6. Opportunities

6.1 Chapter 5 set out the *current* sustainable transport connectivity for each of the 20 Cluster Groups. Building on this assessment of baseline transport conditions, this chapter explores the potential for *improving* connectivity for the 20 Cluster Groups (as set out in chapter 2) through sustainable transport infrastructure investment or service improvements. These improvements focus on transport investments that will create new neighbourhoods that are built around people rather than vehicle movements. For this reason, new roads, junction improvements and capacity upgrades have not been included within this opportunities assessment, but it is acknowledged that, as the Local Plan progresses further and sites are allocated, more detailed, site-specific Transport Assessments will be required.

6.2 For the avoidance of doubt, the opportunities set out in this chapter are not confirmed proposals for transport infrastructure improvements across the district, rather they are the exploration of opportunities that *could* be delivered to achieve sustainable mobility outcomes for each Cluster Group, from a transport perspective.

6.3 Similarly, all dwelling numbers are theoretical and for illustrative purposes only, to indicate the potential level of growth needed to facilitate some of the sustainable travel investments discussed.

Approach

6.4 The Town and County Planning Association's '20-minute Neighbourhoods' principle has been used as the basis for assessing the sustainable transport opportunities for each Cluster Group.

6.5 At its core, the '20-minute neighbourhoods' principle advocates the development of complete, compact, and connected neighbourhoods, where people can meet their everyday needs within a short walk or cycle[7].

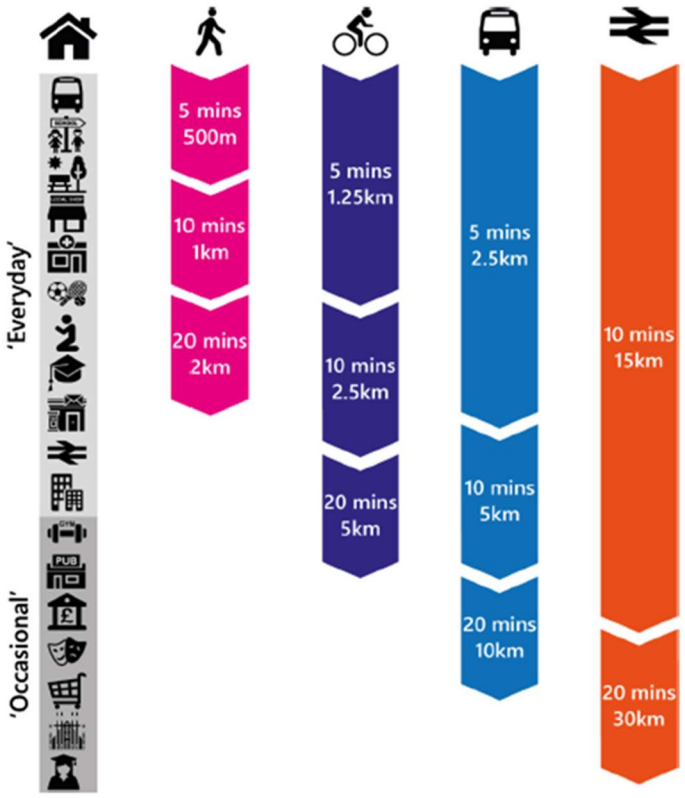
6.6 The application of this approach is set out in Figure 6-1Figure 1-1. It considers a transport hierarchy for 'everyday' and 'occasional' trips which prioritises:

- Active travel for short, local trips by creating direct, easy, safe, segregated walking and cycling routes that enable people to access key amenities as quickly as they could by car.

[7] Town and County Planning Association (2021) 'The 20-Minute Neighbourhood'. Available at: https://tcpa.org.uk/resources/the-20-minute-neighbourhood/. Last accessed 18/05/22

- Connecting to public transport options for longer distance journeys so that those people who need to travel further afield can do so by walking/cycling to nearby public transport 'hubs'.

Figure 6-1: Transport Hierarchy



6.7 This principle was used to typify focal points of development areas, by the range and scale of their local facilities and amenities. The following descriptions will be used throughout the section to characterise the places they describe.

- **District Centre** (as identified for Metric 8 of the assessment framework) – this is a regional centre with a wide range of retail, service, and leisure offerings (such as Bromsgrove or Redditch).
- **Local Centre** – this is a smaller scale trip attractor but still offers some retail, service, and leisure attractions (such as Hagley and Barnt Green).
- **Neighbourhood centre** – a smaller centre again, this offers a more limited range of facilities but could include a convenience store / newsagent

6.8 The remainder of this section sets out the possible transport visions for each Cluster Group which set out the opportunities for improving transport connectivity to create 20-minute neighbourhoods, how investment could be phased depending on sub-clusters brought forward; and broad cost estimates (high/med/low) for each transport investment.

6.9 The evidence base for these investments is based on case study examples of delivering similar infrastructure elsewhere in the UK. It should be noted that since these figures were provided, costs have been escalating rapidly and therefore should be treated with appropriate caution. These costs have been scaled based on the length (in kilometres) of cycle routes, or number of mobility hubs, so the costs are relevant to the Cluster Groups for this assessment. To give a broad sense of costs they have been separated into High, Medium, and Low, as set out below:

- Above £5m = High
- Over £1m but less than £5m = Medium
- Less than £1m = Low

6.10 All proposed cycle infrastructure should be designed in line with the guidance set out In LTN1/20 and is subject to the impact of development related traffic and highway changes as well as existing highway constraints.

6.11 It is anticipated that the future bus fleet will move away from diesel and operate on alternative technology (electric, hydrogen) which should be considered as part of planning new developments

Cluster Group 1: Bromsgrove Station Corridor

6.12 Cluster group 1 is a set of three sub-clusters (BR03, BR04, BR05) that are situated southeast of Bromsgrove town centre. They are in a linear formation from Bromsgrove railway station to Stoke Prior. The rail line bisects BR04 and BR05 which has the potential to create severance between the eastern side of the sub-clusters and Bromsgrove town centre and should be addressed as part of the transport improvements, subject to specific land selection/availability.

6.13 BR03 includes Bromsgrove rail station which has frequent services to Birmingham and Hereford (via Worcester), with up to 3 services an hour at peak times. Across the sub-clusters the bus service frequency is sub-optimal, with the two southern most areas benefitting from around one service an hour. Although the National Cycle Network (NCN) runs through BR03, the limited active travel provision is sub-optimal on NCN 5, with the route treated more as a 'quietway' with cycle signing and limited dedicated infrastructure. As well as this, there is limited cycling provision between all three sites.. Most of the developments are currently accessed through rural roads with no footpaths or safely segregated cycle routes. There is potential to include prioritised active travel through dedicated and protected cycle and walking infrastructure.

6.14 The nearest district centre is Bromsgrove; therefore, these sites should be well connected by sustainable transport modes to leisure activities and other opportunities in the town centre.

Vision

6.15 BR03 already comprises of a residential area and the Aston Fields neighbourhood, near Bromsgrove rail station, provides local convenience shops and amenities within a walkable distance from the sub-cluster. Improvements to St. Godwald's Road could be introduced to increase connectivity to this existing neighbourhood centre. The cluster also has numerous schools within a 15-minute walk, depending on the capacity of these schools it is possible that there may not be a need for additional education sites.

6.16 The need for a new local centre for sub-clusters BR03 and BR04 becomes more definitive as these areas are further away from Bromsgrove's centre. A new local centre would help internalise trips and offer residents a wider range of amenities. The local centre could be placed between BR04 and BR05, by Stoke Prior Village Hall, to provide amenities for both sub-clusters. Both sub-clusters are approximately 2km away from their nearest secondary school, therefore connections between any new development and these school should be considered. New public realm and micro-mobility infrastructure within a local centre would encourage trips by sustainable transport modes. A new local centre should be able to serve BR05 as the southern section could to be used for additional employment in the area.

6.17 It is also important that the potential employment site in BR05 is connected well to the surrounding residential areas. Overall, the vision for sites BR04 and BR05 is to connect with Bromsgrove town centre and rail station by bus and active travel infrastructure.

Active travel

6.18 The Worcester-Birmingham canal towpath runs between sites BR04 and BR05 but is restricted by width to provide for cyclists. The route could be used for pedestrians; lighting could be implemented along the route, so users feel safe using the route at night.

6.19 Similarly, improvements to existing public rights of way in BR05 could be delivered, to be focused on Hanbury Road which would connect residents to any employment within the site. A new crossing over the rail line for BR05 could bring accessibility benefits; the existing rail crossings are a 30-minute walk apart from each other. A sustainable mode crossing could help to discourage car use through the site.

6.20 The geographical positioning of the sub-clusters present an opportunity to create an active mode corridor running through all three sites and there could be potential to

introduce a cycling 'greenway' to improve connectivity between the sub-clusters and the railway station.

Public Transport: Bus

6.21 Bus services between these sub-clusters play an important role in being able to connect residents to the railway station and Bromsgrove town centre. Currently, the bus service provision is poor. Subject to discussions with bus operators and Country Council, there could be potential for routes 145 and 318 to be diverted to serve this cluster group. The existing 145 could be diverted onto Hanbury Road and Westonhall Road within sub-cluster BR05 to improve intra-development connections to the potential employment area. This bus service is currently routed alongside BR04 which means it could provide public transport connectivity for both BR04 and BR05.

6.22 Bus service 318, which currently terminates at the railway station, could be extended south past the rail line to connect all three sub-clusters. There is the option to either extend the bus service to Droitwich Spa or loop back towards the rail station. To connect BR03 to Aston Fields Industrial Estate, a higher service frequency during the morning and evening peaks could serve the area. It could also require a new bridge across the rail line which could be a significant cost.

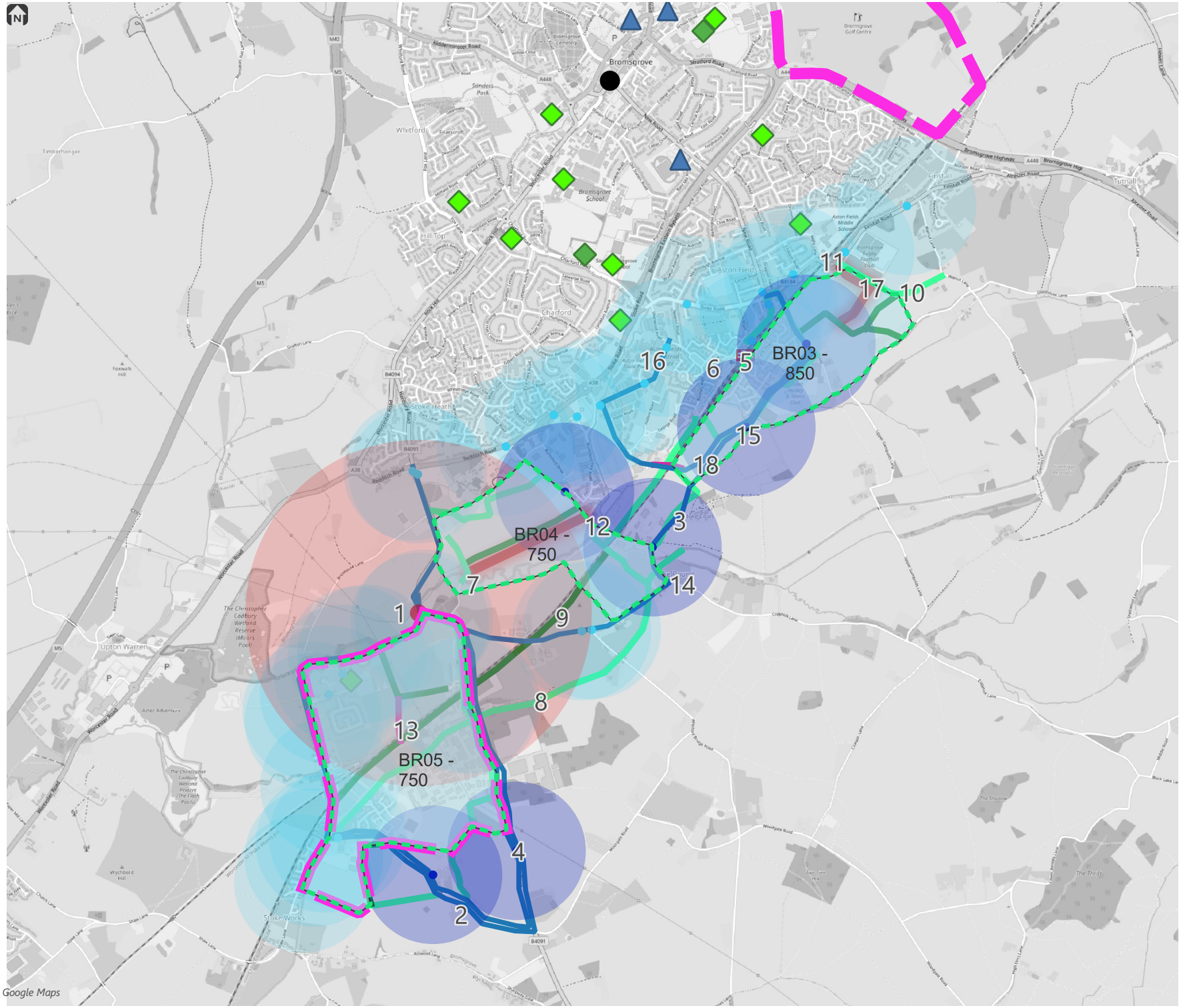
6.23 The services could also have increased frequency running at least twice an hour in the peaks and a number of new bus stops could be provided, with enhanced infrastructure. These will mostly be based south of the rail line.

Public Transport: Rail

6.24 Most of the rail-focused improvements will improve connectivity to Bromsgrove railway station and its facilities. The rail station already has secure cycle storage and electric charging points, but capacity of these could be increased to account for the potential increase in demand. In addition, a new station entrance could be built to the south which could reduce journey times for pedestrians / cyclists from BR03.

6.25 The railway station also provides an opportunity deliver micro mobility services for Bromsgrove; eE-scooter and/or bike hire schemes could be located at the station.

6.26 The opportunities for improving sustainable transport connectivity have been summarised below, visualised in Figure 6-2 and detailed in Table 6-1.



Prepared	Reviewed	Date
BS	JP	May 2022

Key

- Cluster Group 1

Opportunites

- Potential Local Centre (+2km)

New bus stops

- Existing (+400m)
- New (+400m)
- Diverted Bus route

Cluster 1 Active Mode Routes

- Enhance
- New
- Crossing
- Traffic Management

Key Destinations

- LocalCentres
- Healthcare
- Secondary Schools
- All Education

itp
a company of Royal HaskoningDHV

Client

Bromsgrove District Council

Project

Bromesgrove DPR Transport Assessment

Figure title

Cluster Group 1 - Transport Opportunities

Revision	Project number
A	3578
Figure number	**Date**
Figure 6-2	May 2022

Table 6-1: Cluster Group 1 Transport Opportunities

ID	Mode	Improvement	Costs
1	n/a	Provide a new local centre around Stoke Prior to enable people to stay within the neighbourhood for access to daily amenities and services	n/a
2	Public Transport	Diverting Bus route 145 to run through development sites BR04 and 05 and increasing the frequency of bus to two services per hour instead of one. This bus currently runs between Longbridge and Droitwich Spa via Bromsgrove	To be confirmed by operators and WCC
3	Public Transport	Extending Bus route 318 south of the railway line through all three development sites to connect all sites to Bromsgrove town centre and increase the frequency to two times an hour. There is also an opportunity to add a commuter bus service 318a which will run Aston Field Industrial estate but only during peak hours. This bus route currently runs between Stourbridge and Bromsgrove railway station.	To be confirmed by operators
4	Public Transport	A total of 6x2=12 new bus stops to be provided near sub clusters BR03-05 with shelters and real time information to be provided	Low (<£1m)
5	Public Transport	Bromsgrove Train Station improvements, look to open up a new station entrance to the South of the station so BR03 can have direct walking access to the station. Also look to enhance the current footbridge south of the sites which connects to the railway station	Medium (between £1m and £5m)
6	Multi-modal	Improve the EV charging facilities at the station car park and add to the capacity of safe bike storage racks. Deployed E-scooters trials as well as providing cycle hire facilities	Medium (between £1m and £5m)
7	Active Travel	Improve active travel modes from clusters BR04 and BR05 towards the new local centre in Stoke Prior and implement initiatives to improve public realm in the area	Low (<£1m)
8	Active Travel	Enhance the current active travel facilities along the Worcester-Birmingham canal to allow safe passage of residents between sites BR04 and BR05.	Low (<£1m)
9	Active Travel	Create active travel facilities to connect up residents of all three development areas. Connections should also link with the railway station.	Low (<£1m)
10	Active Travel	Enhance all walking facilities on existing PRoW through sites to provide a suitable surface for walking and cycling.	Low (<£1m)
11	Active Travel	Increase the crossing facilities on Finstall Road to connect up BR03 residents to Rigby Hall School	Low (<£1m)

ID	Mode	Improvement	Costs
12	Active Travel	Provide a new walking and cycling connections through sub cluster BR04 to connect the development up to PRoW SP-530 towards the rail station	Low (<£1m)
13	Active Travel	A new crossing facility over the rail line in BR05 would increase residents access across sites. Crossing facilities over the railway line near development BR03 will need to be improved to help accommodate the increased usage of the footbridge.	Medium (between £1m and £5m)
14	Active Travel	NCN Route 5 to be diverted south through Stoke Pound and a cycle lane to be provided up to the train station.	Medium (between £1m and £5m)
15	Active Travel	Cycle priority at junctions between clusters BR03 and 04 on NCN route 5	Low (<£1m)
16	Multi-modal	Provide travel plans for employees of the two major industrial estates in the area to encourage use of sustainable services in the area.	Low (<£1m)
17	Public Transport	Bus gate around north of cluster BR03	Low (<£1m)
18	Public Transport	Bus corridor improvements between 3 sub-clusters south of rail line	Medium (between £1m and £5m)

Phasing

6.27 Due to its proximity to Bromsgrove rail station and the town centre, BR03 has the most potential for sustainable connectivity, as such this would form 'Phase 1' for the infrastructure improvements. Phase 2 would include BR04 and BR05. Should these two sub-clusters be delivered together they will better support any new local centre and connected transport improvement to be delivered.

6.28 The bus service extension/diversion can also be limited to sub cluster BR03 for Phase 1 and then extended in phase 2. Furthermore, the active travel provisions can be phased for each set of sub-clusters.

Table 6-2: Cluster Group 1 Phasing

Phase	Sub-Cluster	Approx. homes	Rationale
Phase 1	BR03	850	Expansion of residential area which already is a good proximity to existing local centres and public transport.
Phase 2	BR04, BR05	1,500	The small number of dwellings between these two sub clusters means public transport improvements may struggle to be effective if the clusters were delivered on their own. The local centre between sites needs sufficient footfall to operate effectively.

Cluster Group 2: Bromsgrove West

6.29 This cluster group consists of one sub cluster, BR06, with potential capacity for up to 1,500 new homes. It is within approximately 2.5km of Bromsgrove town centre which is to the north east of the cluster. The existing transport provision around the immediate vicinity of the cluster includes a cycle route running along the north, along Millfield Road, and a bus route running along the eastern boundary on Rock Hill.

Vision

6.30 The town centre to the north is 1.8km – 3.4 km away from BR06, reflecting a cycling journey of about 15 minutes – the existing cycle route running through Millfield Road could prove to be a key proponent in branching out further active travel routes running from BR06 and then towards the town centre, acting as the main arterial route.

6.31 Due to the cluster group's proximity to Bromsgrove and the existing amenities and public transport connections from the town centre, the transport vision is to provide sustainable transport connections to this significant centre. Should the visions for cluster groups 1 (Bromsgrove South / Station Corridor) and/or 2 (Bromsgrove North) be delivered, there could be a co-ordinated and mutually beneficial approach to wider connectivity opportunities beyond the clusters, joining key local destinations.

Local Facilities

6.32 The existing town centre to the northeast of the site serves as the primary hub for local amenities and services, which is 1.5km away from the northern most point of BR06. As well as connectivity opportunities with the town, regular trips to facilities such as education and healthcare are also considered part of establishing sustainable travel in new neighbourhoods.

6.33 Five primary schools and a High School are located within around 2km of the cluster to the south of the town centre. Active mode provision delivered as part of the development should encourage these short journeys (<2km) to be undertaken by walking or cycling.

6.34 To the north of the town centre are three places of healthcare and one to the east, which are connected by frequent bus routes as well as existing cycling routes

Pedestrians & Cycling

6.35 The opportunities for enhancing the cycling and walking network focus on connections to Bromsgrove town centre and connecting up the schools along Charford Road. There are opportunities to extend pedestrian and cycle routes to the railway station, this could be supported with safe and secure cycle parking at the station.

6.36 New active mode provision could be delivered along Fox Lane, Charford Road and along Stoke Road to enhance connections to the railway station. Connections towards the north to enable strong connections from the site to the town centre, as well as integrating the existing network to facilitate both direct routes and also routes which connect the National Cycling Network route 46.

Public Transport: Bus

6.37 The existing bus network is comprised of one high frequency service (the 144 Salt Road) (3 per hour in each direction) running along Rock Hill, connecting Worcester and Bromsgrove town centre.

6.38 Currently, less frequent services run through Charford connecting education locations and towards the railway station, as well as circling through a number of schools along Charford Road. Increasing the frequency and extending the routes which run through Charford would make accessing the railway station by public transport more attractive from the cluster.

6.39 New / upgraded bus stops with shelters and real time passenger information could support connections to these routes running towards the town centre and to the railway station.

Public Transport: Rail

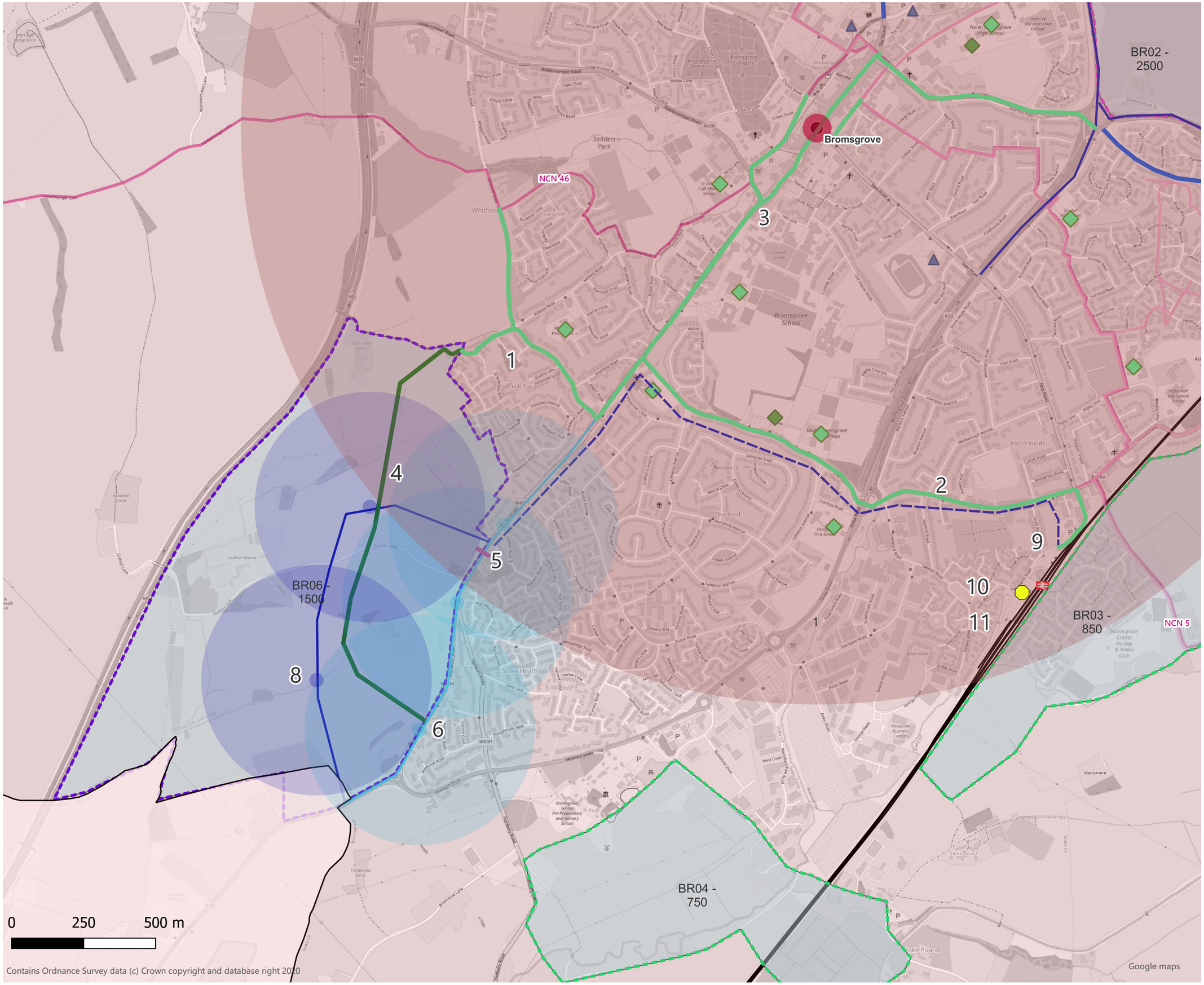
6.40 The rail services from Bromsgrove to major settlements to the north like Birmingham and the Black Country, and to the south being Droitwich Spa. Bromsgrove railway station lies approximately 2km away to the east of the cluster, offering opportunities to promote attractive bus or active travel connections to this transport interchange. The station has a seated waiting area, toilets, fewer than 20 sheltered cycle storage spaces,

but no separate waiting room. Around 250 car parking spaces are available for a daily charge.

6.41 Multi-modal enhancements could improve Bromsgrove Station as a transport hub. This could include improved cycle storage provision to enable more trips and also greater convenience for cyclists travelling to and from the station.

6.42 Any increase in the frequency of services between Lichfield (via Birmingham), fast Birmingham connections and trains south to Hereford would be subject to engagement with train operators and understanding existing demand levels for the services.

6.43 The opportunities for improving sustainable transport connectivity have been visualised in Figure 6-3 and detailed in Table 6-3.



Prepared	Reviewed	Date
JP	SN	June 22

Key

- Bromsgrove District
- **3b - cluster groups - outline**
- Cluster Group 1
- Cluster Group 2
- Cluster Group 3
- All Education
- Secondary / Post16 Education
- All Healthcare
- National Cycle Network (NCN)
- Local Cycle route
- Rail stations
- railway line
- District Centre (+2km+5km)

Opportunities

Bus Stops (+400m)

- existing
- opportunity stop

Bus Routes

- existing
- Potential diversion
- Potential additional route

Active Travel

- Enhanced
- New
- Crossing

a company of Royal HaskoningDHV

Client

Bromsgrove District Council

Project

Bromsgrove DPR
Transport Assessment

Figure title

Cluster Group 2 - Opportunities

Revision	Project number
A	3578

Figure number	Date
Figure 6-3	June 2022

Table 6-3: Cluster Group 2 Transport Opportunities

ID	Mode	Improvement Description	Costs	Phase
1	Active Travel	Propose a signed cycle path along Fox Lane and then through Charford Road to enable active travel route to local schools.	Low (<£1m)	1
2	Active Travel	Extend the signed cycle path along Charford Road up Stoke Road to connect BR06 to the railway station and facilitate access and convenience for the proposed extension of cycle parking to be undertaken there.	Low (<£1m)	1
3	Active Travel	Extend proposed signed cycle path along the north, connecting to existing cycle pathway at Market Street, to enhance connections via active travel, to town centre and healthcare to the north.	Low (<£1m)	1
4	Active Travel	An internal walk/cycle route within BR06 north through centre of the sub-cluster to join to Rock Hill towards the south of the sub-cluster	Low (<£1m)	1
5	Active Travel	Additional signalised crossing across Rock Hill, connecting to existing communities to the east	Low (<£1m)	1
6	Public Transport	Enhance existing bus stops along Rock Hill, with high quality shelters and real time passenger information	Low (<£1m)	1
7	Public Transport	Divert alternate 144 bus services from Rock Hill through BR06.	*Subject to discussions with operators and WCC*	1
8	Public Transport	Provide new high-quality bus stops within BR06	Low (<£1m)	1
9	Public Transport	Provide a bus connection to rail station, with timetables to be aligned with train services where possible. Potential to be delivered in conjunction with other Bromsgrove clusters if delivered.	*Subject to consultation with bus operators and WCC*	1
10	Railway Travel	Consult with train operators and companies to enhance frequency of trains.	*Subject to consultation with train operators*	1
11	Railway Travel	Deliver multi-modal interchange facilities at the rail station	Low (<£1m)	1

Phasing

6.44 As a single sub-cluster opportunities could be delivered within a single phase, with development to be focused on the eastern side of the site, connected more closely with existing communities, facilities and transport links.

6.45 Additional investment for connections around Bromsgrove could be co-ordinated with other areas of growth should any other sub-clusters come forward around the town.

Table 6-4: Phasing for Cluster Group 2

Phase	Sub-Clusters	Homes	Transport Improvements	Rationale
1	BR06	1500	All the listed above	Delivered as a single urban extension with the focus on providing sustainable travel connections to Bromsgrove with the town centre and railway station central to the scope of consideration.

Cluster Group 3: Bromsgrove North

6.46 Cluster Group 3 presents an opportunity for growth to the northeast of Bromsgrove town centre, as shown in Figure 4-13. It comprises of two sub-clusters BR01 and BR02, which collectively could support the delivery of 3,400 homes. These two sub-clusters have been considered together due to their collective scale and geographic proximity to each other. They form opportunity for focused large-scale growth to the north of Bromsgrove with likely similar interaction with their existing surroundings.

6.47 BR01 is located near Forest Island at the junction with the M42 and A38 and BR02 is located near Slideslow Island at the junction of the A38 and A448. Both are within walking or cycling distance of Bromsgrove town centre, however being bordered by these major roads poses a potential challenge to sustainable connectivity in terms of severance that the A38 could pose for BR02, but also in terms of ensuring that sustainable alternatives (walking, cycling and public transport) are chosen over car use.

Vision

6.48 The vision for BR01 and BR02 to form an urban extension to Bromsgrove town centre enhancing and extending the sustainable transport infrastructure and services towards main urban area.

6.49 Due to the scale of BR02, there is potential for this sub-cluster to have a neighbourhood centre which could facilitate short daily trips to convenience stores, from a mini public

transport hub/interchange within the cluster group and, depending on local need, provide education and healthcare sites for the sub-cluster. Within BR02 specifically, infrastructure measures around the neighbourhood centre would need to be considered to mitigate car use and create an environment that encourages walking and cycling for local trips, if a new neighbourhood centre were pursued.

6.50 For both BR01 and BR02, existing cycle routes towards Bromsgrove town centre could be enhanced to provide direct routes into the main urban area and the rail station. Existing bus services could also be diverted to connect the sub-clusters with the town centre and longer-distance services towards Birmingham, Redditch and the conurbation.

Local Facilities

6.51 Numerous education and healthcare sites are within walking or cycling distance of both sub-clusters, with the closest existing education sites in Lowes Hill and Lickey End. It is anticipated that due to the scale of the sub-clusters a new education site may be required. This could be placed in BR02 as the larger of the two sub-clusters.

Active travel

6.52 Bromsgrove town centre is pedestrianised, and cycling is not permitted along High Street or Church Street. Although there is some cycle parking within the town centre it is predominantly uncovered bicycle parking, Sheffield stands. There is the potential to create a more inviting environment for cyclists by providing new secure, covered cycle parking at the end of the cycle routes into the town centre to enable people to cycle to the town and securely park their bike and walk to the High Street.

6.53 There are several radial active travel routes from Bromsgrove town centre to the residential areas on the outskirts of the urban area, some of which have been highlighted through Worcestershire County Council's NPIF scheme[8]. The LCN1 Route Improvements upgrade cycling facilities along School Drive and Shenstone Close which is part of the route to BR02. From here an upgraded active travel route could be provided along Burcot Lane and across the A38 providing direct access into BR02. A new toucan crossing could also be considered to ensure the A38 does not segregate BR02.

6.54 The same LCN1 Route Improvements are planned to continue north along Shenstone Close towards Princethorpe Street. From here a new active travel connection could be provided connect with the southern tip of BR01. This would provide a quiet cycle route through residential streets for both sub-clusters to the town centre.

6.55 Whilst the existing cycle route described above could provide quiet routes into the town centre, additional cycle routes could also be considered along Stourbridge Road (south)

[8] Worcestershire County Council Bromsgrove Walking and Cycling Routes. Available at: Simple_Map__Bromsgrove_Walking__Cycling_Proposals__1__(2).pdf. Last accessed 25/05/22

and Stratford Road (west) which are the two most direct road routes from BR01 and BR02 to the town centre. Although there are some shared paths and upgraded crossing points along parts of these roads, there is the potential to provide a segregated cycle route, especially along Stratford Road from the A448 where land either side of the carriageway could be re-allocated for a cycle lane. Providing these segregated cycle routes would provide a safe and visible route for people to use from the two sub-clusters with greater potential to encourage sustainable travel than quiet ways alone.

6.56 The railway station is within 5km from BR01 and 2km of BR02. Planned improvements to NCN 5 (south) as part of Worcestershire County Council's NPIF scheme will provide improvements from the town centre to the rail station. This is likely to benefit BR01 but not BR02, without a diversion first to the town centre from the latter. Therefore, to better connect BR02 with the rail station, there is the potential to build on the existing off-road cycle route through Aston Fields (Regent's Park Road to Rigby Lane). Improvements could allow for a pedestrian and cyclists crossing for the A448, as well as signage through the edge of the residential area towards the off-road cycle route. A cycle route could also be considered from the southern end of the off-road cycle route along the B4184 and New Road, to provide a continuous cycle route to the rail station. Wherever feasible segregated cycle lanes should be considered, according to the latest guidance (LTN1/20).

Public Transport: Bus

6.57 Bromsgrove has a comprehensive bus network, and the main bus interchange is located on Crown Close within the town centre. From here there are high frequency services north of the town centre along Stourbridge Road (B4091) and Birmingham Road, as well as south along Worcester Road (B4091). The services along these routes provide connections to Redditch and Worcester as well as stops within residential areas of Bromsgrove.

6.58 BR01 could benefit from the existing high frequency services along Stourbridge Road (B4091) and Birmingham Road/A38 (north) with additional bus stops and short diversions to services into the sub-cluster. Additional bus stops and crossing points would be needed to facilitate this.

6.59 For BR02 there are less frequent services currently operating along the A38 between Birmingham Road and the junction with Stratford Road. There is the potential to place a bus interchange with bus stops, shelter, and real time information at the north-western edge of the sub-cluster, near the A38/Birmingham Road junction, connect with the existing high frequency services to Birmingham and the town centre. Alternatively, there could be an opportunity to divert one of the bus services which currently routes via Birmingham Road into BR02 to serve the sub-cluster and then exit near the

A448/A38/Stratford Road junction. Additional bus stops and crossing points would be needed to facilitate this.

6.60 Consideration should also be given to connecting the bus routes between Bromsgrove town centre and Redditch. An existing service through the residential development south of the A448 could be diverted to also serve the southern end of BR02.

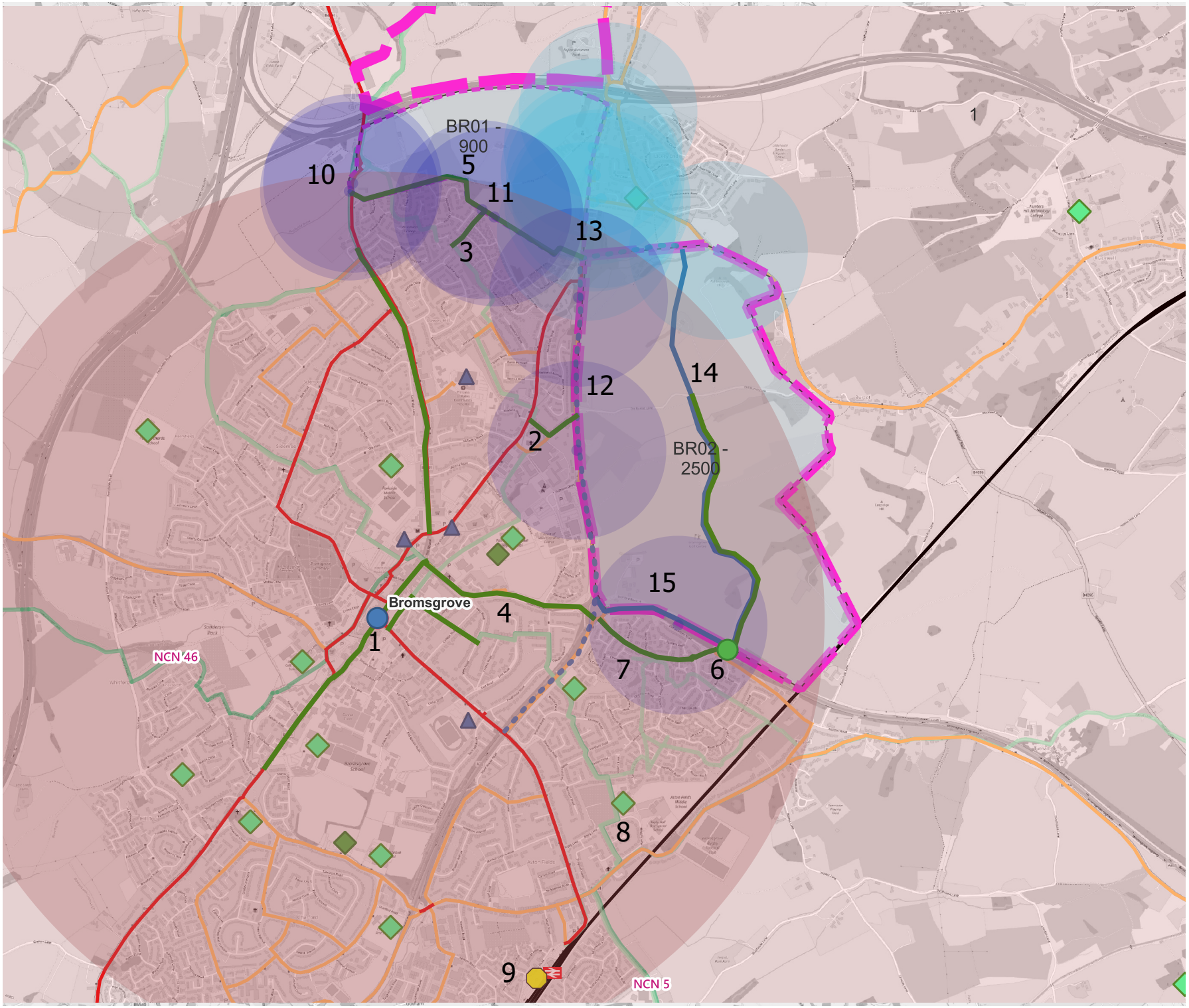
6.61 All these options for enhancing public transport would be subject to discussions with the bus operators to understand the commercial viability of diverting existing services via the proposed sub-clusters.

Public Transport: Rail

6.62 Bromsgrove's new rail station opened to passengers in 2016. Four trains per hour call at the station, three towards Birmingham and one towards Hereford via Worcester. Having such a regular service into Birmingham will support sustainable commuting to employment opportunities into Birmingham from BR01 and BR02. Joint working could be required with rail operators and WCC to discuss the possible impact of increased demand for passenger services due to the cluster group, whether additional capacity is required on the network and how this could be delivered.

6.63 In terms of passenger facilities at the rail station, there is a staffed ticket office, passenger waiting room, toilets and 376 onsite car parking spaces and an external concourse which links passengers to bus stops, a taxi rank and pedestrian footpaths. There is cycle parking for 29 bikes, 18 covered and 11 uncovered. Cycle parking is located close to the ticket office and has CCTV. The amount of covered cycle parking could be expanded, and consideration should also be given to the provision of micro mobility bays and EV charging spaces. The station is served by five bus services providing connections to the urban centres of Kidderminster, Worcester, Bromsgrove town centre. There is a bus service which would connect the rail station with BR01 via the town centre.

6.64 The opportunities for improving sustainable transport connectivity have been visualised in Figure 6-4 and detailed in Table 6-5.



Prepared	Reviewed	Date
SI	XX	May 22

PedestrianCrossing

Bus Stops

existing

new

EnhancedParking

Local Centre

TransportNetwork

Rail stations

Existing Bus Routes (no per hour)

0 - 2

Over 2

Existing Cycle Network

ExpandedCycleParking

Proposed Bus Routes

Diversion

New

Proposed Active Travel Path

RailLine

Bromsgrove DPR Transport Assessment

Figure title

Cluster Group 3 Transport Opportunities

Revision	Project number
A	3578
Figure number	**Date**
Figure 6-4	May 2022

Table 6-5: Cluster Group 3 Transport Opportunities

ID	Mode	Improvement	Costs
1	Active Travel	Provide additional secure, covered parking spaces in Bromsgrove town centre	Low (<£1m)
2	Active Travel	Extend the existing quiet way cycle routes through the residential streets of Lowes Hill towards the A38 and into BR02	Low (<£1m)
3	Active Travel	Extend the existing quiet way cycle routes through the residential streets of Lowes Hill towards the southern end of BR01	Low (<£1m)
4	Active Travel	Provide a segregated cycle route from the A38 junction along Stratford Road into Bromsgrove town centre to provide a direct route from BR02	Medium (between £1m and £5m)
5	Active Travel	Provide a segregated cycle route from the A38 junction along Stourbridge Road into Bromsgrove town centre to provide a direct route from BR02	Medium (between £1m and £5m)
6	Active Travel	Provide pedestrian / cyclist crossing point over the A448 from BR02 to Aston Fields (to support route to the rail station)	Low (<£1m)
7	Active Travel	Provide a signed cycle route from the new pedestrian / cyclist crossing over the A448 along Regents Park Road to connect with the off-road cycle route in Aston Fields towards the rail station.	Low (<£1m)
8	Active Travel	Provide a signed cycle route from the off-road cycle in Aston Fields via Rigby Lane and the B1484 towards the rail station.	Low (<£1m)
9	Active Travel	Expand the number of secure, covered cycle parking spaces at Bromsgrove rail station	Low (<£1m)
10	Public Transport	Provide two new bus stops along the western edge of BR01 to connect with existing high frequency services along Stourbridge Road.	Low (<£1m)
11	Public Transport	Provide two new bus stops, flagpoles and shelters along the southern edge of BR01 to connect with existing high frequency services.	Low (<£1m)

ID	Mode	Improvement	Costs
12	Public Transport	Divert some the bus services using Birmingham Road / A38 via the eastern end of BR01.	To be confirmed by operators and WCC
13	Public Transport	Introduce a new public transport interchange at north-western corner of BR02 near the A38, or near the new neighbourhood centre within BR02 (if pursued) to facilitate a transport hub for that sub-cluster.	Low (<£1m)
14	Public Transport	Extend one of the bus routes along the A38/Birmingham Road west via BR02 and re-join A38 at A448 junction and route into Bromsgrove town centre	To be confirmed by operators and WCC
15	Public Transport	Provide new bus stops along the southern boundary of BR02 and divert the part of the Bromsgrove to Redditch service to serve these new stops	Low (<£1m)

Cluster Groups 4 & 5: Catshill North & South

6.65 Cluster groups 4 and 5 present opportunities for growth to the south, north and east of the existing residential area of Catshill, as shown in Figure 4-19 and Figure 4-26. Collectively the cluster groups could form a development totalling 3,450 plus employment at CA03.

Vision

6.66 The cluster groups would deliver growtharound the edge of existing residential areas. Local links would focus on the existing core local facilities at the centre of Catshill, with an additional neighbourhood centre delivered to support internalised trips to the north of Catshill. This existing local centre lies within walking (2km) distance of the five sub-clusters. Infrastructure improvements could focus on providing high-quality active travel routes between these locations to encourage walking and cycling for short, local trips. This includes providing space for sustainable transport infrastructure such as shared paths for active travel, secure cycle parking close to amenities, bus stops and shelters within the heart of the local centre.

6.67 Wider trips to Bromsgrove, Halesowen, Birmingham and the wider conurbation area, are facilitated through bus services currently, which could be enhanced as part of the vision.

6.68 Consideration for the relationship to the SRN at this location is key, with car trips directly accessing the Forest Island junction (1) with the M42 or the Lydiate Ash junction (4) with the M5, to be mitigated wherever possible.

Local facilities

6.69 Catshill does not currently have a High School, with the nearest being in Bromsgrove or outskirts of Rubery. Should all the development areas come forward, the development could be at a scale that could warrant a new high school in the area, subject to local capacity.

6.70 Given the scale of development, and its spilt north and south of the existing residential area, enhancements to the existing local centre (on B4185) can serve the development to the south within about a 20-minute walk.

6.71 An additional smaller neighbourhood centre could serve the northern part of Catshill within CA01. This would also serve as a key destination for CA02 given the severance constraints to its western boundary, which limit its current permeability with the existing local centre (subject to internal masterplan visioning for the specific land within this sub-cluster).

Active travel

6.72 Existing provision to the south of Catshill includes the off-road shared active mode route along the route of Battlefield Brook (within CA03). This could be integrated into the site masterplan as a key active mode route, integrating to the existing development with enhanced links to Stourbridge Road to the south of the Crown Inn and east to the A38.

6.73 The existing employment area to the southeast corner of the sub-cluster also presents opportunity to enhance active mode connections to jobs, but also potentially provide facilities to employees to reduce the need for driving (e.g. at lunchtimes) particularly if this was expanded as part of the development.

6.74 Sub-cluster CA04, being a long thin area could largely build on existing networks, connecting through to existing residential areas. Networks should seek to connect to the local schools on Meadow Road as well as the community library. The area along Stourbridge Road, particularly north of Meadow Road, has existing wide pavements but suffers from use by parked cars, limiting the quality of provision along this route.

6.75 The M5 is a major severance impact around the western edge of this cluster but it is considered that most local trip attractors are to the east of CA04.

6.76 To the north of Catshill, NCN 5 passes through both CA05 and CA01. This could be improved and extended by adding a toucan crossing over the A38. This would connect

both sub-clusters, reducing the severance impact of the road and enhance access to high frequency bus services along this route.

6.77 Within the area of CA05 there is currently no cycle provision along Woodrow Lane (NCN 5), therefore subject to highway and environmental constraints, a wide grassy verge to the east could enable high-quality segregated cycle provision to be delivered.

6.78 Extension to this route should be delivered as CA01 comes forward, connecting through to the east of the area. This could include extension beyond the cluster group area, to connect to Lickey Hills Primary school, where additional safe provision for young children would need to be added along a short section of the B4096 (Old Birmingham Road).

Public transport: Bus

6.79 Existing services 144 (and 144A) run through Catshill between Worcester and Bromsgrove. This maintains a frequent connection close to the sites with Bromsgrove but limits the connections to the wider conurbation as a key destination.

6.80 Enhancing frequency and route of these services would aid the sustainable trips from these locations, where rail connections are limited.

Public transport: Rail

6.81 The rail station at Barnt Green is approximately a three-mile drive away (10 – 15 minutes) and parking at the station would provide onward sustainable connections to Bromsgrove, Birmingham and Redditch. Current provisions at the station include 45 car parking spaces at a cost.

6.82 Delivering enhanced bus services, connecting into the development location could offer a more direct service and negate the need for driving to be part of a journey. Improved waiting facilities at the rail station should also be delivered.

6.83 There are limited direct public transport services to Bromsgrove station currently. Enhancing this could provide an alternative to accessing Birmingham but requires changing mode and therefore could be less attractive than enhancing the direct bus service frequencies through Catshill. Other destinations, such as Redditch are also available via rail from Barnt Green.

6.84 Brookhouse Road which connects CA02 to Barnt Green train station by a 15-minute cycle distance is a narrow tree-lined lane and involves a significant incline; significant improvements would need to be made to promote this as a safe regular cycling route.

6.85 The opportunities for improving sustainable transport connectivity have been visualised in Figure 6-5 and detailed in Table 6-6.

Prepared	Reviewed	Date
JP	SN	May 22

Key

- Cluster Group 4
- Cluster Group 5
- Sub-cluster includes employment
- All Education
- All Healthcare

Opportunities

- Potential Local Centres (+2km +5km
- Potential Bus Divertions

Bus stops (+400m)

- existing
- new

Proposed Active Mode Routes

- Enhanced
- New
- Crossing

a company of Royal HaskoningDHV

Client

Bromsgrove District Council

Project

Bromsgrove DPR
Transport Assessment

Figure title

Cluster Group 4 & 5
Transport Opportunities

Revision	Project number
A	3578

Figure number	Date
Figure 6-5	May 2022

Table 6-6: Cluster Group 4 & 5 Transport Opportunities

ID	Mode	Improvement Description	Phase	Costs
1	Active Travel / Public Transport	Enhance existing local centre on Golden Cross Lane with sustainable transport infrastructure including public realm for pedestrians, cycle storage, shared paths and shared micro-mobility provision.	1	Low (<£1m)
2	n/a	Create new neighbourhood centre within CA01 to internalise some of those trips. This could act as the local centre for CA02, which could form part of a longer-term place-making vision for the area.	2	Incorporated within the cost of the development
3	Active Travel / Public Transport	Within the new neighbourhood centre, new sustainable transport infrastructure will be provided including public realm for pedestrians, cycle storage, shared paths and quality public transport connections.	1	Low (<£1m)
4	Active Travel	Enhance active mode access from development locations to existing local centre. Routes entering the site should minimise walking and cycle distances and be safe and attractive (approximately 600m)	1	Low (<£1m)
5	Active Travel	Extend existing Battlefield Brook route across the site to link with the A38 and through the CA03 cluster (approximately 2km)	1	Medium (between £1m and £5m)
6	Active Travel	Improve active mode connectivity between the employment land, residential area and local centre.	1	Low (<£1m)
7a&b	Active Travel	Provide permeable networks for walking and cycling through existing residential area (approximately 400m), within the southern part of the cluster (approximately 700m) enhance cycle and walking connectivity connecting to local schools	1	Low (<£1m)
8	Active Travel	Add safe crossing provision over the A38 between CA05 and CA01, linking existing cycle routes	2	Low (<£1m)
9	Active Travel	Deliver segregated cycle provision along Woodrow Lane and extend into CA01 (approximately 650m)	2	Low (<£1m)

ID	Mode	Improvement Description	Phase	Costs
10	Active Travel	Create additional link from NCN 5 route through CA01, linking with Old Birmingham Road (approximately 3.2km) and explore onward links to Lickey Village (recognising the significant incline from the south) and the country park	2	Medium (between £1m and £5m)
11	Active Travel	Enhance pedestrian access route on to Cottage Lane and extend to link with CA02 (approximately 400m)	2	Low (<£1m)
12	Active Travel	Include safe crossing provision over Old Birmingham Road	3	Medium (between £1m and £5m)
13	Active Travel	Explore opportunities to create active mode routes through the land around Round Hill (approximately 600m) or via Limehouse Lane	3	Low (<£1m)
14	Active Travel	New cycle route provision across CA02 (approximately 800m)	3	Low (<£1m)
15(a, b&c)	Public Transport	Increase frequency of 144/144A bus route connections and extend to into Birmingham. Divert 144 bus route from existing local centre, down Woodrow Lane and through CA05, with new stop within CA05 and bus priority on the A38	2	To be confirmed by operators and WCC
16	Public Transport	Divert some existing services between Bromsgrove to run through CA03, between Stourbridge Road and the A38, connecting new residential and employment areas (such as the 144)	1	To be confirmed by operators and WCC
17a&b	Public Transport	Enhance frequency of bus route, such as 202 between Bromsgrove and Halesowen to every 30 mins (from every hour) and divert into CA02 and through CA01, with bus priority across the B4096	2&3	To be confirmed by operators and WCC
18	Public Transport	Provide new bus stop within CA01 close to new neighbourhood centre	1	Low (<£1m)
19	Public Transport	Improve bus waiting facilities at key existing stops in Catshill – with shelters and real time information. New stops should also be of high quality.	All	Low (<£1m)
20	Public Transport	Enhance facilities at Barnt Green rail station, with improved waiting facilities.	All	Low (<£1m)

Phasing

6.86 It is anticipated that, if allocated, not all sub-clusters within the Cluster Group would be delivered at the same time, which means there needs to be a balance between infrastructure delivery relative to the scale of the homes being delivered.

6.87 The RAG outcomes indicate a phased / priority approach that would bring the cluster groups forward in three key stages: CA04 and CA03 coming forward first, with CA05 and CA01 a secondary priority and CA02 later.

6.88 Should only one phase of development come forward, siting growth to either the north or south is together is likely to achieve more sustainable transport outcomes, and present opportunities to improve the baseline situation. Spreading development partially (i.e. only delivering one site to the north and one to the south) may limit the extent of transport intervention that can be coordinated across the sites and this outcomes that can be achieved.

Table 6-7: Cluster Group 4 & 5 Phasing

Phase	Sub-Clusters	Homes	Improvements	Rationale
1	CA02, CA03	1,250 & employment	1,3,4,5,6,7a&b, 16, 18, 19, 20	Expansion of the settlement to include the mixed-use development. Proximity to existing local centre, education and bus routes.
2	CA05, CA01	1,450	2, 8,9,10,11,15abc, 17a&b, 19, 20	Focused development to the north with associated improvements to sustainable travel infrastructure and potential for neighbourhood centre.
3	CA02	750	12,13,14,17a, 19,20	Poorest performing in the assessment, more physically disconnected from existing settlement, local centre and existing transport links.

Cluster Group 6: Barnt Green

6.89 Cluster group 6 is to the north of Bromsgrove District near the existing village of Barnt Green (Figure 4-32) and there are four sub-clusters, BG01, BG02, BG03 and BG04, which have the potential to deliver up to 3,100 new homes. These sub-clusters have been considered together as their collective scale and proximity to each other presents an opportunity to deliver an urban extension with the potential to connect these new homes by sustainable transport. Notwithstanding this, there would be scope to consider each spatial option individually, or in different combinations, to strike an appropriate balance between the scale of potential growth, place-making, and the realisation of more sustainable transport improvements and mode share outcomes.

6.90 Looking at existing connectivity, there is a rail station within Barnt Green village which is within walking and cycling distance of all sub-clusters and provides access to Bromsgrove, Redditch and Birmingham. Whilst there are bus services within the cluster group, they are low frequency and active travel routes for daily journeys to local amenities are currently limited.

Vision

6.91 Creating a sustainable settlement around the existing village of Barnt Green could mean extending the centre of the settlement north across the B4102 and into BG02. This would allow for the provision of additional amenities to build on the existing provision at the southern end of Hewell Road (near the rail station) and address gaps that could currently mean people leaving the village to access these facilities. This could include a range of retail, leisure and community facilities. The extension of the village centre into BG02 would better connect BG01 to the centre. Improvements to or replacement of the existing pedestrian bridge with one suitable for active travel and potentially bus access, could connect the two sub-clusters by providing direct access by sustainable transport between the two, encouraging sustainable travel and mitigating the potential for car use for shorter trips. Better connections from BG03 and BG04 into the existing and extended local centre will prioritise active travel connections. Public transport connectivity will focus on the existing rail station and enhancing connections to the station for longer-distance journeys to Redditch, Bromsgrove and Birmingham.

Local facilities

6.92 Existing retail and hospitality venues can be found in Barnt Green village however, to support the potential for new homes within the village, it is anticipated that additional facilities will be required. Although there is a primary school and GP surgery with Barnt Green, subject to local capacity understanding, new secondary education and healthcare sites could also considered to bolster existing capacity. Connections with these facilities

should be enhanced through creation of permeable active mode networks within the development and a joined-up approach to existing provisions.

Active travel

6.93 All sub-clusters are within very close proximity to the existing village centre in Barnt Green which presents a significant opportunity for encouraging more walking and cycling. To do this, access to parts of the existing village centre (Sandhills Lane to Station Approach) by vehicle could be limited to create a space that prioritises walking, cycling and access by public transport. If space allows, a segregated cycle route could be provided along Hewell Road north to the B4102 with a toucan crossing to provide access into BR02. From here, a segregated cycle route and wide pavements could be provided to provide direct access by walking and cycling to the extended village centre. Permeable active travel networks will branch off the central segregated cycle route to provide active travel access through the sub-cluster. These should be considered for all of the sub-clusters.

6.94 From BG01, upgrades to the existing pedestrian bridge (or potentially a new bridge altogether) over the rail line could overcome severance caused by the rail line from with BG02 and provide access to the new local facilities. This should focus only on walking, cycling and public transport connectivity to prioritise these forms of transport for local movements. Vehicle traffic could be routed via the B4102. Cycling provision should also be considered along Sandhills Road and Blackwell Road into Bant Green village centre to provide access from BG03 and BG04.

Public Transport: Bus

6.95 Improvements to the frequency of existing bus services could provide better connections within the District to Bromsgrove as the nearest large district centre. The existing 145/145A services provide connections from Longbridge/Rubery to Barnt Green and onto Bromsgrove. The journey time between Barnt Green and Bromsgrove is relatively short (20mins) however, the service operates every 2hrs and would need to be increased to at least hourly (if not half hourly) to provide an attractive connection. Diversion of the bus route into BG01 and BG02 before calling at Barnt Green rail station could help increase patronage on the service to make the diversion commercially sustainable, whilst also connecting the two northern sub-clusters with the rail station.

6.96 Similar opportunities for bus stops should be considered for BG03 and BG04 as the route passes along Sandwell Green. Negotiations will be needed with bus operators Dimond Bus to scope the potential for increasing the frequency of services and diverting routes. With these service improvements, additional bus stops, shelters and real time information should be considered.

6.97 Should all sub-clusters be delivered, there could be an opportunity to scope provision of a new service linking through all new growth areas to existing communities, including the local centre and rail station. This could be a standalone circular route, one which connects to other local areas, be it nearby residential or employment sites, or a demand responsive service. This would then be able to provide attractive public transport options across all sub-clusters without creating significant delay to existing more direct services by implementing overly circuitous routes.

6.98 Although the 182/183 services provide connections from Barnt Green towards Alvechurch, Redditch and Bromsgrove, the existing service only has one connection each way per day, it would require a significant amount of investment to increase the frequency and patronage of the service to become commercially viable in the long-term.

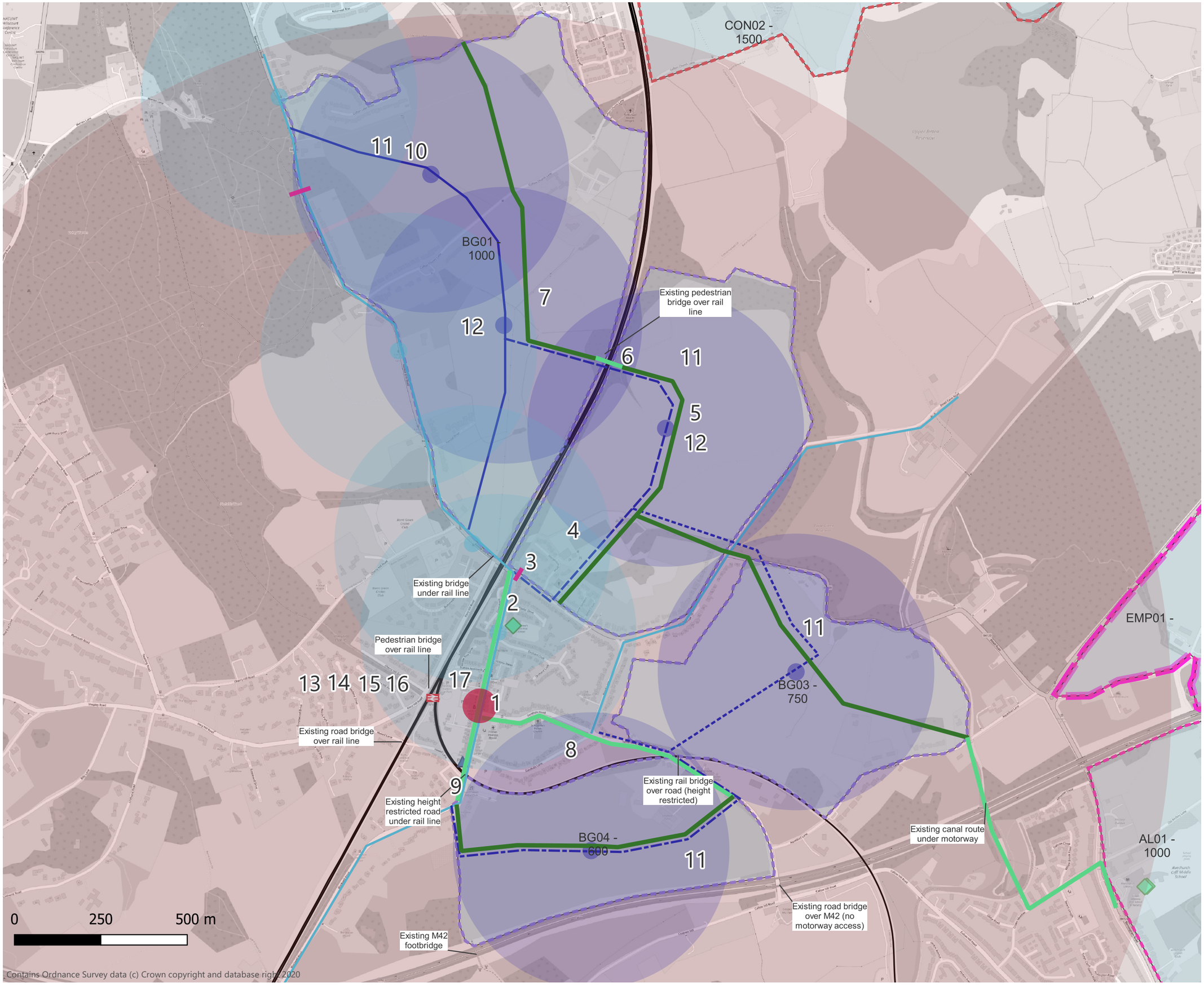
Public Transport – Rail

6.99 Barnt Green rail station is within walking or cycling distance of all the sub-clusters. With six trains per hour on the cross-city line, there are regular connections to Birmingham New Street (3 per hour, 30min journey), Redditch (2 per hour, 10min journey) and Bromsgrove (1 per hour, 6min journey). This means that connections to/from Barnt Green station should be enhanced to encourage people to commute sustainably to the rail station for longer-distance connections out of the District.

6.100 It is likely that demand for rail services could increase if the sub-clusters were fully realised, therefore there would need to be discussions with West Midlands Railway regarding increasing the capacity of services. Station upgrades should also be considered to improve the passenger experience at the rail station, this could mean new ticket machines (some of which are accessible), an indoor waiting room with heating, toilets, departure information and WiFi. Considerations should also be given to making the station forecourt more accessible for those with limited mobility, including the provision of a lift for access to the pedestrian bridge.

6.101 For onward travel to/from the rail station, a 'mini' multi-modal interchange should be considered to enable a smooth transition for those arriving by rail to complete the last mile(s) of their journey by bus. This could mean re-configuring the station forecourt to facilitate a new public transport hub with real time bus information. There is currently no cycle parking at the station. Secure, covered cycle parking should be provided to encourage travelling to the site by bike. It may be necessary to re-configure the existing car parking bays to better utilise the space available. Raising the currently low car parking charges (£3 per day) could help to discourage driving to the station for short trips in favour of walking, cycling or public transport use.

6.102 The opportunities for improving sustainable transport connectivity have been visualised in Figure 6-12 and detailed in Table 6-16.



Prepared	Reviewed	Date
JP	SN	June 22

Key

- Cluster Group 6
- All Education
- All Healthcare
- Rail stations
- railway line
- Existing Local Centre (+2km +5km)

Opportunities

Bus stops (+400m)

- existing
- new

Proposed Active Mode Routes

- Enhanced
- New
- Crossing

6- Bus diversions

- existing
- Potential diversion
- Potential alternative diversion
- Potential alternative diversion
- Potential alternative diversion

a company of Royal HaskoningDHV

Client

Bromsgrove District Council

Project

Bromsgrove DPR
Transport Assessment

Figure title

Barnt Green Opportunities

Revision	Project number
A	3578

Figure number	Date
Figure 6-6	June 2022

Table 6-8: Cluster Group 6 Transport Opportunities

ID	Mode	Improvement Description	Costs	Phase
1	Active Travel	Restrict car use along 0.2km of Hewell Road (from Sandhills Lane to Station Approach) to create an environment in the centre of the established village centre to that prioritises pedestrian and cyclist movements	Medium (between £1m and £5m)	1
2	Active Travel	A new 0.2 km section of segregated cycle route along Hewell Road from Station Approach to the B4120	Low (<£1m)	1
3	Active Travel	A toucan crossing across the B4120 to provide access into BR02 (and BR01)	Low (<£1m)	1
4	Active Travel	Extension of existing village centre into BR02 to provide facilities to benefit all four sub-clusters and the existing settlement.	*To be included within development masterplans*	1
5	Active Travel	An internal walk/cycle route within BG02 from B4120 through centre of the sub-cluster to join the existing pedestrian bridge over the rail line	*To be included within development masterplans*	1
6	Active Travel	Upgrading/replacing the existing pedestrian bridge over the rail line with one suitable for walking, cycling and public transport access to provide BG01 with access to the facilities within BG02	Medium (between £1m and £5m)	1
7	Active Travel	An internal walk/cycle route within BG01 towards the existing pedestrian bridge over the rail line towards BG02. Rerouting of vehicles via the B4120.	*To be included within development masterplans*	1
8	Active Travel	A new 0.3 km segregated cycle path along Sandhills Road to connect BG03 and BG04 with Barnt Green village centre	Low (<£1m)	2
9	Active Travel	A new 0.2 km segregated cycle path along Blackwell Road to connect BG04 with Barnt Green village centre	Low (<£1m)	2
10	Public Transport	Improve frequency of existing 145/145A bus service for BG01 and BG02.	*TBC with bus operators*	1

ID	Mode	Improvement Description	Costs	Phase
11a	Public Transport	Divert 145/145A bus service into BG01.	*TBC with bus operators*	1 (BG01)
11b	Public Transport	Extend diversion of 145/145A bus service into BG02.	*TBC with bus operators*	1 (BG02)
11c	Public Transport	Extend diversion of 145/145A bus service into BG03.	*TBC with bus operators*	2 (BG03)
11d	Public Transport	Deliver new bus service to connect all sub clusters. Subject to engagement with operators this could be an on-demand service, potentially linking up other nearby communities or a fixed circular service connecting sub clusters with the rail station and local centre	*TBC with bus operators*	2 (BG04)
12	Public Transport	New bus stops, shelters and real time information for all sub-clusters.	Low (<£1m)	1 (BG01 & BG02), 2 (BG03 & BG04)
13	Public Transport	Capacity improvements to services into Birmingham (as required)	*TBC with rail operators*	2
14	Public Transport	Upgraded station facilities - new ticket machines, an indoor waiting room with heating, toilets, departure information and WiFi and scope potential for step free access to all platforms	Low (<£1m)	1
15	Public Transport	A new 'mini' multi-modal interchange – a new building with waiting facilities for the bus, real time bus information and information on onward travel. It may be necessary to re-configure the existing car parking bays to better utilise the space available for the public transport interchange and a small number of parking spaces.	Low (<£1m)	2
16	Active Travel	New, secure, covered cycle parking.	Low (<£1m)	1
17	Car Parking	Consider raising the cost of parking to discourage driving for short trips in favour of walking, cycling or public transport use.	*TBC with rail operators*	1

Phasing

6.103 Within cluster group 6 there is potential to provide 3,100 new homes. These could be split into 'Phase 1' BG01 and BG02 and 'Phase 2' BG03 and BG04. This groups together those that are geographically closer together and whereby improvements could be mutually beneficial to both sub-clusters. As suggested earlier, it is likely that additional facilitates will be required to help internalise trips within the village by sustainable forms of transport, rather than travelling out of the village. This includes supermarkets, leisure centres, education and healthcare. Due to this, BG02 could form part of Phase 1 to deliver this extension of the existing local centre and provide a direct walk/cycle connection to the rail station for trips out of the District. Due to the proximity to BG02, it could be beneficial for BG01 to be delivered in a similar timescale to connect the two sub-clusters with infrastructure to support sustainable travel.

6.104 Transport infrastructure opportunities to connect BG03 and BG04 could follow as part of Phase 2. They could be standalone or delivered together. Both will harness the existing and proposed facilities within the village centre with improved sustainable infrastructure and services to connect to the rail station.

Table 6-9: Cluster Group 6 Phasing

Phase	Sub-Clusters	Homes	Transport Improvements	Rationale
1	BG02 & BG01	1,750	1, 2, 3, 4, 5, 6, 7, 10, 11, 12, 14, 16, 17	Additional facilitates delivered through BG02 could help internalise trips. BG01 nearby and could come forward at similar time.
2	BG03 & BG04	1,350	8, 9, 13, 15	Sub-clusters could come forward as Phase 2 to build on opportunities already delivered through Phase 1.

Cluster Group 7: Alvechurch South (AL02)

6.105 Cluster group 7 is to the south of the existing village of Alvechurch near the rail station. It only has one cluster contained within its boundary, AL02, which has the potential to deliver approximately 750 homes. In comparison to some of the other cluster groups explored across the District, this is a relatively small-scale growth which may limit the potential for transport investment opportunities and widespread sustainable transport mode share.

6.106 This said, the cluster group does have some existing sustainable connectivity. Trains depart Alvechurch station on the cross-city line every 30 minutes and provide connections north into Longbridge (30mins) and Birmingham (35mins); and south towards Redditch (14min). The rail station also has car parking, cycle parking and an information centre and ticket machines. Bus services 146, 182/183 and 884 run through the village centre connecting Alvechurch to Bromsgrove, Redditch and Longbridge, however services operate infrequently (less than twice per hour). The current walking and cycling facilities around the cluster group are limited.

Vision

6.107 Due to the cluster group's proximity to the existing village and the potential number of homes, an urban extension to Alvechurch is the most likely growth scenario. Facilitating this is likely to involve increasing the capacity of some existing facilities in Alvechurch, enhancing facilities at the rail station, improving the local bus service and providing connecting active travel infrastructure between the cluster group, rail station and local centre. Should cluster group 8 (AL01, EMP01) be delivered in tandem with cluster group 6 (AL02), there is greater potential to create a new local centre and larger-scale transport opportunities to create a settlement that is focused around sustainable movement.

Local Facilities

6.108 There is currently one first and one middle school located around a 15-minute walk from the cluster group. The closest healthcare centre is in Barnt Green, which is a 10-minute journey. Other major healthcare facilities can be found in Redditch which can also be accessed by train in under 10 minutes. The number of dwellings is unlikely to generate sufficient demand for a new school or health centre in the town, and therefore it is important that active travel or public transport use to these nearby areas is encouraged as much as possible. Alvechurch village has limited existing amenities, there are a couple of supermarkets, pubs and cafes (within a 10-minute walk of cluster AL02) which suggests there is the potential for travelling sustainably to these local facilities, but for all other trips it is likely people would travel out of the village into Bromsgrove or Redditch.

Pedestrians & Cycling

6.109 It would be key to improve active travel connectivity to the local schools and village centres. A new 1.4km cycle route could be introduced along Station Road, Bear Hill and Birmingham Road to achieve this. The narrowness of the village centre means segregation is unlikely to be possible along sections of the route routes. A cycle lane could also be considered along Redditch Road and Swan Street to connect the eastern part of the cluster group with the village centre.

6.110 Within the village centre, priority could be considered at the main intersection, along with widening of pavements to improve the public realm. Increasing the capacity of bike storage in the village centre and school will provide necessary infrastructure to support cycling.

6.111 Through the cluster a 'quietway' active travel route could also be considered. There could also be improvements to the existing rail crossing along PRoW AV-578 to connect the western edge of the cluster group with the village centre.

Public Transport: Bus

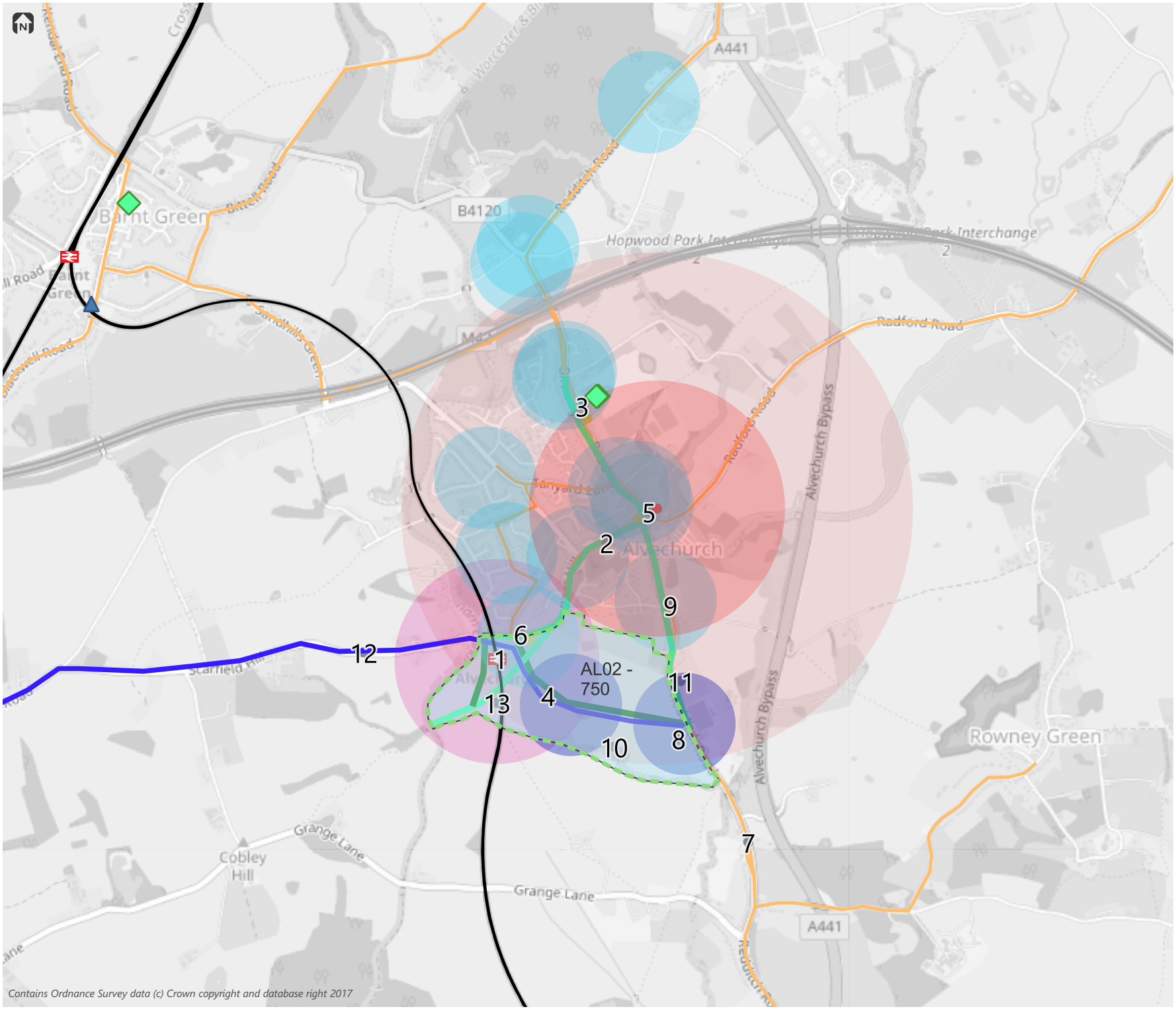
6.112 The nearby district centres of Bromsgrove and Redditch are considered too far for active travel (over 5km) and are more suited to be served by a train or bus service. The 182 and 183 services operate along Station Road to the north of the cluster group. One of these services could be diverted through the cluster group, benefitting from a bus gate at the Station Road junction so that the route has competitive journey times in comparison to the car. The diversion would ideally continue onto Scarfield Hill through to Blackwell to provide a more direct route to Bromsgrove. It would be desirable to increase bus frequency along this route as the rail connection to Bromsgrove is sub-optimal with a lengthy interchange at Barnt Green.

6.113 Existing bus stops in Alvechurch lack shelters and seating, as well as real time bus information. Improvements could be considered along Swan Street, Lewkner House and The Square to improve information in Alvechurch. The existing bus stops cover most of the western part of the cluster group, but new bus stops need to be constructed to ensure all residents are within a 400m walk of a bus service. Therefore, along with the consideration of bus priority along Redditch Road, a new bus stop could help connect services with the cluster group. The rail station will also provide a suitable place of interchange for the bus services in the area.

Public Transport: Rail

6.114 The rail station currently has a service every half an hour to Birmingham, Redditch and Longbridge as well as an hourly service to Bromsgrove. These services are deemed adequate relative to the scale of the development, but capacity improvements may need to be considered in later years, especially if cluster group 8 is constructed. The rail station is currently less than 1km away from anywhere in the new cluster group and so it is a practical walk or cycle to. The 'quiet route' through the cluster group will encourage walking and cycling to the rail station.

6.115 With increases in cycling to the rail station it is proposed that a mini mobility hub is set up at Alvechurch railway station to increase current cycle parking facilities. EV car



Prepared	Reviewed	Date
BS	SM	June 2022

Key

All Healthcare

All Education

Cluster Outline

Cluster Group 7

Bus frequencies (per hour)

0 - 2

Opportunities

Neighbourhood Centre Improvements (+1km-2km)

Train Station Enhancements

Bus Service Improvements

Existing (+400m)

New (+400m)

Bus Service Improvements

Active Travel Modes

Enhance

New

Junction Improvements

itp a company of Royal HaskoningDHV

Client

Bromsgrove District Council

Project

Bromsgrove DPR Transport Assessment

Figure title

Cluster Group 7- Opportunities

Revision	Project number
A	3578
Figure number	Date
Figure 6-7	June 2022

Table 6-10: Cluster Group 7 Transport Opportunities

ID	Mode	Improvement Description	Costs	Phase
AL01	Public Transport- Rail	Alvechurch train station improvements with increases to cycle storage, EV charging and information facilities	Low (<£1m)	1
AL02	Active Travel- Cycling	Cycle lane along Station Road, Bear Hill and Birmingham Road to connect the Western side of the cluster group up to the village centre and local school	Low (<£1m)	1
AL03	Active Travel- Cycling	Priority measures for cyclists around village centre intersection, entrance to school and entrance to development	Low (<£1m)	1
AL04	Active Travel- Cycling and Walking	Quietway to be introduced through the cluster group to encourage cycling and walking	Low (<£1m)	1
AL05	Active Travel- Walking and Cycling	Public realm improvements in the town centre including widening pavements and adding to current bike storage facilities (also adding facilities at the middle school)	Costs unknown	1
AL06	Public Transport- Bus	Bus service 182/183 to run through cluster group with a bus gate being introduced north of the site entrance	Low (<£1m)	1
AL07	Public Transport- Bus	Bus lane to be added along Redditch Road to aid services 146, 182 and 183 on their way to Redditch	Low (<£1m)	1
AL08	Public Transport- Bus	New bus stop to the East side of the cluster group for existing bus routes 146, 182 and 183 to begin stopping at as well as a stop in the centre of the cluster	Low (<£1m)	1
AL09	Public Transport- Bus	Bus stop improvements (Swan Street, Lewkner House, The Square)	Low (<£1m)	1
AL10	Behaviour Change- Travel Plan	Supplying all new residents, a residential travel plan to inform them on the train and bus connections available to them	Low (<£1m)	1
AL11	Active Travel- Cycling	Cycle lane along Redditch Road and Swan Street to connect the Eastern side of the cluster group up to the village centre and local school	Low (<£1m)	1
AL12	Public Transport- Bus	Bus service 182 or 183 to be diverted to run through Blackwell instead of Barnt Green to provide a more direct service to Bromsgrove (bus corridor improvements needed on Wheeley Road and Blackwell Road)	To be confirmed by operators and WCC	1

ID	Mode	Improvement Description	Costs	Phase
AL13	Active Travel-Walking	Widening of pavements around the cluster group as well as improvements to PRoW AV-578 and the current rail crossing which reaches the western side of the development	Cost unknown	1

Phasing

6.117 No phasing has been considered necessary for this cluster group as it contains only one sub-cluster of a comparatively small scale.

Cluster Group 8: Alvechurch North (AL01 and EMP01)

6.118 Cluster group 8 is to the north-east of the existing village of Alvechurch with the potential for 1,000 new homes to be delivered and plus in the region of a 25ha employment area. There are two clusters contained within its boundary, AL01 and EMP01, which are separated by the M42 (junction 2) and bound to the east by the A441. With such close proximity to the SRN, this site has the potential to become a car-dominated place without adequate interventions. Severance issues will also need to be overcome to connect EMP01 with the village centre.

6.119 In comparison to some of the other cluster groups explored across the District, cluster group 8 offers relatively small-scale residential growth which may limit the potential for transport investment opportunities. However, the employment area (EMP01), presents additional opportunities to explore better connections between these two sites.

6.120 As set out in cluster group 7, Alvechurch does have some existing sustainable connectivity. Trains depart Alvechurch rail station on the cross-city line every 30 minutes and provide connections north into Longbridge (15mins) and Birmingham (35mins); and south towards Redditch (5mins). The rail station also has car parking, cycle parking and an information centre and ticket machines. Bus services 146, 182/183 and 884 run through the village centre connecting Alvechurch to Bromsgrove, Redditch and Longbridge, however services operate so infrequently (less than twice per hour) they are unlikely to be an attractive alternative to the car currently. The current walking and cycling facilities around the cluster group are limited.

Vision

6.121 As with cluster group 7, the most likely growth scenario for this cluster group due to its scale and proximity to Alvechurch is an urban extension. Facilitating this is likely to involve increasing the capacity of some existing facilities in Alvechurch, enhancing facilities at the rail station, improving the local bus service and providing connecting

active travel infrastructure between the cluster group, rail station, village centre and employment area. Should cluster group 7 (AL02) be delivered in tandem with this cluster, there is greater potential to deliver larger-scale transport opportunities to create a settlement that is focused on sustainable movement.

6.122 The emerging sustainable transport vision for cluster group 8 is twofold. Firstly, it could focus around improving active travel connectivity from AL02 and EMP01 to the rail station where there are regular services to key centres out of the District, this should improve access to employment opportunities for new and existing residents of the District – whilst also making it easier for prospective employees to travel to employment opportunities within the District (for EMP01). Secondly, there is scope to explore opportunities for overcoming the potential severance between EMP01 and the village centre.

Local Facilities

6.123 There is currently one first and one middle school situated within cluster AL01. The closest healthcare centre is in Barnt Green which can be accessed by train within 10 minutes. Other major healthcare facilities can be found in Redditch which can also be accessed by train in under 10 minutes. The number of dwellings may facilitate enough demand to open a new school and GP surgery to prevent residents travelling out of Alvechurch for these trips, however for now active modes to the current school should aim to be enhanced.

6.124 Alvechurch village has limited existing amenities, there are a couple of supermarkets, pubs and cafes which suggests there is the potential for travelling sustainably to these local facilities, but for all other trips it is likely people would travel out of the village into Bromsgrove or Redditch. Due to the scale of cluster groups, it is unlikely that a new local centre will be delivered. However, there is the potential to allow for some new local facilities to be delivered within AL01, near the existing village centre, to benefit new and existing residents.

Pedestrians & Cycling

6.125 Alvechurch village centre is located at the western edge of AL01 meaning it is within easy walking and cycling distance, the rail station is a 10min walk (1km) from the village centre along Bear Hill and Station Road. The western edge of EMP01 at the junction with Birmingham Road is around a 10-minute walk from the village centre and 20min walk (2km) from the rail station.

6.126 A continuous cycle lane could be introduced from the rail station along Station Road, Bear Hill Road and Birmingham Road and the B4120 to EMP01. Permeable cycle routes within cluster group AL01 which connect to Birmingham Road should also be

considered. Constraints within the village centre are likely to mean that a fully segregated cycle route cannot be provided along all of the route. In addition to this cycle route, a surfaced walking and cycling path could be introduced along PRoW AV-564 to help connect the AL01 to the employment opportunities over in EMP01. This will run alongside the river Arrow and will also help negate the challenges presented by the M42 dividing the two potential development sites.

6.127 Junction improvements to prioritise cyclists in the village centre should be considered, along with widening of pavements for pedestrians to improve the public realm and attractiveness of active travel. There is limited existing bike storage in the village centre, rail station and school. Capacity should be increased along with providing covered, secure cycle parking and showers and changing facilities within EMP01. Through cluster AL01 a 'quietway' could be introduced to encourage walking and cycling.

6.128 The nearby district centres of Bromsgrove and Redditch are considered too far to feasibly walk or cycle (over 5km) and are more suited to be served by a train or bus service.

Public Transport: Bus

6.129 The 884 bus runs through cluster group AL01 and connects Alvechurch to Longbridge. This service could be diverted through AL01 along Old Rectory Lane. For EMP01, bus services 146 and 182/183 which serve Bromsgrove, Birmingham and Redditch could be diverted through the cluster group to connect the settlements with AL01 and EMP01. The 182/183 service to Bromsgrove could also benefit from frequency improvements so that journey times to/from Bromsgrove are more reliable, and services are more frequent.

6.130 There are several bus stops in Alvechurch but currently many of them lack shelter and seating as well as real time bus information. Along with the infrequent services this could mean they are a less attractive option compared to driving. Bus stop infrastructure improvements could be considered along Swan Street, The Square, Old Rectory Lane, Roberts Corner and Pestilence Lane to improve passenger waiting facilities and information.

6.131 The above existing bus stops are on the perimeter of the cluster group. New bus stops are likely to be needed within the sub-clusters to improve coverage:

- For cluster AL01, two new bus stops could be created on Old Rectory Road for the northern edge of the sub-cluster and the southern edge could be connected to the existing bus stop at Swan Street. The rail station will also provide a suitable place of interchange for the bus services in the area.

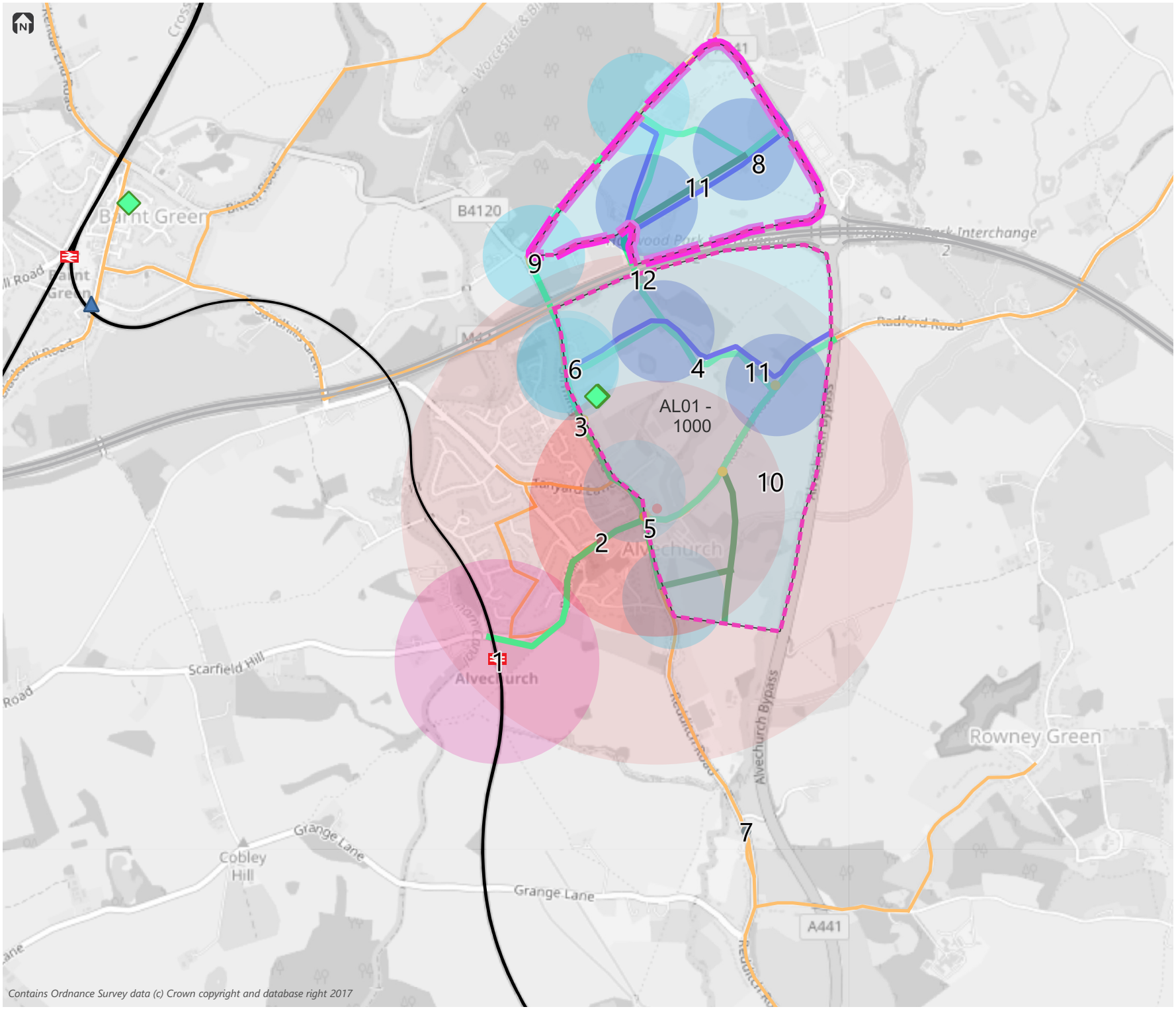
- For EMP01, due to the size of the site, it may be necessary to have a mini public transport interchange at the edge of the sub-cluster, at the junction with Birmingham Road. This would allow for existing services to pick up/ drop off without diverting into the site, which could increase journey times. From the hub, free cycle hire facilities or an internal electric shuttle bus could be provided to connect employees from the hub to their workplace.

Public Transport: Rail

6.132 Alvechurch rail station currently has a service every half an hour to Birmingham, Redditch and Longbridge as well as an hourly service to Bromsgrove. These services are deemed adequate at the moment if the cluster group is to contain 1,000 dwellings but capacity may be increased in later years especially if cluster group 7 (AL02) is bought forward. The rail station is currently between 1km-2km away from the closest point of the sub-cluster which means in some cases it is less reasonable to walk to the station, which is why cycling infrastructure has been proposed. The 'quiet street' through the cluster group will encourage walking and cycling to the rail station.

6.133 With increases in cycling to the rail station it is proposed that a mini mobility hub is set up at Alvechurch railway station to increase current cycle parking facilities. EV car charging points could support those that need to drive to the station to do in a lower carbon vehicle. As well as this, it will encourage EV use in the cluster group with residents knowing that they have a charging point close by.

6.134 The opportunities for improving sustainable transport connectivity have been visualised in Figure 6-9, and detailed in Table 6-11.



Prepared	Reviewed	Date
BS	SM	June 2022

Key

- All Healthcare
- All Education

Cluster Outline

- Cluster Group 8 (Employment)

Bus frequencies (per hour)

- 0 - 2

Opportunities

- Neighbourhood Centre Improvements (+1km-2km)
- Train Station Enhancements

Bus Service Improvements

- Existing (+400m)
- New (+400m)
- Bus Service Improvements

Active Travel Modes

- Enhance
- New
- Junction Improvements

itp a company of Royal HaskoningDHV

Client

Bromsgrove District Council

Project

Bromsgrove DPR Transport Assessment

Figure title

Cluster Group 7- Opportunities

Revision	Project number
A	3578
Figure number	Date
Figure 6-8	June 2022

Table 6-11: Cluster Group 8 Transport Opportunities

ID	Mode	Improvement Description	Costs	Phase
AL01	Public Transport- Rail	Alvechurch train station improvements with increases to cycle storage, EV charging and information facilities	Low (<£1m)	*1*
AL02	Active Travel- Cycling	Cycle lane along Station Road, Bear Hill, Birmingham Road and B4120 as well as inside the development. This will be to connect AL01 to the village centre, train station and the new employment site	Medium (£1m)	1
AL03	Active Travel- Cycling	Priority measures for cyclists around village centre intersection, entrance to school and entrance to both developments	Low (<£1m)	1
AL04	Active Travel- Cycling and Walking	Quietway to be introduced through the cluster group AL01 site to encourage cycling and walking?	Low (<£1m)	1
AL05	Active Travel- Walking and Cycling	Public realm improvements in the village centre including widening pavements and adding to current bike storage facilities (also adding facilities at the middle school)	Costs unknown	1
AL06	Public Transport- Bus	Bus gate to be introduced to the west of cluster group AL01 to decrease through-traffic within the development	Low (<£1m)	1
AL08	Public Transport- Bus	Two new bus stops for each sub-cluster. The bus stop at EMP01 to be a mini public transport hub	Low (<£1m)	1
AL09	Public Transport- Bus	Bus stop improvements (Old Rectory Lane, Roberts Corner, Swan Street, The Square and Pestilence Lane)	Low (<£1m)	1
AL10	Public Transport- Bus	Bus service 884 to be diverted through AL01 to connect cluster group to Longbridge. Bus service 146, 182 or 183 to be diverted through EMP01 to connect residents to their place of work as well as Redditch.	Cost decided by operator	1
AL11	Active Travel- Walking and Cycling	A shared walking and cycling path to be introduced along PRoW AV-564 to create a new link between the developments under the M42	Low (<£1m)	1

Phasing

6.135 Phasing was considered for this cluster but it was decided that delivering the two clusters together would be the most effective way of promoting sustainable transport. This is because it will deliver a more connected network and mean residents who start to work in the employment location have the option to travel to work in a sustainable way.

Cluster Group 9: Conurbation West A441

6.136 Cluster group 9 consists of one sub-cluster, CON02, which has the potential to deliver up to 1,500 homes. The cluster group is located on the northern edge of Bromsgrove District, with Longbridge to the north-west, Hopwood to the south-east, the A441 running along its eastern boundary and the railway line along its western boundary.

6.137 Regarding existing transport provision, Longbridge train station is within walking distance and Barnt Green station is 1.4 miles to the south-west. There are high frequency bus services connecting into the conurbation along the A411 and A38 corridors to provide access to Birmingham, Bartley Green, Kings Norton and Selly Oak. There is reduced bus provision in the central and southern areas of the cluster group, as well as a lack of cycling infrastructure across the whole area.

Vision

6.138 Longbridge is the closest district centre to cluster group 9 and due to the existing facilities and fast public transport connections into Birmingham, the transport vision would be to provide sustainable transport links from CON02 into Longbridge. Connections would be able to integrate with existing cycle routes as well as to the centre and Cofton Park. As much of the transport infrastructure and links needed to connect with Longbridge are in Birmingham City Council's administrative boundary, developments to improve connections would have to be delivered in collaboration.

6.139 There is also the opportunity for a small new neighbourhood centre to be built in the central southern area of the cluster where current sustainable transport provision is poorer. It has sufficient development potential so that it could provide small shops and other daily facilities. This would also depend on the services that are provided as part of the new business park and office space in the Longbridge regeneration scheme. However, for wider trip purposes it will still predominantly remain dependent on larger centres such as Longbridge and Birmingham. Any new centre could also provide sustainable transport links to the rest of the cluster group and Longbridge.

Local Facilities

6.140 There is one healthcare facility, Cofton Medical Centre, just to the north of CON02, approximately a 3-minute walk away. Access to an A&E is more challenging with the nearest being the Queen Elizabeth Hospital in Selly Oak which on average takes 52 minutes to travel to by public transport.

6.141 There are a wide range of educational facilities in proximity to sub-cluster 9, predominantly all to the north. Adjacent to the site is Cofton Primary School, and others within a 20-minute walking distance of the northern edge of the sub-cluster include Albert Bradbeer Primary, Turves Green Boys School, Turves Green Primary School and Fairways School. Active mode provision as part of the development should encourage these short journeys to reduce car dependency by offering safe and convenient connections.

6.142 Longbridge has a wide range of local amenities including supermarkets, hotels, pubs, restaurants and various retail outlets. As part of the Longbridge regeneration scheme St Modwen plan to provide, amongst other things, 150,000 sq. ft of new office space and a 32-acre business park.

Pedestrians & Cycling

6.143 To connect CON02, Cofton Park and Longbridge town centre, there is an opportunity to provide 1.3 km of shared pedestrian and cycle pathway along Groveley Lane going south-west and on to Lowhill Lane. This would integrate into the existing shared pedestrian and cycle pathway which goes north along the B4120 and eventually to Longbridge train station. This could provide a direct route between the sub cluster and the nearest district centre whilst encouraging active travel around the edge of a park and connecting into the train station. This could also have the added benefits of linking up with the National Cycle Route 5 and with the 3CJ cycle shop which is located just outside the train station. The bridge crossing the railway line on Groveley Lane could be made more pedestrian friendly by implementing surface treatment measures, dropping the kerb or planting greenery to provide a barrier between pedestrians and vehicles.

6.144 From the north-eastern tip of cluster group 9 a 1km shared pedestrian and cycle pathway could be provided along Longbridge Lane into the town centre to connect with the train station and form a connection to the eastern part of the cluster group. This could link up with the existing shared pathway outside Albert Bradbeer Primary School. In addition, a 1 km long shared pedestrian cycle pathway could be provided up Coombes Lane to link with Longbridge Lane and the existing route highlighted above. This could provide a convenient route for those in the central area of the development. New cycle storage could be built outside the train station to meet increased demand

and encourage integrated travel. This is already being considered as part of the Longbridge regeneration scheme.

6.145 To maximise the benefits of the potential new neighbourhood centre in the cluster group, 1.8 km of internal on road stepped cycle lanes could be provided to link it up with potential cycle routes on Longbridge Lane and Groveley Lane. As with all the cluster groups, internal active travel connections should be considered at the master planning stage so that direct and convenient routes are provided for pedestrians and cyclists.

Public Transport: Bus

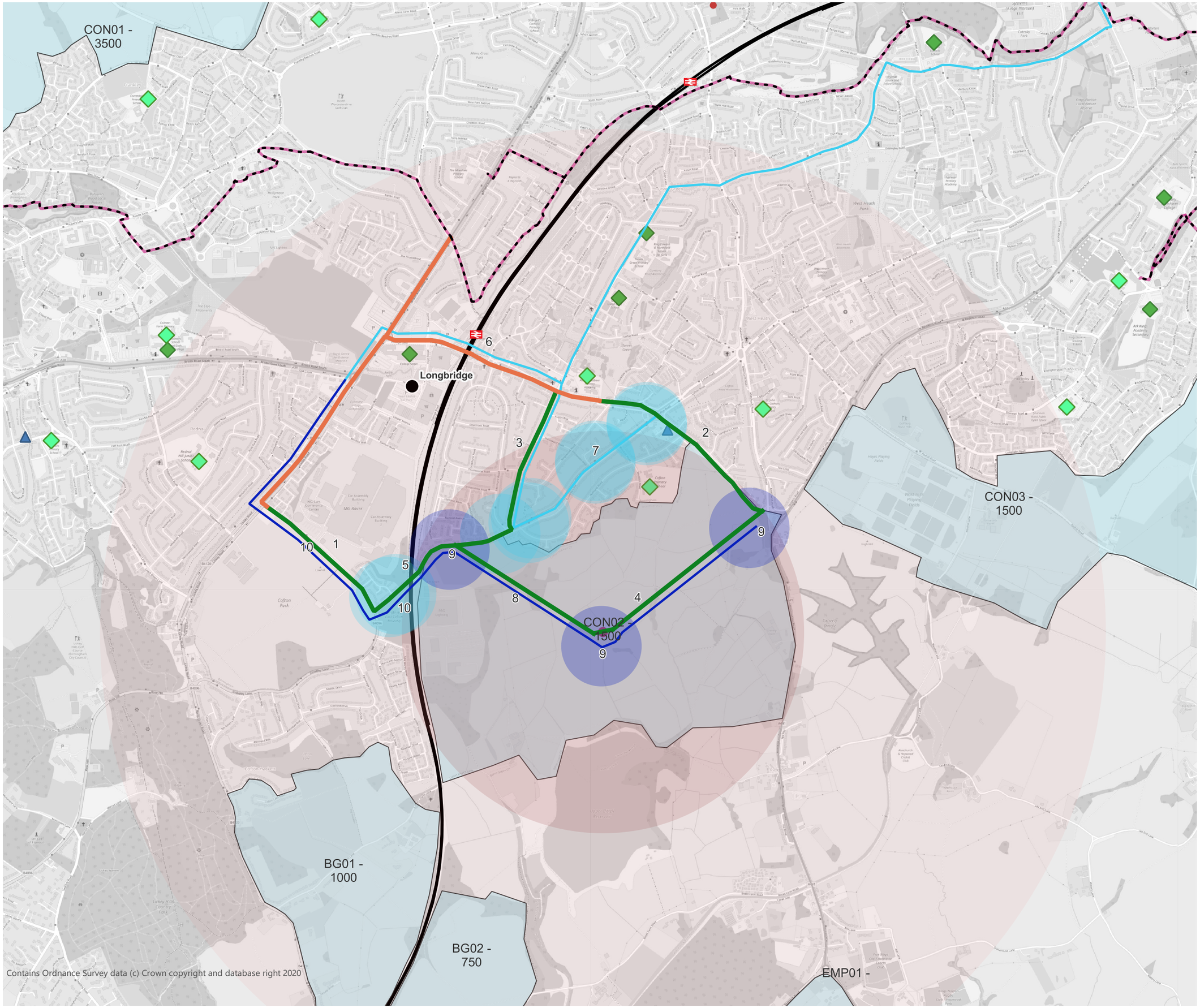
6.146 The 45 bus offers an existing bus service every 13 minutes between the northern edge of cluster group 9 linking to Birmingham City Centre as well as along Coombes Lane and Longbridge Lane to Longbridge Station. As this service operates along Groveley Lane on the northern edge of CON02, there is an opportunity to upgrade existing bus stops to provide shelters, lighting and improved paving near the future access points to the cluster group.

6.147 The 47 bus currently travels from the junction of Bristol Road South and Lickey Road, which is located to the north-west of the sub cluster, to Birmingham City Centre with a frequency of every 12 minutes. There could be the opportunity to extend this service south to Cofton Park, Lowhill Lane, Groveley Lane and into CON02 to link with the proposed neighbourhood centre and add an extra 3 stops. This would depend upon negotiations with the bus operator. It could also provide the opportunity to upgrade existing bus stops along Groveley Lane.

Public Transport: Rail

6.148 Longbridge train station is within cycling and walking distance from the northern part of the cluster group. Trains depart regularly for Birmingham New Street every 10 to 20 minutes with a journey time of 21 minutes. The 45 bus offers services every 13 minutes from the northern edge of the cluster group to the station and the 47 bus every 12 minutes. The 20 bus service links to a short walking distance (7 minutes) away. New cycle storage could be provided outside the station to encourage active travel to rail services and cater for increased demand expected as a result of nearby development.

6.149 The opportunities for improving sustainable transport connectivity have been visualised in Figure 6-9 and detailed in Table 6-12.



Prepared	Reviewed	Date
MJ	SM	June 22

Key

- Bromsgrove District
- National Cycle Network
- All Education
- Secondary / Post 16 Education
- All Healthcare

Cluster Group Opportunities

Proposed bus stops (400m)

- Existing bus stop
- New bus stop

Proposed Active Travel Routes - 9

- Existing
- New

Bus routes

- Bus diversion
- Existing bus route
- Proposed local centre

itp a company of Royal HaskoningDHV

Client
Bromsgrove District Council

Project
Bromsgrove DPR Transport Assessment

Figure title
Cluster Group 9 - Opportunities

Revision	Project number
A	3578

Figure number	Date
Figure 6-9	June 2022

Table 6-12: Cluster Group 9 Transport Opportunities

ID	Mode	Improvement Description	Costs	Phase
1	Active Travel	1.3 km of shared pedestrian cycle pathway along Groveley Lane and Lowhill Lane, integrating into existing shared pathway along B4120, A48 and Longbridge Lane into Longbridge train station.	Low (<£1m)	1
2	Active Travel	1 km of shared pedestrian cycle pathway along Longbridge Lane from the east of the cluster group linking into existing shared pathway reaching Longbridge train station.	Low (<£1m)	1
3	Active Travel	1 km of shared pedestrian cycle pathway along Coombes Lane which would link into the existing shared pathway along Longbridge Lane up to the station.	Low (<£1m)	1
4	Active Travel	1.8 km of internal on road stepped cycle lane within the new development	Low (<£1m)	1
5	Active Travel	Pedestrian friendly bridge crossing on Groveley Lane- planting to shield pedestrians from traffic.	Low (<£1m)	1
6	Active Travel	Cycle storage at the train station	Low (<£1m)	1
7	Public Transport	Upgrading existing bus stops on northern edge of cluster group along Groveley Lane.	Low (<£1m)	1
8	Public Transport	Extend 47 bus service to link with the site	TBC with bus operators	1
9	Public Transport	3 new bus stops for 47 bus service extension	Low (<£1m)	1
10	Public Transport	Bus stop service improvements on Groveley Lane for 47 bus service extension.	Low (<£1m)	1
11	Behaviour Change	Residential PTP or Travel Planning.	Low (<£1m)	1

Phasing

6.150 It is considered that the transport improvements highlighted above would most effectively be phased together given that there is only one sub-cluster in the group and all the improvements are focused north to Longbridge.

Cluster Group 10: Conurbation East A441

6.151 Cluster group 10 consists of one sub-cluster, CON03, which has the potential to deliver up to 1,500 homes. The cluster group is located on the northern edge of Bromsgrove District, with Hawkesley to the north and bounded by Icknield Street to the east and the A441 to the west.

6.152 Regarding existing transport provision, there is no train station within a 20-minute walking distance of the cluster group. Both Longbridge and Northfield train station are approximately 2.25 km from the north-west tip of the cluster group and Kings Norton station further to the north. There are high frequency bus services to the north of the cluster group and cycling infrastructure to the east (National Cycle Network Route 55).

Vision

6.153 As the crow flies, Longbridge is the closest district centre to cluster group 10, however both Kings Norton and Northfield are also within cycling distance of the sub-cluster. As such, the transport vision would be to provide sustainable transport links to all three centres as they have a wide range of existing facilities and public transport connections into Birmingham City Centre. Connections to Longbridge could also integrate with the potential development of cluster group 9 which could share shared cycle routes along Longbridge Lane. As much of the transport infrastructure and links needed to connect with Longbridge, Northfield and Kings Norton are in Birmingham City Council's administrative boundary, developments to improve connections would have to be delivered in collaboration.

6.154 There is also the opportunity for a new neighbourhood centre to be built which has sufficient development potential that it could provide shops and cafes and other daily trip purposes. Like cluster group 9 this would depend on the services that are to be provided as part of the Longbridge regeneration scheme, but it is expected that due to the scale of growth it is expected that cluster group 10 would remain dependent on Longbridge and other district centres (Northfield and Kings Norton). Any new neighbourhood centre would have to have sustainable transport links to the rest of the cluster group and other district centres.

Local Facilities

6.155 There are several healthcare facilities in proximity to CON03 including two General Practitioners (Hawkesley Medical Practice and Grange Hill Surgery), Hillmeads Health Centre and West Heath Primary Care Centre. Regarding A&E, the Queen Elizabeth Hospital in Selly Oak is the closest by journey time and distance. There are also a wide range of educational facilities. Fairways Primary School is located within the cluster group on the north-western edge whilst Ark Kings Academy and Kings Norton High

School are two secondary schools just north of the cluster group in Hawkesley. Where possible, active mode provision as part of any development should encourage these short journeys to be made through sustainable means.

6.156 Longbridge has a wide range of local amenities including supermarkets, hotels, pubs, restaurants and various retail outlets, and as part of their regeneration scheme St Modwen plan to provide, amongst other things, 150,000 sq. ft of new office space and a 32-acre business park. Both Northfield and Kings Norton have an extensive range of amenities including supermarkets, a shopping centre, fitness centre, cafés and restaurants.

Pedestrians & Cycling

6.157 To incorporate the proposed vision for this sub-cluster, pedestrian and cycle routes could be implemented to connect with Longbridge, Northfield and Kings Norton. To connect with Longbridge, there is the opportunity to provide 0.64 km of segregated cycle lane along the A441 and 1.14 km of shared pedestrian and cycle pathway along Longbridge Lane which could link up with the existing infrastructure and directly link to Longbridge train station.

6.158 A 2.8 km long shared pedestrian and cycle pathway could also be provided up Redhill Road, Orwell Drive, Houldey Road, West Heath Road, Church Hill and Church Road to connect with Northfield town centre. There is also the opportunity to connect the east of the sub-cluster with the national cycle network which runs up Icknield Street and Primrose Hill towards Kings Norton. A 1.8 km segregated cycle lane could be provided up Bracken Way and Longdales Road and a 2.5 km shared pathway along Redhill Road which both link into the national cycle network 55.

6.159 To cater for potential increased cycling demand, cycle storage could be built next to Longbridge station, at the train stations and centres of Northfield and Kings Norton, as well as in the proposed new neighbourhood centre in CON03.

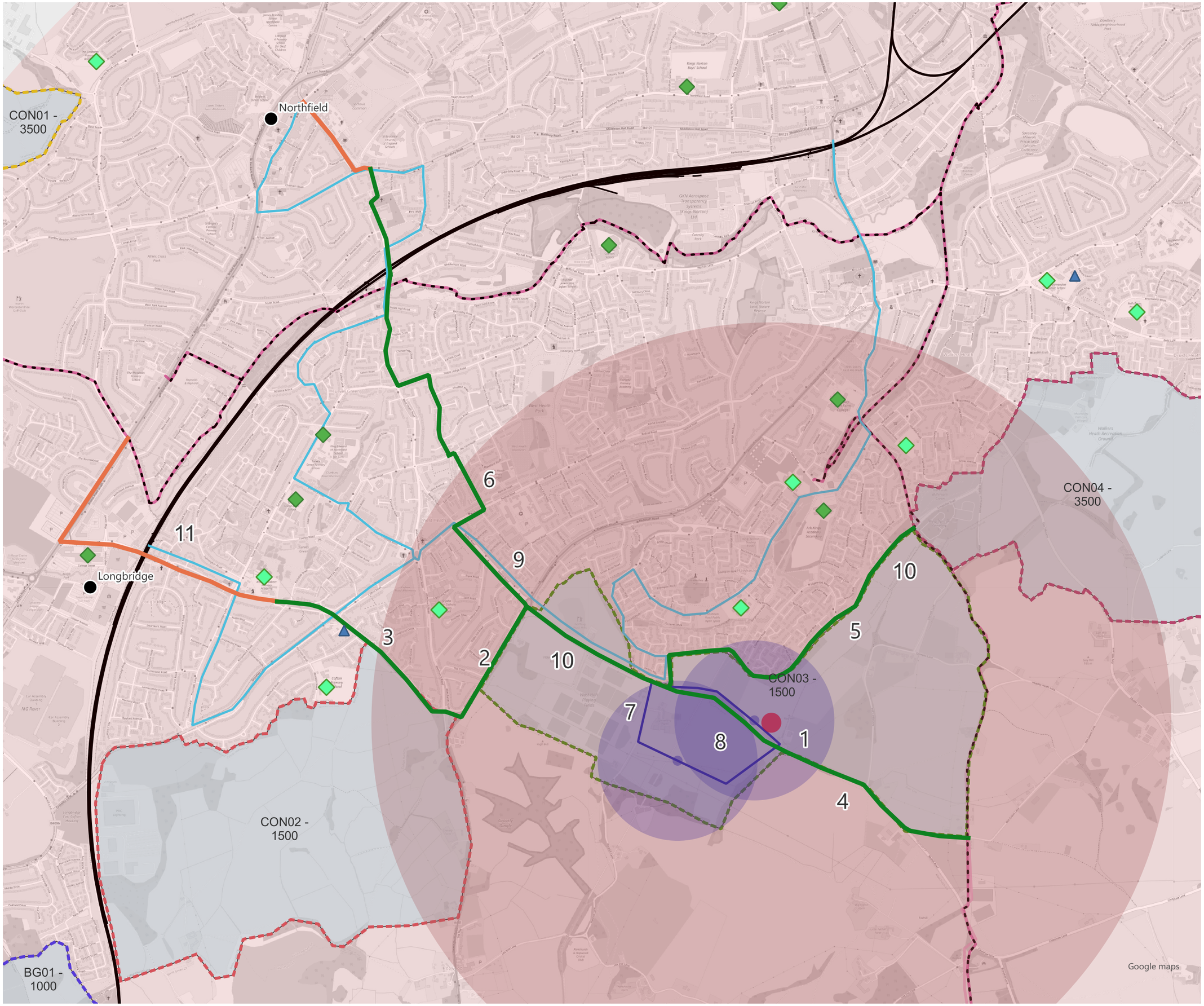
Public Transport: Bus

6.160 The 46 bus offers a service with a 1-hour frequency between the cluster group and both Northfield and Kings Norton. There is the opportunity to upgrade existing bus stops to provide shelters and lighting near the future access points to encourage higher uptake and create a safer and more comfortable travelling experience. The frequency of the service could also increase (ideally to every 15 minutes) and potentially be diverted south at Redhill Road to run into the proposed site at CON03 and allow quicker access to the bus network for residents. This would depend upon negotiations with the bus operator. The 45 bus offers a service every 13 minutes and this would connect the cluster group with Longbridge town centre and train station.

Public Transport: Rail

6.161 Three railway stations are within cycling distance but outside walking distance of the sub cluster which means there is the opportunity to implement high quality cycle networks to connect future potential residents of CON03 with district centre train stations. From Longbridge, trains depart regularly for Birmingham New Street every 10 to 20 minutes with a journey time of 21 minutes. There are high frequency services from Northfield and Kings Norton train stations to Birmingham New Street. This is every 20 minutes from Northfield with a fastest time of 18 minutes and from Kings Norton with a fastest time of 15 minutes. The 46 bus serves both Kings Norton and Northfield train stations, whilst the 45 bus runs to Longbridge train station. New cycle storage could be provided outside the three stations to encourage integrated travel and cater for the increased demand because of the potential development.

6.162 The opportunities for improving sustainable transport connectivity have been visualised in Figure 6-10 and detailed in Table 6-13.



Prepared	Reviewed	Date
CR	SN	June 22

Key

- All Education
- Secondary / Post16 Education
- All Healthcare
- Local Centre

3b - cluster groups - outline

- Cluster Group 6
- Cluster Group 9
- Cluster Group 10
- Cluster Group 17
- Cluster Group 11

Opportunities

- Potential Local Centres (+2km)
- New bus stop

Bus Routes

- Existing
- Proposed

Proposed Active Mode Routes

- New
- Existing

a company of Royal HaskoningDHV

Client
Bromsgrove District Council

Project
Bromsgrove DPR
Transport Assessment

Figure title
Cluster Group 10 - Opportunities

Revision	Project number
A	3578

Figure number	Date
Figure 6-10	June 2022

Table 6-13: Cluster Group 10 Transport Opportunities

ID	Mode	Improvement Description	Costs	Phase
1	n/a	New neighbourhood centre within CON03 to enable people to stay within the neighbourhood for access to daily amenities and services.	Incorporated within the cost of the development	1
2	Active Travel	0.64 km segregated cycle lane along A441.	Low (<£1m)	1
3	Active Travel	1.14 km shared pathway along Longbridge Lane to the station linking into existing pathway.	Low (<£1m)	1
4	Active Travel	2.5 km shared pedestrian cycle pathway along Redhill Road.	Low (<£1m)	1
5	Active Travel	1.8 km segregated cycle lane up Bracken Way and Longdales Road.	£2.7 million	1
6	Active Travel	2.8 km shared pedestrian cycle pathway up to Northfield town centre.	Low (<£1m)	1
7	Public Transport	Divert 46 bus service to connect with the new local centre.	TBC with bus operators and WCC	1
8	Public Transport	Add 2 new bus stops on the proposed 46 bus route diversion.	Low (<£1m)	1
9	Public Transport	Enhance frequency of 46 bus service.	TBC with bus operators and WCC	1
10	Public Transport	Upgrade 4 bus stops along Longdales Road and Redhill Road.	Low (<£1m)	1
11	Public Transport	Cycle storage at Longbridge train station, the proposed local centre and at the train stations and town centres of Northfield and Kings Norton (6 units)	Low (<£1m)	1
12	Behaviour Change	Residential PTP or Travel Planning.	Low (<£1m)	1

Phasing

6.163 It is considered that the transport improvements highlighted above would most effectively be phased together given that there is only one sub-cluster in the group.

Cluster Group 11: Conurbation West A435

6.164 Cluster group 11 (CON04) lies on the edge of the Birmingham conurbation, south of Druids Heath Lane and to the west of the A435 Hollywood Bypass.

Vision

6.165 The cluster group presents an opportunity for a large new development of up to 3,500 homes. It has sufficient scale that it could be a reasonably independent settlement with its own local centre, primary school(s), sports facilities and a GP surgery (subject to local capacity considerations). It will remain dependent on larger district centres (Shirley or Kings Heath) or city centres (Birmingham) for wider trip purposes.

6.166 The cluster group is within walking and cycling distance of existing facilities in Maypole as well as within 5km of the district centres of Kings Heath, Stirchley, Northfield and Shirley, with a range of retail and leisure facilities. This site has been assessed separately due to its scale and the interactions and likely trip destinations from the area.

6.167 A new small local centre could be delivered within the cluster, with new active travel connections across the cluster and integrating with the surrounding residential area, including links to schools and wider transport connections, such as Shirley rail station. Diverted sections of existing bus routes could connect this new local centre and provide high quality public transport services.

6.168 Some opportunities for this cluster extend beyond the Bromsgrove District Boundary and will require coordination and cooperation from Birmingham and Solihull Authorities.

Local facilities

6.169 The scale of development and availability of existing facilities suggests the potential for a new local centre to be delivered and potential primary school and healthcare facility (subject to local capacity).

6.170 A new local centre at the heart of the sub-cluster would provide access to additional amenities to help internalise trips and create a focal point for the neighbourhood. New public realm and sustainable transport infrastructure within the local centre will encourage trips by walking and cycling and providing connections to bus services.

6.171 Limitations on vehicle movements through the local centre could help create an environment that is inviting for walking and cycling.

Active travel

6.172 Infrastructure improvements should focus on providing high-quality active travel routes to encourage walking and cycling for short, local trips. Both new active mode provision and enhanced connections to the wider area could be delivered. These could be segregated cycle and pedestrian facilities on key access roads and safe shared facilities further into the cluster.

6.173 These would connect to a new local centre and facilities as well as integrating with existing schools and key destinations in the area. This includes providing space for sustainable transport infrastructure such as shared paths for active travel, secure cycle parking close to amenities, bus stops and shelters within the heart of the new local centre. Shared micro-mobility parking could also be provided.

6.174 Should nearby WY06 cluster also be developed at scale, there could be potential to deliver an active mode (and/or bus gate) bridge to reduce the severance impact of the A435.

Public transport: Bus

6.175 Existing bus services 19, 49, 50 (platinum) and 50Y run along Bells Lane, connecting to Druids Heath, Frankley, Cotteridge to the west and Digbeth/Birmingham City Centre and Solihull to the north/east. These offer very frequent services (approximately every 10 minutes).

6.176 One option would be to work with the bus operator to scope the diversion of alternate services (e.g., every other) of one or more of these services into the cluster. This would provide connections to/from the local centre and connect to areas of employment and wider transport connections (including Shirley and King Norton rail stations).

Public transport: Rail

6.177 Shirley rail station is approximately 4km from the centre of the cluster - roughly a 20-minute cycle journey at a steady pace achievable for most people. The station has seating and toilets (available at certain times of day and on request) and no waiting room.

6.178 Cycle provision at the station currently includes 10 cycle storage spaces, these are uncovered and do not have CCTV. There are 79 car parking spaces which are free and open 24 hours. Bus service 49 stops directly outside the station and operates a frequent service (approximately every 10 minutes) between Frankley and Solihull.

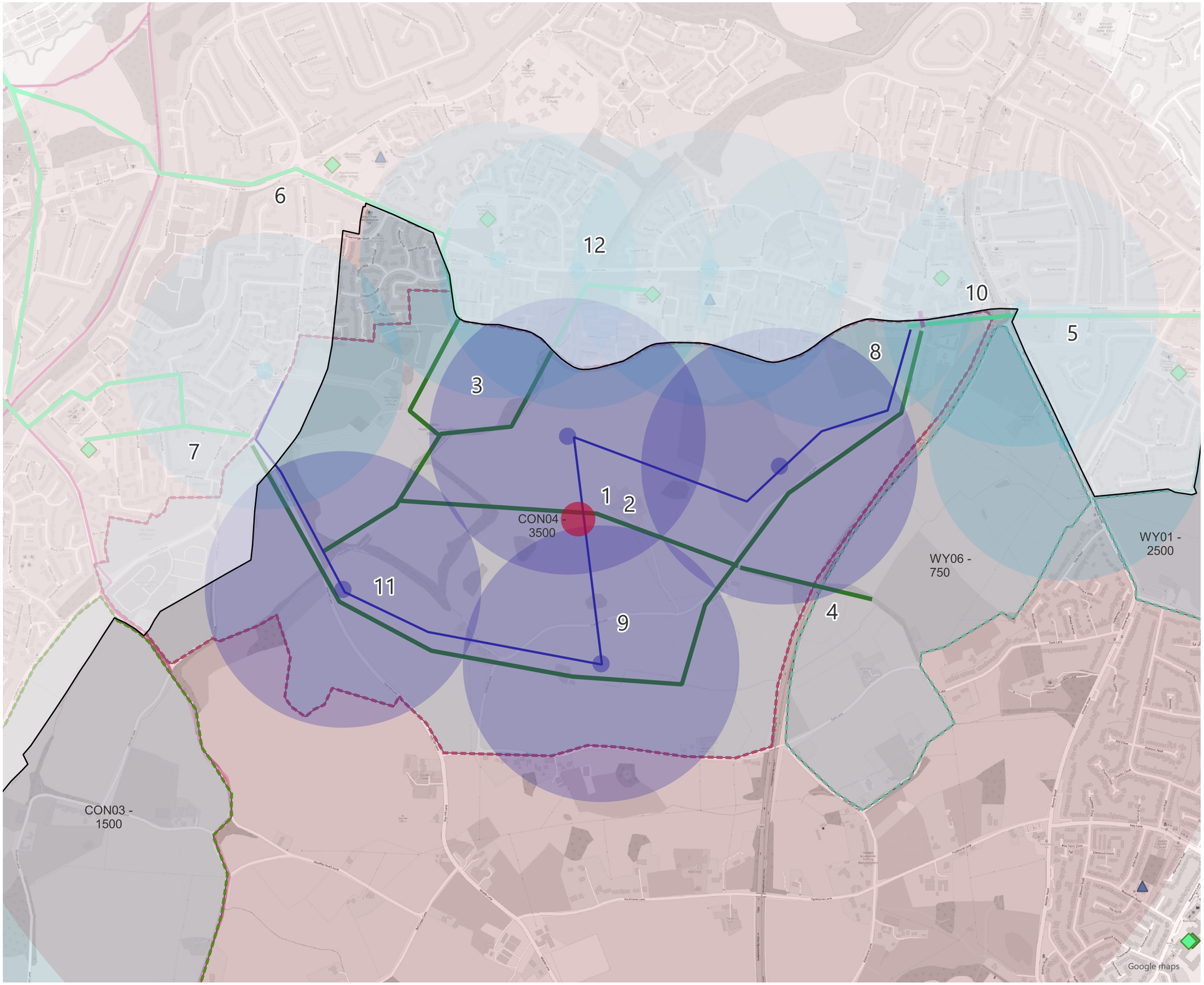
6.179 Kings Norton rail station is approximately 2.5km crow fly distance from the centre of the sub-cluster. This puts it within a 20-minute cycle distance of the cluster. The station has seating and toilets (available at certain times of day and on request) and no waiting

room. Rail connections are set to expand at this station following the reopening of the Camp Hill Line to passengers (planned for 2023).

6.180 Cycle provision at the station currently includes 28 cycle storage spaces, which are covered and have CCTV. There are over 100 car parking spaces that are free and open 24 hours. Bus services 19, 46 and 49 stop outside the station and operate frequent services (approximately every 10 minutes) between Frankley, the QE Hospital, Longbridge and Solihull.

6.181 A 'mini' public transport interchange could be created and could include expanded/improved secure cycle parking, directional signage towards the new local centre for pedestrians and cyclists, micro mobility bays for possible future shared improvements and upgraded bus stop and shelters.

6.182 The opportunities for improving sustainable transport connectivity have been visualised in Figure 6-11 and detailed in Table 6-14.



Prepared	Reviewed	Date
JP	SN	May 22

Key

- Bromsgrove District
- All Education
- Secondary / Post16 Education
- All Healthcare

3b - cluster groups - outline

- Cluster Group 10
- Cluster Group 11
- Cluster Group 12

Opportunities

- Potential Local Centres (+2km)
- Potential Bus Divertions

Bus stops (+400m)

- existing
- new

Proposed Active Mode Routes

- Enhanced
- New
- Crossing

a company of Royal HaskoningDHV

Client

Bromsgrove District Council

Project

Bromsgrove DPR
Transport Assessment

Figure title

Cluster Group 11 Transport Opportunities

Revision	Project number
A	3578

Figure number	Date
Figure 6-11	May 2022

Table 6-14: Cluster Group 11 Transport Opportunities

ID	Mode	Improvement Description	Costs
1	n/a	New local centre within CON04 to enable people to stay within the neighbourhood for access to daily amenities and services.	Incorporated within the cost of the development
2	Active Travel / Public Transport	Within the new local centre provide suitable public realm to make the environment inviting for pedestrians and provision of sustainable transport infrastructure to connect into the centres shared paths for active travel, secure cycle parking close to amenities, bus stops and shelters, shared micro-mobility parking provision.	Low (<£1m)
3a&b	Active Travel	Internal walk/cycle connectivity across the cluster, connecting east and western sides of the area proposed local centre, and integrating with existing networks to the north towards Druid's Lane (approximately 5.5km – assume 50% shared walk cycle and 50% cycle 'superhighway' standard)	Low (<£1m)
4	Active Travel	Potential for additional active mode / bus gate crossing over A435 (if delivered in conjunction with WY06)	Medium (between £1m and £5m)
5	Active Travel	Segregated cycle route or quiet route along Maypole Lane to provide direct cycle connection to Shirley rail station (approximately 3.5km)	Medium (between £1m and £5m)
6	Active Travel	Segregated cycle route or quiet route to provide direct cycle connection to King Norton rail station (approximately 2km)	Medium (between £1m and £5m)
7	Active Travel	Enhance cycle connections into existing networks, connecting to local schools, including Cadbury Sixth Form College (approximately 1.5km)	Low (<£1m)
8	Active Travel	Enhance local crossing facilities across Bells Lane	Low (<£1m)
9	Public Transport	Possible diversion of the bus service along Druid's Lane to run along the spine road of the CON04 development to provide public transport connectivity into Shirley (east) and Kings Norton (west) (approximately 3.5km)	To be confirmed by operators and WCC
10	Public Transport	Bus priority measures onto Druids Lane and the Maypole Island	Low (<£1m)
11	Public Transport	New high quality bus stops (with shelters and real time information)	Low (<£1m)

ID	Mode	Improvement Description	Costs
12	Public Transport	Upgrades to existing bus stops (with real time information)	Low (<£1m)
13	Public Transport & active travel	Improved facilities at Shirley and Kings Norton stations, with increased amounts and improved quality of cycle parking	Low (<£1m)

Phasing

6.183 As there is only one sub-cluster in this area, interventions have been considered to come forward as one main phase. Where interventions link with potential nearby development areas from other cluster groups, these have been considered as a separate phase.

Table 6-15: Cluster Group Phasing

Phase	Sub-Clusters	Homes	Transport Improvements	Rationale
1	CON04	3,500	1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12 & 13	Delivered as a single urban extension site with central local centre and connected vision across the area.
2	WY06	750	4	Should this separate sub-cluster be delivered opportunities should be explored for enhanced sustainable connections.

Cluster Groups 12: Wythall North (WY01, WY06)

6.184 Cluster group 12 is to the northeast of Bromsgrove District on the edge of the conurbation with the existing town of Shirley and the village of Dickens Health to the east, both of which are within the Metropolitan Borough of Solihull (Figure 4-66). The two sub-clusters WY01 and WY06 have the potential to deliver up to 3,250 new homes.

6.185 Looking at existing connectivity, there are two rail stations Shirley and Whitlocks End which are within walking and cycling distance of WY01 and WY06. There are also several high frequency bus services along Maypole Lane towards Shirley and along the A435 north of Maypole, providing links to Birmingham and south of Maypole to Redditch. Walking and cycling connections for daily journeys to local amenities are currently limited.

Vision

6.186 Due to the cluster group's proximity to Shirley and the existing amenities and public transport connections from this local centre into the conurbation, the transport vision is to provide sustainable transport connections to this district centre. As much of the transport infrastructure needed to connect with Shirley is within Solihull Metropolitan Borough Council's administrative boundary, the opportunities for improving sustainable transport connectivity would need to be delivered in collaboration. Should the vision for cluster group 13 (Wythall South) be delivered, there could be a longer-term option to re-focus the direction of movement south towards that new local centre.

Local facilities

6.187 As well as connectivity opportunities with Shirley district centre and existing retail at Maypole which are within a short distance of the cluster, regular trips to facilities such as education and healthcare are also considered part of establishing sustainable travel in new neighbourhoods.

6.188 Three local education facilities are situated to the north of the cluster, south of Maypole Lane where active mode provision delivered as part of the development should encourage these short journeys (<2km) to be undertaken by walking or cycling. This is similarly the case for schools within Hollywood and Light Hall (Shirley) to the east.

6.189 Nearby healthcare centres are also located within walking distance of the cluster, one to the south in Hollywood and another to the north of Maypole Lane. Subject to local capacity understanding, connections with these facilities should be enhanced through creation of permeable active mode networks within the development and a joined-up approach to existing provisions.

Active travel

6.190 Along the northern edge of WY01 and WY06 there is an opportunity to provide a 4.3km segregated cycle lane along Maypole Lane, High Street, Colebroke Road and Haslucks Green Road into Shirley town centre. This new continuous segregated cycle route could provide a direct connection from the two sub-clusters to the nearest district centre. Suitable pedestrian and cyclist crossing facilities would need to be considered for the A435 to ensure this does not segregate active travel movements from WY06 towards WY01 and Shirley.

6.191 From the north-eastern edge of WY01, there is an opportunity to provide a cycle route along Drawbridge Road towards Shirley Rail station and the potential to extend along Haslucks Green Road to connect with Shirley town centre.

6.192 Finally, should the proposed new local centre within cluster group 13 be developed, there is an opportunity to provide a segregated cycle route along Alcester Road south onto Hollywood Lane, to provide a direct connection from WY01 to the new local centre and amenities within it. This new link could also benefit WY06, particularly active travel access from the western edge of the sub-cluster.

6.193 As with all of the cluster groups, internal active travel connections should be considered at the master planning stage to provide direct and convenient through-routes for pedestrians and cyclists.

Public Transport: Bus

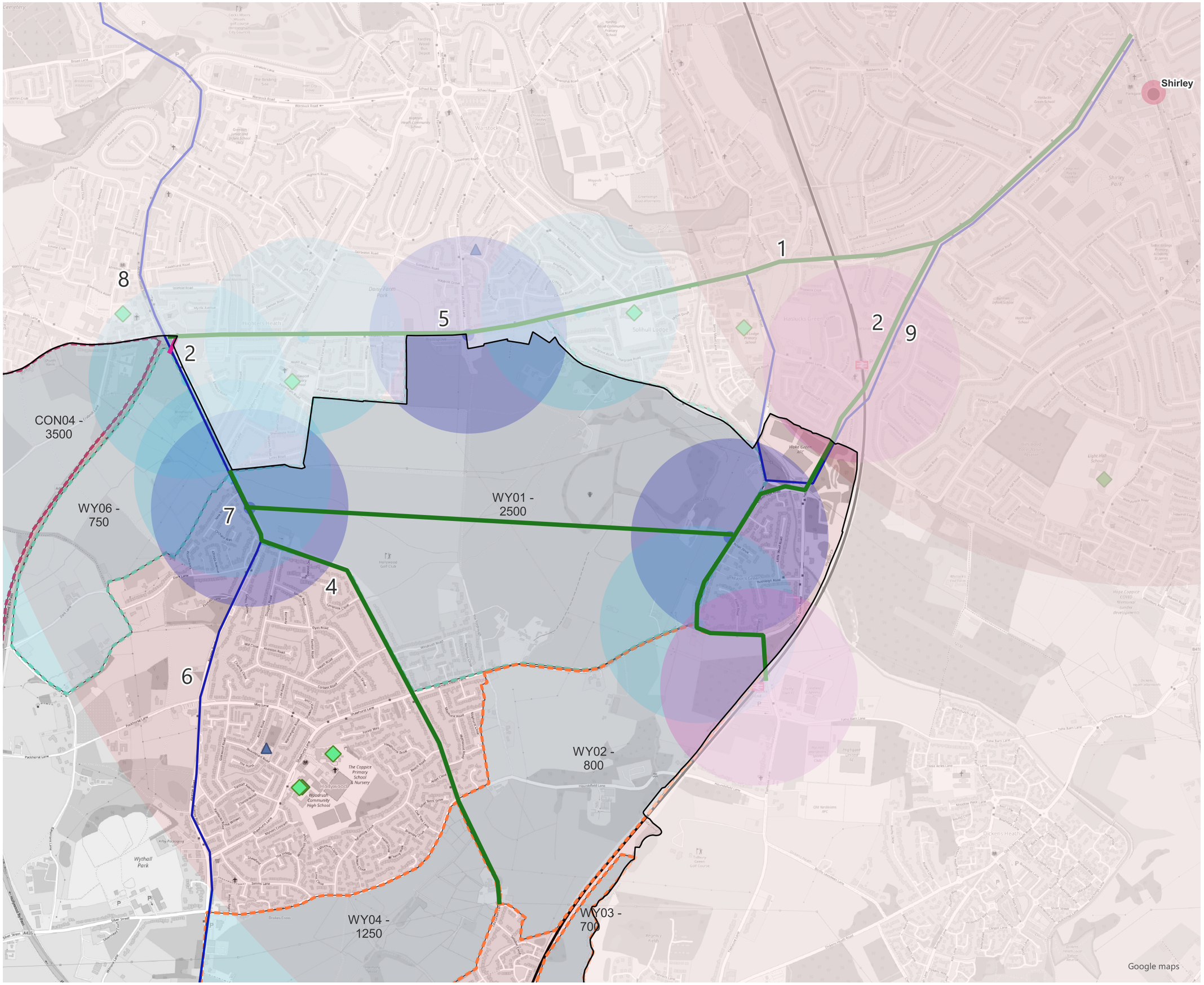
6.194 Existing high frequency bus services along Maypole Lane and High Street into Shirley and Birmingham provide a base level of public transport provision for WY01 and WY06. As these services operate along the northern edge of WY01, there is an opportunity to provide new bus stops with shelters and real time information near the future access points to the sub-cluster.

6.195 Services along Alcester Road, which bisects WY01 and WY06, are less frequent than along Maypole Lane and could be enhanced to increase the attractiveness of travelling by bus from the edges of these sub-clusters. Negotiations with bus operators and the County Council would be required to scope the potential for extending the 50 (Platinum) bus service, which currently terminates at Maypole, to serve WY06. Similarly, the '150' bus service which operates between Birmingham and Redditch at a frequency of less than once per hour could be increased to hourly or half hourly, depending on anticipated demand. With these service improvements, additional bus stops, shelters and real time information could be installed at the access points close to the sub-clusters. On the eastern edge of WY01 the '49' bus service connects Shirley Rail station, Haslucks Green Road and Aqueduct Road. There could be an opportunity to divert part of this bus route into the WY01 sub-cluster to provide better access into Shirley.

Public Transport – Rail

6.196 Shirley and Whitlocks End rail station are both within walking or cycling distance of WY01. Solihull Metropolitan Borough Council is considering increasing capacity on rail passenger services from both stations to Snow Hill Station (Solihull Draft IDP, 2020), which could benefit WY01 and to a lesser extent WY06, if they are delivered. Similarly, multi-modal interchanges and access improvements are being considered for both Shirley and Whitlocks End stations over the medium/long-term (Solihull Connected Delivery Plan 2016-2036). Cluster Group 12 would benefit from both rail-based improvements and therefore have been included within 6-12 below.

6.197 The opportunities for improving sustainable transport connectivity have been visualised in Figure 6-12 and detailed in Table 6-16.



Prepared	Reviewed	Date
CR	SN	May 22

Key

- Bromsgrove District
- All Education
- Secondary / Post16 Education
- All Healthcare
- Local Centre

3b - cluster groups - outline

- Cluster Group 11
- Cluster Group 12
- Cluster Group 13

Opportunities

- Local Centres (+2km)

Bus stops (+400m)

- existing
- new

Bus Routes

- Enhanced

Proposed Active Mode Routes

- New
- Crossing

Rail Stations (+400m)

- Enhanced

a company of Royal HaskoningDHV

Client
Bromsgrove District Council

Project
Bromsgrove DPR
Transport Assessment

Figure title
Cluster Group 12 Transport Opportunities

Revision	Project number
A	3578

Figure number	Date
Figure 6-12	May 2022

Table 6-16: Cluster Group 12 Transport Opportunities

ID	Mode	Improvement Description	Costs	Phase
1	Active Travel	A 4.3km segregated cycle lane along Maypole Lane, High Street, Colebroke Road and Hasluck's Road before reaching Shirley town centre.	High (>£5m)	1
2	Active Travel	Ped/cyclist crossing facilities across the A435 at Maypole.	Low (<£1m)	2
3	Active Travel	A 1.3km segregated cycle route along Drawbridge Road onto Hasluck's Green Road via Shirley Rail station.	Medium (between £1m and £5m)	1
4	Active Travel	A 2km segregated cycle route along Alcester Road south onto Hollywood Lane.	Medium (between £1m and £5m)	2
5	Public Transport	Build on this existing provision along Maypole Lane / High Street by providing new bus stops with shelters and real time information.	Low (<£1m)	1
6	Public Transport	Improved frequency of 150 service along Alcester Road to serve WY01 and WY06	*TBC with bus operators and WCC*	2
7	Public Transport	Additional bus stops, shelters and real time information on Alcester Road	Low (<£1m)	2
8	Public Transport	Consider extension of the 'Platinum 50' bus service which currently terminates at Maypole to reach WY01	*TBC with bus operators and WCC*	1
9	Public Transport	Divert part of the 49 bus service a south along Hasluck's Green Road to provide bus access on the eastern side of WY06.	*TBC with bus operators and WCC*	1

Phasing

6.198 Within cluster group 12 there potential to provide 3,250 new homes. Most of these homes would be within WY01 (2,500) and the remainder within WY06 (750). Due to the proximity of WY01 to Shirley, this sub-cluster is better positioned for providing sustainable transport connections to this local centre. This is reinforced by WY06 being located on the western side of the A435, which could potentially segregate movement

by sustainable modes east towards Shirley town centre. There is an opportunity to phase infrastructure investments to prioritise those around WY01 (as detailed in Table 6-17) as Phase 1, to provide active travel routes into Shirley town centre, Shirley rail station and Whitlocks End rail station, as well linking to existing public transport services along Maypole Lane / High Street and Haslucks Green Road.

6.199 Transport infrastructure improvements to connect WY06 to the nearest local centre could then form part of Phase 2 which would extend existing connections towards Shirley. Depending on whether the local centre for Cluster Group 13 is developed, which would see a new local centre for Wythall along Lea Green Road, there is the potential to re-focus the direction of movement for local trips south to connect with this new local centre with a segregated cycle route along Hollywood Lane and improving the frequency of services along Alcester Road.

Table 6-17: Cluster Group 12 Phasing

Phase	Sub-Clusters	Homes	Transport Improvements	Rationale
1	WY01	250	1, 3, 5, 8, 9	Delivered as a single urban extension with the focus on providing sustainable travel connections to Shirley as the nearest local centre.
2	WY06	750	2, 4, 6, 7	Opportunities should be explored for enhanced sustainable connections towards Shirley, but also the proposed new local centre for Wythall.

Cluster Group 13: Wythall South

6.200 Cluster Groups 13 is to the east of Bromsgrove District, near the existing settlements of Wythall and Hollywood. There is the potential to provide 3,650 new homes across the four sub-clusters WY02, WY03, WY04 and WY05.

6.201 Two rail stations (Wythall and Whitlocks End) and an existing bus service provide connections into Shirley, Birmingham and Redditch. Whilst this availability in public transport services provides a base level of provision for sustainable trips out of the District, the potential for walking and cycling for shorter, daily trips within the neighbourhood is currently limited due to a lack of local facilities, such as supermarkets, gyms/recreation sites, pubs/cafes, secondary schools, or faith centres which is likely to lead residents to make trips out of the village for these purposes.

Vision

6.202 The vision for Wythall could include creation of a new local centre within the heart of sub-clusters WY02 and WY04 with active mode and public transport connections linking to/from this location. Limitations on vehicle movements through the local centre could help create an environment that is inviting for walking and cycling. One option would be to restrict access to Lea Green Road to through traffic and divert vehicle movements via Houndsfield Road and onto the A435.

6.203 Connections could then extend to the mixed use (residential and employment) sub-cluster (WY05) to provide opportunities for more localised employment opportunities and commute trips. Connections to the wider conurbation and other centres could be enhanced through connectivity to the two rail stations (Wythall and Whitlocks End) included within this cluster group, to which walking and cycling will be encouraged, as well as existing bus services (and associated extensions). A bus gate along Lea Green Road could provide direct access into the local centre and onto Wythall rail station and employment sites (WY05) to provide a continuous public transport connection through the Cluster Group.

Local facilities

6.204 The potential for walking and cycling for shorter, daily trips within the neighbourhood is currently limited due to a lack of local facilities. The potential scale of development and availability of existing facilities suggests the potential for a new local centre to be delivered.

6.205 A new local centre could provide access to schools and healthcare sites, bolstering existing services. One existing healthcare facility is located in Wythall and another in Hollywood. There are four schools within 2km of the proposed local centre also.

6.206 A new centre could also include additional amenities such as supermarkets, gyms/recreation sites, pubs/cafes, or faith centres, to help internalise trips and create a focal point for the neighbourhood. New public realm and sustainable transport infrastructure within the local centre will encourage trips by walking and cycling and providing a mini public transport interchange will connect bus services and active travel routes with the rail station.

Active travel

6.207 A new local centre and existing rail stations are all within walking (2km) and cycling (5km) distance of the sub-clusters therefore, infrastructure improvements should focus on providing high-quality active travel routes between these locations to encourage walking and cycling for local trips. This could include providing space for sustainable transport infrastructure such as shared paths for active travel, secure cycle parking close

to amenities, bus stops and shelters within the heart of the local centre. Shared micro-mobility parking provision could also be considered.

6.208 From a new local centre, a segregated cycle route and pavements could provide direct access to Wythall rail station along Lea Green Road (approx. 0.7km). There is also potential to extend this further along Station Road west towards the A435 roundabout (approximately 1.7km) to connect to sub-cluster WY05, which could include mixed use development, including employment, with the local centre to provide a continuous active travel route between these points.

6.209 Consideration should be given to pedestrian and cyclist crossing points across various roads, this could include across Alcester Road and the A435, to ensure these do not segregate WY05 from any new local centre.

Public Transport: Rail

6.210 A 'mini' public transport interchange could be created at both Wythall and Whitlocks End rail stations. This could include expanded/improved secure car and cycle parking, directional signage towards the new local centre for pedestrians and cyclists, micro mobility bays for possible future shared improvements and upgraded bus stop and shelters.

6.211 At Whitlocks End rail station, it could be beneficial to locate some of the new cycle infrastructure on the western side of the rail line, closest WY02. As this rail station already has a car park, electric vehicle charging provision should be considered to future proof the site for the anticipated increase in electric vehicle use, in collaboration with Solihull Metropolitan Brough Council.

6.212 Opportunities for increasing the capacity and frequency of rail services calling at Wythall and Whitlocks End rail stations should be considered in collaboration with the Train Operating Companies to see if there is potential to increase the frequency of services into Birmingham from hourly to every half hour.

Public Transport: Bus

6.213 The existing '150' bus service runs from Birmingham to Redditch along Alcester Road, close to WY04 and WY05. There is an opportunity to install new bus infrastructure (bus stop, shelter, timetable information and bus cages) near the sub-clusters to facilitate north / south trips along Alcester Road from WY04 and WY05. Opportunities for increasing the frequency of this service should also be explored with bus operators and the County Council. Given that WY05, could be a mixed-use site, there is the potential for it to be a trip generator. To ensure public transport is an attractive option for reaching the site, the frequency should be increased from less than 1 per hour to hourly and then half hourly as residential and employment growth progresses.

6.214 There is currently limited public transport provision along Hollywood Road or Lea Green Road which could hinder access to the new local centre for those that cannot, or prefer not to, walk or cycle. One option would be to work with the bus operator to scope the diversion of alternate services (e.g., every other) of the 150 bus via Hollywood Road, rather than Alcester Road. It could call at existing bus stops along Hollywood Road and pass through the new local centre via a bus gate, onto Wythall rail station and WY05, to then re-join the original '150' bus route, this would provide a direct bus route through the sub-clusters and connecting to public transport services.

6.215 The opportunities for improving sustainable transport connectivity described above have been summarised below, visualised in Figure 6-13 and detailed in Table 6-18.