



THE
ENVIRONMENT
PARTNERSHIP



CIRENCESTER CAR PARK FEASIBILITY STUDY STAGE 2 - FEASIBILITY SUMMARY REPORT

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1.0 Introduction

- 1.1 Cirencester, often referred to as the 'capital of the Cotswolds', is set within an Area of Outstanding Natural Beauty in the county of Gloucestershire. It is the largest town in Cotswold District and offers a substantial retailing, administrative and employment base, being home to a mix of independent traders, national multiples, a small number of anchor stores, the District Council, Cirencester College, Royal Agricultural University, Brewery Arts and the Corinium Museum. Cirencester is also a centre of historical and architectural interest attracting visitors from far and wide.
- 1.2 As well as being an important retail, service and tourist centre, Cirencester has a substantial resident population of some 19,000 and a large catchment population which is far greater than other towns typical of its size.
- 1.3 A large part of Cirencester town centre is designated as a conservation area, with many listed buildings, structures and scheduled monuments. A combination of the town's narrow streets and layout mean there are often conflicts of interest between the preservation of the historic environment, road users and other street users, which is compounded by the need to support economic growth. However, as other towns enhance their centres, Cirencester must develop to retain its competitive edge.
- 1.4 Cotswold District Council owns and manages ten public car parks in Cirencester, Gloucestershire, which provide a total of 1,342 parking spaces across the town centre. However the popularity of the surrounding areas and the relative lack of public transport mean that the majority of shoppers, commuters, residents and visitors travel into the town by car. This generates considerable demand on town centre parking.
- 1.5 A Stage 1 Summary Report (Ref: 5704.002) was completed in June 2016 on behalf of Cotswold District Council. The Stage 1 Summary Report assessed the viability of increasing parking capacity across eight car parks in Cirencester town centre, to meet current and future needs and reflecting the development growth identified in the emerging Local Plan.
- 1.6 The eight car parks assessed at Stage 1 included:-
 - The Brewery;
 - Old Station;
 - Sheep Street;
 - Abbey Grounds;
 - The Leisure Centre;
 - The Forum;
 - The Waterloo; and
 - Beeches Road.
- 1.7 The Stage 1 Summary Report provided an initial desk study assessment (including a site visit) for each car park site. The key attributes and constraints for increasing capacity were then used to determine a prioritised list moving forward.

- 1.8 After the Stage 1 Summary Report was completed it was decided that a full planning application should be progressed for The Waterloo Car Park, and a Stage 2 Feasibility Report should be undertaken for The Forum, Old Station and Sheep Street car parks.
- 1.9 This Stage 2 Feasibility Report draws upon the conclusions of the Stage 1 Summary Report and provides additional information on transport and heritage, as these were considered the main constraints in developing the capacity of the Old Station, Sheep Street and The Forum car parks.
- 1.10 A summary of each site is addressed in separate sections of this report, with a final conclusion comparing and contrasting the options. It is not the function of this report to recommend an additional car park site for development purposes; the role of this report is to identify opportunities and give a broad option on each sites capacity and future potential for increasing capacity.
- 1.11 Appendix A includes aerial imagery of the individual sites and Appendix B shows the sites in context, with Cirencester's environmental and heritage constraints overlain.
- 1.12 Also appended to this report are the following technical documents that support this report:
- Historic Environment Constraints Report (March 2017, Ref: 5704.5)
 - Old Station Car Park, Cirencester Traffic and Transport Feasibility (September 2017, Ref: TPMA1486-OS/TF)
 - Sheep Street Car Park, Cirencester Traffic and Transport Feasibility (September 2017, Ref: TPMA1486-SS/TF)
 - The Forum Car Park, Cirencester Traffic and Transport Feasibility (September 2017, Ref: TPMA1486-FO/TF)

2.0 Old Station

Location

- 2.1 The Old Station Car Park is to the western edge of Cirencester Town Centre. It is close to the Ring Road (A429) within a prominent position on the approach to the town centre. The Old Station Car Park is bounded by Tetbury Road to the north, Sheep Street and Cirencester Memorial Centre to the east, Hammond Way to the south and buildings to the west.

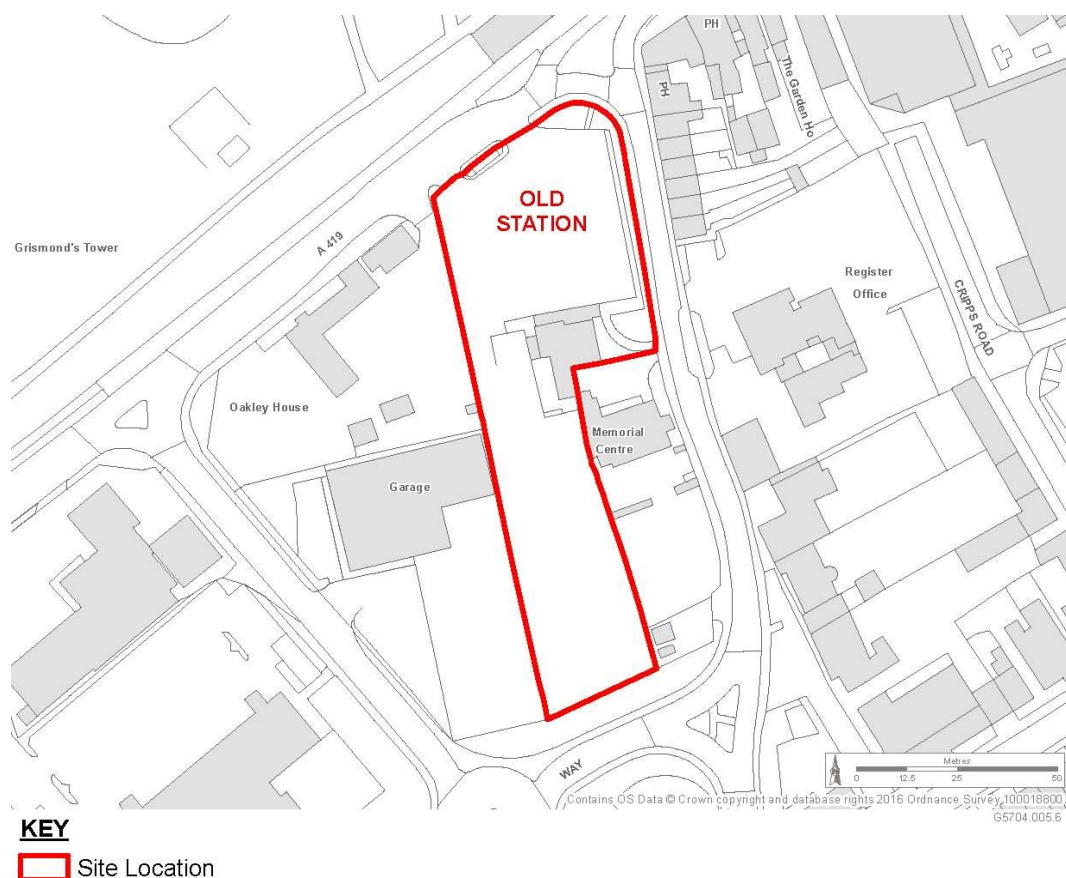


Figure 1: Old Station Site location

- 2.2 A Site Location Plan showing the aerial view of Old Station is included within Appendix A: Car Park Location - Aerial Imagery.
- 2.3 The Car Park is well located on the western edge of the town centre, within an area identified as Sheep Street 'Island' and is primarily served by the A429. It is close to a number of tourist attractions and is signposted as the 'Corinium Museum' Car Park.
- 2.4 There is generally good pedestrian infrastructure and relatively well connected to public transport. There is on and off road cycling provisions along Tetbury Road to the north which includes a shared foot and cycle way in addition to a road cycle lane.

- 2.5 The Old Station Car Park provides good access to food and drink establishments and is well located for office and employment opportunities.

Planning Policy

- 2.6 The Old Station Car Park is allocated in the adopted Local Plan 2001-2011 as Policy CIR.2, allocated for a mix of office, residential and leisure uses, and public parking (this allocation covers a larger site than what is being appraised).
- 2.7 The Cotswolds District Council Local Plan 2011-2031 Submission Draft (2016 and Focussed Changes, January 2017) allocates the site under Policy S1 Cirencester Town, CIR_E13B Sheep Street Island, referenced as retail-led development.

Feasibility Study - Stage 1

- 2.8 An initial feasibility report (Stage 1 - Summary Report) was undertaken in June 2016 to assess the viability of increasing parking capacity across eight car parks within Cirencester. The report concluded that The Old Station Car Park was priority listing 7 out of 8. The Stage 1 - Summary Report concluded that The Old Station Car Park is easily accessible by road from the A429 and located within walking distance of a range of local services and facilities. There is good surrounding pedestrian infrastructure and provides excellent opportunities for onward sustainable travel.

Historic Environment

- 2.9 Old Station car park is located on the western boundary of the Cirencester Town Centre Conservation Area.
- 2.10 There are no scheduled monuments recorded within the development site. However, the scheduled monument Corinium Roman Town lies 11m to the east.
- 2.11 The scheduled monument, Long Barrow and Roman Amphitheatre and Cemetery, lies 56m south of the development site.
- 2.12 There is one listed building within the development site: the Former Railway Station (listed building reference: 1187518). The railway station was built in 1841, designed by Isambard Brunel, and has late 20th century alterations. It is now in part offices and public lavatories. It provides access to the Grade II listed Apsley Hall.
- 2.13 There is one listed building immediately adjacent to the development site, Apsley Hall (listed building reference: 1298657). Apsley Hall is a former Independent/Congregational Chapel, built in 1833 with alterations of 1888 and the 20th century. It is currently in use as a mental health resource centre.
- 2.14 Three Grade II listed buildings overlook the southern half of the development site. These comprise:
- 25 and 25A Sheep Street (listed building reference: 1298656), situated approximately 28m east of the proposed development. These houses consist of an early 19th century house with a probably former stable wing attached that is now a separate house (25A).

- Kingsleigh and attached railing bases (listed building reference: 1187516). Kingsleigh is a late 18th century house, situated approximately 40m east of the proposed development site.
 - 29 Sheep Street (listed building reference: 1187517), situated approximately 41m east of the proposed development site. 29 Sheep Street was formerly a public house, dated to the late 17th century with later alterations.
- 2.15 To the north of the car park, to the north of Tetbury Road, lies Cirencester Park (list entry number: 1000432), a Grade I registered park and garden. Cirencester Park is an extensive wooded park, divided by avenues, planted from 1714 to 1775.
- 2.16 The scheduled monuments and listed buildings referred to above are of national importance, and are therefore assets of high heritage significance. The non-designated heritage assets identified in the preliminary review of baseline conditions have regional or local heritage value, and therefore have low or moderate heritage significance.
- 2.17 The Old Station car park development site has a moderate potential for the survival of heritage assets with archaeological interest, particularly assets of moderate to high significance associated with the Roman town. The construction of the railway line and associated infrastructure may have truncated some of the buried archaeological remains within the potential development site, but the extent of truncation is unknown.
- 2.18 Any application should consider effects to the listed building on the site and if any alterations or changes to the building are proposed Listed Building Consent would be required.

Highways

- 2.19 The Traffic and Transport Feasibility has been produced in order to consider the suitability of additional parking provision at the existing Old Station Car Park and is available in Appendix C.

Site Location and Existing Situation

- 2.20 The Old Station Car Park is on the western side of Cirencester town centre. Typically the Old Station Car Park is at its busiest throughout the working week, and is often at full capacity before 10:00hrs, demonstrating that it is well used by commuters. The Car Park is less busy at weekends when typically it can be between 47% and 89% capacity (Table 2.2 Old Station Occupation Capacity - Traffic and Transport Feasibility Report).
- 2.21 It is considered that the pricing strategy (Table 2.1 Old Station: Costs of Stay) is likely to encourage all-day parking at Old Station Car Park whilst still providing the option for short stay.
- 2.22 As discussed above there is good pedestrian access and a separate in/out access arrangement from Tetbury Road.

2.23 Following a review of the County Councils road safety data, it was not considered that there is an existing safety issue that is likely to be exacerbated by an increase in parking provision at the Old Station Car Park.

Opportunity for Onward Sustainable Travel

2.24 It is considered that the Old Station Car Park has good levels of opportunity for onward travel to facilities and amenities. There are a number of office and employment opportunities, and food and drink amenities within a 5 minute walk.

2.25 Old Station Car Park has no formal cycle provisions, however there are cycle provisions along Tetbury Road and National Cycle Route 45 is accessible within approximately 150m of the Car Park.

2.26 Old Station Car Park is relatively well connected to public transport, with a bus stop located along Tetbury Road to the north, which is served by bus services 54/54A/X54, 77 and 93. In addition, nearby Sheep Street is serviced by the number 881 service (See Table 3.2 of the feasibility study - Summary of Bus Service Frequencies from Tetbury Road).

Indicative Parking Provision and Forecasted Impacts

2.27 The Traffic and Transport Feasibility includes an indicative analysis to inform the potential for additional capacity at the Old Station Car Park. Five layout scenarios were assess with regards to the wider implications:-

- 1) Do Nothing - continue to operate the car park under the existing conditions;
- 2) Ground Floor Only - redevelop the ground floor so that subsequent floors could be accommodated;
- 3) Ground Floor +1 - add one additional floor of car parking;
- 4) Ground Floor +2 - add two additional floors of car parking; and
- 5) Ground Floor +3 - add three additional floors of car parking.

2.28 Based on the initial layouts provided above, the potential gains in parking provision for each scenario are shown in Table 1 below.

Table 1: Potential Parking Provision at Old Station

Scenario	Parking Levels	Potential Provision			Disabled Parking Adjustment		
		Count	Impact	Impact (0%)	Count	Impact	Impact (0%)
Do Nothing	1	149	0	0%	145	+0	+0%
Ground Floor Only	1	145	-4	-3%	141	-8	-6%

Scenario	Parking Levels	Potential Provision			Disabled Parking Adjustment		
		Count	Impact	Impact (0%)	Count	Impact	Impact (0%)
Ground Floor +1	2	298	+149	+100%	289	+140	+94%
Ground Floor +2	3	451	+302	+203%	437	+288	+194%
Ground Floor +3	4	604	+455	+305%	586	+437	+293%

- 2.29 Table 1 - Potential Parking Provision, details each scenario with regards to the parking potential, impact and adjustments for disabled parking. It was concluded (notwithstanding other indirect/external factors) that there is potential for significant additional parking on the site should additional floors be provided.
- 2.30 Based on the assumption that Old Station is generally a car park frequented by commuters, it is considered that any highway impact as a result of additional car parking provision would be focused in the AM and PM peak periods.
- 2.31 It can therefore also be considered that the majority of arrivals would occur between 07:00 and 10:00, with the majority of departures being between 16:00 and 19:00.
- 2.32 With regards to traffic generation scenario 'Ground Floor +1' could result in approximately one additional vehicle on the surrounding highway network every minute. Scenario 'Ground Floor +3' scenario could have a significant impact on the surrounding highway network.

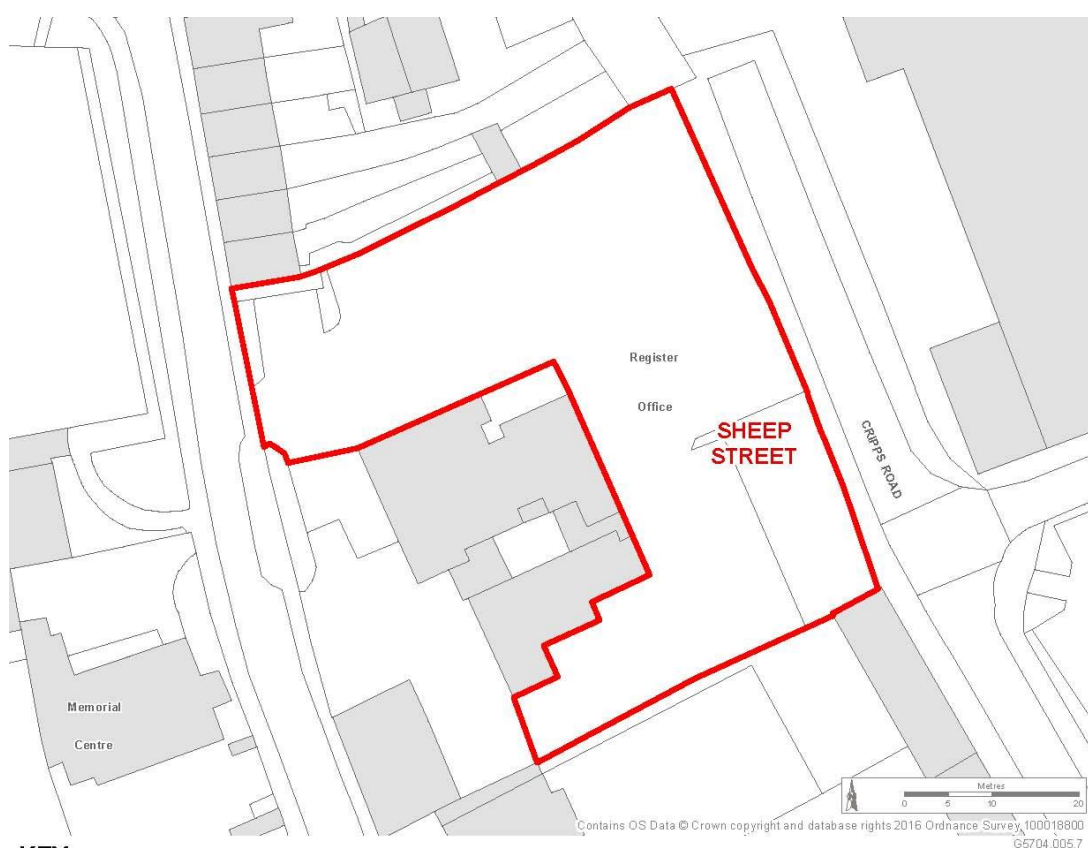
Highways Conclusion

- 2.33 Further investigative works are required in order to finalise the car park layouts; considering all indirect/external factors and establishing an appropriate level of additional parking. From a transport perspective, this would include commissioning traffic counts at key junctions in the vicinity to better understand any impact on capacity.
- 2.34 Notwithstanding this and subject to detailed analysis and receipt of baseline traffic levels, it is considered there is opportunity for additional capacity at Old Station Car Park. Consideration of the TRICS analysis and potential parking layouts detailed in the highways report suggests that **one additional level** of parking would result in approximately 65 additional two-way trips; which is likely to constitute a **low impact** on the surrounding highway network considering the site location.
- 2.35 **Multiple levels of additional parking** could generate in excess of 133 two-way trips. This is likely to constitute a **medium impact** on the surrounding highway network, and could require assessment of junctions in the vicinity of Old Station.

3.0 Sheep Street

Location

- 3.1 Sheep Street Car Park is to the western side of Cirencester Town Centre, bounded by residential gardens to the north, Cripps Road which leads to the rear service yard of Tesco Metro to the east, Gardens to the south and Sheep Street to the west.
- 3.2 Sheep Street Car Park is on the site of the former Memorial Hospital. It lies opposite Cirencester Memorial Centre, which is Grade II Listed, and sits behind a row of cottages which front onto Sheep Street.



KEY

-  Site Location

Figure 2: Sheep Street Site Location

- 3.3 A Site Location Plan showing the aerial view of Sheep Street is included within Appendix A: Car Park Location - Aerial Imagery.
- 3.4 The car park has separate vehicular entrance and exit routes, which present as a left-in and left-out arrangement off the Sheep Street one-way system. Pedestrian access is considered to be below standard with one relatively narrow (but level) access onto Cripps Road. There is no formal pedestrian access via Sheep Street, although there is a pedestrian access by the vehicular exit lane.

- 3.5 The Sheep Street Car Park lies within the Scheduled Monument (Corinium Roman Town). The Sheep Street Car Park also lies within the Cirencester Town Centre Conservation Area.

Planning Policy

- 3.6 The site is allocated in the Local Plan 2001-2011 Policy CIR.4 - Memorial Hospital Site - for car parking until such time as adequate alternative public parking provision is made within or adjacent to Cirencester town centre. Once alternative public parking provision has been secured, the site is allocated for redevelopment for office and residential use.
- 3.7 In the Cotswolds District Council Local Plan 2011-2031 Submission Draft (2016 and Focussed Changes, January 2017) it is identified under Policy S1 Cirencester Town. Under this emerging policy it is identified as C_97 Memorial Hospital for a residential-led development (11 dwellings).

Feasibility Study - Stage 1

- 3.8 An initial feasibility report (Stage 1 - Summary Report) was undertaken in June 2016 to assess the feasibility of increasing parking capacity across eight car parks within Cirencester. The report concluded that the Sheep Street Car Park was priority listing 6 out of 8.
- 3.9 The Stage 1 - Summary Report concluded that the car park is centrally located with good accessibility to a range of services and facilities, with some opportunities for onward sustainable travel. There is good surrounding pedestrian infrastructure, although some upgrades required to allow better permeability. There is a high level of demand for spaces during the working week and less so at the weekend.

Historic Environment

- 3.10 Sheep Street car park is situated within Cirencester Town Centre Conservation Area.
- 3.11 The northern section of Sheep Street car park is located partially within the Scheduled Monument, Corinium Roman Town.
- 3.12 There are three Grade II listed buildings that overlook the proposed development. These comprise:
- A Former Railway Station (listed building reference: 1187518), situated approximately 31m west of the proposed development at Sheep Street. The railway station was built in 1841 and has late 20th century alterations. It is now in part offices and public lavatories.
 - Apsley Hall (listed building reference: 1298657), situated approximately 31m west of the proposed development. Apsley Hall is a former Independent/Congregational Chapel, built in 1833 with alterations of 1888 and the 20th century. It is currently in use as a mental health resource centre.
 - 25 and 25A Sheep Street (listed building reference: 1298656), situated approximately 10m south of the proposed development. These houses

consist of an early 19th century house with a probably former stable wing attached that is now a separate house (25A).

- 3.13 There are two more Grade II listed buildings further south along Sheep Street. These comprise:
- Kingsleigh and attached railing bases (listed building reference: 1187516). Kingsleigh is a late 18th century house, situated approximately 20m south of the proposed development site.
 - 29 Sheep Street (listed building reference: 1187517), situated approximately 46m south of the proposed development site. 29 Sheep Street was formerly a public house, dated to the late 17th century with later alterations.
- 3.14 There is a well preserved WWII air raid shelter located in the south east corner of the development site.
- 3.15 The scheduled monuments and listed buildings referred to above are of national importance, and are therefore assets of high heritage significance. The non-designated heritage assets identified in the preliminary review of baseline conditions have regional or local heritage value, and therefore have low or moderate heritage significance.
- 3.16 The Sheep Street car park has a high potential for the survival of heritage assets with archaeological interest, particularly assets of local significance dating to the post medieval period, and of moderate to high significance associated with the Roman town.
- 3.17 Any application to development this site would require Scheduled Monument Consent. Any development would need to consider the harm to the heritage significance of the conservation area and listed buildings.

Highways

- 3.18 The Traffic and Transport Feasibility Report (Appendix D) has been produced in order to consider the suitability of additional parking provision at the existing Sheep Street Car Park.

Site Location and Existing Situation

- 3.19 As discussed above existing vehicular access is from Sheep Street via a separate in/out arrangement. However there is a narrow pedestrian access leading to Cripps Road to the east.
- 3.20 Typically the car park is at its busiest on weekdays, and is regularly at full capacity from 10:00 through to 14:00. The car park has a lower occupancy rate on Saturdays according to the car park surveys supplied by Cotswold District Council.
- 3.21 It is considered that the pricing strategy (Table 2.1 Sheep Street - Traffic and Transport Feasibility Report) is likely to encourage all-day parking at Sheep Street car park whilst still providing the option for short stay.

- 3.22 Road safety data was received from Gloucestershire County Council. Following a review of the data it was not considered that there is an existing safety issue that is likely to be exacerbated by an increase in parking provision at the Old Station Car Park.

Opportunity for Onward Sustainable Travel

- 3.23 The Sheep Street Car Park was determined to be in an excellent position for a number of facilities and amenities. Accessibility was deemed high for food and drink establishments and office and employment opportunities. This is thought to be one of the factors to the high occupancy levels.
- 3.24 There are currently no formal cycle parking provisions at Sheep Street Car Park. There is existing cycle provisions along Tetbury Road/Park Lane, with National Cycle Routes 45 and 48 being approximately 100m and 300m from the site.
- 3.25 There is limited onward travel opportunities by bus from Sheep Street Car Park, however additional services are available along Tetbury Road/Park Lane/Market Place which is approximately 150m walk from Sheep Street Car Park.

Indicative Parking Provision and Forecasted Impacts

- 3.26 The Traffic and Transport Feasibility includes an indicative analysis to inform the potential for additional capacity at the Sheep Street Car Park. Five layout scenarios were assessed with regards to the sites growth options:-
- 1) Do Nothing - continue to operate the car park under the existing conditions;
 - 2) Ground Floor only - redevelop the ground floor so that subsequent floors could be accommodated;
 - 3) Ground Floor +1 - add one additional floor of car parking;
 - 4) Ground Floor +2 - add two additional floors of car parking; and
 - 5) Ground Floor +3 - add three additional floors of car parking.
- 3.27 Based on the initial layouts provided above, the potential gains in parking provision for each scenario are shown in Table 2 below.

Table 2: Potential Parking Provision at Sheep Street

Scenario	Parking Levels	Potential Provision			Disabled Parking Adjustment		
		Count	Impact	Impact (0%)	Count	Impact	Impact (0%)
Do Nothing	1	77	0	0%	75	-2	-3%
Ground Floor Only	1	120	+43	+56%	116	+38	+51%

Scenario	Parking Levels	Potential Provision			Disabled Parking Adjustment		
		Count	Impact	Impact (0%)	Count	Impact	Impact (0%)
Ground Floor +1	2	244	+167	+217%	237	+160	+207%
Ground Floor +2	3	368	+291	+378%	357	+280	+364%
Ground Floor +3	4	492	+415	+539%	477	+400	+520%

3.28 Table 2 - Potential Parking Provision, details each scenario with regards to the parking potential, impact and adjustments for disabled parking. It was concluded (notwithstanding other indirect/external factors) that there is potential for significant additional parking on the site should additional floors be provided.

3.29 With regards to traffic generation scenario 'Ground Floor +1' could result in approximately one additional vehicle on the surrounding highway network every minute and a half. Scenario 'Ground Floor +3' could have a significant impact on the surrounding highway network.

Highways Conclusion

3.30 Further investigative works are required in order to finalise the car park layouts; considering all indirect/external factors and establishing an appropriate level of additional parking. From a transport perspective, this would include commissioning traffic counts at key junctions in the vicinity to better understand any impact on capacity.

3.31 Notwithstanding this and subject to detailed analysis and receipt of baseline traffic levels, it is considered there is opportunity for additional capacity at Sheep Street Car Park.

3.32 Consideration of the TRICS analysis and potential parking layouts detailed in this report suggests that **one additional level** of parking would result in approximately 74 additional two-way trips; which is likely to constitute a **low – medium** impact on the surrounding highway network considering the site location.

3.33 **Multiple levels** of additional parking could generate in excess of 130 two-way trips. This is likely to constitute a **medium impact** on the surrounding highway network, and could require assessment of some junctions in the vicinity of Sheep Street.

3.34 It should be noted that demolition of the existing Old Memorial Hospital building is key to providing additional capacity; retention of the building would result in significantly less provision, to the point where parking layouts would likely be unfeasible. A review of pricing strategy may also encourage additional parking over Saturdays; thus taking pressure off other car parks in the surrounding area.

4.0 The Forum

Location

- 4.1 The Forum Car Park is located in the heart of Cirencester town centre; bounded by North Way to the north, the rear of various local businesses to the east, Lewis Lane to the south and South Way to the west.
- 4.2 The Forum is currently accessed from South Way. The access is a two-way arrangement separated by a pedestrian refuge island. South Way forms the western boundary of The Forum Car Park; providing vehicular access. It extends in a southerly direction from a junction with North Way and West Way for approximately 130m to a junction with Lewis Lane and Tower Street.

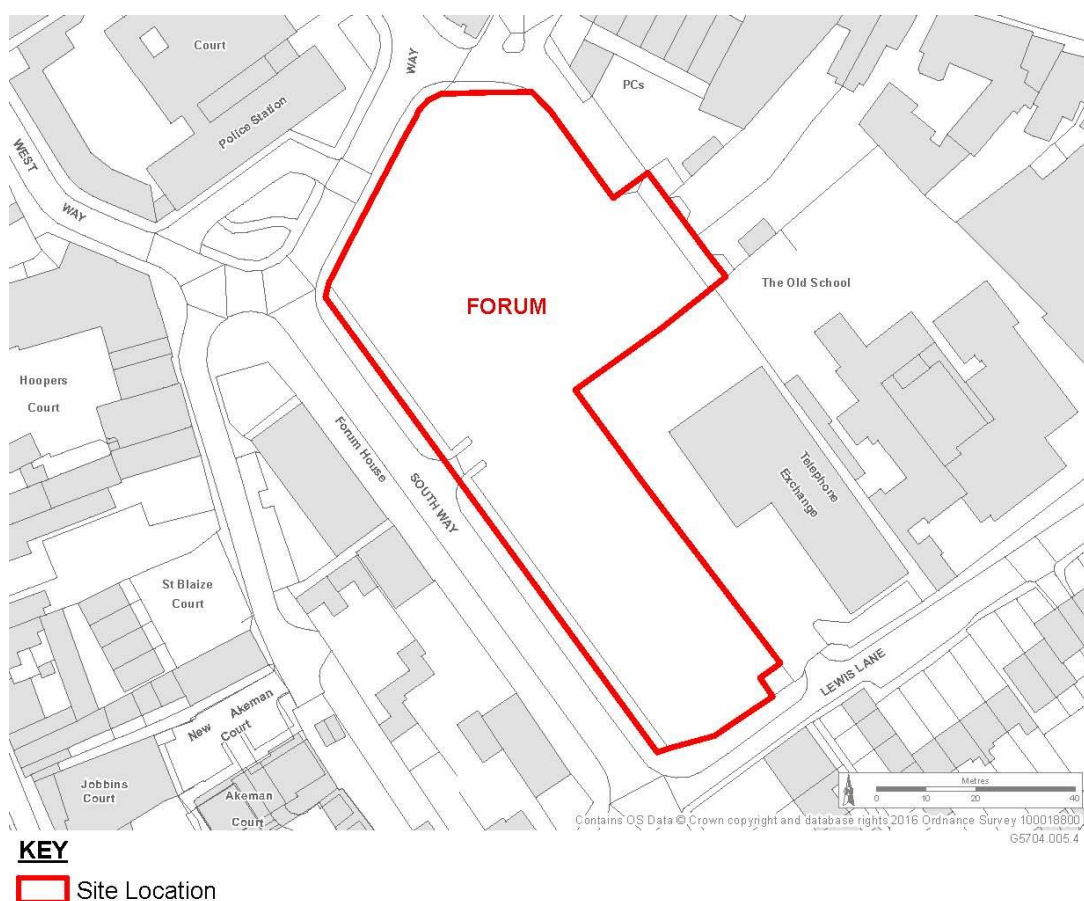


Figure 3: Forum Site Location

- 4.3 There are several pedestrian access points including access onto Lewis Lane, two at South Way and three access points onto North Way, making this site extremely permeable for pedestrians. All pedestrian access points are level or ramped where required and include dropped kerbs and tactile paving where appropriate. There are designated walkways painted on the recently re-surfaced car park and pedestrian infrastructure is generally good, with a number of zebra crossings present in the area and high levels of permeability exist.

- 4.4 The Forum Car Park has recently been upgraded and resurfaced and there is an opportunity to link the site with the Police Station and Magistrates' court, if the Police Station is relocated (as is currently expected).
- 4.5 A Site Location Plan showing the aerial view of The Forum is included within Appendix A: Car Park Location - Aerial Imagery.

Planning Policy

- 4.6 The Forum Car Park is unallocated in the adopted Cotswold District Local Plan 2001-2011, but is allocated in the Cotswolds District Council Local Plan 2011-2031 Submission Draft (2016 and Focussed Changes, January 2017) under Policy S1 Cirencester Town CIR_E10, which seeks a retail-led mixed use scheme for the site.
- 4.7 The Forum Car Park is also within a Scheduled Monument and the Cirencester Town Centre Conservation Area.

Feasibility Study - Stage 1

- 4.8 An initial feasibility report (Stage 1 Summary Report) was undertaken in June 2016 to assess the feasibility of increasing parking capacity within Cirencester through reviewing 8 car parks. The Forum Car Park was priority listing 2 out of 8 (Reference: Stage 1 Summary Report, Table 14 Car Park Matrix).
- 4.9 The Stage 1 Summary Report concluded that The Forum Car Park has good pedestrian permeability and accessibility to all town centre services and facilities. The site was found to provide opportunities for onward sustainable travel and the layout is conducive for additional level(s) of decked parking, subject to further investigation of constraints.

Heritage

- 4.10 The Forum car park is located within the Cirencester Town Centre conservation area.
- 4.11 It is also located within the Scheduled Monument, Corinium Roman Town. It is potentially situated within the site of the forum.
- 4.12 There is one Grade II listed building, a former school and attached railings, master's houses, gates, and gate piers (list entry number: 1187493), that overlooks the potential development site. It lies approximately 18m south of the Forum, on Lewis Lane.
- 4.13 There is one Grade II listed building, 56 and 58 Dyer Street (list entry number: 1205923), situated approximately 46m east of the development site. 56 and 58 Dyer Street were probably originally one early 19th century house, but is now two with a dental surgery.
- 4.14 There are numerous listed buildings lining Market Place and Dyer Street, to the north east of the potential development site. These are separated from the car park by modern development, including the Grade I listed St John the Baptists Church.
- 4.15 The scheduled monuments and listed buildings referred to above are of national importance, and are therefore assets of high heritage significance.

- 4.16 The Forum car park has a high potential for the survival of heritage assets with archaeological interest. The site has high potential for as yet unknown buried archaeological remains dating to the Roman and post medieval periods.
- 4.17 The site has moderate potential for as yet unknown buried archaeological remains dating to the medieval period.
- 4.18 Any application to development this site would require Scheduled Monument Consent. Any development would need to consider the harm to the heritage significance of the conservation area and listed buildings.

Transport

- 4.19 The Traffic and Transport Feasibility Report (Appendix E) has been commissioned in order to consider the suitability of additional parking provision at the existing The Forum Car Park.

Site Location and Existing Situation

- 4.20 The Forum Car Park is in a central location and easily accessible by road. The Forum Car Park is typically at its busiest on the weekend, with occupation levels often at full capacity. Throughout the week the car park is less busy, approaching capacity during the middle of the day.
- 4.21 It is considered that the pricing strategy shown within the highway feasibility study is likely to encourage short stay car parking, due to not permitting long term parking. This is thought to be the reason The Forum Car Park has some weekday capacity.
- 4.22 Following a review of the highway safety data form the County Council, it was not considered that there is an existing safety issue that is likely to be exacerbated by an increase in parking provision at The Forum Car Park.

Opportunity for Onward Sustainable Travel

- 4.23 There are a number of retail, office and employment opportunities within a 5 minute walk. The proximity to the retail opportunities is considered likely to be a significant contributing factor towards the high levels of occupation on Saturdays.
- 4.24 The Forum Car Park has existing formal cycle provisions and is accessible to both National Cycle Routes 45 and 48.
- 4.25 It was considered that there was some limited potential for onwards travel by bus within a 50m radius, which included services to Cheltenham, Swindon and Burton-on-Water. However additional services to Stroud, Malmesbury and Lechlade are available within a 300m walk from The Forum Car Park.
- 4.26 The Traffic and Transport Feasibility report concluded that The Forum Car Park has excellent levels of opportunity for onward travel to facilities and amenities around Cirencester Town Centre and other nearby destinations.

Indicative Parking Provision and Forecasted Impacts

4.27 The Traffic and Transport Feasibility Report includes an indicative analysis to inform the potential for additional capacity at The Forum Car Park. Five layout scenarios were assessed with regards to the wider implications:-

- 1) Do Nothing - continue to operate the car park under the existing conditions;
- 2) Ground Floor Only - redevelop the ground floor so that subsequent floors could be accommodated;
- 3) Ground Floor +1 - add one additional floor of car parking;
- 4) Ground Floor +2 - add two additional floors of car parking; and
- 5) Ground Floor +3 - add three additional floors of car parking.

4.28 Based on the initial layouts provided above, the potential gains in parking provision for each scenario are shown in Table 3 below.

Table 3: Potential Parking Provision at The Forum

Scenario	Parking Levels	Potential Provision			Disabled Parking Adjustment		
		Count	Impact	Impact (0%)	Count	Impact	Impact (0%)
Do Nothing	1	191	0	0%	191	0	0%
Ground Floor Only	1	179	-12	-6%	174	-17	-9%
Ground Floor +1	2	376	+185	+97%	365	+174	+91%
Ground Floor +2	3	573	+382	+200%	556	+365	+191%
Ground Floor +3	4	770	+579	+303%	747	+556	+291%

4.29 Table 3 - Potential Parking Provision, details each scenario with regards to the parking potential, impact and adjustments for disabled parking. It was concluded (notwithstanding other indirect/external factors) that there is potential for significant additional parking on the site should additional floors be provided.

4.30 With regards to traffic generation; scenario 'Ground Floor +1' could result in approximately two additional vehicles on the surrounding highway network every minute. At an impact of over 300 two-way trips in the peak hour scenario 'Ground Floor +3' could have a significant impact on the surrounding highway network.

Highways Conclusion

- 4.31 Further investigative works are required in order to finalise the car park layouts; considering all indirect/external factors and establishing an appropriate level of additional parking. From a transport perspective, this would include commissioning traffic counts at key junctions in the vicinity to better understand any impact on capacity.
- 4.32 Notwithstanding this and subject to detailed analysis and receipt of baseline traffic levels, it is considered there is opportunity for additional capacity at The Forum Car Park.
- 4.33 Consideration of the TRICS analysis and potential parking layouts detailed in this report suggests that **one additional level** of parking would result in approximately 91 additional two-way trips; which is likely to constitute a **medium impact** on the surrounding highway network considering the site location.
- 4.34 **Multiple levels of additional parking** could generate in excess of 191 two-way trips. This is likely to constitute a **significant impact** on the surrounding highway network, and could require extensive assessment of junctions in the vicinity of The Forum.
- 4.35 It is suggested the current pricing strategy should also be considered in conjunction with increased capacity; there is a significant difference between parking demand in the week and on Saturday, and an alternative strategy could encourage higher levels of occupation during the week and reduce pressure on other car parks in the vicinity.

5.0 Summary and Conclusions

- 5.1 A Stage 1 Summary Report was undertaken in June 2016 on behalf of Cotswold District Council to assess the feasibility of increasing parking capacity across eight car parks within Cirencester town centre, to meet current and future needs of Cirencester.
- 5.2 After the Stage 1 Summary Report was completed it was decided that a full planning application should be progressed for The Waterloo Car Park, and a Stage 2 Feasibility Report should be undertaken for The Forum, Old Station and Sheep Street car parks.
- 5.3 The Stage 2 Feasibility Report draws upon the conclusions of the Stage 1 - Summary Report and provides additional information on transport and heritage to better understand the opportunities and constraints of each car park. This report also identifies opportunities and provide a broad option on each sites capacity and future potential for increasing capacity.

Summary

- 5.4 The technical assessments that have been undertaken have shown that the three car parks within this study, function in different roles. One of the car parks (The Forum) is utilised by the public for shopping and retail purposes, with the other two (Sheep Street and Old Station) being primarily used for long stay commuter parking.
- 5.5 The Waterloo Car Park is currently coming forward for redevelopment to deliver a new parking provision for both commuter and town centre use, offering an expanded parking provision (exact additional number of parking spaces are still to be determined).

The Forum

- 5.6 In relation to the historic environment matters the feasibility of the sites can be described from the most to least constrained. The Forum is located entirely within the Scheduled Monument and a separate Scheduled Monument Consent would be required. It would also be necessary to demonstrate less than substantial harm, as there is a strong directive in planning policy (NPPF paragraphs 132-134) against consenting development that would result in substantial harm to a Scheduled Monument. Forum is therefore the least preferred option for the historic environment.
- 5.7 In relation to highways and consideration of the TRICS analysis, one additional level of parking would result in approximately 91 additional two-way trips; which is likely to constitute a medium impact. Multiple levels of additional parking could generate in excess of 191 two-way trips. This is likely to constitute a significant impact on the surrounding highway network, and could require extensive assessment of junctions in the vicinity of The Forum. Therefore, the Forum is the least preferred option for highway impacts.

Sheep Street

- 5.8 Sheep Street is located partially within a Scheduled Monument, again Scheduled Monument Consent would be required and there would be a strong presumption against development that would result in substantial harm to a designated heritage asset.
- 5.9 Consideration of the TRICS analysis and potential parking layouts, in terms of highway impacts suggests that one additional level of parking would result in approximately 74 additional two-way trips; which is likely to constitute a low – medium impact on the surrounding highway network considering the site location. Multiple levels of additional parking could generate in excess of 130 two-way trips. This is likely to constitute a medium impact on the surrounding highway network, and could require assessment of some junctions in the vicinity of Sheep Street. Therefore, Sheep Street functions slightly better than the Forum, for potential highway impacts.

Old Station

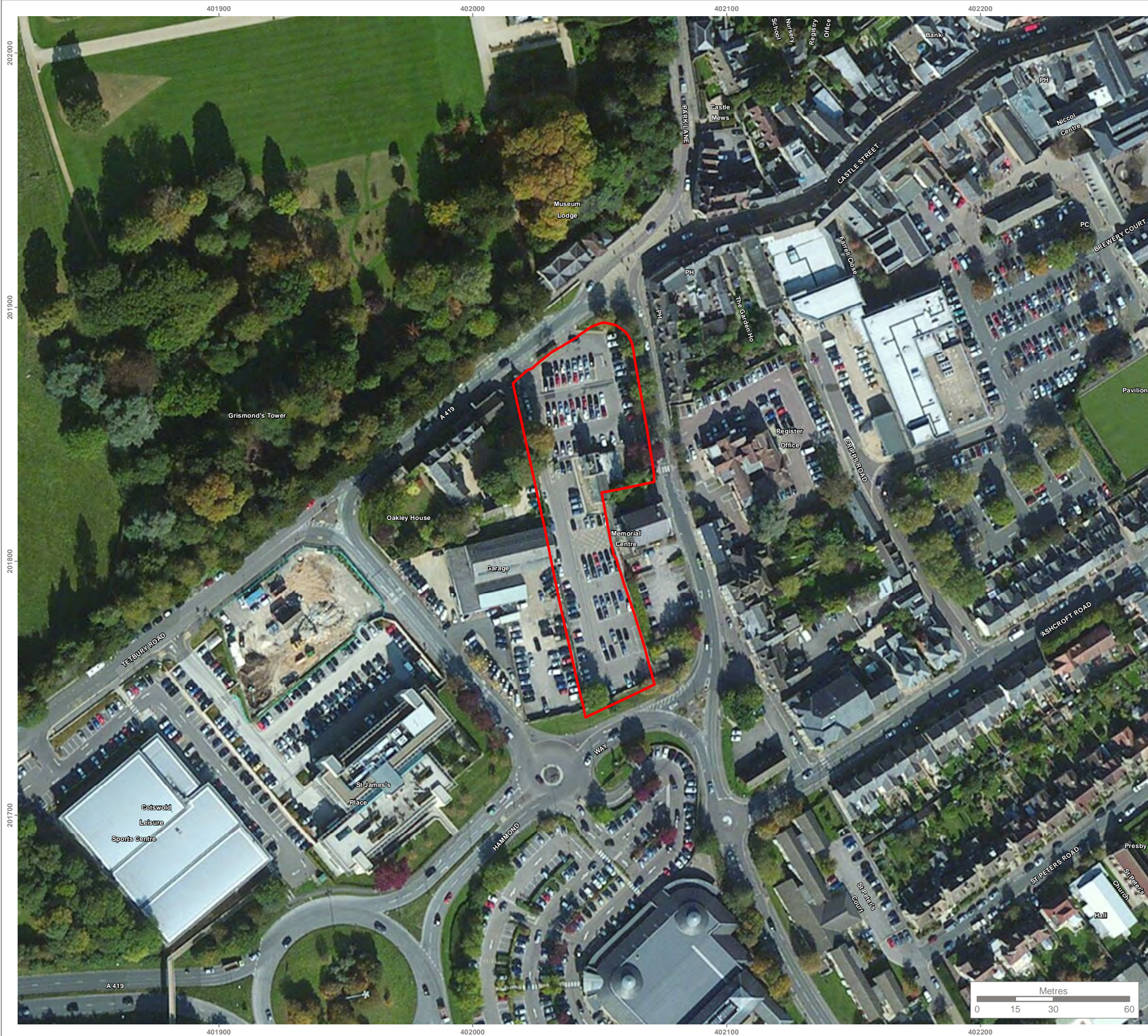
- 5.10 Old Station is the least constrained site for the historic environment, as it is not within any Scheduled Monument. It is within the Cirencester Conservation Area (as are Forum and Sheep Street) but through detailed design considerations and provision of appropriate mitigation measures development of Old Station may be possible without causing substantial harm to that designation.
- 5.11 In highway terms and subject to detailed analysis and receipt of baseline traffic levels, it is considered there is opportunity for additional capacity at Old Station Car Park. Consideration of the TRICS analysis and potential parking layouts detailed in the highways report suggests that one additional level of parking would result in approximately 65 additional two-way trips; which is likely to constitute a low impact on the surrounding highway network considering the site location.
- 5.12 Multiple levels of additional parking could generate in excess of 133 two-way trips. This is likely to constitute a medium impact on the surrounding highway network, and could require assessment of junctions in the vicinity of Old Station.
- 5.13 It is therefore concluded that Old Station Car Park is the preferred choice in both Heritage and Highway impacts.

Conclusion

- 5.14 This study has shown that each car park functions in a different manner with occupancy habits ranging through-out the day. With the forthcoming redevelopment at Waterloo Car Park (that will provide functional parking spaces for both retail and commuter traffic), there is an opportunity to focus on an additional parking provision.
- 5.15 The information provided in this report is based on non-intrusive desk based assessment work. Therefore any further investigations are likely to require guidance from either the Gloucestershire Highways for traffic and transport matters, or from Historic England and the Gloucestershire County Council Historic Environment Team for archaeological matters.

- 5.16 A viability assessment, looking at construction costs versus parking capacity/gains would be recommended prior to progressing further work on the site selection process.
- 5.17 This report has identified that further capacity is required to alleviate the current parking issues. The new Waterloo Car Park will help with this issue, but there is the potential to redevelop an additional site, focusing on expanding the car parking capacity, to ensure the parking issues within Cirencester are future proofed.
- 5.18 The most suitable, considering heritage constraints, size requirements and accessibility, would be the Old Station Car Park. Further assessment work is required in terms of highway impacts, with junction capacity outputs being required, to determine the level of additional car parking that could be incorporated onto this site.

APPENDIX A: Car Park Location - Aerial Imagery



KEY
 Site Location

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



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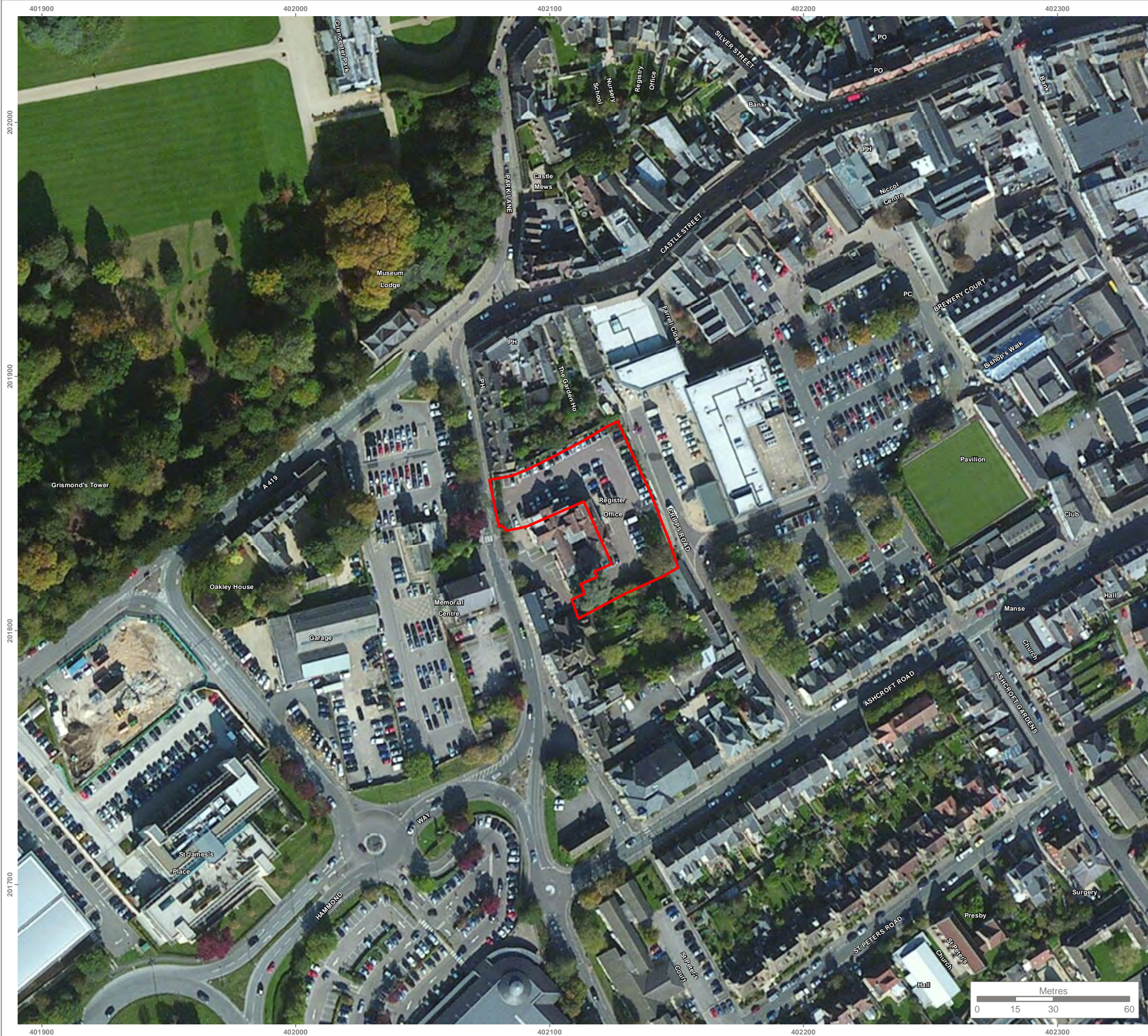
Genesis Centre, Birchwood Science Park, Warrington WA3 7BH
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Project
Cirencester Car Park Feasibility Study

Title
**Car Park Location - Aerial Imagery
 Old Station**

Drawing Number
G5704.012.1 Sheet 1 of 3

Drawn	Checked	Approved	Scale	Date
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KEY
 Site Location

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



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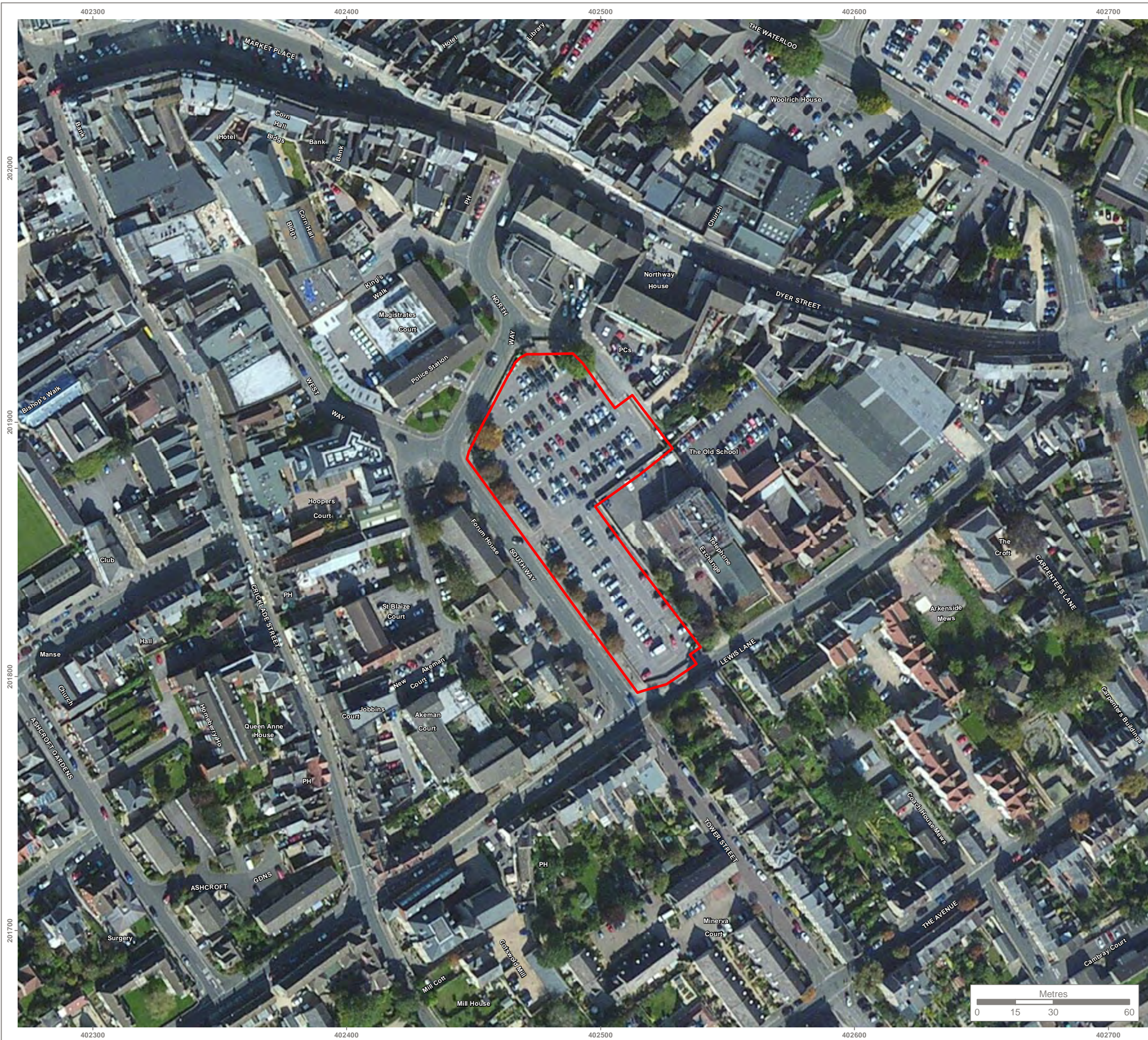
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Project
Cirencester Car Park Feasibility Study

Title
**Car Park Location - Aerial Imagery
 Sheep Street**

Drawing Number
G5704.012.2 Sheet 2 of 3

Drawn	Checked	Approved	Scale	Date
RE	JM	JM	1:1,500 @ A3	14/09/2017



KEY
 Site Location

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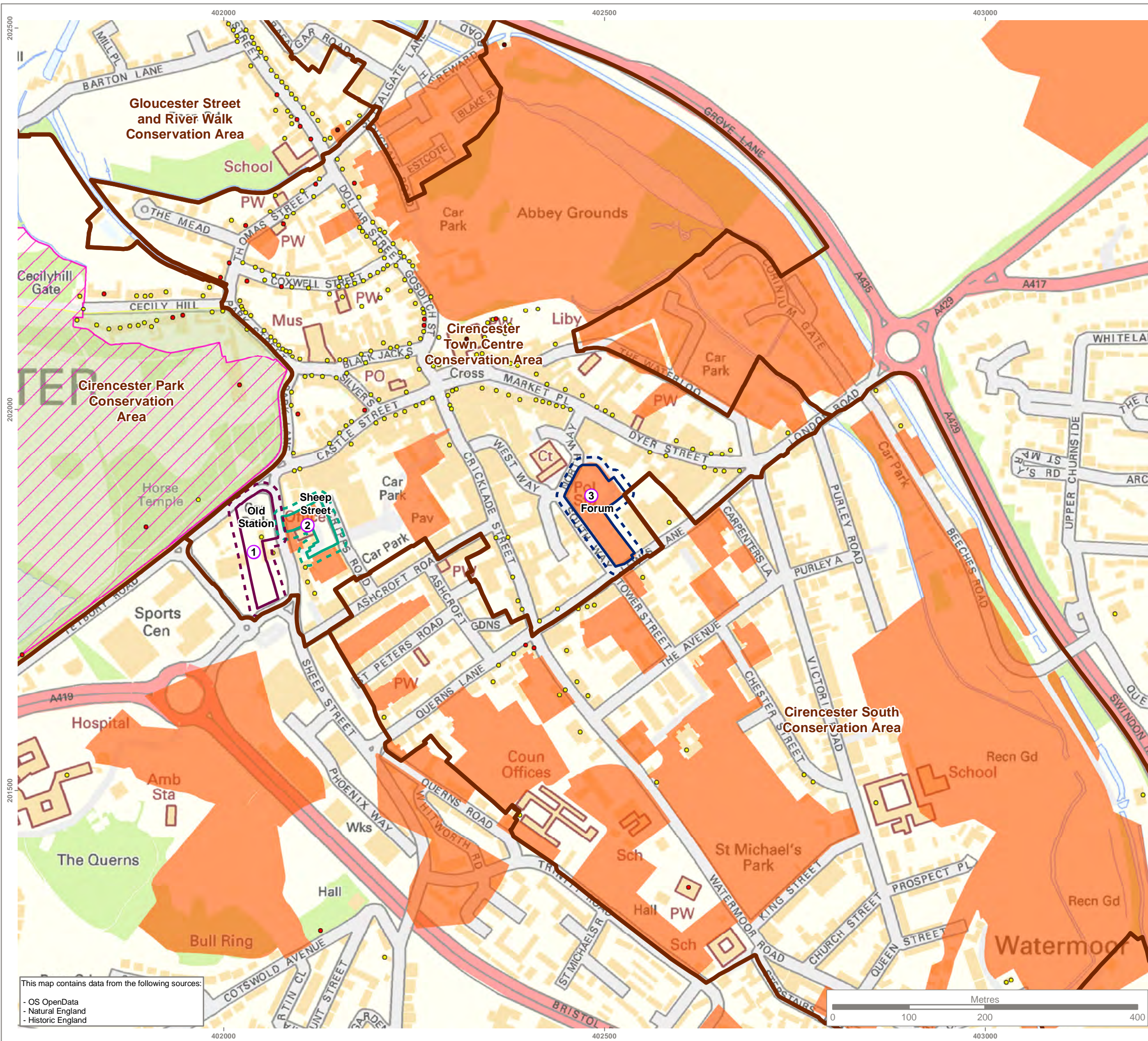
Project
 Cirencester Car Park Feasibility Study

Title
 Car Park Location - Aerial Imagery
 Forum

Drawing Number
 G5704.012.3 Sheet 3 of 3

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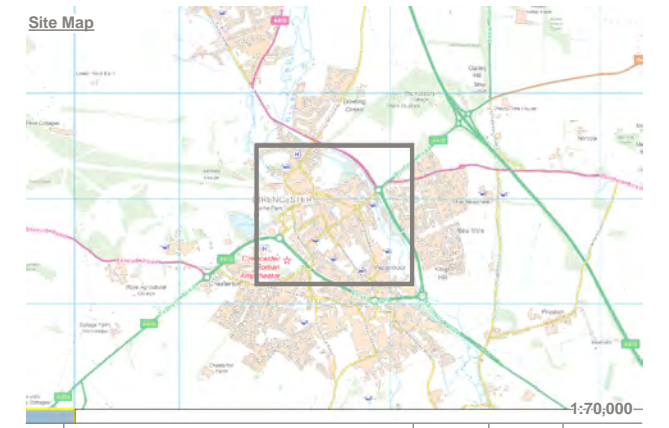
APPENDIX B: Car Park Locations with High Level Constraints



KEY

- Car Park Location for Feasibility Study
- Heritage Constraints**
 - Grade I Listed Building
 - Grade II* Listed Building
 - Grade II Listed Building
 - Registered Park and Garden
 - Scheduled Monument
- Environmental Constraints**
 - Areas of Outstanding Natural Beauty
- Cotswold District Council Data**
 - Conservation Area
- Car Park References**
 - 1 Old Station
 - 2 Sheep Street
 - 3 Forum
- Site Boundaries**
 - Old Station
 - Sheep Street
 - Forum
- Site Offset - 10m**
 - Old Station
 - Sheep Street
 - Forum

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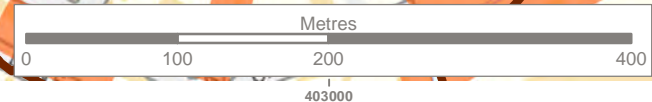
Project
Cirencester Car Park Feasibility Study

Title
Car Park Locations with High Level Constraints

Drawing Number
G5704.014

Drawn	Checked	Approved	Scale	Date
RE	JM	JM	1:5,000 @ A3	14/09/2017

This map contains data from the following sources:
 - OS OpenData
 - Natural England
 - Historic England



APPENDIX C: Historic Environment Constraints Report



THE
ENVIRONMENT
PARTNERSHIP



CIRENCESTER CAR PARK FEASIBILITY SURVEY

CIRENCESTER, GLOUCESTERSHIRE

HISTORIC ENVIRONMENT 2ND PHASE FEASIBILITY STUDY

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3.0 Method	3
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FIGURES

Figure 1: Car Park Locations with High Level Constraints (G5704.014)

1.0 Introduction

- 1.1 As a district centre, Cirencester needs to support a vibrant retail and service centre that is accessible to commuting workers and shoppers. The town also houses some 19,000 residents and many of those living in the historic centre of the town have limited private parking. As a tourist attraction, the town is also visited by a significant number of visitors each year, usually arriving by car, who require easily accessible and conveniently located car parking.
- 1.2 The rural nature of surrounding areas and the relative lack of public transport mean that the majority of shoppers, commuters, residents and visitors travel into the town by car. This generates considerable demand on town centre parking.
- 1.3 The popularity of the town, along with increasing car ownership, have resulted in the town's car parks reaching capacity during peak times.
- 1.4 Cotswold District Council owns and manages ten public car parks in Cirencester, Gloucestershire, which provide a total of 1,342 parking spaces across the town centre.
- 1.5 This Historic Environment Constraints Report forms Stage 2 of a Feasibility Study to assess the viability of increasing parking capacity across three of these car parks, to meet current and future needs of Cirencester, reflecting the development growth identified in the emerging local plan.
- 1.6 The car parks within this study are:
 - The Forum
 - Sheep Street
 - Old Station

2.0 Guidance

2.1 Best practise guidance notes and standards relevant to the historic environment, and consulted in the production of this report comprise:

- Chartered Institute for Archaeologists Code of Conduct and Standard and Guidance documents;
- National Planning Practise Guidance (2014)
- Historic England, Historic Environment Advice Note 3: The Setting of Heritage Assets (HE 2015), and
- Historic England, Conservation Principles; Policy and Guidance for the Sustainable Management of the Historic Environment (2008).

3.0 Method

Areas of Search

- 3.1 Data was gathered for all designated heritage assets within 250m of the development site boundaries. This allowed for the identification of the heritage assets where the development could affect the contribution of the heritage asset's setting to its significance. This study area is proportionate to the scales of development, and was informed by a preliminary appraisal of baseline data.
- 3.2 Data has also been gathered for all non-designated heritage assets within the development site boundaries and a 10m buffer from the site boundaries. The area of search has been designed to be fully inclusive of the development site boundary to ensure that assets adjacent to the development site but with the potential to extend into are captured in baseline data. The 10m buffer is sufficient to gather data on any heritage asset where its setting could be affected by the development through inter-visibility. The area of search also allows for assets with archaeological interest within or adjacent to the development site to be placed in context, and for the identification of trends that may help to predict archaeological potential within the development sites.

Data Sources

- 3.3 In order to identify the known historic environment constraints, and examine the archaeological potential of each of the identified sites the following sources were used:
- Gloucestershire Historic Environment Record
 - Heritage List for England
 - National Monuments Record
 - Historic Ordnance Survey mapping
 - Aerial photographs
 - Urban Archaeological Assessment for Cirencester
 - Conservation area reports
 - Previous archaeological reports

Site Visit

- 3.4 A site visit was undertaken on 17th May 2016 and 25th February 2017 to determine the presence and condition of heritage assets within the proposed site. The visits determined, there was no archaeological remains visible within any of the car park sites. The car parks were within urban environments that had a mixture of Georgian/Victorian to modern architecture and development within.

Assessing Heritage Significance

- 3.5 The significance of a heritage asset is described in terms of the value of the heritage asset because of its heritage interest (architectural, archaeological, artistic or historic) and is also described in relation to the asset's heritage values (evidential, historical, communal, and aesthetic).

- 3.6 For designated assets (Listed Buildings (LB), Scheduled Monuments (SM), Registered Parks and Gardens, Registered Battlefields, World Heritage Sites and Conservation Areas), the importance is 'high' or 'very high' as these assets meet the national criteria for designation under the relevant legislation. Listed Buildings and Registered Parks and Gardens are graded (I, II* and II) according to relative significance.
- 3.7 The relative significance of each non-designated heritage asset within the historic environment baseline has also been determined to provide a framework for comparison. These categories do not reflect a definitive level of significance or value of a heritage asset, but a provisional one based on the asset's heritage values to provide an analytical tool that can inform later stages of assessment and the development of appropriate mitigation, where needed. Some non-designated assets can be of equivalent importance to designated heritage assets. In these cases, their relative importance means that they are treated as if they are designated assets.

Table 1: Criteria for Determining Heritage Significance

Significance	Description
Very High	Internationally and nationally important resources: World Heritage Sites, Grade I and Grade II Listed Buildings and Registered Parks and Gardens. Some Scheduled Monuments, especially those associated with a World Heritage Site.
High	Nationally important resources: Grade II listed buildings, Conservation Areas, Scheduled Monuments, Grade II Registered Parks and Gardens, Registered Battlefield.
Moderate	Regionally important resources: Non-designated heritage assets and landscape features with high or moderate evidential, historical, aesthetic and/or communal values
Low	Locally important resources: Non-designated heritage assets and landscape features with low evidential, historical, aesthetic and/or communal values.
Negligible	Assets with very low or no evidential, historical, aesthetic and/ or communal values, or where remains are known to have been significantly altered or destroyed.
Unknown	Assets and structures of uncertain character, extent and/or date where the importance cannot be readily predicted.

Assessing the Effects of the Proposed Development

- 3.8 The effects of the proposed development have been determined by comparing the significance of the known heritage assets (or potential for heritage assets with archaeological interest) against the magnitude of likely effect. The significance of a heritage asset can be harmed or lost by alteration or destruction of the asset or development within its setting.
- 3.9 In policy terms (NPPF paragraph 133 and 134), harm to the significance of a heritage asset can be substantial or less than substantial. Planning practice guidance identifies that substantial harm is a high test. This is normally associated with total loss of a heritage asset's significance. Major adverse effects on heritage assets of moderate or high heritage significance are equivalent to substantial harm.
- Less than substantial harm is a broader bandwidth and the degree of less than substantial harm is a professional judgement encompassing minor changes through to more significant effects. The conclusions in this report identify the overall significant effects of the proposed development on heritage assets in accordance with the following scale:
 - None: no discernible change to any heritage asset, of any significance
 - Minor: minor adverse changes to the significance of a heritage asset of moderate or high heritage significance, or significant adverse changes or total loss of significance to a heritage asset of low or negligible heritage significance
 - Moderate: moderate adverse changes to the significance of a heritage asset of low or moderate heritage significance.

Limitations of this Assessment

- 3.10 Monument data from the HER and NMR consists of secondary information derived from varied sources. This data, as well as that derived from other secondary sources, is generally accurate. There are however several limitations to the data set, generic to any historic environment assessment. For example, where the known archaeological data relates to chance finds, or cropmark evidence, the full extent, date and nature of the asset is often uncertain. Also, a number of records, especially older records such as antiquarian finds, excavations or observations often fail to accurately locate assets.
- 3.11 Due to these limitations, it is possible that previously unrecorded heritage assets with archaeological interest could survive within the proposed area of development. Additionally, due to the buried and invisible nature of archaeological assets, there is often an element of uncertainty regarding the survival, condition, nature and extent of any such assets. During the site visit / walk over survey, reasonable visual checks were made to ensure that all reasonable endeavours have been undertaken to ensure that all heritage assets have been identified; but this does not preclude the possibility of the existence of unknown heritage assets.

Figures

- 3.12 Figures provided in support of the description of baseline conditions comprise:
- Figure 1: Car Park Locations with High Level Constraints (G5704.014)

Time periods and Abbreviations

3.13 Time periods referenced in the text are as follows:

- Prehistoric
- Palaeolithic: 500,000 -10,000 BC
- Bronze Age: 2,600 - 800 BC
- Iron Age: 800 BC – AD 43
- Roman: 43 – 410
- Medieval: 1066 – 1540
- Post Medieval: 1540 - 1901
- Modern: 1901 - present

3.14 Abbreviations used are as follows:

- GHER - Gloucestershire Historic Environment Record
- HER - Historic Environment Record
- LB - Listed Building
- NDHA – Non-designated Heritage Asset
- NGR- National Grid Reference
- OASIS - Online Access to the Index of Archaeological Investigations

4.0 The Forum

Location

- 4.1 The Forum car park is situated in close proximity to the northern sector of the main A429 ring road. The car park is located within the centre of Cirencester, within postcode GL7 1FN, and centred at NGR SP024018. It is surrounded by modern (20th century) architecture, including the police station.

Historic Background

- 4.2 The Roman street plan reveals that during this period, the potential development site is located within *Insula XVII* of the Roman town, north-west of the Forum, the administrative centre and market place of Cirencester. This was the hub of Roman activity within the town.
- 4.3 Following the retreat of the Roman Empire from Britain, the core of Cirencester moved north-west, away from the Forum. The Saxon core of the town lies approximately 187m north-west of the potential development site, with tentative archaeological evidence indicating a 5th to mid-7th century settlement, and evidence of a late Saxon estate centre.
- 4.4 During the medieval period the Cotswolds' wool industry flourished, and Cirencester prospered from the wool trade. There is a medieval Grade I listed church, St John the Baptists Church, approximately 215m north-west of the potential development site, the extravagance of which reflects the town's prosperity during this period. In the 14th century, a High Cross was stood in the market place, nearby to St John the Baptists Church.
- 4.5 During the medieval and post medieval period, the development site was on the edge of the town's centre of activity.
- 4.6 The 1875 to 1876 OS County Series map reveals that the development site is partially located within fields/gardens associated with the houses on Lewis Lane to the south east. To the north, it is located within the grounds of the Methodist Chapel.
- 4.7 By 1908, a school is marked to the east of the development site. The Methodist Chapel is no longer indicated. However, for the most part the land is undeveloped, excluding a few buildings off of Lewis Lane.
- 4.8 There is no considerable change until the OS Plan of 1969-1970, when some of the building along Lewis Lane are demolished to make way for the construction of a car park. There is now a telephone exchange to the east of the site, and a police station to the north. A new access route borders the west site of the car park. By 1978 this route is marked as South Way.

Known Heritage Assets

Designated Heritage Assets

- 4.9 The Forum car park is located within the Cirencester Town Centre conservation area.

- 4.10 It is also located within the Scheduled Monument, Corinium Roman Town. It is potentially situated within the site of the forum.
- 4.11 There is one Grade II listed building, a former school and attached railings, master's houses, gates, and gate piers (list entry number: 1187493), that overlooks the potential development site. It lies approximately 18m south of the Forum, on Lewis Lane.
- 4.12 There is one Grade II listed building, 56 and 58 Dyer Street (list entry number: 1205923), situated approximately 46m east of the development site. 56 and 58 Dyer Street were probably originally one early 19th century house, but is now two with a dental surgery.
- 4.13 There are numerous listed buildings lining Market Place and Dyer Street, to the north east of the potential development site. These are separated from the car park by modern development, including the Grade I listed St John the Baptists Church.

Non-designated Heritage Assets

- 4.14 There are no non-designated heritage assets identified within the potential development site.

Known Interventions

The Forum Car Park, Archaeological Evaluation

- 4.15 In 2002 Cotswold Archaeology undertook an archaeological evaluation at the Forum carp park. A total of eight test pits were excavated across the development area. These were excavated to a maximum depth of one metre to provide information for a ground investigation examining car park make-up for the proposed new lighting columns and re-surfacing work.
- 4.16 No deposits of archaeological interest were excavated, as the test pits revealed a thick layer of gravel and sand below the present tarmac surface, overlying a compacted levelling/rolling layer containing modern material. A few residual sherds of Romano-British pottery were recovered from this modern levelling/rolling layer. The surface of a possible cultivation soil was revealed in Test Pit 2, but no dating evidence was recovered.
- 4.17 Previous work carried out has characterised the archaeological potential of the study area, and has suggested the survival of Roman deposits cut and sealed by medieval deposits at a depth of as little as 0.60m below the modern ground surface. However, although the evaluation test pits ranged in depth from 0.60m to 1m only one possible archaeological horizon, the cultivation soil in Test Pit 2, was identified, at 0.85m below the present ground level. Elsewhere, modern make-up deposits associated with the creation of the present car park constituted at least the upper 0.60m of material in each test pit (other than Test Pit 1, where it was 0.45m).

The Forum Car Park, Archaeological Watching Brief

- 4.18 Foundations Archaeology undertook a programme of archaeological monitoring during groundworks associated with the replacement of light columns in The Forum Car Park, Cirencester in 2010.

- 4.19 No archaeological features, deposits or artefacts were present within the monitored areas. The works revealed up to 1.20m of made ground comprising a modern bedding layer overlain by tarmac.

Heritage Significance and Archaeological Potential

- 4.20 The scheduled monuments and listed buildings referred to above are of national importance, and are therefore assets of high heritage significance.
- 4.21 The Forum car park has a high potential for the survival of heritage assets with archaeological interest. The site has high potential for as yet unknown buried archaeological remains dating to the Roman and post medieval periods.
- 4.22 The site has moderate potential for as yet unknown buried archaeological remains dating to the medieval period.

Key Issues

- 4.23 The potential effects of the proposed development on the historic environment include:
- Physical effects on buried archaeology;
 - Effects on the conservation area character;
 - Effects on the setting of heritage assets; and
 - Indirect effects of noise, dust, and vibration.
- 4.24 The key historic environment constraints associated with development at the Forum are physical effects on buried archaeology. Any below ground work would have an adverse effect on any buried archaeological remains.
- 4.25 The development could have a minor adverse effect on the Conservation Area character, although the site is dominated by mid-late 20th century architecture.
- 4.26 The site is located within the Corinium Roman Town Scheduled Monument, and therefore Historic England will require formal consultation prior to the submission of any application.
- 4.27 There could be a moderate adverse effect on the settings of listed buildings.

5.0 Sheep Street

Location

- 5.1 Sheep Street car park is located within the north-western side of Cirencester, within postcode GL7 1QW, and centred at NGR SP021018. It is situated on the site of the former cottage hospital, Old Memorial Hospital, and lies adjacent to Old Station Car Park. To the west the site is bordered by Cripps Road, beyond that a superstore, and to the east lies Sheep Street. Residential buildings are situated to the north and south.
- 5.2 Throughout this chapter Sheep Street car park is referred to as the 'potential development site'.

Historic Background and Map Regression

- 5.3 The evidence for prehistoric activity within Cirencester is limited. Within the vicinity of the potential development site, approximately 70m to the south, a possible prehistoric ditch was recorded, suggesting prehistoric activity within the area.
- 5.4 During the Roman period, Cirencester was established as an important military centre, known as *Corinium Dobunorum*. The Sheep Street car park potential development site is situated within the north-western area of the Roman town, close to the town defences. The wall encircling the town would have initially consisted of earthen ramparts, which were later re-enforced with stone in the 3rd century. The line of medieval Sheep Street was potentially guided by the eroded Roman defences, as the Roman wall and rampart run almost parallel to the site, in line with the road.
- 5.5 Outward development in Cirencester was restricted by the influence of surrounding large estates during the medieval and post medieval period. While development around the market place continued, there was little expansion out of the town bounds and during the early 19th century the urban fringe of Cirencester was predominantly used agriculturally, covered by extensive nursery gardens, allotments, and subdivided pasture. The development site at Sheep Street is no exception to this practice, as evidenced in later historic mapping.
- 5.6 According to the 1875-6 County Series OS map, the development site at Sheep Street is situated in an area of green space, possibly an orchard, which surrounds the Old Memorial Hospital. There is a path through the centre of the development site, and a small building indicated in the north east side. West of the development site lies the Independent Chapel and the terminus of the Great Western Railway, Cirencester Branch line.
- 5.7 By the 1902 County Series OS map the building is no longer extant and the trees have been removed. Residential development has increased around the development site.
- 5.8 The 1921 County Series OS map depicts a much reorganised field pattern and two ancillary buildings to the north of the hospital.
- 5.9 In the 1932 County Series OS map, the path is no longer present and the ancillary hospital buildings are no longer extant, though there is a new building indicated to the south of the cottage hospital.

Known Heritage Assets

Designated Heritage Assets

- 5.10 Sheep Street car park is situated within Cirencester Town Centre Conservation Area.
- 5.11 The northern section of Sheep Street car park is located partially within the Scheduled Monument, Corinium Roman Town.
- 5.12 There are three Grade II listed buildings that overlook the proposed development. These comprise:
- A Former Railway Station (listed building reference: 1187518), situated approximately 31m west of the proposed development at Sheep Street. The railway station was built in 1841 and has late 20th century alterations. It is now in part offices and public lavatories.
 - Apsley Hall (listed building reference: 1298657), situated approximately 31m west of the proposed development. Apsley Hall is a former Independent/Congregational Chapel, built in 1833 with alterations of 1888 and the 20th century. It is currently in use as a mental health resource centre.
 - 25 and 25A Sheep Street (listed building reference: 1298656), situated approximately 10m south of the proposed development. These houses consist of an early 19th century house with a probably former stable wing attached that is now a separate house (25A).
- 5.13 There are two more Grade II listed buildings further south along Sheep Street. These comprise:
- Kingsleigh and attached railing bases (listed building reference: 1187516). Kingsleigh is a late 18th century house, situated approximately 20m south of the proposed development site.
 - 29 Sheep Street (listed building reference: 1187517), situated approximately 46m south of the proposed development site. 29 Sheep Street was formerly a public house, dated to the late 17th century with later alterations.
- 5.14 The scheduled monuments and listed buildings referred to above are of national importance, and are therefore assets of high heritage significance.

Non-designated Heritage Assets

- 5.15 There is a well preserved WWII air raid shelter located in the south east corner of the development site.

- 5.16 The air raid shelter was built in 1940 to accommodate approximately 80 hospital staff and patients from the Old Memorial Hospital. The barrel-vaulted shelter is built of concrete that has been turfed over for camouflage. Its south entrance is set at right angles to the main building and is designed to reflect any blasts back out of the entrance. The north entrance is set at an obtuse angle to accommodate a chute from the hospital extension (now demolished) to the shelter. Internally, apart from the timber supports for the anti-gas blankets in both of the entranceways, the fixtures and fittings have been removed. The air raid shelter is now used as an exhibition space.
- 5.17 Second World War examples of air raid shelters are fairly common, and it is thought that around 2.5 million Anderson air raid shelters and thousands of more substantial designs by private individuals, industry and local authorities were built. Although in reasonably good condition, the shelter is not complete and most of its fixtures and fittings have been removed. Therefore the air raid shelter has not been granted listing status.
- 5.18 The development site is overlooked by the now derelict Old Memorial Hospital. This cottage hospital was built in 1875. It was designed in a Domestic Revival style and its original appearance is shown in historic photographs. The building was purchased by the council in 1988 and closed as a hospital in the early 1990s. In 1991 planning permission was granted for the demolition of the extensions to the north and the east, including the extension added following the First World War, and the remaining building was used as offices and meeting rooms, before becoming vacant in 2013.
- 5.19 Although now derelict, the Old Memorial Hospital is a moderate example of Victorian architecture, in particular its frontage.
- 5.20 The Old Memorial Hospital and the air raid shelter were jointly considered for listing in June 2016. Although too altered to merit statutory designation the Old Memorial Hospital and the air raid shelter are of local architectural and historic interest and this is recognised by their inclusion in the Cirencester Town Centre Conservation Area. They are both therefore of low heritage significance.
- 5.21 In 1896, a skeleton was found at 'Sheep Street Hospital site'. The skeleton are in Corinium Museum and are recorded as C2135 - 'female skull from skeleton' with four armillae of bronze and an armilla. This is an unusual find as the skeleton would appear to have been found inside the walls. The Hospital referred to is the present Memorial Hospital on the east side of Sheep Street built in 1893. The Hospital now, however, includes the earlier Nonconformist Chapel, on the west side of Sheep Street, and built on the line of the Roman town wall. It may be that connected works here produced the find from just outside the town wall.
- 5.22 The non-designated heritage assets identified in the preliminary review of baseline conditions have regional or local heritage value, and therefore have low or moderate heritage significance.

Known Interventions

Excavation, Memorial Hospital, Sheep Street

- 5.23 In 1967, the alignment of the north-western town wall was verified by finding the back edge of the robber trench and the front edge of the rampart in its expected position in a garden at the Memorial Hospital. This was positioned c. 400 feet (c. 122 meters) to the south of the section in the station yard.

Excavation and Watching Brief. 33 Sheep Street

- 5.24 In 1990 Cotswold Archaeology undertook an excavation at 33 Sheep Street, approximately 70m south of the potential development site.
- 5.25 An evaluation comprising two trenches, and a subsequent excavation and watching brief was conducted. A Street with at least two surfaces was encountered, the uppermost surface overlying a deposit which produced probable second century pottery. In subsequent open-area excavation the earliest surface recognised comprised small flat slabs of limestone set in a solid matrix. The street showed signs of at least one repair before being re-surfaced on two occasions with limestone fragments. There was an open ditch on the south-eastern side. At this point the street was realigned, moving approximately 2m to the north-west of its former line. The new alignment remained through the life of the street during which time it was resurfaced at least ten times, which raised its height by 0.7m.
- 5.26 The excavation at 33 Sheep Street revealed a possible prehistoric ditch, succeeded by Roman quarry pits and the street which divided Insulae XX and XXI. The street was resurfaced three times before it was laid out afresh on a new alignment 2m further to the north to west in the 2nd century. At least ten later resurfacings were identified which raised the surface by some 70cm. At some point in the later 2nd or 3rd centuries a street was associated with gravel and mortar floors and rough cobbled surfaces. Several walls were located, one still standing seven courses high. During the watching brief a wall of another building associated with painted wall plaster was observed on the opposite (north-west) side of the street.

Watching Brief, Memorial Hospital, Sheep Street

- 5.27 In 1992, a watching brief was undertaken in the grounds of the Memorial Hospital following demolition of parts of the existing building and prior to construction of car parking. A series of six soakaways with associated service trenches were machine excavated across the site to an average depth of 2.7m and a much shallower hand dug 0.8 meter hole was opened to locate an existing water pipe. The location of the groundwork just within the town defensive rampart provided an opportunity to examine the Roman and later occupation. The watching brief confirmed the presence of Roman structures adjacent to the eastern defences within Insula XXI.
- 5.28 Wall foundations were encountered. The lack of building materials, e.g. tessera, wall plaster or floor layers, suggests that these were fairly basic structures. The finds suggest a date of 3rd to 4th century for the structures.

- 5.29 A gravel scoop was noted on soakaway B containing two gritty-clay fills which produced a small assemblage of 3rd to 4th century pottery and tile during the watching brief at Memorial Hospital, Sheep Street, in 1992.
- 5.30 A possible post-medieval feature was observed in soakaway C during the watching brief at Memorial Hospital, Sheep Street, Cirencester. The fill of the cut feature contained a mixture of black earths and gravel, and contained post-medieval and modern pottery and fragments of drainage-pipe indicative of recent activity.

Archaeological Desk-based Assessment

- 5.31 In May 2002, Cotswold Archaeological Trust undertook an archaeological desk-based assessment of land at the Old Memorial Hospital, Cirencester, prior to the landscaping of the area.
- 5.32 Roman deposits, including evidence of structures and quarrying, are known from previous excavations within the site. These are likely to relate to the second phase of Roman occupation in Cirencester, in the late first to fourth centuries AD. There is evidence that robbing of the stone from the Roman horizons occurred during the Roman period. The Roman deposits have been shown to occur at a depth of not less than 1.68m below present ground surface.
- 5.33 Deposits of dark earth, which are probably medieval in date, have been found across the site, occurring at a depth of not less than 0.32m below present ground surface. No evidence of structures have been found within the site.
- 5.34 Post-medieval structures on the site will have impacted upon the upper layers of the archaeological deposits, including the dark earth, but it seems likely that the Roman deposits occurring at a greater depth will remain intact across much of the site. There are two areas in which the impact will have been greater: the air raid shelter and the basement of the Memorial Hospital. Here the Roman horizons are likely to have been truncated.

Archaeological Desk-based Assessment

- 5.35 In July 2016, Cotswold Archaeology carried out an archaeological desk-based assessment, commissioned by Carter Jonas LLP in respect of proposed redevelopment of the Old Memorial Hospital, Cirencester. This assessment has identified that the Site is located within the south-west of Corinium's insula XXI / XXVII. The remains of the town's defensive wall and rampart run parallel, to the west. Structural remains have previously been uncovered within the site, including robbed-out wall footings with associated pottery dating to the 3rd and 4th centuries AD. Further structural remains have been recorded in proximity to the Site, including evidence for mortared stone walls and gravelled floors.

- 5.36 Cotswold Archaeology surmised that the available evidence suggests that the site is located within an area of the town that was in primarily residential and/or commercial use, with no indications of any high status settlement. Small-scale gravel quarrying is also in evidence in proximity to the site, and a burial has been recorded within the town walls a short distance to the west. The site appears to have been in agricultural use following the end of the Romano-British settlement. Previous archaeological investigations have revealed wide-spread deposits of dark earth, of probable medieval origin, as well as plough-soil. Romano-British remains have previously been recorded at depths of 1.76-2.08m below present ground level within the Site, and any presently unrecorded Romano-British remains would be anticipated to survive at a comparable depth. Any such remains would be considered significant heritage assets, largely on the basis of their evidential value. Remains within the west and north of the Site would fall within the Corinium Roman Town Scheduled Monument and would be heritage assets of the highest significance, statutorily protected.
- 5.37 Cotswold Archaeology advised that Scheduled Monument Consent would be required prior to any on-site investigation/construction works that might affect the Scheduled Monument. Such remains may warrant either preservation in situ, secured via a sensitive design and engineering response, or comprehensive mitigation including excavation and recording prior to construction. The significance of any non-designated Romano-British remains beyond the Scheduled area is likely to be equivalently high, and they would need to be considered within the same policy context, specifically paragraph 132 of the NPPF (2012).
- 5.38 Medieval dark earth deposits have previously been recorded at 0.32-1.06m below present ground level. These, and any surviving medieval/post-medieval agricultural remains, might retain some evidential value. This would be comparatively limited, however, and they would be considered heritage assets of low, if any, significance, which would not require preservation in situ.
- 5.39 Cotswold Archaeology concluded that overall, it is highly probable that Romano-British archaeological remains survive within the Site. The broad proposals are for the demolition of the extant buildings, and the construction of a car park. Ground reduction and surfacing activities associated with the construction of the car park would be comparatively superficial and would be unlikely to result in the truncation of any Romano-British remains. Should the final proposals include the excavation of the existing hospital foundations, in addition to demolition of the standing structure, then it is this activity that would have the greatest potential to truncate any archaeological deposits. The extent of any such truncation would depend upon the depth of the foundations, and the extent to which the original construction of those foundations has already truncated any underlying archaeological remains.

Heritage Significance and Archaeological Potential

- 5.40 The scheduled monuments and listed buildings referred to above are of national importance, and are therefore assets of high heritage significance. The non-designated heritage assets identified in the preliminary review of baseline conditions have regional or local heritage value, and therefore have low or moderate heritage significance.

5.41 The Sheep Street car park has a high potential for the survival of heritage assets with archaeological interest, particularly assets of local significance dating to the post medieval period, and of moderate to high significance associated with the Roman town.

Key Issues

5.42 The potential effects of the proposed development on the historic environment include:

- Physical effects on buried archaeology;
- Effects on the conservation area character;
- Effects on the setting of heritage assets; and
- Indirect effects of noise, dust, and vibration.

5.43 The key historic environment constraints associated with development at Sheep Street are physical effects on buried archaeology. Any below ground work would have an adverse effect on any buried archaeological remains.

5.44 The site is partially located within the Corinium Roman Town Scheduled Monument, and therefore Historic England will require formal consultation prior to the submission of any application.

5.45 The development could have a minor adverse effect on the Conservation Area character.

5.46 There could be a moderate adverse effect on the settings of listed buildings.

5.47 Heritage assets from the Second World War have risen in their heritage significance in recent years, the air raid shelter located within the car park is a well preserved example of its type and should be retained in any development.

6.0 Old Station

Location

- 6.1 Old Station car park is situated within the western side of Cirencester, within postcode GL7 1QW, and centred at NGR SP020018. It is located in close proximity to the A429 Bristol Ring Road, bounded by Tetbury Road to the west, facing Home Park, which backs onto Cirencester Park.

Historic Background and Map Regression

- 6.2 Until recently there have been few prehistoric features recorded from Cirencester. There is no evidence of prehistoric activity from within the potential development site at Old Station. Nonetheless, approximately 195m to the west lies Grismond's Tower Tumulus. It is so far undated, but may be a Bronze Age round barrow into which Roman secondary burials were inserted.
- 6.3 As previously noted, during the Roman period, Cirencester was established as an important military centre, known as *Corinium Dobunorum*. The potential development site at Old Station car park is located adjacent to the western defences of the Roman town, within the vicinity of a possible extramural cemetery. To the south lies the Roman amphitheatre.
- 6.4 During the medieval and post medieval period outward development of Cirencester was restricted by the influence of large estates that surrounding the town. While development around the market place continued, there was little expansion out of the town bounds and during the early 19th century the urban fringe of Cirencester was predominantly used agriculturally. However, by the later post medieval period the land around Old Station car park, including the development site, comprised of railway transport to support the thriving market town. This is evidenced in historic mapping.
- 6.5 The 1875-6 OS County Series map shows the development site to be in use as a railway terminus and goods station at this time. There is an engine shed to the south, and coal yard to the east, a booking office to the north, and a cattle market to the west.
- 6.6 There is little change to the development site in subsequent mapping, until the OS Plan of 1969-70. At this point, the railway is dismantled. An electrical substation now borders Sheep Street in the east, and there is a car park to the north of the development site, bordered by Tetbury Road. A number of buildings are marked in the north east, lining Sheep Street.
- 6.7 In the OS Plan (partial) of 1978-83, there is a bus station to the north of the development site. The road layout has altered, with Hammond Way now bordering the north of the development site.

Known Heritage Assets

Designated Heritage Assets

- 6.8 Old Station car park is located on the western boundary of the Cirencester Town Centre Conservation Area.
- 6.9 There are no scheduled monuments recorded within the development site. However, the scheduled monument Corinium Roman Town lies 11m to the east.
- 6.10 The scheduled monument, Long Barrow and Roman Amphitheatre and Cemetery, lies 56m south of the development site.
- 6.11 There is one listed building within the development site: the Former Railway Station (listed building reference: 1187518). The railway station was built in 1841, designed by Isambard Brunel, and has late 20th century alterations. It is now in part offices and public lavatories. It provides access to the Grade II listed Apsley Hall.
- 6.12 There is one listed building immediately adjacent to the development site, Apsley Hall (listed building reference: 1298657). Apsley Hall is a former Independent/Congregational Chapel, built in 1833 with alterations of 1888 and the 20th century. It is currently in use as a mental health resource centre.
- 6.13 Three Grade II listed buildings overlook the southern half of the development site. These comprise:
- 25 and 25A Sheep Street (listed building reference: 1298656), situated approximately 28m east of the proposed development. These houses consist of an early 19th century house with a probably former stable wing attached that is now a separate house (25A).
 - Kingsleigh and attached railing bases (listed building reference: 1187516). Kingsleigh is a late 18th century house, situated approximately 40m east of the proposed development site.
 - 29 Sheep Street (listed building reference: 1187517), situated approximately 41m east of the proposed development site. 29 Sheep Street was formerly a public house, dated to the late 17th century with later alterations.
- 6.14 To the north of the car park, to the north of Tetbury Road, lies Cirencester Park (list entry number: 1000432), a Grade I registered park and garden. Cirencester Park is an extensive wooded park, divided by avenues, planted from 1714 to 1775.
- 6.15 Within Cirencester Park lies the Horse Temple (listed building reference: 1187403), a Grade II listed building. The Horse Temple is an early 18th century landscape building, and is situated approximately 49m north west of the proposed development.

Non-designated Heritage Assets

- 6.16 The development site at Old Station is located partially within a historic landfill site/quarry. This activity may have truncated any below ground archaeological remains within the area.

- 6.17 Previous archaeological events within the area has found remains from the prehistoric, Roman, Anglo-Saxon, Medieval, and post medieval periods, with the Roman period the most well represented.

Known Interventions

Archaeological Excavation

- 6.18 In 1967, excavations took place in the grounds of the old railway station yard. The area of investigation included the area between Tetbury Road to the north-west and Quern Lane to the south east. The excavation of six trial trenches revealed evidence for the town wall and rampart. Archaeological deposits were encountered at depths of only 0.6m. All of the trenches produced some evidence for the defences.

Archaeological Desk-based Assessment

- 6.19 In 2008 Oxford Archaeology was commissioned by Cotswold District Council to undertake an Archaeological Desk-based Assessment of an area of proposed development for car parking at Sheep Street Island, Cirencester. The Sheep Street Island site is located on the North West edge of central Cirencester, bounded to the west by the A429 link onto Hammond Way, to the north by the A429 Tetbury Road, to the east by Sheep Street and to the south by Hammond Way. It covers the area of the development site discussed in this chapter.
- 6.20 The report concluded that the western defences of the Roman town of Corinium pass through the eastern half and centre of the site and that a Roman extramural cemetery may extend from the west into the site.

Heritage Significance and Archaeological Potential

- 6.21 The scheduled monuments and listed buildings referred to above are of national importance, and are therefore assets of high heritage significance. The non-designated heritage assets identified in the preliminary review of baseline conditions have regional or local heritage value, and therefore have low or moderate heritage significance.
- 6.22 The Old Station car park development site has a moderate potential for the survival of heritage assets with archaeological interest, particularly assets of moderate to high significance associated with the Roman town. The construction of the railway line and associated infrastructure may have truncated some of the buried archaeological remains within the potential development site, but the extent of truncation is unknown.

Key Issues

- 6.23 The potential effects of the proposed development on the historic environment include:
- Physical effects on buried archaeology;
 - Effects on the conservation area character;
 - Effects on the setting of heritage assets; and
 - Indirect effects of noise, dust, and vibration.

- 6.24 The key historic environment constraints associated with development at Old Station are physical effects on buried archaeology. Any below ground work would have an adverse effect on any buried archaeological remains.
- 6.25 The development could have a minor adverse effect on the Conservation Area character.
- 6.26 The development could have a minor adverse effect on the setting of Cirencester Park, a Grade I registered park and garden.
- 6.27 There could be a moderate adverse effect on the settings of listed buildings.

7.0 Conclusion

- 7.1 The three application sites comprising The Forum, Sheep Street and the Old Station are historically located either within the former Roman town of Corinium Dobunnum or within its environs.

The Forum

- 7.2 The Forum car park is located in the centre of modern Cirencester but historically it was within the probable site of the Roman Forum, an area of public open space reserved primarily for the vending of goods (a marketplace) as well a gathering place for political discussions and debate.
- 7.3 The car park is currently located fully within the Corinium Roman Town Scheduled Monument and within the Cirencester Town Centre Conservation area. There is a Grade II listed building that overlooks the site, approximately 18m to the south on Lewis Lane. There are numerous listed buildings located along Market Place and Dyer Street to the north of the car park but are separated from the site by modern development.
- 7.4 Any application to development this site would require Scheduled Monument Consent. Any development would need to consider the harm to the heritage significance of the conservation area and listed buildings.

Sheep Street

- 7.5 The Sheep Street car park is located at the western side of modern Cirencester adjacent to the Old Memorial Hospital and historically close to the defences of the Roman town.
- 7.6 The car park is partially located within the Corinium Roman Town Scheduled Monument and within the Cirencester Town Centre Conservation area. There are three Grade II listed buildings that overlook the proposed development site and a further two further south along Sheep Street.
- 7.7 Any application to development this site would require Scheduled Monument Consent. Any development would need to consider the harm to the heritage significance of the conservation area and listed buildings.

Old Station

- 7.8 The Old Station is located at the western side of modern Cirencester and adjacent to Sheep Street car park. The car park is located at the site of the former railway station and would likely have been outside the western defences of the Roman town, possibly in the vicinity of the extramural cemetery.
- 7.9 The car park is located within the Cirencester town centre and adjacent to Cirencester Park, a Grade I registered park and garden and conservation area. There is one Grade II listed building within the proposed development site, the railway station, built in 1841 and designed by Isambard Brunel and is immediately adjacent to Apsley Hall, a former chapel and Grade II listed.

- 7.10 Any application should consider effects to the listed building on the site and if any alterations or changes to the building are proposed Listed Building Consent would be required. Any development would need to consider the harm to the heritage significance of the conservation area and setting of the registered park and garden.

Feasibility

- 7.11 In relation to the historic environment matters the feasibility of the sites can be described from the most to least constrained. The Forum is located entirely within the Scheduled Monument and a separate Scheduled Monument Consent would be required. It would also be necessary to demonstrate less than substantial harm, as there is a strong directive in planning policy (NPPF paragraphs 132-134) against consenting development that would result in substantial harm to a Scheduled Monument. Forum is therefore the least preferred option for the historic environment.
- 7.12 Sheep Street is located partially within a Scheduled Monument, again Scheduled Monument Consent would be required and there would be a strong presumption against development that would result in substantial harm to a designated heritage asset.
- 7.13 Old Station is the least constrained site for the historic environment, as it is not within any Scheduled Monument. It is within the Cirencester Conservation Area (as are Forum and Sheep Street) but through detailed design considerations and provision of appropriate mitigation measures development of Old Station may be possible without causing substantial harm to that designation.

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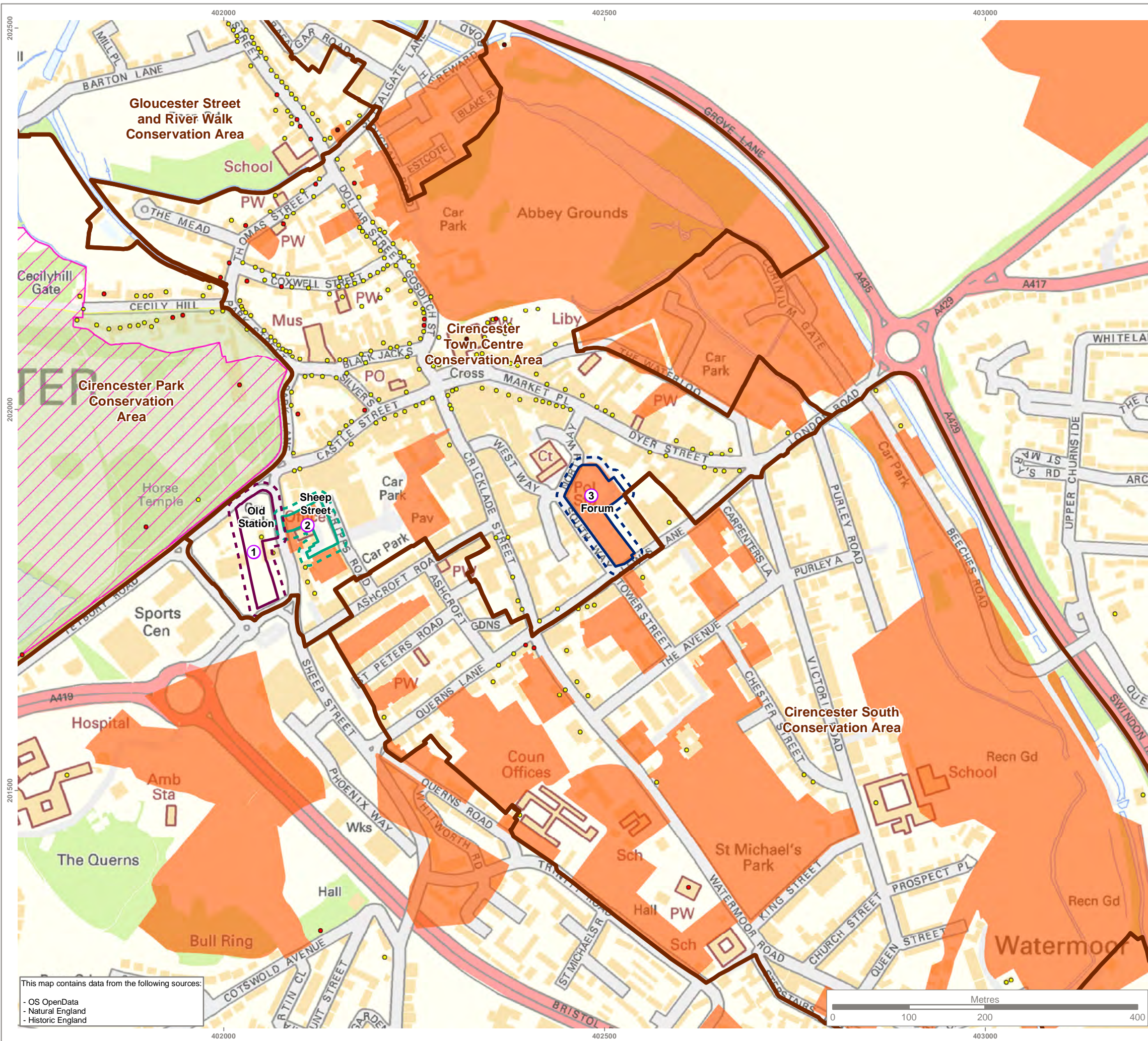
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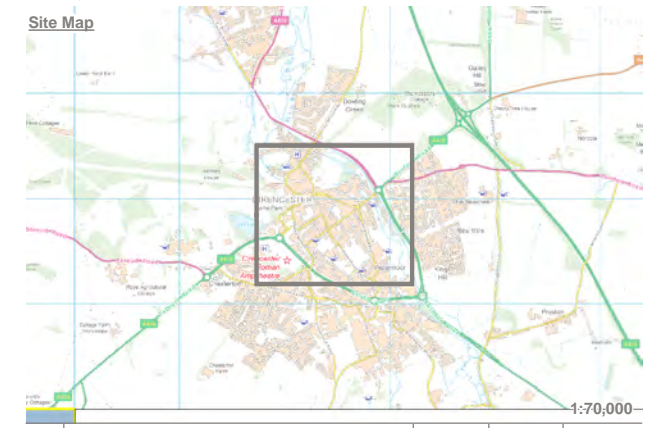
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KEY

- Car Park Location for Feasibility Study
- Heritage Constraints**
 - Grade I Listed Building
 - Grade II* Listed Building
 - Grade II Listed Building
 - Registered Park and Garden
 - Scheduled Monument
- Environmental Constraints**
 - Areas of Outstanding Natural Beauty
- Cotswold District Council Data**
 - Conservation Area
- Car Park References**
 - 1 Old Station
 - 2 Sheep Street
 - 3 Forum
- Site Boundaries**
 - Old Station
 - Sheep Street
 - Forum
- Site Offset - 10m**
 - Old Station
 - Sheep Street
 - Forum

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Rev	Description	Drawn	Approved	Date

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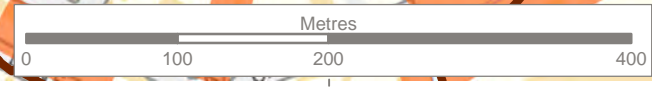
Project
 Cirencester Car Park Feasibility Study

Title
 Car Park Locations with High Level Constraints

Drawing Number
 G5704.014

Drawn	Checked	Approved	Scale	Date
RE	JM	JM	1:5,000 @ A3	14/09/2017

This map contains data from the following sources:
 - OS OpenData
 - Natural England
 - Historic England





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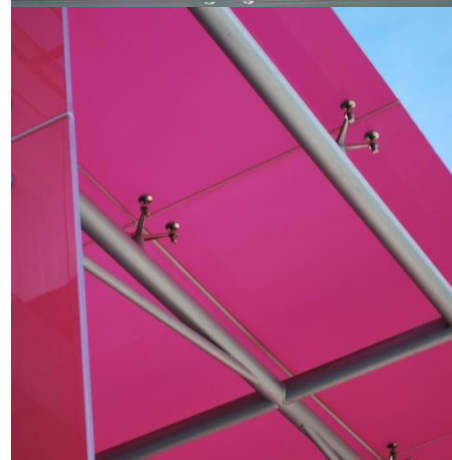
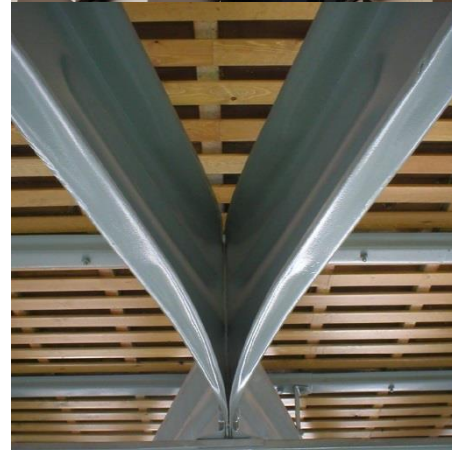
APPENDIX D: Old Station Car Park, Cirencester Traffic and Transport Feasibility

Old Station Car Park, Cirencester

Traffic and Transport Feasibility

Curtins Ref: TPMA1486-OS/TF
Revision: Final
Issue Date: 18 September 2017

Client Name: Cotswold District Council



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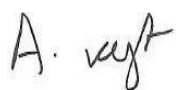
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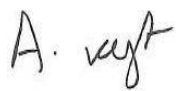
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- Plan TPMA1486-OS-001 – Regional Location Plan**
- Plan TPMA1486-OS-002 – Local Location Plan**
- Plan TPMA1486-OS-003 – Pedestrian Catchment and POI Plan**
- Plan TPMA1486-OS-004 – Existing Local Cycle Provision**
- Plan TPMA1486-OS-005 – TRACC Bus Catchment**

Drawings

- Drawing TPMA1486-OS-100 – Indicative Parking Layouts**

Appendices

- Appendix A – PIA Data**
- Appendix B – TRICS Outputs**

1.0 Introduction

1.1 Background

- 1.1.1 Curtins has been appointed on behalf of Cotswold District Council to provide traffic and transportation advice in relation to car parking provision across Cirencester.
- 1.1.2 This report follows an initial wider feasibility report for eight of the 10 existing Council-operated Pay & Display car parks throughout Cirencester.

1.2 Purpose of this Report

- 1.2.1 Detailed feasibility reports were subsequently requested by Cotswold District Council for the following three car parks:
 - Old Station;
 - The Forum; and
 - Sheep Street.
- 1.2.2 This Traffic and Transport Feasibility report has been written in order to consider the suitability of additional parking provision at the existing Old Station Car Park.

2.0 Site Location and Existing Situation

2.1 Site Location

2.1.1 Old Station Car Park is located on the western side of Cirencester town centre; bounded by Tetbury Road to the north, Sheep Street and Cirencester Memorial Centre to the east, Hammond Way to the south and buildings to the west.

2.1.2 **Plan TPMA1486-OS-001** illustrates the location of the site in relation to the surrounding areas, and **Plan TPMA1486-OS-002** shows the site in a more local context relating to the local highway network.

2.1.3 The following analysis is based on information provided by Gloucestershire County Council, Cotswold District Council and a site visit undertaken by Curtins employees on Tuesday 17th May 2016.

2.2 Existing Provision and Terms of Operation

2.2.1 The site currently comprises the following approximate provision:

- 149 standard parking bays;
- 2 disabled parking bays; and
- Space for 4 – 5 motorcycles.

2.2.2 Old Station Car Park is open Monday – Sunday, and imposes the following charges as reproduced in **Table 2.1**:

Car Park	Cost of Stay							
	½hr	1hr	2hrs	3hrs	4hrs	5hrs	10hrs	Sundays
Old Station	50p	£1.30	£2.30	£3.00	N/A	£3.90	£6.50	Free

Table 2.1 – Old Station: Costs of Stay

2.2.3 It is considered the above pricing strategy is likely to encourage all-day parking at Old Station Car Park, whilst still providing the option for short stay.

2.3 Existing Access Arrangements

Vehicular Access

2.3.1 Old Station is currently accessed from Tetbury Road via a separated in/out arrangement. The access/egress points themselves are relatively wide; measuring in excess of 6m.

Pedestrian Access

2.3.2 Dropped kerbs and tactile paving are present at the site access/egress points. Additionally, there is a stepped access at the north east from Tetbury Road, and a relatively steep ramped access from Sheep Street to the eastern side of the car park.

2.4 Surrounding Highway Network

Tetbury Road

- 2.4.1 Tetbury Road forms the northern boundary of the Old Station Car Park. It extends in a north-easterly direction from a junction with Hammond Way and Old Tetbury Road for approximately 170m to Park Lane.
- 2.4.2 The carriageway is approximately 10m wide, and is one-way in a north-easterly direction. In the vicinity of the site Tetbury Road comprises a single lane of vehicular traffic, a bus lay-by with associated infrastructure and an advisory cycle lane. There are also a number of on-street parking bays along the northern side of the carriageway to the west of the car park access/egress.
- 2.4.3 There are footways on both sides of the carriageway, measuring approximately 1.8m – 4m in width. The northern footway is shared foot/cycle provision. Street lighting is present.

Sheep Street

- 2.4.4 Sheep Street forms the eastern boundary of the northern half of the Old Station Car Park. It extends in a southerly direction from a junction with Tetbury Road and Castle Street for approximately 550m to a junction with Somerford Road and Trinity Road.
- 2.4.5 In the vicinity of the site the carriageway is approximately 5m wide, and is one-way in a southerly direction. A zebra crossing complete with dropped kerbs, tactile paving and flashing beacons links the eastern footway along Sheep Street to the ramped pedestrian access to the car park.
- 2.4.6 There are footways on both sides of the carriageway, measuring approximately 2m in width. Street lighting is present.

2.5 Existing Levels of Occupation

- 2.5.1 A series of car park occupation data has been provided by Gloucestershire County Council. **Table 2.2** considers average occupations for surveys undertaken in March, June and October 2015; a representative sample of average parking across the year:

Average Occupation	10:00		11:00		12:00		13:00		14:00		15:00	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Monday	149	100%	149	100%	149	100%	149	100%	149	100%	148	99%
Tuesday	149	100%	149	100%	149	100%	149	100%	149	100%	148	99%
Wednesday	149	100%	149	100%	149	100%	149	100%	147	99%	145	97%
Thursday	149	100%	149	100%	149	100%	149	100%	149	100%	146	98%
Friday	149	100%	149	100%	149	100%	149	100%	148	99%	148	99%
Weekday	149	100%	149	100%	149	100%	149	100%	148	100%	147	99%
Saturday	70	47%	107	72%	122	82%	130	87%	132	89%	121	81%

Table 2.2 – Old Station Occupation Summary

- 2.5.2 It is clear from the above table that Old Station Car Park is often at capacity throughout the week, from 10:00 right through to 15:00. It is clear that old Station is a well-used car park which would benefit from additional capacity.
- 2.5.3 On Saturdays the car park is less busy throughout the mornings, approaching (but not usually reaching) capacity by mid-afternoon.

2.6 Highway Safety

2.6.1 Personal Injury Accident (PIA) data for the highway network adjacent to the site has been obtained from Gloucestershire County Council for the most recent five years. A breakdown of the information is contained in **Table 2.3**:

Junction/Link	Slight	Serious	Fatal	Totals
Sheep Street/Ashcroft Road	1	0	0	1
Totals	1	0	0	1

Table 2.3 – Personal Injury Accident Data Summary

- 2.6.2 The above search is included in **Appendix A** to the rear of this report.
- 2.6.3 There has been a total of one accident recorded in the latest five-year period available, comprising a single ‘slight’ accident. No ‘fatal’ or ‘serious’ accidents have been recorded in the study area and period. There is nothing to suggest an existing safety issue from the breakdown in accidents to locations as indicated in the above table.
- 2.6.4 Following a thorough review of the records, it is not considered that there is an existing safety issue that is likely to be exacerbated by an increase in parking provision at the Old Station Car Park.

3.0 Opportunity for Onward Sustainable Travel

3.1 Introduction

3.1.1 This section considers the car park's location and the prospect of onward sustainable travel; considering how the facility links to key facilities and amenities throughout Cirencester town centre and beyond.

3.2 Onward Travel on Foot

TRACC and Points of Interest Analysis

3.2.1 In order to consider access to surrounding facilities and facilities on foot, TRACC software and Points of Interest (POI) data has been utilised.

3.2.2 TRACC is a leading multi-modal transport accessibility tool which was developed in conjunction with the Department for Transport (DfT), Local Authorities and transport planners. In this case, it has been used to generate a 360m pedestrian catchment from Old Station Car Park along local footways and footpaths.

3.2.3 The 360m walking catchment is based on a 5-minute walk (at an average walking speed of 1.2m/s), and is also comparable to the CIHT acceptable walking distances for car-borne shoppers based on a 2 hour stay as defined in the CIHT document 'Providing for Journeys on Foot' and reproduced in **Table 3.1**:

Parking Time	Acceptable Walking Distances (m)
30 mins	100
1 Hour	200
2 Hours	400
4 Hours	800
8 Hours	1,000

Table 3.1 – Providing for Journeys on Foot – Car Parking Walking Distances

3.2.4 Furthermore, 360m also compares to the CIHT suggested 'Acceptable' walking distance of 400m for town centre uses.

3.2.5 In order to compare the pedestrian catchment with existing facilities, Geographic Information System (GIS) POI data has been obtained from BaseMap and plotted on a suitable mapping base. The information was categorised into the following land uses:

- Food and Drink – cafes, bars, hotel/restaurants, takeaways etc.
- Leisure and Tourism – museums, green spaces/parks, bodies of water etc.
- Office and Employment – offices, trades, warehouses etc.
- Retail – high street shops, commercial services, local shops, supermarkets etc.

3.2.6 The resultant information is provided in **Plan TPMA1486-OS-003**.

Local Amenities and Facilities

3.2.7 Following the analysis of **Plan TPMA1486-OS-003**, it is clear that the car park is located in a relatively good position to take advantage of a number of facilities and amenities.

3.2.8 In particular, there are a number of office & employment opportunities and food & drink amenities within a 5-minute walk to the north east of the car park.

3.2.9 The proximity of the various office and employment opportunities is considered likely to be a significant contributory factor towards the high levels of car park occupation during the week as provided in **Table 2.1**.

3.2.10 Slightly further afield along roads such as Castle Street, Market Places and Cricklade Street there are leisure & tourism and retail facilities.

3.3 Onward Travel by Cycle

3.3.1 Old Station Car Park currently provides no formal cycle parking provision. Nevertheless, it is considered some users could transport their bicycle to the car park for onwards travel; or benefit from cycle provision in the future. **Plan TPMA1486-OS-004** illustrates the existing cycling provision adjacent to the site.

3.3.2 There is existing cycle provision along Tetbury Road in the form of an on-road cycle lane and shared pedestrian/cycle provision on the northern side of the road.

3.3.3 National Cycle Route 45 is accessible within approximately 150m of Old Station Car Park. The route extends southwards out of the town centre before heading eastwards to Swindon and westwards to Stroud.

3.3.4 Additionally, National Cycle Route 48 is accessible within approximately 300m of Old Station Car Park. The route extends northwards out of the town centre towards Northleach.

3.4 Onward Travel by Bus

3.4.1 It is considered some users could choose to travel to different areas throughout Cirencester town centre, or further afield, by bus.

3.4.2 The nearest bus stop to the site is located within 50m of the car park along Tetbury Road. **Table 3.2** details the services that call at these stops, and their associated frequencies:

Bus Service	Route	Peak Frequency		
		Mon – Fri	Sat	Sun/Hols
54/54A/ X54	Stroud – Cirencester	7 Daily Services	3 Daily Services	-
77	Cirencester – Fairford – Lechlade	1 Daily Service	1 Daily Service	-
93	Malmesbury – Charlton – Crudwell – Somerford Keynes – Cirencester	5 Daily Services	7 Daily Services	-
881	Cirencester – Kemble – Tetbury	1 Daily Service	-	-

Table 3.2 – Summary of Bus Service Frequencies from Tetbury Road

3.4.3 Considering the above table, there is some potential for onwards travel by bus.

3.4.4 **Plan TPMA1486-OS-005** demonstrates those areas accessible via public transport within 10, 20 and 30 minutes' bus journey from Old Station Car Park.

3.5 Summary

3.5.1 It is considered that the Old Station Car Park has good levels of opportunity for onward travel to facilities and amenities around Cirencester Town Centre, and some other nearby destinations.

4.0 Indicative Parking Provision and Forecasted Impact

4.1 Introduction

- 4.1.1 It has been demonstrated throughout **Sections 2** and **3** of this report that Old Station Car Park is well situated to access office & employment opportunities and food & drink amenities across Cirencester town centre.
- 4.1.2 Old Station Car Park is also considered to be very well-used; with 100% occupation regularly reached and maintained during the week. The car park is quieter on Saturdays, suggesting Old Station is generally used for commuting rather than for other uses.
- 4.1.3 In light of this, Curtins has undertaken some indicative analysis in order to inform potential additional level(s) of car park decking. The layouts produced have been designed to maximise potential capacity at the site. It should be noted that the car park layouts and subsequent analyses are subject to detailed design, and do not consider other indirect/external factors (e.g. arboricultural, structural, archaeological etc.).

4.2 Indicative Parking Layouts

- 4.2.1 An indicative 'Ground Floor' and 'Upper Floor' layout has been provided for Old Station Car Park in **Drawing TPMA1486-OS-001** to the rear of this report.

Layout Scenarios

- 4.2.2 In order to assess the wider implications of the parking layout, the following five layout scenarios are considered:
- **Do Nothing** – continue to operate the car park under the existing conditions;
 - **Ground Floor Only** – redevelop the ground floor so that subsequent floors could be accommodated;
 - **Ground Floor + 1** – add one additional floor of car parking;
 - **Ground Floor + 2** – add two additional floors of car parking; and
 - **Ground Floor + 3** – add three additional floors of car parking.

Indicative Parking Provision Impact

- 4.2.3 Based on the initial layouts provided in the previous subsection, the potential gains in parking provision for each scenario are shown in **Table 4.1** below.

4.2.4 An adjustment of 3% has also been included to account for the introduction of disabled parking provision at the car park, compensating for the additional space such parking bays would require at 6% disabled provision:

Scenario	Parking Levels	Potential Provision			Disabled Parking Adjustment		
		Count	Impact	Impact (%)	Count	Impact	Impact (%)
Do Nothing	1	149	0	0%	145	+ 0	+ 0%
Ground Floor Only	1	145	-4	-3%	141	-8	-6%
Ground Floor + 1	2	298	+ 149	+ 100%	289	+ 140	+ 94%
Ground Floor + 2	3	451	+ 302	+ 203%	437	+ 288	+ 194%
Ground Floor + 3	4	604	+ 455	+ 305%	586	+ 437	+ 293%

Table 4.1 – Potential Parking Provision at Old Station

4.2.5 Notwithstanding other indirect/external factors, it is considered that there is potential for significant additional parking on the site should additional floors be provided.

4.3 Forecasted Highway Impact

Parking Profiles

4.3.1 Based on the assumption that Old Station is generally a car park frequented by commuters, it is considered that any highway impact as a result of additional car parking provision would be focused in the AM and PM peak periods.

4.3.2 It can therefore also be considered that the majority of arrivals would occur between 07:00 and 10:00, with the majority of departures being between 16:00 and 19:00.

4.3.3 There is no 'car parking' category in the TRICS database. Instead, **Table 4.2** below provides a summary of arrivals/departures for a typical office development for a weekday based on the TRICS database. The TRICS outputs can be viewed in **Appendix B**:

Time Period		TRICS Analysis	
		Trip Rates	% of Trips
AM Peak (arrivals)	07:00 - 08:00	0.489	16.6%
	08:00 - 09:00	1.344	45.7%
	09:00 - 10:00	1.107	37.7%
	Total AM Peak	2.940	100.0%
PM Peak (departures)	16:00 - 17:00	1.050	38.8%
	17:00 - 18:00	1.252	46.3%
	18:00 - 19:00	0.403	14.9%
	Total PM Peak	2.705	100.0%

Table 4.2 – Potential Parking Profiles

Calculated Traffic Generation and Impact

4.3.4 Based on the above arrival and departure proportions, it is considered approximately 46% of arrivals and departures to/from the car park would occur during the respective peak periods of 08:00 – 09:00 and 17:00 – 18:00.

4.3.5 **Table 4.3** shows the potential highway impact in line with the above arrival and departure profiles; assuming that the car park would reach capacity by 10:00, and empty by approximately 19:00:

Scenario	Parking Levels	Potential Provision	Potential Arrivals (AM)		Potential Departures (PM)	
			Count	Impact	Count	Impact
Do Nothing	1	145	66	-2	67	-2
Ground Floor Only	1	141	64	-4	65	-4
Ground Floor + 1	2	289	132	64	134	65
Ground Floor + 2	3	437	200	132	202	133
Ground Floor + 3	4	586	268	200	271	202

Table 4.3 – Potential Traffic Generation

4.3.6 It can be considered that the ‘Ground Floor + 1’ scenario could result in approximately one additional vehicle on the surrounding highway network every minute.

4.3.7 Notwithstanding this and due to the one-way nature of Tetbury Road, junctions to the south and west could require consideration. The roundabout junction at Hammond Way/Waitrose access in particular could see additional trips as vehicles access the car park from the north, east and south.

4.3.8 The ‘Ground Floor + 3’ scenario could have a larger impact on the surrounding highway network, with potentially a significant increase in traffic on the local network.

4.3.9 Additional junctions could require consideration, including the A429 roundabout with Hammond Way and Cirencester Hospital.

4.3.10 A scope of assessment and traffic counts would need to be agreed with Highways Officers before the development of any forthcoming Transport Assessment for planning.

5.0 Summary and Conclusions

5.1 Summary

- 5.1.1 Curtins has been appointed on behalf of Cotswold District Council to provide traffic and transportation advice in relation to car parking provision across Cirencester. This report follows an initial wider feasibility report for eight of the 10 existing Council-operated Pay & Display car parks throughout Cirencester.
- 5.1.2 Old Station Car Park is open Monday – Sunday. It is considered the current pricing strategy is likely to encourage all-day parking, whilst still providing the option for short stay.
- 5.1.3 From the occupancy data provided and following a review of available GIS information, it is considered likely that the car park is predominantly used by commuters. The Old Station Car Park has good levels of opportunity for onward travel to facilities and amenities around Cirencester Town Centre, with convenient access to employment.
- 5.1.4 An indicative ‘Ground Floor’ and ‘Upper Floor’ layout has been provided for the car park. Subsequent TRICS and first principles analysis suggests that the level of highway impact could require capacity assessments for any forthcoming planning application.

5.2 Conclusions

- 5.2.1 Further investigative works are required in order to finalise the car park layouts; considering all indirect/external factors and establishing an appropriate level of additional parking. From a transport perspective, this would include commissioning traffic counts at key junctions in the vicinity to better understand any impact on capacity.
- 5.2.2 Notwithstanding this and subject to detailed analysis and receipt of baseline traffic levels, it is considered there is opportunity for additional capacity at Old Station Car Park. Consideration of the TRICS analysis and potential parking layouts detailed in this report suggests that one additional level of parking would result in approximately 65 additional two-way trips; which is likely to constitute a **low impact** on the surrounding highway network considering the site location.
- 5.2.3 Multiple levels of additional parking could generate in excess of 133 two-way trips. This is likely to constitute a **medium impact** on the surrounding highway network, and could require assessment of junctions in the vicinity of Old Station.

Plans

Drg No:

TPMA1486-OS-001

Rev:

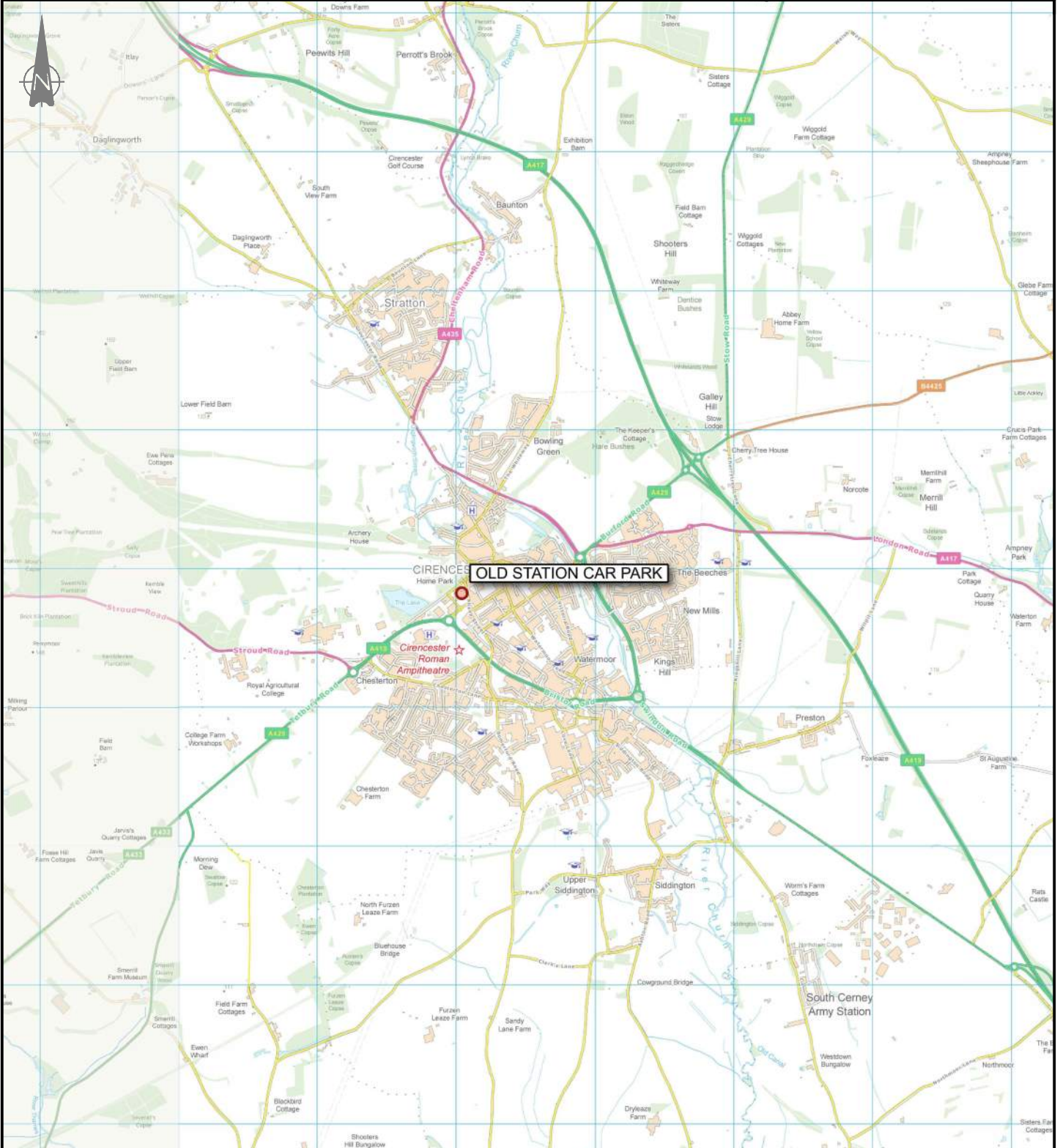
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Project: CIRENCESTER CAR PARKS - GLOUCESTERSHIRE
Drg Title: OLD STATION - REGIONAL LOCATION PLAN
Drawn: DD
Checked: DJ
First issue: 14/11/16
Scale: NTS



KEY:  Car Park Location




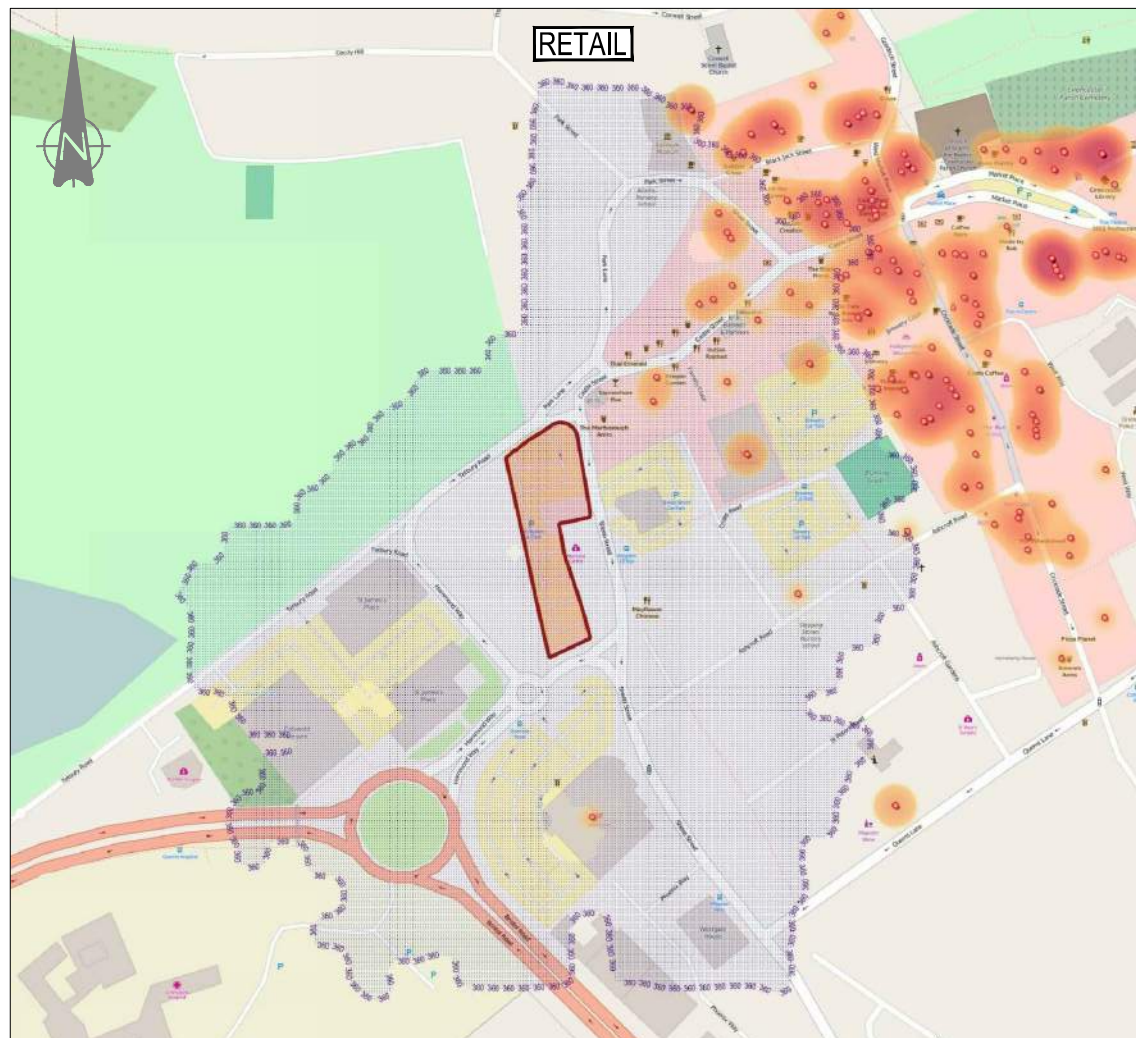
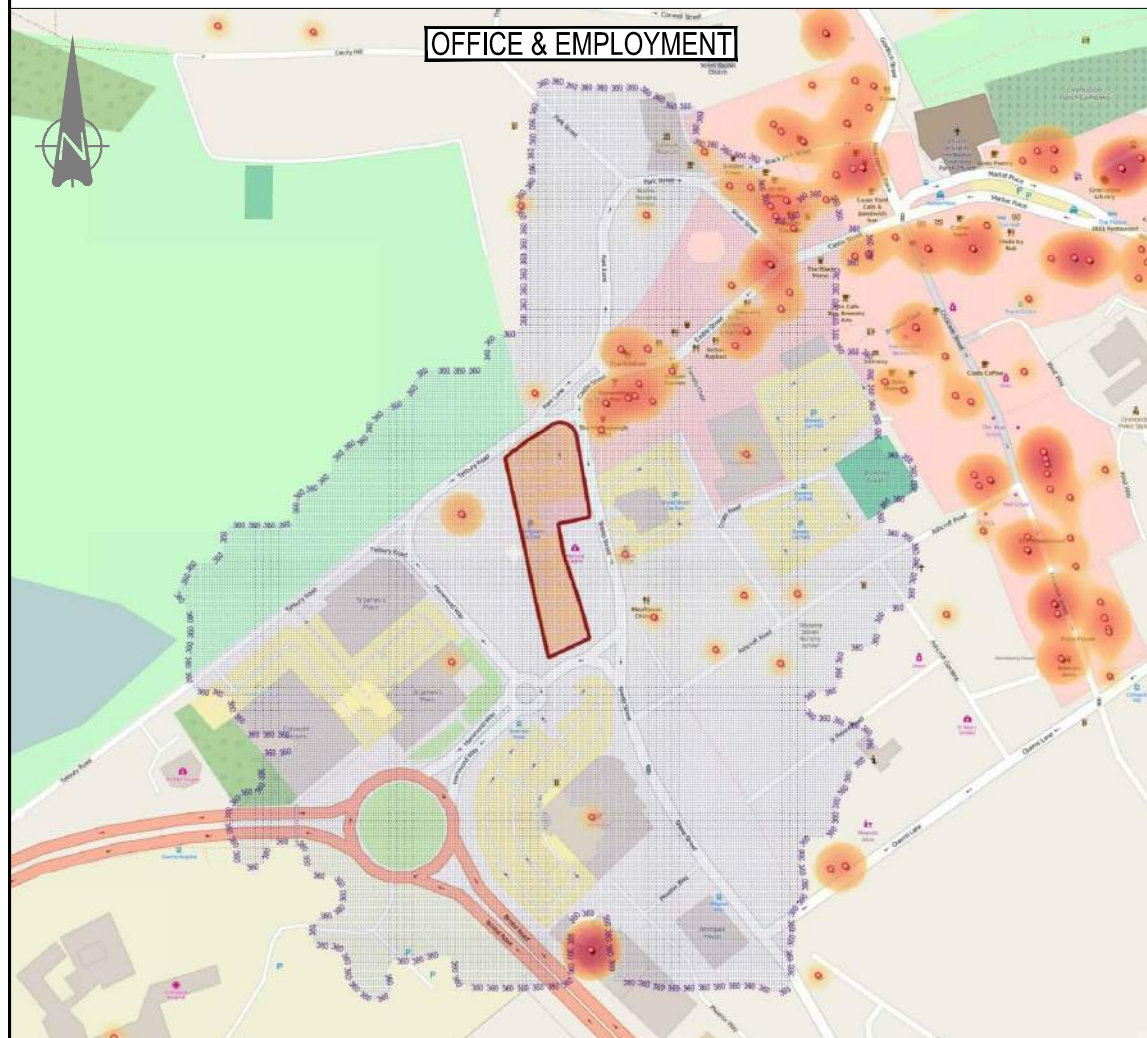
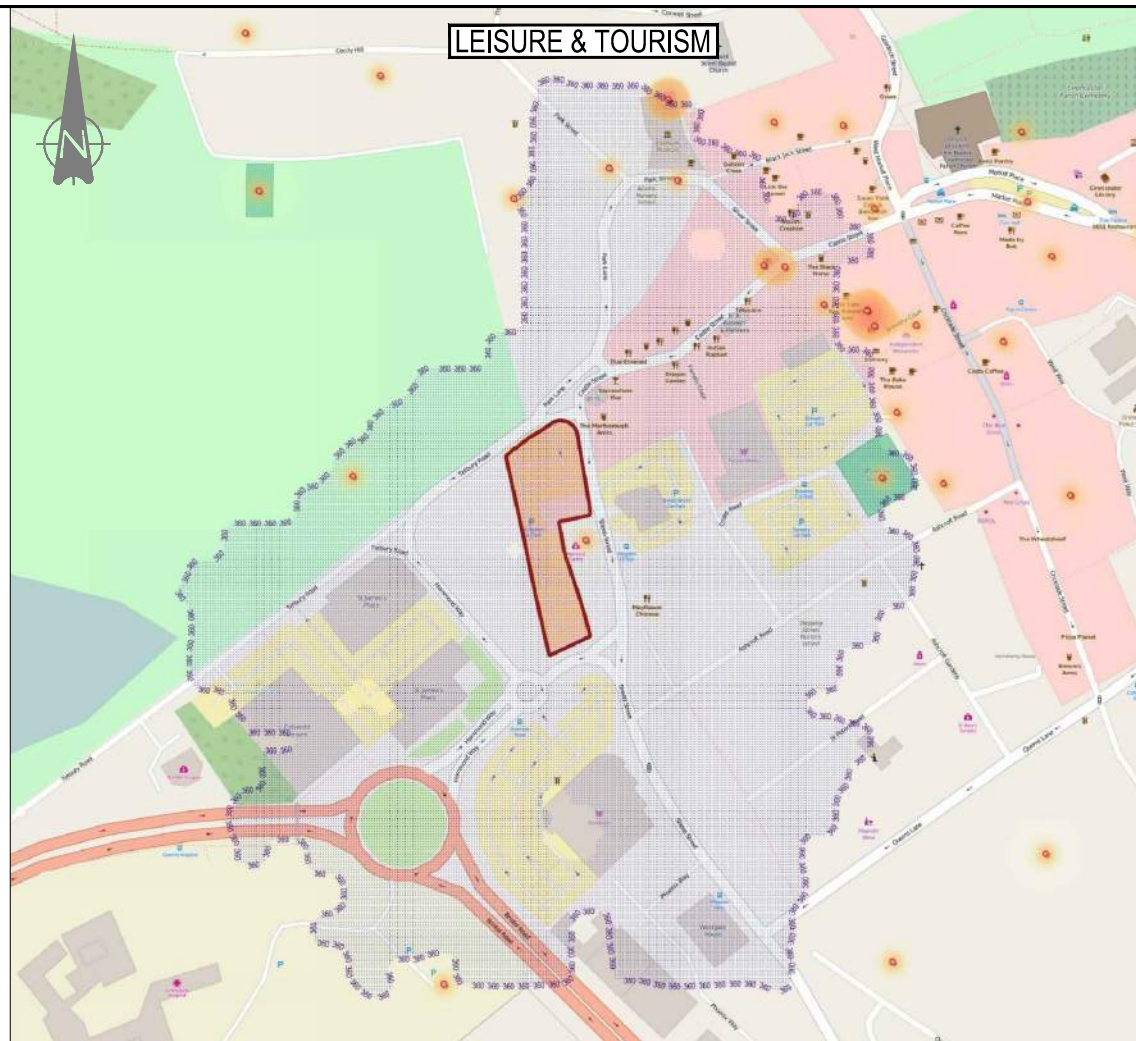
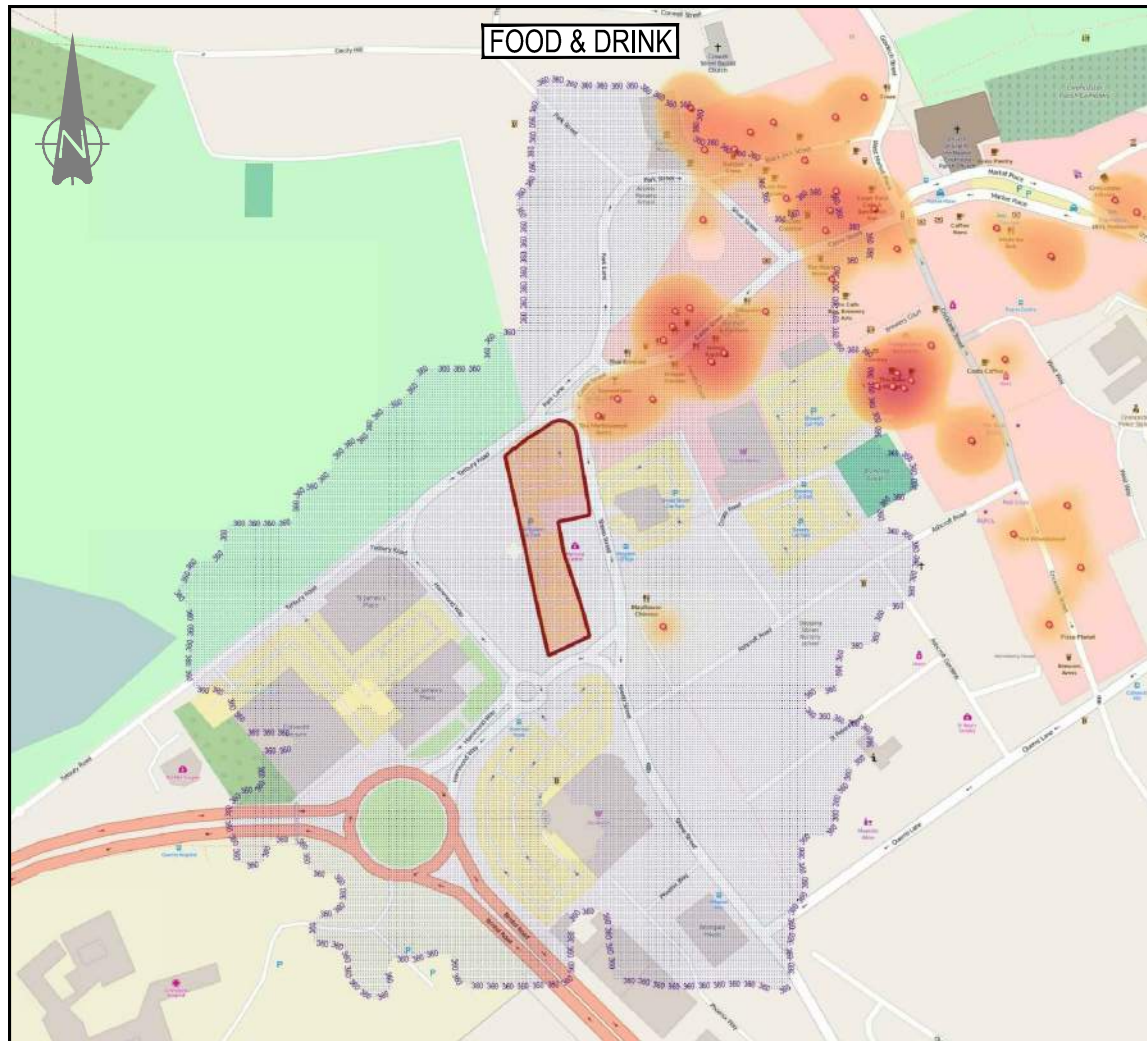
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Drg No:	TPMA1486-OS-002	Rev:	/
Project:	CIRENCESTER CAR PARKS - GLOUCESTERSHIRE		
Drg Title:	OLD STATION CAR PARK - LOCAL LOCATION PLAN		
Drawn:	DD		
Checked:	DJ		
First issue:	14/11/16		
Scale:	NTS		



KEY:  Car Park Location



NOTES:

KEY:

Old Station Car Park

Walking Catchment:

360m

Amenities:

Labelled amenities

Number of amenities within 25m:

up to 1

up to 3

up to 6

OLD STATION CAR PARK AMENITIES COUNT	
CATEGORY	COUNT
FOOD & DRINK	20
LEISURE & TOURISM	8
OFFICE & EMPLOYMENT	41
RETAIL	27
TOTAL	96

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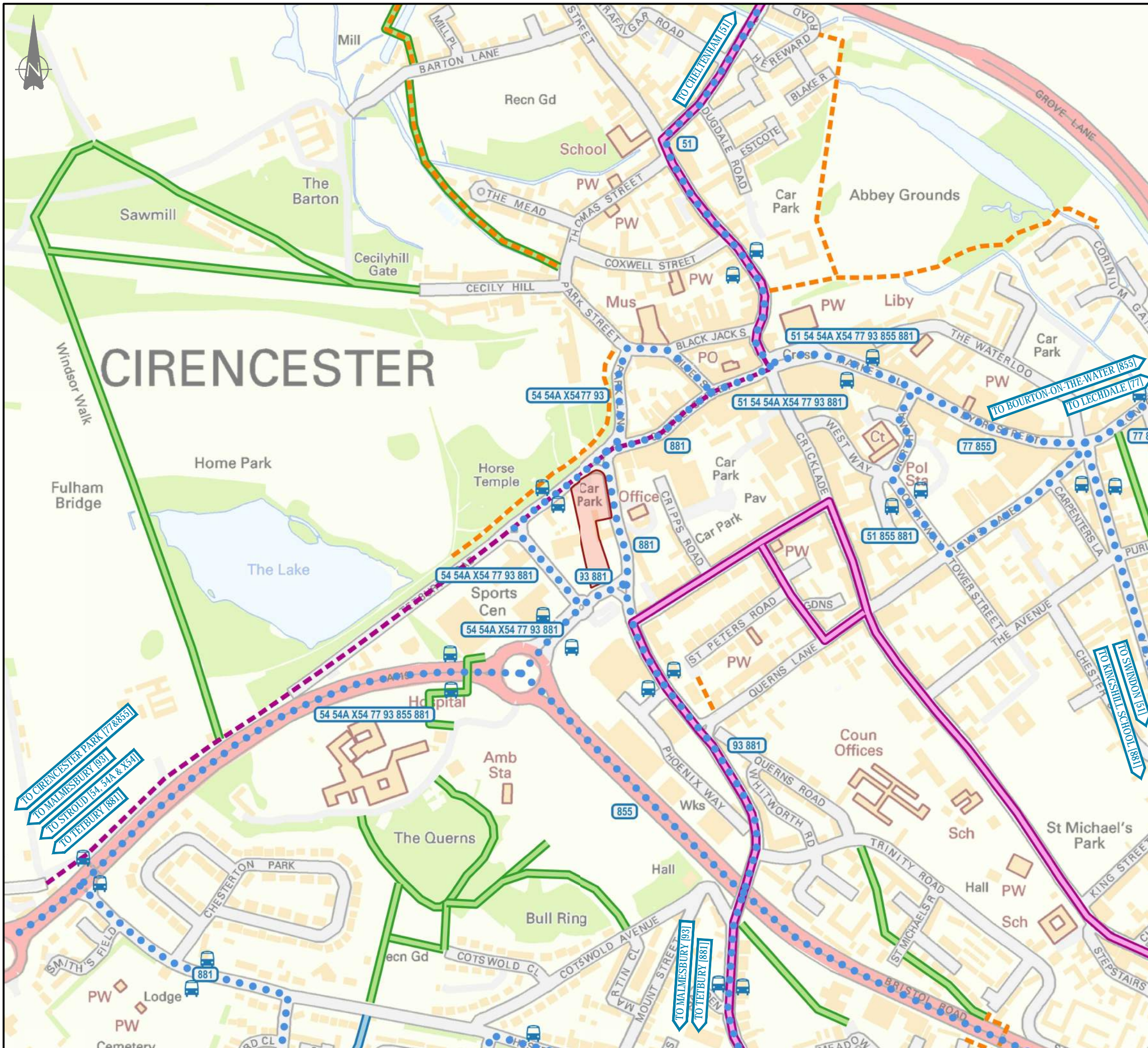
Status: **PRELIMINARY**

Project: **CIRENCESTER CAR PARKS
GLOUCESTERSHIRE**

Drg Title: **OLD STATION CAR PARK
KEY AMENITIES**

Scale:	Size:	First Issue:	Drawn:	Checked:
NTS	A3	10/11/16	DD	DJ

Drg No:	Rev:
TPMA1486-OS-003	/



NOTES:

KEY:

- Old Station Car Park Location
- Pedestrian Network:**
- Designated Footpaths/PROW
- Cycling:**
- NCN
- Cycle Lane
- Shared Pedestrian/Cycle
- Public Transport:**
- Bus Stops
- Bus Route
- 93 881 Bus Service Number

Rev:	Description:	Date:	By:	Chkd:
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Status:	PRELIMINARY
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Project:	CIRENCESTER CAR PARKS GLOUCESTERSHIRE
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Drg Title:	OLD STATION CAR PARK EXISTING LOCAL CYCLING/BUS PROVISION
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Scale:	Size:	First Issue:	Drawn:	Checked:
NTS	A3	10/11/16	DD	DJ

Drg No:	TPMA1486-OS-004	Rev:	/
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TPMA1486-OS-005

Rev:

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Project: CIRENCESTER CAR PARKS - GLOUCESTERSHIRE

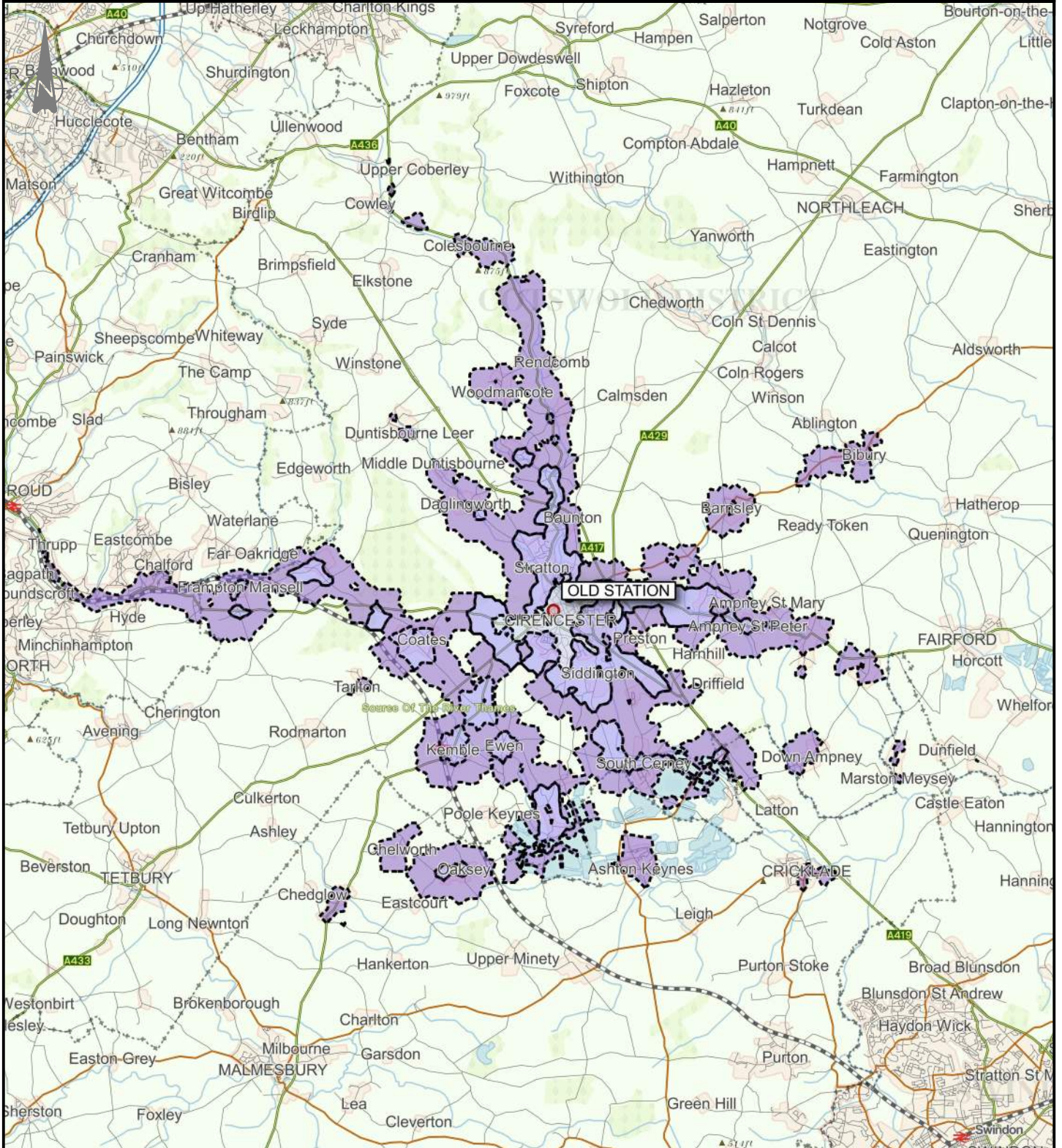
Drg Title: OLD STATION - INDICATIVE BUS CATCHMENT

Drawn: DD

Checked: DJ

First issue: 14/11/16

Scale: NTS

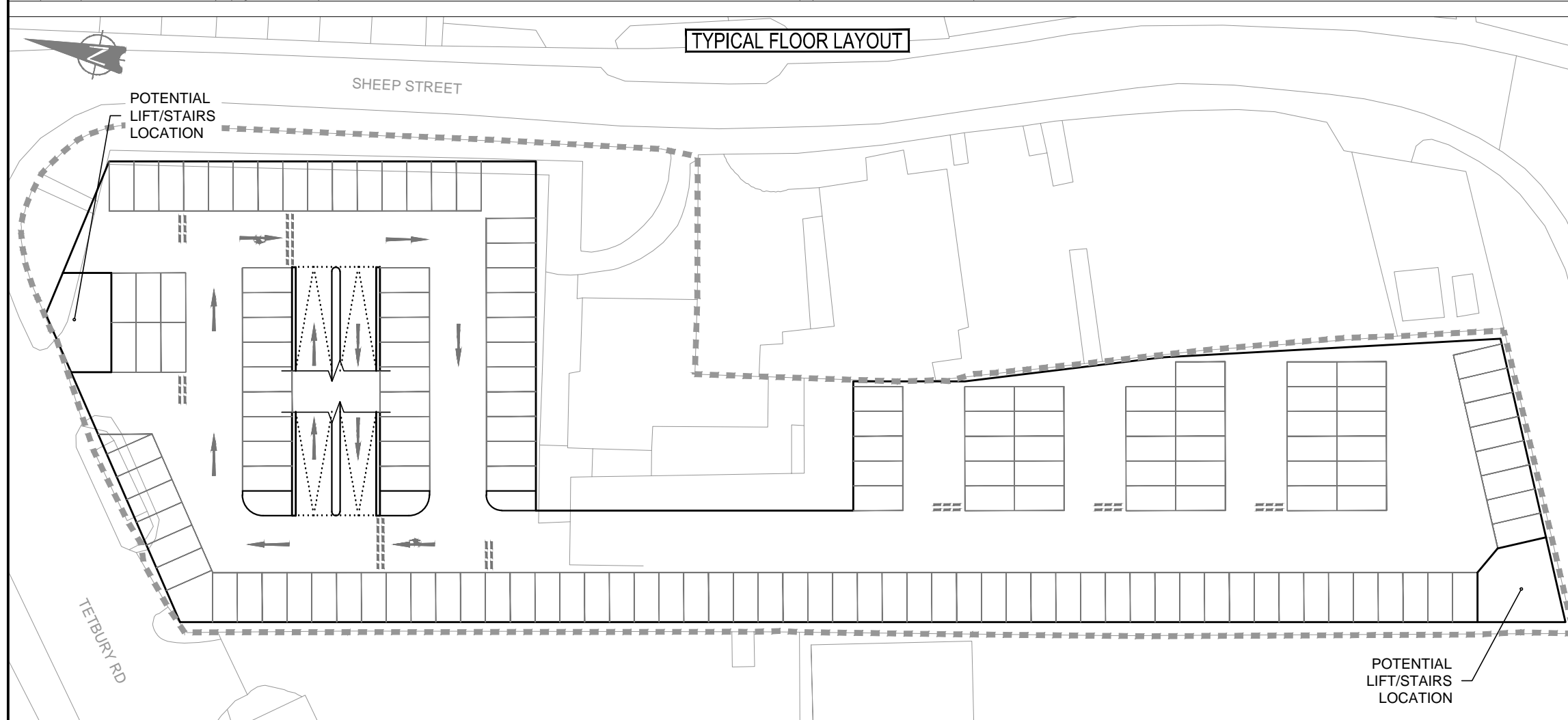
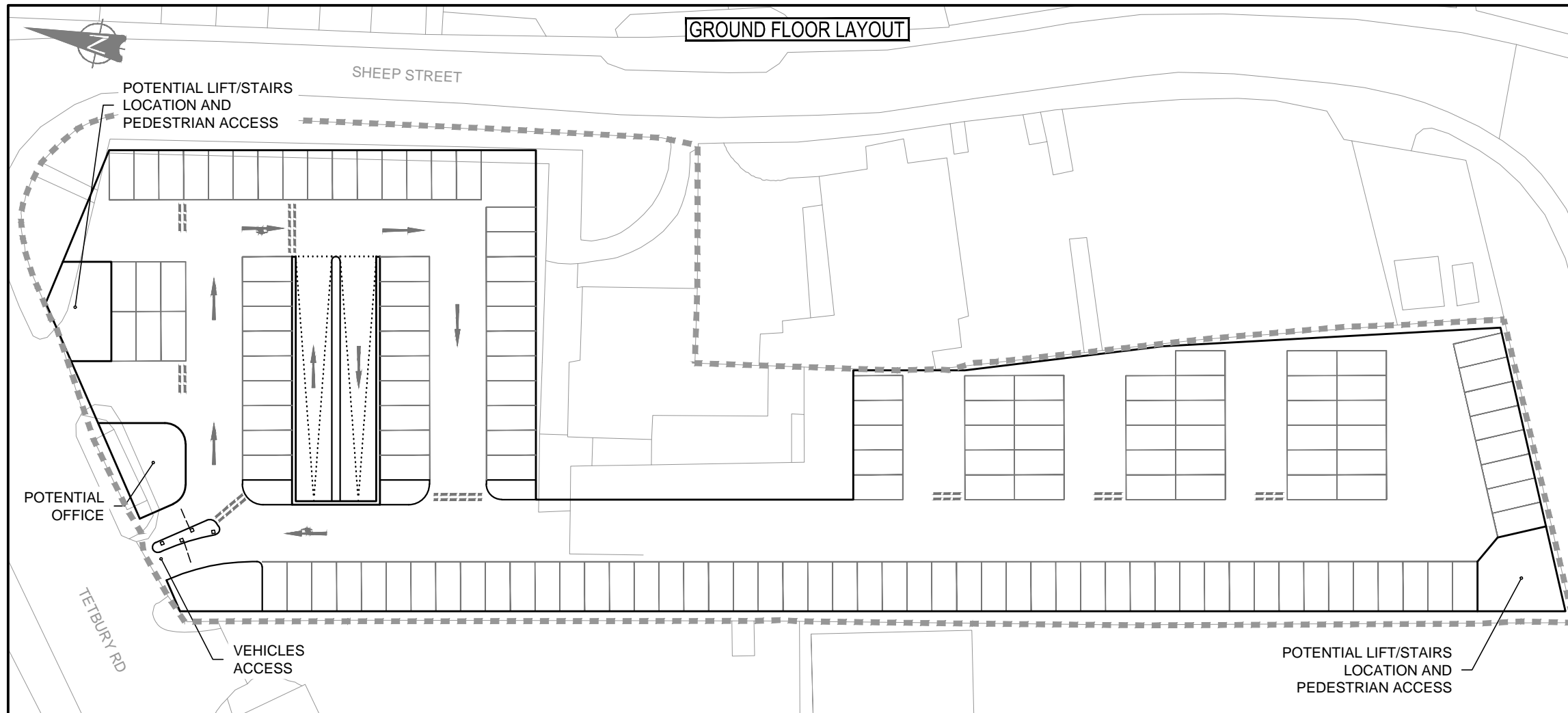


KEY: Car Park Location

Public Transport Catchment:

- 10 minutes
- 20 minutes
- 30 minutes

Drawings



NOTES:

KEY:

- INDICATIVE SITE BOUNDARY
- PROPOSED WALL
- PROPOSED KERB LINE
- PROPOSED ROAD MARKINGS
- PROPOSED RAMP

Ground floor parking spaces count: 145 Spaces.
 Typical floor parking spaces count: 153 Spaces.

Layouts are indicative and subject to detailed design.
 They do not consider other indirect/external factors
 (e.g. arboricultural, structural, archaeological, etc.)

Rev:	Description:	Date:	By:	Chkd:
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Status: **PRELIMINARY**

Project: **CIRENCESTER CAR PARKS
 GLOUCESTERSHIRE**

Drg Title: **OLD STATION CAR PARK
 PROPOSED LAYOUT**

Scale:	Size:	First Issue:	Drawn:	Checked:
1:500	A3	10/11/16	DD	DJ

Drg No:	Rev:
TPMA1486-OS-100	/

Appendix A – PIA Data

Appendix B – TRICS Outputs

Calculation Reference: AUDIT-148301-161111-1133

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : A - OFFICE

VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	BD BEDFORDSHIRE	1 days
	ES EAST SUSSEX	1 days
	HF HERTFORDSHIRE	2 days
	KC KENT	3 days
	SO SLOUGH	2 days
03	SOUTH WEST	
	DC DORSET	2 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
	SF SUFFOLK	1 days
06	WEST MIDLANDS	
	WO WORCESTERSHIRE	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: 610 to 32793 (units: sqm)
 Range Selected by User: 186 to 175000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 26/11/15

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	3 days
Tuesday	1 days
Wednesday	3 days
Thursday	6 days
Friday	2 days

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

Selected survey types:

Manual count	15 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	3
Edge of Town Centre	12

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
Residential Zone	1
Built-Up Zone	10

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	1 days
B1	14 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
15,001 to 20,000	4 days
25,001 to 50,000	10 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	3 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	10 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	2 days
1.1 to 1.5	10 days
1.6 to 2.0	3 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	8 days
No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
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	15	7312	0.489	15	7312	0.042	15	7312	0.531
08:00 - 09:00	15	7312	1.344	15	7312	0.160	15	7312	1.504
09:00 - 10:00	15	7312	1.107	15	7312	0.277	15	7312	1.384
10:00 - 11:00	15	7312	0.514	15	7312	0.319	15	7312	0.833
11:00 - 12:00	15	7312	0.368	15	7312	0.347	15	7312	0.715
12:00 - 13:00	15	7312	0.315	15	7312	0.349	15	7312	0.664
13:00 - 14:00	15	7312	0.405	15	7312	0.315	15	7312	0.720
14:00 - 15:00	15	7312	0.319	15	7312	0.340	15	7312	0.659
15:00 - 16:00	15	7312	0.244	15	7312	0.456	15	7312	0.700
16:00 - 17:00	15	7312	0.205	15	7312	1.050	15	7312	1.255
17:00 - 18:00	15	7312	0.141	15	7312	1.252	15	7312	1.393
18:00 - 19:00	15	7312	0.044	15	7312	0.403	15	7312	0.447
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			5.495			5.310			10.805

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: 610 - 32793 (units: sqm)
 Survey date range: 01/01/08 - 26/11/15
 Number of weekdays (Monday-Friday): 15
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 6
 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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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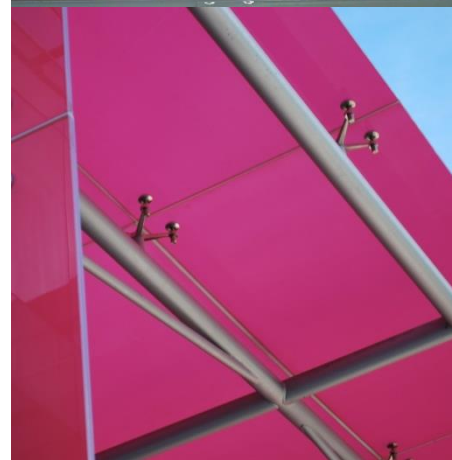
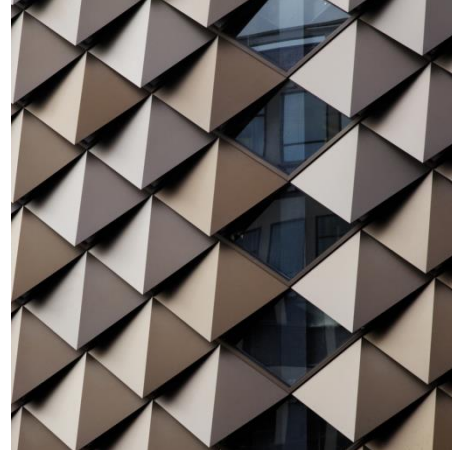
APPENDIX E: Sheep Street Car Park, Cirencester Traffic and Transport Feasibility

Sheep Street Car Park, Cirencester

Traffic and Transport Feasibility

Curtins Ref: TPMA1486-SS/TF
Revision: Final
Issue Date: 18 September 2017

Client Name: Cotswold District Council



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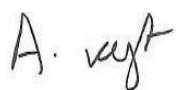
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Control Sheet

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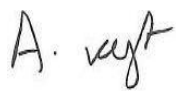
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Plans

- Plan TPMA1486-SS-001** – Regional Location Plan
- Plan TPMA1486-SS-002** – Local Location Plan
- Plan TPMA1486-SS-003** – Pedestrian Catchment and POI Plan
- Plan TPMA1486-SS-004** – Existing Local Cycle Provision
- Plan TPMA1486-SS-005** – TRACC Bus Catchment

Drawings

- Drawing TPMA1486-SS-100** – Indicative Parking Layouts

Appendices

- Appendix A** – PIA Data
- Appendix B** – TRICS Outputs

1.0 Introduction

1.1 Background

- 1.1.1 Curtins has been appointed on behalf of Cotswold District Council to provide traffic and transportation advice in relation to car parking provision across Cirencester.
- 1.1.2 This report follows an initial wider feasibility report for eight of the 10 existing Council-operated Pay & Display car parks throughout Cirencester.

1.2 Purpose of this Report

- 1.2.1 Detailed feasibility reports were subsequently requested by Cotswold District Council for the following three car parks:
 - Old Station;
 - The Forum; and
 - Sheep Street.
- 1.2.2 This Traffic and Transport Feasibility report has been written in order to consider the suitability of additional parking provision at the existing Sheep Street Car Park.

2.0 Site Location and Existing Situation

2.1 Site Location

2.1.1 Sheep Street Car Park is located on the western side of Cirencester town centre; bounded by residential gardens to the north, Cripps Road which leads to the rear service yard of Tesco Metro to the east, Gardens to the south and Sheep Street to the west.

2.1.2 **Plan TPMA1486-SS-001** illustrates the location of the site in relation to the surrounding areas, and **Plan TPMA1486-SS-002** shows the site in a more local context relating to the local highway network.

2.1.3 The following analysis is based on information provided by Gloucestershire County Council, Cotswold District Council and a site visit undertaken by Curtins employees on Tuesday 17th May 2016.

2.2 Existing Provision and Terms of Operation

2.2.1 The application site currently comprises the following approximate provision:

- 77 standard parking bays;
- 2 disabled parking bays.

2.2.2 There is no formal cycle or motorcycle parking present.

2.2.3 Sheep Street Car Park is open Monday – Sunday, and imposes the following charges as reproduced in

Table 2.1:

Car Park	Cost of Stay							
	½hr	1hr	2hrs	3hrs	4hrs	5hrs	10hrs	Sundays
Sheep Street	50p	£1.30	£2.30	£3.00	N/A	£3.90	£6.50	Free

Table 2.1 – Sheep Street: Costs of Stay

2.2.4 It is considered the above pricing strategy is likely to encourage all-day parking at Sheep Street Car Park, whilst still providing the option for short stay.

2.3 Existing Access Arrangements

Vehicular Access

2.3.1 Sheep Street Car Park is currently accessed from Sheep Street itself, via a separated in/out arrangement. The access/egress points are relatively wide; measuring in approximately 6m.

Pedestrian Access

2.3.2 There is a narrow pedestrian access at the south east corner of the site leading to Cripps Road. Pedestrians were also observed accessing the car park via the vehicular access/egress points onto Sheep Street; even though there is no formal pedestrian provision.

2.4 Surrounding Highway Network

Sheep Street

- 2.4.1 Sheep Street forms the western boundary of Sheep Street Car Park. It extends in a southerly direction from a junction with Tetbury Road and Castle Street for approximately 550m to a junction with Somerford Road and Trinity Road.
- 2.4.2 In the vicinity of the site the carriageway is approximately 5m wide, and is one-way in a southerly direction. A zebra crossing complete with dropped kerbs, tactile paving and flashing beacons links the eastern footway along Sheep Street to the ramped pedestrian access to the car park.
- 2.4.3 There are footways on both sides of the carriageway, measuring approximately 2m in width. Street lighting is present.

Cripps Road

- 2.4.4 Cripps Road extends to the south east of the site, providing access to The Brewery Car Park and facilitating pedestrian access to Sheep Street Car Park. It extends northwards before bending round to the east from a priority controlled T-junction approximately 150m from Ashcroft Road.
- 2.4.5 The carriageway is approximately 6m wide, and forms a two-way road. There are footways on both sides of the carriageway, measuring approximately 2m in width. Street lighting is present.

2.5 Existing Levels of Occupation

- 2.5.1 A series of car park occupation data has been provided by Gloucestershire County Council. **Table 2.2** considers average occupations for surveys undertaken in March, June and October 2015; a representative sample of average parking across the year:

Average Occupation	10:00		11:00		12:00		13:00		14:00		15:00	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Monday	77	97%	77	97%	77	97%	77	97%	75	95%	74	94%
Tuesday	77	97%	77	97%	77	97%	76	96%	77	97%	75	95%
Wednesday	77	97%	76	97%	77	97%	76	97%	75	95%	75	95%
Thursday	77	97%	76	96%	76	96%	77	97%	75	95%	72	91%
Friday	77	97%	77	97%	76	97%	76	96%	76	96%	70	89%
Weekday	77	97%	77	97%	77	97%	76	97%	76	96%	73	93%
Saturday	43	55%	58	74%	60	76%	56	70%	52	65%	42	53%

Table 2.2 – Sheep Street Occupation Summary

- 2.5.2 It is clear from the above table that Sheep Street Car Park is regularly at capacity throughout the week, from 10:00 through to 14:00 and onwards. It is considered likely that all 77 standard parking bays are full throughout the week, with just two disabled bays left vacant.

2.5.3 On Saturdays the car park is less busy. From the car park surveys supplied by Cotswold District Council, it does not seem that Sheep Street reaches or approaches capacity on Saturdays.

2.6 Highway Safety

2.6.1 Personal Injury Accident (PIA) data for the highway network adjacent to the site has been obtained from Gloucestershire County Council for the most recent five years. A breakdown of the information is contained in **Table 2.3**:

Junction/Link	Slight	Serious	Fatal	Totals
Sheep Street/Ashcroft Road	1	0	0	1
Ashcroft Road	0	1	0	1
Ashcroft Road/ Ashcroft Gardens	0	1	0	1
Totals	1	2	0	3

Table 2.3 – Personal Injury Accident Data Summary

2.6.2 The above search is included in **Appendix A** to the rear of this report.

2.6.3 There have been a total of three accident recorded in the latest five-year period available, comprising a single 'slight' accident and two 'serious' accidents. No 'fatal' accidents have been recorded in the study area and period. There is nothing to suggest an existing safety issue from the breakdown in accidents to locations as indicated in the above table.

2.6.4 Following a thorough review of the records, it is not considered that there is an existing safety issue that is likely to be exacerbated by an increase in parking provision at the Sheep Street Car Park.

3.0 Opportunity for Onward Sustainable Travel

3.1 Introduction

3.1.1 This section considers the car park's location and the prospect of onward sustainable travel; considering how the facility links to key facilities and amenities throughout Cirencester town centre and beyond.

3.2 Onward Travel on Foot

TRACC and Points of Interest Analysis

3.2.1 In order to consider access to surrounding facilities and facilities on foot, TRACC software and Points of Interest (POI) data has been utilised.

3.2.2 TRACC is a leading multi-modal transport accessibility tool which was developed in conjunction with the Department for Transport (DfT), Local Authorities and transport planners. In this case, it has been used to generate a 360m pedestrian catchment from Sheep Street Car Park along local footways and footpaths.

3.2.3 The 360m walking catchment is based on a 5-minute walk (at an average walking speed of 1.2m/s), and is also comparable to the CIHT acceptable walking distances for car-borne shoppers based on a 2 hour stay as defined in the CIHT document 'Providing for Journeys on Foot' and reproduced in **Table 3.1**:

Parking Time	Acceptable Walking Distances (m)
30 mins	100
1 Hour	200
2 Hours	400
4 Hours	800
8 Hours	1,000

Table 3.1 – Providing for Journeys on Foot – Car Parking Walking Distances

3.2.4 Furthermore, 360m also compares to the CIHT suggested 'Acceptable' walking distance of 400m for town centre uses.

3.2.5 In order to compare the pedestrian catchment with existing facilities, Geographic Information System (GIS) POI data has been obtained from BaseMap and plotted on a suitable mapping base. The information was categorised into the following land uses:

- Food and Drink – cafes, bars, hotel/restaurants, takeaways etc.
- Leisure and Tourism – museums, green spaces/parks, bodies of water etc.
- Office and Employment – offices, trades, warehouses etc.
- Retail – high street shops, commercial services, local shops, supermarkets etc.

3.2.6 The resultant information is provided in **Plan TPMA1486-SS-003**.

Local Amenities and Facilities

3.2.7 Following the analysis of **Plan TPMA1486-SS-003**, it is clear that the car park is in an excellent position to take advantage of a number of facilities and amenities.

3.2.8 Accessibility is considered to be high for food & drink, office & employment and retail uses. In particular, the proximity of the various office and employment opportunities is considered likely to be a significant contributory factor towards the high levels of car park occupation during the week as provided in **Table 2.1**.

3.2.9 There are also some leisure & tourism facilities situated within the catchment, although the relatively low levels of occupation on a Saturday would suggest that Sheep Street is not particularly well frequented by tourists.

3.3 Onward Travel by Cycle

3.3.1 Sheep Street Car Park currently provides no formal cycle parking provision. Nevertheless, it is considered some users could transport their bicycle to the car park for onwards travel; or benefit from cycle provision in the future. **Plan TPMA1486-SS-004** illustrates the existing cycling provision adjacent to the site.

3.3.2 There is existing cycle provision along Tetbury Road/Park Lane in the form of an on-road cycle lane and shared pedestrian/cycle provision on the northern side of the road.

3.3.3 National Cycle Route 45 is accessible within approximately 100m of Sheep Street Car Park. The route extends southwards out of the town centre before heading eastwards to Swindon and westwards to Stroud.

3.3.4 Additionally, National Cycle Route 48 is accessible within approximately 300m of Sheep Street Car Park. The route extends northwards out of the town centre towards Northleach.

3.4 Onward Travel by Bus

3.4.1 It is considered some users could choose to travel to different areas throughout Cirencester town centre, or further afield, by bus. The nearest bus stop to the site is located within 50m of the car park along Sheep Street. **Table 3.2** details the services that call at these stops, and their associated frequencies:

Bus Service	Route	Peak Frequency		
		Mon – Fri	Sat	Sun/Hols
881	Cirencester – Kemble – Tetbury	1 Daily Service	-	-

Table 3.2 – Summary of Bus Service Frequencies from Sheep Street

3.4.2 Considering the above table, there is limited potential for onwards travel by bus from Sheep Street. However, additional services are available along Tetbury Road/Park Lane /Market Place, accessible 150m walk from the car park. A summary of these services is provided in **Table 3.3**:

Bus Service	Route	Peak Frequency		
		Mon – Fri	Sat	Sun/Hols
54/54A	Stroud – Cirencester	7 Daily Services	3 Daily Services	-
77	Cirencester – Fairford – Lechlade	1 Daily Service	1 Daily Service	-
93	Malmesbury – Charlton – Crudwell – Somerford Keynes – Cirencester	5 Daily Services	7 Daily Services	-

Table 3.3 – Summary of Bus Service Frequencies from Market Place

3.4.3 **Plan TPMA1486-SS-005** demonstrates those areas accessible via public transport within 10, 20 and 30 minutes’ bus journey from Sheep Street Car Park.

3.5 Summary

3.5.1 It is considered that the Sheep Street Car Park has excellent levels of opportunity for onward travel to facilities and amenities around Cirencester Town Centre, and some other nearby destinations.

4.0 Indicative Parking Provision and Forecasted Impact

4.1 Introduction

- 4.1.1 It has been demonstrated throughout **Sections 2 and 3** of this report that Sheep Street Car Park is well situated to access office & employment opportunities and food & drink amenities across Cirencester town centre.
- 4.1.2 Sheep Street Car Park is also considered to be very well-used; with effectively 100% occupation regularly reached and maintained during the week. The car park is significantly quieter on Saturdays, suggesting Sheep Street is generally used for commuting rather than for other uses.
- 4.1.3 In light of this, Curtins has undertaken some indicative analysis in order to inform the potential for additional level(s) of car park decking. The layouts produced have been designed to maximise potential capacity at the site. It should be noted that the car park layouts and subsequent analyses are subject to detailed design, and do not consider other indirect/external factors (e.g. arboricultural, structural, archaeological etc.).

4.2 Indicative Parking Layouts

- 4.2.1 An indicative 'Ground Floor' and 'Upper Floor' layout has been provided for Sheep Street Car Park in **Drawing TPMA1486-SS-001** to the rear of this report.
- 4.2.2 It is understood that there are plans to demolish the Old Memorial Hospital building which is located in the middle of the car park; so the layouts have taken this into account.

Layout Scenarios

- 4.2.3 In order to assess the wider implications of the parking layout, the following five layout scenarios are considered:
- **Do Nothing** – continue to operate the car park under the existing conditions;
 - **Ground Floor Only** – redevelop the ground floor so that subsequent floors could be accommodated;
 - **Ground Floor + 1** – add one additional floor of car parking;
 - **Ground Floor + 2** – add two additional floors of car parking; and
 - **Ground Floor + 3** – add three additional floors of car parking.

Indicative Parking Provision Impact

- 4.2.4 Based on the initial layouts provided in the previous subsection, the potential gains in parking provision for each scenario are shown in **Table 4.1** below.

4.2.5 An adjustment of 3% has also been included to account for the introduction of disabled parking provision at the car park, accounting for the addition space such parking bays would require at 6% disabled provision:

Scenario	Parking Levels	Potential Provision			Disabled Parking Adjustment		
		Count	Impact	Impact (%)	Count	Impact	Impact (%)
Do Nothing	1	77	0	0%	75	-2	-3%
Ground Floor Only	1	120	+ 43	+ 56%	116	+ 39	+ 51%
Ground Floor + 1	2	244	+ 167	+ 217%	237	+ 160	+ 207%
Ground Floor + 2	3	368	+ 291	+ 378%	357	+ 280	+ 364%
Ground Floor + 3	4	492	+ 415	+ 539%	477	+ 400	+ 520%

Table 4.1 – Potential Parking Provision at Sheep Street

4.2.6 Notwithstanding other indirect/external factors, it is considered that there is potential for significant additional parking on the site should additional floors be provided. It should be noted that demolition of the existing Old Memorial Hospital building is key to providing additional capacity; retention of the building would result in significantly less provision, to the point where parking layouts would likely be unfeasible.

4.3 Forecasted Highway Impact

Parking Profiles

4.3.1 Based on the assumption that Sheep Street is generally a car park frequented by commuters, it is considered that any highway impact as a result of additional car parking provision would be focused in the AM and PM peak periods.

4.3.2 It can therefore also be considered that the majority of arrivals would occur between 07:00 and 10:00, with the majority of departures being between 16:00 and 19:00.

4.3.3 There is no ‘car parking’ category in the TRICS database. Instead, **Table 4.2** below provides a summary of arrivals/departures for a typical office development for a weekday based on the TRICS database. The TRICS outputs can be viewed in **Appendix B**:

Time Period		TRICS Analysis	
		Trip Rates	% of Trips
AM Peak (arrivals)	07:00 - 08:00	0.489	16.6%
	08:00 - 09:00	1.344	45.7%
	09:00 - 10:00	1.107	37.7%
	Total AM Peak	2.940	100.0%
PM Peak (departures)	16:00 - 17:00	1.050	38.8%
	17:00 - 18:00	1.252	46.3%
	18:00 - 19:00	0.403	14.9%
	Total PM Peak	2.705	100.0%

Table 4.2 – Potential Parking Profiles

Calculated Traffic Generation and Impact

4.3.4 Based on the above arrival and departure proportions, it is considered approximately 46% of arrivals and departures to/from the car park would occur during the respective peak periods of 08:00 – 09:00 and 17:00 – 18:00.

4.3.5 **Table 4.3** shows the potential highway impact in line with the above arrival and departure profiles; assuming that the car park would reach capacity by 10:00, and empty by approximately 19:00:

Scenario	Parking Levels	Potential Provision	Potential Arrivals (AM)		Potential Departures (PM)	
			Count	Impact	Count	Impact
Do Nothing	1	75	34	-1	35	-1
Ground Floor Only	1	116	53	+ 18	54	+ 18
Ground Floor + 1	2	237	108	+ 73	110	+ 74
Ground Floor + 2	3	357	163	+ 128	165	+ 130
Ground Floor + 3	4	477	218	+ 183	221	+ 185

Table 4.3 – Potential Traffic Generation

4.3.6 It can be considered that the ‘Ground Floor + 1’ scenario could result in approximately one additional vehicle on the surrounding highway network every 1 ½ minutes.

4.3.7 Notwithstanding this and due to the one-way nature of Sheep Street, junctions to the north could require consideration; for example, the junction of Castle Sheep and Sheep Street.

4.3.8 The ‘Ground Floor + 3’ scenario could have a larger impact on the surrounding highway network, with potentially a significant increase in traffic on the local network.

4.3.9 Additional junctions could require consideration, including the Market Place/Cricklade Street/Castle Street junction.

4.3.10 A scope of assessment and traffic counts would need to be agreed with Highways Officers before the development of any forthcoming Transport Assessment for planning.

5.0 Summary and Conclusions

5.1 Summary

- 5.1.1 Curtins has been appointed on behalf of Cotswold District Council to provide traffic and transportation advice in relation to car parking provision across Cirencester. This report follows an initial wider feasibility report for eight of the 10 existing Council-operated Pay & Display car parks throughout Cirencester.
- 5.1.2 Sheep Street Car Park is open Monday – Sunday. It is considered the current pricing strategy is likely to encourage all-day parking, whilst still providing the option for short stay.
- 5.1.3 From the occupancy data provided and following a review of available GIS information, it is considered likely that the car park is predominantly used by commuters. The Sheep Street Car Park has good levels of opportunity for onward travel to facilities and amenities around Cirencester Town Centre, with convenient access to employment.
- 5.1.4 An indicative ‘Ground Floor’ and ‘Upper Floor’ layout has been provided for the car park. Subsequent TRICS and first principles analysis suggests that the level of highway impact could require capacity assessments for any forthcoming planning application.

5.2 Conclusions

- 5.2.1 Further investigative works are required in order to finalise the car park layouts; considering all indirect/external factors and establishing an appropriate level of additional parking. From a transport perspective, this would include commissioning traffic counts at key junctions in the vicinity to better understand any impact on capacity.
- 5.2.2 Notwithstanding this and subject to detailed analysis and receipt of baseline traffic levels, it is considered there is opportunity for additional capacity at Sheep Street Car Park. Consideration of the TRICS analysis and potential parking layouts detailed in this report suggests that one additional level of parking would result in approximately 74 additional two-way trips; which is likely to constitute a **low – medium impact** on the surrounding highway network considering the site location.
- 5.2.3 Multiple levels of additional parking could generate in excess of 130 two-way trips. This is likely to constitute a **medium impact** on the surrounding highway network, and could require assessment of some junctions in the vicinity of Sheep Street.
- 5.2.4 It should be noted that demolition of the existing Old Memorial Hospital building is key to providing additional capacity; retention of the building would result in significantly less provision, to the point where parking layouts would likely be unfeasible. A review of pricing strategy may also encourage additional parking over Saturdays; thus taking pressure off other car parks in the surrounding area.

Plans

Drg No:

TPMA1486-SS-001

Rev:

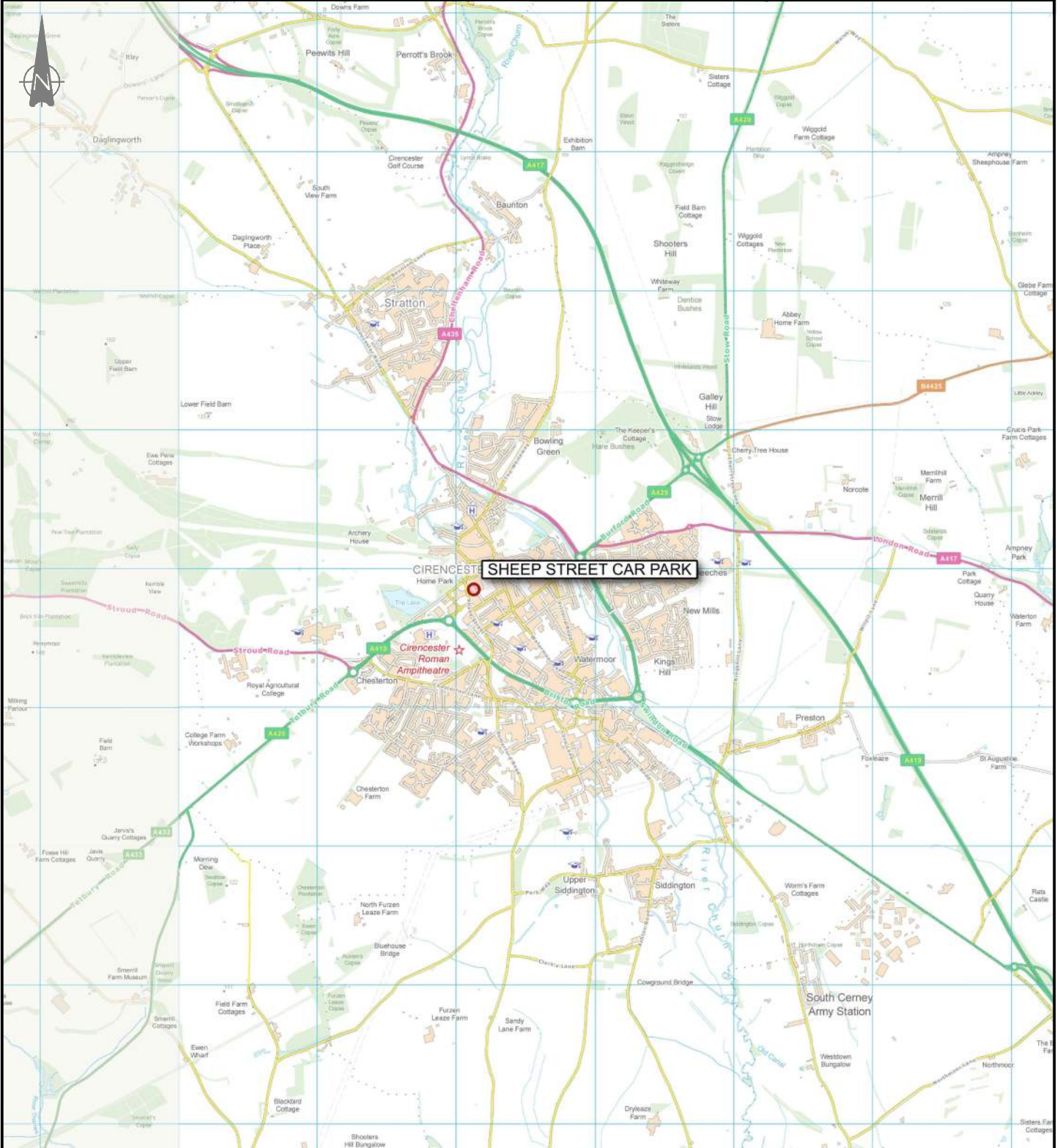
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Project: CIRENCESTER CAR PARKS - GLOUCESTERSHIRE
Drg Title: SHEEP ST CAR PARK - REGIONAL LOCATION PLAN
Drawn: DD
Checked: DJ
First issue: 14/11/16
Scale: NTS



KEY: Car Park Location

Drg No:

TPMA1486-SS-002

Rev:

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Project: CIRENCESTER CAR PARKS - GLOUCESTERSHIRE

Drg Title: SHEEP ST CAR PARK - LOCAL LOCATION PLAN

Drawn: DD

Checked: DJ

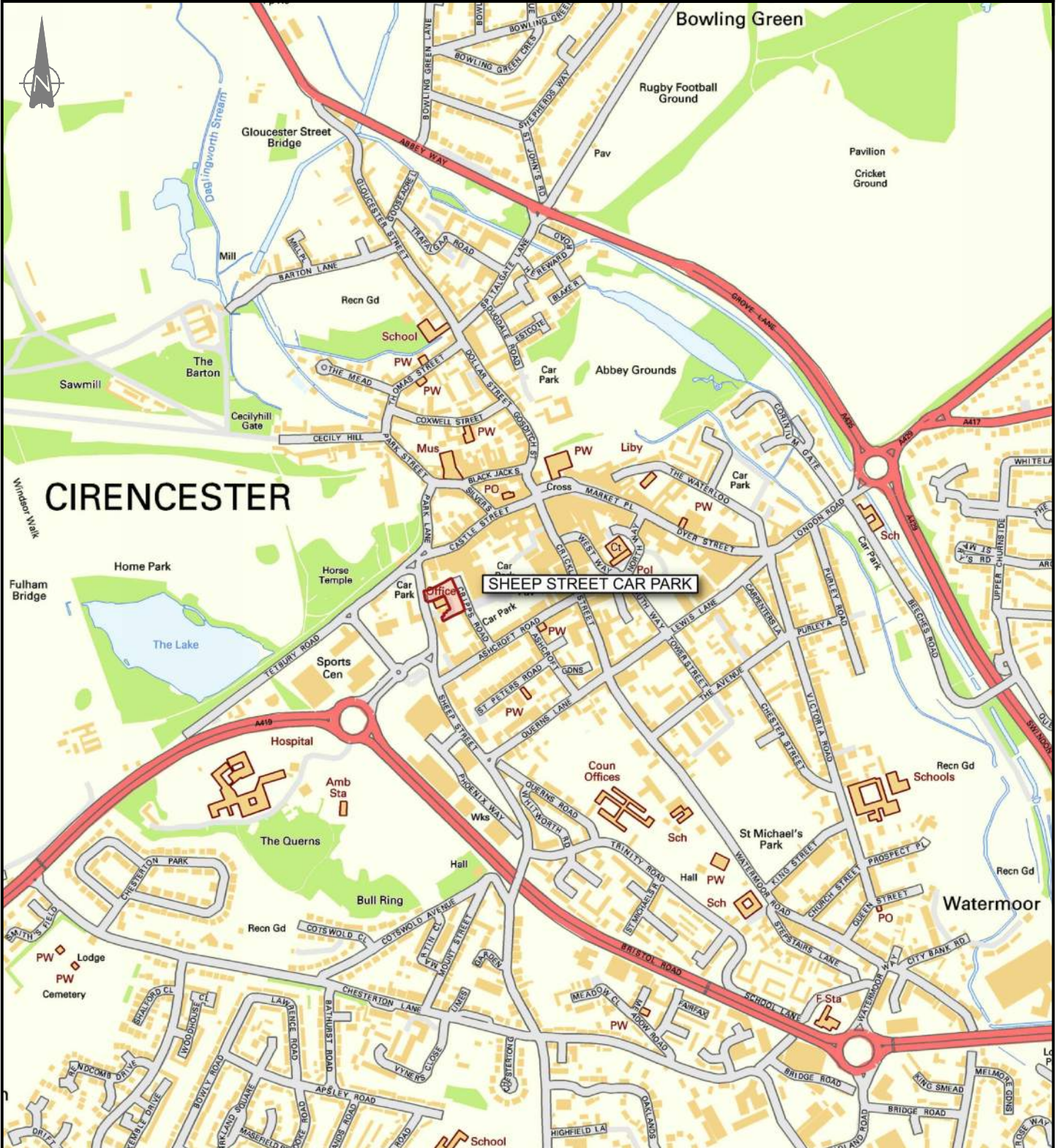
First issue: 14/11/16


Scale: NTS

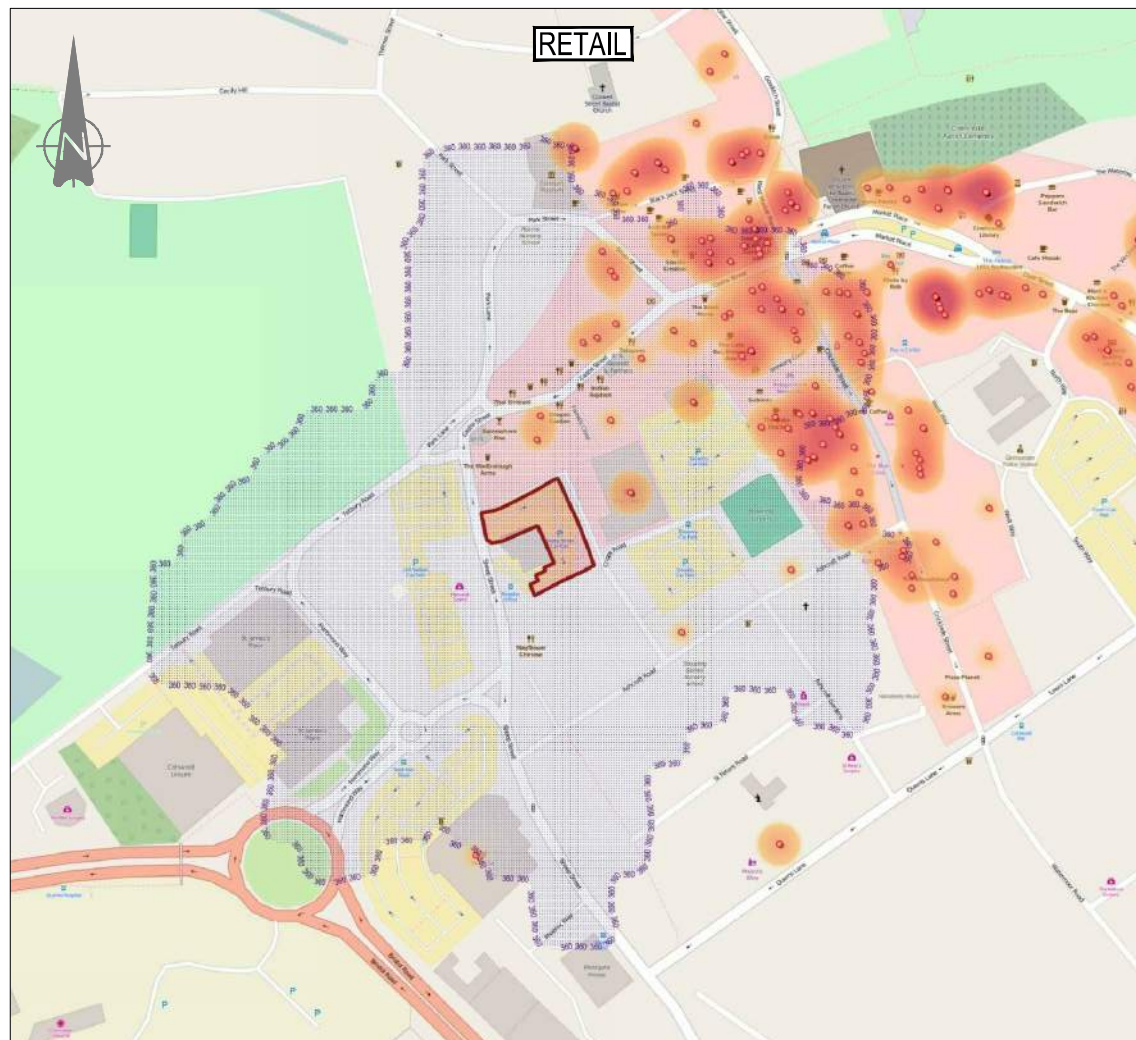
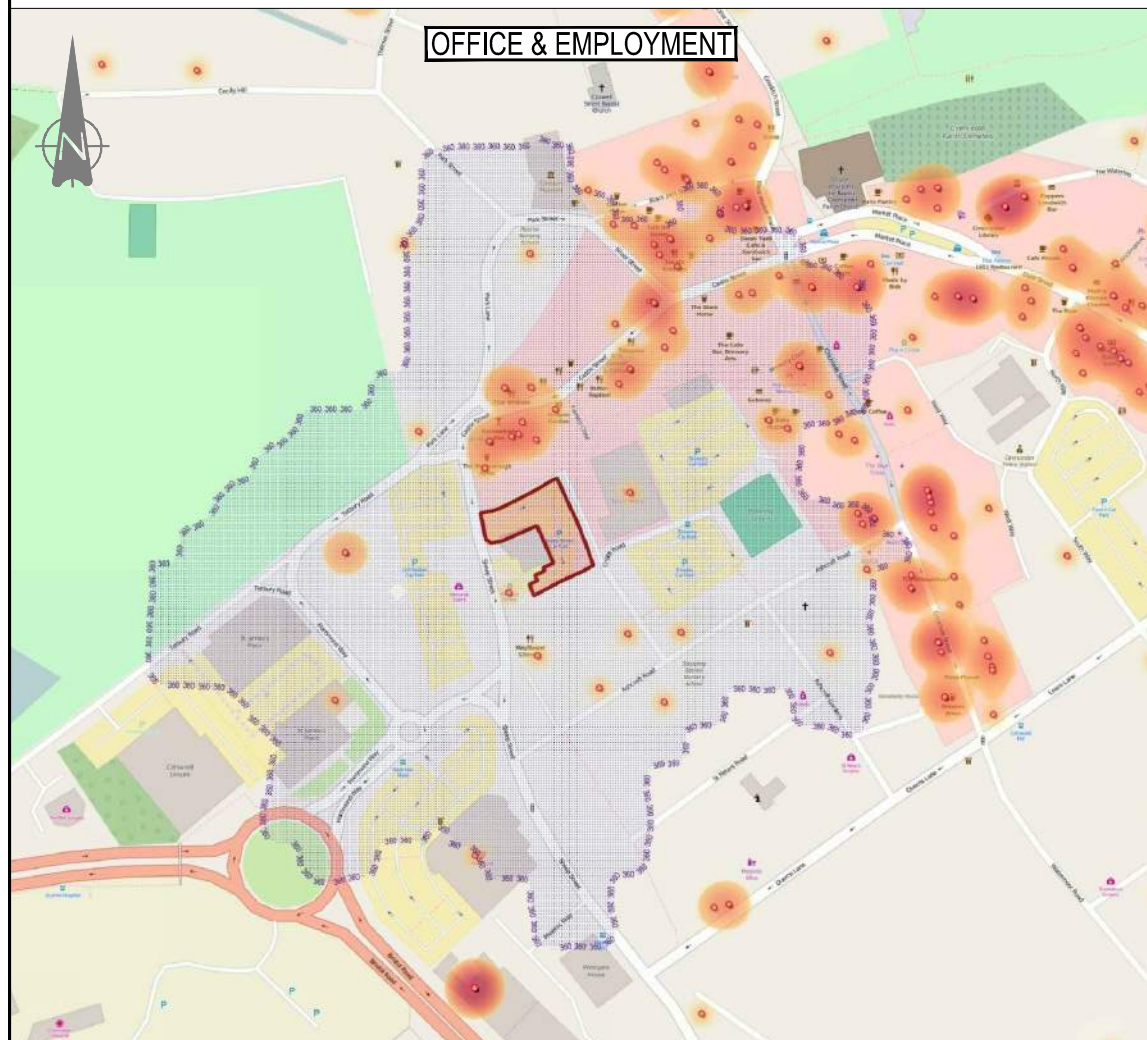
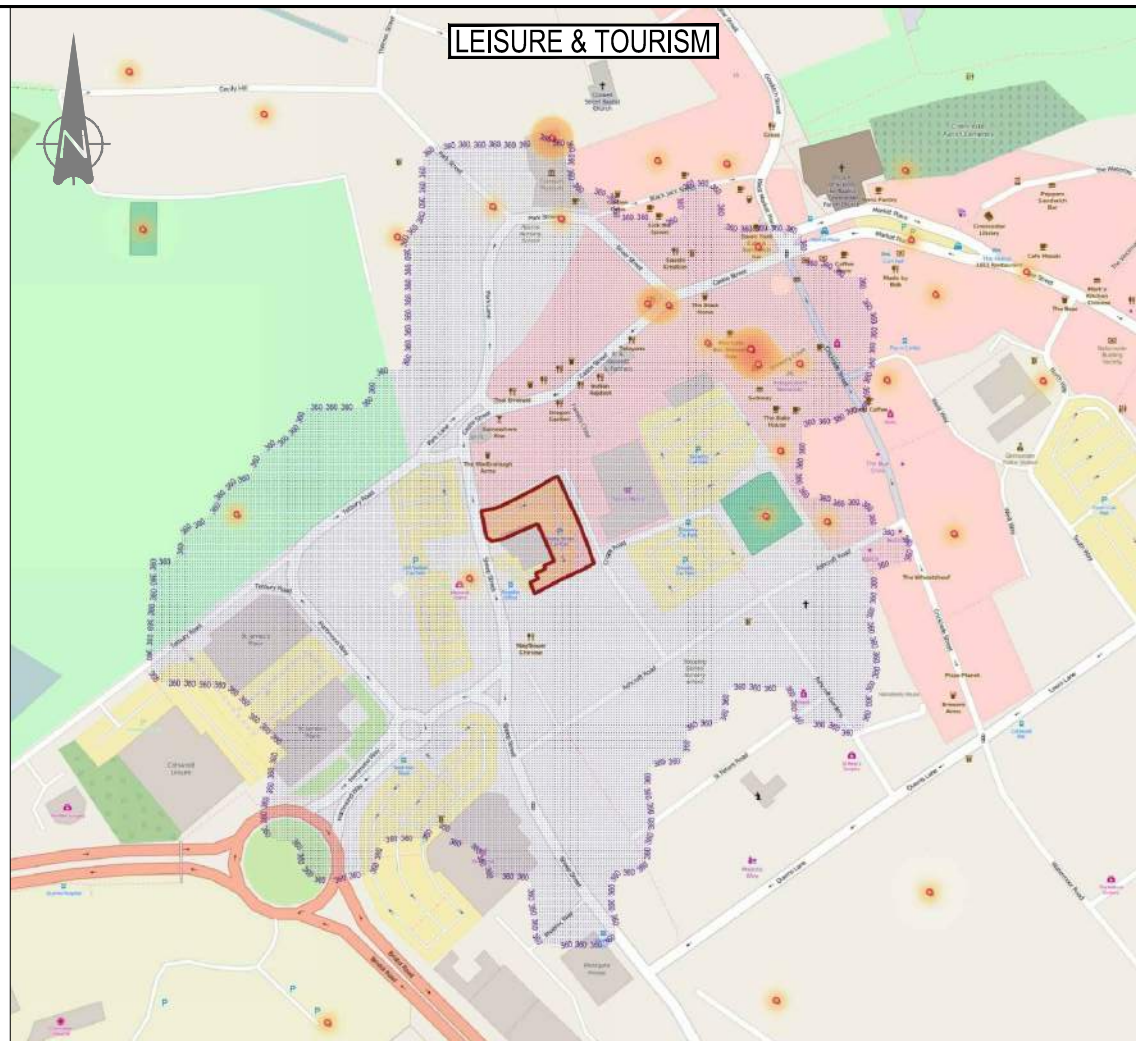
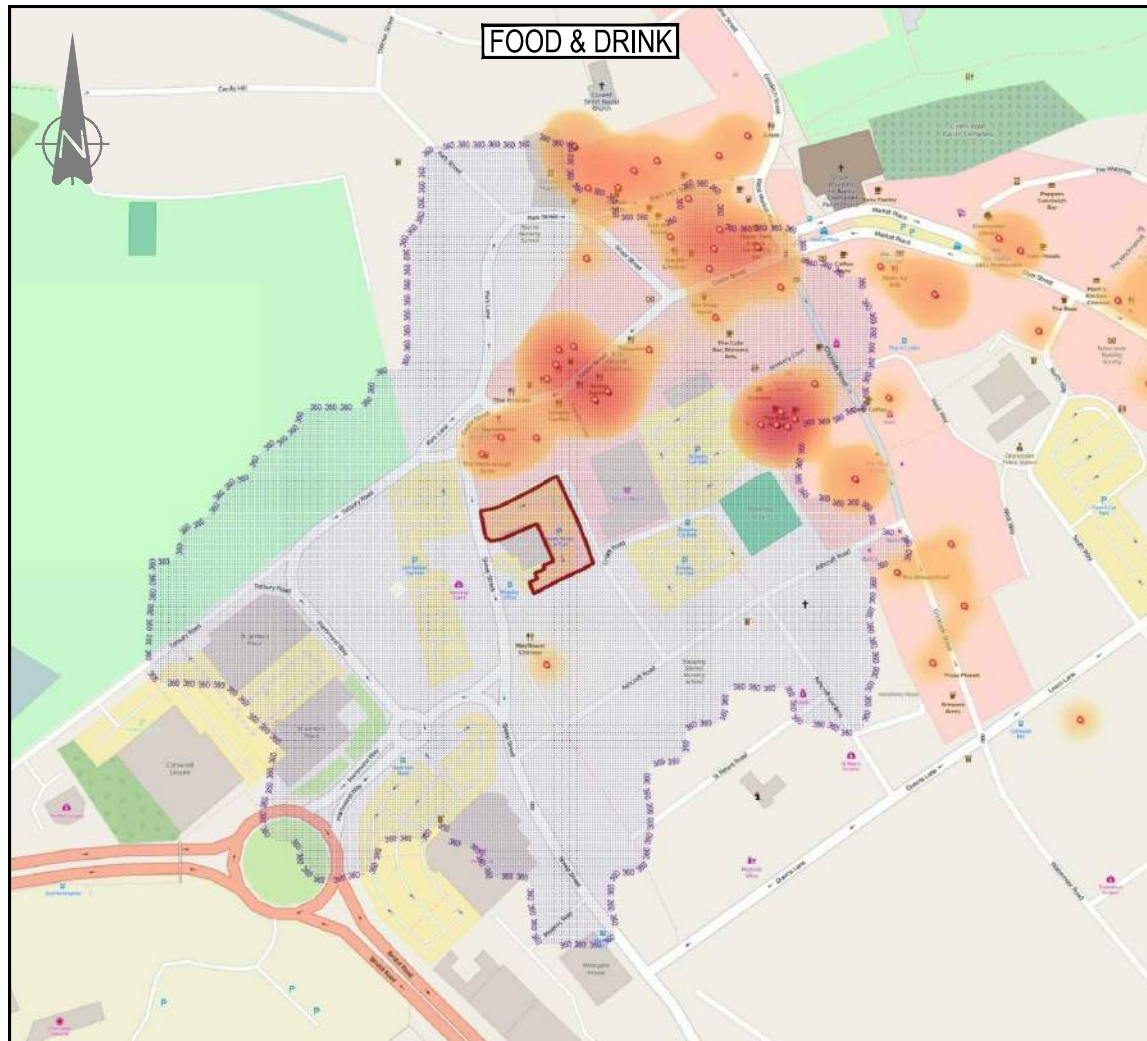


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KEY:  Car Park Location



NOTES:

KEY:

Sheep Street Car Park

Walking Catchment:

360m

Amenities:

Labelled amenities

Number of amenities within 25m:

up to 1

up to 3

up to 6

SHEEP STREET CAR PARK AMENITIES COUNT	
CATEGORY	COUNT
FOOD & DRINK	29
LEISURE & TOURISM	15
OFFICE & EMPLOYMENT	63
RETAIL	70
TOTAL	177

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Rev:	Description:	Date:	By:	Chkd:
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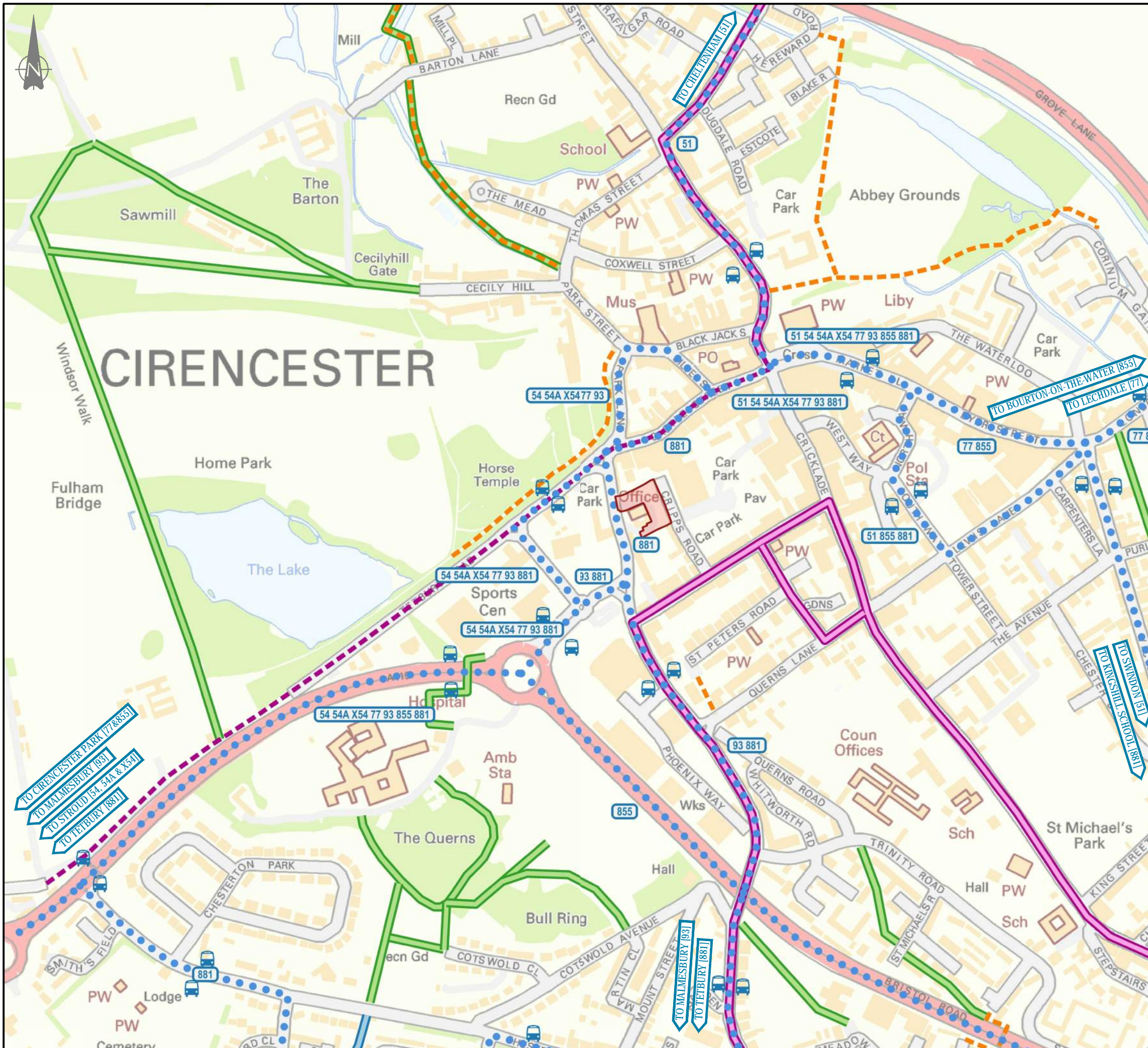
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Project: **CIRENCESTER CAR PARKS
GLOUCESTERSHIRE**

Drg Title: **SHEEP STREET CAR PARK
KEY AMENITIES**

Scale:	Size:	First Issue:	Drawn:	Checked:
NTS	A3	11/11/16	DD	DJ

Drg No:	Rev:
TPMA1486-SS-003	/



NOTES:

KEY:

- Sheep Street Car Park Location
- Pedestrian Network:**
- Designated Footpaths/PRoW
- Cycling:**
- NCN
- Cycle Lane
- Shared Pedestrian/Cycle
- Public Transport:**
- Bus Stops
- Bus Route
- 93 881 Bus Service Number

Rev:	Description:	Date:	By:	Chkd:
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Status:	PRELIMINARY
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Project:	CIRENCESTER CAR PARKS GLOUCESTERSHIRE
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Drg Title:	SHEEP STREET CAR PARK EXISTING LOCAL CYCLING/BUS PROVISION
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Scale:	Size:	First Issue:	Drawn:	Checked:
NTS	A3	10/11/16	DD	DJ

Drg No:	TPMA1486-SS-004	Rev:	/
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Drg No:

TPMA1486-SS-005

Rev:

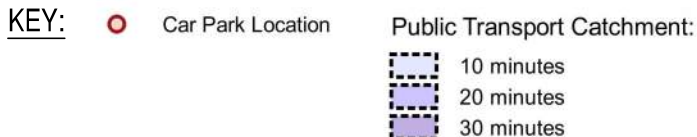
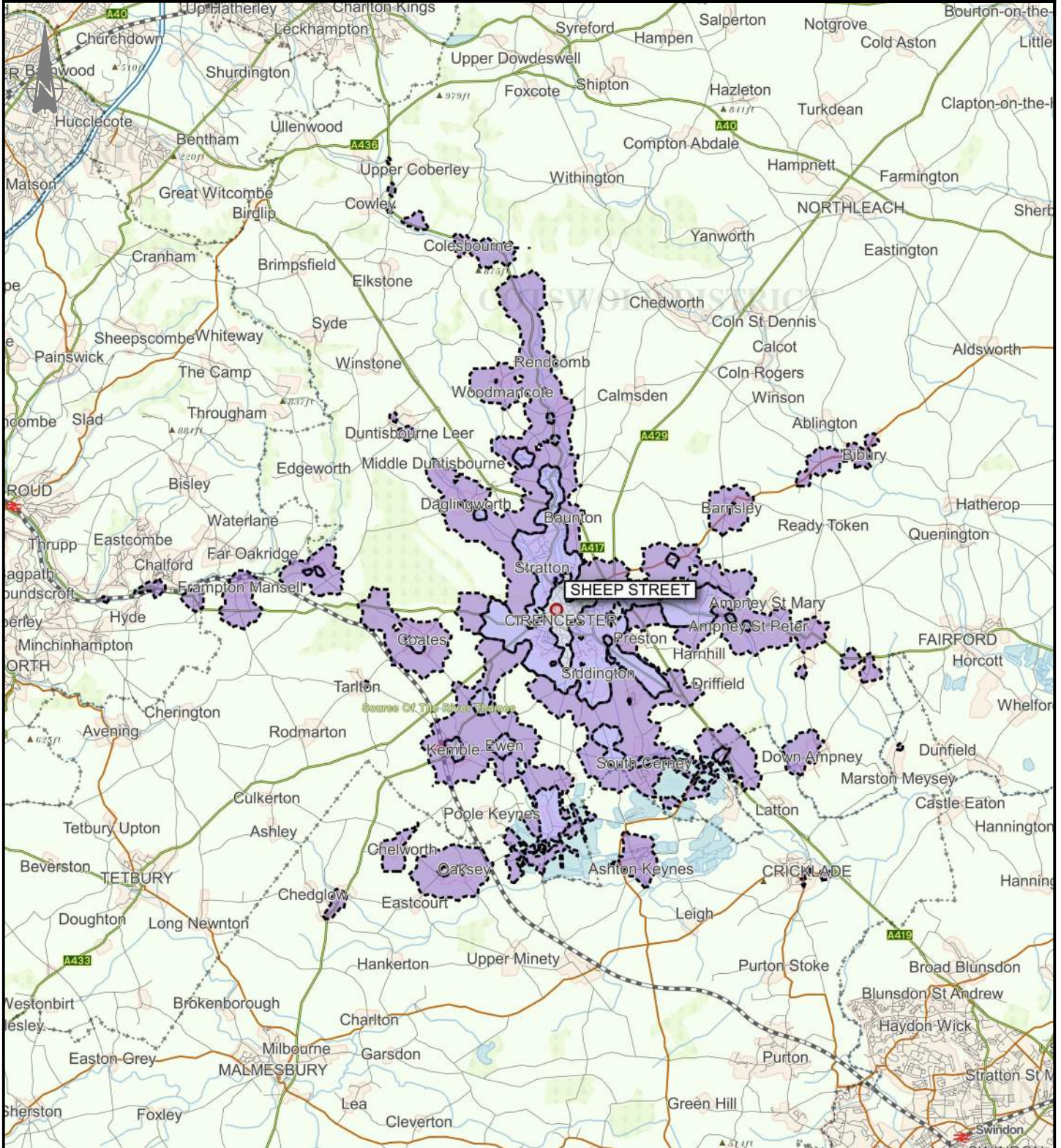
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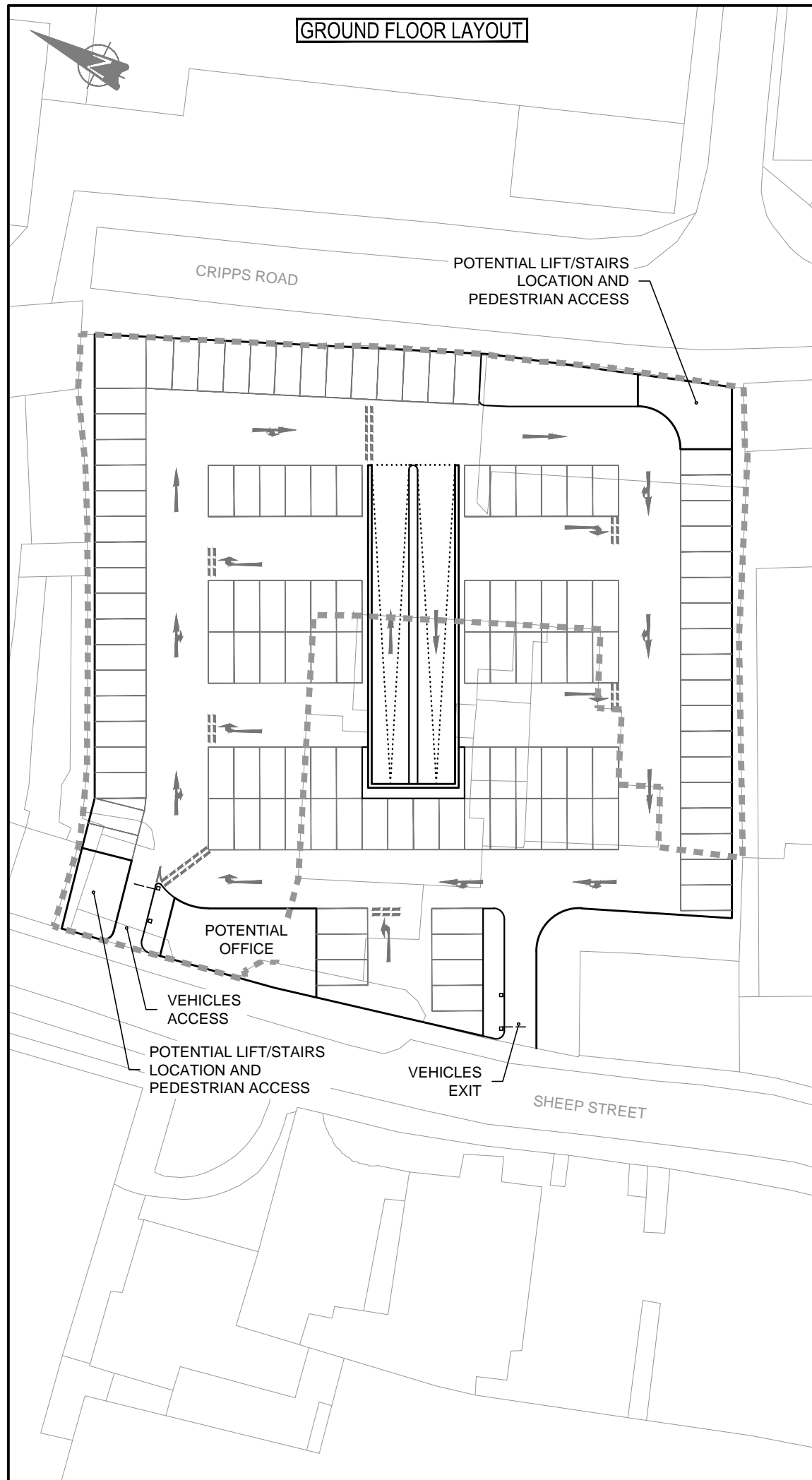
Project: CIRENCESTER CAR PARKS - GLOUCESTERSHIRE
Drg Title: SHEEP STREET - INDICATIVE BUS CATCHMENT
Drawn: DD
Checked: DJ
First issue: 14/11/16
Scale: NTS

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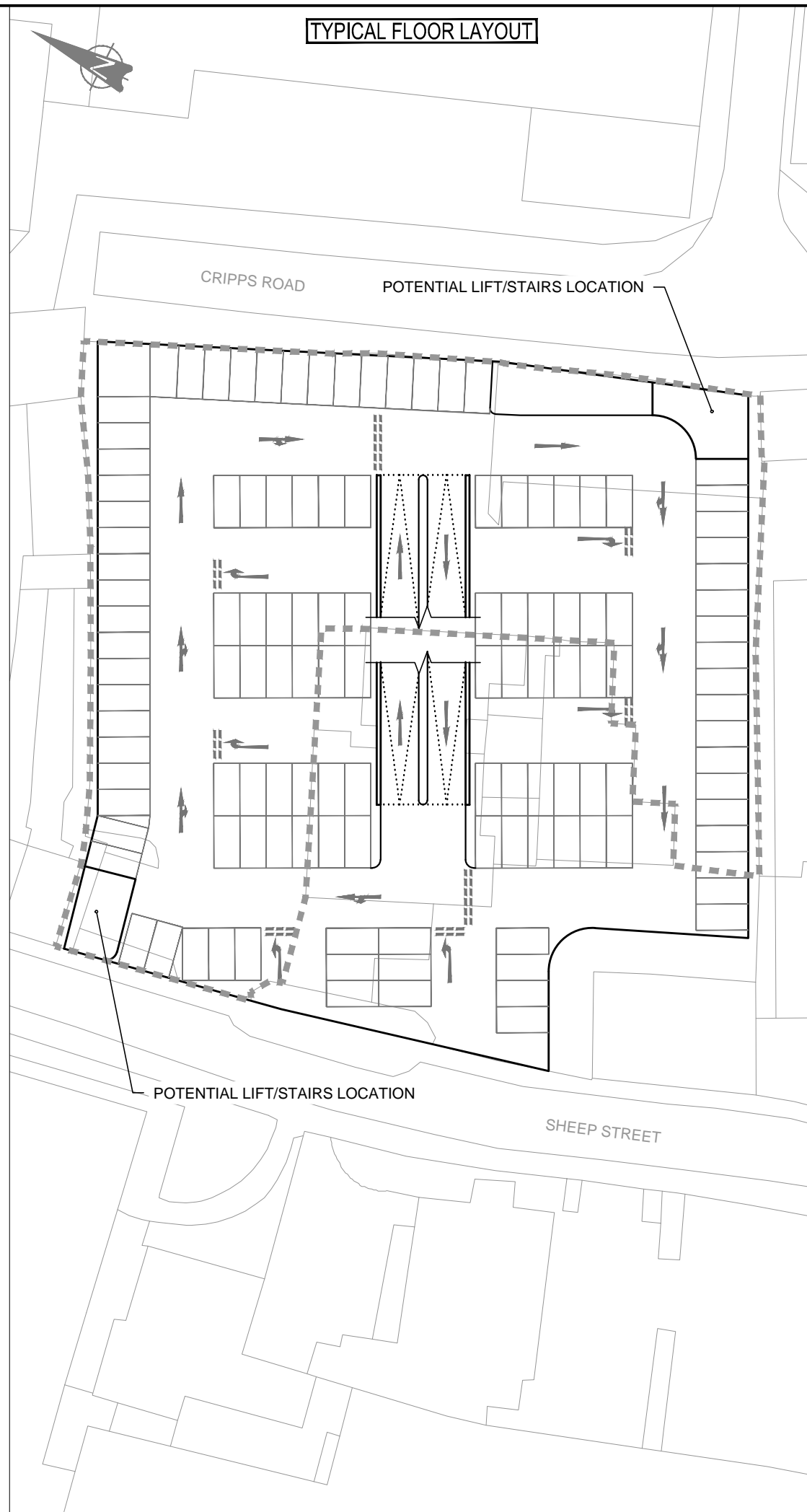


Drawings

GROUND FLOOR LAYOUT



TYPICAL FLOOR LAYOUT



NOTES:

KEY:

- INDICATIVE SITE BOUNDARY
- PROPOSED WALL
- PROPOSED KERB LINE
- PROPOSED ROAD MARKINGS
- PROPOSED RAMP

Ground floor parking spaces count: 120 Spaces.
 Typical floor parking spaces count: 124 Spaces.

Layouts are indicative and subject to detailed design.
 They do not consider other indirect/external factors
 (e.g. arboricultural, structural, archaeological, etc.)

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Status: **PRELIMINARY**

Project: **CIRENCESTER CAR PARKS
 GLOUCESTERSHIRE**

Drg Title: **SHEEP STREET CAR PARK
 PROPOSED LAYOUT**

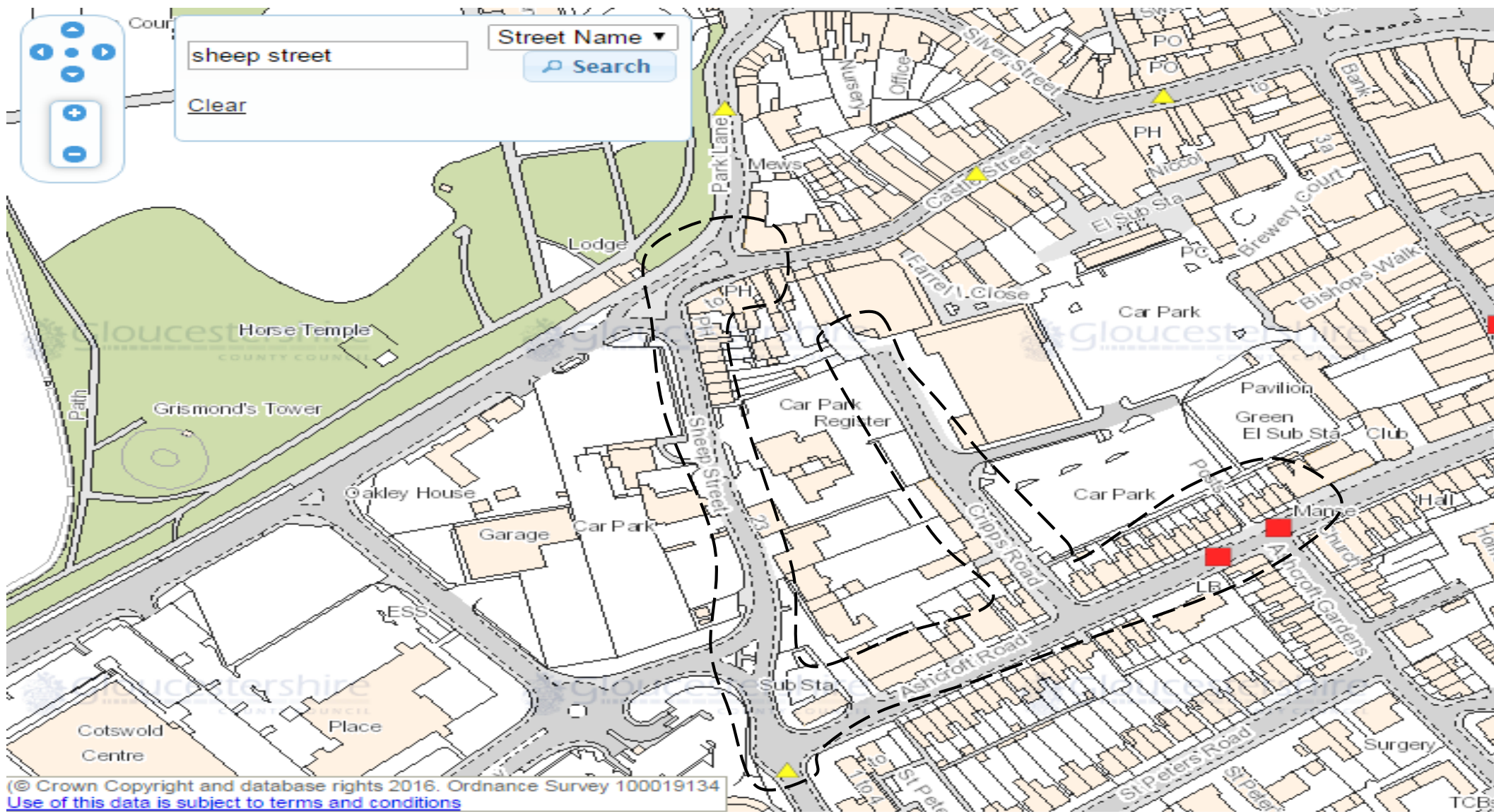
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Appendix A – PIA Data

Cirencester- Road Traffic Accident Data

Sheep Street (site 3)



Appendix B – TRICS Output

Calculation Reference: AUDIT-148301-161111-1133

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 02 - EMPLOYMENT

Category : A - OFFICE

VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	BD BEDFORDSHIRE	1 days
	ES EAST SUSSEX	1 days
	HF HERTFORDSHIRE	2 days
	KC KENT	3 days
	SO SLOUGH	2 days
03	SOUTH WEST	
	DC DORSET	2 days
04	EAST ANGLIA	
	CA CAMBRIDGESHIRE	1 days
	NF NORFOLK	1 days
	SF SUFFOLK	1 days
06	WEST MIDLANDS	
	WO WORCESTERSHIRE	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: 610 to 32793 (units: sqm)
 Range Selected by User: 186 to 175000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 26/11/15

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	3 days
Tuesday	1 days
Wednesday	3 days
Thursday	6 days
Friday	2 days

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

Selected survey types:

Manual count	15 days
Directional ATC Count	0 days

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

Selected Locations:

Town Centre	3
Edge of Town Centre	12

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
Residential Zone	1
Built-Up Zone	10

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	1 days
B1	14 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
15,001 to 20,000	4 days
25,001 to 50,000	10 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	3 days
75,001 to 100,000	1 days
100,001 to 125,000	1 days
125,001 to 250,000	10 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	2 days
1.1 to 1.5	10 days
1.6 to 2.0	3 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	8 days
No	7 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

TRIP RATE for Land Use 02 - EMPLOYMENT/A - OFFICE
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	15	7312	0.489	15	7312	0.042	15	7312	0.531
08:00 - 09:00	15	7312	1.344	15	7312	0.160	15	7312	1.504
09:00 - 10:00	15	7312	1.107	15	7312	0.277	15	7312	1.384
10:00 - 11:00	15	7312	0.514	15	7312	0.319	15	7312	0.833
11:00 - 12:00	15	7312	0.368	15	7312	0.347	15	7312	0.715
12:00 - 13:00	15	7312	0.315	15	7312	0.349	15	7312	0.664
13:00 - 14:00	15	7312	0.405	15	7312	0.315	15	7312	0.720
14:00 - 15:00	15	7312	0.319	15	7312	0.340	15	7312	0.659
15:00 - 16:00	15	7312	0.244	15	7312	0.456	15	7312	0.700
16:00 - 17:00	15	7312	0.205	15	7312	1.050	15	7312	1.255
17:00 - 18:00	15	7312	0.141	15	7312	1.252	15	7312	1.393
18:00 - 19:00	15	7312	0.044	15	7312	0.403	15	7312	0.447
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			5.495			5.310			10.805

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: 610 - 32793 (units: sqm)
 Survey date date range: 01/01/08 - 26/11/15
 Number of weekdays (Monday-Friday): 15
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 6
 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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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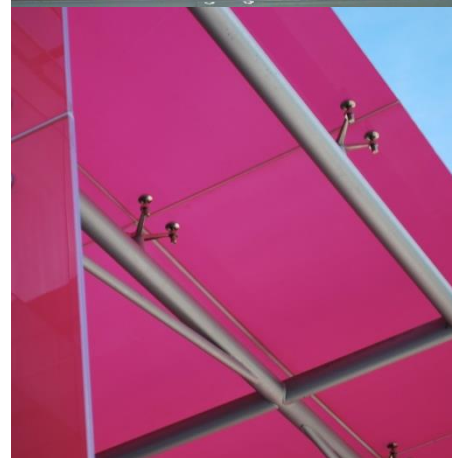
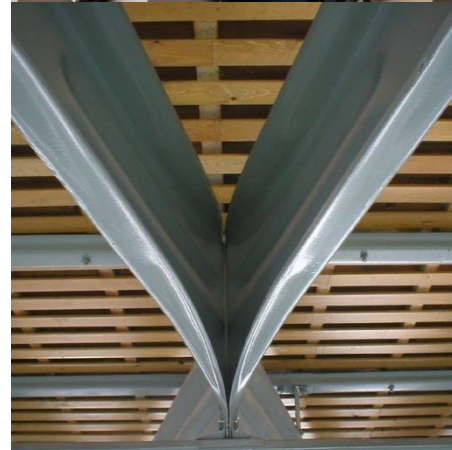
APPENDIX F: The Forum Car Park, Cirencester Traffic and Transport Feasibility

The Forum Car Park, Cirencester

Traffic and Transport Feasibility

Curtins Ref: TPMA1486-FO/TF
Revision: Final
Issue Date: 18 September 2017

Client Name: Cotswold District Council



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Control Sheet

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Reviewed	Signature	Date
Alex Vogt BSc (Hons) MSc MCIHT TPP Technical Director	<i>A. Vogt</i>	18 September 2017

Authorised	Signature	Date
Alex Vogt BSc (Hons) MSc MCIHT TPP Technical Director	<i>A. Vogt</i>	18 September 2017

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Plans

- Plan TPMA1486-FO-001** – Regional Location Plan
- Plan TPMA1486-FO-002** – Local Location Plan
- Plan TPMA1486-FO-003** – Pedestrian Catchment and POI Plan
- Plan TPMA1486-FO-004** – Existing Local Cycle Provision
- Plan TPMA1486-FO-005** – TRACC Bus Catchment

Drawings

- Drawing TPMA1486-FO-100** – Indicative Parking Layouts

Appendices

- Appendix A** – PIA Data
- Appendix B** – TRICS Outputs

1.0 Introduction

1.1 Background

- 1.1.1 Curtins has been appointed on behalf of Cotswold District Council to provide traffic and transportation advice in relation to car parking provision across Cirencester.
- 1.1.2 This report follows an initial wider feasibility report for eight of the 10 existing Council-operated Pay & Display car parks throughout Cirencester.

1.2 Purpose of this Report

- 1.2.1 Detailed feasibility reports were subsequently requested by Cotswold District Council for the following three car parks:
 - Old Station;
 - The Forum; and
 - Sheep Street.
- 1.2.2 This Traffic and Transport Feasibility report has been written in order to consider the suitability of additional parking provision at the existing The Forum Car Park.

2.0 Site Location and Existing Situation

2.1 Site Location

2.1.1 The Forum Car Park is located in the heart of Cirencester town centre; bounded by North Way to the north, the rear of various local businesses to the east, Lewis Lane to the south and South Way to the west.

2.1.2 **Plan TPMA1486-FO-001** illustrates the location of the site in relation to the surrounding areas, and **Plan TPMA1486-FO-002** shows the site in a more local context relating to the local highway network.

2.1.3 The following analysis is based on information provided by Gloucestershire County Council, Cotswold District Council and a site visit undertaken by Curtins employees on Tuesday 17th May 2016.

2.2 Existing Provision and Terms of Operation

2.2.1 The application site currently comprises the following approximate provision:

- 179 standard parking bays;
- 12 disabled parking bays;
- Free motorcycle parking for 3 vehicles; and
- 4 cycle loops providing spaces for 8 cycles.

2.2.2 The Forum Car Park is open Monday – Sunday, and imposes the following charges as reproduced in **Table 2.1**:

Car Park	Cost of Stay							
	½hr	1hr	2hrs	3hrs	4hrs	5hrs	10hrs	Sundays
The Forum	50p	£1.30	£2.30	£3.00	£3.50	N/A	N/A	Free

Table 2.1 – The Forum: Costs of Stay

2.2.3 It is considered the above pricing strategy is likely to encourage short stay parking, whilst not permitting long-term parking at The Forum Car Park.

2.3 Existing Access Arrangements

Vehicular Access

2.3.1 The Forum is currently accessed from South Way. The access is a two-way arrangement separated by a pedestrian refuge island.

Pedestrian Access

2.3.2 There is a level pedestrian access point from Lewis Lane at the south east corner of the car park, with another level access adjacent to the vehicular access along South Way.

2.3.3 There are also three pedestrian access points at the northern end of the car park which lead into the main high streets of Cirencester including Market Place, Dyer Street and Cricklade Street.

2.4 Surrounding Highway Network

South Way

2.4.1 South Way forms the western boundary of The Forum Car Park; providing vehicular access. It extends in a southerly direction from a junction with North Way and West Way for approximately 130m to a junction with Lewis Lane and Tower Street.

2.4.2 In the vicinity of the site the carriageway is approximately 7m wide, and forms a two-way road. There are footways on both sides of the carriageway, measuring in excess of 2m in width, measuring up to 5m in places.

2.4.3 The western side of the carriageway provides bus stops and laybys. Street lighting is present along the length of the road.

North Way

2.4.4 North Way forms the northern boundary of The Forum Car Park. It extends between Dyer Street and South Way on a north-east/south-west alignment for approximately 120m.

2.4.5 In the vicinity of the site the carriageway is approximately 7m wide, and forms a two-way road. There are footways on both sides of the carriageway, measuring approximately 2m in width.

2.4.6 North Way forms the primary access route for pedestrians to the facilities and amenities along Dyer Street. There are a number of designated crossing locations to the car park, complete with dropped kerbs and tactile paving. Street lighting is present along the length of the road.

2.5 Existing Levels of Occupation

2.5.1 A series of car park occupation data has been provided by Gloucestershire County Council. **Table 2.2** considers average occupations for surveys undertaken in June and October 2015; a representative sample of average parking across the year:

Average Occupation	10:00		11:00		12:00		13:00		14:00		15:00	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Monday	78	41%	150	79%	172	90%	160	84%	142	74%	115	60%
Tuesday	100	52%	178	93%	201	105%	187	98%	172	90%	126	66%
Wednesday	101	53%	153	80%	172	90%	171	89%	116	60%	117	61%
Thursday	119	62%	146	76%	169	88%	164	86%	149	78%	132	69%
Friday	180	94%	191	100%	187	98%	183	96%	173	90%	148	77%
Weekday	100	52%	157	82%	178	93%	170	89%	145	76%	122	64%
Saturday	180	94%	191	100%	187	98%	183	96%	173	90%	148	77%

Table 2.2 – The Forum Occupation Summary

2.5.2 It is clear from the above table that The Forum Car Park is often at or approaching capacity on Saturdays, from 10:00 to 13:00/14:00.

2.5.3 Throughout the week the car park is less busy, approaching capacity during the middle of the day.

2.6 Highway Safety

2.6.1 Personal Injury Accident (PIA) data for the highway network adjacent to the site has been obtained from Gloucestershire County Council for the most recent five years. A breakdown of the information is contained in **Table 2.3**:

Junction/Link	Slight	Serious	Fatal	Totals
North Way/Dyer Street	2	0	0	2
Lewis Lane	1	0	0	1
Lewis Lane/ South Way/Tower Street	0	1	0	1
Lewis Lane/Cricklade Street	2	1	0	3
Lewis Lane/Arkenside Mews	1	0	0	1
Totals	6	2	0	8

Table 2.3 – Personal Injury Accident Data Summary

2.6.2 The above search is included in **Appendix A** to the rear of this report.

2.6.3 There have been a total of eight accidents recorded in the latest five-year period available, comprising six ‘slight’ accidents and two ‘serious’ accidents. No ‘fatal’ accidents have been recorded in the study area and period. There is nothing to suggest an existing safety issue from the breakdown in accidents to locations as indicated in the above table.

2.6.4 Following a thorough review of the records, it is not considered that there is an existing safety issue that is likely to be exacerbated by an increase in parking provision at The Forum Car Park.

3.0 Opportunity for Onward Sustainable Travel

3.1 Introduction

3.1.1 This section considers the car park's location and the prospect of onward sustainable travel; considering how the facility links to key facilities and amenities throughout Cirencester town centre and beyond.

3.2 Onward Travel on Foot

TRACC and Points of Interest Analysis

3.2.1 In order to consider access to surrounding facilities and facilities on foot, TRACC software and Points of Interest (POI) data has be utilised.

3.2.2 TRACC is a leading multi-modal transport accessibility tool which was developed in conjunction with the Department for Transport (DfT), Local Authorities and transport planners. In this case, it has been used to generate a 360m pedestrian catchment from The Forum Car Park along local footways and footpaths.

3.2.3 The 360m walking catchment is based on a 5-minute walk (at an average walking speed of 1.2m/s), and is also comparable to the CIHT acceptable walking distances for car-borne shoppers based on a 2 hour stay as defined in the CIHT document 'Providing for Journeys on Foot' and reproduced in

Table 3.1:

Parking Time	Acceptable Walking Distances (m)
30 mins	100
1 Hour	200
2 Hours	400
4 Hours	800
8 Hours	1,000

Table 3.1 – Providing for Journeys on Foot – Car Parking Walking Distances

3.2.4 Furthermore, 360m also compares to the CIHT suggested 'Acceptable' walking distance of 400m for town centre uses.

3.2.5 In order to compare the pedestrian catchment with existing facilities, Geographic Information System (GIS) POI data has been obtained from BaseMap and plotted on a suitable mapping base. The information was categorised into the following land uses:

- Food and Drink – cafes, bars, hotel/restaurants, takeaways etc.
- Leisure and Tourism – museums, green spaces/parks, bodies of water etc.
- Office and Employment – offices, trades, warehouses etc.

- Retail – high street shops, commercial services, local shops, supermarkets etc.

3.2.6 The resultant information is provided in **Plan TPMA1486-FO-003**.

Local Amenities and Facilities

3.2.7 Following the analysis of **Plan TPMA1486-FO-003**, it is clear that the car park is located in an excellent position to take advantage of a number of facilities and amenities.

3.2.8 In particular, there are a number of retail and office & employment opportunities within a 5-minute walk to the north and west of the car park.

3.2.9 The proximity of the retail opportunities is considered likely to be a significant contributory factor towards the high levels of car park occupation on Saturdays as provided in **Table 2.1**.

3.2.10 The Forum Car Park is also situated adjacent to a number of food and drink outlets (in particular to the north and west) and is well located for access to leisure & tourism opportunities throughout the town centre.

3.3 Onward Travel by Cycle

3.3.1 The Forum Car Park provides formal cycle parking provision for up to eight bicycles. It is therefore considered some users make journeys by bicycle to/from the storage points at the car park, as well as others potentially transporting their bicycles to the site in their vehicle. **Plan TPMA1486-FO-004** illustrates the existing cycling provision adjacent to the site.

3.3.2 National Cycle Route 45 is accessible within approximately 200m of The Forum Car Park, and can be accessed either at the Lewis Lane/Cricklade Street/Watermoor Road junction via Lewis Lane, or Cricklade Street/Ashcroft Road junction via West Way. The route extends southwards out of the town centre before heading eastwards to Swindon and westwards to Stroud.

3.3.3 Additionally, National Cycle Route 48 is accessible within approximately 300m of The Forum Car Park. The route extends northwards out of the town centre towards Northleach.

3.4 Onward Travel by Bus

3.4.1 It is considered some users could choose to travel to different areas throughout Cirencester town centre, or further afield, by bus.

3.4.2 The nearest bus stop to the site is located within 50m of the car park along South Way. **Table 3.2** details the services that call at these stops, and their associated frequencies:

Bus Service	Route	Peak Frequency		
		Mon – Fri	Sat	Sun/Hols
51	Swindon - Cricklade - Cirencester - Cheltenham	Hourly	Hourly	Every 2 Hours
855	Bourton-on-the-Water - Northleach - Bibury - Cirencester	School Service	-	-
881	Cirencester – Kemble – Tetbury	1 Daily Service	-	-

Table 3.2 – Summary of Bus Service Frequencies from South Way

3.4.3 Considering the above table, there is some limited potential for onwards travel by bus. However, additional services are available along Dyer Street/Market Place, accessible 300m walk from the car park. A summary of these services is provided in **Table 3.3**:

Bus Service	Route	Peak Frequency		
		Mon – Fri	Sat	Sun/Hols
54/54A	Stroud – Cirencester	7 Daily Services	3 Daily Services	-
77	Cirencester – Fairford – Lechlade	1 Daily Service	1 Daily Service	-
93	Malmesbury – Charlton – Crudwell – Somerford Keynes – Cirencester	5 Daily Services	7 Daily Services	-

Table 3.3 – Summary of Bus Service Frequencies from Market Place

3.4.4 **Plan TPMA1486-FO-005** demonstrates those areas accessible via public transport within 10, 20 and 30 minutes’ bus journey from The Forum Car Park.

3.5 Summary

3.5.1 It is considered that The Forum Car Park has excellent levels of opportunity for onward travel to facilities and amenities around Cirencester Town Centre, and some other nearby destinations.

4.0 Indicative Parking Provision and Forecasted Impact

4.1 Introduction

- 4.1.1 It has been demonstrated throughout **Sections 2** and **3** of this report that The Forum Car Park is well situated to access retail and office & employment opportunities amenities across Cirencester town centre.
- 4.1.2 The Forum Car Park is considered to be well-used on a Saturday; with 100% occupation reached and similar levels maintained throughout the day. Despite the proximity to employment opportunities, the car park is slightly quieter during the week. This is thought to be a direct result of the current pricing strategy only permitting up to 4 hours parking.
- 4.1.3 In light of this, Curtins has undertaken some indicative analysis in order to inform the potential for additional level(s) of car park decking. The layouts produced have been designed to maximise potential capacity at the site. It should be noted that the car park layouts and subsequent analyses are subject to detailed design, and do not consider other indirect/external factors (e.g. arboricultural, structural, archaeological etc.).

4.2 Indicative Parking Layouts

- 4.2.1 An indicative 'Ground Floor' and 'Upper Floor' layout has been provided for The Forum Car Park in **Drawing TPMA1486-FO-001** to the rear of this report.

Layout Scenarios

- 4.2.2 In order to assess the wider implications of the parking layout, the following five layout scenarios are considered:
- **Do Nothing** – continue to operate the car park under the existing conditions;
 - **Ground Floor Only** – redevelop the ground floor so that subsequent floors could be accommodated;
 - **Ground Floor + 1** – add one additional floor of car parking;
 - **Ground Floor + 2** – add two additional floors of car parking; and
 - **Ground Floor + 3** – add three additional floors of car parking.

Indicative Parking Provision Impact

- 4.2.3 Based on the initial layouts provided in the previous subsection, the potential gains in parking provision for each scenario are shown in **Table 4.1** below.

4.2.4 An adjustment of 3% has also been included to account for the introduction of disabled parking provision at the car park, compensating for the additional space such parking bays would require at 6% disabled provision:

Scenario	Parking Levels	Potential Provision			Disabled Parking Adjustment		
		Count	Impact	Impact (%)	Count	Impact	Impact (%)
Do Nothing	1	191	0	0%	191	0	0%
Ground Floor Only	1	179	-12	-6%	174	-17	-9%
Ground Floor + 1	2	376	185	97%	365	174	91%
Ground Floor + 2	3	573	382	200%	556	365	191%
Ground Floor + 3	4	770	579	303%	747	556	291%

Table 4.1 – Potential Parking Provision at The Forum

4.2.5 Notwithstanding other indirect/external factors, it is considered that there is potential for significant additional parking on the site should additional floors be provided.

4.3 Forecasted Highway Impact

Parking Profiles

4.3.1 Based on the assumption that The Forum is generally a car park frequented by those accessing retail and food & drink facilities and a maintained pricing strategy, it is considered any additional trips associated with the extra car parking provision would be well distributed across the day.

4.3.2 This is demonstrated in **Table 4.2** below. As there is no ‘car parking’ category in the TRICS database, the table provides a summary of arrivals/departures for mixed shopping malls. The associated TRICS outputs can be viewed in **Appendix B**:

Time	Arrivals		Departures		Two-way	
	Trip Rates	% of Trips	Trip Rates	% of Trips	Trip Rates	% of Trips
08:00-09:00	0.869	3.2%	0.307	1.1%	1.176	2.2%
09:00-10:00	2.334	8.6%	1.307	4.9%	3.641	6.8%
10:00-11:00	2.936	10.9%	2.404	9.0%	5.340	9.9%
11:00-12:00	3.139	11.6%	2.925	10.9%	6.064	11.3%
12:00-13:00	3.513	13.0%	3.064	11.4%	6.577	12.2%
13:00-14:00	3.374	12.5%	3.570	13.3%	6.944	12.9%
14:00-15:00	3.024	11.2%	3.214	12.0%	6.238	11.6%
15:00-16:00	2.552	9.4%	2.720	10.2%	5.272	9.8%
16:00-17:00	2.114	7.8%	2.816	10.5%	4.930	9.2%
17:00-18:00	1.633	6.0%	2.148	8.0%	3.781	7.0%
18:00-19:00	0.897	3.3%	1.418	5.3%	2.315	4.3%
19:00-20:00	0.336	1.2%	0.627	2.3%	0.963	1.8%
20:00-21:00	0.110	0.4%	0.204	0.8%	0.314	0.6%
Daily	27.022	100.0%	26.786	100.0%	53.808	100.0%

Table 4.2 – Potential Parking Profiles

Traffic Generation and Impact

4.3.3 Based on the above arrival and departure proportions, almost half (48.0%) of all arrivals and departures would occur between the hours of 11:00 and 15:00, with the peak number of movements at 13:00 – 14:00.

4.3.4 **Table 4.3** shows the potential highway impact in line with the above arrival and departure profiles; assuming that the car park would reach capacity during the given Saturday, and assuming every vehicle has a length of stay between two and four hours:

Scenario	Parking Levels	Potential Provision	Potential Arrivals		Potential Departures		Potential Two-Way	
			Count	Impact	Count	Impact	Count	Impact
Do Nothing	1	191	50	0	50	0	100	0
Ground Floor Only	1	174	45	-5	46	-4	91	-9
Ground Floor + 1	2	365	95	45	96	46	191	91
Ground Floor + 2	3	556	145	95	146	96	291	191
Ground Floor + 3	4	747	195	145	196	146	391	291

Table 4.3 – Potential Traffic Generation

4.3.5 It can be considered that the ‘Ground Floor + 1’ scenario could result in approximately two additional vehicles on the surrounding highway network every minute. At an impact of over 300 two-way trips in the peak hour, the ‘Ground Floor + 3’ scenario could have a significant impact on the surrounding highway network.

4.3.6 Junctions including Market Place/Dyer Street/North Way and South Way/Lewis Lane/Tower Street could require assessment.

4.3.7 A scope of assessment and traffic counts would need to be agreed with Highways Officers before the development of any forthcoming Transport Assessment for planning.

4.3.8 It should also be noted that a change to the current pricing strategy (i.e. day parking permitted) could result in significant alterations to the typical user of the car park, and the resultant highway impact.

5.0 Summary and Conclusions

5.1 Summary

- 5.1.1 Curtins has been appointed on behalf of Cotswold District Council to provide traffic and transportation advice in relation to car parking provision across Cirencester. This report follows an initial wider feasibility report for eight of the 10 existing Council-operated Pay & Display car parks throughout Cirencester.
- 5.1.2 The Forum Car Park is open Monday – Sunday. It is considered the current pricing strategy is likely to encourage short stay parking, and does not permit long-term parking.
- 5.1.3 From the occupancy data provided and following a review of available GIS information, it is considered likely that the car park is predominantly used by those accessing retail and food& drink amenities. The Forum Car Park has good levels of opportunity for onward travel to facilities and amenities around Cirencester Town Centre, and it also has convenient access to employment opportunities.
- 5.1.4 An indicative ‘Ground Floor’ and ‘Upper Floor’ layout has been provided for the car park. Subsequent TRICS and first principles analysis suggests that the level of highway impact is likely to require capacity assessments for any forthcoming planning application.

5.2 Conclusions

- 5.2.1 Further investigative works are required in order to finalise the car park layouts; considering all indirect/external factors and establishing an appropriate level of additional parking. From a transport perspective, this would include commissioning traffic counts at key junctions in the vicinity to better understand any impact on capacity.
- 5.2.2 Notwithstanding this and subject to detailed analysis and receipt of baseline traffic levels, it is considered there is opportunity for additional capacity at The Forum Car Park. Consideration of the TRICS analysis and potential parking layouts detailed in this report suggests that one additional level of parking would result in approximately 91 additional two-way trips; which is likely to constitute a **medium impact** on the surrounding highway network considering the site location.
- 5.2.3 Multiple levels of additional parking could generate in excess of 191 two-way trips. This is likely to constitute a **significant impact** on the surrounding highway network, and could require extensive assessment of junctions in the vicinity of The Forum.
- 5.2.4 It is suggested the current pricing strategy should also be considered in conjunction with increased capacity; there is a significant difference between parking demand in the week and on Saturday, and an alternative strategy could encourage higher levels of occupation during the week and reduce pressure on other car parks in the vicinity.

Plans

Drg No:

TPMA1486-FO-001

Rev:

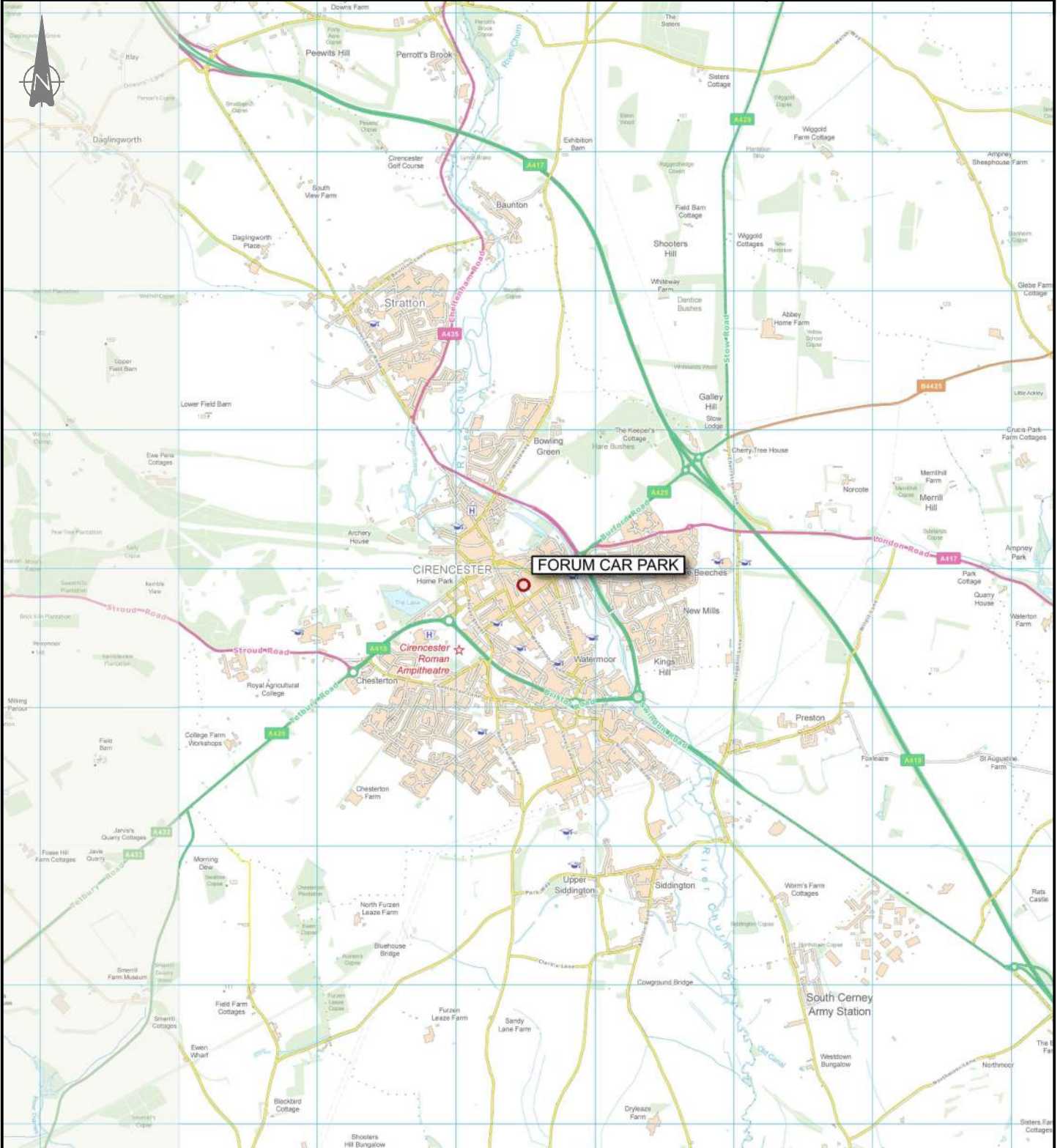
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Project: CIRENCESTER CAR PARKS - GLOUCESTERSHIRE
Drg Title: FORUM CAR PARK - REGIONAL LOCATION PLAN
Drawn: DD
Checked: DJ
First issue: 14/11/16
Scale: NTS



KEY:  Car Park Location

Drg No:

TPMA1486-FO-002

Rev:

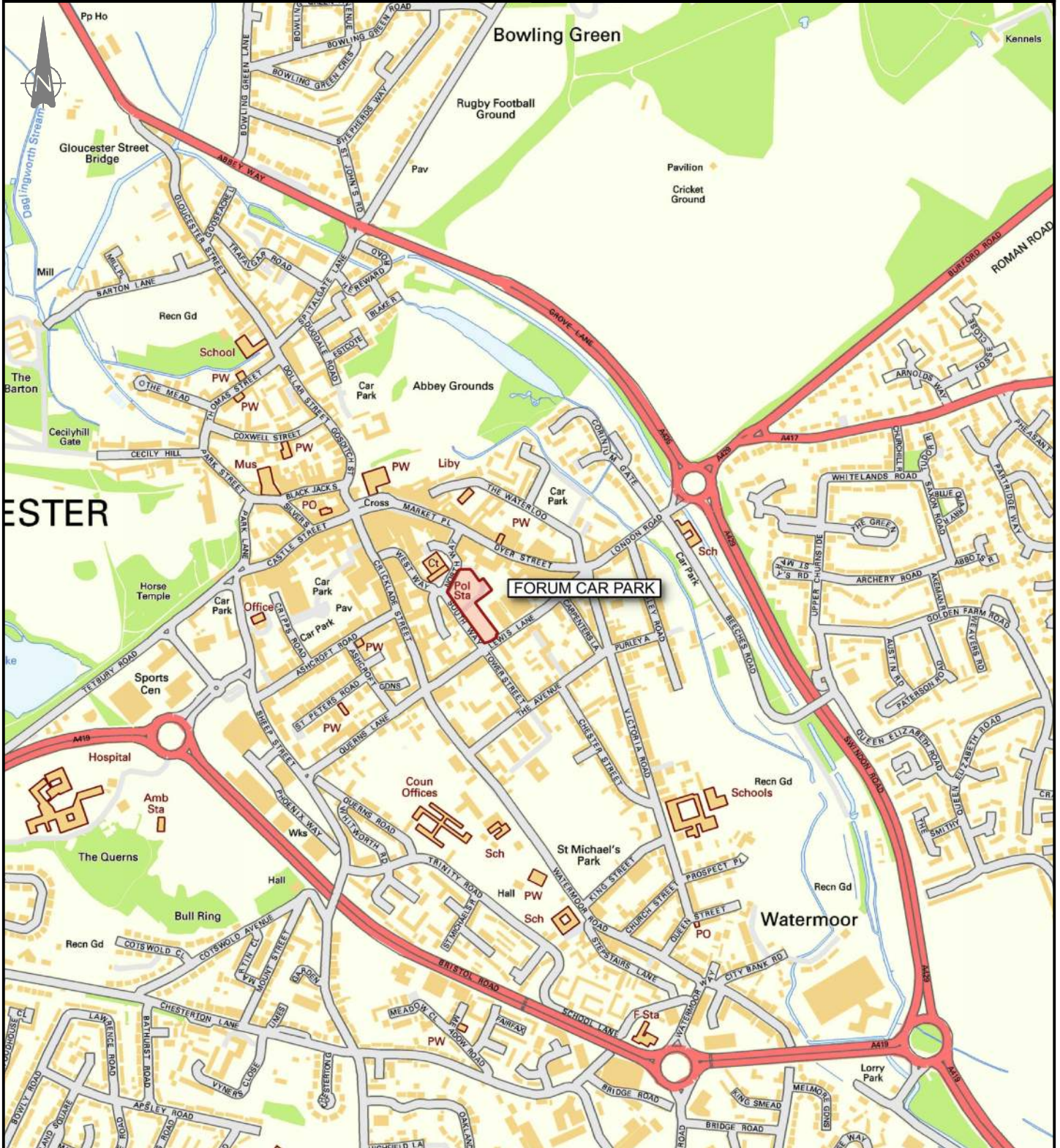
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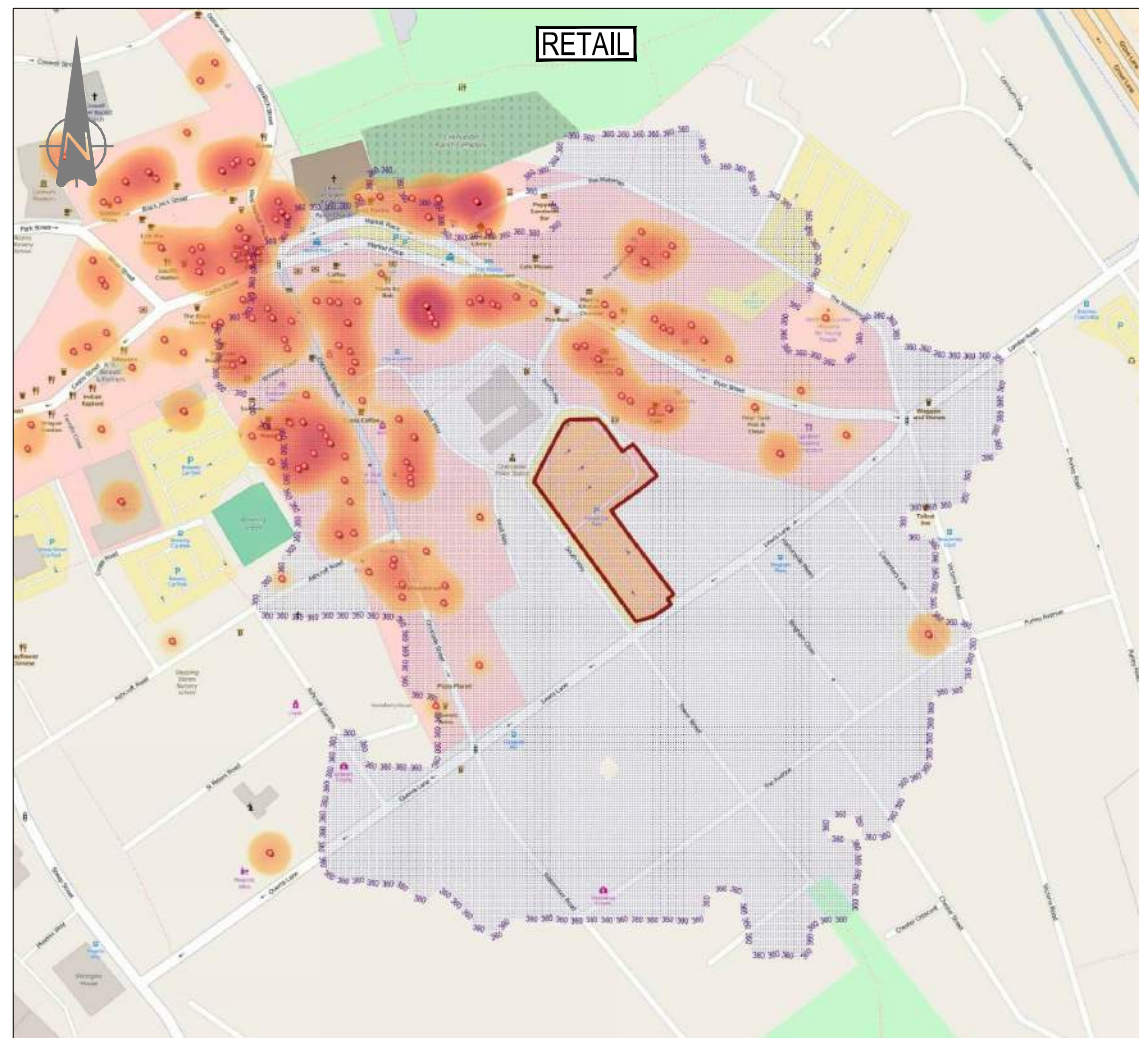
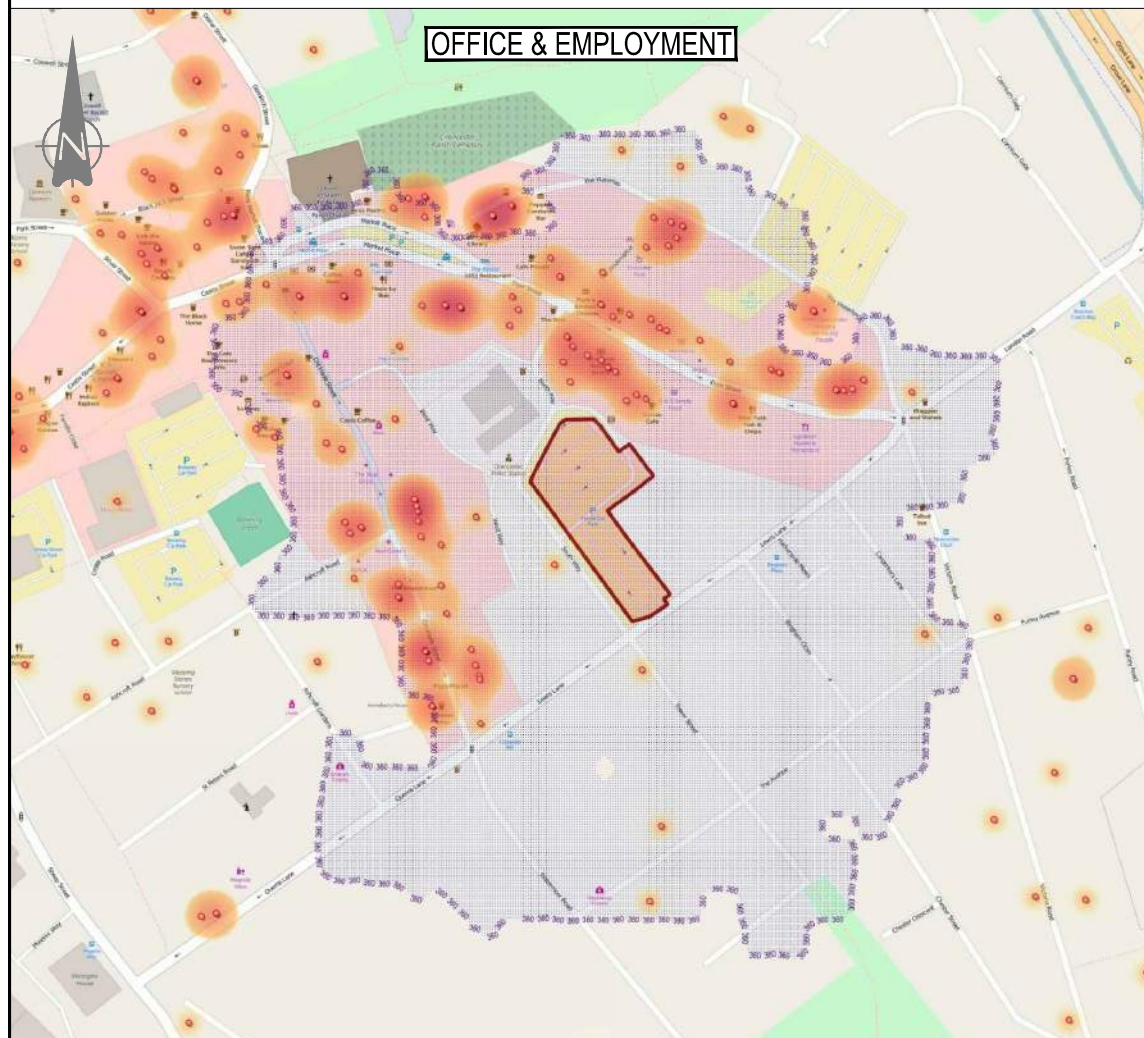
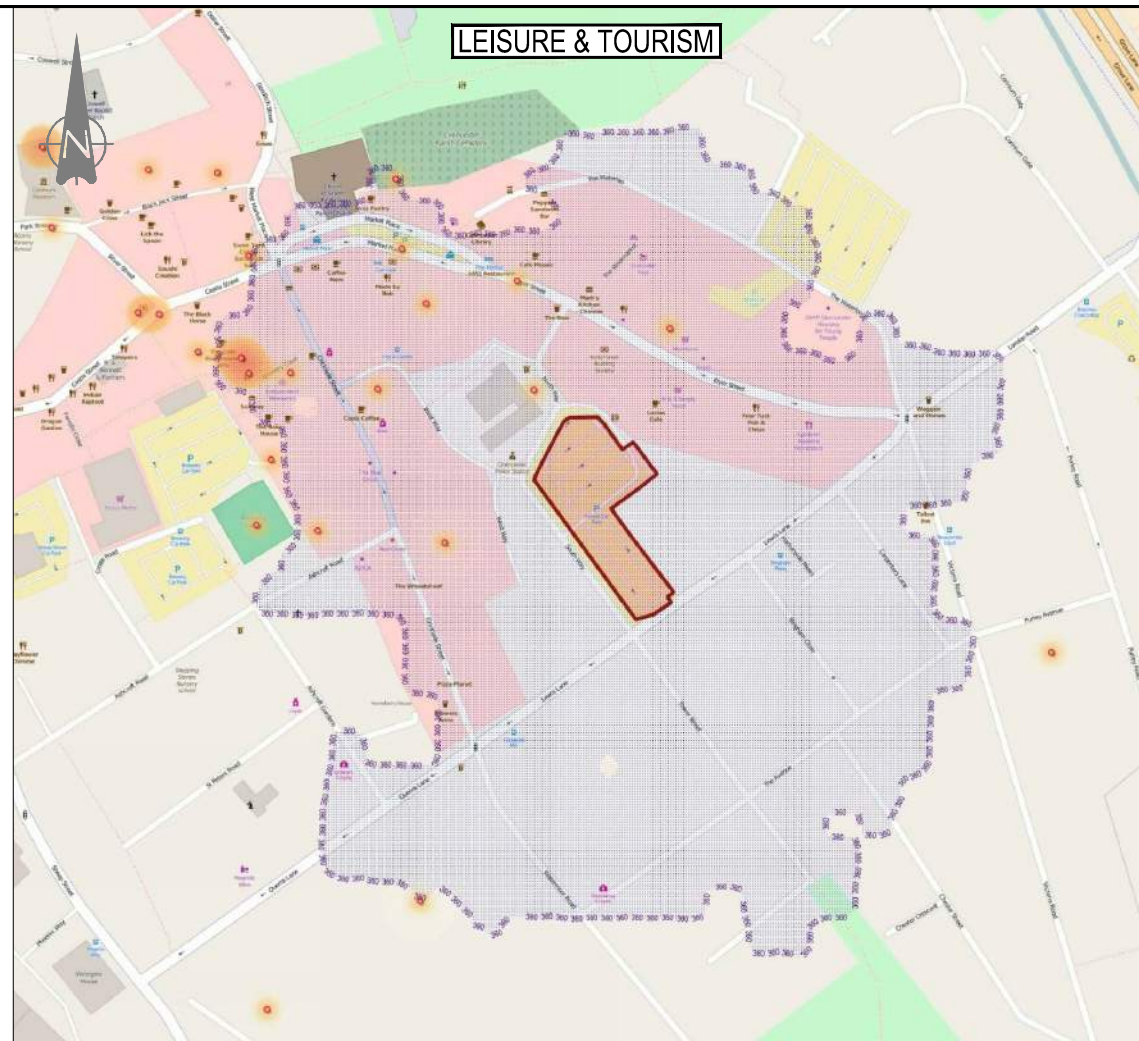
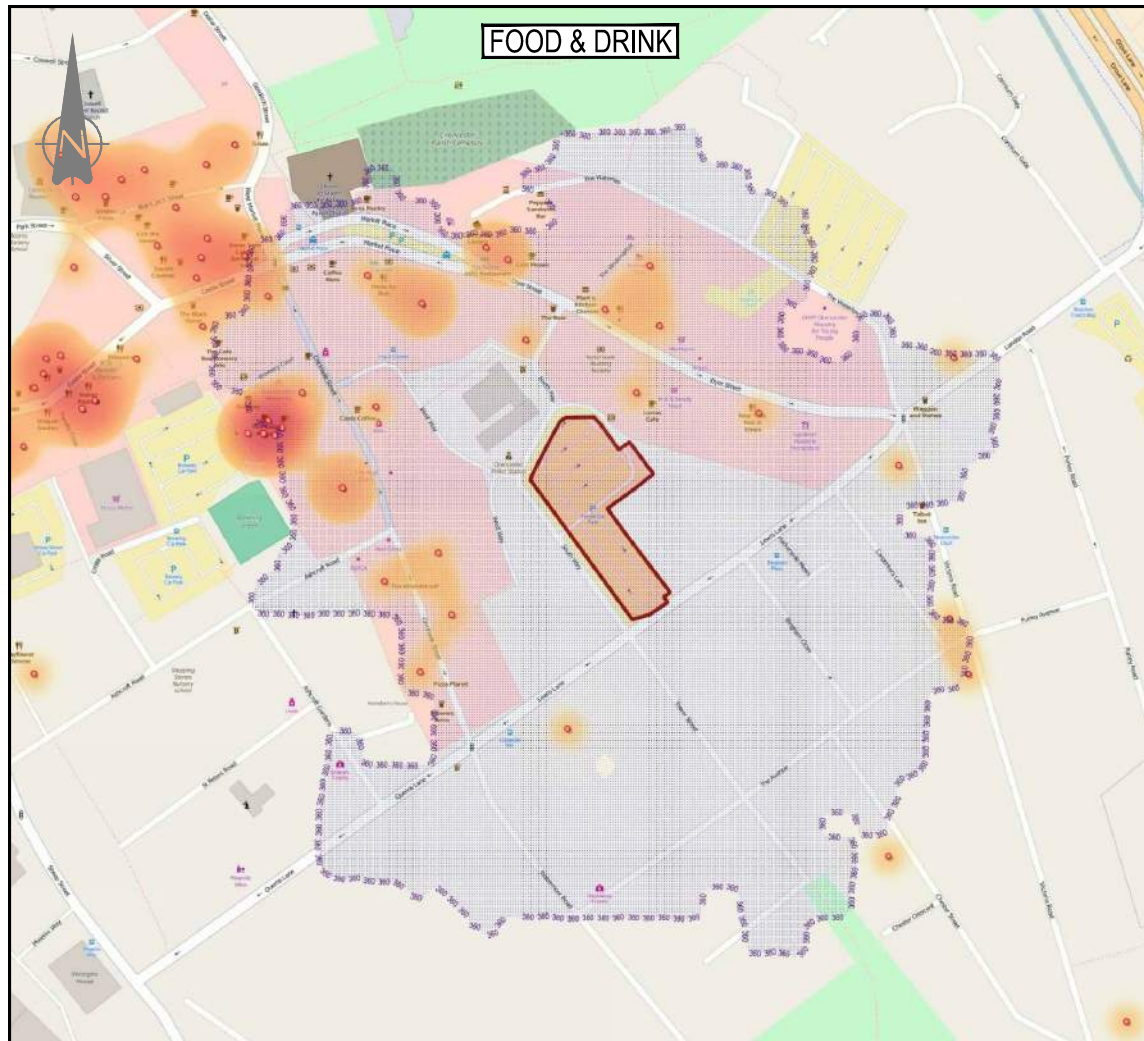
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Project: CIRENCESTER CAR PARKS - GLOUCESTERSHIRE
Drg Title: FORUM CAR PARK - LOCAL LOCATION PLAN
Drawn: DD
Checked: DJ
First issue: 14/11/16
Scale: NTS



KEY:  Car Park Location



NOTES:

KEY:

Forum Car Park

Walking Catchment:

360m

Amenities:

Labelled amenities

Number of amenities within 25m:

up to 1

up to 3

up to 6

FORUM CAR PARK AMENITIES COUNT	
CATEGORY	COUNT
FOOD & DRINK	25
LEISURE & TOURISM	13
OFFICE & EMPLOYMENT	111
RETAIL	114
TOTAL	263

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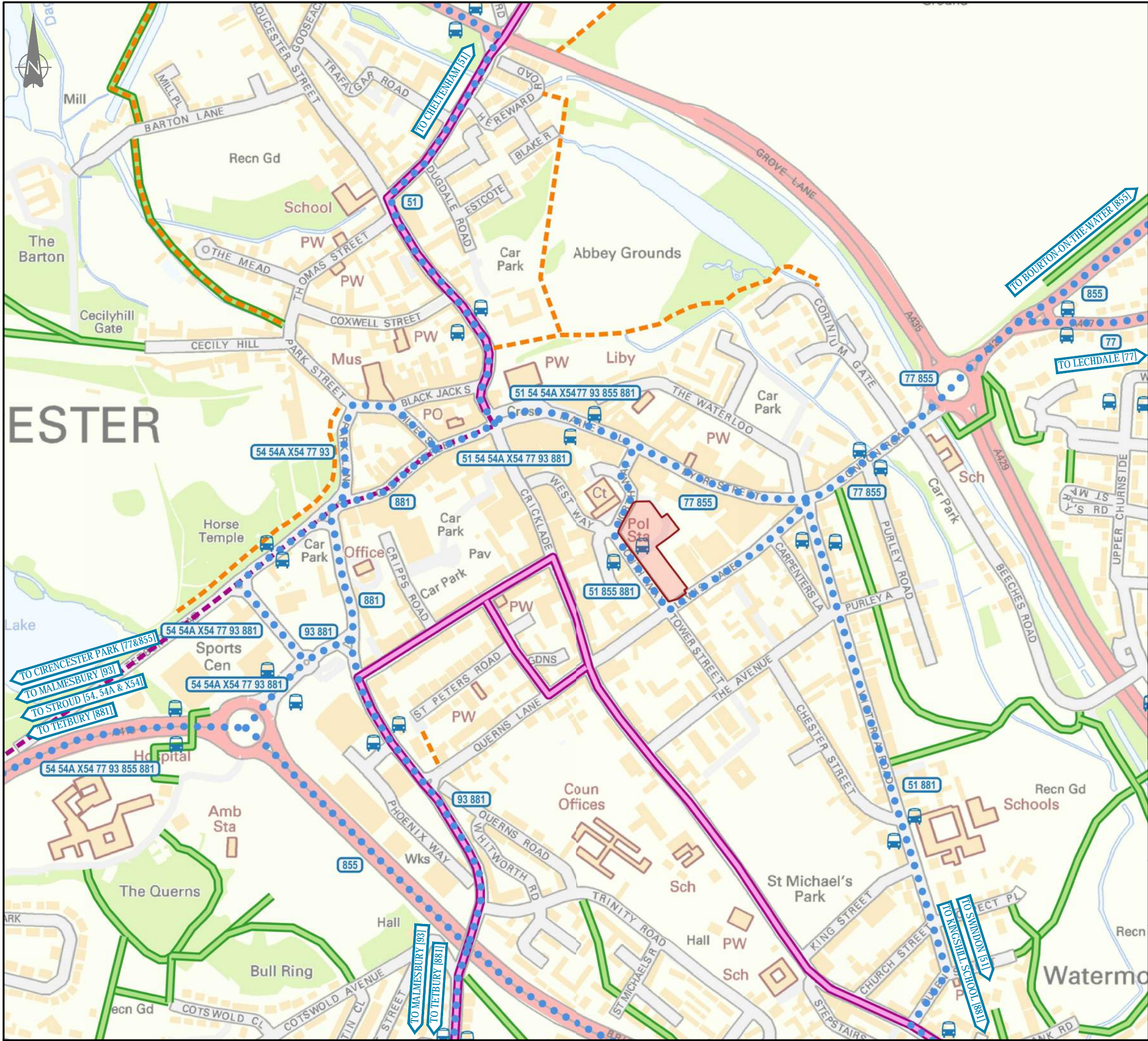
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Project: **CIRENCESTER CAR PARKS
GLOUCESTERSHIRE**

Drg Title: **FORUM CAR PARK
KEY AMENITIES**

Scale:	Size:	First Issue:	Drawn:	Checked:
NTS	A3	10/11/16	DD	DJ

Drg No:	Rev:
TPMA1486-FO-003	/



NOTES:

- KEY:**
- Forum Car Park Location
 - Pedestrian Network:**
 - Designated Footpaths/PRoW - Cycling:**
 - NCN
 - Cycle Lane
 - Shared Pedestrian/Cycle - Public Transport:**
 - Bus Stops
 - Bus Route
 - Bus Service Number

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Status:	PRELIMINARY
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Project:	CIRENCESTER CAR PARKS GLOUCESTERSHIRE
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Drg Title:	FORUM CAR PARK EXISTING LOCAL CYCLING/BUS PROVISION
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Scale:	Size:	First Issue:	Drawn:	Checked:
NTS	A3	10/11/16	DD	DJ

Drg No:	TPMA1486-FO-004	Rev:	/
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Drg No:

TPMA1486-FO-005

Rev:

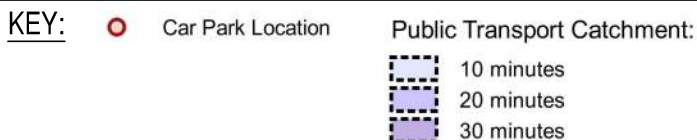
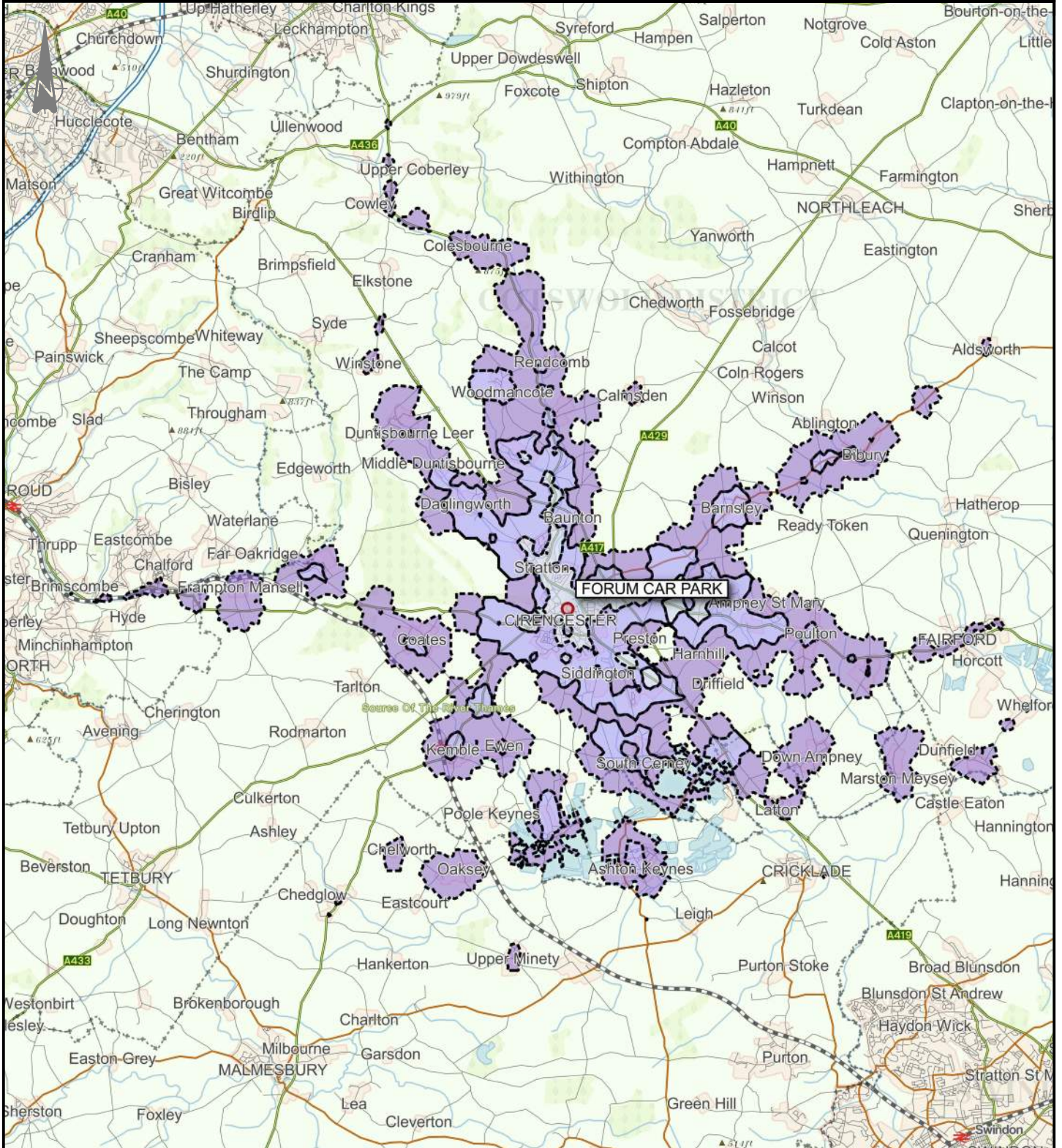
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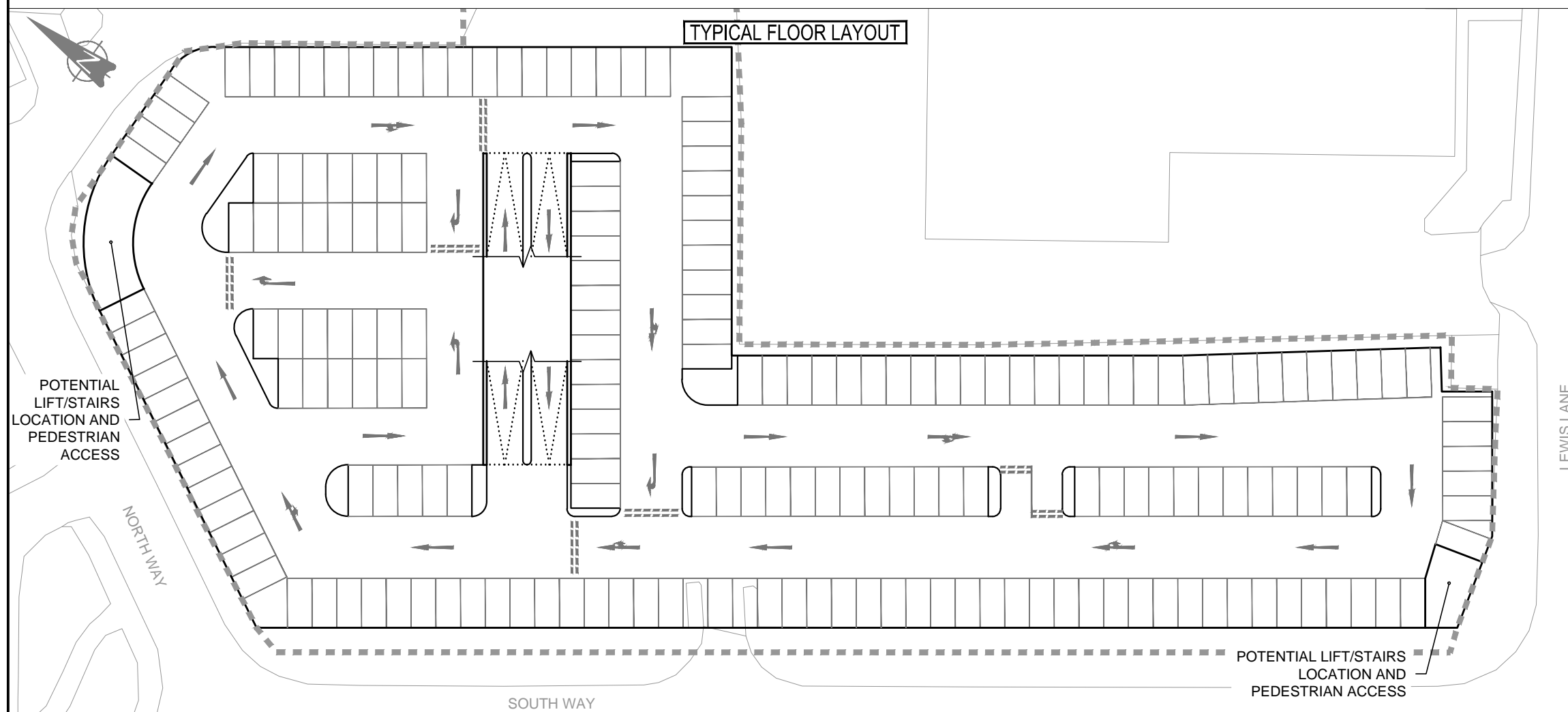
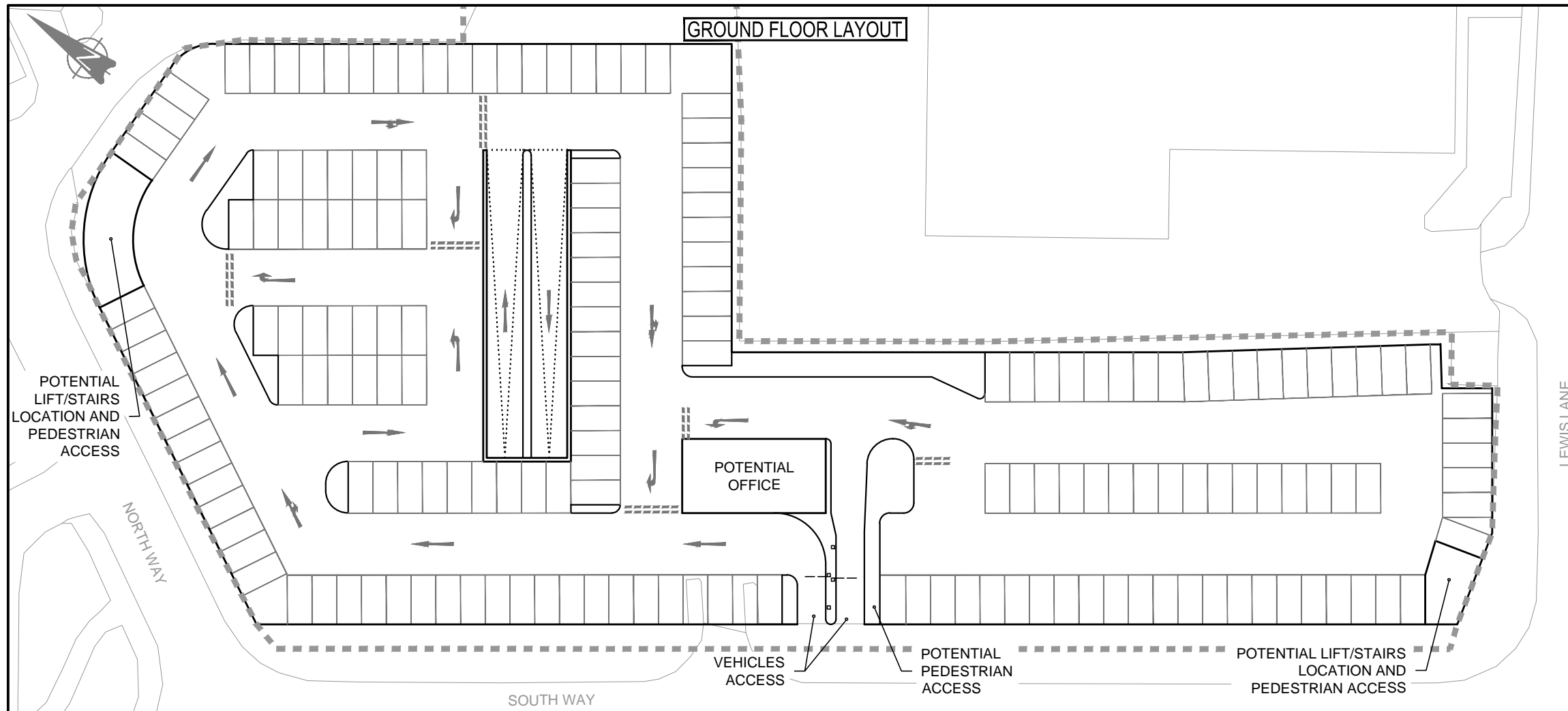
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Project: CIRENCESTER CAR PARKS - GLOUCESTERSHIRE
Drg Title: FORUM CAR PARK - INDICATIVE BUS CATCHMENT
Drawn: DD
Checked: DJ
First issue: 14/11/16
Scale: NTS



Drawings



NOTES:

KEY:

- INDICATIVE SITE BOUNDARY
- PROPOSED WALL
- PROPOSED KERB LINE
- PROPOSED ROAD MARKINGS
- PROPOSED RAMP

Ground floor parking spaces count: 179 Spaces.
 Typical floor parking spaces count: 197 Spaces.

Layouts are indicative and subject to detailed design.
 They do not consider other indirect/external factors
 (e.g. arboricultural, structural, archaeological, etc.)

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Status: **PRELIMINARY**

Project: **CIRENCESTER CAR PARKS
 GLOUCESTERSHIRE**

Drg Title: **FORUM CAR PARK
 PROPOSED LAYOUT**

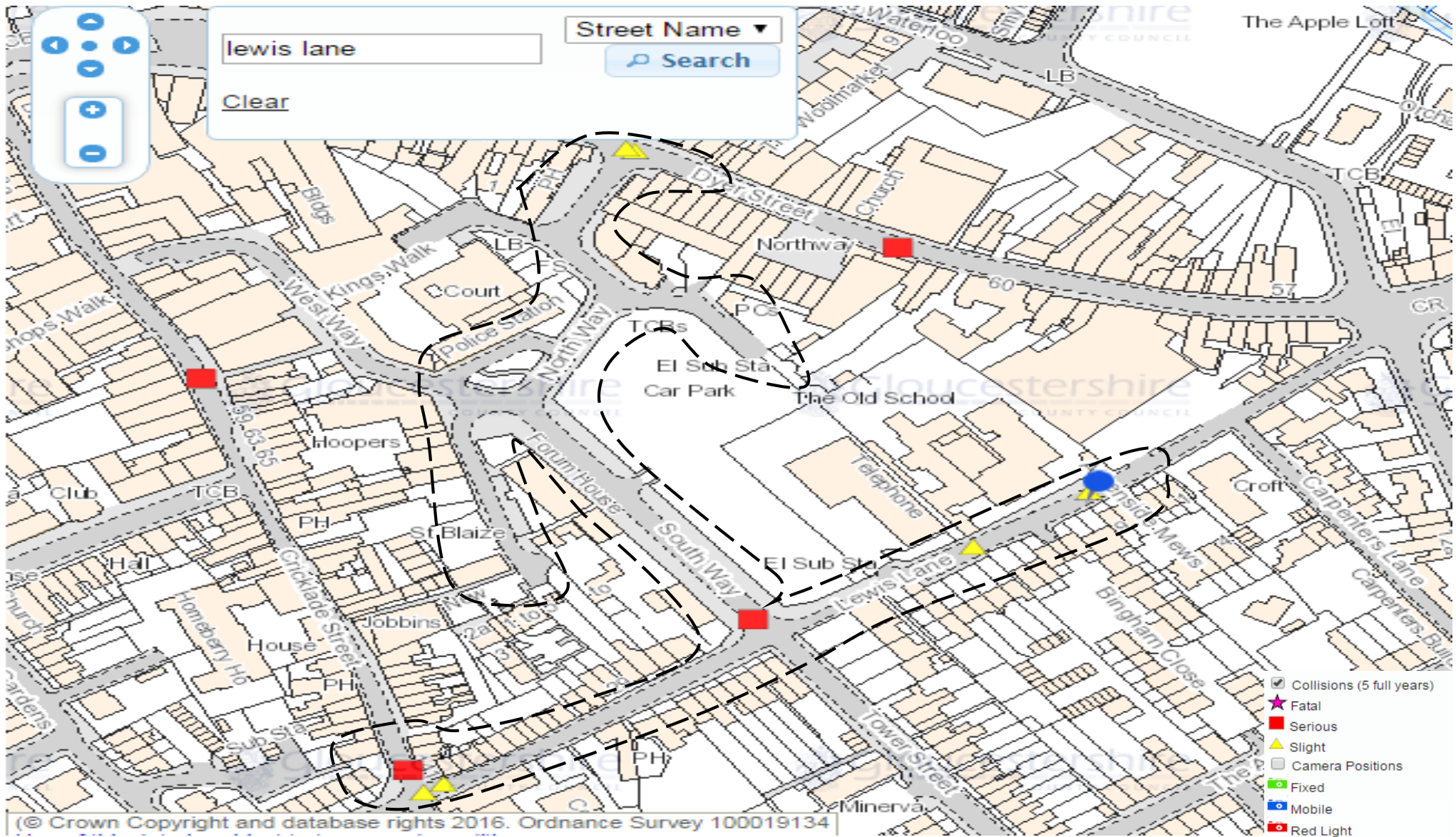
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1:500	A3	09/11/16	DD	DJ

Drg No: **TPMA1486-FO-100** Rev: /

Appendix A – PIA Data

Cirencester- Road Traffic Accident Data

Forum (site 6)



Appendix B – TRICS Outputs

Calculation Reference: AUDIT-148301-161114-1158

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 01 - RETAIL
 Category : M - MIXED SHOPPING MALLS
 VEHICLES

Selected regions and areas:

01	GREATER LONDON HO HOUNSLOW	1 days
02	SOUTH EAST KC KENT	1 days
11	SCOTLAND NL NORTH LANARKSHIRE	1 days
12	CONNAUGHT RO ROSCOMMON	1 days
13	MUNSTER TI TIPPERARY	1 days
14	LEINSTER KD KILDARE	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: 482 to 16856 (units: sqm)
 Range Selected by User: 482 to 35000 (units: sqm)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/08 to 15/12/12

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:

Saturday 6 days

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

Selected survey types:

Manual count 6 days
 Directional ATC Count 0 days

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

Selected Locations:

Town Centre 4
 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:

Commercial Zone 1
 Built-Up Zone 3
 High Street 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:

A1 6 days

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

Population within 1 mile:

1,001 to 5,000 1 days

5,001 to 10,000 2 days

25,001 to 50,000 3 days

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

Population within 5 miles:

5,000 or Less 1 days

5,001 to 25,000 2 days

125,001 to 250,000 3 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 2 days

1.6 to 2.0 1 days

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

Petrol filling station:

Included in the survey count 0 days

Excluded from count or no filling station 6 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 6 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

TRIP RATE for Land Use 01 - RETAIL/M - MIXED SHOPPING MALLS
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	3	10136	0.191	3	10136	0.062	3	10136	0.253
08:00 - 09:00	6	7805	0.869	6	7805	0.307	6	7805	1.176
09:00 - 10:00	6	7805	2.334	6	7805	1.307	6	7805	3.641
10:00 - 11:00	6	7805	2.936	6	7805	2.404	6	7805	5.340
11:00 - 12:00	6	7805	3.139	6	7805	2.925	6	7805	6.064
12:00 - 13:00	6	7805	3.513	6	7805	3.064	6	7805	6.577
13:00 - 14:00	6	7805	3.374	6	7805	3.570	6	7805	6.944
14:00 - 15:00	6	7805	3.024	6	7805	3.214	6	7805	6.238
15:00 - 16:00	6	7805	2.552	6	7805	2.720	6	7805	5.272
16:00 - 17:00	6	7805	2.114	6	7805	2.816	6	7805	4.930
17:00 - 18:00	6	7805	1.633	6	7805	2.148	6	7805	3.781
18:00 - 19:00	6	7805	0.897	6	7805	1.418	6	7805	2.315
19:00 - 20:00	5	8574	0.336	5	8574	0.627	5	8574	0.963
20:00 - 21:00	2	13224	0.110	2	13224	0.204	2	13224	0.314
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			27.022			26.786			53.808

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: 482 - 16856 (units: sqm)
 Survey date date range: 01/01/08 - 15/12/12
 Number of weekdays (Monday-Friday): 0
 Number of Saturdays: 6
 Number of Sundays: 0
 Surveys automatically removed from selection: 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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

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