REPORT N^O 70024730 V4

CHELTENHAM BOROUGH COUNCIL, PROPOSED CREMATORIUM

ACCESS ROAD STUDY

OCTOBER 2016



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Cheltenham Borough Council

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1 INTRODUCTION

1.1 BACKGROUND

- 1.1.1 WSP | Parsons Brinckerhoff has been commissioned by Cheltenham Borough Council (CBC) to undertake an independent options appraisal and impact assessment study to identify potential vehicular access and egress routes (for both construction and operational traffic) to and from a proposed new Crematorium, in Cheltenham.
- 1.1.2 The proposed new Crematorium will replace the existing Crematorium and North Chapel buildings located within the existing Cheltenham Cemetery and Crematorium.
- 1.1.3 This study has been commissioned on the basis that the existing internal road network which currently serves Cheltenham Cemetery and Crematorium (herein referred to as 'the existing Cemetery and Crematorium') is deemed insufficient to serve the proposed new Crematorium.
- 1.1.4 This report considers the potential transport / highways, flood risk, ecological, and environmental opportunities and constraints presented by various proposed vehicular route options to and from the proposed new Crematorium.
- 1.1.5 This report presents the findings of a detailed desktop study supplemented by a site visit, which took place on Friday 16th September, 2016.
- 1.1.6 This report does not seek to highlight the preferred vehicular route option, but instead provides a review of opportunities and constraints presented by each vehicular route option, which in turn will assist CBC in making their decision of the preferred access strategy for the proposed new Crematorium.
- 1.1.7 For reference, CBC is the relevant planning authority for which the site is located in, and Gloucestershire County Council (GCC) is the relevant highway authority. It is understood that the existing Cemetery and Crematorium is operated by CBC. It is also worth noting that the proposed development site falls under the planning jurisdiction of Tewkesbury Borough Council (TBC).
- 1.1.8 This report has been prepared in line with CBC's 'Access Road Brief Initial Draft' document, which is included at **Appendix A**.
- 1.1.9 In support of this study, WSP | Parsons Brinckerhoff has obtained additional specialist advice from:
 - → Peter Mitchell Associates Independent Grave Specialist; and
 - → Chris Chavasse Senior Tree Officer (CBC).
- 1.1.10 WSP | Parsons Brinckerhoff has also sought advice from GCC highways department; however a response has not been received in sufficient time to inform this report.

1.2 PROPOSED DEVELOPMENT SITE AND STUDY AREA

PROPOSED DEVELOPMENT SITE

1.2.1 The site for the proposed new Crematorium comprises of undeveloped fields (two in total) which are located to the immediate east of the existing Cemetery and Crematorium. The fields border the existing Cemetery and Crematorium to the west, and are currently bounded by existing trees and hedgerows.

1.2.2 There is currently no formal vehicular access arrangement to the proposed development site, other than local field access.

STUDY AREA

- 1.2.3 The 'study area' comprises of:
 - → The existing Cemetery and Crematorium, which is currently accessible directly from Bouncers Lane via a gated entrance. Internally, there are a number of existing vehicular routes to access the various areas of the existing Cemetery and Crematorium, including the North and South Chapels and Crematorium buildings (located within the western half of the existing Cemetery and Crematorium) and the Garden of Remembrance (located within the southeast section of the existing Cemetery and Crematorium);
 - → Existing agricultural land, which is located to the south and east of the proposed development site;
 - → Oakley Playing Fields (comprising up to three pitches and associated changing facilities and parking for approximately 20 cars), which are located to the south of the existing Cemetery and Crematorium. Oakley Playing Fields are accessible directly from Imjin Road; and
 - → An existing residential estate, which is located to the southwest of the existing Cemetery and Crematorium, and is accessible directly from the B4075 Priors Road and/or Bouncers Lane.

1.3 DEVELOPMENT PROPOSALS

- 1.3.1 CBC is intending to build a new Crematorium to the immediate east of the existing Cemetery and Crematorium At present, it is understood that CBC are considering two potential options, comprising of either one or two Chapels, with associated infrastructure and parking.
- 1.3.2 In conjunction with the development proposals, it is understood that CBC intend to close the existing Crematorium and North Chapel and transfer all activity to the proposed new Crematorium. However, it is understood that the South Chapel will remain open to the general public.
- 1.3.3 CBC has indicated that vehicular access to the proposed new Crematorium is intended via the internal road network which currently serves the existing Cemetery and Crematorium.
- 1.3.4 Owing to the constraints of the existing internal road network, CBC is currently investigating potential options to provide a new vehicular route for vehicles to exit the proposed new Crematorium (which would be used specifically during services). In addition, CBC has indicated that there is a requirement to provide a temporary route for construction traffic to access and egress the proposed new Crematorium (during the construction phase of the development).

1.4 REPORT STRUCTURE

- 1.4.1 Following this introduction, the remainder of the report is structured as follows:
 - → Chapter 2: Site Overview;
 - → Chapter 3: Proposed Route Options;
 - → Chapter 4: Route Options Opportunities and Constraints;
 - → Chapter 5: Further Considerations; and
 - → Chapter 6: Summary and Conclusion.

2 SITE OVERVIEW

2.1 INTRODUCTION

- 2.1.1 This Chapter of the report provides an overview of the proposed development site and wider study area, including the existing Cemetery and Crematorium, agricultural land, Oakley Playing Fields, and existing residential estate.
- 2.1.2 This Chapter also provides an overview of the local highway network, flood risk, ecology and conservation.

2.2 CHELTENHAM CEMETERY AND CREMATORIUM

- 2.2.1 The existing Cemetery and Crematorium is located approximately 2.5km to the east of Cheltenham Town Centre, within a built up area consisting of primarily residential uses (albeit the undeveloped agricultural land to the east). It is understood that the older western section of the existing Cemetery and Crematorium, which comprises the North and South Chapels and Crematorium buildings, is Victorian era, whilst the newer eastern section is effectively a modern extension.
- 2.2.2 The existing Cemetery and Crematorium is currently accessible directly from Bouncers Lane via a gated entrance and internal two-way access road (which varies in width between 5.0m and 5.5m). Internally, the two-way access road runs for approximately 150m before it splits to provide designated one-way access and egress routes to the various areas of the existing Cemetery and Crematorium, including the North and South Chapels and Crematorium (located within the older western half of the existing Cemetery and Crematorium) and the Garden of Remembrance (located within the southeast section of the existing Cemetery and Crematorium). There is also an existing car park which is located approximately 100m to the southeast of the South Chapel.
- 2.2.3 A designated pedestrian entrance / footway is provided to the existing Cemetery and Crematorium from Bouncers Lane.
- 2.2.4 For reference, the existing vehicular access and egress routes within the existing Cemetery and Crematorium are illustrated on WSP | Parsons Brinckerhoff drawing **SK-01**.
- 2.2.5 In terms of its operation, it is understood that the existing Cemetery and Crematorium is open to the general public seven days a week (including Good Friday, Christmas Day and bank holidays), between the following hours:
 - \rightarrow 1st April to 30th September 9am to 7.30pm; and
 - \rightarrow 1st October to 31st March 9am to 4.30pm.
- 2.2.6 Over the course of a typical year, it is understood that up to 2000 cremations and 200 burials are held at the existing Cemetery and Crematorium (equating to an average of 5-6 cremations and 1 burial per day). It is understood that all services currently use the access from Bouncers Lane and internal road network to access the North or South Chapel, Crematorium, and associated car park.

2.2.7 The existing Cemetery and Crematorium has been formally landscaped with mature trees, shrubs, flower beds, paths and grassland areas, as well as ornamental ponds and water-courses. A large area of the existing Cemetery and Crematorium on the southern boundary has been given over to deciduous woodland. For a full report on the habitats present within the survey area please refer to the Extended Phase 1 Habitat Survey report prepared by Lepus Consulting.

2.3 AGRICULTURAL LAND

- 2.3.1 The area to the south of the proposed development site comprises of namely agricultural land (fields segregated by trees and hedgerow).
- 2.3.2 Currently there are no formal vehicular arrangements to the agricultural land, other than local field access. Pedestrians can currently access the agricultural land via Oakley Playing Fields to the west or via the residential areas to the north.
- 2.3.3 The agricultural fields have become scrubbed over from lack of management in recent years, therefore the dominant species are rank grasses and tall ruderal species with scattered mature and semi-mature trees and shrubs scattered throughout.
- 2.3.4 To the east of the proposed development site, part of the agricultural land is designated as Cotswolds Area of Outstanding Natural Beauty (AONB) (see **Figure 5** provided in **Appendix B** of this report).
- 2.3.5 A number of Public Footpaths run through the agricultural land to the east of the existing Cemetery and Crematorium (see **Figure 6** provided in **Appendix B** of this report).
- 2.3.6 It is understood that the majority of the agricultural land falls within CBC's ownership.

2.4 OAKLEY PLAYING FIELDS

- 2.4.1 Oakley Playing Fields are located to the immediate south of the existing Cemetery and Crematorium. The playing fields are designated recreational ground, and comprise of up to three football pitches with associated changing facilities and parking (for approximately 20 cars). It is understood that the existing football fields fall under FA regulation. In addition to the football fields, there is also an existing children's playground located at the southeast boundary of the playing fields.
- 2.4.2 Vehicular access to the playing fields is currently provided from Imjin Road, which is a two-way road which serves the residential areas to the west. There is also a designated paved footpath provided along the southern boundary of the playing fields which links Imjin Road and the children's playground,
- 2.4.3 On reviewing the topographical survey that is available (and observations from the site visit), there is a notable difference in height between the western and eastern extents of the football fields (approximately 5.0m between the car park and the football field, and a further 4.0m between the football fields and top of the bank at the eastern extent of the fields), and between the southern and northern extents of the fields (approximately 2-3m between the football fields and the football fields itself, and a further 1-2m between the football fields and the southern boundary of the existing Cemetery and Crematorium).
- 2.4.4 The playing fields are predominantly amenity grassland maintained as close cut turf with areas of scrub and semi-mature trees on the boundaries. During the site visit, a stream was identified running to the south of the playing fields and hedgerows were observed to the east. Residential housing and associated gardens are located to the west and the north is bordered by areas of woodland marking the border with the existing Cemetery and Crematorium.

2.4.5 It is understood that Oakley Playing Fields fall within CBC's ownership.

2.5 EXISTING RESIDENTIAL ESTATE

- 2.5.1 To the southwest of the proposed development site, south of the existing Cemetery and Crematorium, and west of Oakley Playing Fields, there are currently a number of residential streets which take their access namely from the B4075 Priors Road (via Ladysmith Road and Imjin Road).
- 2.5.2 There are currently no restrictions on parking within the residential estate.

2.6 LOCAL HIGHWAY NETWORK

DESCRIPTION OF HIGHWAY NETWORK

- 2.6.1 There is currently no formal vehicular access arrangement to the proposed development site, other than local field access.
- 2.6.2 The existing Cemetery and Crematorium is accessible directly from Bouncers Lane via a priority junction. Internal, the existing Cemetery and Crematorium is served by a mix of one-way and two-way routes.
- 2.6.3 Bouncers Lane links to the B4075 Priors Road to the west, via a priority junction. To the immediate south of the existing access from Bouncers Lane, Ladysmith Road provides access to an existing residential estate. In addition, Ladysmith Road also provides access to an existing Farm Track which skirts the southern boundary of the existing Cemetery and Crematorium (see WSP | Parsons Brinckerhoff drawing **SK-01**).
- 2.6.4 Further south, Imjin Road is accessible directly from the B4075 Priors Road via a priority junction. Imjin Road provides access the residential estate located to the south of the existing Cemetery and Crematorium. Imjin Road also provides access to Oakley Playing Fields, where there is an existing car park (which includes approximately 20 parking spaces).
- 2.6.5 Further afield, the B4075 Priors Road links to Prestbury Road to the north, via a priority junction, and to Harp Hill / Hewlett Road / Hales Road via a double mini-roundabout. It is also worth noting that to the south of the Imjin Road, the B4075 Priors Road links to Redmarley Road which provides access to Sainsbury's Supermarket, and also Oakley Farm housing development.

TRAFFIC FLOWS

- 2.6.6 In order to understand the existing traffic volumes (and vehicular speeds) using the existing Cemetery and Crematorium over the course of a given weekday and weekend, an Automatic Traffic Count (ATC) survey was undertaken along the existing Cemetery and Crematorium access road (inside the initial gated entrance point from Bouncers Lane).
- 2.6.7 The ATC survey was undertaken between Saturday 6th August (00:00) and Friday 12th August (23:59). For reference, a copy of the ATC survey data is included in **Appendix C**.
- 2.6.8 Details of the existing traffic volumes entering and exiting the existing Cemetery and Crematorium, as recorded by the ATC survey, are summarised in **Table 2.1**.

	INBOUND	OUTBOUND	Τ WO- W AY
Weekday	468	470	938
Weekend	303	304	607

Table 2.1 Average Daily Flows (derived from ATC Survey)

- 2.6.9 Table 2.1 shows that on a typical weekday there was an average daily flow of 468 vehicles entering and 470 vehicles exiting the existing Cemetery and Crematorium, respectively. On a typical Saturday or Sunday there was an average of 303 vehicles entering and 304 vehicles exiting the existing Cemetery and Crematorium, respectively.
- 2.6.10 In order to ascertain the number of vehicles that utilise the existing Cemetery and Crematorium during a typical weekday and weekend period, CBC has provided details (times and durations) of all services that were held between Monday 8th August and Friday 12th August 2016 (which coincides with the dates of the ATC survey). CBC has confirmed that services are currently held between Monday and Friday only (generally between the hours of 10:00 and 16:00), with no services being held on weekends. It is also understood that the duration of services is usually in the region of 45 minutes, with vehicles arriving / departing approximately 30 minutes either side of a service. On average there were 9 services held per day between Monday 8th August and Friday 12th August 2016. For reference, a copy of the service information, which includes the start and end times, is included in Appendix C.
- 2.6.11 Based on the information provided by CBC, the ATC survey data was further interrogated to understand the traffic flows associated with a service taking place, and when there is no service taking place. For ease of reference, average and peak hour weekday and weekend traffic flows are highlighted separated. The results of which are shown in Table 2.2.

WEEKDAY				
Period	Inbound	Outbound	Two - Way	
	Average Hour (across	s 5 days)		
Non-service (average hour)	18	20	38	
Service (average hour)	59	62	121	
	Peak Hour (day sp	ecific)		
Non-service (peak hour) 09:00 – 10:00	97	22	119	
Service (peak hour) 10:00-11:00 – Highest Entry Flow*	113	36	149	
Service (peak hour) 11:00-12:00 – Highest Exit Flow**	49	159	208	
Service (peak hour) 11:00 – 12:00 – Highest Two-Way Flow**	110	103	213	
WEEKEND				
Period	Inbound	outbound	Two - Way	
Average Hour (across 2 days)				
Non-service (average hour)	26	26	52	
Peak Hour (day specific)				
Non- Service (peak hour) 11:00 – 12:00	54	43	104	

Table 2.2 Average and Peak Hour Flows (Non-Service and Service)

Note: Average hour taken as all service hours / all non-service hours

* Highest entry flow recorded on Friday 12th August 2016 between 10:00 to 11:00 ** Highest exit flow recorded on Friday 12th August between 11:00 to 12:00

*** Highest two-way flow recorded on Tuesday 9th August 2016 between 11:00 to 12:00

2.6.12 It should be noted from the above, that there is potential that some of the traffic movements may not be associated with a specific service, and could just comprise of people visiting the existing Cemetery and Crematorium separately.

Table 2.2 shows that on a typical weekday, during service periods, on average 121 (two-way) 2.6.13 vehicles were recorded using the existing Cemetery and Crematorium access.

- 2.6.14 During weekday service periods, the highest recorded entry flow was 113 vehicles (which occurred between 10:00 and 11:00) and the highest recorded exit flow was 159 vehicles (which occurred between 11:00 and 12:00). The highest recorded two-way flows were 213 vehicles (which occurred between 11:00 to 12:00).
- 2.6.15 During weekday non-service periods, the highest recorded two-way flow was 119 vehicles (which occurred between 09:00 to 10:00 on Friday 12th August 2016).
- 2.6.16 On a typical weekend where there are no services held, on average 52 vehicles (two-way) were recorded using the existing Cemetery and Crematorium access. The highest recorded two-way flow on a typical weekend was 104 vehicles (11:00 to 12:00 on Sunday 7th August 2016).
- 2.6.17 In addition to recording the volume of traffic, the ATC survey also recorded average vehicle speeds along the existing Cemetery and Crematorium access road. For reference, these are summarised in **Table 2.3**.

Table 2.3 Seven Day Average & 85th Percentile Speeds (mph)

CEMETERY ACCESS ROAD			
INBOUND OUTBOUND			BOUND
Average Speed	85 TH percentile speed	Average Speed	85 TH percentile speed
16	21	17	22

HIGHWAY SAFETY

2.6.18 In order to understand the existing highway safety conditions on the local highway network, Personal Injury Accident (PIA) data was obtained from CRASHMAP for a five year period between 2011 and 2015. A summary of the total number of recorded accidents within the study area for a five year period is provided in Table 2.4. The area investigated includes the access road to the existing Cemetery and Crematorium, Bouncers Lane, Priors Road, and Imjin Road.

Table 2.4 Summary of Recorded Accidents

	SLIGHT	SERIOUS	FATAL
Number of Accidents	7	0	0

- 2.6.19 In total there were seven slight incidents recorded over the past five year period, of which:
 - → Two incidents were recorded on Bouncers Lane; and
 - → Five incidents were recorded on Priors Road.
- 2.6.20 No incidents were recorded along the access road to the existing Cemetery and Crematorium, not along Imjin Road.

2.7 FLOOD RISK

EXISTING FLOOD RISK

- 2.7.1 The online Environment Agency Flood Map¹ shows that the entirety of the study area lies within Flood Zone 1, which means that there is less than a 0.1 per cent chance of flooding from rivers in any given year. However, this designation is principally due to the lack of hydraulic modelling that has been undertaken in the area, therefore placing the site in Flood Zone 1 by default.
- 2.7.2 The Gardens of Remembrance located in the southeast of the existing Cemetery and Crematorium is bound to the south by an Environment Agency Main River a tributary of the Wyman's Brook. The headwaters of this watercourse flow from the north and east as minor drains. The other Main River the main channel of the Wyman's Brook is located to the south of Oakley Playing Fields.
- 2.7.3 A more accurate assessment of risk has been undertaken by CBC as part of the Whaddon Flood Alleviation Scheme (FAS) Feasibility Study (ch2m, 2016). This included using the Surface Water Management Plan hydraulic model to understand the likely flood extents close to the site. The resultant 1 in 200 year flood map, which can be said to be assessing the study area for a combination of surface water and fluvial sources is shown in **Figure 2.1**.



Figure 2.1 Flood Map Taken from Whaddon FAS Consultation Showing Flood Surface Water/fluvial Flood Risk at the Site

2.7.4 The resultant flood map shows the majority of the study area to be outside the fluvial/surface water floodplain, thus presenting a very low risk. No significant areas of floodplain are predicted, with flooding mostly constrained to the watercourse channel and immediate surrounds.

¹ See: http://maps.environment-agency.gov.uk/wiyby/wiybyController?x=394500.0&y=222500.0&topic=floodmap&ep=map&scale=9&location=Cheltenham, Gloucestershire&lang=_e&layerGroups=default&distance=&textonly=off#x=396943&y=223157&lg=1,2,10,&scale=11

WHADDON FLOOD ALLEVIATION SCHEME

2.7.5 The Whaddon FAS Consultation Note (ch2m, 2016) states that:

"Whaddon, Lynworth and Prestbury experienced severe flooding during the June and July 2007 flooding events. The peak event was identified as 1 in 125-year annual probability event. During the July 2007 event over 300 properties are known to have experienced internal or external flooding...

Flooding was principally caused by excess surface runoff from the escarpment to the east exceeding the capacity of the culverted watercourses, which resulted in surface runoff entering the urban environment, following the natural (or man-made) topography, and ponding in low spots within the catchment (e.g. immediately to the north of Cheltenham Town Football Club). Anecdotal evidence gained from the public consultation confirmed that the flood water was extremely fast as it flowed down roads and into properties."

- 2.7.6 To try and alleviate further flooding the Whaddon FAS scheme is being taken forward as a preferred option for construction. This involves the construction of two flood storage areas at Noverton Farm (immediately east of the proposed Crematorium extension) and Priors Farm (to the south of the Gardens of Remembrance). Ensuring that the future construction of these flood storage areas are not compromised by the Access Route Options, is considered to be a key constraint to the proposed development. The timescales for delivery of the proposed Whaddon FAS scheme are unknown at this stage.
- 2.7.7 Modelling of the 1 in 200 year event with the flood storage areas in place demonstrates no increases in flood risk to the site; as illustrated **on Figure 2.2**.

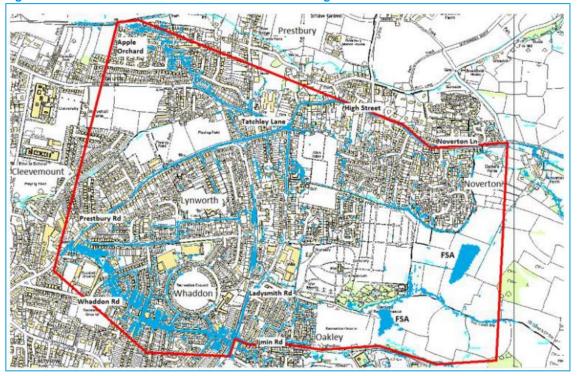


Figure 2.2 1 in 200 Year Flood Extent with Flood Storage Areas in Place

2.8 ECOLOGY AND CONSERVATION

OVERVIEW

2.8.1 The ecological site overview is included in **Appendix B** of this report.

2.9 STUDY AREA CONSTRAINTS

2.9.1 Consideration has been given to the constraints presented by the overall study area. For reference, these are detailed in **Appendix B**.

3 PROPOSED ROUTE OPTIONS

3.1 INTRODUCTION

3.1.1 This Chapter provides details of the various vehicular route options which are currently being considered as part of this study, to serve the proposed new Crematorium.

3.2 PROPOSED NEW CREMATORIUM

- 3.2.1 CBC is intending to build new Crematorium to the immediate east of the existing Cemetery and Crematorium. At present, it is understood that CBC are considering two potential options, comprising of either one or two Chapels, with associated infrastructure and parking.
- 3.2.2 In conjunction with the development proposals, it is understood that CBC intend to close the existing Crematorium and North Chapel and relocate activity to the proposed new Crematorium. However, it is understood that the South Chapel will remain open to the general public

3.3 PREVIOUS VEHICULAR ROUTE OPTION STUDIES

- 3.3.1 It is understood that both Robert Potter and Partners architects and Willmott Dixon has previously undertaken studies which have considered potential route options to and from the proposed new Crematorium.
- 3.3.2 Robert Potter and Partners considered the potential for providing a new 2.5m wide route internally within the existing Cemetery and Crematorium (which roughly follows the alignment of WSP | Parsons Brinckerhoff's Route Option A see Section 3.5). The route alignment is shown on Robert Potter and Partners plan '6333-SK02, Proposed Link Road', which is included in **Appendix D**.
- 3.3.3 Willmott Dixon has previously produced a Draft Stage 2 Feasibility Report for the proposed new Crematorium (Ref: CC/S2/JM/180716) in which they have undertaken a high-level access/egress appraisal of two potential Route Options:
 - → Option 1 the provision of a permanent egress route through the existing Cemetery and Crematorium; and
 - \rightarrow Option 2 the provision of a segregated permeant egress route.
- 3.3.4 Willmott Dixon's report identified high level opportunities and constraints presented by each option. For reference, a copy of the relevant section of Willmott Dixon's Draft Stage 2 Feasibility Report is provided in **Appendix D**.

3.4 PROPOSED VEHICULAR ACCESS ROUTE

- 3.4.1 CBC has indicated that vehicular access to the proposed new Crematorium would be via the internal road network which currently serves the existing Cemetery and Crematorium.
- 3.4.2 More specifically, on entry to the site vehicles would follow the existing-one way route, which runs to the north of the existing Chapels and Crematorium. From this point vehicles would join the section of one-way road, which links the older western and newer eastern sections of the existing Cemetery and Crematorium, before travelling north then east (within the new eastern section of the existing Cemetery and Crematorium where the roads are wide enough to accommodate two-way traffic movements) to the proposed new Crematorium.

3.5 **PROPOSED VEHICULAR EGRESS ROUTES (OPTIONS A, B, C, AND D)**

- 3.5.1 A total of four possible vehicular routes have been identified as part of this study, a detailed description of which is outlined in the following sections. In reviewing the four routes, consideration has been given to the potential for the routes to accommodate both construction traffic (temporarily) and operational traffic (permanently).
- 3.5.2 It should be worth noting that, at this stage Route Option A has been ruled out for accommodating any construction traffic, on the basis that CBC does not want any construction vehicles travelling through the main area of the existing Cemetery and Crematorium.
- 3.5.3 If Route Option A was pursued, then a separate haulage routes would need to be provided as outlined for Routes Option B, C or D below.
- 3.5.4 Routes A, B, C or D would be required to serve the proposed new Crematorium (as an egress route only).
- 3.5.5 For reference, the four egress routes which are currently being considered as part of this study are illustrated on WSP | Parsons Brinckerhoff drawing **SK-03**.

ROUTE OPTION A

- 3.5.6 Route Option A is intended as an egress route only to the proposed new Crematorium, and would only accommodate operational traffic associated with the proposed new Crematorium. It is not proposed to use Route Option A for construction purposes.
- 3.5.7 Route Option A includes the use of part of the existing internal access roads between the main entrance to the existing Cemetery and Crematorium and the car park located to the immediately west of the Garden of Remembrance. From this point it is proposed to provide a new 3m wide road which would skirt the southern boundary of the existing Cemetery and Crematorium (to the immediate north of the Garden of Remembrance), linking the existing car park and the proposed new Crematorium.
- 3.5.8 It is proposed to use the roads which serve the existing Cemetery and Crematorium, it is not proposed to alter the existing widths or alignments of the existing roads. However, there may be a requirement to undertake some minor carriageway repairs / resurfacing, the details of which would be subject to a separate study.
- 3.5.9 It is not proposed to provide any footways along the new section of road. Instead, it is envisaged that pedestrians would use the routes provided within the existing Cemetery and Crematorium to access and egress the proposed new Crematorium.
- 3.5.10 It is understood from CBC that Route Option A would only be used to allow vehicles to exit the proposed new Crematorium following a service. During all other times, the route would not be available for general use (albeit the existing two-way section of road between the two gated entrances which would remain in use to serve the existing Cemetery and Crematorium).
- 3.5.11 For reference, the proposed access route alignment is shown on WSP | Parsons Brinckerhoff drawing number **SK-04**.

- 3.5.12 Route Option A has a total length of approximately 725m (between the existing gated entrance to the existing Cemetery and Crematorium (from Bouncers Lane) and the proposed new Crematorium); of which newly constructed carriageway would be 300m. The elevation of the road increases from 83.615m at the western end to 93.233m at the eastern end and will climb at an even gradient of approximately 3.3% (1 in 30).
- 3.5.13 Further to the site visit it is evident that part of the land required to accommodate Route Option A is heavily populated with gravestones. To help understand the potential impacts on the existing graves and the feasibility of delivering Route Option A, Peter Mitchell Associates has been commissioned to undertake a separate study. The findings of which are summarised in Chapter 4 of this report, and are included in **Appendix E**.
- 3.5.14 In addition to the above, it was also noted during the site visit that there are a number of wellestablished trees which could be impacted by the proposed route alignment. To help understand the potential impacts on the existing trees, WSP | Parsons Brinckerhoff has discussed the proposed route alignment with Chris Chavasse (Senior Tree Officer) at CBC. For reference, Chris's comments are summarised in Chapter 4 of this report, with a full copy of his comments provided at **Appendix F**.

ROUTE OPTION B

- 3.5.15 Route Option B has been considered for use by both construction and operational traffic.
- 3.5.16 Route Option B includes the use of part of the existing Cemetery and Crematorium access road, between the two gated entrance points, with the construction of a new 3m wide access road which would link to the existing access roads (in the vicinity of the internal gated entrance point) skirting the southern boundary of the existing Cemetery and Crematorium.
- 3.5.17 At present it is envisaged that the proposed new section of road would follow the alignment of the existing Farm Track. Owing to the presence of an existing Badger Sett, an option has also been considered which shifts the alignment of the road approximately 30m south.
- 3.5.18 For reference, the proposed access route alignment is shown on WSP | Parsons Brinckerhoff drawing number **SK-005**. It should be noted from the plan that where there is sufficient space, an indicative outline (dashed line) has been provided along the Route Option alignment which denotes a 9.5m wide carriageway, which allows for the provision of a two-way route (with footways) to serve any potential future development to the south of the proposed new Crematorium.
- 3.5.19 During the construction phase of the proposed new Crematorium, CBC has indicated that their preference is not for construction traffic to use any of the existing internal access roads within the existing Cemetery and Crematorium. However, CBC has not discounted the use of the existing internal section of the road between the two gated entrance points. As such, consideration has been given to two potential options for accommodating construction traffic internally along this section of road, which are as follows:
 - → Option 1 retains the existing Cemetery and Crematorium access road as one-way (at 3m wide), and introduces a segregated construction traffic route which relies on use of the remainder of the carriageway and the introduction of localised widening (to accommodate a 3m wide haulage route). In this Option both operational and construction traffic would use the existing gated entrance via Bouncers Lane. As such there would be a likely requirement to either widen the existing main entrance gates or control traffic movements (via the introduction of a banksman or similar). In this option it is envisaged that hording could be introduced to split normal operational and construction traffic movements. In the section of one-way workings, measures to control traffic movements, such as temporary traffic lights, would be required; and

- → Option 2 proposes the introduction of a segregated construction route which would make use of the existing grass / landscape verge and existing Farm Track located to the immediate south of the existing Cemetery and Crematorium access road. In this Option, construction traffic could potentially use the existing Farm Track access, which links to Ladysmith Road, as opposed to the existing Cemetery and Crematorium main entrance gates. In this Option, the existing Cemetery and Crematorium access road would continue to operate as two-way.
- 3.5.20 CBC has indicated that on completion of the proposed new Crematorium, there would no longer be a need to retain either of the options detailed above (as construction traffic would no longer need to access the proposed Crematorium). As such, the intention would be to re-instate the route to reflect its current arrangement (including the re-introduction of trees and hedgerow). For reference, both of the Options described above are illustrated on WSP | Parsons Brinckerhoff drawing **SK-08**.
- 3.5.21 Route Option B has a total length of approximately 740m (between the main gates to the existing Cemetery and Crematorium (from Bouncers Lane) and the proposed Crematorium). For operational purposes, the route would comprise of approximately 617m of new carriageway (excluding the route intended for construction traffic using / adjacent to main access to the existing Cemetery and Crematorium). The elevation of the road increases from 75.576m at the western end to 93.109m at the eastern end. The road climbs at approximately 2.09% (1 in 48) for the first two thirds of its length and then increases to 3.94% (1 in 25) for the final third flattening off as it enters the proposed new Crematorium.
- 3.5.22 Further to the site visit it is evident that part of the land required to accommodate Route Option B forms part of the usable (working) space within the existing Cemetery and Crematorium. On this basis, to help understand the potential impacts on the existing Cemetery and Crematorium, Peter Mitchell Associates has been commissioned to undertake a separate study. The findings of which are summarised in Chapter 4 of this report, and are included in **Appendix E**.
- 3.5.23 In addition to the above, it was also noted during the site visit that there are a number of wellestablished trees which could be impacted by the proposed route alignment. To help understand the potential impacts on the existing trees, WSP | Parsons Brinckerhoff has discussed the proposed route alignment with Chris Chavasse (Senior Tree Officer) at CBC. For reference, Chris's comments are summarised in Chapter 4 of this report, For reference, Chris's comments are summarised in Chapter 4 of this report, with a full copy of his comments provided at **Appendix F**.

ROUTE OPTION C

- 3.5.24 Route Option C has been considered for use by both construction and operational traffic.
- 3.5.25 Route Option C includes the provision of a new 3m wide access road which would skirt the southern extent of Oakley Playing Fields and the agricultural land to the south of the proposed development site, and would link the proposed new development to Imjin Road at its western extent. The land required to provide Route Option C is within adopted highway and / or under CBC's ownership.
- 3.5.26 At the southern extent of Oakley Playing Fields, it is envisaged that the route would skirt the northern edge of the existing changing facilities building and would either i) travel through or, ii) to the north of the existing children's playground.
- 3.5.27 It is understood that part of this route (between Imjin Road and the southeast extent of Oakley Playing Fields) was previously used as a haulage route for construction traffic when constructing the footbridge over Wyman's Brook.

- 3.5.28 For reference, the proposed access route alignment is shown on WSP | Parsons Brinckerhoff drawing number **SK-06**. It should be noted from the plan that where there is sufficient space, an indicative outline (dashed line) has been provided along the Route Option alignment which denotes a 9.5m wide carriageway, which allows for the provision of a two-way route (with footways) to serve any potential future development to the south of the proposed new Crematorium.
- 3.5.29 Route Option C has a total length of 613m (between the point where it intersects Imjin Road and the proposed new Crematorium). The 613m would comprise of completely new carriageway. The elevation of the road increases from 75.576m at the western end to 93.109m at the eastern end. The road climbs at approximately 2.32% (1 in 43) for the first two thirds of its length and then increases to 4.34% (1 in 23) for the final third flattening off as it enters the proposed development site.
- 3.5.30 Owing to the proposed alignment of Route Option C, there is potential for the route to conflict with existing established trees located to the south of the existing Cemetery and Crematorium and the proposed development site. This has been considered by both WSP | Parsons Brinckerhoff and also CBC's Tree Office; the comments are summarised in Chapter 4 and **Appendix F**.

ROUTE OPTION D

- 3.5.31 Route Option D has been considered for use by both construction and operational traffic.
- 3.5.32 Route Option D is a hybrid of both Route Options B and C.
- 3.5.33 In this Option, a 3m wide road is proposed which would run between Imjin Road, up the western boundary of Oakley Playing Fields, and along the northern boundary of Oakley Playing Fields (along the same alignment as Route Option B i.e. following the existing Farm Track alignment). The land required to provide Route Option D is within adopted highway and / or under CBC's ownership. As per Route Option B, owing to the presence of an existing Badger Sett, an option has also been considered which shifts the alignment of the road approximately 30m south.
- 3.5.34 For reference, the proposed access route alignment is shown on WSP | Parsons Brinckerhoff drawing number **SK-07**. It should be noted from the plan that where there is sufficient space, an indicative outline (dashed line) has been provided along the Route Option alignment which denotes a 9.5m wide carriageway, which allows for the provision of a two-way route (with footways) to serve any potential future development to the south of the proposed new Crematorium.
- 3.5.35 Route Option D has a total length of approximately 637m (between the point where it intersects Imjin Road and the proposed new Crematorium). The 670m would comprise of completely new carriageway. The elevation of the road increases from 75.031m at the western end to 93.060m at the eastern end. The road climbs at approximately 3.18% (1 in 31.4) for the first 80m of its length and then decreases to 1.77% (1 in 56.33) for the next 310m before increasing to 4.13% (1 in 24) for a further 250m. The final 220m of the road is at approx. 4.13% (1 in 24) except for the flattening off as it enters the proposed new Crematorium.
- 3.5.36 Owing to the proposed alignment of Route Option D, there is potential for the route to conflict with existing established trees located to the south of the existing Cemetery and Crematorium and the proposed development site. This has been considered by both WSP | Parsons Brinckerhoff and also CBC's Tree Office, who's comments are summarised in Chapter 4 and **Appendix F**.

SUMMARY

3.5.37 For ease of reference, the four Route Options and their potential use (i.e. construction and / or operational traffic) is summarised in **Table 3.1**.

Table 3.1 Route Options and Indicative Use

ROUTE	CONSTRUCTION TRAFFIC (TWO-WAY)	OPERATIONAL TRAFFIC (EGRESS ONLY)
A	No	Yes
В	Yes (Two Options)	Yes
С	Yes	Yes
D	Yes	Yes

3.6 FURTHER CONSIDERATIONS

DRAINAGE

- 3.6.1 Although drainage has not been considered in detail as part of this study, it is envisaged that Surface Water Run-off from proposed roads within the existing Cemetery and Crematorium could be collected by a conventional gulley and pipe system and attenuated to Qbar for rainfall return periods up to 1 in 100year + 40% climate change. Due to space constraints attenuation is to be within oversized pipes under the proposed road with controlled discharge to the existing culvert system within the existing Cemetery and Crematorium.
- 3.6.2 Surface Water Run-off from proposed roads outside of the cemetery (B, C, and D) could be via shallow ditches located adjacent to the carriageway which would discharge to a small detention area within the open space. Discharge from the detention area would be at Qbar for rainfall return periods up to 1 in 100year + 40%. Discharge would be to Wymans Brook or adjacent Surface Water Sewer. Sections of road below the open space would be drained and attenuated as per proposed existing Cemetery and Crematorium roads.

UTILITIES

3.6.3 At this stage no utility searches have been carried out, but it is envisaged that there is enough flexibility within the road designs that utility diversion/protection works could be avoided where needed.

LIGHTING

3.6.4 It is envisaged that there may be a requirement to provide lighting for some / all of the Route Options (in particular Route Options B, C, and D). This would be considered further once the preferred Route Option is taken forward.

GROUND RISK AND REMEDIATION

3.6.5 It should be noted that Route Options B, C and D skirt Oakley Playing Fields, which is an historic landfill site. The stability (or level of contamination) of the land, and potential implications in terms of the preferred route alignment and carriageway make-up, is unknown at this stage. It is recommended that a ground risk assessment is undertaken prior to any construction works.

FUTURE ADOPTION

3.6.6 Should it be required, it is envisaged that Route Options C or D could potentially be upgraded to adoptable standards, to serve any potential future development. However, please note [depending on the initial specification of the carriageway] that there would be a likely requirement to upgrade the carriageway sub base and base course, and drainage and lighting.

3.7 ROUTE OPTIONS EXCLUDED FROM THIS STUDY

EXISTING INTERNAL CEMETERY AND CREMATORIUM ROADS

- 3.7.1 As detailed above, one of the main constraints to achieving both access and egress to the proposed new Crematorium from within the existing Cemetery and Crematorium is the presence of a solitary one-way road which links the older western and newer eastern sections (which is lined by existing gravestones).
- 3.7.2 Although this route is excluded from this study, Peter Mitchell Associates (grave specialist) has been commissioned to undertake a separate study to determine the potential implications associated with using / modifying the existing internal route to serve the proposed new Cemetery. In addition, Peter Mitchell Associates has also considered the implications of potentially upgrading an existing internal pedestrian footpath to provide vehicular access.
- 3.7.3 The findings of Peter Mitchell Associates report are summarised in Chapter 4 of this report, and are included in **Appendix E**.

ALTERNATIVE ROUTE OPTIONS TO NORTH AND SOUTH

- 3.7.4 CBC in their brief has outlined the following alternative potential vehicular route options and subsequent reasons for their exclusion from this study:
 - → Via Prestbury village and Noverton Farm from the north farm land not owned by the Council;
 - → Via Prestbury village and Finchcroft Lane from the north costs and legal issues associated with need to bridge Noverton brook; and
 - → Via Oakley Farm housing development from the south costs and legal issues associated with need to bridge Wyman's brook and complications of traffic flow through Oakley Farm housing estate.

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4 ROUTE OPTIONS – OPPORTUNITIES AND CONSTRAINTS

4.1 INTRODUCTION

- 4.1.1 This Chapter of the report considers the opportunities and constraints presented by the proposed vehicular Access Route, and by each of the proposed vehicular Egress Routes (Options A, B, C, and D), as detailed by Chapter 3 of this report.
- 4.1.2 For ease of reference, the opportunities and constraints presented by each of the routes have been numbered, and have been marked on the relevant Route Option plans (SK-002, SK-004 to SK-007 and SK-08). Where the points identified are general to the route, these are highlighted in the key of the relevant Route Option plan.
- 4.1.3 This Chapter also summarises the advice received from Peter Mitchell Associates and CBC's Tree Officer.

4.2 OPPORTUNITIES AND CONSTRAINTS

ACCESS ROUTE

- 4.2.1 For reference, the location of each of the opportunities and constraints detailed below are illustrated on WSP | Parsons Brinckerhoff drawing number **SK-02**.
- 4.2.2 It is worth noting that in this option, there would still be a requirement to provide a temporary haulage route to the proposed new Crematorium (see opportunities and constraints for Route Options B, C and D).

Opportunities

- 1. The proposed access route does not require the construction of any new roads internally or externally to the existing Cemetery and Crematorium.
- 2. This proposed access route would not result in any displacement of traffic onto the local highway network, nor would this route impact on any existing operation of / parking along local streets (i.e. along Imjin Road).
- The proposed access route relies on existing roads which currently serve the existing Cemetery and Crematorium; as such it would not impact on any existing hedgerows / trees / habitats.

Constraints

- 4. The existing Grade II listed gates (main entrance and inner) on entry to the existing Cemetery and Crematorium restrict vehicle movements to one-way. Although, in this option the gates would not be required to be widened, it is worth noting that there would likely still be an issue with queuing and delays experienced at the main entrance (as per the current situation).
- 5. This Option would result in increased traffic movements internally within the existing Cemetery and Crematorium. In particular, there would be a likely increase in traffic using the one-way section of road which skirts the northern boundary of the older western section of the existing Cemetery and Crematorium (which is currently used to access the wider existing Cemetery and Crematorium). This could result in increased congestion internally within the existing Cemetery and Crematorium.

- 6. The existing internal Cemetery and Crematorium roads are narrow in places. As such, any intensification of use of these routes (resulting from the relocation of the Crematorium) could result in internal congestion / delays and increased safety risks to pedestrians.
- 7. In general, the existing internal roads, in particular within the older western section of the existing Cemetery and Crematorium are observed to be in poor condition (the road surface is cracked / breaking up in numerous locations). This is likely to be exacerbated as a result of the relocation of the Crematorium and the intensification of traffic using these roads.

ROUTE OPTION A

- 4.2.3 For reference, the location of each of the opportunities and constraints detailed below are illustrated on WSP | Parsons Brinckerhoff drawing number **SK-04**.
- 4.2.4 It is worth noting that in this option, there would still be a requirement to provide a temporary haulage route to serve the proposed new Crematorium [please see opportunities and constraints for Route Options B, C and D].

Opportunities

- 1. Route Option A is contained within the curtilage of the existing Cemetery and Crematorium. As such it does not rely on the use of any existing [or proposed] external roads.
- The length of the proposed new road section [in isolation] required for Route Option A is considerably less than the proposed new road sections proposed for Route Options B, C and D.
- 3. Route Option A does not impact on existing housing estates to south (i.e. noise / pollution).
- 4. Route Option A does not impact on Oakley Playing Fields to the south.

Constraints

- 5. This Option would potentially result in the loss of parking internally within the existing Cemetery and Crematorium (where it is proposed to use the existing car park located to the immediate west of the Garden of Remembrance).
- 6. This Option involves crossing one Ordinary Watercourse (Wyman's Brook Tributary), which will likely need a simple assessment of flood risk and water quality impacts in consultation with GCC as Lead Local Flood Authority.
- 7. The proposed route alignment is in close proximity to an active badger sett. Any works within 30 m of the sett will require further consideration. Should the badger sett be directly affected a licence would be required to close the sett. Should works be required within 30 m of the sett, a pre-works check and subsequent ecological method statement would be required. The pre-works check should be carried out within eight weeks of the construction start date in case a licence is required.
- 8. The proposed route alignment falls within 250 m of ponds suitable for Great crested newts. A record of Great crested newt was returned by the desk study, located 180 m from the survey area. Previous Great crested newt surveys did not identify any Great crested newts within the pond surveyed. However, only one of the three suitable ponds was surveyed. The Natural England Great crested newt Risk Grading Tool was applied to ascertain the risk of causing an offence under Great crested newt legislation. The results of this were 'Amber: Offence Likely'. It is therefore recommended that presence/likely absence surveys for Great crested newts be undertaken, which would then inform further recommendations.
- 9. The proposed route alignment skirts near existing trees that are suitable for roosting bats. Micro-siting of the road alignment is advised to ensure mature trees are not affected. Should tree works be required further survey for bats may be necessary. This could include aerial assessments and/or dusk/dawn emergence surveys for bats within the bat activity season.

- 10. The area in which the route is proposed is considered to contain habitats suitable for breeding birds. Clearance works should be carried out outside of the breeding bird season (considered to be March September). If this were not possible, additional ecological input would be required. This could include pre-works breeding bird checks and ecological supervision of clearance works.
- 11. The area in which the route is proposed is considered to be suitable habitat for reptiles. It is recommended that a detailed Method Statement be written to control vegetation clearance methods and ensure legal compliance.
- 12. Habitats of Principal Importance, specifically existing hedgerows and lowland woodland have potential to be impacted by the proposed route alignment. This would likely be taken into consideration at the planning stage to comply with relevant legislation. These habitats should ideally be avoided by the proposed route and where this is not possible.
- 13. The proposed alignment would likely impact directly on Bouncers Lane Cemetery, which is a Grade II listed Park and Gardens, and includes the following Grade II Listed buildings / structures:
 - 13.1 Main entrance and inner gates to the existing Cemetery and Crematorium;
 - 13.2 Cemetery Lodge;
 - 13.3 North and South Chapel; and
 - 13.4 Octagonal Lodge (located approximately 15m northwest of the North and South Chapel).
- 14. The proposed alignment would directly impact on existing deciduous woodland which is identified within the Priority Habitat Inventory.
- **15.** The proposed alignment would directly impact on the following tree types:
 - 15.1 Common Beach (Category A1 tree); and
 - 15.2 Copper Beach (Category A1 tree).
- **16.** The proposed alignment could directly impact on existing graves.

ROUTE OPTION B

- 4.2.5 For reference, the location of each of the opportunities and constraints detailed below are illustrated on WSP | Parsons Brinckerhoff drawing numbers **SK-05**.
- 4.2.6 It should be noted that Route Option B could also be used as a temporary haulage route for construction traffic, in which two potential options have been considered for the existing Cemetery and Crematorium access road section (see WSP | Parsons Brinckerhoff drawing number **SK-08**).

Opportunities

1. Route Option B would result in the bulk of traffic being taken away from the existing internal Cemetery and Crematorium roads (albeit the section of road located between the two existing gated entrance points), which in turn would reduce internal congestion / delays.

Constraints

2. For the operational phase, this Option would require the provision of a new internal junction where the proposed new section of road (external to the existing Cemetery and Crematorium) would tie into the internal section of road located between the two existing gated entrance points. There is potential for increase congestion / conflict as a result of the proposed arrangement.

- 3. The existing Farm Track, which skirts the southern boundary of the existing Cemetery and Crematorium is narrow and observed to be in poor condition. This would likely require upgrading and resurfacing.
- 4. Of the two options for construction access which are currently considered for the internal section of road located between the two existing gated entrance points (see WSP | Parsons Brinckerhoff drawing SK-08):
 - In Option 1 construction traffic would be directed to use the existing Farm Track via Ladysmith Road. This would require that the existing access is upgraded to accommodate construction traffic.
 - In Option 2 the narrowing of the existing Cemetery and Crematorium access road (to accommodate the construction route) would require the introduction of one-way controlled workings (such as temporary traffic lights). This arrangement would likely lead to increased congestion and delays (particularly during peak hours).
 - 3. In Option 2 this arrangement would likely lead to increased traffic movements at the existing [modified] access.
 - 4. In Option 2 there would be a potential requirement to widen the main entrance gates to the existing Cemetery and Crematorium (or control movements).
 - 5. In both Options it is noted that there are currently areas of parking located along the existing access which could restrict movements / result in congestion.
 - In both options there would be an intensification of traffic movements, in particular construction vehicles, on the local highway network in the vicinity of the existing access which could result in increased congestion and delays (particularly during peak hours).
- 5. Potential highway safety implications associated with bringing construction traffic through the existing Cemetery and Crematorium access.
- 6. This Option involves crossing a Main River (Wyman's Brook Tributary) which will likely need a simple assessment of flood risk and water quality impacts in consultation with the Environment Agency.
- 7. This Option crosses the proposed ditch / culvert offtake from Wyman's Brook Tributary for the Priors Farm Flood Storage Area. The timing of construction and future proofing of the FSA Scheme should be considered in conjunction with its designers.
- 8. This Option appears to run within 8m of the Environment Agency's Main River (Wyman's Brook Tributary), alongside the football pitches. An Environmental Permit is required from the Environment Agency for any works within this distance from top of bank
- 9. The proposed route alignment is in close proximity to an active badger sett. Any works within 30 m of the sett will require further consideration. Should the badger sett be directly affected a licence would be required to close the sett. Should works be required within 30 m of the sett, a pre-works check and subsequent ecological method statement would be required. The pre-works check should be carried out within eight weeks of the construction start date in case a licence is required.
- 10. The proposed route alignment falls within 250 m of ponds suitable for Great crested newts. A record of Great crested newt was returned by the desk study, located 180 m from the survey area. Previous Great crested newt surveys did not identify any Great crested newt within the pond surveyed. However, only one of the three suitable ponds was surveyed. The Natural England Great crested newt Risk Grading Tool was applied to ascertain the risk of causing an offence under Great crested newt legislation. The results of this were 'Amber: Offence Likely'. It is therefore recommended that presence/likely absence surveys for Great crested newts be undertaken, which would then inform further recommendations.
- **11.** The proposed route alignment skirts near existing trees which trees that are suitable for roosting bats. Micro-siting of the road alignment is advised to ensure mature trees are not

affected. Should tree works felling be required further survey for bats may be necessary required. This could include aerial assessments and/or dusk/dawn emergence surveys for bats within the bat activity season.

- 12. The area in which the route is proposed contains suitable breeding bird habitat. Clearance works should be carried out outside of the breeding bird season (considered to be March September). If this were not possible, additional ecological input would be required. This could include pre-works breeding bird checks and ecological supervision of clearance works.
- 13. The area in which the route is proposed contains suitable habitat for reptiles. It is recommended that a detailed Method Statement be written to control vegetation clearance methods and ensure legal compliance.
- 14. Habitats of Principal Importance, specifically existing hedgerows, running water and lowland woodland, have potential to be impacted by the proposed route alignment. This would likely be taken into consideration at the planning stage to comply with relevant legislation. These habitats should ideally be avoided by the proposed route and where this is not possible.
- 15. The proposed alignment would likely impact directly on Bouncers Lane Cemetery, which is a Grade II listed Park and Gardens, and includes the following Grade II Listed buildings / structures:
 - 15.1 Main entrance and inner gates to the existing Cemetery and Crematorium;
 - 15.2 Cemetery Lodge;
 - 15.3 North and South Chapel; and
 - 15.4 Octagonal Lodge (located approximately 15m northwest of the North and South Chapel).
- **16.** The proposed alignment would directly impact on existing deciduous woodland which is identified within the Priority Habitat Inventory.
- 17. The proposed alignment would directly impact on the following tree types:
 - 17.1 Cedar (Category B1/C1 tree).
- **18.** The proposed route would impact on areas of mixed vegetation (trees, hedgerows), which have not been included as part of the arboriculture survey, and may be of potential local conservation importance.
- **19.** The route would skirt the northern boundary of Oakley Playing Fields, which is an historic landfill site. The stability of the landfill site is unknown, and would likely require a separate Ground Investigation Study.
- 20. The proposed route would directly impact on the existing residential properties (approximately 16 in total) (in terms of noise and pollution) which skirt the southern boundary of the Farm Track. There is also potential that the existing playing fields could be contaminated.
- 21. The option crosses a water body. This means riparian species have potential to be impacted. Depending on the final route alignment, further surveys for otters, water vole and white clawed crayfish may be required.
- 22. The route alignment would impact on the existing basketball court and northernmost football pitch.

ROUTE OPTION C

- 4.2.7 For reference, the location of each of the opportunities and constraints detailed below are illustrated on WSP | Parsons Brinckerhoff drawing number **SK-06**.
- 4.2.8 It should be noted that Route Option C could also be used as a temporary haulage route for construction traffic.

Opportunities

- 1. Route Option C would not impact on the existing Cemetery and Crematorium.
- The provision of a new separate road to the existing Cemetery and Crematorium would reduce traffic movements at the existing Cemetery and Crematorium access (from Bouncers Lane).
- 3. The proposed route alignment would not directly impact on the existing car park which serves Oakley Playing Fields.
- 4. Route Option C could be used to access potential future development land / proposed flood alleviation scheme located to the south of the proposed new Crematorium.

Constraints

- 5. This Option would require traffic (construction and operational) to use Imjin Road. The potential implications associated with this are as follows:
 - 1. Potential for access to be obstructed by motorists parking along both sides of Imjin Road; and
 - 2. Potential congestion / delays resulting from increased traffic using Imjin Road;
 - 3. Increased safety concerns resulting from increased traffic using Imjin Road; and
 - 4. Potential impacts on wider network, including along B4075 Priors Road.
- 6. This Option involves crossing a Main River (Wyman's Brook Tributary) which will likely need a simple assessment of flood risk and water quality impacts in consultation with the Environment Agency.
- 7. This Option crosses two proposed culverts associated with the Priors Farm Flood Storage Area. The timing of construction and future proofing of the FSA Scheme should be considered in conjunction with its designers. Suitable cover should be sought over the culvert.
- 8. This Option appears to run within 8m of the Environment Agency's Main River (Wyman's Brook Tributary), alongside the football pitches. An Environmental Permit is required from the Environment Agency for any works within this distance from top of bank.
- 9. The proposed route alignment falls within 250 m of ponds suitable for Great Crested Newts. A record of Great Crested Newt was returned by the desk study, located 180 m from the survey area. Previous Great Crested Newt surveys did not identify any Great Crested Newt within the pond surveyed. However, only one of the three suitable ponds was surveyed. The Natural England Great Crested Newt Risk Grading Tool was applied to ascertain the risk of causing an offence under Great Crested Newt legislation. The results of this were 'Green: Offence Highly Unlikely' due to the location of the ponds and the extent of habitat to be affected. Therefore no surveys are required in this instance. It is recommended that once the exact scope of works has been agreed this assessment is confirmed. It is recommended that should Option C be taken forward, all works are carried out under a precautionary method of working for great crested newts.
- 10. The proposed route alignment skirts near existing trees that are suitable for roosting bats. Micro-siting of the road alignment is advised to ensure mature trees are not affected. Should tree works be required further survey for bats may be necessary. This could include aerial assessments and/or dusk/dawn emergence surveys for bats within the bat activity season.
- 11. The area in which the route is proposed contains suitable breeding bird habitat. Clearance works should be carried out outside of the breeding bird season (considered to be March September inclusive). If this were not possible, additional ecological input would be required. This could include pre-works breeding bird checks and ecological supervision of clearance works.

- 12. The area in which the route is proposed contains suitable habitat for reptiles. It is recommended that a detailed Method Statement be written to control vegetation clearance methods and ensure legal compliance.
- 13. The option crosses one water body and comes in close proximity to another. This means riparian species have potential to be impacted. Depending on the final route alignment, further surveys for otters, water vole and white clawed crayfish may be required.
- 14. Habitats of Principal Importance, specifically existing hedgerows, have potential to be impacted by the proposed route alignment. This would likely be taken into consideration at the planning stage to comply with relevant legislation. These habitats should ideally be avoided by the proposed route and where this is not possible impacts should be minimised.
- **15.** The proposed route would impact on areas of mixed vegetation (trees, hedgerows), which have not been included as part of the arboriculture survey, and may be of potential local conservation importance.
- 16. The route would skirt the southern boundary of Oakley Playing Fields, which is an historic landfill site. The stability of the landfill site is unknown, and would likely require a separate Ground Investigation Study. There is also potential that the existing playing fields could be contaminated.
- **17.** The proposed route alignment would impact on the existing football fields and associated changing facilities (effectively bisecting the two).
- **18.** The proposed route alignment would impact on the existing children's playground.
- **19.** The proposed route alignment would require re-profiling of land / potential introduction of retaining wall along the southern boundary of the Oakley Football Fields.

ROUTE OPTION D

- 4.2.9 For reference, the location of each of the opportunities and constraints detailed below are illustrated on WSP | Parsons Brinckerhoff drawing number **SK-07**.
- 4.2.10 It should be noted that Route Option D could also be used as a temporary haulage route for construction traffic.

Opportunities

- 1. Although Route Option D would skirt the southern boundary of the existing Cemetery and Crematorium, it would not impact directly on any existing graves.
- The provision of a new separate road to the existing Cemetery and Crematorium would reduce traffic movements at the existing Cemetery and Crematorium access (from Bouncers Lane).
- 3. The proposed route alignment would not directly impact on the existing car park which serves Oakley Playing Fields.
- 4. Route Option D could be used to access potential future development land / proposed flood alleviation scheme located to the south of the proposed new Crematorium.

Constraints

- 5. This Option would require that traffic (construction and operational) would use Imjin Road. The potential implications associated with this are as follows:
 - 1. Potential for access to be obstructed by motorists parking along both sides of Imjin Road; and
 - 2. Potential congestion / delays resulting from increased traffic using Imjin Road;
 - 3. Increased safety concerns resulting from increased traffic using Imjin Road; and

- 4. Potential impacts on wider network, including along B4075 Priors Road.
- 6. This Option involves crossing a Main River (Wyman's Brook Tributary) which will likely need a simple assessment of flood risk and water quality impacts in consultation with the Environment Agency.
- 7. This Option crosses the proposed ditch / culvert offtake from Wyman's Brook Tributary for the Priors Farm Flood Storage Area. The timing of construction and future proofing of the FSA Scheme should be considered in conjunction with its designers.
- 8. This Option appears to run within 8m of the Environment Agency's Main River (Wyman's Brook Tributary), alongside the football pitches. An Environmental Permit is required from the Environment Agency for any works within this distance from top of bank.
- 9. The proposed route alignment is in close proximity to an active badger sett. Any works within 30 m of the sett will require further consideration. Should the badgers sett be directly affected a licence would be required to close the sett. Should works be required within 30 m of the sett, a pre-works check and subsequent ecological method statement would be required. The pre-works check should be carried out within eight weeks of the construction start date in case a licence is required.
- 10. The proposed route alignment falls within 250 m of ponds suitable for Great crested newts. A record of Great crested newt was returned by the desk study, located 180 m from the survey area. Previous Great crested newt surveys did not identify any Great crested newt within the pond surveyed. However, only one of the three suitable ponds was surveyed. The Natural England Great crested newt Risk Grading Tool was applied to ascertain the risk of causing an offence under Great crested newt legislation. The results of this were 'Amber: Offence Likely'. It is therefore recommended that presence/likely absence surveys for Great crested newts be undertaken, which would then inform further recommendations.
- 11. The proposed route alignment skirts near existing trees which trees that are suitable for roosting bats. Micro-siting of the road alignment is advised to ensure mature trees are not affected. Should tree works felling be required further survey for bats may be necessary required. This could include aerial assessments and/or dusk/dawn emergence surveys for bats within the bat activity season.
- 12. The area in which the route is proposed contains suitable breeding bird habitat. Clearance works should be carried out outside of the breeding bird season (considered to be March September). If this were not possible, additional ecological input would be required. This could include pre-works breeding bird checks and ecological supervision of clearance works.
- 13. The area in which the route is proposed contains suitable habitat for reptiles. It is recommended that a detailed Method Statement be written to control vegetation clearance methods and ensure legal compliance.
- 14. Habitats of Principal Importance, specifically existing hedgerows, running water and lowland woodland have potential to be impacted by the proposed route alignment. This would likely be taken into consideration at the planning stage to comply with relevant legislation. These habitats should ideally be avoided by the proposed route and where this is not possible impacts should be minimised.
- 15. The proposed alignment would likely impact indirectly on Bouncers Lane Cemetery, which is a Grade II listed Park and Gardens, and includes the following Grade II Listed buildings / structures:
 - 15.1 Cemetery Lodge;
 - 15.2 North and South Chapel; and
 - 15.3 Octagonal Lodge (located approximately 15m northwest of the North and South Chapel).
- **16.** The proposed alignment would directly impact on existing deciduous woodland which is identified within the Priority Habitat Inventory.

- 17. The proposed route would impact on areas of mixed vegetation (trees, hedgerows) which have not been included as part of the arboriculture survey, and may be of potential local conservation importance.
- 18. The route would skirt the north and west of Oakley Playing Fields, which is an historic landfill site. The stability of the landfill site is unknown, and would likely require a separate Ground Investigation Study. There is also potential that the existing playing fields could be contaminated.
- The proposed route would directly impact on the existing residential properties (approximately 8 in total) (in terms of noise and pollution) which skirt the western boundary of Oakley Playing Fields.
- **20.** The proposed route alignment would require re-profiling of land / potential introduction of retaining wall along the western boundary of the Oakley Football Fields.
- 21. The option crosses one water body and comes in close proximity to another. This means riparian species have potential to be impacted. Depending on the final route alignment, further surveys for otters, water vole and white clawed crayfish may be required.
- 22. The route alignment would impact on the existing basketball court and northernmost football pitch

4.3 EXTERNAL ADVICE

GRAVE SPECIALIST

- 4.3.1 As detailed in Chapter 3 of this report, Peter Mitchell Associates has also undertaken a separate study which identifies the issues surrounding the potential use / modification of the existing internal road (and potential pedestrian footpath) which links the older western and newer eastern sections of the existing Cemetery and Crematorium.
- 4.3.2 In addition, Peter Mitchell Associates has also considered the implications, in terms of impacts on existing graves resulting from the proposed Route Options (namely Route Options A and B) identified within this report.

In summary, Peter Mitchell Associates report identifies:

"In my view, there is no legislation that is applicable to authorising the removal of memorials and burials in an operational local authority cemetery;

Based upon the information that I have received, of the routes identified by WSP | Parsons Brinckerhoff which impact directly on the cemetery (namely A and B), I recommend that Route B shown in purple on the WSP | Parsons Brinckerhoff's drawing SK03 is regarded as having a much greater chance of being feasible than Route A shown in yellow, due to the clear indications of coffin burials along Route A;

Similarly, Route B shown in purple on the WSP | Parsons Brinckerhoff's drawing SK03 avoids areas clearly used for coffin burials within the areas shaded orange and red on the RES Surveying Topographic Survey Sheet 13; and

The proposals threaten to disturb a place where the bodies and ashes of deceased people lie and thereby have the potential to cause great distress to bereaved people, which must be recognised by the team working on this project."

4.3.3 For reference, a copy of Peter Mitchell Associates report is contained in **Appendix E**.

TREE SPECIALIST

- 4.3.4 As detailed in Chapter 3 of this report, to help understand the potential impacts on the existing trees internal and external to the existing Cemetery and Crematorium, WSP | Parsons Brinckerhoff has discussed the proposed Route Options with Chris Chavasse (Senior Tree Officer) at CBC.
- 4.3.5 For reference his comments are summarised below for each Route Option (A-D), with a copy of the Chris's full comments included at **Appendix F**.
 - → Route A would incur the most tree related damage/removals and may be the most expensive to construct but would ultimately fit best into this landscape on the assumption that a generous landscaping scheme could mitigate for tree loss/damage. This may be technically the most challenging route to achieve due to the "no-dig" requirement where the route deviates into the root protection area of existing large trees;
 - → Route B would incur some loss of boundary screening and trees along front of drive (if drive is to be widened). However, re-landscaping could mitigate for this loss. This new route would fit aesthetically well into the local environment;
 - → Route C would not incur significant tree loss but the proposed new road may look incongruous through this open space. Some ground cover would have to be removed; and
 - → Route D would also not incur significant tree loss but some ground cover would need to be removed. The road would fit more discretely into the landscape.

5 FURTHER CONSIDERATIONS

5.1 INTRODUCTION

5.1.1 This Chapter considers the potential additional tasks that could be required should any of the proposed Route Options be progressed further. More specifically, the Chapter considers potential future survey requirements, consultation, cost implications and deliverability.

5.2 POTENTIAL SURVEY REQUIREMENTS

TRAFFIC IMPACTS

- 5.2.1 When compared to the existing service time information provided by CBC, the ATC survey recorded a maximum of 113 and 159 vehicles entering and exiting the existing Cemetery and Crematorium, respectively (which occurred during two separate hours). This equates to approximately 1.5 vehicles per minute in either direction.
- 5.2.2 Assuming that the hours of operation of the proposed new Crematorium would reflect that of the existing Cemetery and Crematorium (i.e. services would be held between 10:00 and 16:00), traffic generated by the proposed new Crematorium would not be anticipated to conflict with the peak hours of operation of the local highway network.
- 5.2.3 Notwithstanding this, given that two of the routes identified in this report rely on the use of Imjin Road for access, GCC, as relevant highway authority, may request that further analysis is undertaken (as part of any assessment required to support a planning application) to understand the potential impacts that the development proposals, in terms of traffic generation, could have on the existing local highway network (in particular Imjin Road / Priors Road).
- 5.2.4 Based on the traffic volumes derived from the ATC survey (and in the absence of any detailed assessment) we do not envisage that there would be a need to undertake any significant upgrades to the existing Imjin Road / Priors Road junction. This is however subject to discussions with GCC highways department.
- 5.2.5 Internally, vehicles are currently permitted to park along the existing access road between the main entrance and inner gates. However, CBC has indicated that they would potentially look to prohibit parking in this location once the proposed new Crematorium is in place. Should this be the case, then there may be a requirement to assess the likely impacts on parking displacement (although this is not envisaged to be substantial).
- 5.2.6 Externally, it is also worth noting that, should there be a requirement to use Imjin Road to access the proposed new Crematorium, there may also be a need to undertake a parking beat survey to understand existing parking demand and any impacts associated with the potential displacement of parking.

PROTECTED SPECIES

BADGERS

- 5.2.7 The proposed route alignments are in close proximity to an active badger sett. Any works within 30 m of the sett will require further consideration. Should the badgers sett be directly affected a licence would be required to close the sett. Should works be required within 30 m of the sett, a pre-works check and subsequent ecological method statement would be required. The pre-works check should be carried out within eight weeks of the construction start date in case a licence is required.
- 5.2.8 The peak time to survey badgers is February to April. Should a licence and sett closure be required it should be noted that no closures can take place between December and June due to the dependence of juveniles upon their mothers.

RIPARIAN

- 5.2.9 The route options potentially cross one water body and comes in close proximity to another. This means riparian species have the potential to be impacted. Depending on the final route alignment, further surveys for otters, water vole and white clawed crayfish may be required.
- 5.2.10 The optimal time of year to carry out surveys for water vole is from mid-April to September, whilst otter survey can be undertaken at any time of year. Surveys carried out after heavy rains are not advisable, as field signs are often washed away. White clawed crayfish should be surveyed during late summer (July to September).

BATS

- 5.2.11 The proposed route alignments skirt near existing trees that are suitable for roosting bats. Micrositing of the road alignment is advised to ensure mature trees are not affected. Should tree works or felling be required further survey for bats may be necessary required. This could include aerial assessments and/or dusk/dawn emergence surveys for bats within the bat activity season (May to September).
- 5.2.12 Preliminary ground level roost assessments of trees are best carried out in winter due to the lack of foliage.
- 5.2.13 Should trees identified as being of moderate roost suitability or high roost suitability need to be removed or affected then the following surveys would need to be undertaken under best practice guidance (BCT Guidelines, 2016):

Low roost suitability	Moderate roost suitability	High roost suitability
No further surveys required	Two separate survey visits. One	Three separate survey visits. At
	dusk emergence and a separate	least one dusk emergence and a
	dawn re-entry survey.	separate dawn re-entry
		survey. The third visit could be
	Surveys undertaken between May to September, with at least one	either dusk or dawn.
	survey between May and August.	Surveys undertaken between May
		to September, with at least two
		surveys between May and August.

Table 5.1 Potential Bat Surveys

BREEDING BIRDS

- 5.2.14 The areas in which the routes are proposed are suitable breeding bird habitat. Clearance works should be carried out outside of the breeding bird season (February to August). If this were not possible, additional ecological input would be required. This could include pre-works breeding bird checks and ecological supervision of clearance works.
- 5.2.15 The breeding bird season is considered to be February to August. Vegetation clearance within this time would require ecological supervision.

GREAT CRESTED NEWTS

- 5.2.16 Ponds within the survey area were identified as being suitable for Great crested newts and records of Great crested newts were returned within 180 m of the survey area by a previous third party survey.
- 5.2.17 It is recommended that presence/absence survey be undertaken under best practice guidance in the event that options A, B or D are selected. Should option C be selected it is recommended that a detailed Method Statement be written to protect against breaches of legislation.
- 5.2.18 Presence absence survey would consist of four survey visits between mid-March to mid-June, with at least two of these visits during mid-April to mid-May.

ADDITIONAL ECOLOGICAL DETAILS

5.2.19 Further detail regarding the potential ecological survey requirements and implications on the programme for delivery is included in **Appendix G**.

HERITAGE

- 5.2.20 Consultation should be undertaken with the relevant CBC Planning and Conservation Officers at the earliest opportunity. Widening of the Grade II listed entrance pillars will require listed building consent prior to works commencing.
- 5.2.21 The timescales for achieving listed building consent will vary depending on the outcomes of consultation with CBC planning and Conservations Officers (and / or any third parties).
- 5.2.22 Landscape consultation should be undertaken with the Cotswold AONB Conservation Board at the earliest opportunity. The proposed scheme may impact on the setting of the AONB; therefore it is advisable to inform the Board of the proposals. Although not envisaged to be significant, the potential implications of constructing a new route adjacent to the AONB, would not be fully understood until discussions have been held with the Cotswold AONB Conservation Board.
- 5.2.23 It is also worth noting that the proposed Route Options (namely Route Options A and B) would impact upon the existing Bouncers Lane Cemetery, which is a Grade II listed Park and Gardens. As such, CBC as Local planning Authority would likely have to liaise directly with Historic England to understand the potential implications associated with the preferred Route Option.

GROUND INVESTIGATION

5.2.24 The Oakley Playing Fields historical landfill site has been identified as a potential risk to delivery of Route Options B, C and D. Construction on or in the vicinity of a landfill site can give rise to abnormal costs which need to be considered when assessing the feasibility and design of the various scheme options. Landfill material is often heterogeneous and contaminated which can give rise to a number of geotechnical and contaminated land constraints.

- 5.2.25 Depending on the route option under consideration and subject to further information in relation to the extent of the landfill, in order to evaluate the significance of potential constraints and abnormal constraints, an intrusive geotechnical and geo-environmental assessment is required. The assessment will need to obtain data on the composition of the landfill material and underlying geology, geotechnical parameters, contamination concentrations, hydrogeological and ground gas regimes.
- 5.2.26 Potential measures which may be required to mitigate potential ground and contamination related constraints may include the use of piled foundations, ground improvement / stabilisation of materials, retaining features and removal of unacceptable material; and the installation of long term leachate and / or ground gas control measures.

SUMMARY

5.2.27 Based on the above, it is anticipated that the following surveys could be required for each of the proposed vehicular egress Route Options

SURVEY TYPE	ROUTE OPTION A	ROUTE OPTION B	ROUTE OPTION C	ROUTE OPTION D
Traffic			Х	Х
Badger	Х	Х		Х
Riparian	Х	Х	Х	Х
Bats	Х	Х	Х	Х
Breeding Birds	Х	Х	Х	Х
Great crested newts	Х	Х	Х	Х
Ground Investigation	Х	Х	Х	Х

Table 5.2 Potential Survey Requirements

5.3 OFF-SITE HIGHWAY WORKS

5.3.1 Although this report does not take into consideration the design and construction of the preferred route option, it should be noted that where it is intended to link into the existing highway network (i.e. Imjin Road) there may be a need to enter into a S278 minor works agreement (or similar agreement) to undertake any necessary works. This could also be the case should there be a requirement to undertake any off-site highway improvements on the local highway network (i.e. Imjin Road / Priors Road junction).

5.4 CONSTRUCTION PERMITS FOR WORKS NEAR WATERCOURSES

- 5.4.1 Works within 8m of an Environment Agency Main River (Wyman's Brook and Tributary) will require an Environmental Permit. The process and timescales for this will vary depending on the final design. However, early consultation with the Environment Agency is recommended, and between 4 and 12 weeks are required for determination. Prior to the granting of the permit no works should be undertaken within 8m of the top of bank.
- 5.4.2 It is recommended that more detailed consultation is undertaken with Gloucestershire County Council to identify who will approve any required Land Drainage Consents prior to construction. Powers have been delegated to Cheltenham Borough Council but it is expected they are unable to self-approve an application.

5.5 CONSULTATION

- 5.5.1 Owing to the proposed alignment of each of the Route Options considered and their associated impacts, CBC are likely to have to enter into discussions / consultation with:
 - → General Public;

- \rightarrow GCC (Highways Authority);
- \rightarrow Environment Agency;
- \rightarrow Historic England; and
- → Natural England.
- 5.5.2 Please note that the above list is by no means extensive, and is intended to provide an indication of likely third parties that would need to be consulted.

5.6 COST IMPLICATIONS

5.6.1 It is understood that Willmott Dixon will prepare a detailed cost estimate of each of the Route Options described in this report, which will be provided to CBC under separate cover. Please note that there would be a likely difference in costs associated with constructing the 3m carriageway to serve the proposed new Crematorium, and any future upgrade of the route/s to meet adoptable standards.

5.7 DELIVERABILITY

PLANNING RISK

- 5.7.1 Owing to the complexities surrounding each of the proposed Route Options, it is difficult to gauge the level of planning inputs required and subsequent time-frames for their delivery.
- 5.7.2 However, based on the information presented in this report, it is considered that:
 - Route Option A would impact directly on graves / ash scatterings within the existing Cemetery and Crematorium, which could carry significant risk in terms of achieving planning / deliverability.
 - → Route Options B carries low to medium risk, in the respect that it relies on the use of external land (Farm Track) to provide a new road, which would likely impact directly on existing residents and existing trees / hedgerows located to the south of the existing Cemetery and Crematorium).
 - → Route Option C and D carry higher risk, as they rely on land outside of the existing Cemetery and Crematorium, which could require considerable consultation / planning inputs. It is considered that Route Options C and D would be the most expensive (to be confirmed by Willmott Dixon) of the four Route Options to implement (owing to their length and their variations in height).
- 5.7.3 It is considered that CBC would take a view on the likely planning risks and subsequent timeframes for delivery of each Route Option following receipt of this report.

CBC'S 'ACCESS ROAD BRIEF - INITIAL DRAFT'

- 5.7.4 Each of the proposed Route Options has been evaluated against the points raised I CBC's 'Access Road Brief – Initial Draft', namely:
 - → Most positive impact on proposed Crematorium Redevelopment Project budgeted costs;
 - → Least negative impact on Crematorium Redevelopment Project timescales;
 - → Maximise likelihood of planning permission, taking account of the sensitivity of the location; the nearby Area of Outstanding Natural Beauty and public green space aspirations;
 - → Ability to deal with expected traffic volumes;

- → Least negative impact on local facilities, e.g. cemetery, sports facilities including paying fields, playground etc.; and
- → Greatest social value through enabling or not constraining flood alleviation schemes; allotment provision; local green space designation and potential for future housing development.
- 5.7.5 In respect of the first two points, these are addressed through the earlier points raised in this report. The latter points are considered in **Table 5.3**, over page.

ROUTE OPTION	AONB	PUBLIC GREEN SPACE	TRAFFIC VOLUMES	Local Facilities	Local Facilities – Oakley Playing Fields	LOCAL FACILITIES - PLAYGROUND	FLOOD ALLEVIATION SCHEME (FAS)	FUTURE DEVELOPMENT
Access	No Impact	No Impact	Potential implications internally with re- distribution of traffic	No Impact	No Impact	No Impact	No Impact	Not considered feasible to facilitate any future development
A *	No Impact	No Impact	Potential implications internally with re- distribution of traffic	Direct impact on existing graves / memorial area	No Impact	No Impact	No Impact	Not considered feasible to facilitate any future development
В	Indirect Impact (setting)	Direct impact on Public Green Space	Potential implications internally with re- distribution of traffic	Direct impact on main access to existing Cemetery and Crematorium	Indirect impact (skirts north of Oakley Playing Fields)	No Impact	Indirect impact on location of FAS scheme Direct impact in respect that proposed alignment crosses culverts associated with the Priors Farm Flood Storage Area	Not considered feasible to facilitate any future development (owing to use of existing Cemetery and Crematorium access road / and road width constraints presented by Farm Track)
с	Indirect Impact (setting)	Direct impact on Public Green Space	Direct impact on Imjin Road	No Impact	Direct impact	Direct / Indirect Impact – depending on preferred route alignment	Indirect impact on location of FAS scheme Direct impact in respect that proposed alignment crosses culverts associated with the Priors Farm Flood Storage Area	Considered feasible to facilitate any future development
D	D Indirect Direct impact Impact (setting) Direct impact On Public Green Space Direct impact on Imjin Road		No Impact	Direct impact	No Impact	Indirect impact on location of FAS scheme Direct impact in respect that proposed alignment crosses culverts associated with the Priors Farm Flood Storage Area	Considered feasible to facilitate any future development	

Table 5.3 Route Options Appraisal (Against Points Highlighted by CBC's Brief)

* Please note that in Route Option A, a separate haulage route would need to be considered (i.e. Route Options B, C and D).

6 SUMMARY AND CONCLUSION

6.1 SUMMARY

- 6.1.1 This report summarises the transport / highways, flood risk, ecological, and environmental opportunities and constraints presented by various potential Route Options which are proposed to serve a new Crematorium in Cheltenham.
- 6.1.2 This study has been commissioned on the basis that the existing internal road network which currently serves the existing Cemetery and Crematorium is deemed insufficient to serve the proposed new Crematorium.
- 6.1.3 This report does not seek to highlight the preferred vehicular route option, but provides a review of opportunities and constraints presented by each vehicular route option, which in turn will assist CBC in making their decision of the preferred access strategy for the proposed new Crematorium.
- 6.1.4 The proposed Route Option alignments presented in this report are intended to serve the proposed new Crematorium. However, where sufficient space allows, an indicative outline (dashed line) has been provided along the Route Option alignments which denotes a 9.5m wide carriageway, which allows for the provision of a two-way route (with footways) to serve any potential future development to the south of the proposed new Crematorium.
- 6.1.5 In support of this study, WSP | Parsons Brinckerhoff has obtained additional specialist advice from:
 - → Peter Mitchell Associates Independent Grave Specialist; and
 - → Chris Chavasse Senior Tree Officer (CBC).
- 6.1.6 WSP | Parsons Brinckerhoff has also sought advice from GCC highways department; however a response has not been received in sufficient time to inform this report.
- 6.1.7 This report has also been informed by a number of existing ecological / environmental surveys which were commissioned by CBC at the existing Cemetery and Crematorium.
- 6.1.8 Based on the information available and points raised by this report, there will likely be a requirement to undertake additional surveys (see Chapter 5) prior to implementing the preferred Route Option. In addition, there would be likely requirement to consult with third parties.
- 6.1.9 It is understood that Willmott Dixon will prepare a detailed cost estimate of each of the Route Options described in this report, which will be provided to CBC under separate cover.
- 6.1.10 For ease of reference, the Route Options are summarised in **Table 6.1**, along with a description of the key opportunities and constraints and an indication of the likely level of risk of delivery (low to high).

6.2 CONCLUSION

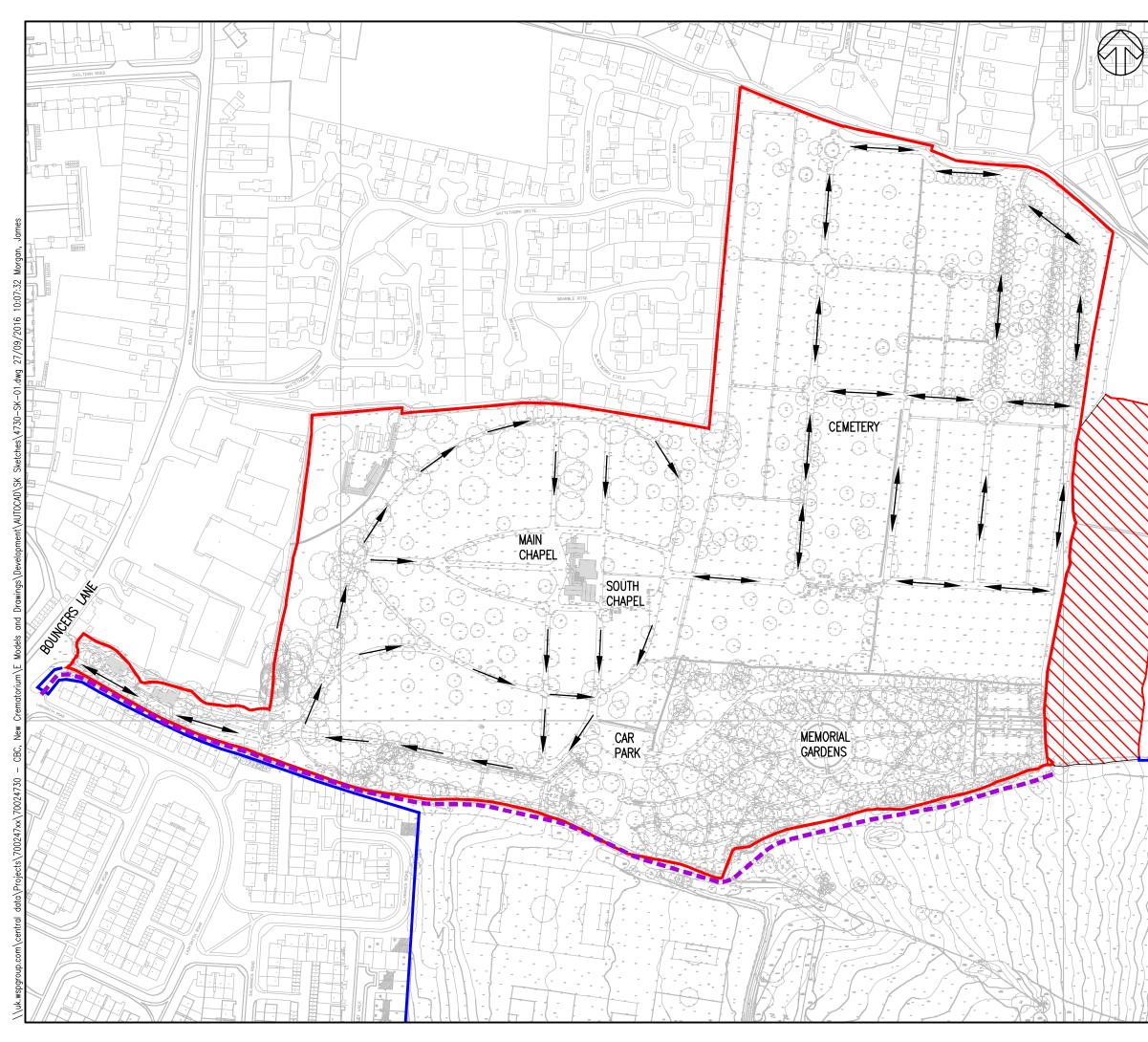
6.2.1 This report demonstrates that, by virtue of its nature and location, there are a number of potential constraints which need to be considered and addressed prior to the implementation of any of the potential Route Options (A, B, C, and D) to serve the proposed new Crematorium.

Table 6.1 Route Options Summary

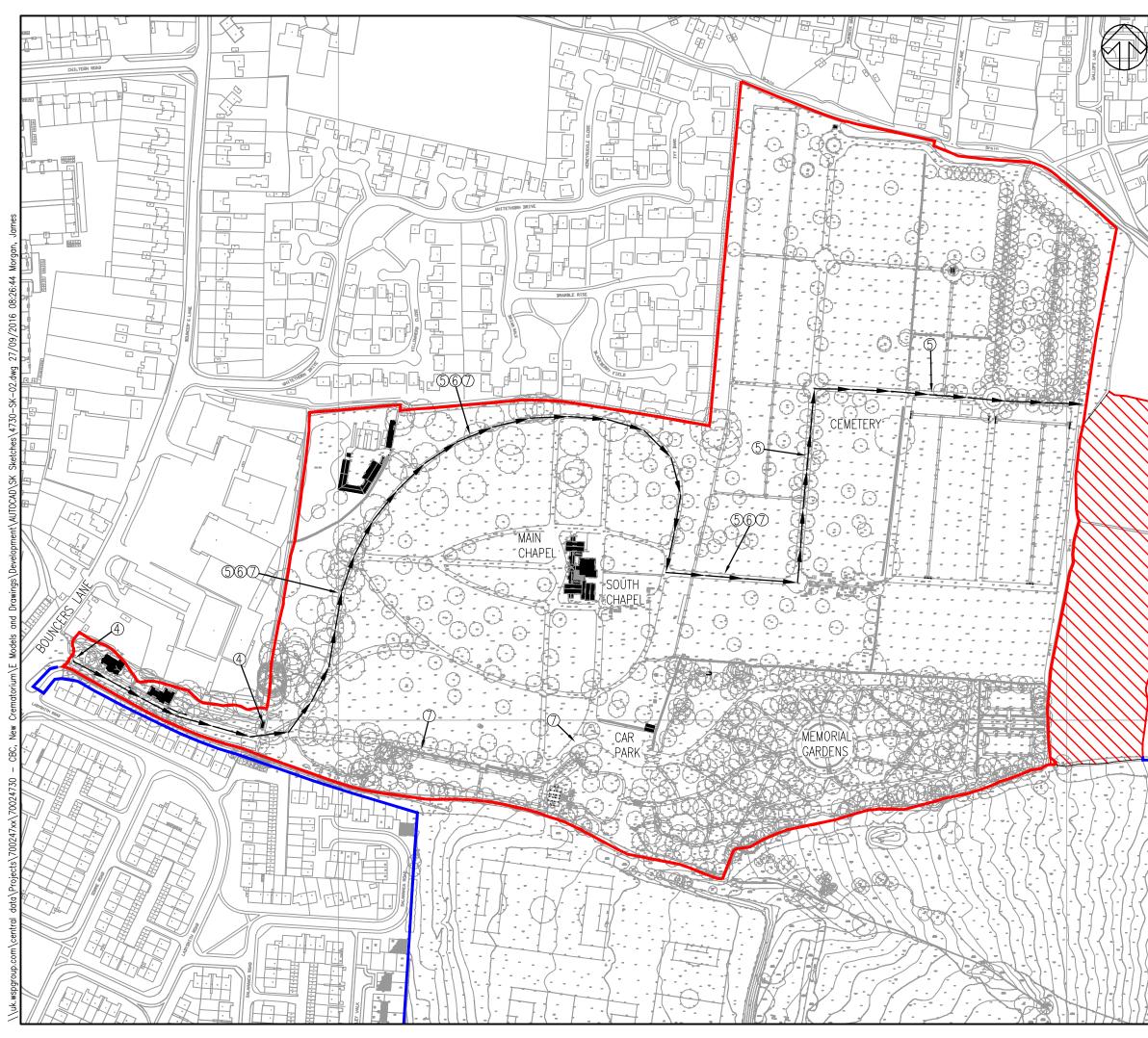
ROUTE OPTION	DESCRIPTION	POTENTIAL USE (CONSTRUCTION / OPERATIONAL)		Key Constraints	Risk
Access	Use of existing internal roads to access the proposed new Crematorium	Operational [only]	 The proposed access route does not require the construction of any new internal or external roads. This proposed access route would not result in any displacement of traffic onto the local highway network. The proposed access route would not impact on any existing hedgerows / trees / habitats. 	 Existing main entrance gates restrict access to one-way. Likely intensification of traffic along specific internal routes resulting in internal congestion / delays. Existing internal roads are narrow and observed to be in poor condition in places. 	Low
A	Relies in part on the use of the existing internal Cemetery roads, and the provision of a new 3m wide access road which would skirt the northern boundary of the Garden of Remembrance.	Operational [only]	 The proposed access route would be contained within the curtilage of the existing Cemetery and Crematorium. The length of the proposed new road section [in isolation] required for Route Option A is considerably less than the proposed new road sections proposed for Route Options B, C and D The proposed access route does not impact on Oakley Playing Fields / residential estates to the south of the existing Cemetery and Crematorium. 	 Impacts on existing graves. The proposals threaten to disturb a place where the bodies and ashes of deceased people lie and thereby have the potential to cause great distress to bereaved people (Grave Specialist) (see Section 4.3). Would potentially result in loss of internal parking. The proposed route alignment is in close proximity to an active badger sett. The proposed route alignment falls within 250 m of ponds suitable for Great crested newts. Would impact on existing established trees / hedgerows. Route A would incur the most tree related damage/removals and may be the most expensive to construct but would ultimately fit best into this landscape on the assumption that a generous landscaping scheme could mitigate for tree loss/damage (Tree Officer) (see Section 4.3). 	High
в	Relies on use of part of the existing internal Cemetery access road, between the two gated entrance points, and then the provision of a new 3m wide access road which would link to the existing access road (in the vicinity of the internal gated entrance point) and would skirt the southern boundary of the existing Cemetery and Crematorium. Consideration has also been given to two potential options to split construction and operational traffic within of the existing Cemetery and Crematorium.	Construction and Operational	 Traffic would be taken away from existing internal Cemetery and Crematorium roads. Preferred Route Option by Grave Specialist which does not impact on existing graves (Grave Specialist) (see Section 4.3). 	 Provision of new junction onto existing internal Cemetery and Crematorium access road could lead to potential congestion / conflict. Construction access: Option 1 - Farm Track likely to require significant upgrading. Option 2 – Would require introduction of one-way workings Option 2 – Would potentially require the widening of the Grade II Listed main entrance gates (or introduction of control measures). Potential highway safety implications associated with bringing construction traffic through the existing Cemetery and Crematorium access. Proposed Route Option alignment would cross Main River, which would require consultation with Environment Agency / Environmental Permit. The proposed route alignment is in close proximity to an active badger sett. The proposed route alignment falls within 250 m of ponds suitable for Great crested newts. Would impact on existing established trees / hedgerows, and residential dwellings located to south of the existing Cemetery and Crematorium access road. Proposed Route alignment would skirt northern extent of Oakley Playing Fields, which is an historic landfill site. The stability of the landfill site is unknown. Route B would incur some loss of boundary screening and trees along the access road (if drive is to be widened). However, re-landscaping could mitigate for this loss. This new route would fit aesthetically well into the local environment (Tree Officer) (see Section 4.3). 	Medium / Hig
С	Includes the provision of a new 3m wide access road which would skirt the southern extent of Oakley Playing Fields and the agricultural land to the south of the proposed development site, and would link the proposed new development to Imjin Road at its western extent.	Construction and Operational	 The proposed access route would not impact on the existing Cemetery and Crematorium The provision of a new separate road would reduce traffic movements at the existing Cemetery and Crematorium access. The proposed access route could be used to access potential future development land / proposed flood alleviation scheme located to the south of the proposed new Crematorium. 	 Potential highway operation and safety implications resulting from additional traffic movements along Imjin Road. Proposed Route Option alignment would cross Main River, which would require consultation with Environment Agency / Environmental Permit. Route crosses proposed ditch / culvert offtake from Wyman's Brook Tributary for the Priors Farm Flood Storage Area. The proposed route alignment would skirt southern extent of Oakley Playing Fields, which is an historic landfill site. The stability of the landfill site is unknown. Route C would not incur significant tree loss but the proposed new road may look incongruous through this open space. Some ground cover would have to be removed (Tree Officer) (see Section 4.3). 	High
D	Hybrid of both Route Options B and C. Includes the provision of a new 3m wide road is proposed which would run between Imjin Road, up the western boundary of Oakley	Construction and Operational	 The provision of a new separate road would reduce traffic movements at the existing Cemetery and Crematorium access. The proposed access route could be used to access potential future development land / proposed flood alleviation scheme located to the south of the proposed new Crematorium. 	 Potential highway operation and safety implications resulting from additional traffic movements along Imjin Road. Proposed Route Option alignment would cross Main River, which would require consultation with Environment Agency / Environmental Permit. Route crosses proposed ditch / culvert offtake from Wyman's Brook Tributary for 	High

ROUTE OPTION	DESCRIPTION	POTENTIAL USE (CONSTRUCTION / OPERATIONAL)	Key Constraints	Risk
	Playing Fields, and along the northern boundary of Oakley Playing Fields (along the same alignment as Route Option B – i.e. following the existing Farm Track alignment.		 the Priors Farm Flood Storage Area. The proposed route alignment is in close proximity to an active badger sett. The proposed route alignment falls within 250 m of ponds suitable for Great crested newts. Proposed Route alignment would skirt southern extent of Oakley Playing Fields, which is an historic landfill site. The stability of the landfill site is unknown. The proposed route would directly impact on the existing residential properties (approximately 16 in total) (in terms of noise and pollution) which skirt the southern boundary of the Farm Track. Route D would also not incur significant tree loss but some ground cover would need to be removed. The road would fit more discretely into the landscape (Tree Officer) (see Section 4.3). 	

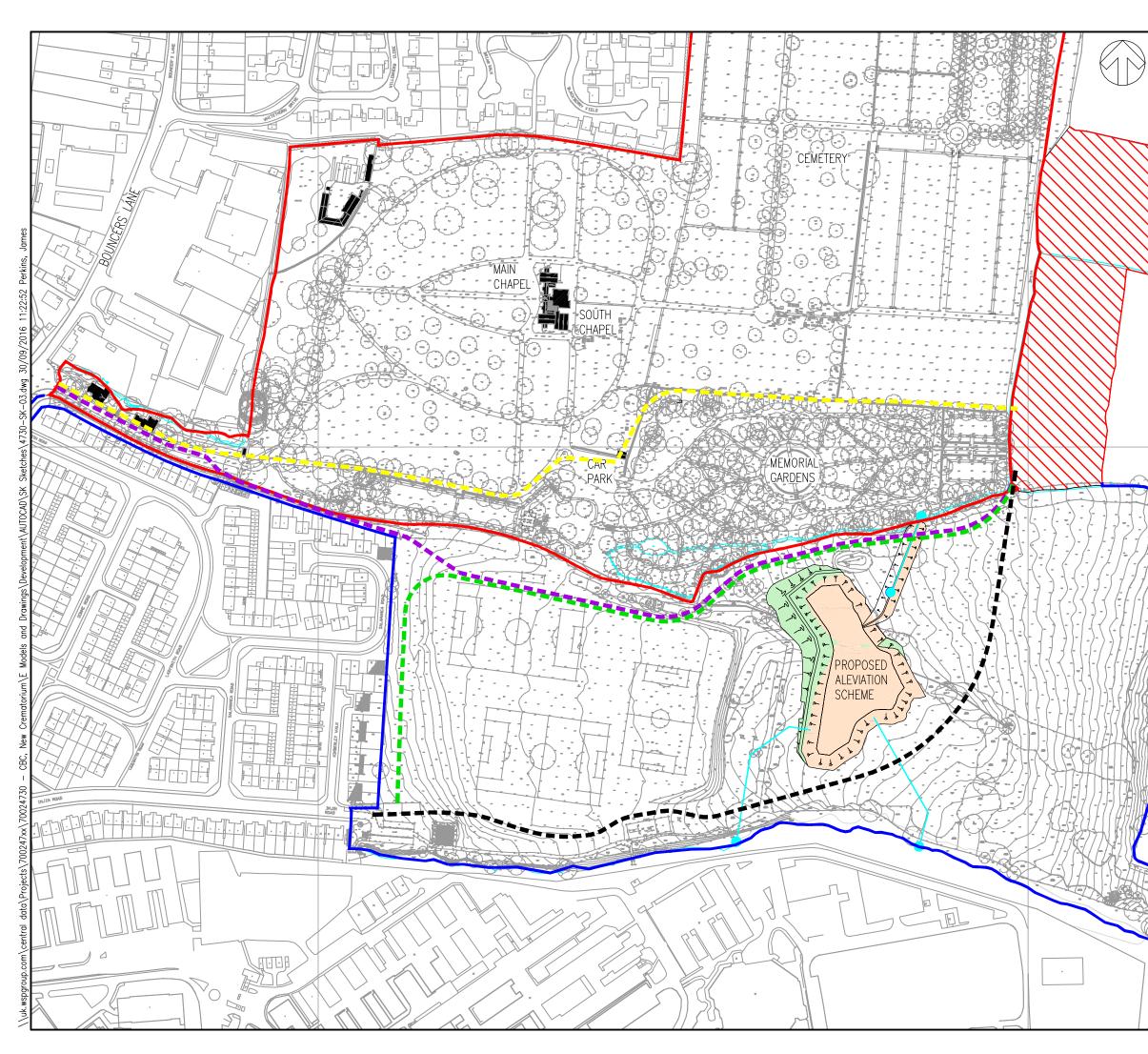
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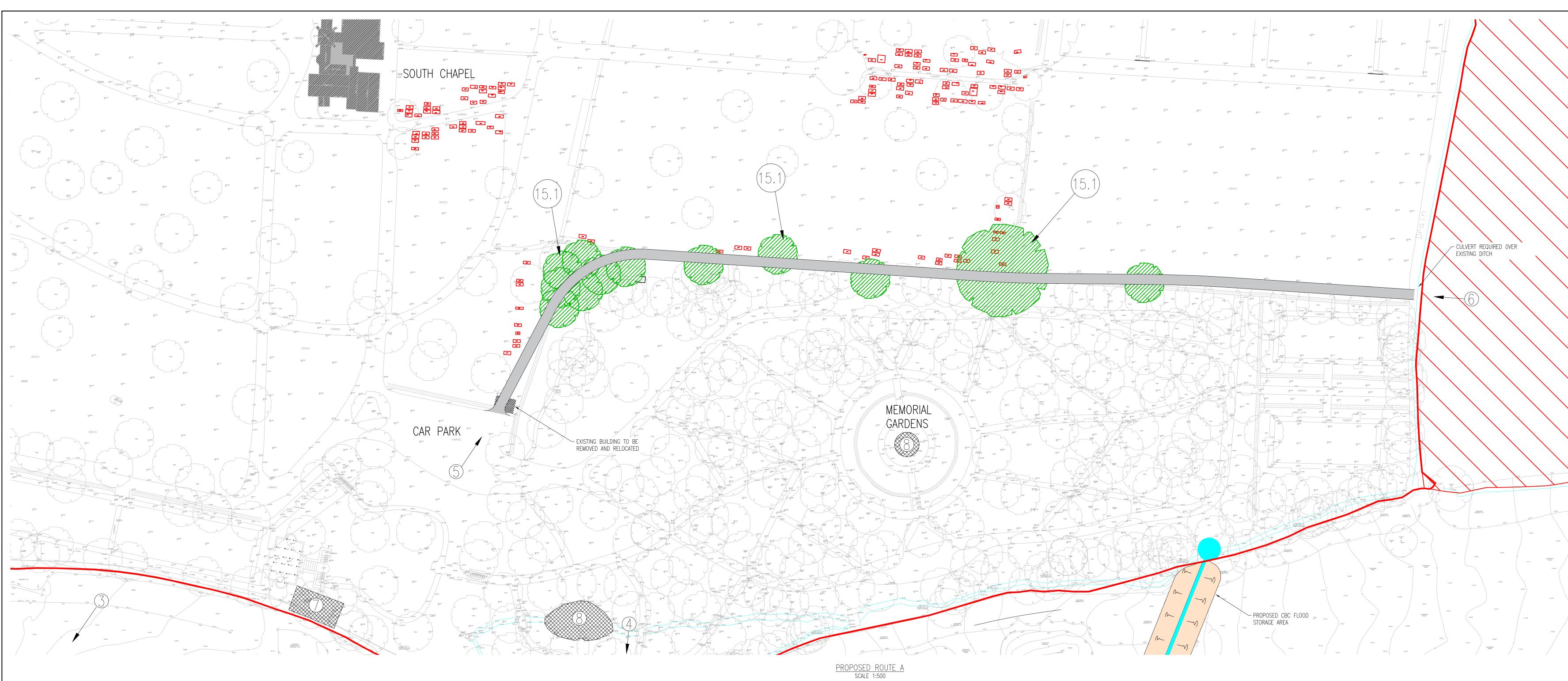
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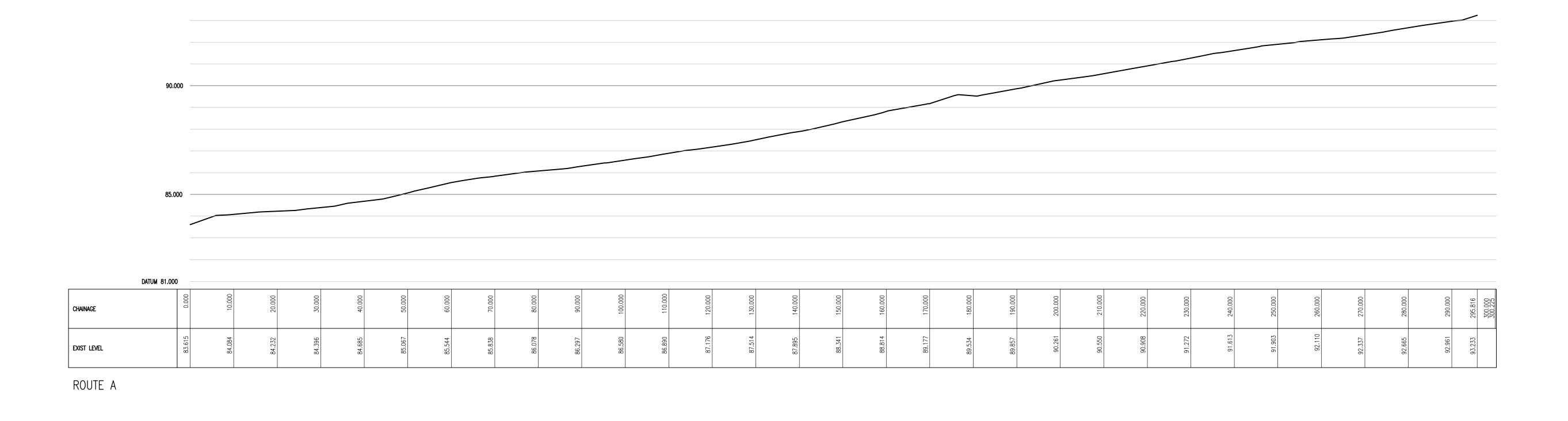


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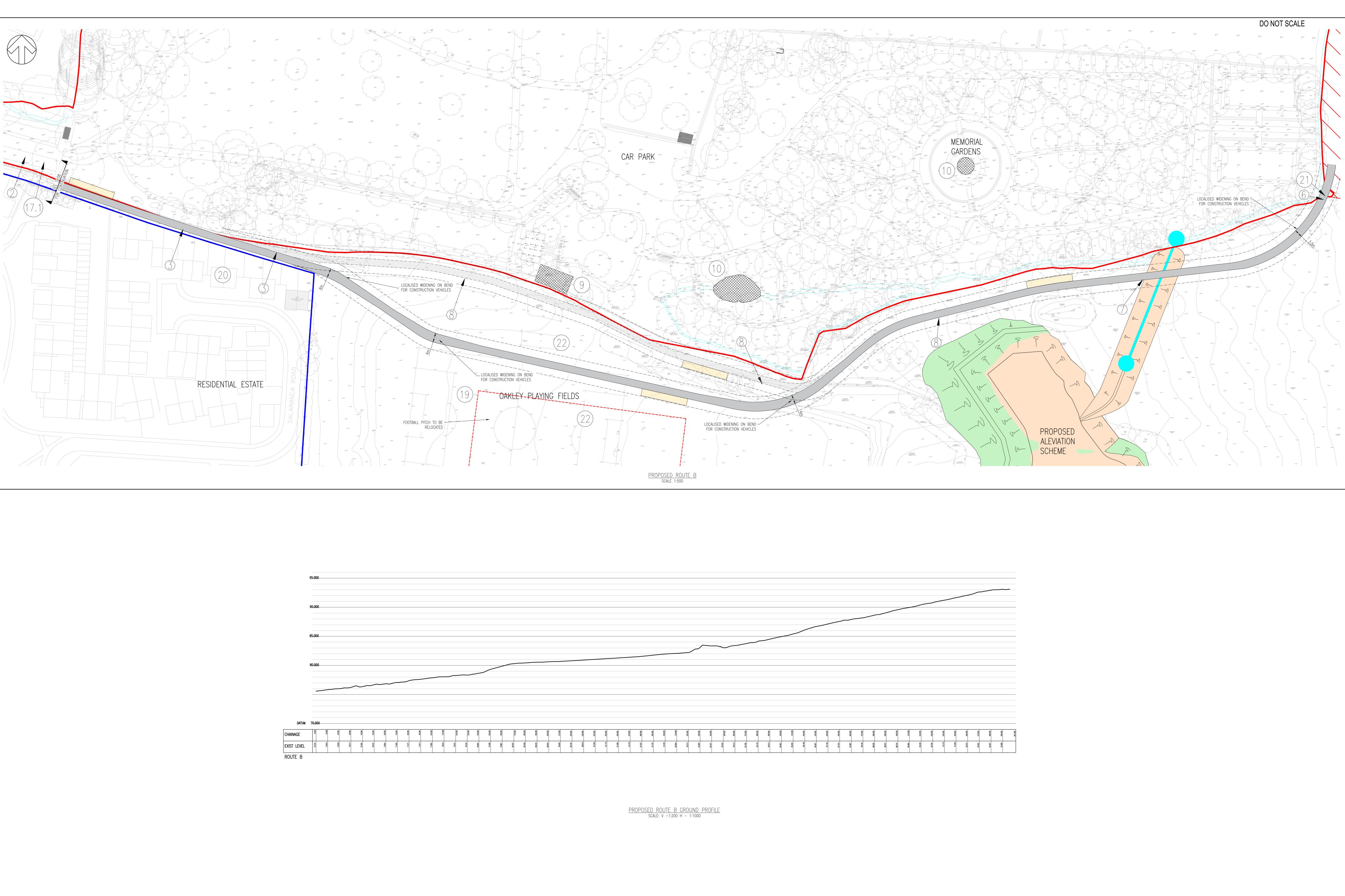
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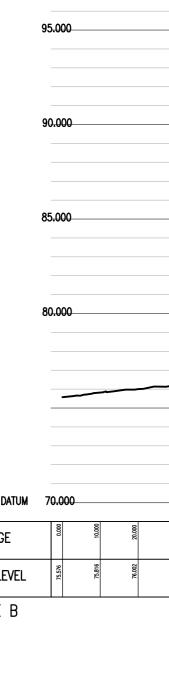




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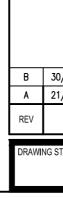
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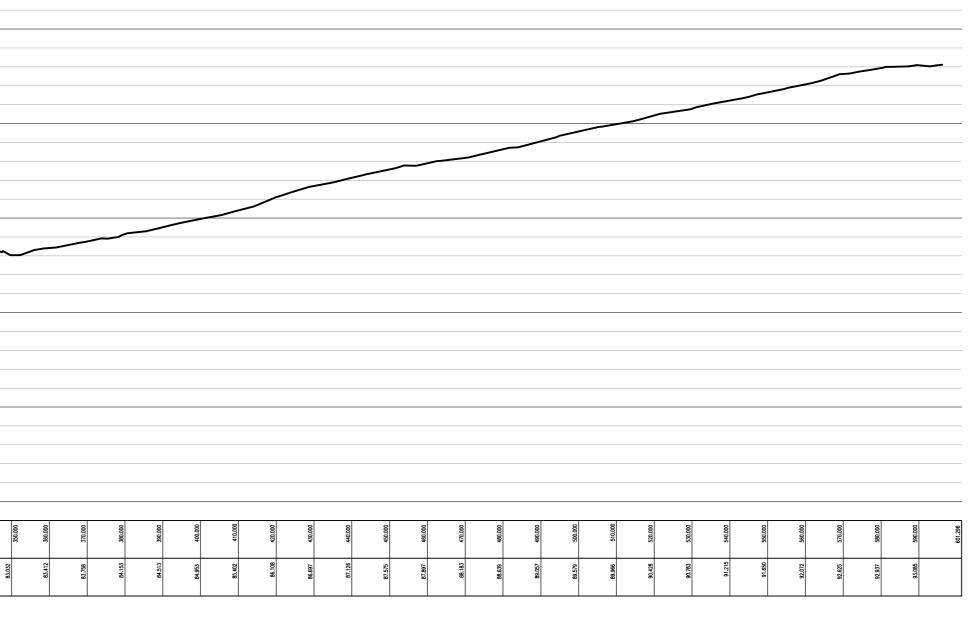
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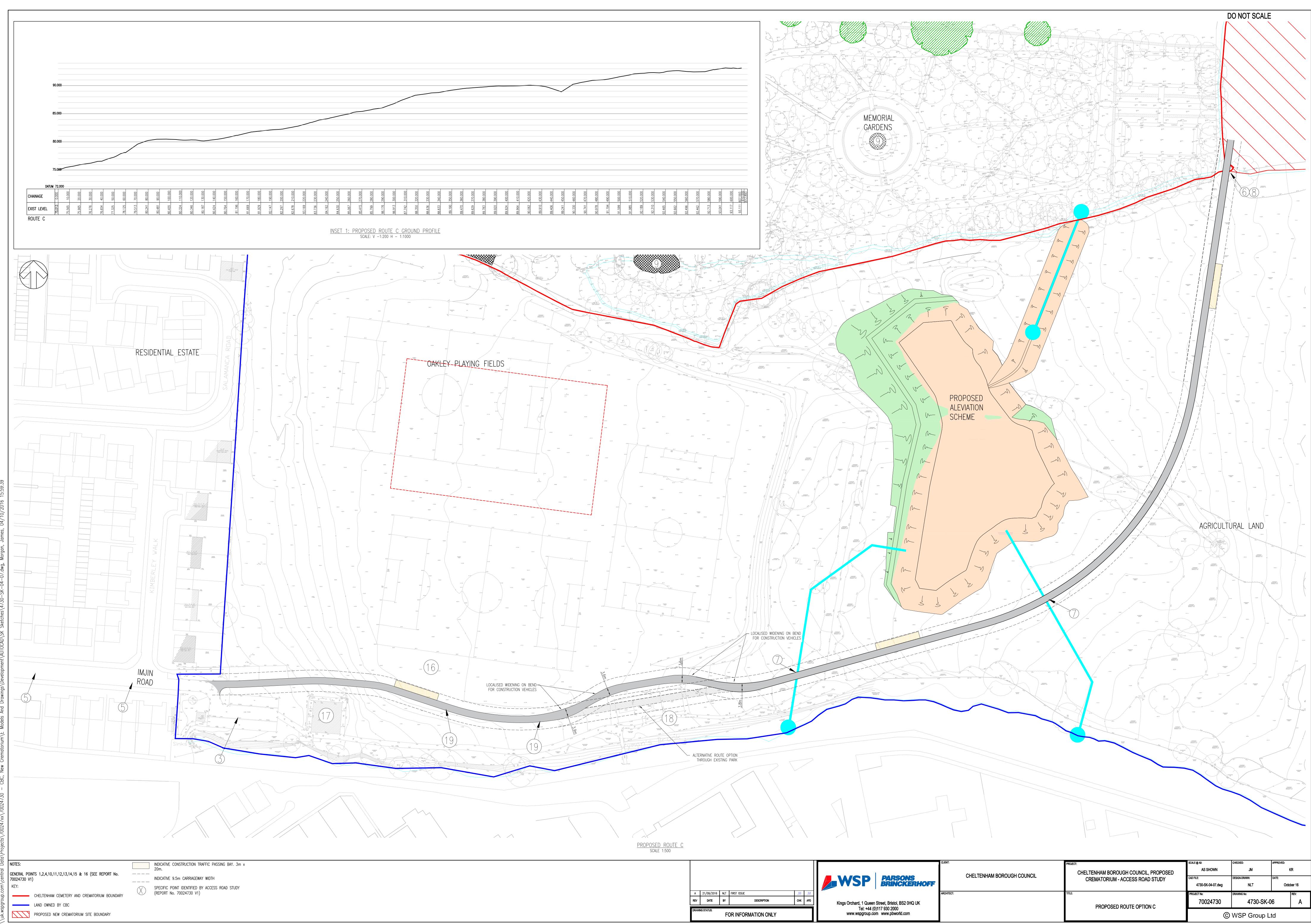


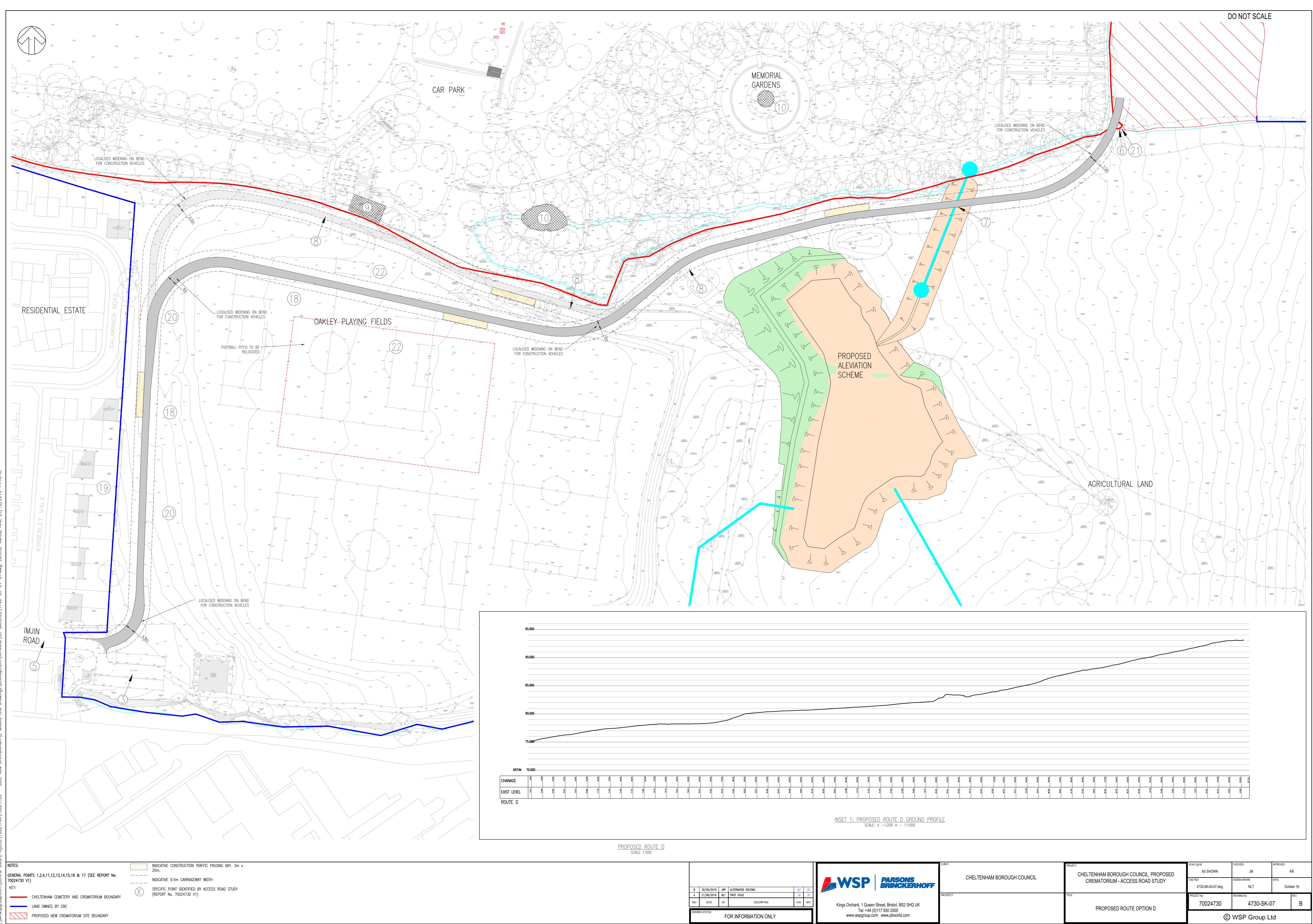


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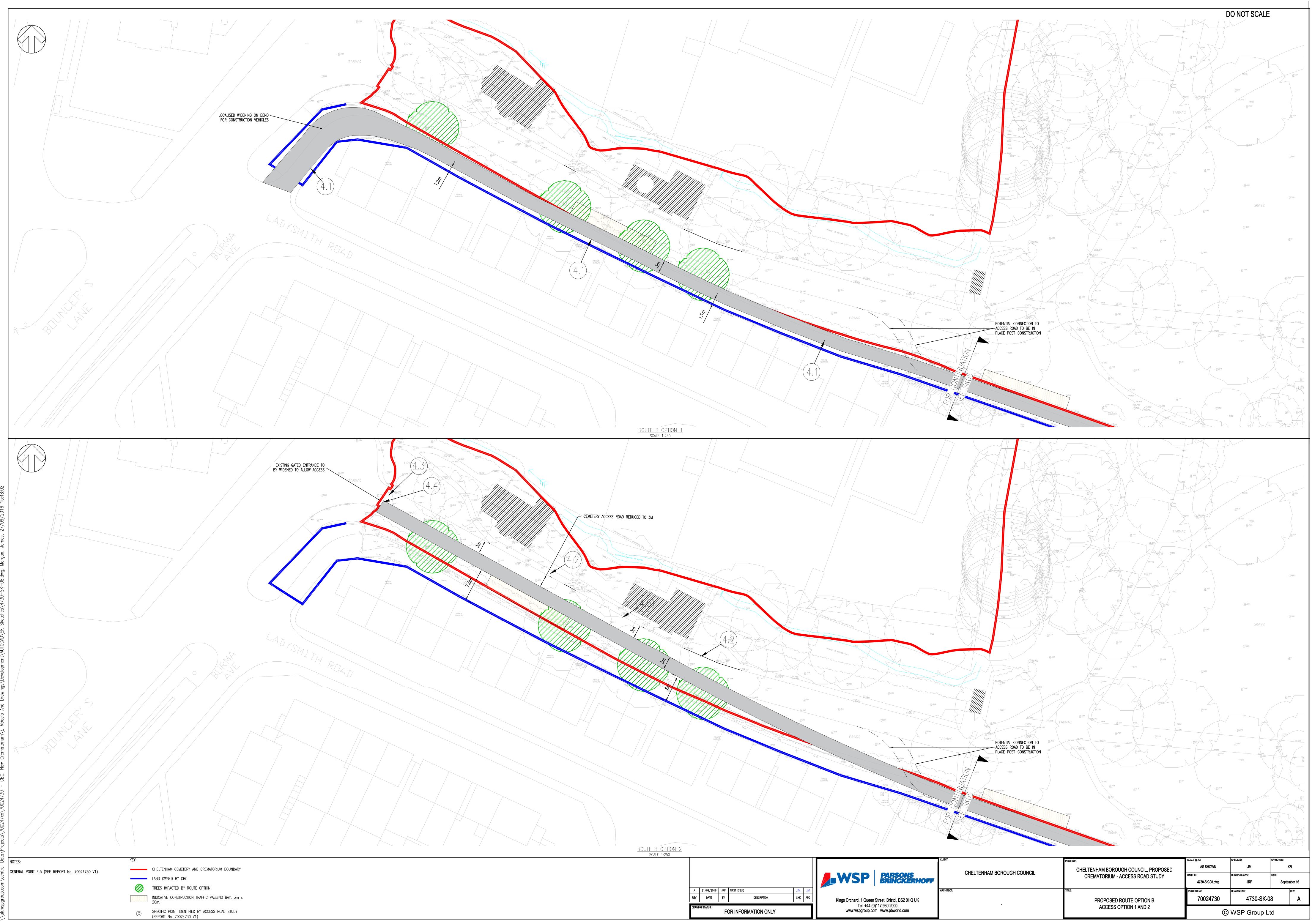
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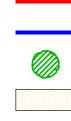
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Appendix A

CBC'S ACCESS ROAD BRIEF

Introduction & Background

Cheltenham Borough Council is intending to build a new crematorium on land it owns immediately to the east of its existing Cemetery and Crematorium off Bouncers Lane, Cheltenham. See Diagram 1.

An independent options appraisal undertaken in 2015 by Robert Potters and Partners, identified possible entrance and exit routes to and from a new crematorium and car park, producing some initial ideas for routes within the existing cemetery and land owned by the council to the south. See Diagram 2.

Principal Contractor for the project, Willmott Dixon has recently completed a feasibility study of a conceptual plan for the new facilities which includes a comparison of two alternative exit routes, one inside the existing grounds and one to the south known as Prior's Farm.

While studies so far have been useful conceptually, it is clear the Council and its partnering Contractor require a comprehensive impact assessment study and detailed appraisal of possible operational access routes taking account of all relevant factors. This need was also suggested in a strategic development report undertaken by the lead planning Officer who advises the Crematorium Redevelopment Project Board.

The crematorium development project is constrained by an allocated budget which has no provision for land purchase. Therefore certain possible access route options have been ruled out for further consideration. As such, the following possible routes can be discounted for the reasons stated:

- a. Via Prestbury village and Noverton Farm from the north Farm land not owned by the Council
- b. Via Prestbury village and Finchcroft Lane from the north Costs and legal issues associated with need to bridge Noverton brook
- c. Via Oakley Farm housing development from the south Costs and legal issues associated with need to bridge Wyman's brook and complications of traffic flow through Oakley Farm housing estate

Objectives

Provide a comprehensive report, which is able to support any forthcoming planning application, to Cheltenham Borough Council and Willmott Dixon, analysing options for:

- The preferred operational access routes to and from the proposed new crematorium and car park
- Construction traffic haul road (Principal Contractor's temporary Works)
- Reducing Project risk in terms of practical implementation and costs

Scope

Ingress to the proposed new facilities via the existing entrance to the cemetery has always been the preferred operational option. However the options for a permanent egress route are numerous, and the following shall be included and considered in this study. See Diagram 3:

- Utilising existing routes through the cemetery investigating all reasonable alternative routes therein
- Utilising the existing redundant farm track to the southern boundary of the cemetery and investigating all variants thereof
- Utilising existing land within Prior's Farm and the playing field leading from Imjin Road to the south

In conjunction with the operational access route options the study shall investigate and consider the best option for the Contractor's temporary Works construction traffic haul road, taking into account both time and cost to the project delivery programme.

The study shall reference all necessary legislative and regulatory requirements pertaining to roads, civil engineering, trees, conservation restrictions, burials, playing fields, traffic and environmental impact assessments and the like, in order to provide a definitive report that can be used to support future planning application/s.

Constraints

Conceptual plans for the location of the new crematorium and car park. See Willmott Dixon feasibility study.

Deliverables

- 1. A report to the Council and Willmott Dixon setting out:
 - Options considered
 - Assessment against criteria including development and operational costs, timescales and risks

The report should set out in CAD format:

- Road routes
- Road characteristics, including but not limited to, separation; drainage; width; lanes; surface; footpaths; lighting, future adoption; etc.

The report must include

- An assessment of likely traffic volumes taking into account the option to build a second chapel in the future.
- An assessment of likely traffic volumes along local roads.
- Adequate engineering drawings to support the feasibility of the chosen option, including any topographical surveys required.
- 2. A presentation supporting the report to be given to the Council, Willmott Dixon and other relevant parties.

Quality

Options should be evaluated against the following assessment criteria:

- Most positive impact on proposed Crematorium Redevelopment Project budgeted costs
- Least negative impact on Crematorium Redevelopment Project timescales
- Maximise likelihood of planning permission, taking account of the sensitivity of the location; the nearby Area of Outstanding Natural Beauty and public green space aspirations.
- Ability to deal with expected traffic volumes
- Least negative impact on local facilities, e.g. cemetery, sports facilities including paying fields, playground etc.
- Greatest social value through enabling or not constraining flood alleviation schemes; allotment provision; local green space designation and potential for future housing development

Assumptions

It's assumed that local residents will be consulted as part of the planning application process and therefore no public consultation is required during this study.

Report Delivery Timescales

To be agreed with Willmott Dixon and CBC

Reporting

To:

- Cheltenham Borough Council Senior Responsible Officer (Mike Redman)
- Cheltenham Borough Council Senior Property Surveyor (Garrie Dowling)

- Project Principal Contractor (Willmott Dixon)

Stakeholders

- Crematorium Programme Team
- Cabinet Member
- Ward Members
- Cabinet Member Working Group
- Project Design Team (Willmott Dixon / Pick Everard / Roberts Limbrick)
- Cheltenham Borough Council Senior Engineer (Flood Alleviation Scheme lead Officer)
- Cheltenham Borough Council Green Environment Service Manager (Allotments & Playing Fields)
- Cheltenham Borough Council Managing Director (Place and Economic Development)

Attachments

- Willmott Dixon feasibility report (draft)
- Lead Planning Officer's report on Prior's Farm

Site investigation and survey works undertaken to date and available include:

- Topographical surveys of the Cemetery & Crematorium
- Cemetery & Crematorium Heritage statement of significance
- Ecology Surveys (Extended Phase 1 Habitat survey; great crested newt survey; reptile survey; badger survey; bats surveys)
- Arboricultural surveys
- Hydro-geotechnical (Tier 1) survey
- Archaeological survey (Heritage Desk-based assessment and geophysical survey)

Diagram 1 – Location Plan

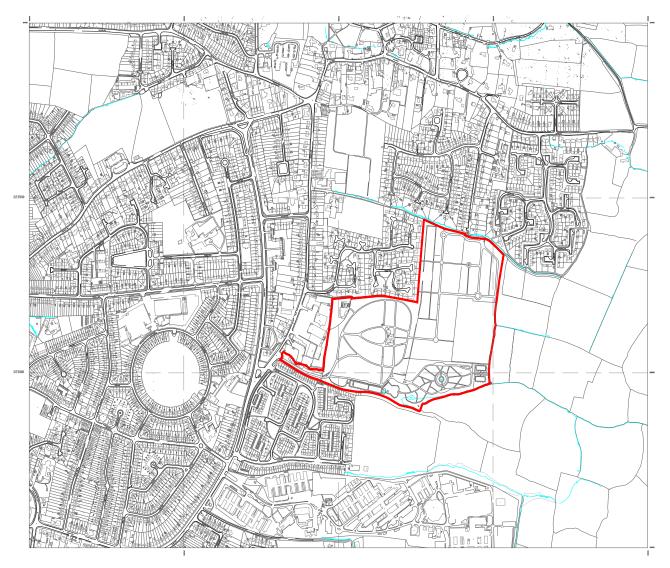


Diagram 2 – Site Plan

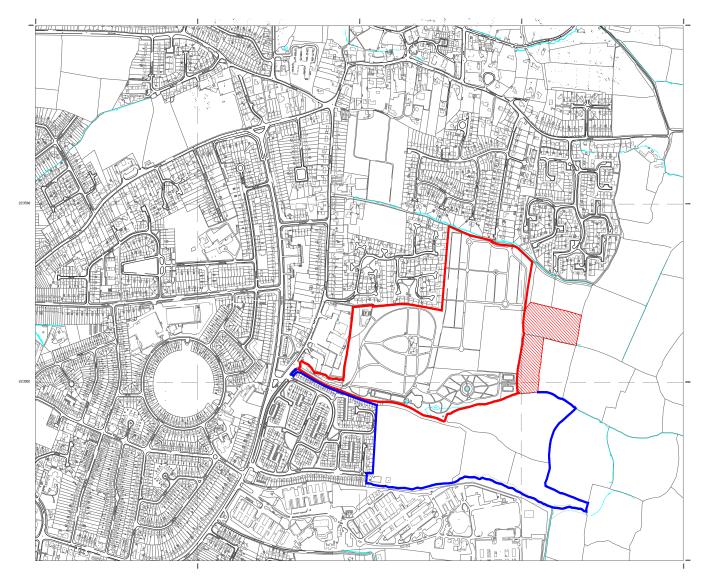
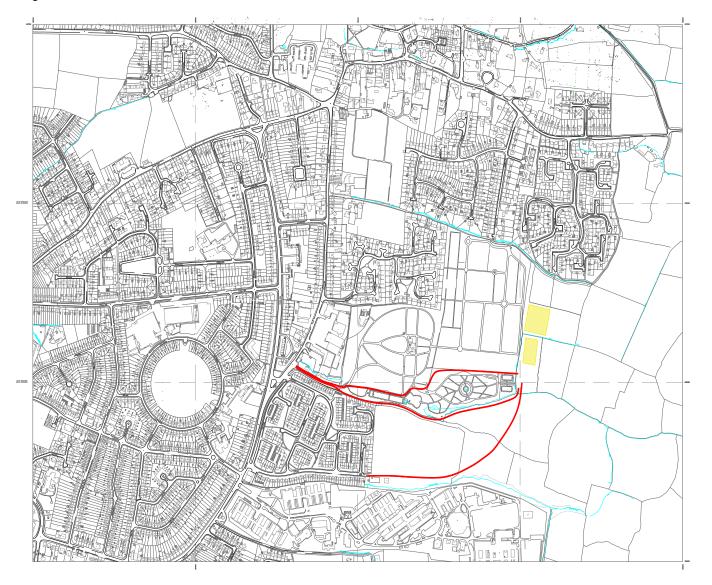


Diagram 3 – Potential Routes



Appendix B

STUDY AREA CONSTRAINTS

APPENDIX B - STUDY AREA CONSTRAINTS

INTRODUCTION

The following Sections consider the existing constraints presented by the overall study area (see Chapter 4 of the main report for individual Route Options opportunities and constraints).

For ease of reference, the site-wide constraints have been split out by discipline (transport, flood risk, ecology, and environmental).

TRANSPORT AND HIGHWAYS

EXTERNAL ROAD NETWORK

There is currently no formal vehicular access arrangement to the proposed development site, other than local field access. As such motorists would rely on either the existing [potentially upgraded] access to the existing Cemetery and Crematorium from Bouncers Lane, a new access assuming use of the existing [upgraded] farm track located to the immediate south of the existing access, or via a new access road linking to Imjin Road further south.

Although it is not anticipated that any additional trips would be generated by the proposals, consideration may need to be given to the potential impacts of any displaced traffic (i.e. to a new route) onto the existing highway network, including at the existing roads and junctions of:

- → B4075 Priors Road;
- \rightarrow Imjin Road;
- → Bouncers Lane;
- → Cheltenham Cemetery and Crematorium / Bouncers Lane priority junction;
- → Bouncers Lane / B4075 Priors Road priority junction;
- → Bouncers Lane / Ladysmith Road priority junction (including Burma Avenue and the existing Farm Track); and
- → B4075 Priors Road / Imjin Road / Whaddon Road crossroads.

The existing road network that serves the residential estate to the south of the existing Cemetery and Crematorium comprises of predominantly residential streets, where there are currently no restrictions on parking. Should any of these streets be used to serve the proposed new Crematorium (in particular by construction traffic) there could be a requirement to restrict parking (so that sufficient width can be achieved for access) which in turn could result in potential displacement of parking onto the wider network. Taking Imjin Road for example, the existing carriageway is between 7.5m and 8m. However, when taking into consideration parking (which currently occurs along both sides of the carriageway) the road width is effectively narrowed to below 4m (which is insufficient to accommodate two-way vehicular movements).

Consideration would also have to be given to the potential safety implications associated with using these routes to access the proposed new Crematorium.

On-site observations of the Farm Track, which skirts the southern boundary of the existing Cemetery and Crematorium indicates that the track is narrow (to the north of the residential dwellings the Farm Track varies in width from 2.5m at its western extent to 1.4m at its eastern extent) and overgrown. Furthermore, the track abuts existing properties to the south. Significant works could be required to upgrade this route to serve the proposed new Crematorium. We understand that CBC control the Farm Track between the existing Cemetery and Crematorium and the northern edge of the residential estates.

INTERNAL ROAD NETWORK

In respect of the internal access roads which currently serve the existing Cemetery and Crematorium, the following constraints have been identified:

- → The existing Cemetery and Crematorium / Bouncers Lane priority junction is informal and lends itself to confusion;
- → The existing gates on entry to the existing Cemetery and Crematorium are not wide enough to accommodate two-way vehicle movements;
- → Part of the access road (between the main entrance and inner gates) is unrestricted; as such parked vehicles can impede access. This is particularly evident during peak periods of operation (i.e. when a service is held);
- → There is only one road which links the older western and newer eastern sections of the existing Cemetery and Crematorium. This route is one-way at present and is lined by numerous graves / stones (which limit the potential for any localised widening works to accommodate future two-way movements); and
- → The existing internal routes, in particular within the older western section of the existing Cemetery and Crematorium are observed to be narrow and in poor condition (the road surface is cracked / breaking up in numerous locations).

For reference, the existing vehicular access and egress routes within the existing Cemetery and Crematorium are illustrated on WSP | Parsons Brinckerhoff drawing **SK-01**.

As detailed above, one of the main constraints to achieving both access and egress internal within the existing Cemetery and Crematorium is the presence of a solitary one-way road which links the older western and newer eastern sections of the existing Cemetery and Crematorium (which is lined by existing gravestones).

FLOOD RISK

As discussed in Chapter 2 of this report, the study has a low flood risk, with flooding predicted to be constrained to the watercourses and immediate surrounds. The overall study area constraints are as follows:

- → Crossings of watercourses, which will require Ordinary Watercourse Consent and/or Environmental Permit applications. Box culverts may be allowed but the impacts on ecology and water quality will have to be discussed with the Lead Local Flood Authority and Environment Agency where appropriate; and
- → Ensuring that the future construction of the Whaddon FAS Scheme is not compromised by the development works.

The latest design drawings for the Whaddon FAS Scheme have been obtained from CBC's consultant's ch2m and overlain with the route options. The location of Whaddon FAS Scheme in relation to the proposed Route Options (considered in Chapter 4 of this report) is shown on WSP | Parsons Brinckerhoff's drawing **SK-03**. As can be seen from the plan over page, all but Route Option A cross the proposed scheme.

For reference and extract of WSP | Parsons Brinckerhoff's drawing (SK-03).

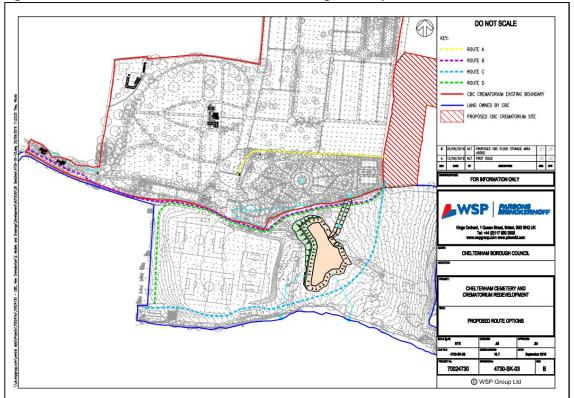


Figure 1 Extract of Flood Alleviation Scheme Drawing with Proposed Routes

ECOLOGY

Between 2015 and 2016, CBC commissioned a number of surveys at the existing Cemetery and Crematorium, which included:

- → Badger Survey (undertaking by Lepus Consulting in July, 2015);
- → Reptile Survey (undertaken by Lepus Consulting in June, 2015);
- → Extended Phase I Habitat Survey (undertaken by Lepus Consulting in April, 2015);
- → Bat Survey (undertake by Aspect Ecology in February, 2016);
- → Great Crested Newt Survey (undertaken by Lepus Consulting in June, 2015); and
- \rightarrow Arboriculture Survey (undertaken by Tree King Consulting in November, 2015).

The following Sections detail the findings of the above-detailed reports.

DESIGNATED SITES AND PROTECTED HABITATS

Designated areas of note include the Cleeve Common SSSI (2.1km north-west) and the Puckham Woods SSSI (3km east).

HABITATS OF PRINCIPLE IMPORTANCE

During the site visit, four Priority Habitats were identified within the study area, comprising of deciduous woodland, running water, standing water and hedgerows.

PROTECTIVE SPECIES

BADGERS

The badger survey identified two badger setts within the existing Cemetery and Crematorium area. These were located in the north west corner of the existing Cemetery and Crematorium (the Nursery sett) and in the south of the existing Cemetery and Crematorium near the entrance to the Garden of Remembrance (the Garden of Remembrance sett). For further details please refer to the Extended Phase 1 Habitat Survey report prepared by Lepus Consulting's

The entire scheme area is considered suitable for use by badgers for foraging, commuting and sett building. Badgers are protected under the Protection of Badgers Act (1992). As such, it is an offence to wilfully take, kill, injure or ill-treat a badger, or possess a dead badger or any part of a badger. Under the Act, their setts are also protected against obstruction, destruction, or damage in any part.

Sett interference includes damaging or destroying a sett, obstructing access to a sett, and disturbing a badger whilst it is occupying a sett. The Act defines a badger sett as 'any structure or place, which displays signs indicating the current use by a badger' and Natural England (NE) takes this definition to include seasonally used setts.

Work that may disturb badgers or their setts or damage or destroy a sett may take place under a licence from the relevant statutory body. In England, licences are administered by NE. This will usually require mitigation measures to be put in place as a condition of the licence.

RIPARIAN SPECIES

Two streams were identified by the Extended Phase 1 Habitat survey. The streams are unknown stream that runs through the centre of the survey area and Wyman Brook, which runs immediately to the south of the survey area. The streams were both observed during the constraints walkover and were both considered suitable to support riparian species (otter (*Lutra lutra*), water vole (*Arvicola amphibius*) and white clawed crayfish (*Austropotamobius pallipes*)).

Water voles are fully protected under the Wildlife and Countryside Act (1981, as amended) (WCA). It is an offence to possess, control or sell water voles or to intentionally or recklessly kill, injure or take water voles. It is also an offence to intentionally or recklessly damage, destroy or obstruct access to a place that water voles use for shelter or protection or disturb water voles whilst using such a place.

Otters are fully protected under Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended)(Conservation Regulations) which defines "European protected species of animals", and also receive partial protection under the WCA.

Taken together the Act and Regulations make it illegal to:

- → deliberately kill, injure or capture otters;
- \rightarrow deliberately disturb otters (whether in a resting place or not);
- \rightarrow damage, destroy or obstruct access to a resting place used by an otter;
- \rightarrow possess or transport an otter or any part of an otter, unless acquired legally; or to
- \rightarrow sell, barter or exchange or advertise for such purposes an otter.

Development activities that could result in impacts on otters should be modified to avoid/minimise the likelihood of an impact occurring in the first instance. If impacts are unavoidable then the works may need to be carried out under a European Protected Species development licence, granted under the Conservation Regulations.

White-clawed crayfish receive partial protection under Schedule 5 of the WCA. This prohibits the taking of any native crayfish for any purpose except under licence. They are listed on Annex II of the European Communities Habitats Directive (1992), which allows sites to be designated based on the species being present.

Otters, water voles and white-clawed crayfish are also Species of Principal Importance in England under Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC).

DORMICE

The habitats within the survey area were considered sub-optimal for dormice (*Muscardinus avellanarius*) as reported within the 2015 Extended Phase 1 Habitat survey by Lepus Consulting. The constraints walkover observed sub-optimal habitat for dormice within the survey area and surrounding landscape.

Dormice are therefore not considered further in this report.

BATS

A bat tree inspection was undertaken in the eastern extent of the survey area, focussing on the area highlighted for the proposed new Crematorium works. In the survey, Aspect Ecology identified several trees with potential to support roosting bats (for further detail please see Aspect Ecology's report).

The constraints walkover noted numerous tress in the south, east, and centre of the survey area that were suitable for roosting bats, although a full assessment was not within the scope of the constraints walkover.

All 18 native UK bat species receive partial protection under Schedule 5 of the WCA. The Countryside and Rights of Way Act 2000 (CRoW) has amended the WCA in England and Wales and this act adds additional enforcement. Barbastelle (*Barbastella barbastellus*), Bechstein's bat (*Myotis bechsteinii*), greater horseshoe bat (*Rhinolophus ferrumequinum*) and lesser horseshoe bat (*Rhinolophus hipposideros*) are also listed on Annex II of the Habitats Directive.

Together this legislation makes it illegal to:

- \rightarrow Deliberately kill, injure or capture bats;
- → Deliberately disturb bats whether in a roost or not, disturbance includes anything that is likely to impair their ability to survive, breed, reproduce or rear their young, or impair their ability to hibernate or migrate;
- → Intentionally or recklessly disturb roosting bats or obstruct access to their roosts;
- \rightarrow Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- \rightarrow Possess or transport a bat or any part of a bat unless acquired legally; and;
- \rightarrow Sell or exchange bats, or parts of bats.

Certain bat species are also Species of Principal Importance in England under Section 41 of the NERC Act. These species need to be taken into consideration by a public body when performing any of its functions. The species are: greater horseshoe bat, lesser horseshoe bat, Bechstein's bat, noctule (*Nyctalus noctula*), soprano pipistrelle (*Pipistrellus pygmaeus*), brown long-eared bat (*Plecotus auritus*) and barbastelle.

BREEDING BIRDS

The survey area (Cheltenham Cemetery and Crematorium) contained numerous areas suitable for breeding birds, in particular areas of deciduous woodland, scrub and tall ruderal vegetation.

All birds, their nests and eggs are protected by the WCA. It is an offence to intentionally kill, injure, or take any wild bird, or take or destroy an egg of any wild bird. It is also an offence to damage or destroy the nest of any wild bird (whilst being built, or in use). Birds listed under Schedule 1 of the WCA are afforded additional protection with regard to intentional or reckless disturbance while nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

REPTILES

The survey area contained numerous areas suitable for reptile, in particular areas of woodland edge, scrub and tall ruderal vegetation to the south and east of the survey area.

The reptile survey was undertaken in the south and east of the survey area. The survey did not identify any reptiles.

The four common reptile species, adder (*Vipera berus*), grass snake (*Natrix natrix*), common lizard (*Zootoca vivipara*) and slow-worm (*Anguis fragilis*), are protected under Schedule 5 of the WCA against intentional killing, injuring and trade. The natural range of the rarer UK reptile species (smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*) does not include Gloucestershire, thus they are not considered further in this assessment.

The widespread reptile species are also listed as Species of Principal Importance in England under Section 41 of the NERC Act.

GREAT CRESTED NEWTS

A survey for great crested newt (*Triturus cristatus*) (GCN) was undertaken of a single pond within the survey area. Several other ponds were identified as suitable for GCN but were scoped out of the 2015 survey by Lepus Consulting. The survey did not identify any GCN.

The constraints walkover identified two ponds that were considered suitable to support GCN.

GCN receive full protection under the Conservation Regulations Schedule 2 and are also partially protected under the WCA Schedule 5. It is illegal to deliberately capture, injure or kill, to intentionally or recklessly disturb, or to deliberately take or destroy the eggs of GCN. It is also illegal to damage, destroy or intentionally or recklessly obstruct access to a breeding or resting place used by GCN. All life stages of GCN are afforded the same level of protection.

INVERTEBRATES (EXCLUDING WHITE CLAWED CRAYFISH)

The habitats observed within the survey area during the ecological constraints walkover were considered unlikely to support a diverse range of invertebrate species (excluding white clawed crayfish).

Invertebrates are therefore not considered further in this report.

FLORA (INCLUDING INVASIVE SPECIES)

No protected or invasive flora species were recorded within the existing Extended Phase 1 report by Lepus Consulting. In addition, no protected or invasive flora species were observed during the ecological constraints walkover. It must be noted however that no targeted invasive species surveys were undertaken; therefore, their absence is not confirmed.

Protected or invasive flora species are not considered further in this report.

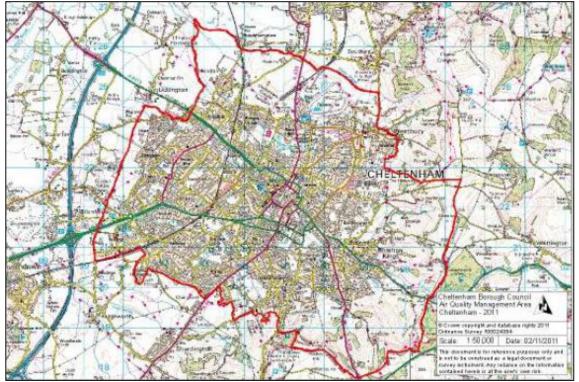
ENVIRONMENTAL

CBC commissioned Justin Ayton Ltd to prepare a Statement of Significance (dated January, 2015) to help formulate long-term plans for the evolution of the existing Cemetery and Crematorium. The report has been used to inform the following sections if this report.

AIR QUALITY

The entire proposed development site falls within an Air Quality management Area (AQMA). The whole borough of Cheltenham was declared an AQMA on the 18^{th} September, 2011, due to heightened levels of Nitrogen dioxide (NO₂) sourced from road traffic. **Figure 2** illustrates the extent of the AQMA in Cheltenham.





There are a number of air quality sensitive receptors located within the vicinity of the overall study area, which include:

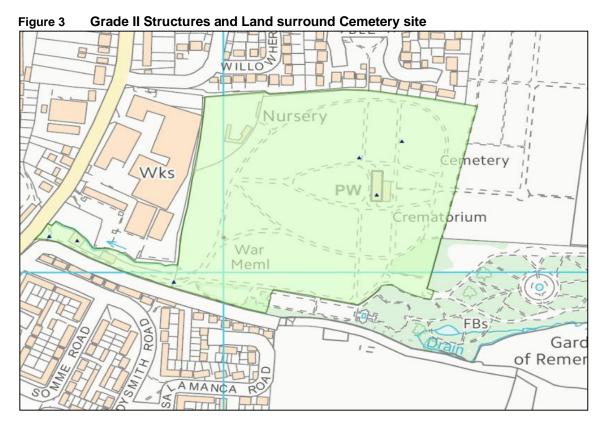
- → Adjacent residential properties and residents; and
- \rightarrow A school is located 250m North West of the Cemetery.

ARCHAEOLOGY AND CULTURAL HERITAGE

In respect of archaeology and cultural heritage:

- → The land adjacent to the existing Cemetery and Crematorium is classified as a Grade II listed park and garden;
- → The two the existing Cemetery and Crematorium Chapels are Grade II listed; and
- → There are also two lodges, and two gateways (including the main entrance) and a tomb on the existing Cemetery and Crematorium grounds, which are all Grade II listed structures.

Figure 3 illustrates (black triangles) the Grade II Structures and Land which surround existing the existing Cemetery and Crematorium.

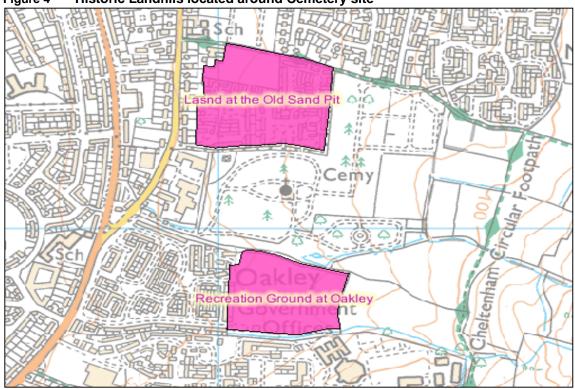


CONTAMINATED LAND

The Environment Agency interactive online map indicates that there are two historic (the exact date of their use is unknown, however it is understood that their last use was likely to be during the Victorian era) landfills in the immediate vicinity of the existing Cemetery and Crematorium.

One is located directly to the north (Land at the Old Sand Pit), while the other is located directly to the south of the existing Cemetery and Crematorium (Recreation Ground at Oakley) which forms part of the study area. For reference, the locations of the landfill sites are illustrated on **Figure 4**.

Figure 4 Historic Landfills located around Cemetery site



LANDSCAPE

The study area is located to the immediate east of a designated Area of Outstanding Natural Beauty (AONB), as illustrated by **Figure 5**.



Figure 5 Illustrative Extent of Area of Outstanding Natural Beauty

NOISE AND VIBRATION

There are a number of noise and vibration sensitive receptors located within 200m of the study area, including the existing residential properties located to the south of the existing Cemetery and Crematorium and to the west of Oakley Playing Fields.

ARBORICULTURE

There are a number of existing trees located within the study area which fall within the following categories:

- \rightarrow Class A: Exceptionally good trees or arboriculture features with >40 years useful safe life.
- \rightarrow Class B: Good trees with a minimum of 20 years useful safe life.
- → Class C: Unremarkable trees of limited merit. Minimum safe life of 10 years.
- \rightarrow Class U: Unsuitable for retention. Likely to have <10 years useful safe life.

The arboriculture survey, previously undertaken by Tree King Consulting, considered the classification and quality of the trees in the vicinity of the proposed vehicular route options. The survey has been used to inform this study.

CBC has confirmed that there are some trees (namely beech trees which are located to the north east of the chapel and adjacent to the rear garden of 6 Blackberry Field) which are subject to Tree Preservation Orders (TPO's). There are no trees with TPO's in the vicinity of the proposed vehicle route options.

It is worth noting however, that there are number of well-established trees, in particular along the southern boundary of the access road (between the main entrance and inner gates), and along the northern boundary of the Gardens of Remembrance.

SOCIAL

To the immediate south of the existing Cemetery and Crematorium, Oakley Playing Fields are designated as recreational ground. In addition, it is worth noting that there is also an existing children's playground located at the southeast boundary of the playing fields.

There is an existing public footpath which skirts the southern boundary of Oakley Playing Fields, and travels through the agricultural fields to the south of the proposed development site.

For reference, the existing public footpath is illustrated on Figure 6.



Figure 6 Indicative Location of Public Footpaths

Appendix C

ATC SURVEY DATA AND SERVICE TIME INFORMATION



Midlands

Haseley Office Centre, Firs Lane, Haseley, Warwick, CV35 7LS

Tel: 01926 485504 Fax: 01926 485537

WSP PARSONS BRINCKERHOFF CHELTENHAM ATC SURVEY

SURVEY REPORT AUGUST 2016

PROJECT NO.	6559
CHECKED	M.NORRIS
DATE	16/08/2016
CONTACT	N. TOONE
REVISION	



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Site Photograph

- Appendix A Vehicle Categories
- Appendix B Automatic Traffic Count Data



INTRODUCTION

Nationwide Data Collection (NDC) was instructed by WSP Parsons Brinckerhoff to undertake an automatic traffic count (ATC) in Cheltenham, Gloucestershire.

A general location plan is given in Diagram 1.

Automatic Traffic Count

The automatic traffic counter (ATC) was installed at the following location:

Site 1: Cheltenham Cemetery access, OSGR: SO 96855 23015

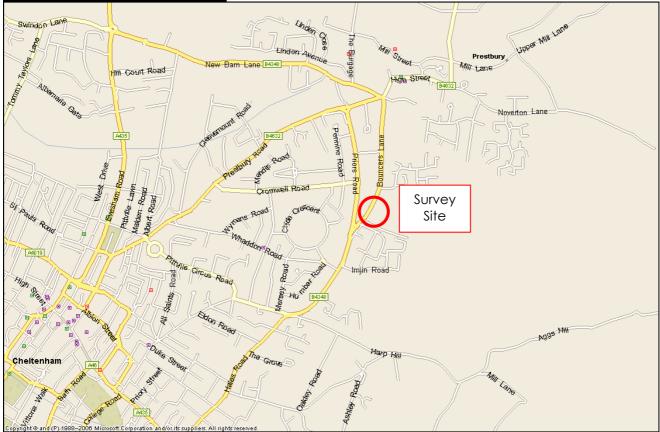
Data Collection

A Metrocount 5600 series automatic traffic counter, attached to pneumatic tubes, was used at the site. The counter was installed for a period of 1 week commencing Saturday 6th August 2016.

The resulting data files have been analysed to produce speed and class data at hourly intervals. Details of the vehicle categories & speed bin classifications are given in Appendix A, and a copy of the data is included in Appendix B.

The data was emailed to Karishma.Khatri@wspgroup.com on Tuesday 16th August.

Diagram 1 – General Location Plan





<u>Site Notes</u>

ATC site notes & Data Quality

The ATC was carried out with no incidents or disruptions likely to affect the results.

Site Photograph





APPENDIX A Vehicle Categories



ATC VEHICLE CATEGORIES

Axles	Groups	Description	C	Class	Parameters	Dominant Vehicle	Aggregate
2	1 or 2	Very Short - Bicycle or Motorcycle	мс	1	d(1)<1.7m & axles=2		
2	1 or 2	Short - Sedan, Wagon, 4WD, Utility, Light Van	SV	2	d(1)>=1.7m, d(1)<=3.2m & axles=2		
3, 4 or 5	3	Short Towing - Trailer, Caravan, Boat, etc.	SVT	3	groups=3, d(1)>=2.1m, d(1)<=3.2m, d(2)>=2.1m & axles=3,4,5		1 (Light)
2	2	Two axle truck or Bus	TB2	4	d(1)>3.2m & axles=2		
3	2	Three axle truck or Bus	TB3	5	axles=3 & groups=2		
>3	2	Four axle truck	T4	6	axles>3 & groups=2		2 (Medium)
3	3	Three axle articulated vehicle or Rigid vehicle and trailer	ART3	7	d(1)>3.2m, axles=3 & groups=3		
4	>2	Four axle articulated vehicle or Rigid vehicle and trailer	ART4	8	d(2)<2.1m or d(1)<2.1m or d(1)>3.2m axles = 4 & groups>2		
5	>2	Five axle articulated vehicle or Rigid vehicle and trailer	ART5	9	d(2)<2.1m or d(1)<2.1m or d(1)>3.2m axles=5 & groups>2	000 00	
>=6	>2	Six (or more) axle articulated vehicle or Rigid vehicle and trailer	ART6	10	axles=6 & groups>2 or axles>6 & groups=3		
>6	4	B-Double or Heavy truck and trailer	BD	11	groups=4 & axles>6		
>6	>=5	Double or triple road train or Heavy truck and two (or more) trailers	DRT	12	groups>=5 & axles>6		3 (Heavy)



ATC SPEED BINS & DATA HEADINGS

Heading	Description
0 - 5	Speed bin totals 0 - 5 mph
5 - 10	Speed bin totals 5 - 10 mph
10-15	Speed bin totals 10 - 15 mph
15 - 20	Speed bin totals 15 - 20 mph
20 - 25	Speed bin totals 20 - 25 mph
25 - 30	Speed bin totals 25 - 30 mph
30 - 35	Speed bin totals 30 - 35 mph
35 - 40	Speed bin totals 35 - 40 mph
40 - 45	Speed bin totals 40 - 45 mph
45 - 50	Speed bin totals 45 - 50 mph
50 - 55	Speed bin totals 50 - 55 mph
55 - 60	Speed bin totals 55 - 60 mph
60 - 65	Speed bin totals 60 - 65 mph
65 - 70	Speed bin totals 65 - 70 mph
70 - 75	Speed bin totals 70 - 75 mph
75 - 80	Speed bin totals 75 - 80 mph
80 - 85	Speed bin totals 80 - 85 mph
85 - 90	Speed bin totals 85 - 90 mph
90 - 95	Speed bin totals 90 - 95 mph
95 - 100	Speed bin totals 95 - 100 mph
100 - 105	Speed bin totals 100 - 105 mph
105 - 110	Speed bin totals 105 - 110 mph
110 - 115	Speed bin totals 110 - 115 mph
115 - 120	Speed bin totals 115 - 120 mph
120 - 125	Speed bin totals 120 - 125 mph
125 - 130	Speed bin totals 125 - 130 mph
130 - 135	Speed bin totals 130 - 135 mph
135 - 140	Speed bin totals 135 - 140 mph

Heading	Description
>PSL	Greater than the posted speed limit
>PSL%	Greater than the posted speed limit as a percentage
>SL1 ACPO	Greater than ACPO (Association of Chief Police Officers) standard. ACPO is PSL x 10%+2mph
>SL1% ACPO	Greater than ACPO displayed as a percentage
>SL2 DfT	Greater than DFT (Department For Transport) standard. DFT is PSL plus 15mph.
>SL2% DfT	Greater than DFT displayed as a percentage
Mean	Average speed
Vpp 85	85th percentile speed



APPENDIX B Automatic Traffic Count Data



Sit No	Location	Direction.	Speed Limit - PSL (mph)	Start Date.	End Date.	Total Vehicles.	5 Day Ave.	7 Day Ave.	No. > Speed Limit.	%. > Speed Limit.	No. > ACPO Limit.	%. > ACPO Limit.	No. > DfT Limit.	%. > DfT Limit.	Mean Speed	85%ile Speed
		Eastbound	15	Sat 06 August 2016	Fri 12 August 2016	2948	468	421	1859	63.1	785	26.6	11	0.4	16.5	20.6
00	Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015	Westbound	15	Sat 06 August 2016	Fri 12 August 2016	2957	470	422	2085	70.5	1014	34.3	21	0.7	17.3	21.7
		Two way	15	Sat 06 August 2016	Fri 12 August 2016	5905	938	844	3944	66.8	1799	30.5	32	0.5	16.9	21.3

001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction Eastbound

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Eastbound
Sat 06 August 2016

Time	Total						Classif	ication						>PSL	>PSL%	>SL1	>\$L1%	>SL2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	_	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	1	0	1	0	0	0	0	0	0	0	0	0	0	1	100	1	100	0	0	21.5	-
0600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0700	7	2	5	0	0	0	0	0	0	0	0	0	0	4	57.1	2	28.6	0	0	14.9	-
0800	8	0	8	0	0	0	0	0	0	0	0	0	0	7	87.5	4	50	0	0	19.9	-
0900	30	0	29	0	1	0	0	0	0	0	0	0	0	27	90	11	36.7	0	0	18.3	22.4
1000	21	0	21	0	0	0	0	0	0	0	0	0	0	18	85.7	8	38.1	0	0	18.4	22.4
1100	39	0	39	0	0	0	0	0	0	0	0	0	0	33	84.6	17	43.6	0	0	18.5	22.6
1200	35	1	33	0	1	0	0	0	0	0	0	0	0	27	77.1	13	37.1	0	0	17.7	21.7
1300	30	0	29	0	1	0	0	0	0	0	0	0	0	28	93.3	16	53.3	1	3.3	20	23.7
1400	24	0	21	0	3	0	0	0	0	0	0	0	0	21	87.5	14	58.3	0	0	19.5	22.4
1500	20	0	19	0	1	0	0	0	0	0	0	0	0	18	90	7	35	0	0	18.4	21.5
1600	20	0	20	0	0	0	0	0	0	0	0	0	0	14	70	7	35	0	0	17.8	21.7
1700	19	1	18	0	0	0	0	0	0	0	0	0	0	17	89.5	12	63.2	0	0	19.1	22.1
1800	12	1	10	0	0	0	1	0	0	0	0	0	0	6	50	2	16.7	0	0	15.1	18.1
1900	4	0	4	0	0	0	0	0	0	0	0	0	0	3	75	3	75	1	25	24.9	-
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2200 2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
		5	252	0	-	0	1	0	0		0	-	0	-	-	113	42.6	-	-	10 4	
07-19	265 269	5	252	0	7	0	1	0	0	0	0	0	0	220 223	83 82.9	113	42.6	1	0.4	18.4 18.5	22.4 22.6
06-22	269	5	256	0	7	0	1	0	0	0	0	0	0	223	82.9	116	43.1	2	0.7	18.5	22.6
00-00	207	5	256	0	7	0	1	0	0	0	0	0	0	223	83	117	43.1	2	0.7	18.5	22.6
00-00	270	Э	23/	0		U		U	U	0	U	U	U	224	63	117	43.3	2	0.7	10.5	22.0



Direction

001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Eastbound
Sun 07 August 2016

Time	Total						Classi	ication						>PSL	>PSL%	>SL1	>\$L1%	>\$L2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	1	0	1	0	0	0	0	0	0	0	0	0	0	1	100	1	100	0	0	25.3	-
0600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0700	5	0	5	0	0	0	0	0	0	0	0	0	0	5	100	1	20	0	0	17	-
0800	21	2	18	0	1	0	0	0	0	0	0	0	0	13	61.9	5	23.8	0	0	16.2	19.7
0900	20	0	20	0	0	0	0	0	0	0	0	0	0	15	75	8	40	1	5	19.1	23.9
1000	40	0	40	0	0	0	0	0	0	0	0	0	0	34	85	14	35	0	0	17.7	20.4
1100	54	0	54	0	0	0	0	0	0	0	0	0	0	46	85.2	26	48.1	0	0	19	22.8
1200	39	3	35	0	0	0	1	0	0	0	0	0	0	31	79.5	16	41	0	0	18.2	21
1300	35	1	33	0	0	1	0	0	0	0	0	0	0	25	71.4	9	25.7	0	0	16.8	19.5
1400	39	1	37	0	1	0	0	0	0	0	0	0	0	28	71.8	12	30.8	0	0	16.7	19.5
1500	25	1	24	0	0	0	0	0	0	0	0	0	0	18	72	7	28	0	0	17.3	21.7
1600	30	3	27	0	0	0	0	0	0	0	0	0	0	20	66.7	9	30	0	0	16.3	21.9
1700	16	2	14	0	0	0	0	0	0	0	0	0	0	11	68.8	6	37.5	0	0	16.4	20.4
1800	7	0	7	0	0	0	0	0	0	0	0	0	0	7	100	5	71.4	0	0	21.3	-
1900	4	0	4	0	0	0	0	0	0	0	0	0	0	4	100	3	75	0	0	21.6	-
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2100 2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
07-19	331	13	314	0	2	1	1	0	0	0	0	0	0	253	76.4	118	35.6	1	0.3	17.6	21
07-19	335	13	314	0	2	1	1	0	0	0	0	0	0	253	76.4	121	35.6 36.1	1	0.3	17.6	21
06-22	335	13	318	0	2	1	1	0	0	0	0	0	0	257	76.7	121	36.1	1	0.3	17.6	21
00-00	335	13	318	0	2	1	1	0	0	0	0	0	0	257	76.8	121	36.3	1	0.3	17.8	21
00-00	330	13	317	U	2	1		U	U	0	U	U	U	200	/0.0	122	30.3	1	0.5	17.7	21.3



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Mon 08 August 2016

Time	Total						Classi	lication						>PSL	>PSL%	>SL1	>\$L1%	>\$L2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	1	0	1	0	0	0	0	0	0	0	0	0	0	1	100	0	0	0	0	15.5	-
0500	1	0	1	0	0	0	0	0	0	0	0	0	0	1	100	0	0	0	0	18	-
0600	1	0	1	0	0	0	0	0	0	0	0	0	0	1	100	1	100	0	0	24.7	-
0700	11	2	9	0	0	0	0	0	0	0	0	0	0	6	54.5	3	27.3	0	0	16.6	21
0800	6	0	6	0	0	0	0	0	0	0	0	0	0	4	66.7	2	33.3	0	0	16.6	-
0900	18	0	17	0	1	0	0	0	0	0	0	0	0	12	66.7	6	33.3	0	0	16.2	19.5
1000	80	1	76	0	3	0	0	0	0	0	0	0	0	57	71.3	24	30	1	1.3	17.2	20.8
1100	59	0	52	0	7	0	0	0	0	0	0	0	0	35	59.3	17	28.8	0	0	16	20.4
1200	50	0	46	0	4	0	0	0	0	0	0	0	0	16	32	1	2	0	0	14.1	16.8
1300	79	2	73	0	4	0	0	0	0	0	0	0	0	25	31.6	9	11.4	0	0	13.1	17.9
1400	49	1	44	0	4	0	0	0	0	0	0	0	0	25	51	8	16.3	0	0	15.1	19.5
1500	22	0	21	0	1	0	0	0	0	0	0	0	0	13	59.1	7	31.8	0	0	17.4	22.4
1600	14	0	12	0	2	0	0	0	0	0	0	0	0	9	64.3	4	28.6	0	0	17.3	20.4
1700	13	1	12	0	0	0	0	0	0	0	0	0	0	10	76.9	4	30.8	0	0	16.8	20.8
1800	13	1	12	0	0	0	0	0	0	0	0	0	0	8	61.5	6	46.2	0	0	16.9	19.9
1900	2	0	2	0	0	0	0	0	0	0	0	0	0	2	100	2	100	0	0	20.5	-
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
07-19	414	8	380	0	26	0	0	0	0	0	0	0	0	220	53.1	91	22	1	0.2	15.6	20.1
06-22	417	8	383	0	26	0	0	0	0	0	0	0	0	223	53.5	94	22.5	1	0.2	15.6	20.1
06-00	417	8	383	0	26	0	0	0	0	0	0	0	0	223	53.5	94	22.5	1	0.2	15.6	20.1
00-00	419	8	385	0	26	0	0	0	0	0	0	0	0	225	53.7	94	22.4	1	0.2	15.6	20.1



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Tue 09 August 2016

Time	Total						Classif	ication						>PSL	>PSL%	>SL1	>\$L1%	>\$L2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.5	-
0600	3	1	2	0	0	0	0	0	0	0	0	0	0	2	66.7	2	66.7	0	0	22.9	-
0700	14	2	10	0	2	0	0	0	0	0	0	0	0	7	50	5	35.7	0	0	15.6	20.8
0800	9	0	9	0	0	0	0	0	0	0	0	0	0	6	66.7	2	22.2	0	0	17.1	-
0900	55	0	52	0	3	0	0	0	0	0	0	0	0	41	74.5	23	41.8	0	0	18.1	21.7
1000	88	2	79	1	6	0	0	0	0	0	0	0	0	63	71.6	23	26.1	0	0	16.9	20.6
1100	110	2	102	0	5	1	0	0	0	0	0	0	0	50	45.5	17	15.5	2	1.8	15.8	19
1200	77	1	70	0	6	0	0	0	0	0	0	0	0	47	61	21	27.3	3	3.9	18.6	20.8
1300	22	0	20	0	2	0	0	0	0	0	0	0	0	15	68.2	3	13.6	0	0	16	18.3
1400	56	1	49	0	5	0	0	1	0	0	0	0	0	32	57.1	13	23.2	0	0	15.4	20.6
1500	33	1	30	0	1	1	0	0	0	0	0	0	0	18	54.5	6	18.2	0	0	15.2	19.2
1600	12	1	10	0	1	0	0	0	0	0	0	0	0	7	58.3	2	16.7	0	0	15.5	18.1
1700	13	3	10	0	0	0	0	0	0	0	0	0	0	8	61.5	4	30.8	0	0	16.2	20.6
1800	11	0	11	0	0	0	0	0	0	0	0	0	0	9	81.8	6	54.5	0	0	18.8	21.5
1900	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.2	-
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
07-19	500	13	452	1	31	2	0	1	0	0	0	0	0	303	60.6	125	25	5	1	16.7	20.6
06-22	504	14	455	1	31	2	0	1	0	0	0	0	0	305	60.5	127	25.2	5	1	16.7	20.6
06-00	504	14	455	1	31	2	0	1	0	0	0	0	0	305	60.5	127	25.2	5	1	16.7	20.6
00-00	505	14	456	1	31	2	0	1	0	0	0	0	0	305	60.4	127	25.1	5	1	16.7	20.6



Direction

001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Wed 10 August 2016

Eastbound

Time	Total						Classi	fication						>PSL	>PSL%	>SL1	>\$L1%	>\$L2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.4	-
0600	2	1	1	0	0	0	0	0	0	0	0	0	0	2	100	0	0	0	0	15.1	-
0700	13	3	10	0	0	0	0	0	0	0	0	0	0	9	69.2	6	46.2	0	0	17.6	19.9
0800	13	1	11	0	1	0	0	0	0	0	0	0	0	9	69.2	4	30.8	0	0	17.6	23.5
0900	24	0	23	0	1	0	0	0	0	0	0	0	0	17	70.8	9	37.5	0	0	17.2	20.4
1000	58	0	58	0	0	0	0	0	0	0	0	0	0	42	72.4	21	36.2	0	0	17.6	21
1100	54	0	49	0	5	0	0	0	0	0	0	0	0	34	63	13	24.1	0	0	16.3	20.8
1200	31	1	29	0	1	0	0	0	0	0	0	0	0	22	71	9	29	0	0	16.7	20.8
1300	63	2	55	0	6	0	0	0	0	0	0	0	0	26	41.3	12	19	0	0	15	19.2
1400	102	2	95	0	5	0	0	0	0	0	0	0	0	38	37.3	5	4.9	0	0	14.4	17.2
1500	32	1	30	0	1	0	0	0	0	0	0	0	0	16	50	3	9.4	0	0	14.5	18.1
1600	22	2	18	0	2	0	0	0	0	0	0	0	0	14	63.6	7	31.8	0	0	16.4	20.4
1700	17	2	15	0	0	0	0	0	0	0	0	0	0	9	52.9	4	23.5	0	0	15.3	19
1800	12	0	12	0	0	0	0	0	0	0	0	0	0	7	58.3	4	33.3	0	0	17.6	21.5
1900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
07-19	441	14	405	0	22	0	0	0	0	0	0	0	0	243	55.1	97	22	0	0	15.9	19.9
06-22	443	15	406	0	22	0	0	0	0	0	0	0	0	245	55.3	97	21.9	0	0	15.9	19.9
06-00	443	15	406	0	22	0	0	0	0	0	0	0	0	245	55.3	97	21.9	0	0	15.9	19.9
00-00	444	15	407	0	22	0	0	0	0	0	0	0	0	245	55.2	97	21.8	0	0	15.9	19.7



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Thu 11 August 2016

Time	Total						Classi	fication						>PSL	>PSL%	>SL1	>\$L1%	>\$L2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13.2	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	2	1	1	0	0	0	0	0	0	0	0	0	0	1	50	0	0	0	0	15.9	-
0700	10	2	8	0	0	0	0	0	0	0	0	0	0	6	60	2	20	1	10	17.4	-
0800	9	0	8	0	1	0	0	0	0	0	0	0	0	7	77.8	4	44.4	0	0	18.3	-
0900	14	0	13	0	1	0	0	0	0	0	0	0	0	11	78.6	3	21.4	0	0	16.7	19.9
1000	37	0	36	0	1	0	0	0	0	0	0	0	0	23	62.2	8	21.6	0	0	16.5	20.8
1100	92	1	85	0	6	0	0	0	0	0	0	0	0	52	56.5	15	16.3	1	1.1	14.9	19
1200	54	1	51	0	2	0	0	0	0	0	0	0	0	36	66.7	8	14.8	0	0	15.7	18.3
1300	64	2	60	0	2	0	0	0	0	0	0	0	0	36	56.3	10	15.6	0	0	15.5	18.6
1400	83	3	79	0	1	0	0	0	0	0	0	0	0	29	34.9	10	12	0	0	13.9	18.1
1500	25	0	23	0	2	0	0	0	0	0	0	0	0	19	76	9	36	0	0	17.5	21
1600	18	1	17	0	0	0	0	0	0	0	0	0	0	12	66.7	4	22.2	0	0	16.3	19.2
1700	10	1	8	0	1	0	0	0	0	0	0	0	0	7	70	4	40	0	0	16.6	-
1800	9	0	9	0	0	0	0	0	0	0	0	0	0	7	77.8	4	44.4	0	0	17.5	-
1900	3	1	2	0	0	0	0	0	0	0	0	0	0	1	33.3	1	33.3	0	0	14.5	-
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
07-19	425	11	397	0	17	0	0	0	0	0	0	0	0	245	57.6	81	19.1	2	0.5	15.5	19.5
06-22	430	13	400	0	17	0	0	0	0	0	0	0	0	247	57.4	82	19.1	2	0.5	15.5	19.5
06-00	430	13	400	0	17	0	0	0	0	0	0	0	0	247	57.4	82	19.1	2	0.5	15.5	19.5
00-00	431	13	401	0	17	0	0	0	0	0	0	0	0	247	57.3	82	19	2	0.5	15.5	19.5



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Fri 12 August 2016

Time	Total						Classi	fication						>PSL	>PSL%	>SL1	>\$L1%	>SL2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.4	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.9	-
0700	11	3	8	0	0	0	0	0	0	0	0	0	0	7	63.6	6	54.5	0	0	18.4	22.8
0800	13	0	13	0	0	0	0	0	0	0	0	0	0	11	84.6	7	53.8	0	0	19	22.8
0900	97	0	94	0	3	0	0	0	0	0	0	0	0	68	70.1	20	20.6	0	0	16.4	19.2
1000	113	2	104	0	7	0	0	0	0	0	0	0	0	73	64.6	25	22.1	0	0	16.2	19.5
1100	49	2	41	0	5	0	0	1	0	0	0	0	0	27	55.1	13	26.5	0	0	14.8	20.6
1200	42	1	38	0	3	0	0	0	0	0	0	0	0	32	76.2	18	42.9	0	0	18.7	22.8
1300	55	4	45	0	6	0	0	0	0	0	0	0	0	31	56.4	16	29.1	0	0	15.7	20.1
1400	84	0	81	0	3	0	0	0	0	0	0	0	0	52	61.9	19	22.6	0	0	15.6	20.1
1500	22	0	21	0	1	0	0	0	0	0	0	0	0	16	72.7	8	36.4	0	0	17.3	21.9
1600	21	0	20	0	1	0	0	0	0	0	0	0	0	17	81	7	33.3	0	0	17.6	20.1
1700	14	1	13	0	0	0	0	0	0	0	0	0	0	9	64.3	4	28.6	0	0	16.7	19.5
1800	19	3	16	0	0	0	0	0	0	0	0	0	0	12	63.2	3	15.8	0	0	15.9	18.1
1900	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.4	-
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	540	16	494	0	29	0	0	1	0	0	0	0	0	355	65.7	146	27	0	0	16.4	20.4
06-22	542	17	495	0	29	0	0	1	0	0	0	0	0	355	65.5	146	26.9	0	0	16.3	20.4
06-00	542	17	495	0	29	0	0	1	0	0	0	0	0	355	65.5	146	26.9	0	0	16.3	20.4
00-00	543	17	496	0	29	0	0	1	0	0	0	0	0	355	65.4	146	26.9	0	0	16.3	20.4



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Virtual Day (7)

Time	Total						Classi	fication						>PSL	>PSL%	>SL1	>\$L1%	>SL2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33.3	0	0	0	0	14.3	-
0500	1	0	1	0	0	0	0	0	0	0	0	0	0	0	60	0	40	0	0	18.5	-
0600	1	0	1	0	0	0	0	0	0	0	0	0	0	1	66.7	0	33.3	0	0	18.6	-
0700	10	2	8	0	0	0	0	0	0	0	0	0	0	6	62	4	35.2	0	1.4	16.8	21
0800	11	0	10	0	0	0	0	0	0	0	0	0	0	8	72.2	4	35.4	0	0	17.6	23.5
0900	37	0	35	0	1	0	0	0	0	0	0	0	0	27	74	11	31	0	0.4	17.3	20.6
1000	62	1	59	0	2	0	0	0	0	0	0	0	0	44	70.9	18	28.1	0	0.2	17	20.6
1100	65	1	60	0	4	0	0	0	0	0	0	0	0	40	60.6	17	25.8	0	0.7	16.2	20.6
1200	47	1	43	0	2	0	0	0	0	0	0	0	0	30	64.3	12	26.2	0	0.9	17.1	20.8
1300	50	2	45	0	3	0	0	0	0	0	0	0	0	27	53.4	11	21.6	0	0.3	15.4	19.7
1400	62	1	58	0	3	0	0	0	0	0	0	0	0	32	51.5	12	18.5	0	0	15.2	19.2
1500	26	0	24	0	1	0	0	0	0	0	0	0	0	17	65.9	7	26.3	0	0	16.6	21
1600	20	1	18	0	1	0	0	0	0	0	0	0	0	13	67.9	6	29.2	0	0	16.8	20.4
1700	15	2	13	0	0	0	0	0	0	0	0	0	0	10	69.6	5	37.3	0	0	16.8	20.6
1800	12	1	11	0	0	0	0	0	0	0	0	0	0	8	67.5	4	36.1	0	0	17.2	21.5
1900	2	0	2	0	0	0	0	0	0	0	0	0	0	1	66.7	1	60	0	6.7	19.2	-
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
07-19	417	11	385	0	19	0	0	0	0	0	0	0	0	263	63.1	110	26.4	1	0.3	16.4	20.6
06-22	420	12	388	0	19	0	0	0	0	0	0	0	0	265	63.1	112	26.6	2	0.4	16.5	20.6
06-00	420	12	388	0	19	0	0	0	0	0	0	0	0	265	63.1	112	26.6	2	0.4	16.5	20.6
00-00	421	12	389	0	19	0	0	0	0	0	0	0	0	266	63.1	112	26.6	2	0.4	16.5	20.6



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Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction Eastbound

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Eastbound Virtual Week (1)

Time	Total	vinoar v	reek (1)				Classif	ication						>PSL	>PSL%	>SL1	>SL1%	>SL2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30	moun	85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
Mon	419	8	385	0	26	0	0	0	0	0	0	0	0	225	53.7	94	22.4	1	0.2	15.6	20.1
Tue	505	14	456	1	31	2	0	1	0	0	0	0	0	305	60.4	127	25.1	5	1	16.7	20.6
Wed	444	15	407	0	22	0	0	0	0	0	0	0	0	245	55.2	97	21.8	0	0	15.9	19.7
Thu	431	13	401	0	17	0	0	0	0	0	0	0	0	247	57.3	82	19	2	0.5	15.5	19.5
Fri	543	17	496	0	29	0	0	1	0	0	0	0	0	355	65.4	146	26.9	0	0	16.3	20.4
Sat	270	5	257	0	7	0	1	0	0	0	0	0	0	224	83	117	43.3	2	0.7	18.5	22.6
Sun	336	13	319	0	2	1	1	0	0	0	0	0	0	258	76.8	122	36.3	1	0.3	17.7	21.3
5 Day Ave.	468	13	429	0	25	0	0	0	0	0	0	0	0	275	58.8	109	23.3	2	0.4	16.0	20.1
7 Day Ave.	421	12	389	0	19	0	0	0	0	0	0	0	0	266	63.1	112	26.6	2	0.4	16.5	20.6
	2948	85	2721	1	134	3	2	2	0	0	0	0	0	1859	63.1	785	26.6	11	0.4	16.5	20.6
Summary Graphs		50 40 00 of Cehicles 30 20 10	00 00 00										BD ART6 ART5 ART4 ART3 T4 TB3 TB2 SVT								Mean 35%ile >PSL% >SL1% >SL2%
			0 - Mon	Tue	Wed	- Thu		- Sat	Sun	Ave.	5 Ave.		SV MCL		0 + Mon	Tue	Thu		5 Day Ave.	7 Day Ave.	



Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction Eastbound

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Eastbound
Sat 06 August 2016

001

Time	Total													Spe	ed Bin	s (mpł	ו)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 -						130 -	
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	-	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	7	0	2	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	8	0	0	1	4	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	30	0	0	3	19	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	21	0	0	3	11	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	39	0	2	4	19	11	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	35	0	2	6	16	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	30	0	0	2	14	12	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	24	0	0	3	10	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	20	0	0	2	13	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600 1700	20 19	0	0	6	8	5 9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	19	0	1	4		9 2	1 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	4	0	2	4	4	2 1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	265	0	9	36	128	78	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-22	269	0	9	37	128	78	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-00	269	0	9	37	128	79	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	270	0	, 9	37	128	80	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	2/0	0	7	37	120	00	14	4	0	0	U	0	U	0	0	0	U	0	0	0	0	0	0	0	0	0	0	0	0



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction Eastbound

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Eastbound Sun 07 August 2016

Time	Total													Spe	ed Bin	s (mpł	ו)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 -		110 -				130 -	
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	5	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	21	0	1	7	11	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	20	0	0	5	9	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	40	0	1	5	25	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	54	0	0	8	25	19	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	39	0	1	7	18	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	35	0	1	9	22	2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	39	0	1	10	24	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	25	0	1	6	11	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	30	0	3	7	12	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	16	0	2	3	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800 1900	7	0	0	0	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	4	0	0	0	0		1	0	-	0	0	0	0	0	-	-	0	0	0	0	-	0	-	0	0	0	-	0	-
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	331	0	11	67	170	71	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-22	335	0	11	67	170	73	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-00	335	0	11	67	171	73	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	336	0	11	67	171	73	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	330	0	11	0/	171	13	13		U	U	U	0	U	0	0	U	0	0	0	U	0	0	0	0	0	0	0	0	0



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Mon 08 August 2016

Time	Total													Spe	ed Bin	s (mpł	ו)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 -						130 -	
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	11	0	1	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	6	0	0	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	18	0	2	4	9	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	80	0	0	23	40	16	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	59	0	8	16	24	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	50	0	3	31	15		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	79	3	19	32	16	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	49	0	5	19	19	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	22	0	0	9	8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	14	0	1	4	6		2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	13	1	1	1	7	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	13	0	1	4	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000 2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19		-	-		-	-	-		-				-				-			-	-					-			
06-22	414	4	41	149	155	59	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	-	4	41	149	155	62	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-00	417	4	41	149	155	62	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	419	4	41	149	157	62	5	I	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction Eastbound

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Eastbound Tue 09 August 2016

Time	Total													Spe	ed Bin	s (mpł	ו)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 -			115 -				
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	3	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	14	0	3	4	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	9	0	0	3	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	55	0	0	14	25	15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	88	0	7	18	45	16	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	110	0	8	52	37	10	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	77	0	3	27	31	13	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
1300	22	0	1	6	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	56	0	12	12	22	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	33	0	6	9	14	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	12	0	1	4	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	13	0	2	3	4	3		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	11	0	0	2	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	500	0	43	154	208	81	9	0	0	0	2	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
06-22	504	0	43	156	208	81	11	0	0	0	2	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
06-00	504	0	43	156	208	81	11	0	0	0	2	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
00-00	505	0	43	157	208	81	11	0	0	0	2	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Wed 10 August 2016

Time	Total													Spe	ed Bin	s (mpł	ו)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 -	105 -	110 -	115 -		125 -	130 -	135 -
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	13	0	0	4	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	13	0	1	3	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	24	0	1	6	11	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	58	0	0	16	27	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	54	0	6	14	23	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	31	0	2	7	16	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	63	0	5	32	18	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	102	0	4	60	36	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	32	0	6	10	13	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	22	0	1	7	10	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	17	0	2	6	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	12	0	0	5	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	441	0	28	170	176	62	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-22	443	0	28	170	178	62	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-00	443	0	28	170	178	62	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	444	0	28	171	178	62	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Thu 11 August 2016

Time	Total													Spe	ed Bin	s (mpł	ו)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 -			115 -				
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	10	0	1	3	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	9	0	0	2	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	14	0	0	3	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	37	0	4	10	15	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	92	1	16	23	43	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	54	0	2	16	30	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	64	0	4	24	31	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	83	0	9	45	24	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	25	0	1	5	13	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	18	0	2	4	10	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	10	0	1	2	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	9	0	0	2	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	3	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	425	1	40	139	196	40	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-22	430	1	41	141	197	41	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-00	430	1	41	141	197	41	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	431	1	41	142	197	41	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction Eastbound

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Eastbound Fri 12 August 2016

Time	Total													Spe	ed Bin	s (mpł	ו)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 -			115 -				
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	11	0	1	3	2	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	13	0	0	2	4	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	97	0	4	25	58	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	113	1	4	35	59	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	49	2	12	8	17	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	42	0	0	10	16	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	55	1	7	16	22	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	84	0	13	19	38	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	22	0	0	6	9	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	21	0	0	4	12	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	14	0	1	4	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	19	0	3	4	10	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	540	4	45	136	255	89	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-22	542	4	46	137	255	89	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-00	542	4	46	137	255	89	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	543	4	46	138	255	89	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction Eastbound

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Eastbound Virtual Day (7)

Time	Total													Spe	ed Bin	s (mpł	ו)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 -	105 -		115 -				135 -
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	10	0	1	3	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	11	0	0	3	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	37	0	1	9	20	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	62	0	2	16	32	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	65	0	7	18	27	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	47	0	2	15	20	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	50	1	5	17	19	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	62	0	6	24	25	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	26	0	2	7	12	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	20	0	1	5	9	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	15	0	1	3	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	12	0	1	3	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	417	1	31	122	184	69	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-22	420	1	31	122	185	70	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-00	420	1	31	122	185	70	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	421	1	31	123	185	70	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction Eastbound

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Eastbound Virtual Week (1)

	0 - (5 -													s (mpł	•												
			10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -		100 -					125 -		
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
		41			62	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					81		0	0	0	2	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
					62				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
					41				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
																												0
							2			0		0							0			0	0					0
5			67			13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			151		67	8	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
		31	123	185	70	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	9	219	861	1294	488	66	6	0	0	2	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
	and a contraction of the second se	200 A concession 150 100 50		5 - 10	10-15		20 - 25	- 30 - 35 - 25 - 30	35 - 40	- 40 - 45	- 45 - 50		- 60 - 65	65 - 70		- 75 - 80	- 85 - 90	90 - 95	- 95 - 100	100 - 105	- 105 110	- 115 - 120	- 120 - 125	125 - 130	130 - 135	135 - 140	 M. Tu W. Th Fri IS IS 	ed Ju Sat
5 4 1 3 0 5 3		4 0 1 4 0 0 2 1 9	4 41 0 43 0 28 1 41 4 46 0 9 0 11 2 40 1 31 9 219 300 250 septimized 300 250 50 9 150 9 150 9 150 9 150 9 150 9 150 9 150 9 150 9 150 9 150 9 150 9 150 9 100 50 50	4 41 149 0 43 157 0 28 171 1 41 142 4 46 138 0 9 37 0 11 67 2 40 151 1 31 123 9 219 861 300 signification of the second of the	$\left[\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	4 41 149 157 62 5 1 0<	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$								

001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction Westbound

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Westbound
Sat 06 August 2016

Time	Total						Classi	ication						>PSL	>PSL%	>SL1	>\$L1%	>\$L2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	1	0	1	0	0	0	0	0	0	0	0	0	0	1	100	0	0	0	0	18	-
0700	4	0	4	0	0	0	0	0	0	0	0	0	0	3	75	2	50	0	0	19.4	-
0800	6	0	6	0	0	0	0	0	0	0	0	0	0	4	66.7	3	50	0	0	19.4	-
0900	19	0	19	0	0	0	0	0	0	0	0	0	0	15	78.9	6	31.6	0	0	17.9	20.1
1000	26	0	25	0	1	0	0	0	0	0	0	0	0	18	69.2	6	23.1	0	0	16.4	19.5
1100	35	1	34	0	0	0	0	0	0	0	0	0	0	29	82.9	18	51.4	0	0	19	24.8
1200	41	0	41	0	0	0	0	0	0	0	0	0	0	36	87.8	17	41.5	1	2.4	19.7	25.7
1300	23	0	23	0	0	0	0	0	0	0	0	0	0	20	87	11	47.8	1	4.3	20.4	25.7
1400	25	0	23	0	2	0	0	0	0	0	0	0	0	23	92	13	52	1	4	19.6	22.1
1500	25	0	22	0	3	0	0	0	0	0	0	0	0	23	92	16	64	0	0	20.5	23.5
1600	22	0	21	0	1	0	0	0	0	0	0	0	0	19	86.4	8	36.4	0	0	18.4	21.5
1700	20	1	19	0	0	0	0	0	0	0	0	0	0	18	90	13	65	0	0	20.1	24.2
1800	11	0	11	0	0	0	0	0	0	0	0	0	0	7	63.6	5	45.5	0	0	18.2	24.4
1900	9	1	8	0	0	0	0	0	0	0	0	0	0	4	44.4	4	44.4	1	11.1	19	-
2000	1	0	1	0	0	0	0	0	0	0	0	0	0	1	100	1	100	0	0	25.6	-
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
07-19	257	2	248	0	7	0	0	0	0	0	0	0	0	215	83.7	118	45.9	3	1.2	19.1	23.9
06-22	268	3	258	0	7	0	0	0	0	0	0	0	0	221	82.5	123	45.9	4	1.5	19.1	24.2
06-00	268	3	258	0	7	0	0	0	0	0	0	0	0	221	82.5	123	45.9	4	1.5	19.1	24.2
00-00	268	3	258	0	7	0	0	0	0	0	0	0	0	221	82.5	123	45.9	4	1.5	19.1	24.2



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Sun 07 August 2016

Westbound

Time	Total						Classif	ication						>PSL	>PSL%	>SL1	>\$L1%	>SL2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	S۷	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.6	-
0700	2	0	2	0	0	0	0	0	0	0	0	0	0	1	50	1	50	0	0	16.6	-
0800	10	1	9	0	0	0	0	0	0	0	0	0	0	9	90	4	40	0	0	19.3	-
0900	26	1	23	0	2	0	0	0	0	0	0	0	0	21	80.8	9	34.6	0	0	17.5	21
1000	30	0	30	0	0	0	0	0	0	0	0	0	0	28	93.3	18	60	0	0	19.5	25.3
1100	43	0	42	0	1	0	0	0	0	0	0	0	0	40	93	19	44.2	0	0	19.5	24.2
1200	50	3	47	0	0	0	0	0	0	0	0	0	0	44	88	26	52	0	0	19.6	24.2
1300	38	0	37	0	1	0	0	0	0	0	0	0	0	26	68.4	13	34.2	0	0	17.8	22.1
1400	31	2	28	0	0	0	1	0	0	0	0	0	0	17	54.8	7	22.6	0	0	15.8	19
1500	36	1	34	0	1	0	0	0	0	0	0	0	0	31	86.1	11	30.6	1	2.8	18.2	20.1
1600	25	0	25	0	0	0	0	0	0	0	0	0	0	18	72	7	28	0	0	17.1	20.6
1700	28	4	24	0	0	0	0	0	0	0	0	0	0	23	82.1	11	39.3	0	0	17.9	21.7
1800	12	1	11	0	0	0	0	0	0	0	0	0	0	12	100	7	58.3	1	8.3	20.4	22.8
1900	7	0	7	0	0	0	0	0	0	0	0	0	0	5	71.4	5	71.4	0	0	19	-
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
07-19	331	13	312	0	5	0	1	0	0	0	0	0	0	270	81.6	133	40.2	2	0.6	18.4	22.6
06-22	339	13	320	0	5	0	1	0	0	0	0	0	0	275	81.1	138	40.7	2	0.6	18.4	22.8
06-00	339	13	320	0	5	0	1	0	0	0	0	0	0	275	81.1	138	40.7	2	0.6	18.4	22.8
00-00	339	13	320	0	5	0	1	0	0	0	0	0	0	275	81.1	138	40.7	2	0.6	18.4	22.8



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction Westbound

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Westbound Mon 08 August 2016

Time	Total						Classif	ication						>PSL	>PSL%	>SL1	>\$L1%	>SL2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	S۷	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	_	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	2	0	2	0	0	0	0	0	0	0	0	0	0	2	100	1	50	0	0	19.2	-
0700	1	0	1	0	0	0	0	0	0	0	0	0	0	1	100	1	100	0	0	19.7	-
0800	3	0	3	0	0	0	0	0	0	0	0	0	0	1	33.3	1	33.3	0	0	15.6	-
0900	11	0	10	0	1	0	0	0	0	0	0	0	0	6	54.5	3	27.3	0	0	15.5	19.2
1000	28	2	25	0	1	0	0	0	0	0	0	0	0	24	85.7	10	35.7	1	3.6	18.7	21.7
1100	47	0	44	0	3	0	0	0	0	0	0	0	0	36	76.6	16	34	0	0	17.8	21.9
1200	90	2	80	0	8	0	0	0	0	0	0	0	0	66	73.3	28	31.1	1	1.1	17.2	19.9
1300	55	2	51	0	2	0	0	0	0	0	0	0	0	38	69.1	14	25.5	0	0	16.6	19.7
1400	78	1	71	0	5	0	0	0	0	0	1	0	0	49	62.8	19	24.4	0	0	16.4	20.6
1500	38	0	34	0	4	0	0	0	0	0	0	0	0	31	81.6	13	34.2	0	0	17.8	20.8
1600	39	2	37	0	0	0	0	0	0	0	0	0	0	32	82.1	18	46.2	0	0	18.7	22.6
1700	17	1	15	0	1	0	0	0	0	0	0	0	0	13	76.5	8	47.1	1	5.9	19	26.2
1800	14	1	13	0	0	0	0	0	0	0	0	0	0	11	78.6	7	50	0	0	19.4	25.3
1900	9	1	8	0	0	0	0	0	0	0	0	0	0	6	66.7	4	44.4	0	0	17.7	-
2000	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.1	-
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
07-19	421	11	384	0	25	0	0	0	0	0	1	0	0	308	73.2	138	32.8	3	0.7	17.4	21.3
06-22	433	13	394	0	25	0	0	0	0	0	1	0	0	316	73	143	33	3	0.7	17.4	21.3
06-00	433	13	394	0	25	0	0	0	0	0	1	0	0	316	73	143	33	3	0.7	17.4	21.3
00-00	433	13	394	0	25	0	0	0	0	0	1	0	0	316	73	143	33	3	0.7	17.4	21.3



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Tue 09 August 2016

Westbound

Time	Total						Classi	ication						>PSL	>PSL%	>SL1	>\$L1%	>\$L2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0600	1	0	1	0	0	0	0	0	0	0	0	0	0	1	100	1	100	1	100	32.7	-
0700	5	0	5	0	0	0	0	0	0	0	0	0	0	5	100	2	40	0	0	18.7	-
0800	7	0	5	0	2	0	0	0	0	0	0	0	0	4	57.1	1	14.3	0	0	15.5	-
0900	17	0	16	0	1	0	0	0	0	0	0	0	0	15	88.2	12	70.6	0	0	20.3	23.5
1000	34	1	30	0	3	0	0	0	0	0	0	0	0	27	79.4	14	41.2	0	0	18.9	23.7
1100	103	1	98	0	3	1	0	0	0	0	0	0	0	72	69.9	33	32	0	0	17.3	21.3
1200	99	2	91	0	5	1	0	0	0	0	0	0	0	73	73.7	37	37.4	1	1	17.8	22.1
1300	79	0	73	0	6	0	0	0	0	0	0	0	0	57	72.2	25	31.6	0	0	17.1	20.4
1400	45	0	41	0	3	1	0	0	0	0	0	0	0	31	68.9	9	20	0	0	17	20.4
1500	46	1	41	1	3	0	0	0	0	0	0	0	0	35	76.1	10	21.7	0	0	16.8	19.2
1600	26	2	21	0	3	0	0	0	0	0	0	0	0	16	61.5	8	30.8	1	3.8	17.1	22.8
1700	15	1	13	0	1	0	0	0	0	0	0	0	0	10	66.7	8	53.3	1	6.7	19.2	23.7
1800	11	1	10	0	0	0	0	0	0	0	0	0	0	9	81.8	3	27.3	0	0	17	19
1900	7	1	6	0	0	0	0	0	0	0	0	0	0	4	57.1	2	28.6	0	0	17.4	-
2000	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.8	-
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
07-19	487	9	444	1	30	3	0	0	0	0	0	0	0	354	72.7	162	33.3	3	0.6	17.5	21.5
06-22	496	11	451	1	30	3	0	0	0	0	0	0	0	359	72.4	165	33.3	4	0.8	17.5	21.5
06-00	496	11	451	1	30	3	0	0	0	0	0	0	0	359	72.4	165	33.3	4	0.8	17.5	21.5
00-00	496	11	451	1	30	3	0	0	0	0	0	0	0	359	72.4	165	33.3	4	0.8	17.5	21.5



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Wed 10 August 2016

Westbound

Time	Total						Classif	ication						>PSL	>PSL%	>SL1	>\$L1%	>SL2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.1	-
0600	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11.1	-
0700	2	1	1	0	0	0	0	0	0	0	0	0	0	1	50	0	0	0	0	15.1	-
0800	8	1	6	0	1	0	0	0	0	0	0	0	0	5	62.5	4	50	0	0	17.6	-
0900	11	0	10	0	1	0	0	0	0	0	0	0	0	8	72.7	5	45.5	0	0	20.1	25.1
1000	29	0	29	0	0	0	0	0	0	0	0	0	0	25	86.2	15	51.7	0	0	19.2	24.6
1100	50	0	48	0	2	0	0	0	0	0	0	0	0	33	66	17	34	0	0	17	21.7
1200	79	1	73	0	5	0	0	0	0	0	0	0	0	50	63.3	16	20.3	0	0	16.2	19.9
1300	35	2	28	0	5	0	0	0	0	0	0	0	0	27	77.1	21	60	1	2.9	20	25.1
1400	53	1	49	0	3	0	0	0	0	0	0	0	0	29	54.7	15	28.3	1	1.9	15.5	20.1
1500	107	1	101	0	5	0	0	0	0	0	0	0	0	67	62.6	23	21.5	0	0	16	19.9
1600	40	2	37	0	1	0	0	0	0	0	0	0	0	29	72.5	10	25	0	0	16.2	20.6
1700	16	2	14	0	0	0	0	0	0	0	0	0	0	11	68.8	4	25	0	0	16.4	21
1800	19	2	17	0	0	0	0	0	0	0	0	0	0	11	57.9	6	31.6	0	0	16.9	21.3
1900	4	1	3	0	0	0	0	0	0	0	0	0	0	3	75	2	50	0	0	21	-
2000	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.2	-
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
07-19	449	13	413	0	23	0	0	0	0	0	0	0	0	296	65.9	136	30.3	2	0.4	16.8	21.3
06-22	455	15	417	0	23	0	0	0	0	0	0	0	0	299	65.7	138	30.3	2	0.4	16.8	21.3
06-00	455	15	417	0	23	0	0	0	0	0	0	0	0	299	65.7	138	30.3	2	0.4	16.8	21.3
00-00	456	16	417	0	23	0	0	0	0	0	0	0	0	299	65.6	138	30.3	2	0.4	16.8	21.3



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Thu 11 August 2016

Westbound

Time	Total						Classi	fication						>PSL	>PSL%	>SL1	>\$L1%	>\$L2	>SL2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.5	-
0600	1	0	1	0	0	0	0	0	0	0	0	0	0	1	100	1	100	0	0	21.7	-
0700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0800	7	0	6	0	1	0	0	0	0	0	0	0	0	4	57.1	2	28.6	0	0	16.1	-
0900	11	0	11	0	0	0	0	0	0	0	0	0	0	7	63.6	4	36.4	0	0	17.9	21.3
1000	24	0	23	0	0	0	0	0	1	0	0	0	0	16	66.7	7	29.2	0	0	17	21.3
1100	40	1	37	0	2	0	0	0	0	0	0	0	0	31	77.5	20	50	0	0	18.5	22.8
1200	73	1	67	0	5	0	0	0	0	0	0	0	0	60	82.2	22	30.1	1	1.4	17.8	20.8
1300	52	2	47	0	3	0	0	0	0	0	0	0	0	32	61.5	10	19.2	0	0	16	19.9
1400	77	3	70	0	4	0	0	0	0	0	0	0	0	48	62.3	26	33.8	0	0	16.8	21.3
1500	59	3	55	0	1	0	0	0	0	0	0	0	0	41	69.5	20	33.9	0	0	17.5	20.6
1600	46	3	42	0	1	0	0	0	0	0	0	0	0	35	76.1	12	26.1	1	2.2	17.3	21.7
1700	10	0	10	0	0	0	0	0	0	0	0	0	0	7	70	0	0	0	0	16.2	-
1800	11	1	9	0	1	0	0	0	0	0	0	0	0	7	63.6	3	27.3	0	0	16.5	21.3
1900	7	1	6	0	0	0	0	0	0	0	0	0	0	5	71.4	3	42.9	0	0	17.9	-
2000	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10.3	-
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
07-19	410	14	377	0	18	0	0	0	1	0	0	0	0	288	70.2	126	30.7	2	0.5	17.2	21.3
06-22	419	16	384	0	18	0	0	0	1	0	0	0	0	294	70.2	130	31	2	0.5	17.2	21.3
06-00	419	16	384	0	18	0	0	0	1	0	0	0	0	294	70.2	130	31	2	0.5	17.2	21.3
00-00	420	17	384	0	18	0	0	0	1	0	0	0	0	294	70	130	31	2	0.5	17.2	21.3



Direction

001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Westbound Fri 12 August 2016

Time	Total						Classi	fication						>PSL	>PSL%	>SL1	>\$L1%	>\$L2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.8	-
0600	2	0	2	0	0	0	0	0	0	0	0	0	0	1	50	0	0	0	0	12.7	-
0700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0800	4	0	4	0	0	0	0	0	0	0	0	0	0	4	100	1	25	0	0	18.4	-
0900	22	0	19	0	3	0	0	0	0	0	0	0	0	8	36.4	4	18.2	0	0	14.5	19
1000	36	0	32	0	4	0	0	0	0	0	0	0	0	21	58.3	13	36.1	0	0	17.1	23.3
1100	159	0	151	0	7	0	0	1	0	0	0	0	0	32	20.1	11	6.9	0	0	9.6	16.1
1200	71	3	61	0	6	1	0	0	0	0	0	0	0	54	76.1	29	40.8	0	0	17.8	21.3
1300	56	1	49	0	6	0	0	0	0	0	0	0	0	41	73.2	22	39.3	2	3.6	18.2	22.6
1400	54	0	51	0	3	0	0	0	0	0	0	0	0	47	87	26	48.1	1	1.9	19.2	22.1
1500	54	1	50	0	3	0	0	0	0	0	0	0	0	46	85.2	29	53.7	0	0	19.2	22.4
1600	43	0	42	0	1	0	0	0	0	0	0	0	0	38	88.4	22	51.2	1	2.3	19.5	23.9
1700	15	1	13	0		0	0	0	0	0	0	0	0	12	80	9	60	0	0	18.9	23.7
1800	25	5	20	0	0	0	0	0	0	0	0	0	0	16	64	10	40	0	0	17.9	23.5
1900	2	1	1	0	0	0	0	0	0	0	0	0	0	1	50	1	50	0	0	17.6	-
2000	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.9	-
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	-	0	0	0	0	0		0	0	-	0	0	0	0	0	0	0	0	-	0	0
2300	0	-	-		0		0		0	0	-	•	-	-	-	0	0	-	0	0	-
07-19	539	11	492	0	34	1	0	1	0	0	0	0	0	319	59.2 59	176	32.7	4	0.7	15.7	21.7
06-22	544	13	495	0	34	1	-	1	0	0	0	0	0	321		177	32.5	4	0.7	15.7	21.7
06-00	544	13	495	0	34	1	0	1	0	0	0	0	0	321	59	177	32.5		0.7	15.7	21.7
00-00	545	14	495	0	34		0		0	0	0	U	0	321	58.9	177	32.5	4	0.7	15.7	21.7



001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Virtual Day (7)

Westbound

Time	Total						Classif	ication						>PSL	>PSL%	>SL1	>\$L1%	>SL2	>\$L2%	Mean	Vpp
		1	2	3	4	5	6	7	8	9	10	11	12	15	15	19	19	30	30		85
		MCL	SV	SVT	TB2	TB3	T4	ART3	ART4	ART5	ART6	BD	DRT			ACPO	ACPO	DfT	DfT		
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.1	-
0600	1	0	1	0	0	0	0	0	0	0	0	0	0	1	66.7	0	33.3	0	11.1	18	-
0700	2	0	2	0	0	0	0	0	0	0	0	0	0	2	78.6	1	42.9	0	0	18.2	-
0800	6	0	6	0	1	0	0	0	0	0	0	0	0	4	68.9	2	35.6	0	0	17.6	-
0900	17	0	15	0	1	0	0	0	0	0	0	0	0	11	68.4	6	36.8	0	0	17.5	21.9
1000	30	0	28	0	1	0	0	0	0	0	0	0	0	23	76.8	12	40.1	0	0.5	18.2	23
1100	68	0	65	0	3	0	0	0	0	0	0	0	0	39	57.2	19	28.1	0	0	15.2	21.3
1200	72	2	66	0	4	0	0	0	0	0	0	0	0	55	76.1	25	34.8	1	0.8	17.8	21.7
1300	48	1	44	0	3	0	0	0	0	0	0	0	0	34	71.3	17	34.3	1	1.2	17.6	22.1
1400	52	1	48	0	3	0	0	0	0	0	0	0	0	35	67.2	16	31.7	0	0.8	17	21.3
1500	52	1	48	0	3	0	0	0	0	0	0	0	0	39	75.1	17	33.4	0	0.3	17.5	21
1600	34	1	32	0	1	0	0	0	0	0	0	0	0	27	77.6	12	35.3	0	1.2	17.8	21.9
1700	17	1	15	0	0	0	0	0	0	0	0	0	0	13	77.7	8	43.8	0	1.7	18.4	22.8
1800	15	2	13	0	0	0	0	0	0	0	0	0	0	10	70.9	6	39.8	0	1	18	23.7
1900	6	1	6	0	0	0	0	0	0	0	0	0	0	4	62.2	3	46.7	0	2.2	18.4	-
2000		1	0	0	0	0	0	0	0	0	0	0	0	0	16.7	0	16.7	0	0	12.3	-
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-	-
07-19	413	10	381	0	20	1	0	0	0	0	0	0	0	293	70.8	141	34.2	3	0.7	17.3	21.7
06-22	422	12	388	0	20	1	0	0	0	0	0	0	0	298	70.6	145	34.3	3	0.7	17.3	21.7
06-00	422	12	388	0	20	1	0	0	0	0	0	0	0	298	70.6	145	34.3	3	0.7	17.3	21.7
00-00	422	12	388	0	20	I	0	0	0	0	0	0	0	298	70.5	145	34.3	3	0.7	17.3	21.7



Direction

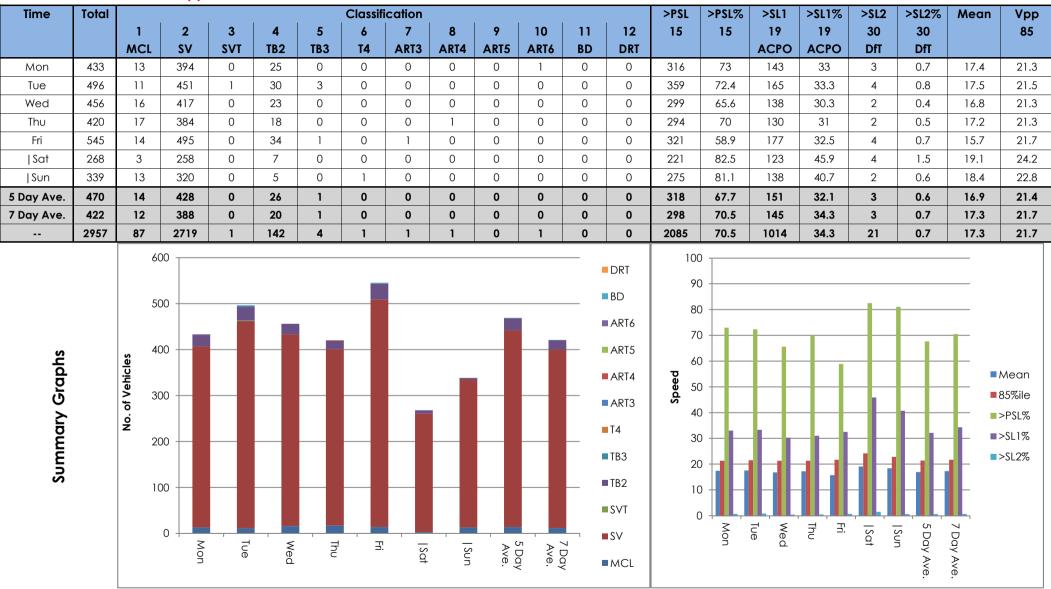
001

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Virtual Week (1)

Westbound





Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015

Location Direction

Westbound Sat 06 August 2016

6559 / CHELTENHAM
AUGUST 2016
AUTOMATIC TRAFFIC COUNT

Time	Total			031 201										Spee	ed Bins	s (mph	ı)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 -	105 -	110 -	115 -	120 -	125 -	130 -	135 -
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	4	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	6	0	0	2	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	19	0	1	3	11	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	26	0	2	6	14	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	35	0	0	6	16	8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	41	0	2	3	21	7	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	23	0	0	3	10	6	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	25	0	0	2	14	7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	25	0	0	2	8	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	22	0	0	3	13	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	20	0	1	1	9	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	11	0	1	3	2	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	9	0	0	5	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	257	0	7	35	120	63	29	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-22	268	0	7	40	121	65	31	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-00	268	0	7	40	121	65	31	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



00-00

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015

Direction

Westbound

001

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Sun 07 August 2016

Time	Total													Spe	ed Bin	s (mpł	ו)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 -	105 -	110 -	115 -				135 -
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	10	0	0	1	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	26	0	1	4	14	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	30	0	2	0	13	10	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	43	0	0	3	22	15	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	50	0	1	5	20	22	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	38	0	1	11	14	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	31	0	2	12	14	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	36	0	0	5	24	6	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	25	0	1	6	13	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	28	0	0	5	15	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	12	0	0	0	6	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	7	0	1	1	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	331	0	8	53	160	92	16	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-22	339	0	9	55	160	96	17	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-00	339	0	9	55	160	96	17	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	339	0	9	55	160	96	17	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Nationwide Data Collection for WSP Parsons Brinckerhoff

Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015

Location Direction

Westbound

001

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Mon 08 August 2016

Time	Total													Spe	ed Bin	s (mpł	ו)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 -			115 -				
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	3	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	11	0	1	4	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	28	0	1	3	15	7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	47	0	1	10	24	9	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	90	0	1	23	51	13	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	55	0	0	17	32	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	78	0	2	27	35	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	38	0	1	6	23	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	39	0	0	7	18	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	17	0	2	2	6	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	14	0	0	3	5	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	9	0	1	2	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	421	0	9	104	214	73	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-22	433	0	11	106	218	77	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-00	433	0	11	106	218	77	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	433	0	11	106	218	77	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Nationwide Data Collection for WSP Parsons Brinckerhoff

Direction

Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Westbound Tue 09 August 2016

001

Time	Total													Spe	ed Bin	s (mpł	ו)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 -						130 -	
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	5	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	7	0	0	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	17	0	0	2	5	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	34	0	0	7	15	8	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	103	1	1	29	47	24	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	99	0	2	24	43	26	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	79	0	2	20	40	16	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	45	0	1	13	23	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	46	0	2	9	31	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	26	0	2	8	10	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	15	0	0	5	4	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	11	0	0	2	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	1	0	0	3	2			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000 2100	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	487	1	10	122	232	102	17	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-22	407	1	11	122	232	102	17	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-00	470	1	11	125	234	103	18	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	470	1	11	125	234	103	18	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	470	1	11	123	234	103	10	4	U	U	0	U	U	U	U	U	U	U	U	U	0	0	U	U	U	0	U	U	0



Location Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015

Direction

Westbound

001

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Wed 10 August 2016

Time	Total													Spe	ed Bin	s (mpł	ו)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100						130 -	
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	8	0	0	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	11	0	0	3	3	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	29	0	0	4	12	10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	50	0	4	13	19	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	79	0	2	27	37	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	35	0	1	7	8	13	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1 400	53	1	8	15	20	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	107	0	7	33	52	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	40	0	2	9	21	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	16	0	0	5	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	19	0	1	7	5	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	4	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	449	1	25	127	187	90	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-22	455	1	25	130	188	91	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-00	455	1	25	130	188	91	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	456	1	26	130	188	91	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Nationwide Data Collection for WSP Parsons Brinckerhoff

Location

001

Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015 Direction

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Westbound Thu 11 August 2016

Time	Total													Spe	ed Bin	s (mpł	ו)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 -						130 -	135 -
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	7	0	0	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	11	0	0	4	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	24	0	0	8	10	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	40	0	1	8	16	12	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	73	0	0	13	46	11	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	52	0	2	18	23	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	77	0	4	25	30	14	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	59	0	0	18	29	9	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	46	0	2	9	24	10	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	10	0	0	3	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	11	0	0	4	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	7	0	0	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	410	0	9	113	194	76	16	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-22	419	0	9	116	196	79	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-00	419	0	9	116	196	79	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	420	0	10	116	196	79	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Location

Direction

001

Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Westbound Fri 12 August 2016

Time	Total													Spe	ed Bin	s (mpł	ı)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 -					125 -		
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	4	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	22	0	1	13	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	36	1	2	12	11	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	159	33	72	22	24	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	71	0	5	12	32	18	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	56	0	2	13	21	15	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	54	0	0	7	26	17	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	54	0	0	8	20	25	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	43	0	1	4	21	12	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	15	0	0	3	5	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	25	0	1	8	6	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	2	0	0	· ·	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000 2100	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
						-	-		-	-								-											
07-19	539	34	84 86	102	174	120	21 21	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-22	544 544	34	86	103 103	175 175	121 121		4	0	0	0	0	0	0	0	0	0	0	0	0	0	-	0	0	0	0	0	0	0
	544	34 34	80	103	175		21 21	4 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	545	34	8/	103	1/5	121	21	4	U	U	0	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U



Site Location

Direction

001

Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Westbound Virtual Day (7)

Time	Total													Spe	ed Bin	s (mpł	ו)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -	70 -	75 -	80 -	85 -	90 -	95 -	100 ·							
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
0000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0600	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0700	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0800	6	0	0	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0900	17	0	1	5	6	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1000	30	0	1	6	13	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1100	68	5	11	13	24	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1200	72	0	2	15	36	15	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1300	48	0	1	13	21	10	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1400	52	0	2	14	23	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1500	52	0	1	12	27	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1600	34	0	1	7	17	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1700	17	0	0	3	8	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1800	15	0	0	4	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1900	6	0	0	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2000	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07-19	413	5	22	94	183	88	19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-22	422	5	23	96	185	90	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06-00	422	5	23	96	185	90	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
00-00	422	5	23	96	185	90	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Site Location

Direction

001

Cheltenham Cemetery Access, <15mph> - OSGR:SO 96855 23015

6559 / CHELTENHAM AUGUST 2016 AUTOMATIC TRAFFIC COUNT

Westbound Virtual Week (1)

Time	Total													Spe	ed Bin	ıs (mpl	h)												
		0 -	5 -	10 -	15 -	20 -	25 -	30 -	35 -	40 -	45 -	50 -	55 -	60 -	65 -		75 -	80 -	85 -	90 -	95 -	100 -			115 -				
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120	125	130		
Mon	433	0	11	106	218	77	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tue	496	1	11	125	234	103	18	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Wed	456	1	26	130	188	91	18	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thu	420	0	10	116	196	79	17	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fri	545	34	87	103	175	121	21	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sat	268	0	7	40	121	65	31	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sun	339	0	9	55	160	96	17	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5 Day Ave.	470	7	29	116	202	94	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7 Day Ave.	422	5	23	96	185	90	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2957	36	161	675	1292	632	140	20		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summary Graphs			20 No. of Vehicles 10 5	0	5 - 10	10-15		20 - 25	25 - 30	35 - 40	40 - 45	45 - 50	- 50 - 55	60 - 65	65 - 70	70 - 75	- 75 - 80	85 - 90	90 - 95	95 - 100	100 - 105	- 105 - 110	- 115 - 120	- 120 - 125	- 125 - 130	_ 130 - 135	[135 - 1.	 M Tu W Th Fri \$ \$ 	ue Yed nu i Sat
															Speed					0	50	10	л 20	25	30	3	140		



Nationwide Data Collection for WSP Parsons Brinckerhoff

<u>Services Today</u>

MONDAY 8th AUGUST 2016

South Chapel

Time	Name	Cremation or Burial	Gardens of Remembrance or Grave Reference.	Full or Committal Service
9.00				· · · · · ·
9.45				
10.30				
11.15	Joyce DANSON	Cremation	F1 - 524	Full
12.00	Eileen Edith WEEKS	Cremation		Full
1.00	Constance Muriel EVANS	Cremation		Full
1.45	Ernest Walter ASTON	Cremation		Full
2.30				
3.15	David Michael CASTELL	Cremation		Full

<u>North Chapel</u>

Time	Name	Cremation or Burial	Gardens of Remembrance or Grave Reference	Full or Committal Service
9.30				
10.45				
11.45	Ernest Cyril MARVIN	Cremation		Full
1.30	Colin Terance SULLIVAN	Cremation		Full
2.45	Richenda Margaret WATSON	Cremation	'G' 590	Full

<u>Graveside Services</u>

Time	Name	Grave Reference	
1.15	Monica Marie ADDLE	K3 – 443	Graveside

10.30 Scattering of cremated remains of the late Elspeth CARLISLE. Gdn. Three - 23

<u>Services Today</u>

TUESDAY 9th AUGUST 2016

South Chapel

Time	Name	Cremation or Burial	Gardens of Remembrance or Grave Reference.	Full or Committal Service
9.00				
9.45				
10.30	Peter GREEN	Cremation	Rock & Water 'C' 165	Full
11.15	Frederick John George HOBBS	Cremation		Full
12.00	Doris KERSHAW	Cremation		Full
1.00	Pamela Ann WILKINSON	Cremation		Full
1.45				
2.30	Henry John KOCON	Cremation		Committal
3.15	Henry Colin HUGHES	Cremation		Committal

North Chapel

Time	Name	Cremation or Burial	Gardens of Remembrance or Grave Reference	Full or Committal Service
9.30	· · ·			
10.45	Patrick Keith LISSIMORE	Cremation		Full
11.45	Margaret Pamela EAVES	Cremation		Full
1.30	· · · · · · · · · · · · · · · · · · ·			
2.45	Mary Patricia HINES	Cremation		Committal

3.30 Scattering of Cremated Remains of the late Sylvia and Betty RANGER. Garden Two - 1518

<u>Services Today</u>

WEDNESDAY 10TH AUGUST 2016

South Chapel

Time	Name	Cremation or Burial	Gardens of Remembrance or Grave Reference.	Full or Committal Service
9.00				
9.45	Gillian WALKER	Cremation		Full
10.30				
11.15	Margaret Jean MAY	Cremation		Full
12.00	Gillian HORLEY	Cremation		Committal
1.00	Edward PARSONS	Cremation		Committal
1.45	Michael John LLOYD	Cremation		Full
2.30	Donald George Charles COOK	Cremation		Full
3.15	Gilbert Arthur Frederick HOLTHAM	Cremation		Full

<u>North Chapel</u>

Time	Name	Cremation or Burial	Gardens of Remembrance or Grave Reference	Full or Committal Service
9.30				
10.45				
11.45	Margaret Louise Maud GALLIE	Cremation		Full
1.30	Phyllis Sabina BENNETT	Cremation		Committal
2.45	Mollie Edna PARKER	Cremation		Full

12.30 Interment of Cremated Remains of the late Michael John HANCOCKS. F1 - 297

3.30 Interment of cremated remains of the late Gwendolen Beryl HARTWELL. K5 - 662

4.00 Scattering of cremated remains of the late Arthur Brian PERKINS. 'L' 669/670

<u>Services Today</u>

THURSDAY 11th AUGUST 2016

South Chapel

Time	Name	Cremation or Burial	Gardens of Remembrance or Grave Reference.	Full or Committal Service
9.00				
9.45				
10.30				
11.15	Ian Grant FITTON-KEARNS	Cremation		Full
12.00	Edward Victor Charles HIGGINS	Cremation	Beech Walk 175	Full
1.00	Una Marjorie WOOD	Cremation		Full
1.45	Linda June LEWIS	Cremation		Full
2.30	Elizabeth Hannah FLANAGAN	Cremation		Committal
3.15	Jacqueline Mary JEFFERIES	Cremation	Gdn.One 517	Full

North Chapel

Time	Name	Cremation or Burial	Gardens of Remembrance or Grave Reference	Full or Committal Service
9.30				
10.45		`		
11.45	Bridget Joyce RAYFIELD	Cremation	Rock & Water 'B' 74	Full
1.30	David Mark HOLMAN	Cremation		Full
2.45	Harmony Hope BOREHAM	Cremation	Fountain Rose Gdn. Border 73	Full

Graveside Services

Time	Name	Grave Reference	
11.30	Freda Margaret MUSTOE	J1 - 838	Graveside

10.15 Scattering of cremated remains of the late Linda Christine FAULKNER. Gdn. One 1458

3.00 Interment of cremated remains of the late Haydn ELLIS. Beech Walk 101

<u>Services Today</u>

FRIDAY 12th AUGUST

South Chapel

Time	Name	Cremation or Burial	Gardens of Remembrance or Grave Reference.	Full or Committal Service
9.00				
9.45				
10.30 & 11.15	Stephen Michael Charles PLAYFAIR	Cremation		Full
12.00	Malcolm Richard JAMES	Cremation		Full
1.00	Reginald GRIMES	Cremation		Full
1.45	Teresa Mary DOWNES	Cremation		Committal
2.30	Richard Sin Kheck TEOH	Cremation		Full
3.15	Elizabeth Ethel Conquest GEMMILL	Cremation		Full

North Chapel

Time	Name	Cremation or Burial	Gardens of Remembrance or Grave Reference	Full or Committal Service
9.30			· ·	
10.45	John Baden WILSON	Cremation		Full
11.45	Mark Andrew LEWIS	Cremation		Full
1.30				
2.45				

Graveside Services

Time	Name	Grave Reference	
1.30	David Frank KNAPP	K5 – 88	Graveside

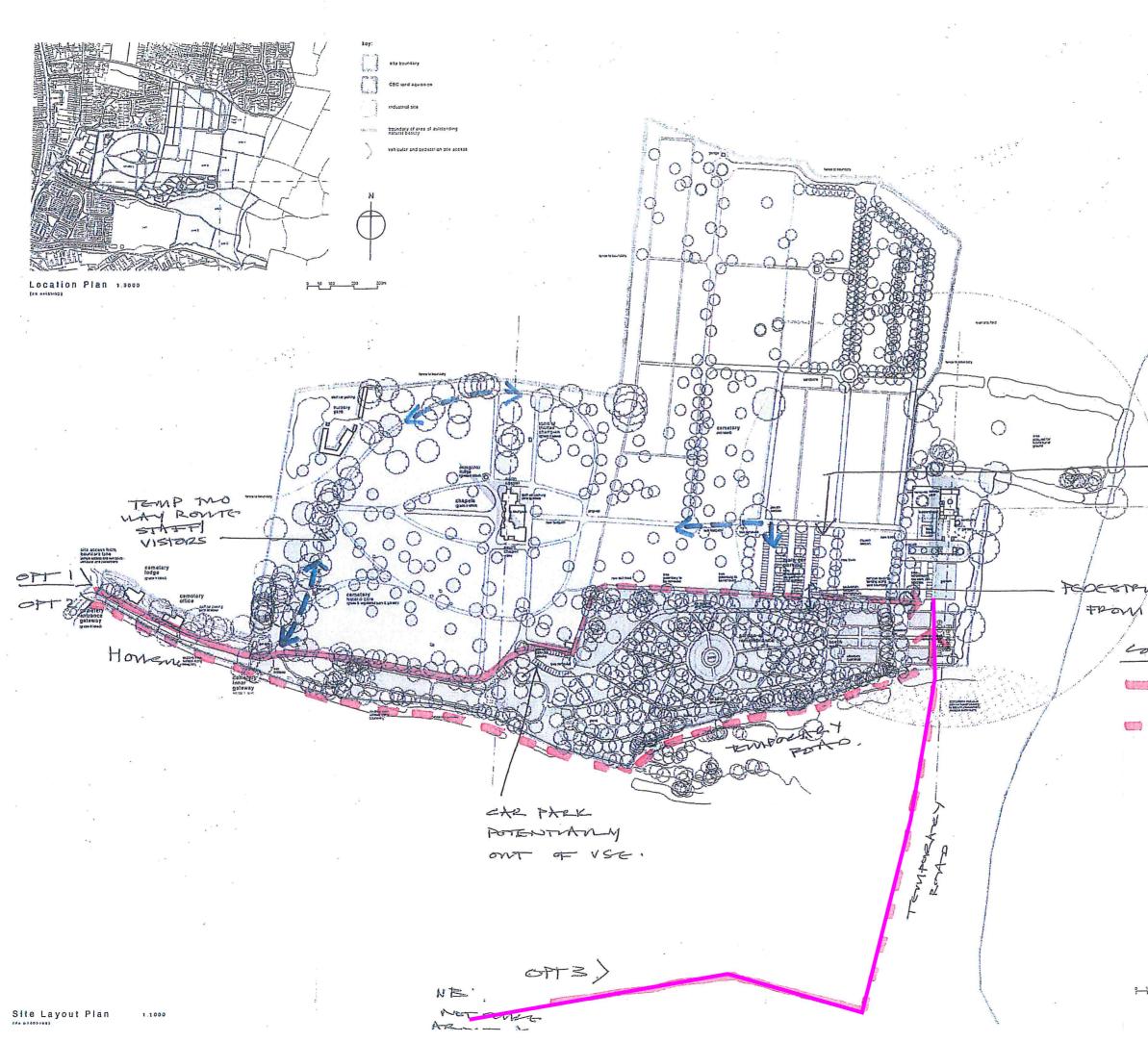
3.00 Scattering of Cremated Remains of the late Jean Mary WILLS. 'I' - 55/56

At Charlton Kings

2.00 Interment of Cremated Remains of the late Tracey Jane HEFTER. Block 9 – 95.

Appendix D

PREVIOUS ROUTE OPTION STUDIES



A Layout uptions D Commission promisered on sent and bit. DOB 1506-15 C Commission promisered on sent and bit. DOB 1506-15 C Commission promisered and bit. DOB 1506-15 option 8d: new crematorium (area B - outwith site area) new use to existing chapels new car park new exit road (within site area) sils poundary camelery - Nistone cur comatary - garden st re eamatary and aquation ROTO / CAR PARK AS FIRST PMASE PODESTRUMAN ALLESS TO GOR CHE PARK CONTRACTOR ACCESS EXISTING ForAp Constant of NEW TEMPORARY. POAD Aphant Polley & Pariners



Scape Procure

CHELTENHAM CREMATORIUM DEVELOPMENT

Stage 2 Feasibility Report Ref:CC/S2/JM/180716

Submitted: 15th July 2016 Valid Until: 18th August 2016



4. ACCESS/EGRESS APPRAISAL

During the feasibility study we have considered options for logistics and more specifically access and egress arrangements for construction materials, plant and operatives.

NB. Please refer to appendix G for options.

On a daily basis we will be bringing vehicles onto site and subsequently off site for materials, plant and operatives as well as taking away waste materials.

A major consideration is how we provide access and egress routes for this traffic.

Following discussions with our client we have looked at the viability of each of the following options:

Option 1 – Provide a temporary Haul road off site which will be removed at the end of the contract. Construct a new exit route within the existing cemetery connecting to the existing road layout.

Option 2 - Form a permanent road from the existing highways infrastructure to the construction site through land surrounding the cemetery (adjacent fields) to serve construction traffic and future permanent egress.

Benefits of constructing a permanent egress through the cemetery (option 1)

- Keeps the existing road network within the cemetery
- Less opposition from neighbouring community

Constraints of constructing a permanent egress through the cemetery (option 1)

- Constructing a new road creates a 'construction site' considered to be major disruption for a cemetery environment.
- Graves and memorials will need to be exhumed and relocated
- Legals, permission and licensing issues associated with grave and memorial relocation.
- Ecology issues will need to be investigated and accommodated
- Trees and hedges will need to be removed, tree root protection required
- Working space requirements could impinge on adjacent graves, memorials and areas of cremated human remains.
- Construction activities immediately adjacent to mourners visiting graves.
- Accommodation of road drainage.
- Potential increase in programme duration due to downtime from sensitive cemetery events.

Benefits of a permanent egress road (option 2)

- All construction traffic provided with access and egress route completely segregated from cemetery
- Elimination of down time or risk allowances for periods when it would not be acceptable for construction traffic to use cemetery roads
- Provides potential for dedicated egress route for funeral traffic from new chapel to leave site.
- Enhances value of land along road route for future development
- Possible shared funding from temporary access haul roads of flood defence woks project





4. ACCESS/EGRESS APPRAISAL

Constraints of permanent egress road (option 2)

- Ecology issues will need to be investigated and accommodated
- Disruption to playing field
- Opposition from residents.
- Potential relocation of sports field changing facilities.

Cost based comparison

We have assessed each option and provided the following budget costs within out estimate of the works.

NB: As there will already be a capital expenditure required to construct a haul road to service the construction site it would be beneficial to convert the haul road into a permanent service road to maximise on this investment and eliminate any disruption to the cemetery

High Level Cost Assessment of Haul Road v's Internal Cemetery Road

Option	Description			
1	Cost of a Haul Road	2400 m ²	120.00	288,000.00
	Cost of Internal road through Cemetery	997.5 m ²	100.00	99,750.00
				387,750.00
2	Permanent Exit and Haul Road	2400 m ²	150.00	360,000.00

Recommendation

Having taken the above considerations into account we would recommend option 2 as the best option to proceed against.

Our site layout and logistics plan (SL-01) illustrates this proposal and allows the existing Cemetery roads to continue to be used for its intended use on a day to day basis without impact from large scale volumes of construction traffic and effect to the Cemetery and its visitors.

We recommend that this permanent egress road be completed as an enabling works package prior to the main contract to maintain a completion date of Phase 1 in June 2018.



Appendix E

PETER MITCHELL ASSOCIATES REPORT

Cheltenham Cemetery and Crematorium

Route Options Appraisal

Peter Mitchell Associates

September 2016

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Executive Summary

This report provides a high-level overview of the issues surrounding the potential creation of access through Cheltenham Cemetery.

In my view, there is no legislation that is applicable to authorising the removal of memorials and burials in an operational local authority cemetery.

Based upon the information that I have received, of the routes identified by WSP | Parsons Brinckerhoff which impact directly on the cemetery (namely A and B), I recommend that Route B shown in purple on the WSP | Parsons Brinckerhoff's drawing SK03 is regarded as having a much greater chance of being feasible than Route A shown in yellow, due to the clear indications of coffin burials along Route A.

Similarly, Route B shown in purple on the WSP | Parsons Brinckerhoff's drawing SK03 avoids areas clearly used for coffin burials within the areas shaded orange and red on the RES Surveying Topographic Survey Sheet 13.

The proposals threaten to disturb a place where the bodies and ashes of deceased people lie and thereby have the potential to cause great distress to bereaved people, which must be recognised by the team working on this project.

About the Author

I am Peter Mitchell and I have worked at all levels in the Bereavement Services sector in both public and private sectors since 1983. Since 2002 I have been an independent consultant, specialising in all matters relating to burial, cremation and exhumation.

I wrote the IBCA Exhumation Handbook in 1998 and have project managed the exhumation of approximately 30,000 burials, mainly in the UK, but also in Luxor, Egypt and Jakarta, Indonesia. These exhumations have ranged from single bodies to large numbers of burials and the type of client and their reasons for requiring exhumation have also varied widely.

I have been featured in 3 TV documentaries on exhumation, including being the subject of 'The Exhumer', a 50-minute documentary broadcast on Channel 4 in July 2009.

Basis of this report

My understanding of the proposed route options is informed by the following drawin	igs:

Company	Drawing Ref	Date
RES Surveying Ltd	Topographic Survey Sheet 13	13/04/2015
WSP / Parsons Brinckerhoff	4730-SK03 Rev B	September 2016
	Overview Map	
	Proposed Route Options	
WSP / Parsons Brinckerhoff	4730-SK04 Rev A	September 2016
	Proposed Route A	
WSP / Parsons Brinckerhoff	4730-SK05 Rev A	September 2016
	Proposed Route B	

I have also had the benefit of seeing 17 photographs of the areas shaded Blue, Orange and Red on the RES Surveying Topographic Survey Sheet 13.

The various route options under consideration relate to an operational cemetery and crematorium site. I have not made a site visit nor sought any information directly from the client, Cheltenham Borough Council.

The 'Proposed Route Options' drawing shows areas shaded Blue, Orange and Red, which all directly impact upon areas of the cemetery previously used for burial. The area shaded in blue forms part of WSP | Parsons Brinckerhoff's Route Option A.

This same drawing shows Route B in purple, which does not appear to affect graves as such, but may impact upon an area adjacent to the site entrance drive, previously used for the burial or scattering of ashes.

Key Issues

The key issues for consideration include:

- Legal
- Practical
- Financial
- Public relations

Legal issues

The redevelopment of land previously used for burial is not unusual in the UK and there is a statutory framework in place to enable this to happen, subject to the particular circumstances of each case. These circumstances do not necessarily have to involve the disturbance of buried human remains.

A significant factor in understanding which legislation applies within England is the status of the land in terms of its formal consecration by a Bishop of the Church of England. Whilst liaison and gaining consent may be required when dealing with churchyards in Wales or Scotland, in England only consecration has a legal status recognised in statutes relating to exhumation.

Regardless of the ownership of the land, its consecration by a Bishop of the Church of England places it under the Faculty Jurisdiction, which places restrictions upon what can be done on the land without applying for faculty permission.

The statutes relevant to the use or redevelopment of land used for burial include:

- Burial Act 1857
- Disused Burial Grounds (Amendment) Act 1981

- Town and Country Planning Act 1990 & Town and Country Planning Regulations 1950
- Open Spaces Act 1906
- Mission and Pastoral Measure 2011
- Care of Churches and Ecclesiastical Jurisdiction (Amendment) Measure 2015
- Private Acts of Parliament

Examples of relevant private Acts of Parliament include the Channel Tunnel Rail Link Act 1996 and the Crossrail Act 2008.

Statutes have provisions relating not only to the actual burials, but also to the treatment of memorials on graves, which technically remain the property of the person who originally paid for their installation.

In general, there are requirements to give public notice of the intentions regarding the land previously used for burial and arrangements relating to objections from relatives and others and to compensation for loss of burial rights.

In terms of creating access for vehicles over old burials, the Disused Burial Grounds (Amendment) Act 1981 provides that the Secretary of State may issue an Order dispensing with the requirements to exhume burials in areas of old burials where no building is to take place. The provision is used to enable the redevelopment of an old non-conformist chapel so that burials in the area redeveloped as entrance and car park are left undisturbed. The formality of what is known as a Dispensation Order is required as the work results in the graves being made inaccessible.

The Church of England sometimes grants faculty permission for raft type foundations to be used for the extension of church buildings to bridge over old graves.

It is important to note that, regardless of the location and status of the site, graves containing Commonwealth War Burials have special protection. These are defined in the

Local Authorities' Cemeteries Order 1977 (LACO) as a burial of any member of the forces of His Majesty fallen in the war of 1914-1921 or the war of 1939-1947.

It is also important to note that cremation ashes are also classified as human remains for the purposes of legislation. This applies where ashes are buried, whether in a container or otherwise. The situation where ashes are scattered is less clear and is considered below.

Another factor that may be relevant is that the original part of the cemetery is registered under the Historic Buildings and Ancient Monuments Act 1953 within the Register of Historic Parks and Gardens by English Heritage (now Historic England) for its special historic interest. It was Grade 2 listed in 2003. This does not apply to 20th Century cemetery extensions, in which the proposed route options currently being considered may be located.

Cheltenham Cemetery and Crematorium

The Cheltenham site under consideration is neither a churchyard nor a disused burial ground, but an operational cemetery. This means that it does not readily fit in with any of the statutory provisions listed above.

I suspect that, in common with most other local authority cemeteries, a significant proportion of the site may be consecrated.

The memorials visible in the photographs that I have seen suggest to me that the graves lying in the Blue, Orange and Red areas are purchased graves, although there may be unpurchased graves in the Blue area.

'Purchased' means that the burial authority sold the exclusive rights of burial in the grave to a relative of the person first buried in it. That owner may have subsequently also been buried in the grave. The sale of the exclusive rights is a legally binding contract between the burial authority and the purchaser and in subject to the terms and conditions of the grant of rights. I do not know the age of the burials along the 3 potential routes, but in the photographs the memorials generally look quite old. I therefore suggest that the exclusive rights in the graves may have been sold prior to 1974 in perpetuity. This needs clarification from the cemetery records, but it means that the rights were not sold for a limited period, as they have been since 1974, and they do not simply expire. In all probability the rights are still extant, even if the registered owners of those rights are themselves deceased. There are appropriate procedures for the rights to be transferred to those legally entitled, usually but not necessarily a direct descendant.

'Unpurchased' means that no-one purchased any exclusive rights and unrelated people may have been buried over a period of time in the same grave. Some burial authorities permit memorials on unpurchased graves, so the presence or absence of a memorial does not define the status of a grave.

In addition to any consideration of the potential disturbance of burials, there should also be factored in the exclusive rights of burial and the property rights in memorials. These matters are dealt with in the legislation relating to disused burial grounds, but this is an operational cemetery regardless of the age of any burials that might be affected by new access routes.

The area shaded in blue which forms part of WSP | Parsons Brinckerhoff's Route Option A may appear to have good potential as an access route, due to the smaller number of memorials visible in the photographs. However:

- The absence of a memorial does not indicate that there is not a grave in which burials have taken place.
- There appears to be a CWGC headstone in one of the photographs (P1080270).
- There appears to be evidence from photographs of vases (P1080248) and a memorial feature (P108262) that ashes have been scattered or buried in the area on the Blue route. A site inspection is required to confirm this.

The Purple Route B appears not to affect graves, but it may affect an area used for the scattering or burial of ashes where it links to the main drive close to the main entrance to the cemetery.

If ashes have been buried in containers the affected area, particularly if individual burial plots have been sold, then legally there is no difference from graves containing bodies. When scattered, ashes are not identifiable or recoverable.

The Ministry of Justice publishes guidance notes with its exhumation licence application form, which state:

It is not practical to remove scattered remains. They are not considered to be buried and no licence is therefore required if they are to be disturbed.

If the remains have been placed in the grave without a container, it may not be practicable to remove them. Any application for a licence to do so will be considered in the light of advice from the burial authority.

Whilst the legal implications of scattered ashes many seem to be minimal, other aspects are discussed in the Public Relations section below.

In London only, local authorities have powers to extinguish exclusive rights of burial granted in perpetuity if the most recent burial in the grave concerned was 75 years or more ago. The wording of the legislation - the Greater London Council (General Powers) Act 1976 s.9 – specifically refers to extinguishing rights where there is depth remaining in the grave for at least one further burial. Last year, I sought the opinion of the Ministry of Justice team as to whether these powers could be used to extinguish exclusive rights in order to create a new pedestrian access through 3 rows of graves.

I made my original request on 5th November 2015, but did not receive a reply until 24th March 2016. The reply included the following:

"... I'm afraid MoJ is not in a position to provide the information you're seeking. As you'll know, neither the City of London (Various Powers) Act 1969 nor the Greater London Council (General Powers) Act 1976 were pieces of government legislation and, therefore, it's not possible for us to speculate on the policy intention behind the provisions you have queried. In any event, the issues you have raised are essentially matters of legal interpretation and, as a Government department, we're unable to give advice of this kind. I can only suggest that you should seek this from an independent adviser."

I think that the words of the legislation in this specific example do not extend to permit the creation of access routes. The situation for a local authority outside of London seeking to do something similar, but lacking even powers to extinguish exclusive rights in graves that have been used for burial, seems even less likely to find a successful legal outcome.

Regardless of the merits of improving access, one cannot simply remove memorials from graves and create a new route or widen an existing route by covering graves partially or completely or exhume burials as part of this process.

In general terms, in my view the options for gaining legal consent to encroach upon graves in Cheltenham Cemetery, whether involving the disturbance of burials or building access routes over graves without disturbing burials, are very limited. There appears to be no provision in law to authorise these works.

Consecrated areas

Discussion with the Gloucester Diocesan Registrar to explore how the Church of England views the proposals. These discussions should be informed by clear maps and other information showing the number of graves, memorials and burials potentially affected by the creation of new or wider routes.

Unconsecrated areas

Discussion with the Ministry of Justice along the same terms. As discussed above, I am not optimistic that the Ministry team would have the capacity or willingness to commit to providing any helpful advice.

The time required to successful engage in dialogue and reach conclusions with these 2 bodies could be considerable. Based upon my own and others' experience, it would not surprise me if up to one year or even two years were spent on this process and yet there would be no guarantee that a successful outcome could be achieved.

In the absence of any alternative, the client could consider seeking powers within a new and specific private Act of Parliament, but there would be no guarantee of success.

Subject to site investigations to confirm the situation on the ground regarding ashes of body burials, the Purple Route B appears to offer the least legal obstacles.

Practical issues

If legal authority could be obtained to authorise the removal of memorials and build a road over old graves, the practical issues would be relatively straightforward. Even if some or all of the burials were to be removed, this would not present significant practical challenges.

The memorials and burials could be relocated to another part of the cemetery. Where disused burial grounds are cleared, normal practice is to rebury exhumed remains in communal graves in order to save space in existing cemeteries. In this case, however, the sensitivities of the situation would require the reinterment of burials and the re-erection of memorials to be on a grave by grave basis. If 50 graves were affected, the memorials and burials would be relocated to 50 new graves elsewhere in the cemetery.

The dismantling and re-erection of memorials would require care to minimise any damage. The memorials would have to be re-erected to modern standards in terms of foundations and fixing of components to ensure safety. If burials were to be exhumed, the work would need to be screened from public view and undertaken in liaison with the local authority's Environmental Health Officer. In view of the specific nature of the project, each burial would likely be reinterred in a new individual coffin. Both activities would need to be completed by people suitably experienced in the work, with BRAMM / NAMM registration applicable to the memorial work.

The time taken to complete this work would obviously depend upon the number of memorials and/or burials involved. However, I would expect completion within a matter of a few weeks rather than months.

Purple Route B appears to offer the least practical difficulties. There may be no need to move any memorials or buried ashes or bodies at all. The removal of lawn areas used for scattering ashes would need to be completed with an awareness of the sensitivity of the situation and manual excavation may be deemed more appropriate than mechanical excavation. The site and method of relocation of such ground would need consideration, with a location within the cemetery.

Financial issues

Legal costs

If the client wished to pursue the identified route options, the costs of seeking legal consent may include charges made by the Diocesan Registry for the time of the Registrar and/or Chancellor. These charges would likely be equivalent to lawyers' fees.

The Ministry of Justice would not make any charge.

The client might wish to engage specialist lawyers to act on their behalf in the hope of increasing the chances of a successful outcome to the discussions with Diocese and Ministry.

Practical costs

The costs of dismantling and re-erecting the memorials are unlikely to be significant, in view of the modest size and design of memorials apparent in the photographs. I suggest an allowance of £250 to £500 per memorial.

The costs of exhuming burials if required would again be modest. I suggest an allowance of $\pm 2,000$ per coffin burial.

In addition, there would be the costs of new coffins. I suggest an allowance of £300 per coffin.

The client would be providing new graves for any reinterments and could excavate the graves as in the case of standard coffin burials. If an exhumation contractor were responsible for the reinterments, the costs would be minimal if carried out on the same site immediately following exhumation.

In view of the sensitivity of the project, the client might wish to engage the services of a Funeral Director, for which quotations would have to be sought.

Public Relations

Perhaps even greater than the challenges of obtaining legal consent for the works, managing the public relations aspects of such a project is likely to be very difficult.

As an example, within recent years Perth and Kinross Council have faced protests from members of the public disturbed by the prospect of a new road being constructed within the grounds of Perth Crematorium and potentially affecting areas where ashes had been scattered.

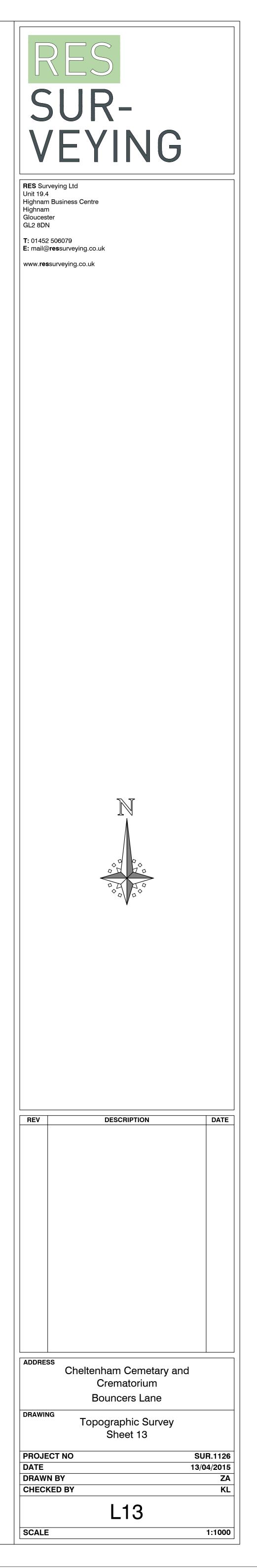
(See: <u>https://www.thecourier.co.uk/news/local/perth-kinross/238648/anger-over-new-link-road-near-perth-</u> <u>crematorium/</u>)

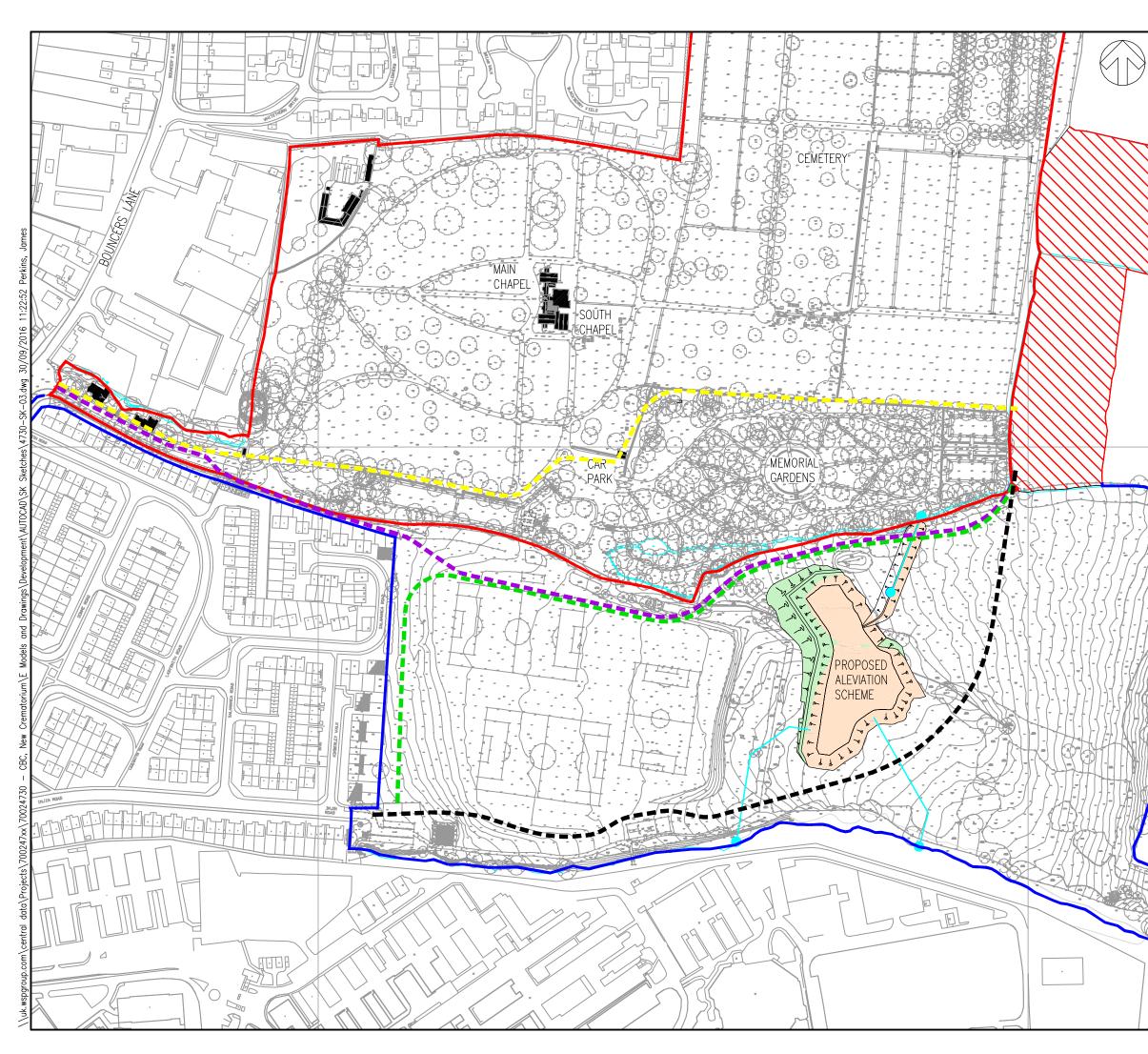
The use of social media, combined with what I perceive from experience to be a heightened awareness and sensitivity to the disturbance of the dead in the UK, enables even a relatively small minority to gain a high public profile for their objections to such a project.

Any activity that threatens to disturb a place where the bodies and ashes of deceased people lie has the potential to cause great distress to bereaved people, which must be recognised by the team working on this project. This distress is not limited to those families whose graves are directly affected by any proposals, but includes relatives of others buried in this cemetery and also elsewhere.

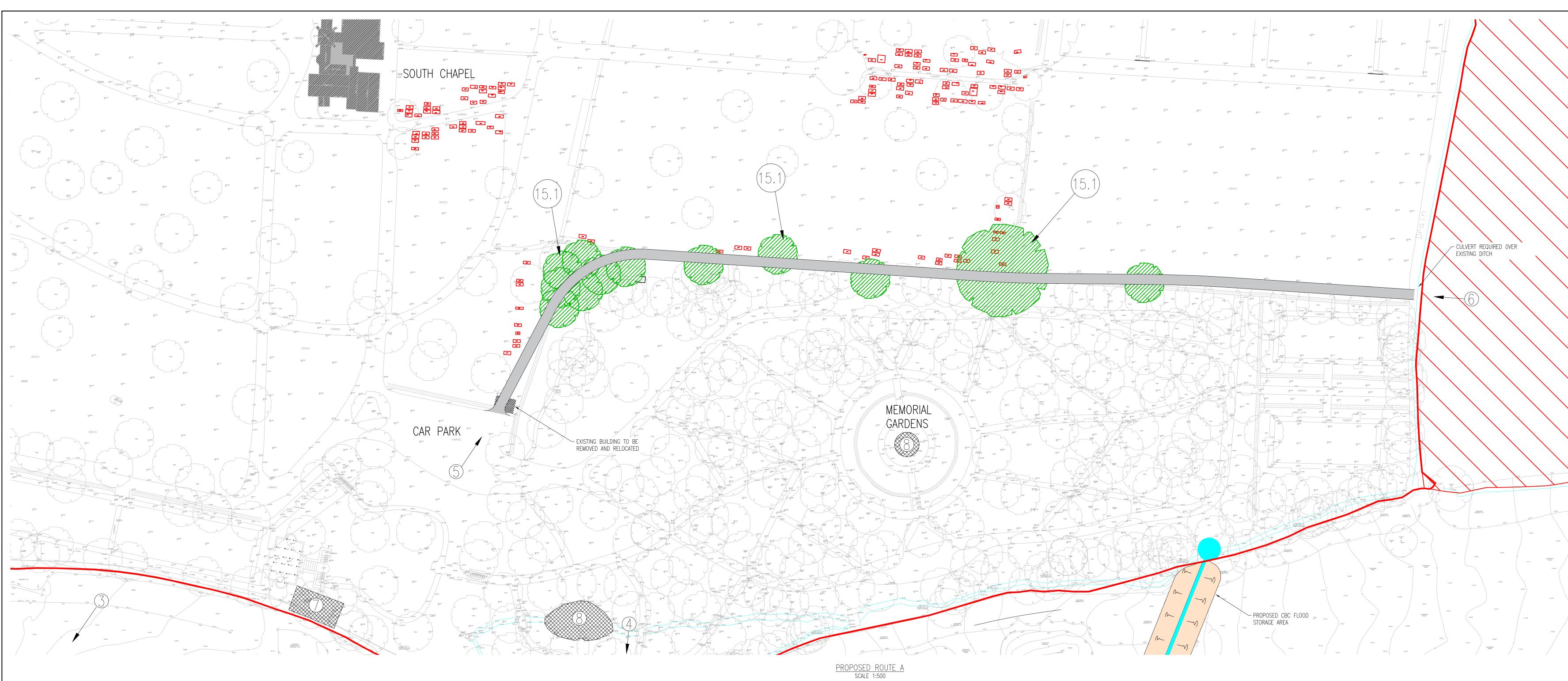
Ideally, the proposals to create access routes and discussions regarding legal authority for the works should be kept out of the public domain until there is certainty as to what might be the finally agreed solution. This would avoid causing unnecessary distress to bereaved people. If any of the route options are to be pursued and legal authority successfully obtained, it will be essential to ensure the integrity of the work on the ground, maintain the identity of any memorials and burials affected, whether bodies or ashes.

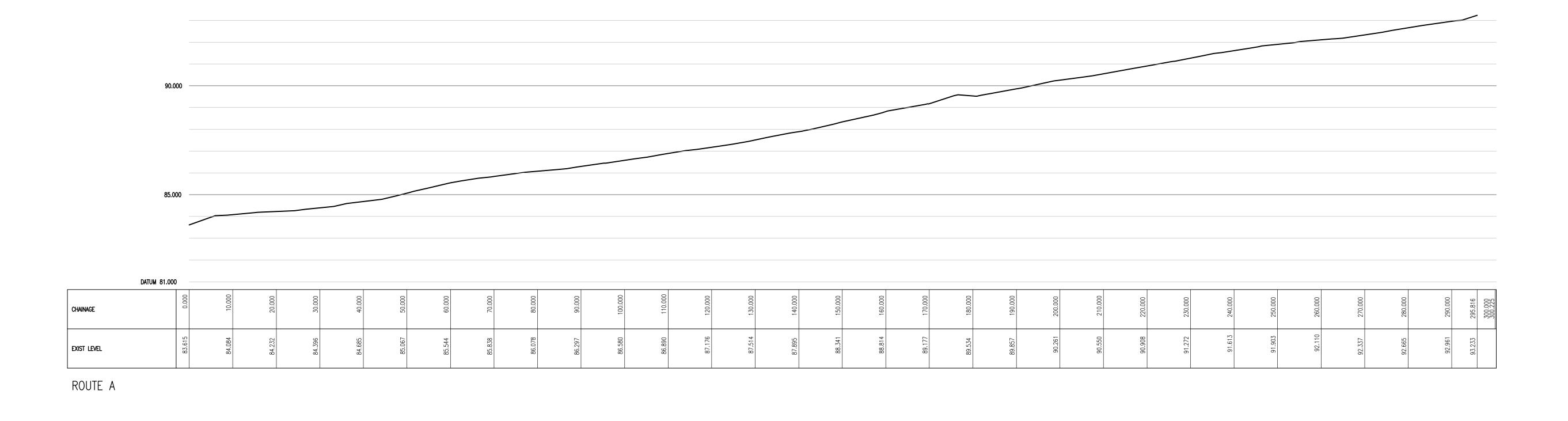






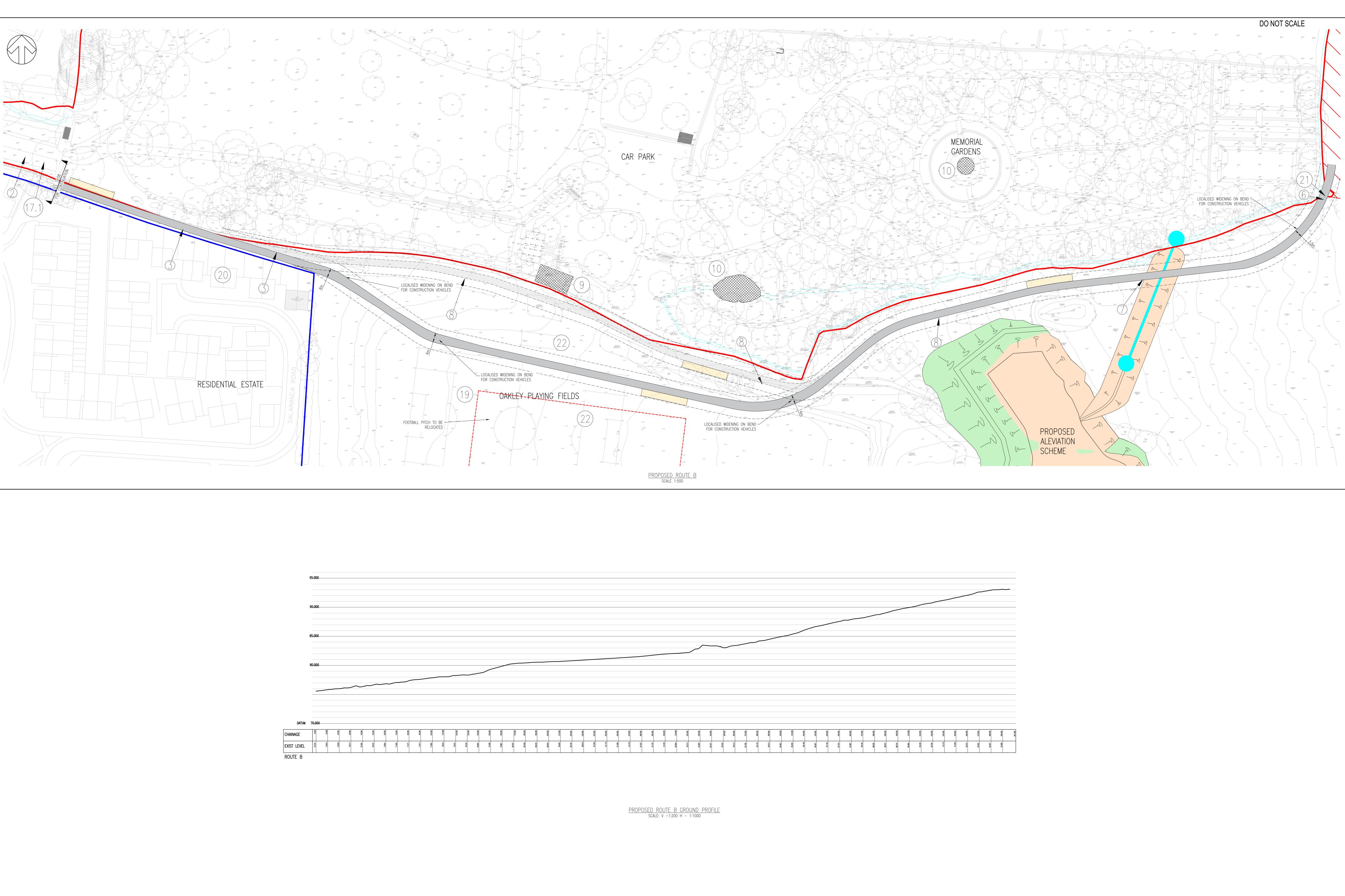
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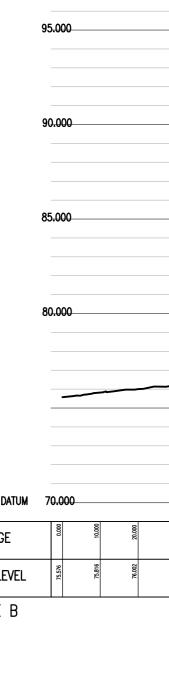




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Mo \square New CBC, 4730 NOTES:

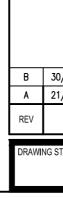
GENERAL POINTS 1,5,11,12,13,14,15,16 & 18 (SEE REPORT No. ______ 70024730 V1) KEY:

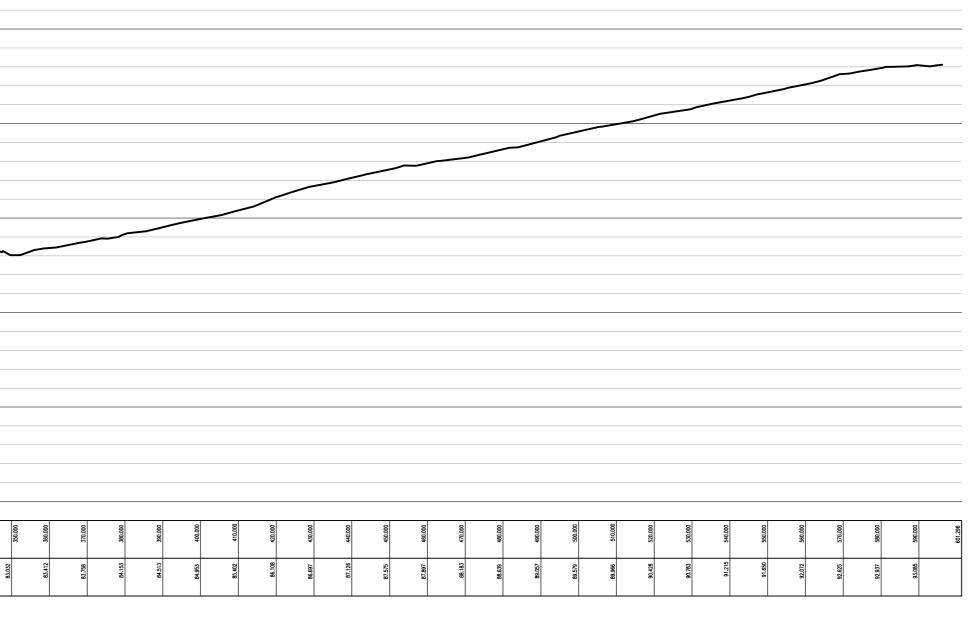
CHELTENHAM CEMETERY AND CREMATORIUM BOUNDARY

LAND OWNED BY CBC PROPOSED NEW CREMATORIUM SITE BOUNDARY

INDICATIVE CONSTRUCTION TRAFFIC PASSING BAY. 3m x 20m.

_____ INDICATIVE 9.5m CARRIAGEWAY WIDTH SPECIFIC POINT IDENTIFIED BY ACCESS ROAD STUDY (REPORT No. 70024730 V1)





 B
 30/09/2016
 JRP
 ALTERNATIVE ROUTING

 A
 21/09/2016
 NLT
 FIRST ISSUE

 REV
 DATE
 BY
 DESCR
 DESCRIPTION CHK APD FOR INFORMATION ONLY





CHELTENHAM BOROUGH COUNCIL

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ECT:	SCALE @ A0:	CHECKED:	APPROVED:	
CHELTENHAM BOROUGH COUNCIL, PROPOSED	AS SHOWN	JM	KR	
CREMATORIUM - ACCESS ROAD STUDY	CAD FILE: DESIGN-DRAWN: I 4730-SK-04-07.dwg NLT		DATE: October 16	
	PROJECT No:	DRAWING No:		REV:
PROPOSED ROUTE OPTION B	70024730	4730-SK-0	5	В

Appendix F

TREE SPECIALIST REPORT

Cheltenham Cemetery-Proposed Route Options

CBC Tree Section comment pertaining to WSP Drawing no 4730-SK-03 Sept 2016

Route A-

<u>Pros</u>-

- If constructed well, this would be the most visually pleasing route for mourners/visitors to the cremator as it meanders through several different well tree'd and more open areas throughout the cemetery.
- It would leave the southern existing boundary vegetation intact thus leaving functional screening into and out of the cemetery from the playing pitches and open space to the south.

<u>Cons</u>

- A more expensive "no-dig construction" method for the road would need to be engineered to reduce damage to trees rooting environment.
- Route would likely need the removal of several trees from within the children's cemetery as well as part of a hedge line within the cemetery. This hedge line is species-rich and is composed of rowan, Berberis, smoke bush, yew, birch, Laburnum, cotoneaster, hawthorn etc.
- Unless this road meanders significantly, it will involve the placing of the road right under the canopy of several large beech, hornbeam and oak. Whilst this may be technically possible, some collateral damage will be incurred to these trees and indeed access facilitation pruning (in the form of crown lifting would be necessary-such crown lifting involves the removal of several large limbs off these trees to enable vehicle access under the canopy) would be required. This pruning would likely detract from the visual amenity of these trees. Alternatively the road could meander away from trees, but this would likely involve the moving of grave stones.
- Road construction would be over an area where it is suspected ashes are scattered (there appears to be many bunches of flowers and other assorted mementos on the ground in this area).
- Any "new road" will take some time to "bed-in" and may look somewhat "shiny and new" in a mature amenity landscape. It would likely take several years before it blends into the landscape.
- No-dig construction specialist advice would be required to ascertain whether such an engineering construction is possible.
- Cedar tree and 2 mature lime trees near to the entrance would need to be removed if proposed entrance-widening is required.

Route B

Pros

- Little /no damage to trees within the cemetery assuming road follows route outside the palisade fence line.
- New road would not be highly visible within cemetery or externally from the open space or playing pitches.
- Relatively easy to construct-whether temporary or permanent.
- No high quality trees would need to be removed to facilitate construction or future visitor movement.
- Construction over cedar rooting area at top of drive should be relatively simple.
- Loss of southern hedge line could be overcome with renewed planting.
- If road route is to the south of the existing palisade fence line, then most internal trees could be retained without significant damage to root protection areas.
- No significant trees exist within private rear gardens along 62-41 Salamanca road inhibiting construction of new road/track.
- Traffic within the cemetery would not increase during the construction period.

Cons

- Cedar and limes adjacent to entrance would need removal should access widening be required.
- Part of the hedgerow along the southern boundary would need to be removed. This would open up views into/out of the cemetery
- There is a manhole cover along this existing track indicating the presence of underground services. Construction methods/design would need to take account of this.
- Much valuable wildlife rich cover such as bramble, plum, blackthorn, willow, alder etc would need to be removed. However there is a lot of such cover around the playing fields and open space to the south of the cemetery. It would be a relatively small overall proportion of total cover.

Route C

<u>Pros</u>

• No tree related damage or removals required (assuming route could easily avoid several mature oak and willow within open space to the east of the playing field).

- If sensitively designed and the existing young oak trees within this open space to the east of the playing pitches are protected and further planting included, this would add to the overall tree-rich landscape.
- No increase of internal construction related traffic during the build.

<u>Cons</u>

- Some cover for wildlife would be lost-bramble, wild plum, ash etc to enable access into the open space to the east of the playing pitches.
- The new road/route through this open space could look somewhat incongruous through the existing landscape and could take several years to "bed in".

Route D

<u>Pros</u>

- Little/no damage to significant individual trees required.
- No loss of significant individual trees.
- Existing south boundary screening into/out of cemetery would be retained.
- No increase of internal construction related traffic during the build.

<u>Cons</u>

• Some ground cover loss (as per Route B) of overall woody vegetation.

Conclusion

Each option carries several positives and negatives-some of these carry more weight and are of more significance than others.

Route A would incur the most tree related damage/removals and may be the most expensive to construct but would ultimately fit best into this landscape on the assumption that a generous landscaping scheme could mitigate for tree loss/damage. This may be technically the most challenging route to achieve due to the "no-dig" requirement where the route deviates into the root protection area of existing large trees.

Route B would incur some loss of boundary screening and trees along front of drive (if drive is to be widened). However, re-landscaping could mitigate for this loss. This new route would fit aesthetically well into the local environment.

Route C would not incur significant tree loss but the proposed new road may look incongruous through this open space. Some ground cover would have to be removed.

Route D would also not incur significant tree loss but some ground cover would need to be removed. The road would fit more discretely into the landscape.

All comments are from a "trees-only" perspective and do not take account of inconvenience to neighbours, nuisance, cost, the proposed Noverton and Priors flood alleviation scheme or the appropriateness of design. CBC Tree Section considers that Route B may offer the best long term solution.

A possible alternative solution may be to construct a temporary access road for the construction phase of this project and then, where necessary, upgrade existing surfaces for future car users to the new cremator. This would avoid the necessity to construct lorry-bearing roads within the existing cemetery. Such a new temporary road surface could be constructed using eg Eve Trackway solutions. This would avoid the need to construct expensive loadbearing roads internally as well as reducing the need for tree removal whilst still involving visitor movement within the tranquil environs of the Cemetery.

Christopher Chavasse

CBC Trees Officer 20.9.16

Appendix G

ADDITIONAL ECOLOGICAL DETAILS

APPENDIX G – ADDITIONAL ECOLOGY DETAILS

The following Tables outline the potential ecological survey requirements, timeframes and mitigation measures (should they be required) for each route.

Route Option (A – D)	Survey Type	Survey (Brief) Description	Survey Requirement	Survey Window	Time Required to Complete Survey	Completion Prior to August 2017 Construction Start	Mitigation Timeframe
Α	Badger – updated survey	Updated survey to ensure no changes in sett locations have occurred	Recommended	Within 8 weeks of construction start	1 day	Yes	Should no evidence be found, works can proceed without delay. Should new badger excavation(s) be found then further survey would be required. If works are required within 30m of any badger setts, a sett closure licence would be required to close the sett legally. Refer below for mitigation timeline for badge sett closure.
	Bat – Tree Roost	Bat roost assessment of trees to be affected	Recommended to ensure appropriate consideration for planning	Preferably during winter due to reduction in foliage	1 day	Yes	Should potential roosting features be identified then aerial assessment for bats would be required. These could be carried out at any time of the year. Should bat roosts be identified and the trees require works/ felling then a licence from Natural England would be required to carry out the works legally. Dusk and dawn emergence / re-entry surveys would be required to inform a licence application. Dusk and dawn surveys would need to be carried out in May – August.

Table 1 Potential Ecology Survey Requirements

Route Option (A – D)	Survey Type	Survey (Brief) Description	Survey Requirement	Survey Window	Time Required to Complete Survey	Completion Prior to August 2017 Construction Start	Mitigation Timeframe
							Worst case delay – 6 months Should no evidence be found, works can proceed without delay.
	Great crested newt (GCN)	Presence/likely absence survey	Recommended to ensure appropriate consideration for planning	Mid-March to mid-June, with at least two of these visits during mid-April to mid-May	4 visits in suitable weather conditions	Yes	Should GCN be found to be present within the ponds on site, a licence application would be required. This would take 2 weeks to prepare and 6 weeks for deliberation. All information on the scheme (including justification for the works and consideration of alternatives) would be required for the application. Worst case delay – 2 months Should no evidence be found, works can proceed without delay.
В	Badger – updated survey	Updated survey to ensure no changes in sett locations have occurred	Recommended	Within 8 weeks of construction start	1 day	Yes	 B1. Avoiding badger sett (more than 30m and no heavy impact works within 50 m). Update survey only. Should no evidence be found, works can proceed without delay. If new excavation(s) found further survey required. If works are required within 30m of any badger setts, a sett closure licence would be required to close the sett legally. Refer to details below. Worst case delay – 9 months

Route Option (A – D)	Survey Type	Survey (Brief) Description	Survey Requirement	Survey Window	Time Required to Complete Survey	Completion Prior to August 2017 Construction Start	Mitigation Timeframe
	Bat – Tree	Bat roost	Recommended	Preferably	1 day	Yes	B2. Not avoiding badger sett (works within 30m) A licence would be required to close the badger sett. Badger surveys would be required to determine the use of the badger sett and the sett would need to be closed within the closure period (July – November). A period of monitoring and excavations works are required as part of the licensable works. Worst case delay – 9 months Refer to bat tree roost mitigation timeline
	Roost	assessment of trees to be affected	to ensure appropriate consideration for planning	during winter due to reduction in foliage			provided for Option A.
	Great crested newt (GCN)	Presence/likely absence survey	Recommended to ensure appropriate consideration for planning	Mid-March to mid-June, with at least two of these visits during mid-April to mid-May	4 visits in suitable weather conditions	Yes	Refer to great crested newt mitigation timeline provided for Option A.
	Combined otter, water vole and white clawed crayfish	Habitat suitability/ Presence/likely absence and survey	Recommended to ensure appropriate consideration for planning	April / May and August – September	2 days (combined survey over 1 day, followed by an additional	No (incomplete by August)	<u>Otter</u> Should an otter holt be found, monitoring and a licence may be required to undertake the works legally. Worst case delay – 3 months

Route Option (A – D)	Survey Type	Survey (Brief) Description	Survey Requirement	Survey Window	Time Required to Complete Survey	Completion Prior to August 2017 Construction Start	Mitigation Timeframe
					water vole survey on a second day)		 Water vole Should water vole be identified, mitigation measures would be required. A licence may be required to undertake the works legally. Worst case delay – 3 months White clawed crayfish Should white clawed crayfish be found a licence may be required depending on an impact assessment. Mitigation measures would be required for temporary loss of habitat. A trapping operation and seasonal restrictions on when works proximate to the watercourse may be required. Works to be carried out under a Method Statement for white clawed crayfish. Worst case delay – 1 month
С	Badger – updated survey	Updated survey to ensure no changes in sett locations have occurred	Recommended	Within 8 weeks of construction start	1 day	Yes	Refer to badger mitigation timeline provided for Option A.
	Bat – Tree Roost	Bat roost assessment of trees to be affected	Recommended to ensure appropriate consideration for planning	Preferably during winter due to reduction in foliage	1 day	Yes	Refer to bat tree roost mitigation timeline provided for Option A.
	Combined otter, water	Habitat suitability/	Recommended to ensure	April / May and	2 days (combined	No (incomplete by	Refer to otter, water vole and white clawed crayfish mitigation timeline for Option B.

Route Option (A – D)	Survey Type	Survey (Brief) Description	Survey Requirement	Survey Window	Time Required to Complete Survey	Completion Prior to August 2017 Construction Start	Mitigation Timeframe
	vole and white clawed crayfish	Presence/likely absence and survey	appropriate consideration for planning	August – September	survey over 1 day, followed by an additional water vole survey on a second day)	August)	
D	Badger – updated survey	Updated survey to ensure no changes in sett locations have occurred	Recommended	Within 8 weeks of construction start	1 day	Yes	 D1. Avoiding badger sett (more than 30m and no heavy impact works within 50 m). Update survey required. Should no evidence be found, works can proceed without delay. If new excavation(s) found further survey required. If works are required within 30m of any badger setts, a sett closure licence would be required to close the sett legally. Refer to details below. Worst case delay – 9 months D2. Not avoiding badger sett (works within 30m) A licence would be required to close the badger sett. Badger surveys would be required to determine the use of the badger sett and the sett would need to be closed within the closure period (July – November). A period of monitoring and excavations works are required as part of the licensable works.

Route Option (A – D)	Survey Type	Survey (Brief) Description	Survey Requirement	Survey Window	Time Required to Complete Survey	Completion Prior to August 2017 Construction Start	Mitigation Timeframe
							Worst case delay – 9 months
	Bat – Tree Roost	Bat roost assessment of trees to be affected	Recommended to ensure appropriate consideration for planning	Preferably during winter due to reduction in foliage	1 day	Yes	Refer to bat tree roost mitigation timeline provided for Option A.
	Great crested newt (GCN)	Presence/likely absence survey	Recommended to ensure appropriate consideration for planning	Mid-March to mid-June, with at least two of these visits during mid-April to mid-May	4 visits in suitable weather conditions	Great crested newt (GCN)	Refer to great crested newt mitigation timeline provided for Option A.
	Combined otter, water vole and white clawed crayfish	Habitat suitability/ Presence/likely absence and survey	Recommended to ensure appropriate consideration for planning	April / May and August – September	2 days (combined survey over 1 day, followed by an additional water vole survey on a second day)	No (incomplete by August)	Refer to otter, water vole and white clawed crayfish mitigation timeline for Option B.

Notes:

-Please note that this schedule assumes that no additional protected species are encountered during the above surveys and that likely absence of additional badger setts, GCN, trees suitable for roosting bats and protected riparian species (otters, water vole and white clawed crayfish) is confirmed. The potential impacts of protected species presence within the survey area are discussed below.

-This schedule assumes that no works will be undertaken within 30 m of the known badger setts and no piling or similar works will be undertaken nearby (exact distances to be determined by the supervising ecologist on an individual basis).

-Additional species constraints, such as breeding bird checks and method statements for reptiles, are considered elsewhere. This table should therefore not be considered as the full ecological recommendations of the report.

The following table details a broad timeframe of potential works in the event a protected species has potential to be affected by the works. The timeframes detailed below are deliberately vague, as specific mitigation and timing constraints can only be confirmed once the full details of the proposed works and species presence is known.

Species	Potential further works (in the event of potential impacts to protected species)						
Badger	Should the proposed works encroach within 30 m of a badger sett or require a sett to be closed a licence to disturb or displace badgers would be required from Natural England.						
	In order to apply for a licence, Natural England would require additional surveys and mitigation to prove that no viable alternative is possible to prevent impact to badger and that no net negative effects will be experienced by the badger clan affected. This could include surveys to understand the use of the area by badger, such as bait marking surveys, and mitigation to offset the loss of a sett, such as creation of an artificial sett.						
	Exact mitigation and requirement for further survey would depend on the degree of effects to the sett and it should be noted that it cannot be guaranteed that Natural England will issue a licence.						
Great crested newt	Should great crested newts (GCN) be identified in one or more of the ponds in the survey area further surveys and mitigation would be required.						
	In the event that GCN are identified an additional two surveys would be required to give a population class assessment. Once these surveys were completed mitigation would be required to ensure no breach of relevant legislation occurs, which could include a licence application in the event that trapping is required.						
	The exact level of mitigation would depend on the level of impact and its proximity to breeding ponds.						
Otter, water vole and white clawed	Should any protected riparian species (otter, water vole and/or white clawed crayfish) have potential to be affected by the work appropriate controls and mitigation would be required to ensure compliance with relevant legislation.						
crayfish	The exact level of control and mitigation would vary by species and may include measures such as changes in the design of any culverts, licence applications to Natural England in the event that a water vole or otter resting place is to be affected and/or sympathetic methods of working.						
Bats	Should a tree requiring removal or pruning be identified as suitable for roosting bats further surveys would be required.						
	This would likely involve aerial surveys to determine whether suitable features are in use and/or presence/likely absence (summer) surveys. Should a bat roost be identified within a tree to be affected, a licence would be required from Natural England in order for works to proceed, if the loss of the tree is unavoidable.						
Breeding birds	In the event that vegetation clearance is required in the breeding bird season, ecological supervision would be required. Should a nest in use be identified within an area to be cleared a suitable buffer would need to retained until the young had fledged and we no longer						

Table 2 Timeframes of Potential Works

Species	otential further works (in the event of potential impacts to protected species)				
	dependant on the nest.				