4.3.1 Off-Site Pedestrian Improvements

Following the review of the pedestrian routes as contained in Appendix A and as requested by HCC, off-site pedestrian improvements have been identified. The proposed improvements are at the following junctions and concept designs are contained in Appendix D:

- **Campus West site access / The Campus priority junction** (drawing SK-T-07-A) – The improvements include installation of tactile paving, associated dropped kerbs and improve alignment of the pedestrian crossing point. This design has been tracked with a large car, 7.5T box van and fire tender. The central pedestrian island extends slightly north outside of the public highway boundary, but the land falls within the ownership of WHBC. It should be noted that vehicles servicing the Campus West complex uses the road to the rear of the building from Digswell Road, and therefore the design modifications allow for the largest vehicle expected to use this access point.
- **Digswell Road / The Campus priority junction** (drawing SK-T-03-B) – Installation of tactile paving, associated dropped kerbs and improve alignment of crossing points. It is noted that this junction was identified for improvement in the HCC pre-application comments.
- **Bridge Road / The Campus priority junction** (drawing SK-T-01-B) – The proposal is to update the existing dropped kerb crossing to Toucan crossings. They will be accompanied by tactile paving, dropped kerbs and 3m footway on the island.

HCC has confirmed that the proposed improvements are sufficient and acceptable from a highways perspective.

4.4 Cycle Parking and Access

The original June / June 2020 pre-application scheme presented to HCC proposed 22 Sheffield stands (44 spaces) within the proposed car park to help promote active travel and cycling in Welwyn Garden City.

As requested during the pre-application discussion, the quantum and location of the cycle parking have been reviewed. The cycle parking spaces are proposed to be short stay for the Campus West complex, to help promote and encourage sustainable travel patterns. **Table 4** shows an estimate of the number of short stay spaces required for the Campus West complex based on the best information available on the existing land uses and floor areas, and the WHBC cycle parking standards.

Table 4 – Short stay cycle parking for the Campus West complex

Use Class	Description of Development	WHBC short stay cycle parking standards	Estimated Floor Area	Short Stay Spaces
Cinema D2 Assembly & leisure	Cinemas	Cinemas up to 500 seats: 1 space per 20 seats	Estimated 476 Seats	24
Roller City D2 Assembly & leisure	Ice rinks (applied for Roller City)	1 space per 25m^2	941	38
Dance Studio D2 Assembly & leisure	No applicable standard. Standards for fitness centres, tennis courts used.	1 space per 25m^2	102	4
Softplay D2 Assembly & leisure	No applicable standard. D1 Day Centres used	1 space per 200m^2	441	2
Tower B1 Office	B1 (a) offices	1 space per 500m^2	1297	3
Library D1 Non - residential institutions	Libraries, miscellaneous cultural buildings	1 space per 100m^2	2040	20
Total	-	-	-	**91**

The above table shows that a total of around 91 short stay cycle parking spaces would meet WHBC standards. The proposed cycle parking arrangement at Campus West is as follows:

- There are 9 existing Sheffield stands (18 spaces) located by the library.
- An additional 37 Sheffield stands (74 spaces) are proposed as part of the scheme, as indicated in **Figure 13**:
    - 18 Sheffield stands (36 spaces) located by the entrance to the car park.
    - 19 Sheffield stands (38 spaces) located to the northeast of the site access.

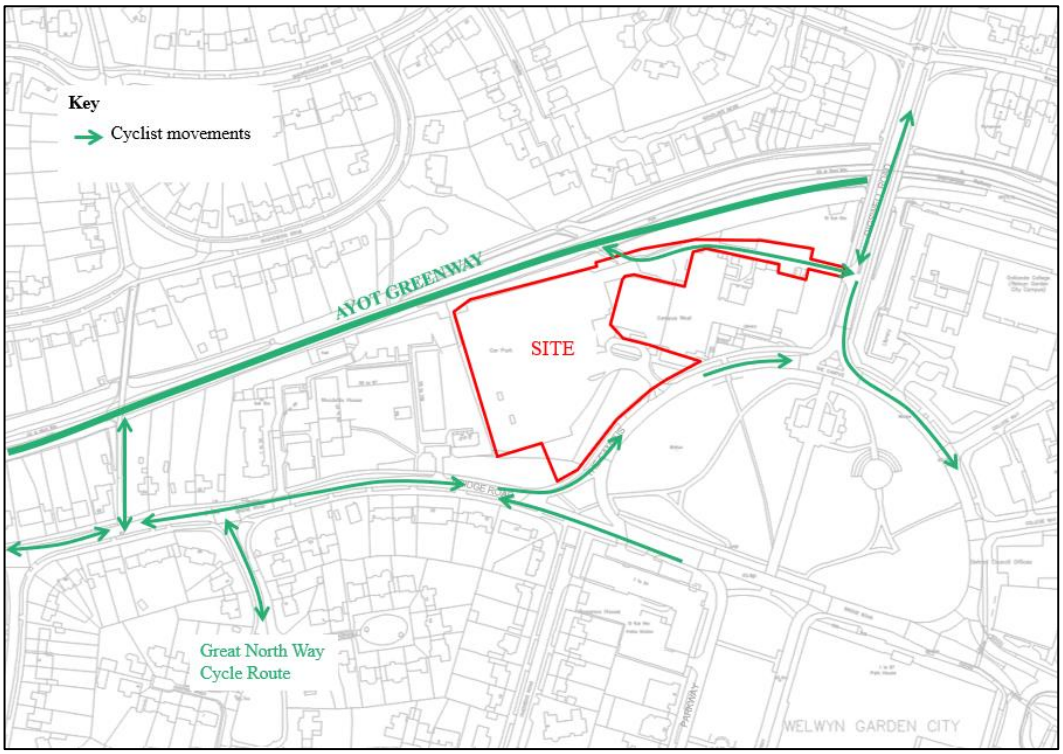
The above will provide a total of 92 short stay spaces for the Campus West complex, which meets the number required if WHBC cycle parking standards were applied to the various land uses at Campus West. Of these spaces, the end Sheffield stands (4 spaces) will be suitable for non-standard accessible bikes, which is equivalent to 5% of the proposed cycle parking spaces.

The location of cycle parking is in keeping with LTN 1/20 ‘Cycle infrastructure design’, which states that cycle parking located close to frontages will generally provide good passive surveillance. Small clusters of stands close to main attractors are preferable to one central ‘hub’, although a central facility on the ground floor of a car park or near the main pedestrian entrance may be the optimum location.

The cycle parking will be in the form of Sheffield stands, which LTN 1/20 states is the preferred form of cycle parking and the advantages are security, relative cost-effectiveness, and stability for locked bikes. Two-point locking enables both wheels and the frame to be secured to the stand, increasing the amount of time required to steal a bike and thus decreasing the chances of a quick, opportunistic theft. Two-point locking also reduces the risk of single components being stolen, e.g. a wheel, as both wheels, and the frame, can be secured more easily

In terms of cycle access, the cycle parking is conveniently located and visible from The Campus. HCC queried as part of the pre-application discussions whether it would be possible for a cyclist to access and cycle across the car park on a defined north-south route. The cycle routes in the local area have been examined, as shown in **Figure 14**.

Figure 14 – Proposed Cycle Movements



The above shows that a north-south cycle route through Campus West is not expected to be a desirable through route for cyclists as more direct alternative routes are available.

5 Trip Attraction and Distribution

5.1 Introduction

The purpose of the proposed additional car parking is to replace the parking spaces which will be lost at Campus East for WHBC staff and commercial users. As such, there will be no increase in vehicle movements on the highway network, and a reduction in overall vehicle movements is expected as a result of lower car parking provision and the proposed reduction in WHBC staff travel. Nevertheless, this section provides an analysis of localised redistribution of traffic around The Campus associated with the application.

The trip attraction and distribution analysis have considered the morning and evening peak hours which are between 08:00-09:00 and 17:00-18:00, respectively.

5.2 Trip Attraction

The total number of car parking spaces at Campus West and Campus East will reduce from 918 to 600. In the future, Campus West will account for 82% and Campus East 18% of the spaces.

The weekday peak hours are expected to attract more trips than the Saturday peak hour. The existing Saturday traffic flows on the highway network are also lower than the weekday peak hours, as shown in Appendix A. Therefore, trip attraction is only considered for weekday AM and PM peak hours in this Transport Statement.

Based on the surveyed Campus West and Campus East car parking demand in **Table 2** and **Table 3**, the combined weekday demand is shown in **Table 5**, together with percentage occupancy based on 600 spaces. For a robust case, no reduction has been applied to the car parking demand to reflect WHBC's proposals for flexible working.

Table 5 – Combined Campus West and Campus East Car Park Accumulation

Times	Thursday 4th April			
	Entry	Exit	CP accum.	% occupied
			31	at Start
06:00	26	1	56	9%
07:00	118	2	172	29%
08:00	**378**	**15**	**535**	89%
09:00	276	23	788	131%
10:00	132	81	839	140%
11:00	110	116	833	139%
12:00	88	116	805	134%
13:00	105	104	806	134%
14:00	73	125	754	126%
15:00	59	162	651	109%
16:00	30	226	455	76%
17:00	**36**	**277**	**214**	36%
18:00	13	118	109	18%
19:00	22	36	95	16%
20:00	50	42	103	17%
21:00	14	21	96	16%
Total	1530	1465	-	-

The AM and PM peak hour vehicle trips have been distributed to the Campus West and Campus East car parks based on the proportional supply of car parking spaces, i.e. 82% at Campus West and 18% at Campus East. The proposed vehicle trip redistribution in set out in **Table 6**.

Table 6 – Vehicle Trip Redistribution

	AM Peak (0800-0900)			PM Peak (1700-1800)		
	In	Out	Total	In	Out	Total
Existing						
Campus West	120	5	125	31	112	143
Campus East	258	10	268	5	165	170
Total	378	15	393	36	277	313
Proposed						
Campus West (82%)	309	12	321	31*	226	256
Campus East (18%)	69	3	72	5*	51	57
Total	378	15	393	36	277	313
Net redistribution (vehicles from Campus East to Campus West)	**189**	**7**	**196**	**0**	**114**	**114**

**Proposed inbound PM trips the same as existing to avoid reduction in vehicle trips to car parks.*

Table 6 above shows that the proposed development is expected to redistribute existing trips and increase vehicular movements at the site access junction by 196 and 114 in the AM and PM peak hours, respectively.

In the AM and PM peak hours, the parking demand can be fully accommodated in the Campus West and Campus East car parks. Any parking displacement to Hunters Bridge and other town centre car parks are likely to be in the off-peak and Campus West and Campus East are expected to be occupied first for long stay users. The car park arrival and departure trips are lower in the off-peak and the

ATC survey data in **Figure 9** and **Figure 10** also show that the network traffic flows are also lower the off-peak. Therefore the redistribution of traffic will have a greater impact in the AM and PM peak hours and off-peak periods have not been assessed. The impact of the proposed redistribution in vehicular movements is provided in the next chapter.

5.3 Trip Redistribution

The trip redistribution of the proposed development has been calculated using junction turning counts and car park survey counts to redistribute existing traffic movements around the Campus from Campus East Car Park to Campus West Car Park. It should be noted that as the proposal is intended to replace Campus East car park, typical traffic (with the exception of those arriving from the north) will pass Campus West before reach Campus East.

As noted earlier, as The Campus operates one-way clockwise, most existing traffic will pass Campus West before reaching Campus East. Vehicular routes to the site will also be different for those entering and exiting the site. The proposed redistribution of traffic is shown in Appendix E and the baseline plus development traffic flows are shown in Appendix F**.**

In the AM Peak, the highest change in redistributed traffic is around The Campus where the site is accessed. This is because existing traffic accessing Campus East Car Park from Digswell Road must now redirect clockwise in order to access the proposed development. The effect of these trips is assessed in the next chapter.

In the PM Peak, the highest change in redistributed traffic in trips is around The Campus between the proposed development site access and College Way. This is because the proposed development trips must route clockwise around The Campus in order to travel access Bridge Road. The effect of these trips is assessed in the next chapter.

6 Assessment

6.1 Introduction

This section assesses the net impact of the proposed development on the highway network based on the net changes in trip attraction and forecast redistribution described in Section 5.

6.2 Highway Network Capacity

In the AM peak, the proposed development is forecast to locally redistribute traffic to the Campus West site access by 189 arrival and 7 departure trips. A total of 321 vehicles is expected to arrive, which is an average of 5 to 6 vehicles per minute. This is compared to 2 vehicles per minute currently.

The redistributed AM arrival trips into the site is not expected to be detrimental to the operation of the local highway network as a result of these proposals for the following reasons:

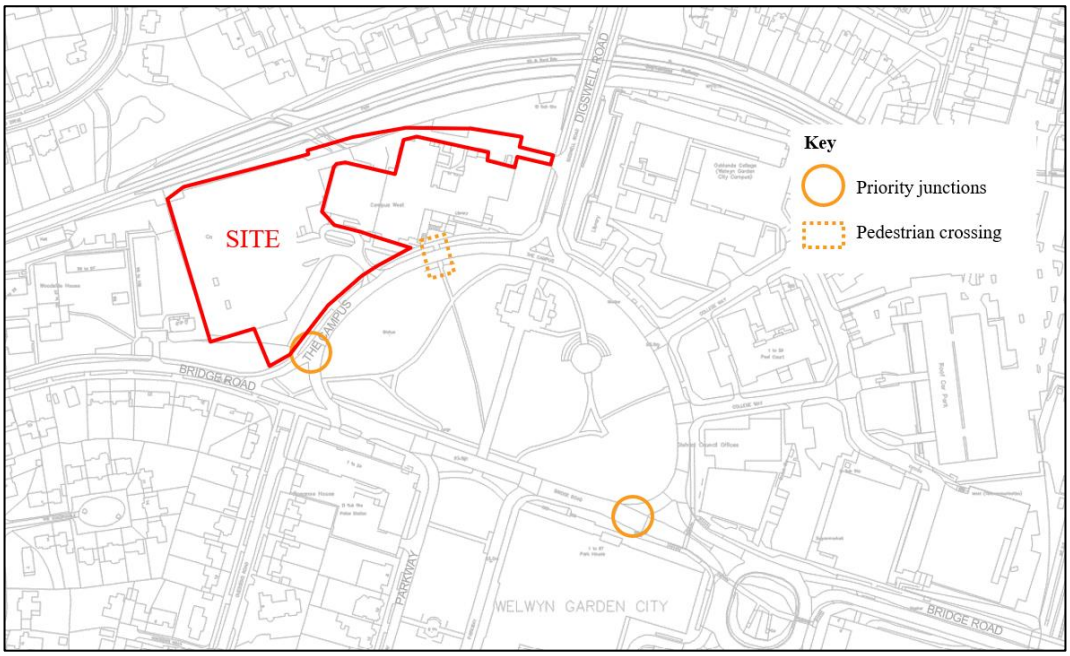
- The site access left in / left out priority junction arrangement provides priority to through-traffic on The Campus.
- The internal one-way car park configuration and barrierless car parking system means that parking controls will not lead to delays in entering the car park – which otherwise may cause queuing at peak times.
- Any minor delays caused by manoeuvring vehicles would not immediately lead to queuing onto the highway given the length of the site access road to the car park (circa 50m).

In the PM peak, the proposed development is expected to locally redistribute 114 departure trips from the Campus West site access. A total of 226 vehicles is expected to exit the priority junction which equates to 4 vehicles a minute on average. There are two lanes along The Campus and the net increase in trips represents around 10% of traffic flows at the site access junction. On this basis, the proposal is not expected to result in a significant highway impact

Given the one-way nature of The Campus, and the redistributed traffic from Campus East to Campus West, it is not expected that there will be wider highway impacts. However, HCC has requested junction modelling work for The Campus / Bridge Road priority junctions and the impact from the increased in usage of the signalised pedestrian crossing outside the car park should also be investigated. The scope of the junction modelling work is shown in **Figure 15**.

It should be noted that any parking displacement is expected to be localised and take place in the off-peak, when traffic flows on the network are lower, as shown in **Figure 9** and **Figure 10**. Therefore no off-peak highway capacity assessment has been undertaken.

Figure 15 – Scope of Junction Modelling



The priority junctions have been modelled in Junctions 9 and the pedestrian crossing has been modelling in LINSIG. A summary of the modelling results is provided below and detailed outputs can be provided on request.

6.2.1 The Campus / Bridge Road priority junction (west)

This is a priority junction where The Campus is the major arm and Bridge Road is the minor arm. The Campus is one-way and therefore the modelling results is for the Bridge Road arm only. The modelling results in terms of Ratio Flow to Capacity (RFC) and queues are shown in **Table 7**.

Table 7 - The Campus / Bridge Road priority junction (west) modelling results

	AM Peak Hour		PM Peak Hour	
	RFC (%)	Queue (Vehs)	RFC (%)	Queue (Vehs)
Existing	0.61	2	0.21	0
Proposed	0.62	2	0.21	0

This junction is currently operating within capacity with maximum RFC of 61% in the AM peak. The proposal will have a very minor increase in RFC of 1% in the AM peak, and no change in the PM peak.

6.2.2 The Campus / Bridge Road priority junction (east)

Similar to the western junction, The Campus is the major arm at this junction and the modelling results is for the Bridge Road arm only. The modelling results are shown in **Table 8**.

Table 8 - The Campus / Bridge Road priority junction (east) modelling results

	AM Peak		PM Peak	
	RFC (%)	Queue (Vehs)	RFC (%)	Queue (Vehs)
Existing	0.45	1	0.49	1
Proposed	0.46	1	0.48	1

This junction is also currently operating within capacity, with a maximum RFC of 49% in the PM peak. The proposal will have a very minor increase in RFC of 1% in the AM peak, and -1% in the PM peak.

6.2.3 The Campus pedestrian crossing

The pedestrian crossing at The Campus is demand dependent, i.e. activated by pedestrian via push button. Based on the signal information provided by HCC, there is a total of 66 opportunities per peak hour for pedestrians to cross.

There are currently low numbers of pedestrians using the crossing during the AM and PM peak hours. From April 2019 surveys for the crossing, during the AM peak there were 10 pedestrians crossing southbound and 8 crossing northbound, which equates to 18 individual calls out of a total of 66 (27% use). In the PM peak, there were 18 pedestrians crossing southbound and 14 crossing northbound, which equates to 32 individual calls out of a total of 66 (48% use).

For the proposal, the majority of users to the new decked car park will be walking to the WHBC offices and not use the crossing as this would not be the shortest route. Therefore, there should not be a significant change in the number of times the crossing is called. As a sensitivity test, the modelling scenario assumes that the pedestrian crossing is called 66 times in an hour, which represents 100% use of the crossing.

The modelling results in terms of Degree of Saturation (DoS) and queues are shown below.

Table 9 – The Campus pedestrian crossing modelling results

	AM Peak		PM Peak	
	DoS (%)	Queue (Vehs)	DoS (%)	Queue (Vehs)
Existing	0.54	3	0.61	6
Sensitivity test with 100% use of crossing	0.83	13	0.80	12

The results show that The Campus would operate within capacity even with 100% use of the pedestrian crossing, with a maximum DoS of 83%. The queuing shown is for the worst lane and the queuing could be up to 13 vehicles. Based on the layout of The Campus, this would not disrupt the highway operation as the queues forecast would clear before they impact Bridge Road western approach.

6.2.4 Modelling summary

The modelling results show that both The Campus junction with Bridge Road currently operate within capacity and will continue to do so with the proposed scheme. The impact is a negligible increase of 1% RFC during the peak hours.

For the pedestrian crossing, a sensitivity test has been undertaken with the crossing called 100% of the time. In practice, a large number of users to the new car park would not use the crossing as it does not present the shortest route to their destination. Even with this robust assumption, The Campus would continue to operate within capacity and the queuing can be accommodated.

6.3 Car Parking Displacement

The proposal will result in a net reduction of 318 spaces, from a total of 918 to 600 spaces in both Campus East and West car parks. The potential for overspill parking and displacement of car parking have been considered:

- Based on the survey data, the maximum occupancy of both Campus East and West car parks is 839 spaces, occurring on a weekday between 10:00 and 11:00. The proposal will not be able to accommodate 239 cars (difference between peak 839 demand and 600 parking provision).
- As set out in Section 2.7.3, there is some spare capacity at Hunters Bridge which can be used. Hunters Bridge car park has 651 spaces and based on survey information from April 2019, it reached a maximum occupancy of 82% on the weekday which equates to around 117 spare spaces. This could accommodate around half of the shortfall in car parking. In practice it could result in a small localised displacement of short stay car parking, but there are alternative shopper car parks nearby, including at the Howard Centre.
- WHBC will be implementing changes to the way their staff will work, which will result in a reduction of around 100 to 200 staff using the car parks each day.
- As set out in Section 2.7.4, all immediate local highways in the town centre and council offices are subject to parking restrictions and overspill car parking is not expected to occur.

On the basis of the above, the shortfall in car parking is not expected to have a significant risk of obstructive and indiscriminate car parking on the highway network.

6.4 Pedestrians and Cyclists

There will be some localised changes to pedestrian flows around The Campus as the result of the relocation of car parking from Campus East to Campus West. No wider impacts are expected. There are existing footways, dropped kerbs and signal controlled crossing provided along the routes from Campus West. The proposed

development will improve pedestrian facilities at the junctions set out in Section 4.3.1 and overall the proposals are expected to bring benefits for pedestrians in the local area.

In terms of cyclists, the proposal will incorporate new cycle parking which will improve cycle facilities and help facilitate cycling to Campus West and encouraging a modal shift.

7 Summary and Conclusion

7.1 Summary

The proposed development is located in Welwyn Garden City town centre on the north-western side of The Campus. The site currently comprises surface level car parking with a total of 334 spaces provided within the red line boundary.

The proposed development will add a deck to the existing car park and increase the provision by 156 spaces. A total of 490 spaces will be provided, including 30 disabled bays, 21 parent and child bays, and 10 bays with electric vehicle charging facilities. Further passive electric charging provision is proposed. In addition, the development will consist of pedestrian improvements, increased cycle parking, and improved landscaping.

There are a number of car parks provided in Welwyn Garden City. In keeping with national, regional and local policies, the strategy is to redevelop Campus East car park which is more centrally located to local amenities and public transport services. The proposal will help consolidate car parking to facilitate development and support the operation of the town centre. An overall net loss in car parking is not expected to compromise the operation of the town centre. This approach is supported by policy.

The proposed car parking is intended to replace those currently in Campus East with no increase in new trips are expected on the highway network. The proposal is expected to redistribute existing trips and locally increase vfehicular movements at the site access junction by 196 and 114 in the AM and PM peak hours, respectively. In the AM Peak, a total of 321 vehicles are expected to arrive at the proposed development, which is an average of 5 to 6 vehicles per minute. In the PM Peak, a total of 258 vehicles are expected to exit the proposed development which equates to 4 to 5 vehicles a minute on average. Based on the one-way system at The Campus, the forecast redistribution of traffic and the modelling work, the proposed development is not expected to have a significant adverse impact on the local highway network.

There will be some localised changes to pedestrian flows around The Campus and together with improvement works, overall the proposal will bring benefits to pedestrian facilities in the local area. New cycle parking is proposed which will improve cycling facility at Campus West.

7.2 Conclusion

This Transport Statement demonstrates that the proposed development can be accommodated within the existing highway network and infrastructure surrounding the development site and no significant adverse impacts are expected. The scheme will help facilitate sustainable development and is in keeping with policy.

Appendix A

Pedestrian Route Review

Campus West Decked Car Park, Welwyn Garden City

Pedestrian Route Review

April 2021

ARUP

Introduction

- Campus West car park is located on the north-western side of The Campus, as shown in Figure 1.1. The site currently comprises 334 surface level car parking spaces and the proposal is to increase car parking by 357 spaces to provide a total of 691 spaces. This proposal is to consolidate some of the car parking from Campus East to facilitate a residential development.

- As agreed during pre-application discussions with Hertfordshire County Council (HCC), an audit has been undertaken along the pedestrian routes indicated in yellow on Figure 1.1, between Campus West and key destinations.

- The aim of this study is to observe the existing conditions of the pedestrian routes and identify potential improvements. A qualitative approach has been taken to review the routes. Due to Covid-19 travel restrictions, this study has been undertaken using a mixture of site visit photos and desktop information. The site visit was conducted in January 2020.

Audit Locations

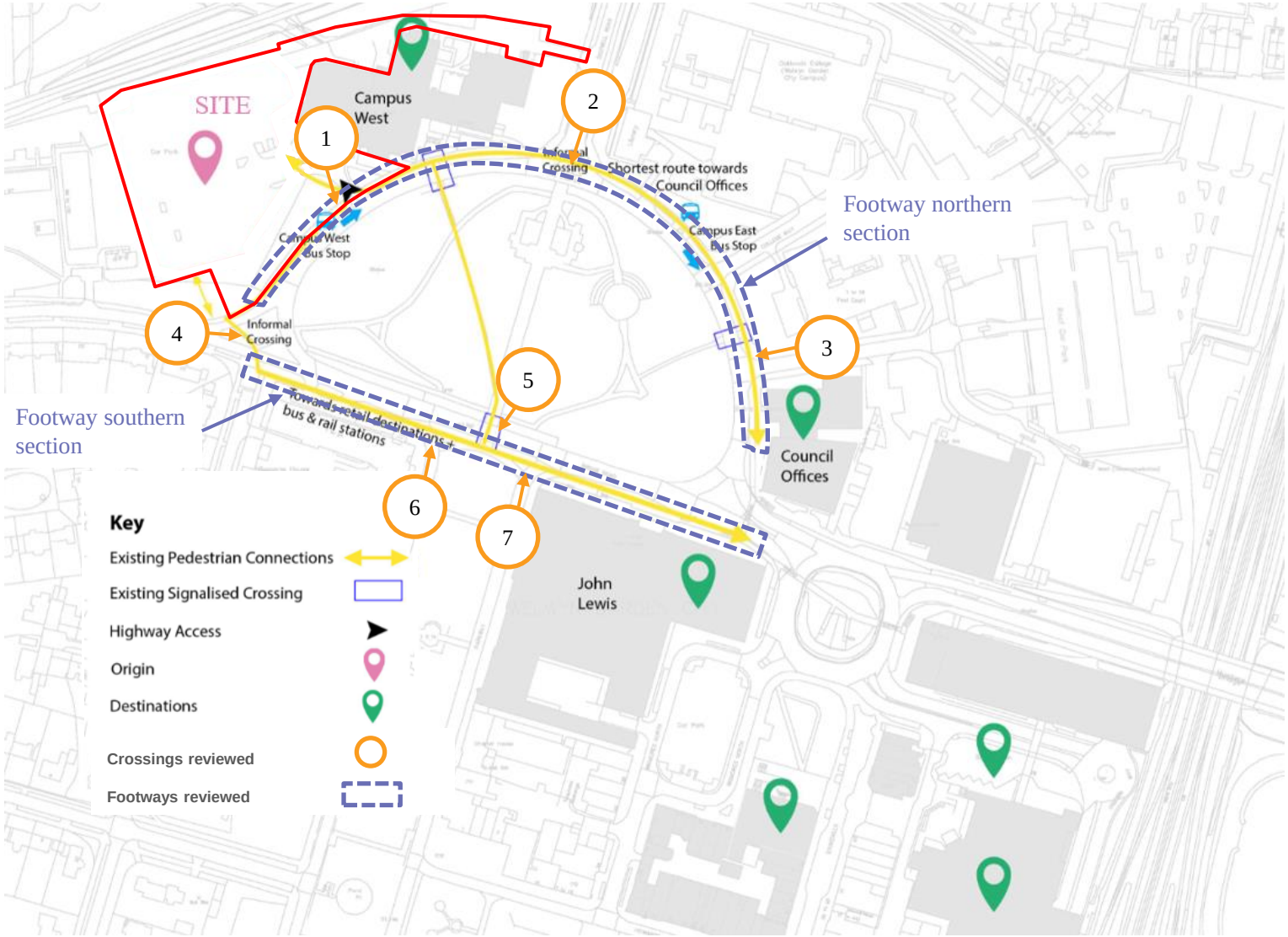


Figure 1.1 – Crossing locations and footways reviewed *[red line to be finalised]*

Crossings

ARUP

Location 1 – Campus West Car Park Access

- **Observations:**
  - Informal uncontrolled crossing.
  - Dropped kerbs are present at the crossing.
  - Central island also has dropped kerbs and there is a keep left bollard.
  - Evidence of some cracked footway paving.
  - No tactile paving provided at crossing.
- **Recommendations:**
  - Paving maintenance to be reviewed.
  - Install tactile paving at the dropped kerb crossing points.

Fig 1.2 Cracked paving at informal crossing at site access

Location 2 – Crossing at Digswell Road

- **Observations:**
  - Informal uncontrolled crossings.
  - Footway material in a reasonable state of repair.
  - Dropped kerbs are present at the crossings.
  - No tactile paving provided at crossings.
  - Planter on refuge island splits pedestrian routes to meet desire lines along the northern and southern side of The Campus.
  - Footway width on refuge island is limited.
  - “Look Left” road markings provided.
- **Recommendations:**
  - Consider upgrading the island by removing or reducing the size of the planter to increase crossing widths and improve legibility.
  - Install tactile paving at the dropped kerb crossing points.

Fig 2.1 The Campus looking east showing planter in island

Fig 2.2 Refuge island looking west, showing limited refuge space

ARUP

Location 3 – Crossing over College Way

- **Observations:**
  - Informal uncontrolled crossing.
  - Footway material in a reasonable state of repair.
  - Dropped kerbs and contrasting colour tactile paving present.
  - Bollards provided on the footway.
  - Wayfinding fingerpost signs for pedestrian navigation.
- **Recommendations:**
  - Crossing considered to be adequate.

Fig 3.1 Crossing over College Way

Location 4 – Bridge Road / The Campus Crossing

- **Observations:**
  - Informal uncontrolled crossings.
  - Footway material in a reasonable state of repair.
  - Carriageway road markings appear faded.
  - Dropped kerbs are present at the crossings.
  - No tactile paving provided at crossings.
  - Rest points (benches) are present near the crossing on the northern side.
- **Recommendations:**
  - Highway maintenance to be reviewed.
  - Improve road markings to provide clearer guidance.
  - Install tactile paving at the dropped kerb crossing points.

Fig 4.1 Faded road markings on Bridge Road

Fig 4.2 Crossing point with road markings

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Location 5 – Bridge Road Crossing

- **Observations:**
  - Pedestrian signal-controlled crossing.
  - Clear and legible crossing.
  - Paving in good condition.
  - Tactile paving and dropped kerbs are present at the crossing.
  - Rest points (benches) are present near the crossing.

- **Recommendations:**
  - Crossing considered to be sufficient.

Fig 5.1 Signalised crossing on Bridge Road looking east

ARUP

Location 6 – Crossing at Parkway (West)

- **Observations:**
  - Informal uncontrolled crossing.
  - Footway material in a reasonable state of repair.
  - Dropped kerbs are present.
  - No tactile paving provided at crossing.
  - Bollards are present on the western side.
- **Recommendations:**
  - Install tactile paving at the dropped kerb crossing points.

Fig 6.1 Informal crossing

Fig 6.2 Bollards present on western side

Location 7 – Crossing at Parkway (East)

- **Observations:**
  - Pedestrian signal-controlled crossing.
  - Clear and legible crossing.
  - Footway material in a reasonable state of repair.
  - Tactile paving and dropped kerbs are present at the crossing.
  - Pedestrian guard railing provided
- **Recommendations:**
  - Crossing considered to be sufficient.

Fig 7.1 Signalised crossing at east of Parkway looking northeast

Footways

ARUP

Northern footway

- **Observations:**
  - Paving in good condition.
  - Level pedestrian route.
  - Verge provides separation between carriageway and footway.
  - Consistent widths provided and no pinchpoints observed.
- **Recommendations:**
  - Footway considered to be sufficient.

Fig 8.1 Northern footway around The Campus

Southern footway

- **Observations:**
  - Footway material in a reasonable state of repair.
  - Bollards provided.
  - Level pedestrian route, with dropped kerbs provided over access points.
  - No tactile paving provided over access points.
  - Consistent widths provided and no pinchpoints observed.
- **Recommendations:**
  - Install tactile paving at the crossings over access points.

Fig 9.1 Southern footway along Bridge Road

Recommendations

ARUP

Recommendations

- A qualitative approach has been taken to review the pedestrian routes between Campus West car park and key destinations. Due to Covid-19 travel restrictions, this study has been undertaken using a mix of site visit photos and desktop information. The site visit was conducted in January 2020.
- Should improvements be taken forward, the observations from this report will need to be verified and detailed design be undertaken.
- The key recommendations are:
  - Highway maintenance to be reviewed, such as renewal of road markings and replacement of cracked paving.
  - Installing tactile paving at all crossings to ensure inclusive walking environment.
  - Consider upgrading the refuge island at The Campus / Digswell Road to increase crossing widths and improve legibility.
- More transformational improvements can be considered, such as raised tables at pedestrian crossings, traffic calming along The Campus, and reducing the width of the carriageway. Reference should be made to the emerging HCC South Central Growth Plan (January 2020), where Package 13 on Welwyn Garden City Active Travel Improvements identifies improving conditions for pedestrians and cyclists.

Appendix B

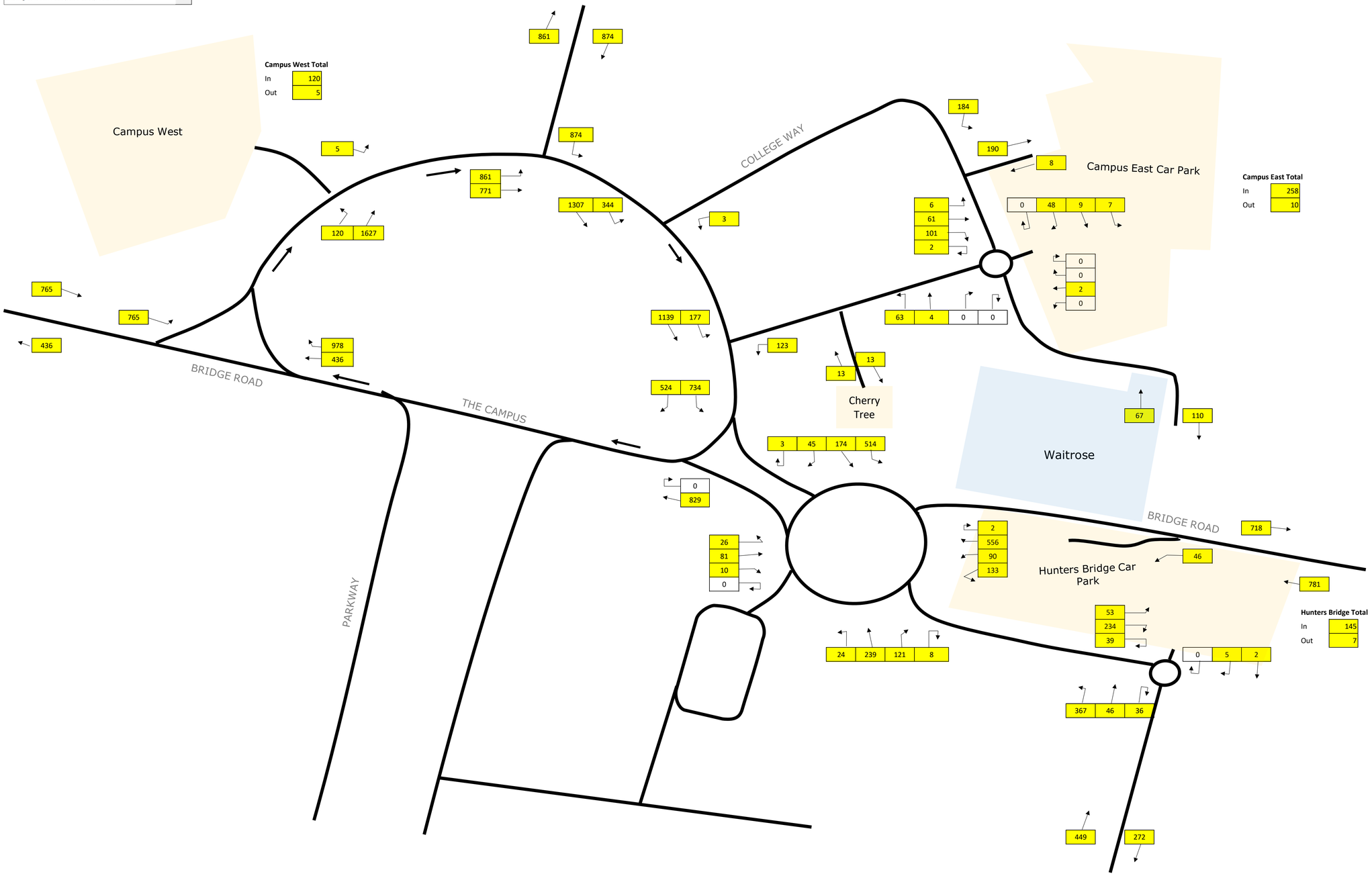
Survey Extent and Existing Traffic Flows

Extent of traffic surveys (April 2019)

Welwyn Garden City - Town Centre North

Existing 2019 AM Peak (08.00-09.00): Total Vehicles

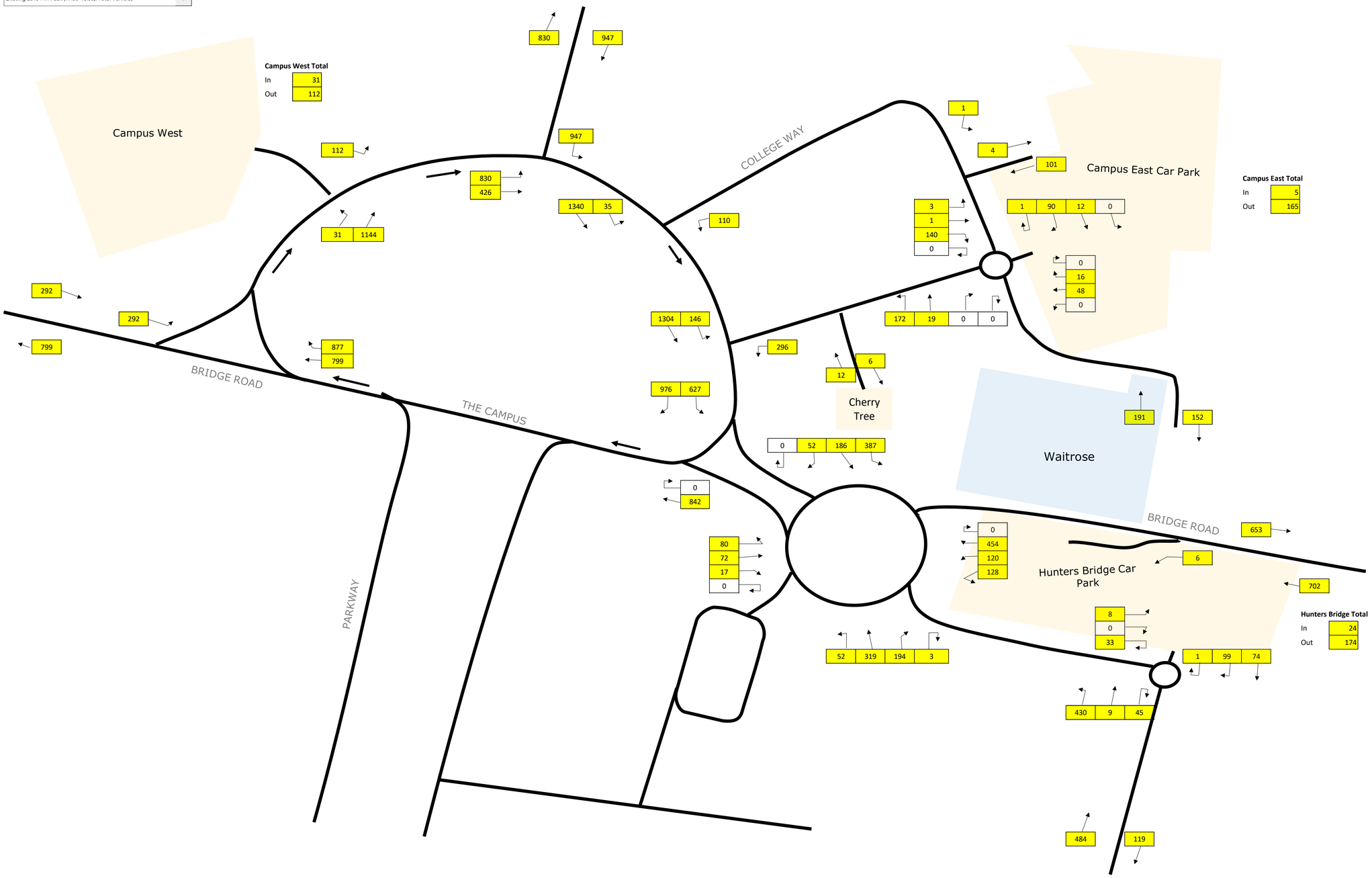
Existing 2019 AM Peak (08.00-09.00): Total Vehicles



Welwyn Garden City - Town Centre North

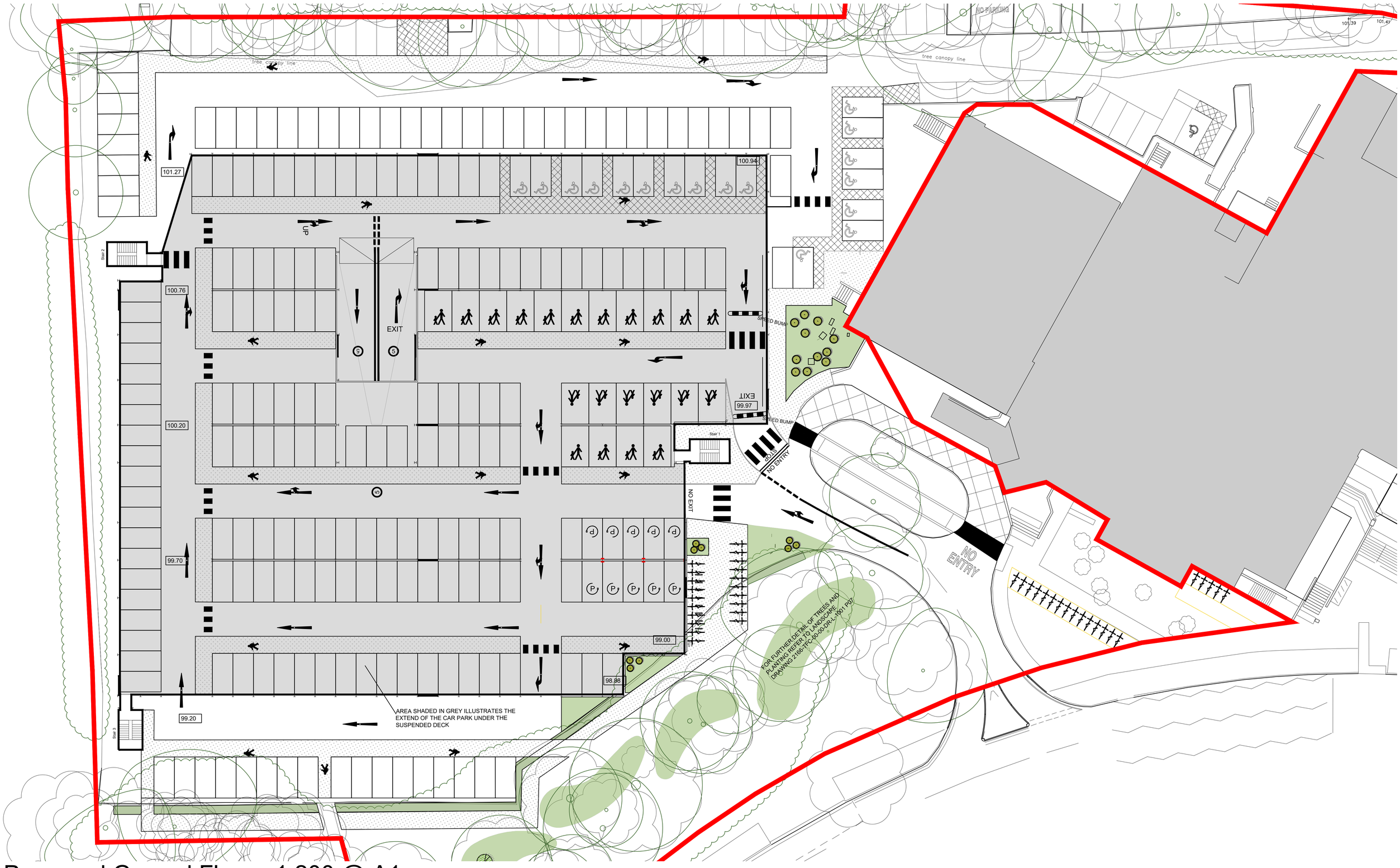
Existing 2019 PM Peak (17.00-18.00): Total Vehicles

Existing 2019 PM Peak (17.00-18.00): Total Vehicles



Appendix C

Drawings



Proposed Ground Floor - 1:200 @ A1

Notes:

- All drawings are subject to Planning and Building Control consent.
- The details shown are for design intent purposes only and are subject to further design development with suppliers and sub-contracters
- Proposals subject to consultation and approval from Local Authority Building Control or an Approved Inspector
- All setting out dimensions should be checked on-site prior to construction and any discrepancies and/or omissions should be reported to the Architect immediately

0 2 4 6 8 10m
Scale 1:200

Rev.	Date	Details	Drawn	Chckd

Rev.	Date	Details	Drawn	Chckd

Drawn By: AH | Date: 29.03.21 | Checked By: DH | Date: 29.03.21

Issued for:

PLANNING

Drawing: Proposed Ground Floor Plan

Project No: 20025

Scale: 1:200 @A1

Project/Client: Campus West Car Park Welwyn Garden City

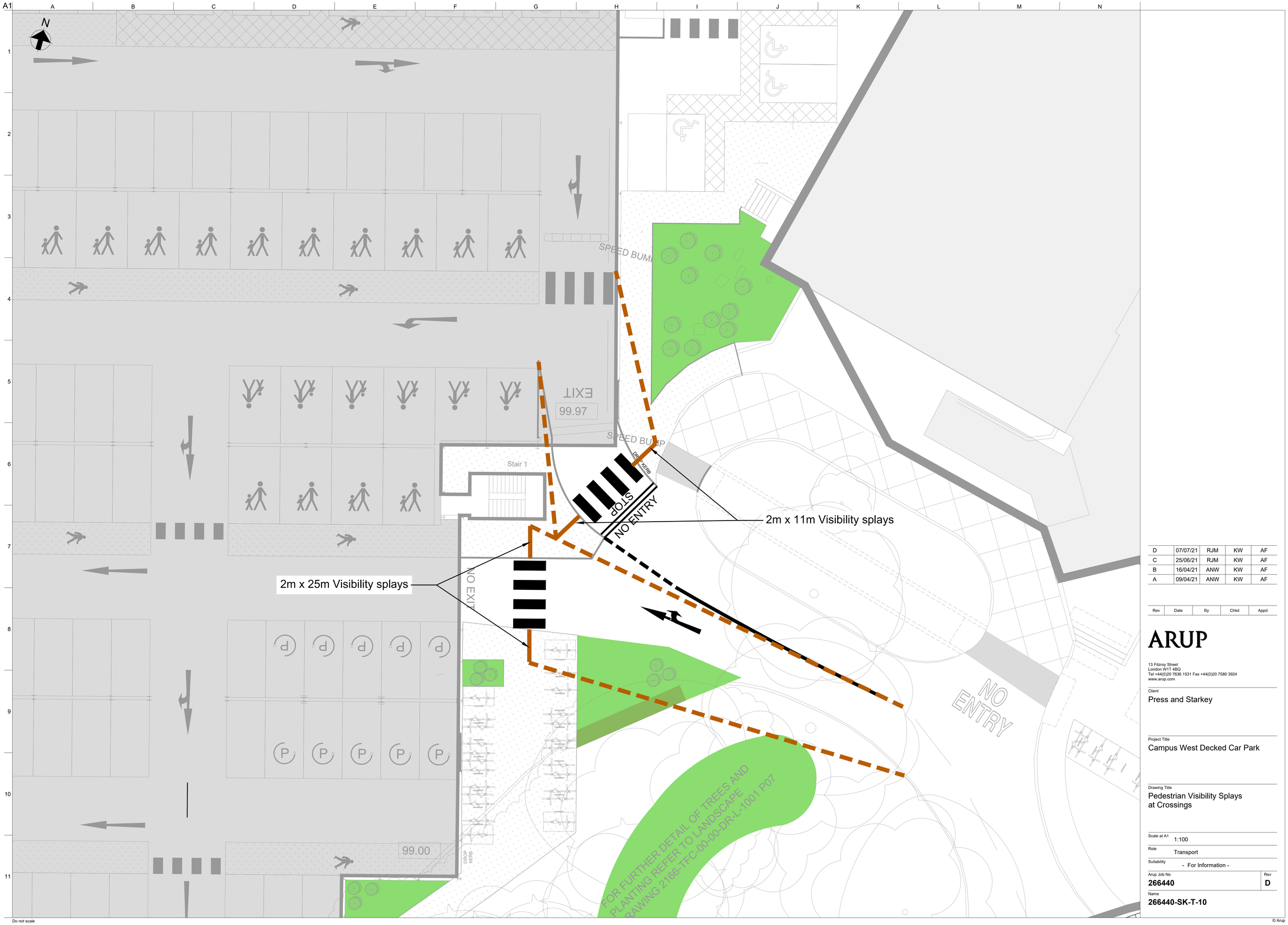
Dwg No: P007

Rev: -

BrightSPACE architects

27 Glasshouse Studios, Fryern Court Road, Fordingbridge, Hampshire, SP6 1QX
T: (01425) 655806 www.brightspacearchitects.com

A1



Rev	Date	By	Chkd	Appd
D	07/07/21	RJM	KW	AF
C	25/06/21	RJM	KW	AF
B	16/04/21	ANW	KW	AF
A	09/04/21	ANW	KW	AF

ARUP

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www.arup.com

Client
Press and Starkey

Project Title
Campus West Decked Car Park

Drawing Title
Pedestrian Visibility Splays at Crossings

Scale at A1
1:100

Role
Transport

Suitability
- For Information -

Arup Job No
266440

Rev
D

Name
266440-SK-T-10

Do not scale

Appendix D

Concept Designs for Off-Site Improvements

Rev	Date	By	Chkd	Appd
A	27/11/20	RJM	KW	AF

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Client
Press and Starkey

Project Title
Campus West Decked Car Park

Drawing Title
Pedestrian Crossing Improvements

Scale at A1: 1:500

Role: Transport

Suitability: - For Information -

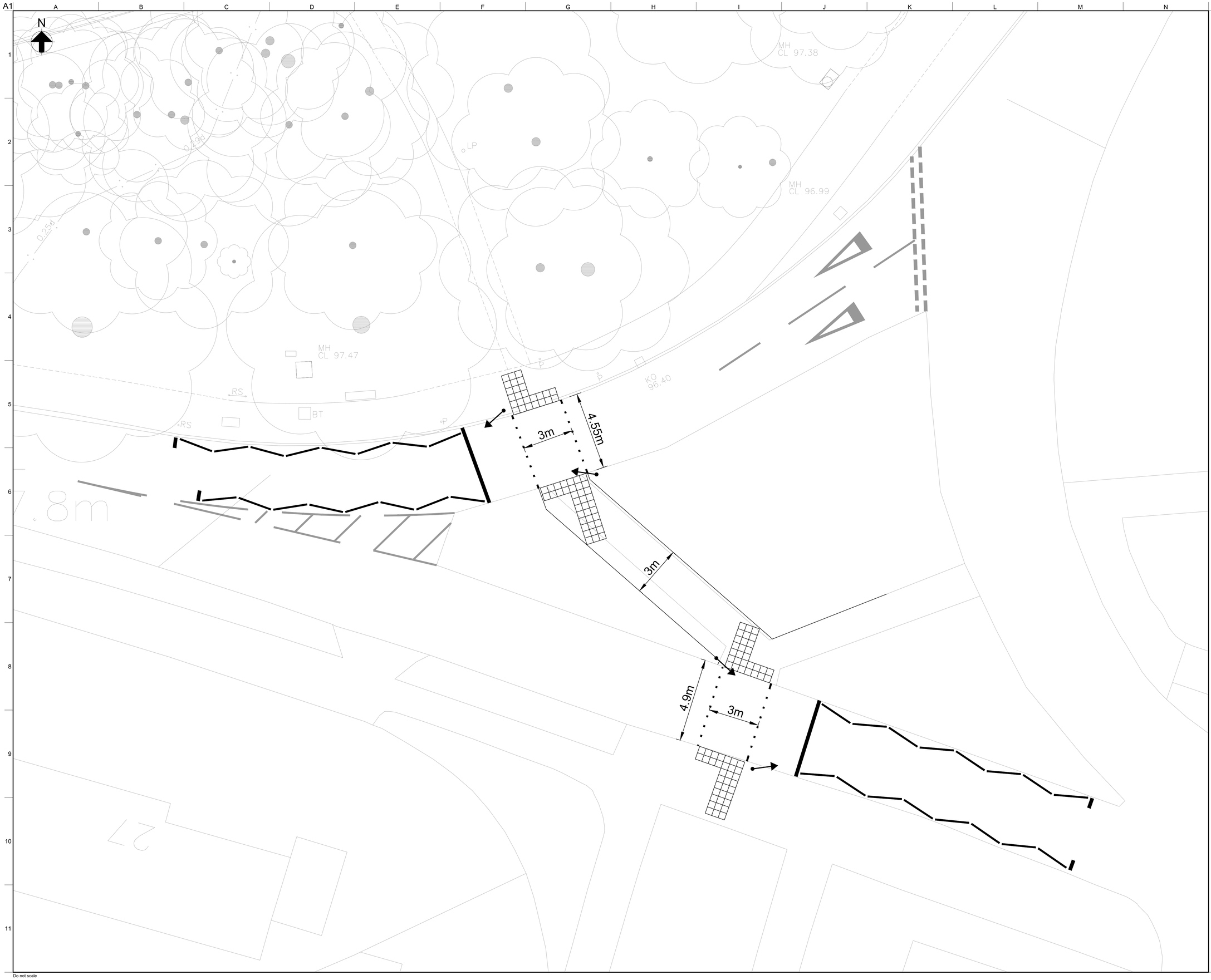
Arup Job No: 266440

Rev: A

Name: 266440-SK-T-09

Do not scale

A1



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Rev	Date	By	Chkd	Appd
C	25/06/21	RJM	KW	AF
B	03/11/20	RJM	KW	AF
A	22/10/20	RJM	KW	AF

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Client
Press and Starkey

Project Title
Campus West Decked Car Park

Drawing Title
Bridge Road / The Campus
Toucan Crossing

Scale at A1
1:250

Role
Transport

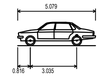
Suitability
- For Information -

Arup Job No
266440

Rev
C

Name
266440-SK-T-01

A1



Large Car (2006)	
Overall Length	5.079m
Overall Width	1.872m
Overall Body Height	1.525m
Min Body Ground Clearance	0.310m
Max Track Width	1.831m
Lock to Lock Time	4.00 sec
Kerb to Kerb Turning Radius	5.900m

Rev	Date	By	Chkd	Appd
B	25/06/21	RJM	KW	AF
A	16/11/20	RJM	KW	AF

ARUP

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www.arup.com

Client
Press and Starkey

Project Title
Campus West Decked Car Park

Drawing Title
Campus West Car Park -
The Campus priority
Pedestrian Crossing Improvements
Large Car Swept Path Analysis

Scale at A1 1:100

Role Transport

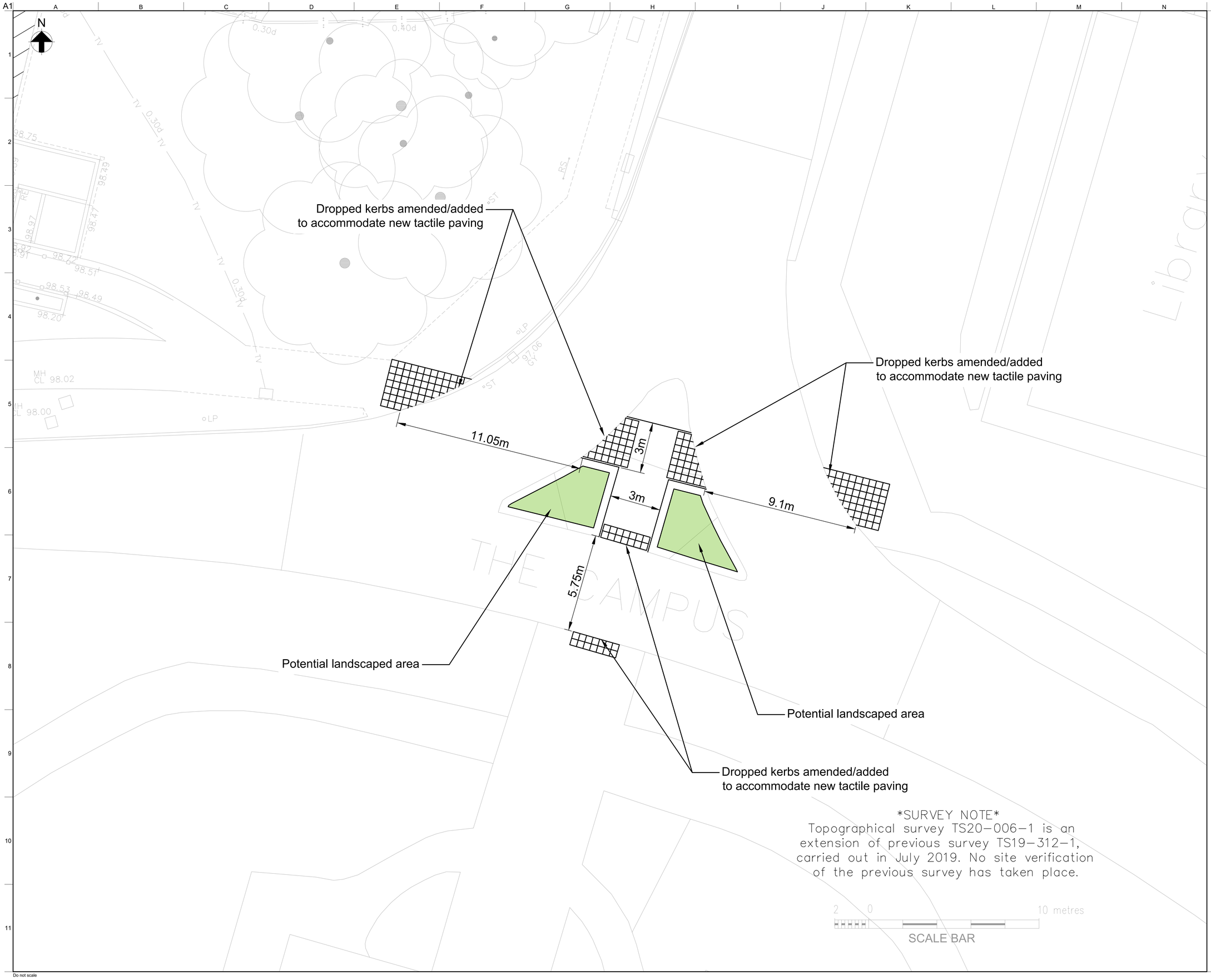
Suitability - For Information -

Arup Job No **266440** | Rev **B**

Name **266440-SK-T-07**

Do not scale

A1



Rev	Date	By	Chkd	Appd
C	25/06/21	RJM	KW	AF
B	03/11/20	RJM	KW	AF
A	29/10/20	RJM	KW	AF

ARUP

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Client
Press & Starkey

Project Title
Campus West Decked Car Park

Drawing Title
Digswell Road - The Campus
Priority Junction
Pedestrian Crossing Improvements

Scale at A1 1:100

Role Transport

Suitability - For Information -

Arup Job No **266440** | Rev **C**

Name **266440-SK-T-03**

Do not scale

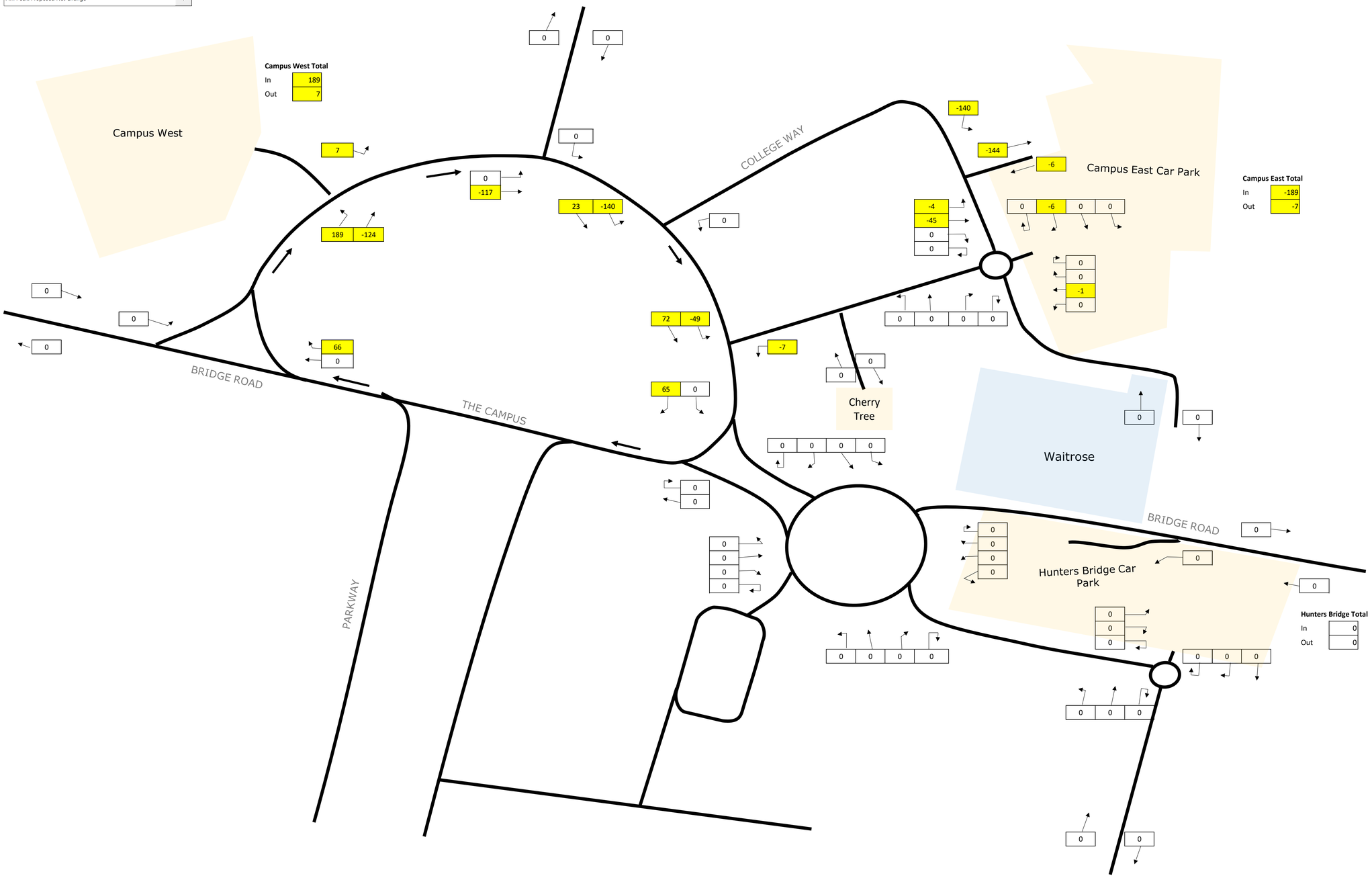
Appendix E

Proposed Redistributed Traffic Flows

Welwyn Garden City - Town Centre North

AM Peak: Proposed Net Change

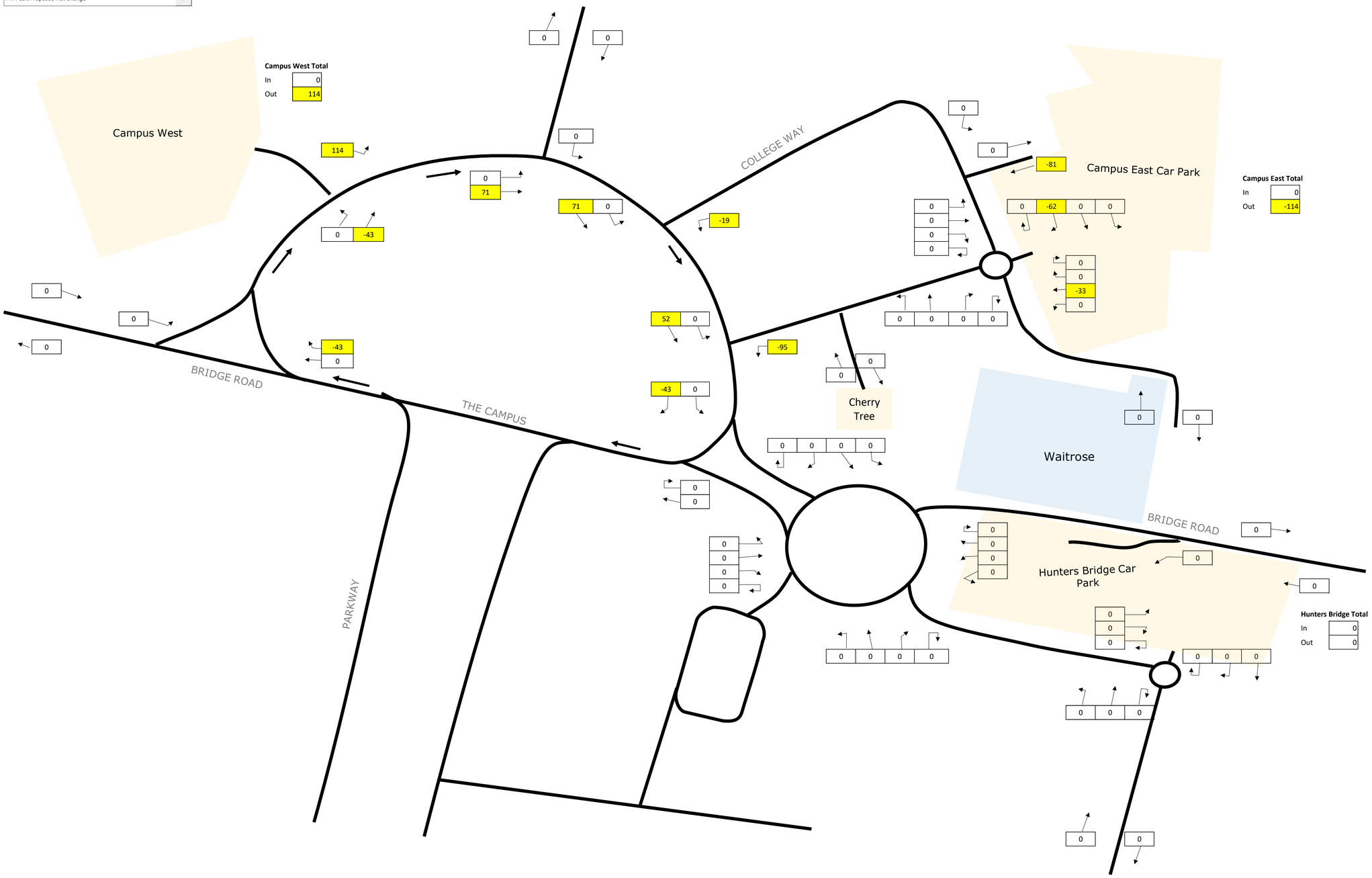
AM Peak: Proposed Net Change



Welwyn Garden City - Town Centre North

PM Peak: Proposed Net Change

PM Peak: Proposed Net Change



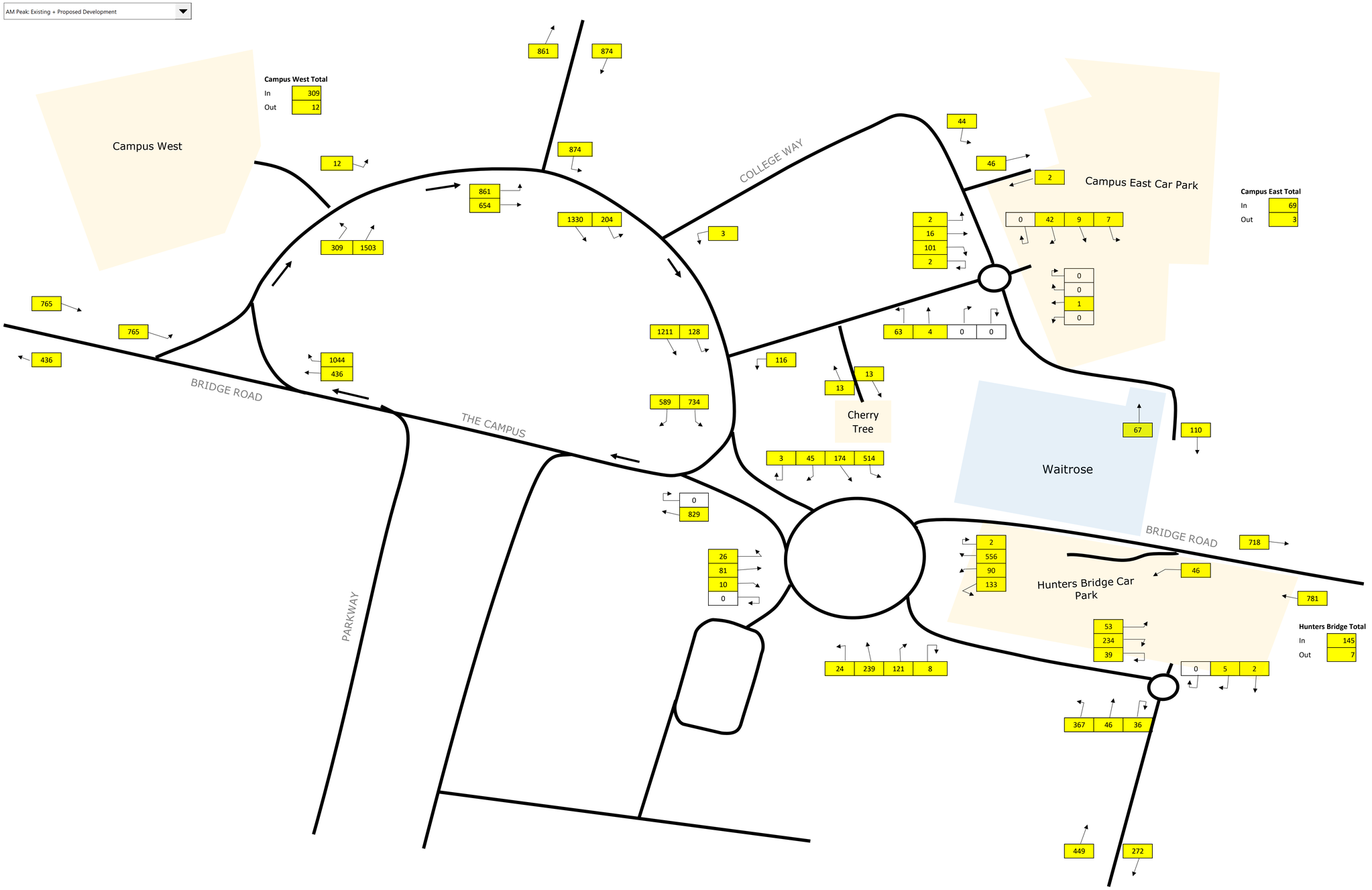
Appendix F

Existing + Proposed Traffic Flows

Welwyn Garden City - Town Centre North

AM Peak: Existing + Proposed Development

AM Peak: Existing + Proposed Development



Welwyn Garden City - Town Centre North

PM Peak: Existing + Proposed Development

PM Peak: Existing + Proposed Development