St Luke's Barn Redevelopment

Access Appraisal Report Cambridgeshire County Council

September 2017

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1. Introduction

1.1. Background and Purpose

Atkins has been commissioned by Cambridgeshire County Council (CCC) to produce an Access Appraisal Report assessing the feasibility of potential access routes to St Luke's Barn, Cambridge. It is proposed that St Luke's Barn will be subject to a change of use from a community sports facility and community centre to a creative arts centre. St Luke's Barn seeks to accommodate a new arts centre known as the Centre for Research and Engagement for Arts and Technology in Education (CREATE).

This report assesses the existing and potential accessibility arrangements of the proposed site by all modes of transport including, walking, cycling, public transport and private motor car. In addition, this report appraises three options that are currently being considered by CCC which will be commented on. This report is intended to guide feasibility design of the site and inform CCC of any transport and access issues which may affect the feasibility of the development of CREATE.

1.2. Milestone 1 Report

The Milestone 1 (MS1) report was published in March 2015 by Atkins and Faithful and Gould to test the feasibility of St Luke's Barn accommodation of CREATE by investigating several options including:

- Renovating and converting the existing property; and
- Demolishing the existing site and providing a new build structure.

Furthermore, the report found that the facility would need:

- 'Additional car parking on the site (Including options on the School part of the site'1; and
- 'Consideration of highway agency (Highways England) issues in terms of access and congestion and alternative access options.²'

Following initial consultation with CCC it was recommended that transport and access arrangements are appraised in more detail to ensure that the proposed change in use of the existing site can accommodate a potential increase in usage with respect to the proposed St Luke's Barn.

1.3. Structure

The remainder of this report is structured as follows:

- Section 2 identifies relevant existing policies in relation to parking standards and accessibility;
- Section 3 highlights the existing conditions within the site location including parking and access arrangements and identifying any existing constraints;
- Section 4 comments on existing site proposals including parking and access arrangements;
- Section 5 appraises the accessibility arrangement options; and
- Section 6 provides a summary and conclusion of this report.

¹ CCC (March 2015) MS1 Report. Page 22.

² CCC (March 2015) MS1 Report. Page 22.

2. Policy Guidance

This section of the report identifies current relevant policy in relation to the St Luke's Barn use conversion from a community centre to CREATE, including accessibility and car/cycle parking standards as mentioned below.

2.1. Cambridge City Local Plan (2006)

2.1.1. Policy 8/1 Spatial Location of Development

The policy states that for non-residential proposals (such as public halls/community centres) the site should be suitable regarding access by public transport, cycling and walking. In this case, there should be a good footway network surrounding the site; enough cycle parking which would meet local cycle parking standards (see below) and follow the Institute of Highways and Transportation (IHT) guidelines regarding proximity to bus stops, in this case 400m.

2.1.2. Policy 8/7 Public Transport Accessibility

The policy states that all developments within the urban extensions must be served by a high quality public transport service within a 400m walk from the site which echoes IHT's guidance.

2.1.3. Car Parking Standards

The Cambridge City Local Plan sets out parking standards for public spaces such as CREATE. In this case, public halls and/or community centres require one space per 20m² of public space including disabled car parking for sites is outside of the Controlled Parking Zone (CPZ). These levels are maximum levels and should not be exceeded.

Disabled parking should account for at least 5% of the total number of car parking spaces, as given by the standards for sites that are outside of the CPZ boundary (in this case one space per 20m² of public space).

2.1.4. Cycle Parking Standards

Cycle parking standards stated in the Cambridge City Local Plan are a minimum as the document seeks to encourage cycling around the City. Although the Local Plan sets out standards for new developments, St Luke's Barn should seek to adhere to these cycle parking standards to relieve traffic congestion during peak times (event times). The document states that for short stay cycle parking (for visitors to the site) the facilities should be located as near as possible to the main entrance of the site. The location of the cycle parking should also minimise conflict between cycles and motor vehicles. Public halls/and or community centres require a minimum of one space per 15m² of public floor space.

These policies and exceptions will be considered when appraising access options that have an impact on the existing playing field.

2.2. Summary

This Access Appraisal Report has been prepared with reference to the policies and parking standards stated above and uses the policy to identify potential issues with each option.

3. Baseline Conditions

This section identifies the baseline conditions of the site, its surrounding area and current access and parking arrangements associated with St Luke's Barn. This section also provides commentary on existing constraints as identified in a site visit conducted on 08/09/2017.

3.1. St Luke's Barn Location and Site Use

St Luke's Barn is located in Arbury, North Cambridge. The site is located approximately 1.5km north of Cambridge City Centre. Existing access to the site is through the adjacent St Luke's CofE Primary School car park which is accessed from French's Road. French's Road is currently outside the CPZ but due to its narrow nature has double yellow lines for approximately 130m at its southern end with some intermittent onstreet parking on its eastern side for local residents. There are zigzag markings on the western side of French's Road in the immediate vicinity of the School. Figure 3-1 and Figure 3-2 highlights the location of the existing site in relation to Cambridge and the local area.



Figure 3-1 St Luke's Barn Location – Cambridge Context

Gilbert Road

Chesterton Mill (private road)

St Luke's Barn

Histor Road

French's Road

Victoria Road

CoperistreetMisp contributors

CoperistreetMisp contributors

Figure 3-2 St Luke's Barn Location – Local Context

St Luke's Barn is currently used as a community centre and a community sports facility that hosts a number of groups including the following:

- University Badminton Club;
- · Bottisham Badminton Club;
- Toy Swap Group;
- Cambridge Islamic Youth Project; and
- St Luke's CofE Primary School Pupils.

The Barn is also used for events in the evenings and School holidays but is not typically used during the School day by external groups. The facilities regularly have multiple users at any one time due to the layout of the Barn, which has multiple rooms used for differing activities, including the main hall which is used for sports and a first-floor meeting room.

The Barn shares the same site with St Luke's CofE Primary School. The School currently has 198 pupils on roll with is a maximum capacity of 210 pupils ranging from Reception to Year 6. There are up to 25 staff employed at the School. On a typical School day, the gates open at 08:45 with registration at 08:50 and the first lesson at 09:05. The School day ends at 15:15.

3.2. Existing Site Access Arrangements

3.2.1. Cycle and Pedestrian Access

There are four pedestrian access points to the site with two pedestrian access points on French's Road. The north-east entrance is predominantly used by parents and children entering the site from the alleyway leading to Harvey Goodwin Avenue. The south-east access is predominantly used by parents and children entering the south from French's Road from Victoria Road. This access is also a gated vehicular access

which is likely to be for emergency access only. There is also one access from Linden Close (a residential road off Histon Road) and another from Rackham Close.

The site has cycle links to Cambridge City Centre with on-road signed primary network routes on Histon Road which can be accessed via the south-east pedestrian access and Stretton Avenue leading to Victoria Road

There are three national cycle paths near the site which have been outlined below:

- Cycle path 11: "National Route 11 of the National Cycle Network will connect Harlow in Essex with Wigginhall St Germans (south of King's Lynn) in Norfolk via Cambridge and Ely. Harlow to Stansted Mountfitchet and Waterbeach to Wicken are still under development, along with a link to Saffron Walden."3:
- Cycle path 24: "National Route 24 of the National Cycle Network runs from Bath through Radstock, Frome, Warminster and Salisbury to join with National Route 23 at Eastleigh in Hampshire. Route 24 includes the Colliers Way, which connects Dundas Aquaduct and Frome." and
- Cycle path 51: "National Route 51 passes through Oxfordshire, Buckinghamshire, Bedfordshire, Cambridgeshire, Suffolk and Essex. The section between Harwich and Colchester forms part of the North Sea Cycle Route, also known as EuroVelo 12."⁵

3.2.2. Local Highway Network and Access

Vehicular access to the site is via the St Luke's CofE Primary School car park and as such, the land is owned by the Trustees of the Church Schools of Cambridge. There is a vehicular access from French's Road which is via the main School gates (northeast access) on French's Road and is approximately 6m wide. The main vehicular access into the School runs between parts of the playground and the caretaker's property, where there is sufficient space for vehicles, pedestrians and cyclists to access to the School car park and St Luke's Barn.

French's Road is a narrow single carriageway no-through road connecting to Victoria Road to the south and provides access to the adjacent residential areas of Bermuda Road, Bermuda Terrace and Harvey Goodwin Court. French's Road is approximately 3.5m wide at the junction with Victoria Road then expands to 5.5m approximately 130m from the junction, with a speed limit of 20mph throughout.

Victoria Road (A1134) is part of the Cambridge Ring Road that runs east/west at the point it crosses French's Road. Victoria Road leads on to Huntingdon Road which is the most direct route onto the A14 westbound which is approximately 5km from St Luke's Barn. The site is approximately 3.5km from the M11 southbound via Madingley Road.

There is a private access road that runs adjacent to the St Luke's School site on its northern boundary which serves as an access to the Chesterton Mill site. The Chesterton Mill site can also be accessed from French's Road. On-site observations have noted that pedestrians use this private road as a through route to Histon Road.

Service vehicles (including refuse vehicles) currently reverse into the site via the north east vehicular access on French's Road to enter the site which can cause issues for vehicles entering the site at this time according to a staff member at the School. It is assumed that emergency vehicles enter the site at the southeast access point on French's Road as the pinch point is too narrow to accommodate emergency vehicles (the pinch point is 3m wide but emergency vehicles require a 3.7m wide access route).

3.2.3. Public Transport Network and Access

3.2.3.1. Bus Access

The nearest bus stop to the site is approximately 350m to the west on Histon Road to the south of the junction with Akeman Street. This stop is served by Citi 8 and X8 services, which serves Central Cambridge,

³ https://www.sustrans.org.uk/ncn/map/route/route-11

⁴ https://www.sustrans.org.uk/ncn/map/route/route-24

⁵ https://www.sustrans.org.uk/ncn/map/route/route-51

Histon, Cottenham, Chatteris and March. The IHT guidance states that an acceptable walking distance to a bus stop is 400m which means that the Histon Road stop will provide adequate service to the site should pedestrians have access through the Chesterton Mill private road. Additional stops within the vicinity and the services serving these stops are included in Table 3-1.

Table 3-1 Existing Bus Services that are walking distance of St Luke's Barn

Service	Bus Stop Location (Metres from St Luke's Barn)	Key Stops Along Route
1A	Huntingdon Road (650m); Shire Hall (800m); Carlton Way (650m).	Cambridge City Centre, Bar Hill and St Ives.
Citi 1	Gilbert Road (800m).	Cambridge City Centre, Addenbrooke's Hospital and Fulbourn.
Citi 5	Huntingdon Road (650m); Shire Hall (800m).	Cambridge City Centre, Bar Hill, Longstanton and Swavesey.
Citi 6	Huntingdon Road (650m); Shire Hall (800m).	Cambridge City Centre, Girton and Oakington.
Citi 8	Histon Road (350m, with private access); Histon Road (600m without private access); Victoria Road (500m).	Cambridge City Centre, Histon, Cottenham, Chatteris and March.
X8	Histon Road (350m, with private access); Histon Road (600m without private access); Shire Hall (800m).	Cambridge City Centre, Histon and Cottenham

3.2.3.1.1. Rail Access

There are two railway stations in Cambridge. Cambridge North is approximately a 4km walk from the site whilst the Central Cambridge railway station is approximately a 3.5km walk from the site. Both stations are included within the primary cycle network which extends to St Luke's Barn Site. The Citi 8 service that stops at Histon Road and Victoria Road also stops at Central Cambridge station. Both stations accommodate services that travel to and from destinations including but not limited to Ely, Peterborough and London.

3.3. Existing Data and Travel Patterns

3.3.1. 2011 Census Travel to Work

The MS1 report states that there will be multiple users there at any one time working within the site throughout the day. Therefore, it is appropriate to identify how individuals travel into the area and identify travel patterns to and from the site.

Table 3-2 shows how individuals travel to work within the Middle Super Output Area (MSOA) that covers St Luke's Barn site from three key areas within Cambridgeshire including Cambridge City Centre, South Cambridgeshire and East Cambridgeshire. The MSOA level that contains St Luke's Barn is E02003720: Cambridge 002 and is shown in Figure 3-3 below with the site highlighted in red.

Figure 3-3 MSOA Containing St Luke's Barn



This MSOA contains local businesses, free houses, convenience stores, a mechanic in addition to two supermarkets and a petrol station which would account for the majority of employment in the area. St Luke's CofE Primary School is the only School within this MSOA.

A 2011 Census search on travel to work found the following presented in Table 3-2 below.

Table 3-2 Travel to Work Characteristics from Local Areas to St Luke's Barn MSOA Level

	Usual Residence				
Travel Method	Cambridge	East Cambridgeshire	South Cambridgeshire	Total	
On Foot	97	1	3	101 (15%)	
Bicycle	114	1	27	142 (21%)	
Bus	14	2	15	31 (4%)	
Car/Van Driver	105	61	191	357 (52%)	
Car/Van Passenger	16	3	7	26 (4%)	
Motorcycle	12	1	5	18 (3%)	
Other	3	0	2	5 (1%)	
Total	361	69	250	680 (100%)	

Source: 2011 Census Data - WU03EW

The table shows that over half (56%) of the people travelling into the MSOA travel by private vehicles whereas 40% of people travel to work by sustainable modes (foot, bicycle and bus). It should be noted that in 2011 there were more people travelling to the area by bicycle than car from within Cambridge City and there were a comparable number travelling on foot and car.

The results suggest that people living in the area have a high propensity to walk and cycle.

3.4. Existing Parking Arrangements

The School currently provides 17 standard and marked car parking spaces and four marked Blue Badge parking spaces⁶ which is in a long linear arrangement. On-site observations found that staff were also parking in other informal spaces within the School and Barn car parks. Within the School car park there are no designated parking spaces for staff with the parking operating on a 'first come, first served' basis.

There are six standard parking spaces and one Blue Badge space adjacent to St Luke's Barn which are situated either side of the entrance to the Barn.

From on-site observations, it is considered that the car park provides enough room for vehicles to manoeuvre in and out of the spaces.

Cycle parking is located within the School site behind the main reception adjacent to the building. There is no cycle parking adjacent to St Luke's Barn. The School site contains total of 125 cycle parking spaces in three separate locations. It should be noted that each cycle rack can hold two cycles. There are 11 cycle racks (22 spaces) situated behind the reception adjacent to the car parking. There are another two cycle shelters along the southern edge of the site. One shelter is in the south-east corner next to the pedestrian access which has 17 single racks and 20 standards racks (57 spaces) and the other is on the southern edge of the site which contains 23 racks (46 spaces).

3.5. Existing Site Constraints

It is considered that there are constraints associated with the existing site with regards to highway access, pedestrian access and public transport access.

Highway Access

It was noted in the MS1 Report that there is a pinch point in between the School and the caretaker's property where only one vehicle can pass at any one time. The pinch point is approximately 3m wide and 5m long (running east/west) which means two-way traffic is not possible at this point in the road. This route is the only vehicular access point to the School and Barn sites.

French's Road is a narrow two-way road with 'School Keep Clear' zigzag markings immediately south of the School access road which extends for approximately 65m on the western side of French's Road. French's Road has a number of sections of on-street parking on its eastern side which are well-used by local residents and parents during pick-up/drop-off periods which should be monitored if St Luke's Barn was to change use.

Pedestrian Access

To access St Luke's Barn, pedestrians need to walk on the road through the car park from the School to the Barn as there are no designated footways.

Public Transport Access

The site has a bus stop within 400m walking distance (Histon Road) should Chesterton Mill private road be available for pedestrian use. If the owner of the road does not agree to public use, then public transport access becomes more restricted and would need to be considered as part of a Transport Assessment.

 On-site observations. 			

3.6. Site Visit Observations (08/09/2017)

A site visit was conducted on 08/09/2017 during the AM Peak period (08:00-09:15). The site visit was undertaken to appraise the existing site access arrangements and carry out a traffic count on the site access to understand any existing issues. The key observations are as follows:

Site Access

- Access to French's Road from Victoria Road is narrow although two-way traffic is possible beyond the junction;
- Pedestrian access is well used in particular the alleyway leading from Harvey Goodwin Avenue;
- Pedestrian access to the south of the site (leading from Linden Close and Rackham Close) were used throughout the site visit by parents and pupils of the School; and
- The access point becomes an issue when vehicles are exiting and arriving at the same time (one-way traffic only).

Parking and Drop-off Arrangements

- Parking on French's Road is currently at capacity with little free space on the eastern side of the street. This is exacerbated by double yellow lines at the southern end of the road and 'School Keep Clear' markings outside of the School;
- A drop-off count was conducted between 08:45 and 09:10. There were 30 drop-offs in total. 20 cars
 dropped-off outside of the School site on French's Road on Harvey Goodwin Court (which are
 situated across the road from the School) whilst 10 cars went into the site. Further assessment on
 drop-offs and traffic counts should be conducted as part of a Transport Assessment /Statement for
 St Luke's Barn; and
- There was a high number of cycles entering the site and using the cycle parking facilities.

Chesterton Mill Arrangements

- Chesterton Mill access has a 3m wide tarmacked track with a 1m wide grass-verge either side (5m width in total); and
- This route is used by pedestrians and cyclists although there is a sign saying 'No Public Right of Way.'

Rackham Close Arrangements

- The road has residential parking for the flats on the southern and eastern side of the road although it
 is used as a drop-off area (witnessed on site visit) as there is a section of the road that is not double
 yellow (i.e. unrestricted parking);
- Residential properties are set on the opposite side of the road; and
- There is a suspected third party ownership of the strip of land between the site and highway network.
 It was noted that there were informal parking bays owned by Cambridge Chiropodiatry and Podiatry which were being used.

4. Proposed Development

This section commentates on the proposals for the site detailing parking provision and identifying preliminary options for new access arrangements.

4.1. Overview of Proposed Development

St Luke's Barn is currently used as a community centre and sports hall. It is proposed that the site is redeveloped and a use change to a creative arts centre which would be known as CREATE. The proposals assume that there could be an increase in use in terms of individuals using the site noting:

"the facility will have multiple attendees at any one time, with a normal usage expected of 100 and a possible maximum of 200.7"

Updated information suggests that will be a maximum of 150 users with the usual usage being much less.

In addition, opening times for staff would be 08:30 to 19:00 but options to extend to 22:00 for overnight recording use with code access for doors would be available. Remote monitoring and opening of site is also incorporated in the design of the site.

It is proposed that, as part of a robust assessment the Gross Internal Area (GIA) would be approximately 1,500m² over three floors although the options may change. Typical areas include but are not limited to the Main Hall, two Large Studios, eight Small Studios, three Offices, two Toilets, a Music Library and Instrument Store. The Barn would also include rehearsal rooms for dance, drama, music with digital dissemination and professional level facilities that include recording.

With regards to access which is further detailed in the following sections it is understood and appreciated that 'Facilities should be sufficient to cater for this in terms of... access'8. Therefore, there have been three preliminary options that are to be taken forward which have been summarised below:

- Option 1: retain and widen existing access off French's Road;
- Option 2: provide a new access off Rackham Close; and
- Option 3: provide a new access off Chesterton Mill.

4.2. Preliminary Access Options

There are three possible access arrangements that this access appraisal report considers. These have been identified in Table 4-1. For indicative plans for Option 1, Option 2 and Option 3 (variation A) see Appendix A.

⁷ CCC (2015) MS1 Report. Page 22.

⁸ CCC (2015) MS1 Report. Page 22.

Table 4-1 Access Option Details

Option	Details
Option 1: retain	Highway Access Proposal:
and widen existing access off French's Road. (Appendix A.1)	To retain current access arrangements off French's Road and to widen existing infrastructure to allow for two-way traffic entering and exiting the School car park although the pinch point would remain the same due to the proximity to the Caretaker's property and the School building. Pedestrian Access Proposal:
(4 2 2 2 2 2 2 2 2 2	The main pedestrian footpath would be relocated to provide a safer access route to the
	School but not onto the CREATE site. Impact on Existing Landscape and Infrastructure:
	This arrangement would have minimal impact on the sports pitches to the west of the Barn. A small portion of the School playground would be used to make the entrance route wider. The existing Basketball Court would be used as an overflow car park so would not have an impact on the playing field.
Option 2:	Highway Access Proposal:
provide a new access off Rackham Close. (Appendix A.2)	To provide a new route from Rackham Close from the west to the entrance of St Luke's Barn in the east via the perimeter of the School playing fields as this would provide access to Histon Road. The proposals would also include widening the existing entrance as in Option 1.
	Pedestrian Access Proposal:
	The main pedestrian footpath would be relocated to provide a wider access route to the School but not onto the CREATE site.
	Impact on Existing Landscape and Infrastructure:
	This arrangement could cause minimal disruption to the sports pitches, however this is not compliant with Sport England guidance as there could be loss of playing fields. The site access directly off Rackham Close would be a maximum of 4m wide. This may cause some disruption to Rackham Close during events. The existing Basketball Court would be used as an overflow car park so would not have an impact on the playing field.
Option 3:	Highway Access Proposal:
provide a new access off Chesterton Mill.	In addition to the proposals mentioned in Option 1. Option 3 would provide a new route from Chesterton Mill private road from the north to the entrance of St Luke's Barn. This option has three variations:
(Appendix A.3)	Variation A: A controlled entrance at the start of the private road (e.g. nearest Histon Road) with an internal road inside the School boundary;
	Variation B: A controlled entrance to the western side of the Barn along the edge of the field; and
	Variation C: This variation would encompass moving the Chesterton Mill site boundaries in such a way as to incorporate the footprint of the Barn into the Mill site and this would allow a mixture of options with regard to the access and flow of any traffic (including limiting it). In discussion with the developer, CCC confirm the developer's intention currently would be to retain the "one-way" flow of any traffic movements on site rather than trying to enable two-way access from Histon Road.
	Pedestrian Access Proposal:
	The main pedestrian footpath would be relocated to provide a safer access route to the School but not onto the CREATE site.
	Impact on Existing Landscape and Infrastructure:
	This arrangement would cause minimal disruption to the sports pitches, however Variations A and B are not compliant with Sport England guidance as there could be loss of playing fields. The site access off Chesterton Mill would require an easement from the owner of the road. This may cause some disruption to Chesterton Mill before and after events at the Barn, however, these are likely to be during evenings and weekends. The existing Basketball Court would be used as an overflow car park so would not have an impact on the playing field.

After discussions with the CCC client team it is considered that all options will need to be considered within this report. CCC have not yet held discussions with Sport England to discuss construction over the existing playing fields within the site. CCC have held discussions with the owner of Chesterton Mill private access road which concluded that all options will be considered and that further liaison with statutory and non-statutory stakeholders will take place.

4.3. Car and Cycle Parking Provision

Due to the potential for extended usage of the site it is recognised that car parking should also be extended where possible. The MS1 report stated that:

'The parking will be limited due to location and available spaces but it is expected that up to 40 spaces might be possible on site, more if feasible. Cycle racks will be used and pedestrian and cycling access encouraged. Disability access will need to meet national standards.'9

Cambridge City Council maximum parking standards for public halls (as stated in Section 2.1), for sites outside of the CPZ require one parking space for every $20m^2$ of GIA, of which 5% should be Blue Badge parking. There are several options for a potential layout of St Luke's Barn, for the purposes of reviewing car parking requirements, a robust assessment assumes a maximum of three floors of $500m^2$ GIA to allow for variations in design. In this case the site could provide a maximum of 75 spaces (71 standard spaces and 4 Blue Badge spaces). The maximum amount of car parking spaces may vary with further design work and confirmation of the site layout.

The MS1 report stated that there could be 37 standard spaces and 4 Blue Badge Spaces within the main car park with 22 spaces being available in an overflow car park which is situated on the existing concrete area south of St Luke's Barn adjacent to the playing fields. Therefore, it is proposed that a total of 59 standard spaces and 4 Blue Badge spaces are provided, which would be within the City Council maximum standards.

Cambridge City Council minimum cycle parking standards for public hall (as stated in Section 2.1), require one cycle parking space for every 15m² of GIA. There are several options for a potential layout of St Luke's Barn, for the purposes of reviewing cycle parking requirements, a robust assessment assumes a maximum of three floors of 500m² GIA to allow for variations in design. In this case the site has a minimum of 100 cycle spaces are required (based on a total floor area of 1,500m² GIA approximately). The minimum amount cycle parking spaces may vary with further design work and confirmation of the site layout.

⁹ CCC (March 2015) MS1 Report. Page 22.

5. Access Feasibility

This section of the report appraises the feasibility of three access options as defined in the MS1 Report based on transport considerations stated below.

The access arrangements are appraised in terms of the associated opportunities and constraints and how it may impact the operation of the proposed CREATE site and St Luke's CofE Primary School. The options are assessed in the following categories:

- Vehicle Access: It is proposed that CREATE can accommodate a maximum of 200 individuals at a single time therefore the arrangements should seek to reduce the impacts during events;
- Pedestrian and Cycle Access: Pedestrians and cyclists should have safe and secure access to the site where possible;
- Impact on Local Highway Network: The change in use should not have a negative impact on the local highway network;
- Servicing: Access arrangements should be able to accommodate service and emergency vehicles;
- Construction Cost: Construction costs should be kept to a minimum where possible;
- Planning: Any planning issues should be addressed as part of future design and consultation stages;
- Car and Cycle Parking: Both car and cycle parking should comply with Cambridge City Local Plan standards.

The following sections appraise each option and how each category can be optimised whilst highlighting any constraints and potential issues.

5.1. Access Feasibility Appraisal

To assess each option Table 5-1, Table 5-2 and Table 5-3 sets out the assessment criteria identified above. The table does not compare or rank options. The aim of the table is to understand the feasibility of each option and to highlight any constraints associated with it. The constraints identified in Table 5-1, Table 5-2 and Table 5-3 should seek to be mitigated where possible and should the constraint be deemed as substantial that option would not be considered as 'feasible'. Potential mitigation measures have been suggested where applicable. These measures would be further assessed and considered in further design and assessment work. Opportunities and constraints may be repeated within the table as there are some aspects that are the same or similar throughout each option. The assessment is based on current proposals which may change throughout the design period.

 Table 5-1
 Option 1 Opportunities and Constraints

Option	Category	Opportunities	Constraints
	Vehicle Access	 A widened vehicular access allowing flow of traffic into and out of the site which would mitigate issues associated with the pinch point in the existing arrangements; and The bend towards St Luke's Barn would be widened to accommodate increased traffic levels. 	 The pinch point between the School and the caretaker's property allows one vehicle only to pass at this point;
	Pedestrian and Cycle Access	 The proposals include a footway that runs adjacent to the road providing access to the St Luke's Barn site; and The proposal suggests widening the footpath at the entrance adjacent to French's Road. 	 Potential safety issues when pedestrians use shared space passing the School building which could be mitigated by installing a permanent footway around the building.
Option 1:	Public Transport Access	 Histon Road bus stop is within 400m guideline distance with other stops providing the site with good access to the local public transport network. 	 Access to Histon Road stop (only stop within 400m boundary) is dependent on third party agreement and approval.
retain and widen existing	Impact on Local Highway Network	Minimal impact on traffic on Histon Road.	 Potential congestion on French's Road during peak periods due to additional traffic using single access route.
existing access off French's Road.	Servicing	Grasscrete would be installed adjacent to St Luke's Barn to facilitate servicing of the site.	 The proposed Grasscrete encroaches on the playing field which may be opposed by Sport England (although this area currently has a large storage contained adjacent to the Barn which already covers part of the playing field); and The service area is narrow so vehicles would need to reverse in or out.
	Construction Cost	Option 1 entails simple construction work by widening an existing footway and an off-road highway and installing Grasscrete on an existing playing field.	
	Car and Cycle Parking	 Additional car parking on site including an overflow car park for peak periods (event times); and Potential for an additional 50 cycle spaces within the site. 	No formal drop-off area for either the School or the Barn. The drop-off area will continue to be from French's Road and within the School site.

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Option	Category	Opportunities	Constraints
	Planning	 The proposals are not reliant on third party land owners (Chesterton Mill); and Access is only over highways controlled land. 	Sport England may oppose proposal due to loss of small section of playing field, however this is minimal.
	Impact on Existing Site	 Minimal impact on Chesterton Mill and Histon Road as there are no planned changes to the access arrangements to the west; and There would be minimal impact to the playing field. Grasscrete may be laid for servicing vehicles which runs adjacent to the site; however, there is already a storage container present where the area would be. 	 Loss of trees for widening bend towards St Luke's Barn; and Loss of playing fields for servicing area from the overflow car park to St Luke's Barn.

 Table 5-2
 Option 2 Opportunities and Constraints

Option	Category	Opportunities	Constraints
Option 2: provide a new access off Rackham Close (maximum 4m width)	Traffic and Vehicle Access	 A widened vehicular access allowing flow of traffic into and out of the site which would mitigate issues associated with the pinch point in the existing arrangements; Bend towards St Luke's Barn would be widened to accommodate increased traffic levels; Rackham Close would be used as the main access to the venue alleviating traffic pressure from French's Road access. It is considered that CCC prefer more access points within a site; and Additional access could enter the site from the west and enter the car park adjacent to the overflow parking. This would reduce reliance on the French's Road vehicular access. 	 The pinch point between the School and the caretaker's property allows one vehicle to pass at any one point; Road layout becomes convoluted to avoid severing playing fields; and Maximum width of new road potentially resulting in issues with two-way traffic if it is too narrow. This can be mitigated with further design work.
	Pedestrian and Cycle Access	 The proposals suggest a footway that runs adjacent to the road which can access the St Luke's Barn site; and The proposal suggests widening the footpath at the entrance adjacent to French's Road. 	 Potential safety issues when pedestrians use shared space passing the School building; and Potential safety issues where individuals cross the road where traffic would enter the car parking area from the Rackham Close access route due to a tight bend although this can be mitigated by pedestrian crossings and low speed limits.
	Public Transport Access	 Histon Road stop is within 400m guideline distance with other stops providing the site with a good public transport network; and Improved access to Histon Road to access bus stop that is not reliant on private access. 	•
	Impact on Local Highway Network	 Traffic can dissipate from both east (French's Road) and west (Histon Road); Reduced impact on French's Road due to additional access point; and This option may remove some traffic from Victoria Road/Histon Road junction. 	 Due to the layout of car park there may be congestion issues associated with entry/exit of car park; and May cause some congestion to Histon Road during events; and Increased traffic flow in to and out of Rackham Close.

Option	Category	Opportunities	Constraints
	Servicing	Service vehicle may enter from either side and exit from the other without the need for reversing.	 No dedicated servicing area; and There may not be enough space to for service vehicle to manoeuvre past an oncoming vehicle. This can be mitigated as part of a service management strategy that seeks to inform service vehicles when to enter the site and how; and
	Construction Cost		Additional cost would be required to lay road down along the field perimeter. In addition to widening the access route and re-aligning the footway
	Car and Cycle Parking	 Additional car parking on site including an overflow car park for peak periods (event times); and Potential for an additional 50 cycle spaces within the site. 	No formal drop-off area.
	Planning		 Sport England may oppose proposal due to loss of significant area of playing field; Potential issues with ownership of land in between the School site and Rackham Close; and Potential third-party land ownership on Rackham Close which may be used as a 'ransom strip'.
	Impact on Existing Site	 Reduction in safety risk with traffic near the School; Reduction of dependence on French's Road access; and Direct access from site from Histon Road. 	 Loss of trees for widening bend towards St Luke's Barn; and Loss of playing fields for access route from Rackham Close to St Luke's Barn.

 Table 5-3
 Option 3 Opportunities and Constraints

Option	Category	Opportunities	Constraints
Option 3: provide a new access off Chesterton	Traffic and Vehicle Access	 Applicable for All Variations A widened entrance allowing flow of traffic into and out of the site which would mitigate issues associated with the pinch point in the existing arrangements; Bend towards St Luke's Barn would be widened to accommodate for increase traffic levels; and Route does not sever playing fields. Variation A: Route is on site meaning less of the route is dependent on third party co-operation; and One-way traffic into the site would minimise conflict on Chesterton Mill private road. Variation B: Route is not convoluted. Variation C: Chesterton Mill access route would be incorporated within the access arrangements so any traffic impacts can be managed. 	 Applicable for All Variations The pinch point between the School and the caretaker's property allows one vehicle to pass at any one point; Potentially more cost for little benefits should there remain a single access point; Chesterton Mill access has a pinch point which could result in one-way traffic on the access point to Histon Road; Variation A: Right turners into the site may disrupt westbound traffic on Histon Road and westbound traffic should Chesterton Mill become two-way traffic. Variation B: Chesterton Mill is not wide enough for two-way traffic although this could potentially be mitigated by passing places; and Right turners into the site may disrupt westbound traffic. Variation C: No further constraints.
	Pedestrian and Cycle Access	 Applicable for All Variations The proposals suggest a footway that runs adjacent to the road which can access the St Luke's Barn site; The proposal suggests widening the footpath at the entrance adjacent to French's Road; Additional pedestrian access from Chesterton Mill may reduce dependency on French's Road access; and This proposal would enhance the pedestrian and cycle network by providing more routes into and out of the site. 	 Applicable for All Variations Potential safety issues when pedestrians use shared space passing the School building; and Potential safety issues where individuals cross the road where traffic would enter the car parking area from the Chesterton Mill access route due to a tight bend although this can be mitigated by pedestrian crossings and low speed limits.
	Public Transport Access	Applicable for All Variations Histon Road stop is within 400m boundary with other stops providing the site with a good public transport network	Applicable for All Variations Public transport access is dependent on access from Chesterton Mill.

Option	Category	Opportunities	Constraints
	Impact on Local Highway Network	 Applicable for All Variations Traffic could dissipate from both east (French's Road) and west (Histon Road); Chesterton Mill would be used as the main access to the venue relieving traffic pressure from French's Road. One-way route only from Histon Road to the site to simplify access arrangements; and Reduces traffic at Victoria Road/Histon Road junction. 	 Applicable for All Variations Increased levels of traffic on Histon Road; This option would require signal controls on Chesterton Mill which could lead to 'blocking back' onto Histon Road at peak times; Increased levels of traffic using Chesterton Mill access; and Access is not owned by CCC.
	Servicing	Applicable for All Variations Service vehicle may enter from either side and exit from the other without the need for reversing.	Applicable for All Variations No dedicated servicing area; and May not be enough space to for service vehicle to manoeuvre past an oncoming vehicle on Chesterton Mill.
	Construction Cost	Applicable for All Variations Chesterton Mill private road and site infrastructure existing.	Variation A: Additional cost incurred by creation of new highway within site.
	Car and Cycle Parking	Applicable for All Variations Additional car parking on site including an overflow car park for peak periods (event times); and Potential for an additional 50 cycle spaces within the site.	Applicable for All Variations No formal drop-off area.
	Planning	Applicable for All Variations Constraints can be mitigated upon liaison with stakeholders.	 Applicable for All Variations Sport England may oppose proposal due to loss of area of existing playing field; and Access not owned by CCC and would require a legal easement agreement of use.
	Impact on Existing Site	 Applicable for All Variations Reduction in safety risk with traffic near the School; and Reduction of dependence on French's Road access. 	Applicable for All Variations Use of Chesterton Mill private road would need to be managed to avoid major impact on existing users of the site (Chesterton Mill) Loss of trees to account for widening bend towards St Luke's Barn; and Loss of playing fields for access route from Chesterton Mill to St Luke's Barn.

6. Summary and Conclusions

6.1. Summary

This report has appraised potential access arrangements to St Luke's Barn, Cambridge to accommodate change of use from a community centre to a creative arts centre (CREATE). The results of the assessment were informed by a site visit and discussions with CCC to understand the existing and future site usage and potential access options.

6.1.1. Existing Access

St Luke's Barn shares the site and a single vehicular site access with St Luke's CofE Primary School. Access to the existing site is via French's Road, Cambridge. French's Road is a quiet residential road accessed via Victoria Road.

Pedestrian and cycle access is currently taken from four points, French's Road, an alley through to east onto Harvey Goodwin Avenue which leads onto Stretten Avenue, and two accesses from Rackham Close and Linden Close. It is considered that there is a good pedestrian footway and cycle network within the vicinity of the site.

6.1.2. Parking Provision

It is proposed that approximately 59 standard car parking spaces and 4 Blue Badge spaces could be provided in line with Cambridge City car parking standards. An additional 50 cycle spaces are likely to be included within the proposals.

There are currently 125 cycle spaces available on the site. These spaces are used by pupils and staff at the School. The proposals seek to install an additional 50 cycle spaces (25 racks) adjacent to the overflow parking area to adhere to Cambridge City cycle parking standards that parking for short stay sites should situated as close to the main entrance as possible. For the size of the site (approximately 1,500m² GIA¹0), a minimum of 100 spaces should be available. It is considered that there will be enough cycle parking spaces within St Luke's Barn to accommodate the proposed change of use.

6.1.3. Potential Access

Each option is summarised below:

- Option 1: This option seeks to widen and re-align the existing access point on French's Road to allow for safer access meaning that a two-way system in and out of the site become possible. This option offers additional safety measures for cyclists and pedestrians with additional footway and highway width upon accessing the School site. In terms of the local highway network there would be very little change in traffic to Histon Road, although this option may cause congestion on French's Road during event times. It is considered that this option is feasible although parking and traffic management strategies should be considered for peak times and during events;
- Option 2: This option seeks to provide an additional vehicular access off Rackham Close to the west of the Barn. In addition to the changes mentioned in the above option, an access point off Rackham Close could relieve congestion on French's Road during peak times. This option provides several benefits including an additional access to the School. Option 2 has an impact on the playing field but does not cause severance. This would require further talks with the organisation who are statutory stakeholder. It is considered that this option is feasible from a transport perspective although further liaison with Sport England will be required; also, potential issues with access over third party land (Rackham Close) would need to be discussed; and
- Option 3: This option seeks to provide an additional access off Chesterton Mill to the west of the Barn. In addition to the changes mentioned in Option 1, an access point off Chesterton Mill could relieve congestion on French's Road during peak times as this forms two access points. This would also need an easement agreement with the land owner for access. Option 3 has three variations which have been summarised below:

¹⁰ CCC (March 2015) MS1 Report. Page 22.

- Variation A: A controlled entrance at the start of the private road (e.g. nearest Histon Road) with an internal road inside the School boundary which could relieve traffic congestion on French's Road although it could cause issues elsewhere (Histon Road). This variation would also have an impact on the playing field;
- Variation B: A controlled entrance that comes off at the western side of the Barn along the edge of the field could relieve traffic congestion on French's Road but increase traffic movements on Histon Road, furthermore it could relieve some traffic movement at the Victoria Road/ Histon Road junction. This variation would have a minimal impact on the playing field. There are potential issues with the width of the private road as it is currently too narrow for two-way traffic, this would need to be mitigated by traffic signals which may cause delay and congestion; and
- Variation C: This variation would encompass moving the Chesterton Mill site boundaries in such a way as to incorporate the footprint of the Barn into the Mill site. This would allow a mixture of options with regard to the access and flow of any traffic (including limiting it). In discussion with the developer CCC can confirm the developer's intention currently would be to retain the 'one-way' flow of any traffic movements on site rather than trying to enable two-way access from Histon Road. A controlled entrance onto Histon Road could relieve traffic from French's Road but increase traffic movements, furthermore it could relieve some traffic movement on the Victoria Road/Histon Road junction. This variation has a dependency on the co-operation of the private landowner and developer of Chesterton Mill. If an access is placed to the west of the Barn it could relieve traffic congestion on French's Road.

6.2. Conclusions

Having reviewed the current proposals and having appraised each option it is considered that all options are feasible from an access and transport point of view. Option 2 and Option 3, Variations A and B will require discussion with the private drive land owner and Sport England due to impact on/loss of part of the playing field and Variation C will require more planning due to the nature of the proposals. Whilst it may be agreed with the land owner to use the access further legal work is required to ensure the long-term access of the site is available. Whilst each option has associated constraints, there should be further investigation during later design stages and assessments.

6.2.1. Option 1

Option 1 is the simplest and cheapest option, however would not address existing issues with site related congestion on French's Road.

6.2.2. Option 2

Option 2 would require discussion with the private landowner on Rackham Close which could potentially be a 'ransom strip' as access would be required to cross an area of private land. This option would also require discussions with Sport England who would oppose the development as there would be impact on the playing field within the site.

6.2.3. Option 3

All of Option 3 variations are dependent on third party co-operation and an easement to allow use of the private access. All variations are considered feasible from a highways and transport perspective providing that an easement for the use of Chesterton Mill is accepted. All variation should consider the impact on Histon Road due to the width of the highway although this could be mitigated by having an 'one-way' system where vehicles enter the site on French's Road and exit the site via Chesterton Mill (or vice versa).

Appendices



Appendix A. Proposed Development Option Plans

A.1. Option 1

6.4 Option 1 - Current Access Option

Outer building footprint represent renovation and extension of existing building. Inner building footprint represent to new building. Footpaths and plaza area to be extended as appropriate.

Existing trees at the back of the building removed and replaced with dense hedge to provide new screening and allow improved, separate pedestrian access with double gates where appropriate

Potential coach drop-off point

Grasscrete for service access (subject to Sport England approval)

Large entrance plaza highlights the main building entrance and provides high quality. impressive setting to the building. Area to include seating and planting.

Additional gate onto field

Minimal impact on the existing playing

Refuse store relocated and increased in size to allow additional parking spaces to be proposed.

New car parking spaces provided to increase the existing provision

New cycle storage for minimum 50no. cycles

New trees planted to mitigate the loss of existing trees felled for the implementation of additional parking / access facilities

Entrance area improved to provide safe and secure access

Entrance road widened to allow two cars to pass (with the exception of narrowing between School entrance area and the existing caretakers driveway)

Main pedestrian footpath relocated to provide safe access route to the main



A.2. Option 2

6.5 Option 2 - New Rackham Close Access

Outer building footprint represent renovation and extension of existing building. Inner building footprint represent to new building. Footpaths and plaza area to be extended as appropriate.

Additional access road follows playing field perimeter. The route is restricted by Tree root protection areas and playing field pitch markings.

(Note: Access route does not comply with Sport England guidance on playing fields)

Existing trees at the back of the building removed and replaced with dense hedge to provide new screening and allow improved, separate pedestrian access with double gates where appropriate.

Potential coach drop-off point

Large entrance plaza highlights the main building entrance and provides high quality impressive setting to the building. Area to include seating and planting.

Access road leading direct from Rackham Close (max 4m road width)

Minimal impact on the existing playing

Additional access road joins existing car park. New route reduces the amount of space for additional parking

Refuse store relocated and increased in size to allow additional parking spaces to be proposed.

New car parking spaces provided to increase the existing provision

New cycle storage for minimum 50no. cycles

New trees planted to mitigate the loss of existing trees felled for the implementation of additional parking / access facilities

Entrance area improved to provide safe and secure access

Entrance road widened to allow two cars to pass (with the exception of narrowing between School entrance area and the existing caretakers driveway)

Main pedestrian footpath relocated to provide safe access route to the main school entrance



A.3. Option 3 (Variation A)

6.6 Option 3 - New Chesterton Mill Access

Outer building footprint represent renovation and extension of existing building. Inner building footprint represent to new building. Footpaths and plaza area to be extended as appropriate.

Access off Chesterton Mill private access road (subject to agreement)

Potential coach drop-off point

Existing trees at the back of the building removed and replaced with dense hedge to provide new screening and allow improved, separate pedestrian access with double gates where appropriate.

Large entrance plaza highlights the main building entrance and provides high quality... impressive setting to the building. Area to include seating and planting.

Additional access road follows playing field perimeter. The route is restricted by Tree root protection areas and playing field pitch markings)

(Note: Access route does not comply with Sport England guidance on playing fields)

Additional access road joins existing car park. New route reduces the amount of space for additional parking

Refuse store relocated and increased in size to allow additional parking spaces to be proposed.

New car parking spaces provided to increase the existing provision

New cycle storage for minimum 50no. cycles

New trees planted to mitigate the loss of existing trees felled for the implementation of additional parking / access facilities

Entrance area improved to provide safe and secure access

Entrance road widened to allow two cars to pass (with the exception of narrowing between School entrance area and the existing caretakers driveway)

Main pedestrian footpath relocated to provide safe access route to the main



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