

**SUSTAINABLE TRANSPORTATION  
TECHNICAL NOTE**

**1 SEPTEMBER 2021**

Revision A – Dated 20 April 2022  
Updated drawing 60830-PP-018

**1. Access and Transportation Strategy**

- 1.1. The following technical briefing note is provided by way of clarification in relation to sustainable travel accessibility for the development of land at Little Barford.
- 1.2. This note should be read in conjunction with the forms and associated information in relation to the "new settlement and parish growth options" (Growth and Spatial Strategy Options 2b, 2c and 2d of the Bedford Borough Local Plan 2040 – Draft Plan Strategy Options and Draft Policies Consideration, June 2021) in respect of the Alington Estate. Reference has been made to enclosed **Drawing 60830-PP-018** for the suggested on-site and off-site highway works to facilitate sustainable travel to / from the current main local conurbation that provides employment and local amenities, which is St Neots. The town centre of which is located within a 5km distance of most of the site, thus is considered a reasonable cycle distance for most able-bodied people. Other key destinations for commuter journeys are Bedford, Huntingdon, Cambridge and London (in order of demand).
- 1.3. The development proposals will provide non-residential development including local employment, commensurate scale convenience food retail and community infrastructure, to reduce the need to travel outside of the development boundaries (internalisation of journeys). This will be an excellent way to improve the project's sustainability credentials, however, it is recognised that St Neots might represent a destination for those on foot and by bicycle. Local bus travel to / from St Neots will also be a key feature for those that may have mobility issues and will assist in improving social inclusion.
- 1.4. It will specifically refer to the aspects of the development connection junctions with the existing highway network, connectivity to the wider footway, cycleway and highway network as well as provision for public transport. The hierarchy of sustainable transport is considered, aligned with local and national transportation policy to deliver sustainable links for the development.
- 1.5. It is assumed at this stage, that Barford Road which is currently a 40mph and 60mph road will be reduced to a 30mph road from the A428 roundabout junction to the most southern access into the development boundary.
- 1.6. Decisions in relation to East West Rail routes and station locations and whether a growth location at Tempsford will be allocated in a future iteration of the Central Bedfordshire's local plan are uncertain at this time. For this technical note these have not been factored into consideration of the potential for sustainable travel gains and/or diverting destination preferences away from St Neots. However, either of these will clearly improve the sustainable travel options of the development proposals at Little Barford and increase designation choice.

**2. Footway / Cycleway Connections**

- 2.1. Consideration has been given to the accessibility on foot and connections to the wider footpaths, footways and Public Rights of Way (PROW).

Public Rights of Way

- 2.2. There are very few PROW across the site, with the exception of the footpath that links to the north west of the development towards the River Great Ouse and onwards to the Ouse Valley Way and into St Neots. The site visit data has enabled a review of the potential that the connection to the PROW next to the River Great Ouse can be made more accessible and deliver greater potential for pedestrians and other users, if land constraints allow.

- 2.3. The PROW is indicated as Footpath 1 and 4 along the route from the north west corner of the development, near the southwest corner of the power station towards Pocket Park, Eynesbury, St Neots. The PROW is indicated to be within a development parcel and will need to be accommodated in a site layout or diverted via the necessary legal processes.
- 2.4. A review of the route has indicated that there are a number of pinch points due to infrastructure required by the power station which would make the route unsuitable as a continuous cycle path. The route is more suited as a recreational footpath and riverside walk.
- 2.5. Alternatively, dedicated cycle routes are achievable to destinations at St Neots via Barford Road, therefore the inability to upgrade this existing PROW should not affect the sustainable links between St Neots.
- 2.6. The first section of the footpath to the power station from the site is through woodland and varies in width from 1m to 2m approximately. The footpath in general is not very wide and there is a pinch point about 65m from the southwestern corner of the power station site, north, along the western boundary, where there is an outfall from the power station into the river.
- 2.7. The footpath continues north through woodland where there may be an opportunity to widen the route with the removal of some trees, subject to arboriculturist advice to encourage the use of the route and enhance the user experience. Enhancements may include seating, way markings or information boards with items of interest. Due to the natural characteristics of the route surfacing is not proposed.
- 2.8. Towards the north western edge of the power station site there is a concrete footpath crossing over the drain which flows from the power station, this is approximately 10m long and 1m wide. There appears to be little ability to widen the footbridge at this location.
- 2.9. Once the route continues north from the drain crossing, there is more woodland and trimming the trees in this location would be very beneficial. The route of the footpath across the grassed areas to the west of Alington Road, near the office blocks is not clearly defined. If possible the opportunity to demarcate the footpath in this location, would benefit the community, however, the ability of the development to achieve sustainable travel options is not predicated on this.
- 2.10. The route under the existing A428 is not clearly defined and this area could be enhanced to distinguish itself from the skate park area. Beyond and to the north of the existing A428 the footpath is wider and surfaced and links to the wider PROW network and existing leisure and community facilities, thus no improvements north of the A428 are proposed.
- 2.11. Although improvements to PROWs within a site boundary can be undertaken by the developer, outside of the development boundary, the responsibility lies with the landowners and/or the PROW officers at the local authority. The works could be funded through Section 106 obligations. However, it is considered that work undertaken to date is proportionate with stage of plan preparation (Regulation 18). If following further assessment all the enhancements are not deliverable this would not diminish the ability of development at Little Barford to achieve sustainable travel option via alternative routes eg direct along the Barford Road.
- 2.12. **Drawing 60830-PP-018**, indicates the location of new PROW connections to the existing PROW network. These are not essential to the sustainability of the proposals but would create leisure / dog walking routes.

### **3. Adoptable Footways**

- 3.1. Footways and cycleways will be an integral part of the development infrastructure to deliver sustainable choices for residents, employees and visitors.
- 3.2. Other connections from the development site are to be promoted. As an example, improvements to the current East Coast Railway Line (ECRL) underpass for pedestrians and cyclists. This is currently a private means of accessing from one side of the ECRL to the other. In addition, links over the existing ECRL in the southern part of the site and over the proposed A428 near to Top Farm. The latter is currently proposed as a private access to enable the Alington Estate to continue to operate as a farming estate following construction of the A428 Black Cat to Caxton Gibbet improvement. However the allocation of land within the Alington Estate for a new settlement will enable access near to Gipsy Corner on Potton Road to the wider footway network of PROW 1/11 near Parker's Farm and also PROW 1/9 near Hen Brook.
- 3.3. From a review of Barford Road and the existing dwellings adjacent to the site boundary, it is considered that given the roads nature and land constraints that any principal pedestrian routes would be best retained within the development itself. The footways can then be of a width usable by all (i.e., disabled, wheelchair, prams etc.) as well as providing more direct attractive routes along key desire lines for the new residents. Therefore, very little footway works are suggested along Barford Road within the boundaries of the site, other than where it is necessary to cross the road between development parcels.
- 3.4. North of the main development boundary, the highway boundary for the Barford Road has spare highway land to accommodate sustainable travel infrastructure. This is proposed as a shared use footway / cycleway.

### **4. Adoptable Cycleways**

- 4.1. Promotion and delivery of cycling infrastructure is one of the key objectives and focuses of current planning policy, therefore, due consideration of desire lines and routing within the development masterplan will be very important to achieve the sites sustainability credentials. As mentioned, the main desire line, especially of those wishing to travel by bicycle, outside of the development boundary will be employment areas to the north and St Neots. These areas are within a 5km radius of most of the development site which is a reasonable cycling distance for most able-bodied people. Beyond this distance, cycling becomes less favourable but with the ever-increasing popularity of e-bikes this distance can easily increase to 10km. With the exception of Sandy this will not bring any further conurbations within reach but will increase the likely number of people that will consider cycling. Cycling can also be used as a dual mode of travel with public transport like the train, enabling people to cycle either to the railway station or at the end destination.
- 4.2. There are currently no suggested cycle routes along Barford Road which is typically a 60mph speed limit, as Barford Road will need to have its speed limit reduced to 30mph within the development boundaries, this will support some on-road cycling. However, the primary aim is to facilitate off-road cycling in accordance with the DfT document LTN 1/20 'Cycle Infrastructure Guidance' taking into consideration the likely traffic volumes on Barford Road and the potential number of cyclists.
- 4.3. As mentioned earlier, rather than facilitate cycling along the current Barford Road, the more direct route for future residents will be to have internal cycleways adjacent to the principal roads within the site. These can be shared use, segregated lanes, dedicated cycleways within the development site which can be determined as the development masterplan is progressed. The benefit of using proposed highway land is that foot/cycle paths can be constructed within utility easements, which will assist in maximising development land west of the existing railway line.

- 4.4. Proposed routes of cycleways are shown on **Drawing 60830-PP-018** and where not identified within a development parcel, cycling, would be on-road. These routes will connect the development parcels and funnel cyclists towards the proposed northern access point for the development. This also applies to any key focal areas such as a public transport hub or community areas where cycling will need to be parallel to Barford Road within the development, given the land constraints alongside Barford Road, in the centre of the development area. The proposed infrastructure is therefore subject to confirmation of highway land along Barford Road and parts of the A428.
- 4.5. The proposed northern access to the site is a roundabout which will have cycleways around its perimeter and then two off-road shared use cycleways will be provided on both sides of a slightly realigned Barford Road to the current accesses to the Power Station. Due to land constraints further north, the objective is then to transition all cyclists to the western side of Barford Road only. Pedestrians can continue on the eastern side of Barford with a fully connected route of footways.
- 4.6. Based on the potential future traffic volumes along Barford Road, cyclists will need to be provided with a controlled Toucan (for pedestrians and cyclists) crossing. On the assumption that the existing roundabout access for the Power Station is fully within highway land, then it is proposed that this junction is signalised to enable cyclists to cross Barford Road and the eastern and western access to the Power Station. The design of the traffic signal junction does allow for the maximum legal HGV but it is known that occasionally the Power Station has abnormal loads to / from the site. Therefore, any future junctions will need to be subject to discussions with the highway authority and the Power Station operator.
- 4.7. North of the Power Station junction there will be a section of footway/cycleway connection to an existing footway on the western side of Barford Road. On the eastern side of Barford Road there will be a 2.0m footway. The western footway/cycleway will be 2.5m minimum width over short sections i.e., the pedestrian overbridge for the Power Station. This shared use cycleway continues the full length of Barford Road to the A428 junction. On the western side of the road, there appears to be sufficient highway land (that is reasonably level) to accommodate an off-road cycleway which will have limited effect on the operation of Barford Road during its construction. There will be a need for some minor regrading of verges, hedge trimming, and lamp column relocation and alignment of Barford Road kerblines. The route should have limited impact on existing utilities with the exception of altering any inspection covers. Where existing accesses are located, these can still be accommodated with a cycleway across them and still retain their purposes. Several design options are presented in the LTN 1/20 guidance document.
- 4.8. With regards to the A428 roundabout junction, in future years, it has been identified that the western arm of the A428 will accommodate many more traffic movements than the eastern arm; therefore to minimise impacts on the majority of traffic movements any form of crossing to the north will need to be on the eastern arm of the A428. The A428 is currently a 60mph single carriageway road and based on LTN 1/20 would require an overbridge for cyclists and pedestrians. However, there is insufficient land north and south of the A428 to provide an overbridge and accommodate the relevant gradients for cyclists and wheelchair users. Therefore, the speed limit for at least 600m in either direction of the A428 roundabout will need to be reduced to at least 50mph to enable an at-grade Toucan-controlled crossing on the eastern arm. This is shown on **Drawing 60830-PP-018** and would need to be a staggered arrangement to reduce impacts on the A428 traffic. The position of this crossing is dictated by the Design Manual for Roads & Bridges (DMRB) document CD116, which will require the crossing to be 60m away from the give way line of the roundabout. Further topographical surveying is required along the A428 to further the design of this crossing.

- 4.9. The introduction of the controlled Toucan crossing will alter the entry of the roundabout junction and to mitigate the reduction of one of the entry lanes, it is proposed to provide a dual lane approach that enables two lanes of traffic across the roundabout and then merge back again on the western exit lane. This has necessitated a longer two lane exit on the western arm of the A428 and thus requires road widening. As it is known that the western approach lane to the roundabout has capacity concerns, the works can also include for increasing the two lane approach capacity.
- 4.10. North of the A428 roundabout junction, the cycleway continues on the eastern side of the B1043 (Barford Road) to the B1043 / Tesco / Chapman Way roundabout. This appears to be achievable subject to some vegetation clearing. To continue the cycleway along the eastern side and keep the route direct, the roundabout will need to be narrowed around the perimeter to facilitate a 3.0m shared use cycleway that will then link with existing infrastructure north of the roundabout. The roundabout central island will also need to reduce in diameter accordingly. This will facilitate the main desire line to / from the site to St Neots.
- 4.11. It has also been noted, from worn grassed verge areas, that there is an existing desire line for pedestrians from the housing development in St Neots, east of the B1043 to the Tesco superstore. There will also be a desire line for pedestrians and cyclists from the proposed development at Little Barford in the same area. To accommodate this, it is proposed to provide a controlled Toucan crossing across the dual lane carriageway of the B1043, which will require a speed limit reduction from 50mph to 40mph. The controlled Toucan crossing will have a staggered central island to reduce the impacts on the traffic using the B1043 and reduce the potential for any backing up to the A428.
- 4.12. A short section of the existing footway on the western side of the B1043, will also need to be upgraded to a 3.0m wide cycleway for access to the Tesco superstore.

## **5. Public Transport**

- 5.1. The existing public transport for Little Barford is currently poor and there is only a single service which runs between Biggleswade and St Neots on a Thursday.
- 5.2. The proposal for the scheme would mean that accessibility to public transport would be greatly enhanced and all development would ideally be within 400m of the main public transport corridors (1200m at an absolute maximum) with an improved frequency to meet demand and local policy. Accessible compliant bus stops and infrastructure will be introduced with Real Time Passenger Information (RTPI) provision proposed where appropriate to enable better communication to customers of the services provided. Additional segregated bus infrastructure routes could be introduced should major benefits be realised by providing these.
- 5.3. In terms of frequency this will need to be at least a half hourly service into St Neots but will be subject to discussions with a bus operator and the Local Authorities' passenger transport teams. In terms of the bus route final destination, this will be St Neots town centre, whilst passing the Tesco store, leisure centre and Ernulf Academy for secondary education. Further bus stops would be provided along Barford Road to serve the existing power station and business parks to enable enhanced sustainable travel options to existing employees.

- 5.4. Within the town centre, passengers can then link with the train station and other bus routes. The origin of the bus route, would be Sandy or Biggleswade. However, if development is delivered south of the Alington Estate the scale of development is likely to change destination choices away from St Neots.
- 5.5. The new bus service route would again be best facilitated within the proposed highway infrastructure on the site, this is shown on **Drawing 60830-PP-018** and only utilises the existing Barford Road where necessary and beyond the development boundaries to the north and south. This reduces the need for any major offsite highway works to the existing Barford Road and increase the proximity of the bus route to the new residents.
- 5.6. Development east of the East Coast railway line would be within a 1200m distance of the proposed route. In order to be an attractive alternative to the car, a bus route needs to be as direct as possible with few interruptions. The bus route could be diverted into the development parcel and then return to Barford Road on an occasional basis (i.e., a peak hour service for traditional working hours), but the main route would be retained as that proposed. Further to this, it is recommended that the site includes a Public Transport Hub, which can also facilitate as a community hub. This could be a larger bus terminal with cycle parking facilities, small shops and other attractors for residents. The possible location is shown on the enclosed **Drawing 60830-PP-018**. This will assist people in walking / cycling from development east of the railway line to the public transport hub and then accessing the bus service.

#### East – West Rail Link

- 5.7. The East West Rail Link (EWRL) is a valuable rail infrastructure project for the region to connect Oxford with Cambridge and more locally Bedford with Cambridge. The current planning stages of the EWRL is to provide the route between St Neots and Sandy although the exact route is not defined there is consultation underway on a preferred option. This will also create a new train station either within the Alington Estate or within the land to the south (Central Bedfordshire). This will provide a very good sustainable travel choice to those commuting to Bedford or Cambridge.
- 5.8. Cycle links to the chosen location of the EWRL train station will therefore be important. Whilst a decision on the route and station location is likely to be beyond Bedford Borough Council's timeframe for the Regulation 19 stage of the BBLP 2040 preparation a strategic option exists, which would future prove sustainable travel between the four EWR station options of St Neots South Option A, St Neots South Option B, Tempsford Option A and Tempsford Option B by incorporating a route immediately east of and parallel with the existing ECRL.

#### **6. Other sustainable travel principles**

- 6.1. The public transport hub could also be a local point for a community car club across the development. This will allow people to consider whether they own a car or second car if a pay as you go service is available on site.
- 6.2. Housing designed with home working in mind e.g. small office and excellent broadband infrastructure would further internalise and reduce journeys and their length.
- 6.3. The development will be required to implement a Travel Plan which will concentrate on key areas to assist in resident travel planning and habits.

## **7. Phasing of Sustainable Travel Highway Works**

- 7.1. Access to / from the initial phases of development by modes other than the car will be important to establish sustainable travel habits. Subject to other early years infrastructure costs the Barford Road cycleway works from the northern access point to the Tesco superstore should be considered as earlier infrastructure provision.
- 7.2. To avoid delaying the start of construction or first occupation an interim dedicated bus service could be provided that links the site directly with the centre of St Neots, whilst cycling infrastructure and TRO's are implemented. This dedicated bus service could then develop into the suggested permanent bus service as the development construction progresses and the cycle infrastructure is completed.
- 7.3. The development phasing and phasing of other infrastructure costs will influence the phased implementation of the bus service.
- 7.4. On-site cycleways and bus stops etc. will develop as the development phasing progresses and masterplans for each parcel are designed.

## **8. Highway Access**

- 8.1. Connectivity to the wider highway network would be provided to enable access to the neighbouring conurbations, employment, shopping and leisure activities.
- 8.2. The initial primary access can be made via Barford Road via junction types appropriate to the proposed number of trips expected, generated by the development type. The main accesses to the development will be provided by roundabouts. Other T-junctions and Right Turn Lanes may need to be provided but these will be kept to a minimum.
- 8.3. Access to the east of the ECRL will be made via an overbridge combining footway and cycleway facilities, with the existing centrally located railway underpass improved to provide pedestrian and cyclist provision. Subject to the final access option strategy a second overbridge of the ECRL may be required. Initial locations and designs are shown on drawings 60830-S-004 and 60830-S-005 submitted previously to Bedford Borough Council.
- 8.4. A further overbridge is proposed near to Top Farm as part of the A428 Black Cat to Caxton Gibbet new expressway for farm traffic. This location could also be used to provide an access for all modes of road transport to connect to the wider highway network at Potton Road or on to the proposed A428.
- 8.5. Where necessary access will be provided in line with local and national policy, designed to the Design Manual for Roads and Bridges (DMRB) where appropriate or local design standards for residential and commercial development.
- 8.6. Should any new access to the land east of the railway line be agreed with Highways England to the new A428, then this will not affect the sustainability appraisal or suggested infrastructure set out herein. This will assist, however, in reducing traffic volumes along Barford Road and at the existing A428 roundabout junction.

## **9. Summary**

- 9.1. An initial overview of the development proposals and accessibility indicates that there are some infrastructure requirements to facilitate the access, some onsite improvements and wider highway network upgrades, however these all appear to be achievable (subject to confirmation of highway boundary and future traffic assessments). This assessment has also considered the new A428 proposal and existing constraints such as the ECRL and existing gas mains and overhead electricity pylons and cables.