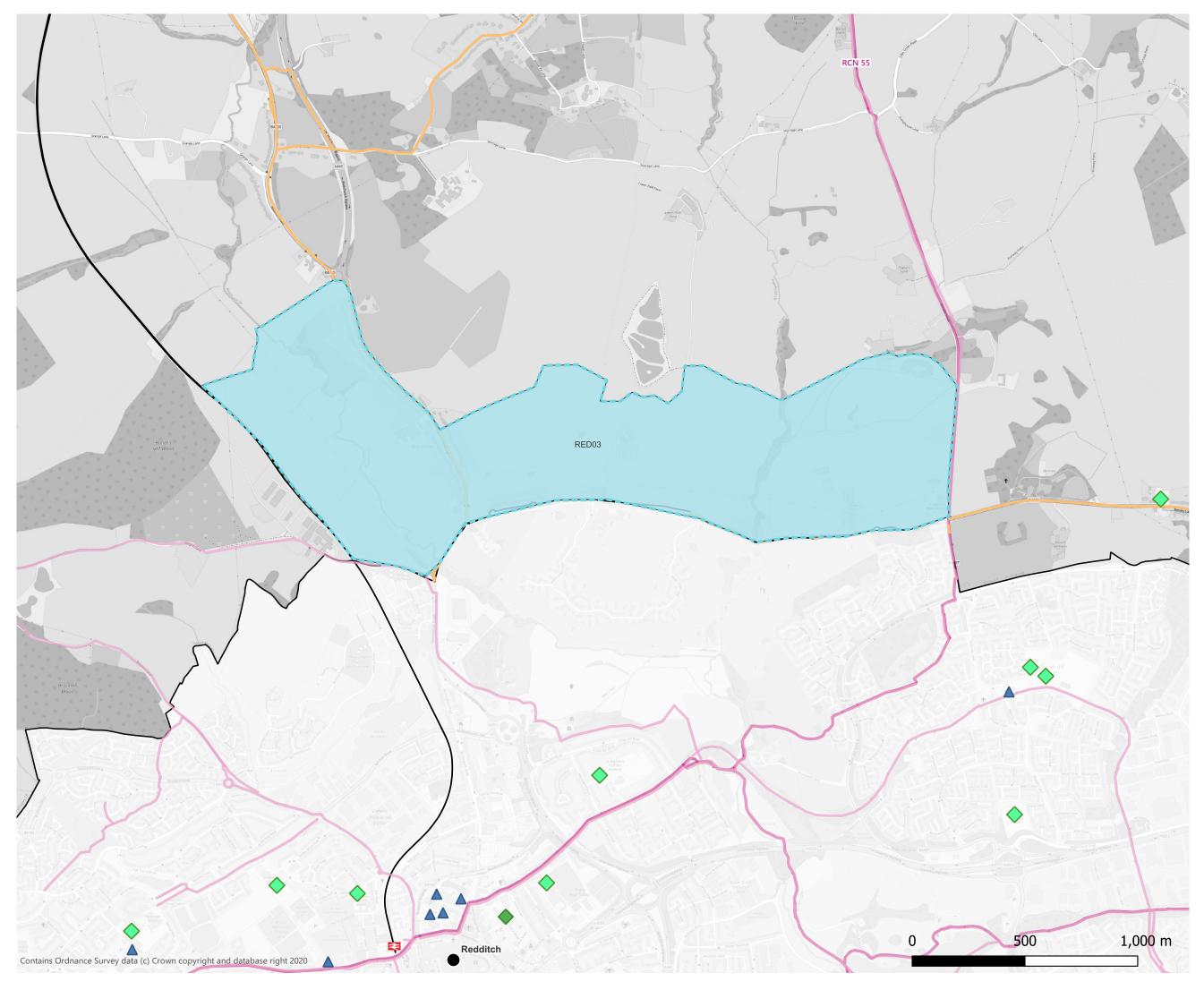
Cluster Group 14: Redditch North

- 4.317 Due to its scale and its relationship with its surroundings, Cluster Group 14 has been considered separately and comprises a single area north of the district boundary with Redditch. As shown in Figure 4-80, **RED03** is made up of existing greenfield land and covers some areas of established residential land use in the Bordesley area.
- 4.318 National Cycle Network Route 55 aligns north-south along the eastern extent of the cluster. Bus routes are limited in frequency.



Prepared	Reviewed	Date
JP	SN	April 22
Key		
	Cluster 14	
	Bromsgrove District	
\diamond	All Education	
\diamond	Secondary / Post16 Ed	ducation
	All Healthcare	
lacksquare	Local Centre	
	National Cycle Networ	k (NCN)
	Local Cycle route	
₹	Rail stations	
	railway line	
Bus r	outes service freque	ncy
	< 2 buses per hour	
OSM	Standard	

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Project Bromsgrove DPR Transport Assessment

Figure title Cluster Group 14

Revision A Project number 3578

Figure number Figure 4-80 Date April 2022

Metric 1: Average commuter travel mode split

4.319 The average drive to work proportion of output areas considered to represent cluster group 14 is 84%, this reflects a proportion above the regional average and thus receives a 'red' rating within the framework. Reviewing the mapping in Figure 4-81, it appears these travel patterns are likely to be similar within the central areas of this cluster group, with more sustainable travel behaviours exhibited over output areas on the western and eastern sides of RED03.

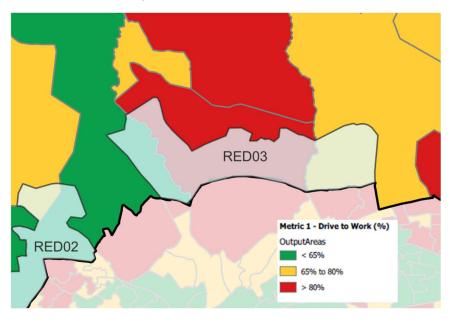
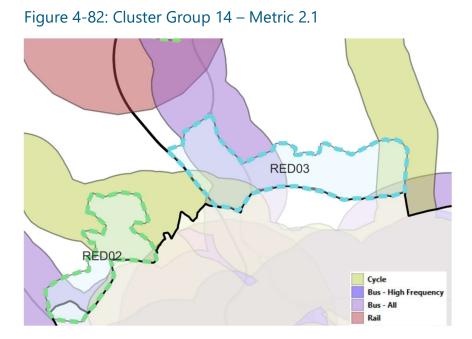


Figure 4-81: Cluster Group 14 – Metric 1 – Drive to work (%)

Metric 2: Proximity to current sustainable transport services and infrastructure

- 4.320 Cluster group 14 rates 'red' in its' current level of sustainable transport provision (shown in Figure 4-82 where cluster group 14 is outlined in blue).
- 4.321 Whilst some areas within RED03 benefit from access to bus provision, this is limited in frequency and is reflective of the 'red' rating. There is also no rail access within close proximity to the cluster group and cycle routes are limited to the most eastern and western extents. This therefore leaves more central areas of this cluster group with limited proximity to any sustainable transport provision, reflective of its greenfield nature.
- 4.322 This cluster group has potential to improve, with bus frequency enhancements and/or route extensions across RED03 and active mode improvements to enhance access to any new and existing connections.



Metric 3: Access to jobs by public transport

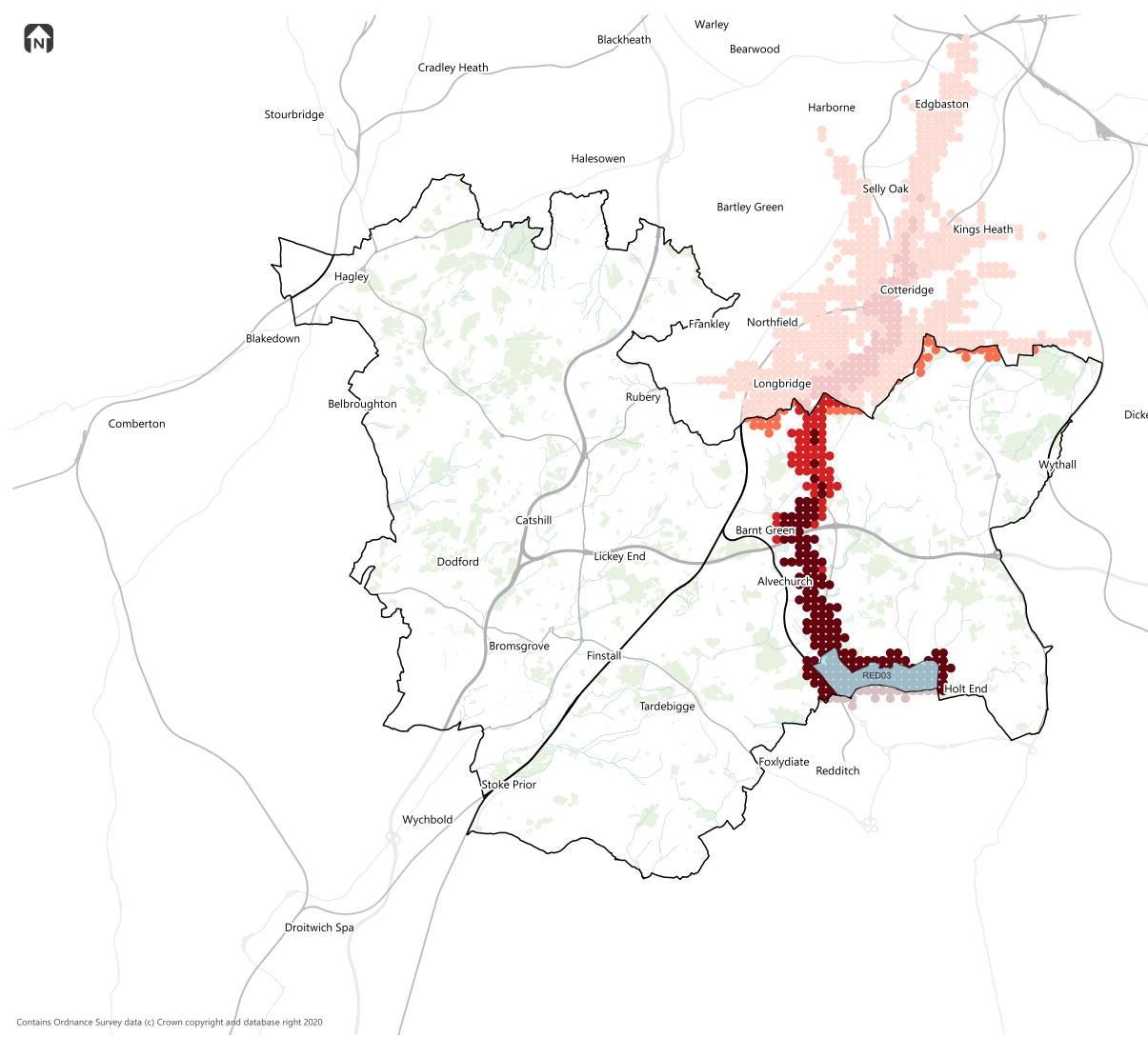
- 4.323 As summarised in Table 4-106, the number of jobs accessible from RED03 is less than 40,000 and receives a 'red' RAG rating. Any job accessibility is typically constrained to the A441 / railway line corridor between the cluster group and Birmingham city centre.
- 4.324 Notwithstanding the close proximity of the cluster group with employment sites east and south (industrial estates around Redditch and Redditch town centre), these are currently not accessible within a 45-minute journey by public transport. There is some bus route provision close to the cluster, but this is significantly limited. If some or all of this cluster was to come forward improvements in cycling and walking infrastructure would form part of the vision, connecting into existing nearby networks, to increase accessibility from this cluster to jobs.

4.325

Table 4-106: Cluster Group 14 – Metric 3.1 – Number of jobs accessible by public

Sub-cluster	Number of jobs	RAG Rating
RED03	32,722	Red
Average - Cluster Group 14	32,722	Red

transport



Prepared	Reviewed	Date
JP	SN	April 22
Кеу		
Bro	msgrove District	:
Stage 3h	- Sites and Clu	usters
Clu	ster14 - RED03	
Metric 3	.1 - Number of	Jobs (PT)
Cluster 14	4_PT_FROM_R	ED03
• 1-	15 minutes	
• 15	- 30 minutes	
• 30	- 45 minutes	
Transpo	rtNetwork	
-	lway Line	
Str	ategic Road Net	work
	jor Road Networ	
	,	
	11D	
	14	
a compan	y of Royal Haskoning	DHV

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Project Bromsgrove DPR Transport Assessment

Figure title RED03 – Metric 3.1 – Public transport access to jobs

Revision A Project number 3578

Figure number Figure 4-83

Date April 2022

Metric 4: Access to healthcare

4.326 Figure 4-80 shows the nearest local healthcare sites (as the crow flies) are located within Redditch, predominantly within the town centre. This proximity however is not represented within journey time accessibility and is rated 'red' within this metric. The two nearest health care sites accessible by public transport from within areas of RED03 are Cofton Medical Centre and Broadmeadow Health Centre, with an average journey time of 41 minutes. These are located within the existing conurbation. GPs nearer RED03 are within 3km therefore providing quality active mode infrastructure would help to connect the cluster to existing healthcare facilities.

Table 4-107: Cluster Group 14 – Metric 4.1 – Public transport access to healthcare

Sub-cluster	Average journey time	RAG Rating
RED03	41	Red
Average - Cluster Group 14	41	Red

- 4.327 The nearest hospital with A&E provision is Alexandra Hospital, south of Redditch town centre. Public transport accessibility from here to areas within RED03 is limited to an average journey time of 59 minutes and receives an 'amber' rating against this metric. This is reflective of the lack of public transport provision south of the cluster group, where existing accessibility is concentrated along the A441 (as shown in Figure 3-8).
- 4.328 Enhanced frequency of bus services along the A441, with an extension of such through the cluster group could improve journey times to the Alexandra Hospital.

Table 4-108: Cluster Group 14 – Metric 4.2 – Public transport access to A&E

Sub-cluster	Average journey time	RAG Rating
RED03	59	Amber
Average - Cluster Group 14	59	Amber

4.329 The comparative drive time to the Alexandra Hospital is presented in Table 4-109. This shows the discrepancy between public transport and driving access from RED03, with the average drive time significantly quicker at 11-minutes.

Table 4-109: Cluster Group 14 – Metric 4.3 – Driving access to A&E

Sub-cluster	Estimated journey time	RAG Rating
RED03	11	Green
Average - Cluster Group 14	11	Green

Metric 5: Access to education

- 4.330 As shown in Figure 4-80, the closest primary education facilities are located south of cluster group 14, as the crow flies. However, the level of connectivity by public transport and the direction of the routes close to RED03 mean that the school most quickly accessed by public transport is further afield in Alvechurch, therefore have higher journey times and a 'red' rating result.
- 4.331 Depending on the scale of growth delivered at this location, additional facilities may form part of the masterplan. This can help to support more sustainable travel by creating more trips of a shorter distance, internal to the growth area.

Table 4-110: Cluster Group 14 – Metric 5.1 – Public transport access to education

Sub-cluster	Average journey time	RAG Rating
RED03	17	Red
Average - Cluster Group 14	17	Red

4.332 The level of connectivity by public transport to secondary and post-16 education provision is also challenging from RED03, with an average journey time of 27 minutes. Similar patterns in connectivity from cluster group 14 to primary and secondary education are found, whereby the nearest secondary/post-16 school in journey time is further afield, within the conurbation. Improvements in public transport, as well as active travel provision could make facilities around Redditch town centre more accessible as they are around 2km crow fly from the cluster location.

Table 4-111: Cluster Group 14 – Metric 5.2 – Public transport access to secondary education

Sub-cluster	Average journey time	RAG Rating
RED03	27	Red
Average - Cluster Group 14	27	Red

Metric 6: Proximity to planned local transport improvements

4.333 No planned sustainable transports improvements within the vicinity of cluster group 14, were identified at the time of the study and therefore results in a 'red' RAG rating for this cluster group.

Metric 7: Access to district centres

- 4.334 The TRACC assessment indicates Longbridge as the most quickly accessed district centre by public transport, for areas within this cluster group where journey times are less than 60-minutes. Table 4-112 shows this lengthier journey results in higher average journey times for RED03 and receives a 'red' rating.
- 4.335 This is despite Redditch town centre being located approximately 1.5 miles (as the crow flies) from this cluster group and highlight the limited weekday peak hour public transport provision directly south of the area.

Table 4-112: Cluster Group 14 – Metric 7.1 - Public transport access to district centres

Sub-cluster	Average Journey time	RAG Rating
RED03	43.4	Red
Average - Cluster Group 14	43.4	Red

Summary and recommendations

- 4.336 Table 4-113 shows a summary of the RAG rating outputs

 where 2 is 'Green, 1 is 'Amber' and 0 is a 'Red' rating.

 Where applicable the numerical outputs are shown
 alongside, while Figure 4-84 shows the number of each
 category of rating for sub-cluster RED03 and therefore
 cluster group 14 as a whole.
- 4.337 Overall, the metrics assessed indicate a poor level of suitability of this area in sustainable transport terms with the cluster group scoring 15%. This is the worst performing cluster group within the study and indicates more significant intervention would be necessary to improve the sustainable travel outcomes at RED03.
- 4.338 It is apparent this cluster group is predominantly constrained by the lack of bus provision south, despite the positioning of the A441 through the western side of the area. However, depending on the scale that could be delivered on this larger site, it could present more transformation opportunities within the area.

Figure 4-84: Cluster Group 14 Results

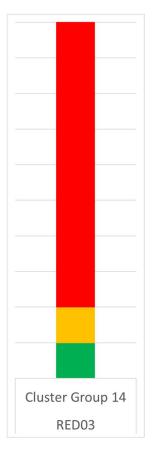
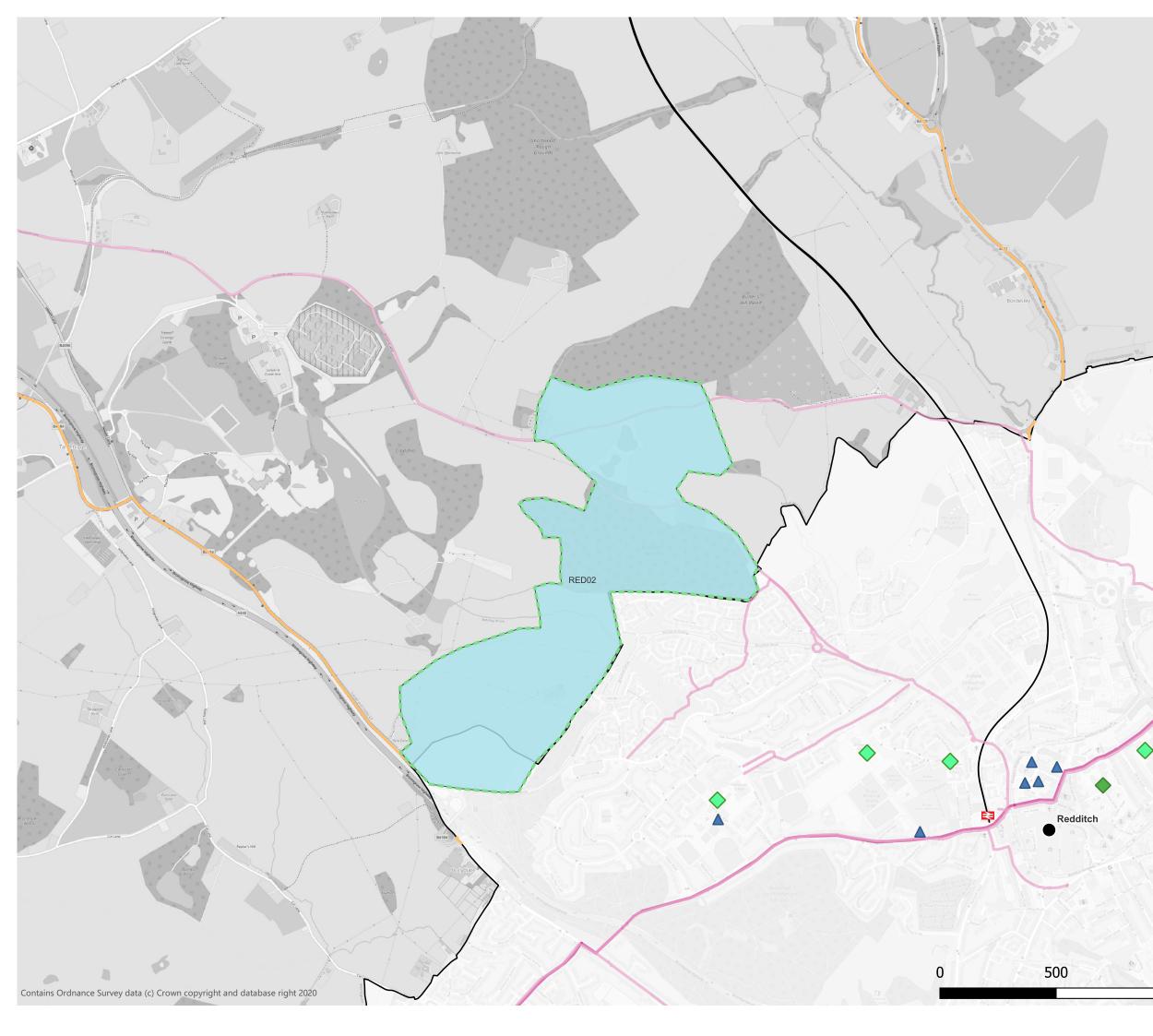


Table 4-113: Cluster	Group	14 - Rating	summary
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		i i italing s	
		Cluster	Group 14
	Metric		ster RED03 tch North
IVE TO DRK	1.1	0	82%
% DR W(1.2	-	
TRANSPORT % DRIVE TO SERVICES WORK	2.1	0	-
LABOUR MARKET	3.1	0	32,722
LAB MAI	3.2	-	
RE	4.1	0	41
HEATHCARE	4.2	1	59
Ī	4.3	2	11
EDUCATION	5.1	0	17
EDUC	5.2	0	27
DISTRICT PLANNED CENTRES IMPROVEMENTS	6.1	0	0
DISTRICT CENTRES	7.1	0	43.4

Cluster Group 15: Redditch West

- 4.339 Cluster Group 15 solely comprises an area north-west of Redditch. As shown in Figure4-85, **RED02** adjoins the boundary line of Bromsgrove and Redditch on its eastern extent, with greenfield land west.
- 4.340 It has been considered for analysis in isolation, similarly to other Redditch defined clusters, due to its scale and its relationship with surrounding areas.
- 4.341 The nearest education sites to this cluster are provided in Redditch, as is healthcare and access to the rail network.
- 4.342 The area crosses two existing cycle routes within its more northerly extents to provide onward connections between Redditch and Bromsgrove town centres, whilst a single low frequency bus route currently aligns to the south of the area.



Key Cluster 15 Bromsgrove District All Education Secondary / Post16 Education All Healthcare Local Centre National Cycle Network (NCN) Local Cycle route Rail stations railway line Bus routes service frequency < 2 buses per hour	Prepared	Reviewed	Date
 Cluster 15 Bromsgrove District All Education Secondary / Post16 Education All Healthcare Local Centre National Cycle Network (NCN) Local Cycle route Rail stations railway line Bus routes service frequency < 2 buses per hour 	JP	SN	April 22
 Bromsgrove District All Education Secondary / Post16 Education All Healthcare Local Centre National Cycle Network (NCN) Local Cycle route Rail stations railway line Bus routes service frequency < 2 buses per hour 	Кеу		
 All Education Secondary / Post16 Education All Healthcare Local Centre National Cycle Network (NCN) Local Cycle route Rail stations railway line Bus routes service frequency < 2 buses per hour 		Cluster 15	
 Secondary / Post16 Education All Healthcare Local Centre National Cycle Network (NCN) Local Cycle route Rail stations railway line Bus routes service frequency < 2 buses per hour 		Bromsgrove District	
 All Healthcare Local Centre National Cycle Network (NCN) Local Cycle route Rail stations railway line Bus routes service frequency < 2 buses per hour 	\diamond	All Education	
 Local Centre National Cycle Network (NCN) Local Cycle route Rail stations railway line Bus routes service frequency < 2 buses per hour 		Secondary / Post16 E	ducation
 National Cycle Network (NCN) Local Cycle route Rail stations railway line Bus routes service frequency < 2 buses per hour 		All Healthcare	
 Local Cycle route Rail stations railway line Bus routes service frequency < 2 buses per hour 	lacksquare	Local Centre	
 Rail stations railway line Bus routes service frequency < 2 buses per hour 		National Cycle Netwo	rk (NCN)
 railway line Bus routes service frequency < 2 buses per hour 		Local Cycle route	
Bus routes service frequency < 2 buses per hour	₹	Rail stations	
2 buses per hour		railway line	
	Bus r	outes service freque	ency
OSM Standard		< 2 buses per hour	
	OSM	Standard	

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Bromsgrove DPR Transport Assessment

Figure title Cluster Group 15

Revision A Project number 3578

Figure number Figure 4-85 Date April 2022

1,000 m

Metric 1: Average commuter travel mode split

4.343 The average drive to work proportion of output areas considered to represent cluster group 15 is 82%, greater than the regional average and attracts a 'Red' rating for Metric 1.

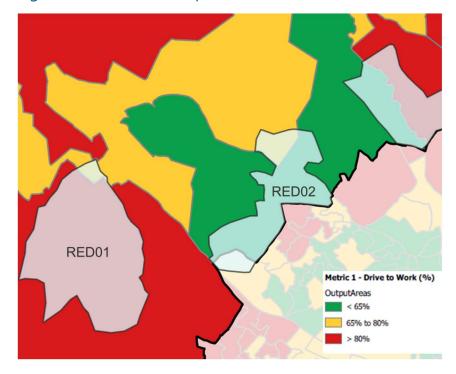
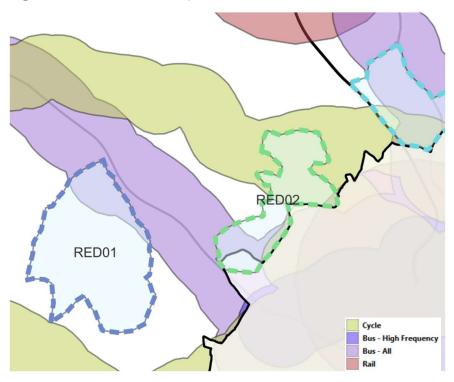


Figure 4-86: Cluster Group 15 – Metric 1 – Drive to work (%)

Metric 2: Proximity to current sustainable transport services and infrastructure

- 4.344 The proximity of sustainable transport services and infrastructure to cluster group 15 is shown in Figure 4-87, where cluster group 15 is outlined in green.
- 4.345 Whilst approximately 50% of RED02 benefits from being in close proximity to a cycle route, the cluster group is not within close proximity of either high frequency bus provision or a rail station, reflecting its' 'Red' RAG rating. However, there is small areas within the southern extents of RED02 with limited low frequency bus coverage.
- 4.346 This cluster group has potential to improve, with bus frequency enhancements and/or route extensions across RED02 and active mode improvements to enhance access to any new and existing connections.





Metric 3: Access to jobs by public transport

- 4.347 Figure 4-88 shows the mapped output of the analysis for this cluster group for this metric, with Table 4-114 providing a summary of the resulting number of jobs accessible within 45 minutes by public transport. These show the number of jobs accessible from RED02 is less than 40,000 and receives a 'red' RAG rating.
- 4.348 Areas that offer job opportunity within reasonable public transport journey times include Bromsgrove and Redditch town centres, industrial estates around Redditch and as far north as Longbridge (likely accessible within 45-minutes due to its rail connections).

Table 4-114: Cluster Group 15 – Metric 3.1 – Number of jobs accessible by public

Sub-cluster	Number of jobs	RAG Rating
RED02	25,912	Red
Average - Cluster Group 15	25,912	Red

transport

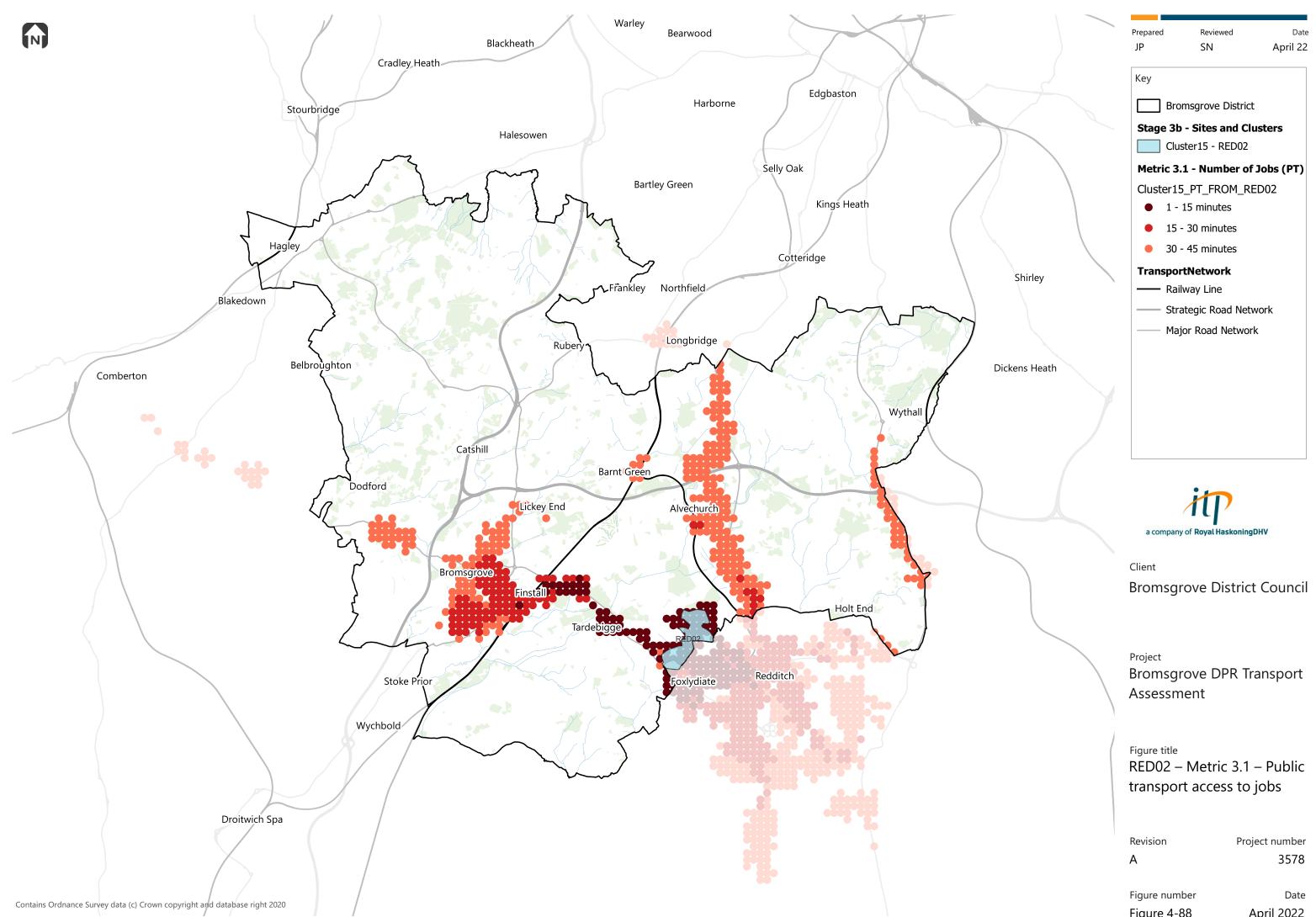


Figure 4-88

April 2022

Metric 4: Access to healthcare

- 4.349 As shown in Figure 4-85, there is one healthcare facility within Batchley and a further five in and around Redditch town centre. Of these, the two facilities most quickly accessed by areas within cluster group 15 are St Stephens Surgery and Hillview, with an average journey time of 18 minutes.
- 4.350 This level of accessibility is likely due to the sites positioning in relation to bus stops in comparison to the nearest healthcare site as the crow flies in Batchley.

Table 4-115: Cluster Group 15 – Metric 4.1 – Public transport access to healthcare

Sub-cluster	Average journey time	RAG Rating
RED02	18	Amber
Average - Cluster Group 15	18	Amber

- 4.351 The nearest Hospital with an A&E department is the Alexandra Hospital in Redditch. The analysis shows that this is an average journey time of 38 minutes from RED02. This is likely due to the cluster groups positioning in relation to existing bus provision along B4096 (Diamond Buses route number 52A, via Redditch Town Centre).
- 4.352 It is noted this average journey time does not reflect the cluster group as a whole, where much of this public transport accessibility is constrained to the south-western extents.

Table 4-116: Cluster Group 15 – Metric 4.2 – Public transport access to A&E

Sub-cluster	Average journey time	RAG Rating
RED02	38	Green
Average - Cluster Group 15	38	Green

4.353 Comparative drive times to the Alexandra Hospital are presented in Table 4-117. This highlights the proximity RED02 is situated to the hospital and shows the discrepancy between public transport and driving access. Enhancements to the 52A bus service could reduce this discrepancy to encourage more sustainable travel between RED02 and the hospital.

Sub-cluster	Estimated journey time	RAG Rating
RED02	10	Green
Average - Cluster Group 15	10	Green

Table 4-117: Cluster Group 15 – Metric 4.3 – Driving access to A&E

Metric 5: Access to education

- 4.354 As shown in Figure 4-85, education provision closely located to this cluster group is within Redditch.
- 4.355 Some of the public transport journey time results represent travel to primary schools a further distance away, such as Holyoakes Field First School. This is reflected in the lengthier journey time and 'red' rating for this cluster group, and likely due to the availability of public transport services to this area from the eastern extents of the cluster (the 53 Redditch Circular). While enhancement of the bus service frequency could improve these journey times, the nearer Pitcher Oak School (as the crow flies) presents opportunities to encourage active mode travel given its proximity to the cluster of less than one mile.
- 4.356 Journey times to Our Lady of Mount Carmel Catholic First School (which is most closely located in journey time, and segregated from the cluster group by the A448) could also be improved in line with bus service enhancements,
- 4.357 It is noted that due to the large spatial area covered by RED02 and the limited frequency of existing bus services, much of this cluster is currently outside of a 60-minute journey by public transport (as shown in Figure 3-11).

Sub-cluster	Average journey time	RAG Rating
RED02	18	Red
Average - Cluster Group 15	18	Red

Table 4-118: Cluster Group 15 – Metric 5.1 – Public transport access to education

4.358 Access by public transport to secondary education from cluster group 15 is also challenging, as summarised in Table 4-119. The Abbey High School in Redditch is closest for those areas where a journey time of no longer than 60 minutes can be achieved. However, there are areas on the more western fringes of RED02 where quicker journey times can be achieved to South Bromsgrove Community High School despite the longer distances. The lengthier journey results in higher average journey times for the cluster group and rated 'red' for this metric.

4.359 Safe cycle and pedestrian routes to these schools, as well as local primary schools, should be considered should any development come forward at these locations

Table 4-119: Cluster Group 15 – Metric 5.2 – Public transport access to secondary education

Sub-cluster	Average journey time	RAG Rating
RED02	26	Red
Average - Cluster Group 15	26	Red

Metric 6: Proximity to planned local transport improvements

4.360 There is one planned sustainable transport scheme within the vicinity of cluster group 15, identified at the time of the study. This is NEAT8 – an active mode scheme which covers The Oakhalls & Finstall Link (Link 4) between Redditch and Bromsgrove. This scheme results in an 'Amber' RAG rating for the cluster group.

Metric 7: Access to district centres

4.361 For the areas of this cluster group where a journey time of 60 minutes or less can be achieved, Bromsgrove is the most quickly accessed district centre by public transport, while there is also a small area where Redditch can be accessed quickest. The lengthier journey results in higher average journey times for the cluster group and given an 'amber' rating.

Table 4-120: Cluster Group 15 – Metric 7.1 - Public transport access to district centres

Sub-cluster	Average journey time	RAG Rating
RED02	26.3	Amber
Average - Cluster Group 15	26.3	Amber

Summary and recommendations

4.362 Table 4-121 shows a summary of the RAG rating outputs – where 2 is 'Green, 1 is 'Amber' and 0 is a 'Red' rating. Where applicable the numerical outputs are shown alongside. Figure 4-89 shows the number of each category of rating for the cluster group.

- 4.363 Overall, the metrics assessed indicate a poor level of suitability of these areas in sustainable transport terms with the cluster group scoring 35%.
- 4.364 There is also clear distinction seen in the relative connectivity between the south western area of the site and elsewhere within RED02. Its position adjacent to the existing residential built-up area of Redditch and greenfield nature reflects this.
- 4.365 Depending on the scale of growth delivered at this location, additional facilities may form part of the masterplan. This can help to support more sustainable travel by creating more trips of a shorter distance, internal to the growth area.

Figure 4-89: Cluster Group 15 Results

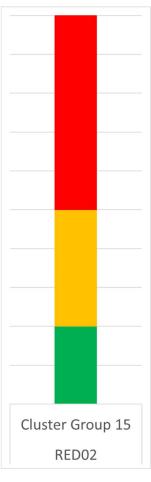


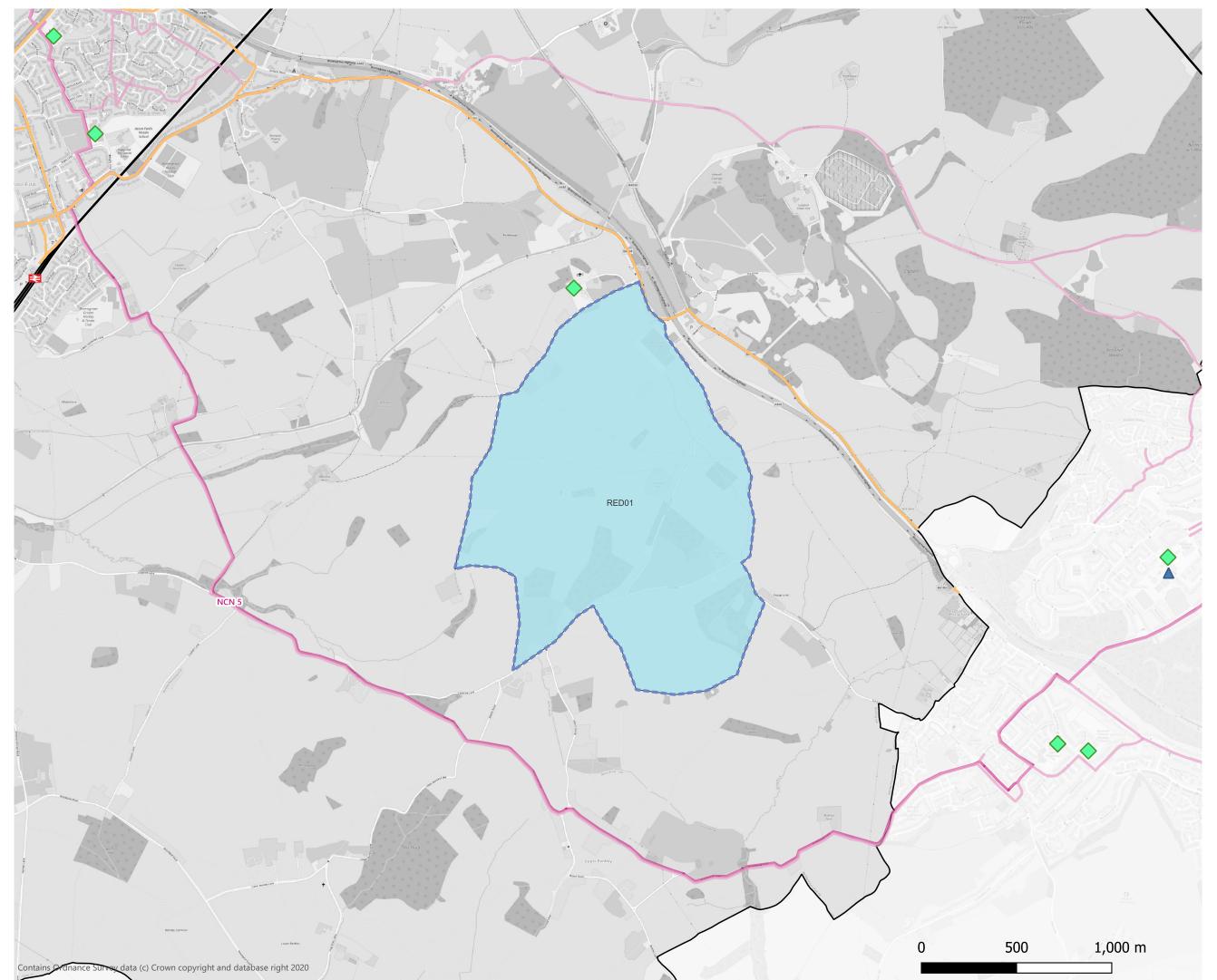


Table 4-121: Cluster	Group	15 – Rating	summary
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	dister droup 15	3	-)
		Cluster Group 15	
	Metric	Sub-cluster RED02 Redditch West	
% DRIVE TO WORK	1.1	0	82%
% DRI WC	1.2	-	
LABOUR MARKET SERVICES	2.1	0	-
MARKET	3.1	0	25,912
LABOUR	3.2	-	
E	4.1	1	18
HEATHCARE	4.2	2	38
Ĩ	4.3	2	10
ATION	5.1	0	18
EDUCATI	5.2	0	26
PLANNED IMPROVEMENTS	6.1	1	1
DISTRICT CENTRES	7.1	1	26.3

Cluster Group 16: Tardebigge

- 4.366 Cluster Group 16 comprises of a single area south of Tardebigge, between Finstall and Foxlydiate, as shown in Figure 4-90. **RED01** covers an extensive area across predominantly existing greenfield land, which also continues to the east, south and west of its boundary.
- 4.367 This cluster has been considered separately for analysis due to its scale and its geographical separation from existing built-up areas and is rural in nature.
- 4.368 There are limited education facilities surrounding this cluster, with one primary school located in Tardebigge. The closest secondary school and general practice surgery are in the built-up areas of Redditch.
- 4.369 The cycle network is limited to a single east-west route on the National Cycle Network (NCN Route 5) south of the cluster, whilst bus routes are also limited in number and frequency.



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Prepared	Reviewed	Date
JP	SN	April 22
Кеу		
	Cluster 16	
	Bromsgrove District	
\diamond	All Education	
	All Healthcare	
	National Cycle Networ	k (NCN)
	Local Cycle route	
₹	Rail stations	
	railway line	
Bus r	outes service freque	ncy
	< 2 buses per hour	
OSM	Standard	

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Project

Bromsgrove DPR Transport Assessment

Figure title Cluster Group 16

Revision A Project number 3578

Figure number Figure 4-90 Date April 2022

Metric 1: Average commuter travel mode split

4.370 The average drive to work proportion of output areas considered to represent cluster group 16 is 83% and reflects a 'Red' rating for metric 1. Reviewing the mapping in Figure 4-91, much of the cluster area represents this.

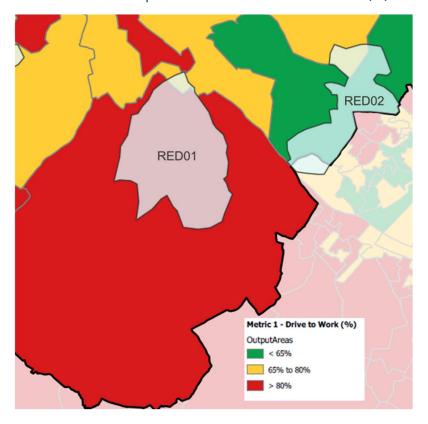
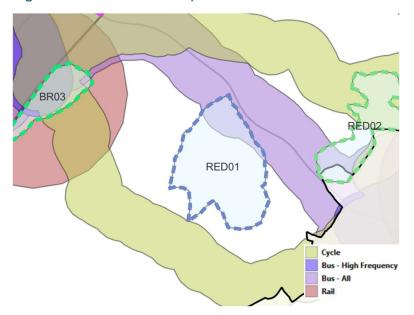


Figure 4-91: Cluster Group 16 – Metric 1 – Drive to work (%)

Metric 2: Proximity to current sustainable transport services and infrastructure

- 4.371 Cluster group 16 has a poor level of sustainable transport provision currently (shown in Figure 4-87 where cluster group 16 is outlined in blue) and rated 'Red' for this metric. RED01 is not in close proximity to high frequency bus provision, rail or any existing cycle route and currently limited to low frequency bus coverage on the northern edge of the site.
- 4.372 This cluster group has potential to improve, with bus frequency enhancements and/or route extensions and active mode improvements to enhance access to any new and existing connections.

Figure 4-92: Cluster Group 16 – Metric 2.1

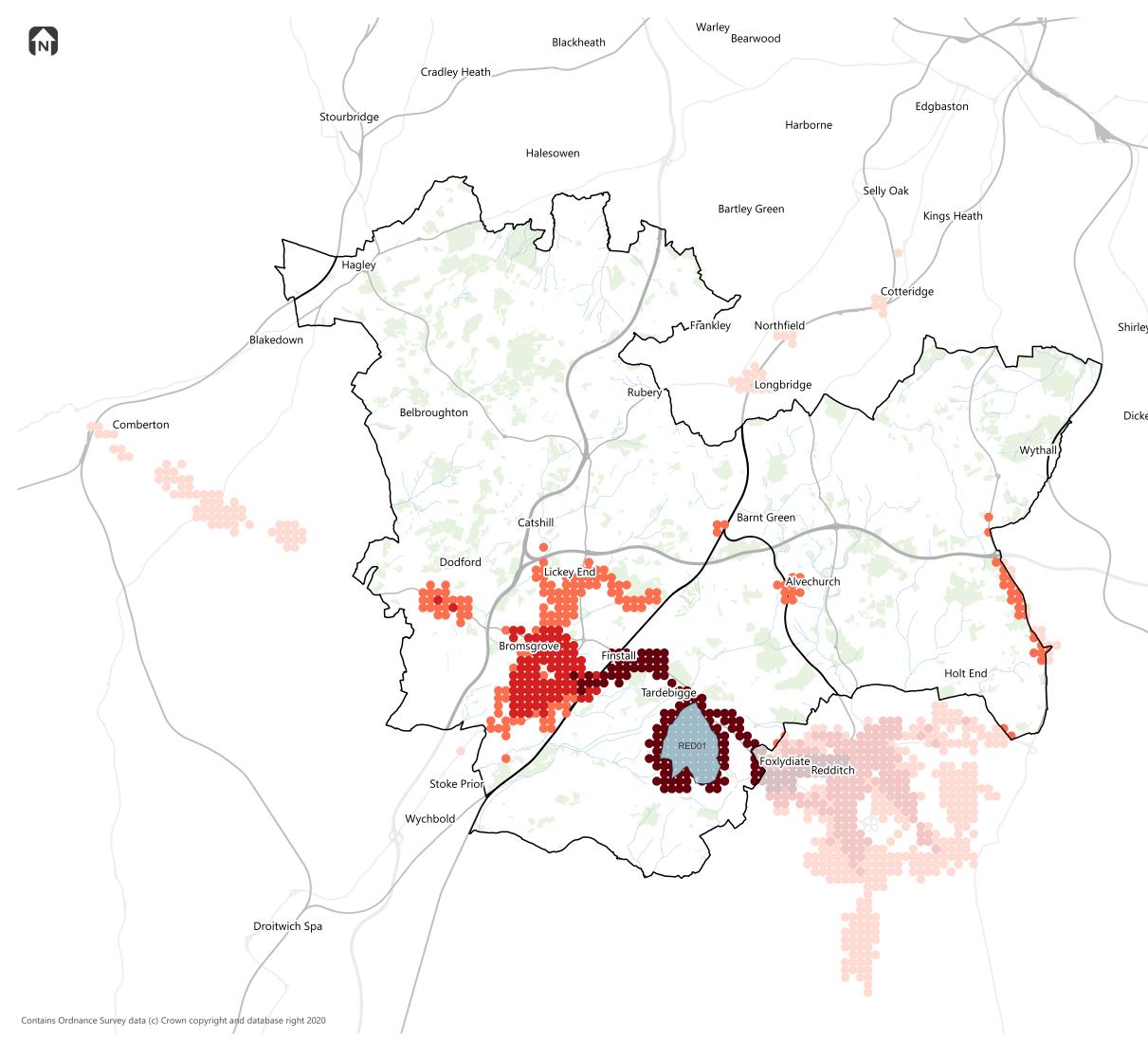


Metric 3: Access to jobs by public transport

- 4.373 Table 4-122 shows there are less than 25,000 jobs accessible within a 45-minute public transport journey time of cluster group 16 and receives a 'red' RAG rating.
- 4.374 Figure 4-93 shows the mapped output of the analysis for RED01 against this metric. The cluster group provides access to opportunities along the corridor between Bromsgrove and Redditch to encompasses key areas of employment such as their town centres and large healthcare sites (The Princess of Wales Community Hospital and the Alexandra Hospital respectively).

Sub-cluster	Number of jobs	RAG Rating	
RED01	24,254	Red	
Average - Cluster Group 16	24,254	Red	

Table 4-122: Cluster Group 16 – Metric 3.1 – Number of jobs accessible by public transport



Prepared	Reviewed	Date
JP	SN	April 22
Кеу		
Bro	msgrove District	
Stage 3b	- Sites and Clu	usters
Clu	ster16 - RED01	
Metric 3	1 - Number of	Jobs (PT)
Cluster16	5_PT_FROM_RE	D01
• 1-	15 minutes	
• 15	- 30 minutes	
• 30	- 45 minutes	
Transpor	tNetwork	
—— Rai	lway Line	
Stra	ategic Road Netv	vork
—— Ма	jor Road Networ	k
L		
	1	
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Project Bromsgrove DPR Transport Assessment

Figure title RED01 – Metric 3.1 – Public transport access to jobs

Revision A Project number 3578

Figure number Figure 4-93 Date April 2022

Metric 4: Access to healthcare

4.375 As shown in Figure 4-90, the nearest healthcare provision is in Redditch. However, due to the proximity of bus stops in relation to both the cluster group and Hillview Medical Centre, average journey times are good and rated 'green'.

Table 4-123: Cluster Group 16 – Metric 4.1 – Public transport access to healthcare

Sub-cluster	Average journey time	RAG Rating
RED01	14	Green
Average - Cluster Group 16	14	Green

^{4.376} The nearest Hospital with an A&E department is the Alexandra Hospital with an average journey time by public transport of 43 minutes.

Table 4-124: Cluster Group 16 – Metric 4.2 – Public transport access to A&E

Sub-cluster	Average journey time	RAG Rating
RED01	43	Green
Average - Cluster Group 16	43	Green

4.271 It is noted these average journey time do not reflect the cluster group as a whole, where much of this public transport accessibility is constrained to the northern extents. Connectivity through the site could be improved within additional internal bus and active mode provision to increase permeability of movement within the cluster group area.

Table 4-125: Cluster Group 16 – Metric 4.3 – Driving access to A&E

Sub-cluster	Estimated journey time	RAG Rating
RED01	10	Green
Average - Cluster Group 16	10	Green

Metric 5: Access to education

4.377 As shown in Figure 4-90, there is one primary education site (Tardebigge Church of England First School) located near cluster group 16, north-west in the neighbouring village of Tardebigge. This reflects the quick average journey times and the 'green' rating.

Sub-cluster	Average journey time	RAG Rating
RED01	8	Green
Average - Cluster Group 16	8	Green

Table 4-126: Cluster Group 16 – Metric 5.1 – Public transport access to education

4.378 The lack of secondary education provision within Tardebigge is reflected in the average journey time by public transport from this cluster group. The lengthier distance required to travel to nearest secondary education facilities in Redditch and Bromsgrove results in a 'red' RAG rating.

Table 4-127: Cluster Group 16 – Metric 5.2 – Public transport access to secondary education

Sub-cluster	Average journey time	RAG Rating
RED01	27	Red
Average - Cluster Group 16	27	Red

4.379 Depending on the scale of growth delivered at this location, additional secondary education provision may form part of the masterplan. This can help to support more sustainable travel by creating more trips of a shorter distance, internal to the growth area.

Metric 6: Proximity to planned local transport improvements

4.380 No planned sustainable transports improvements within the vicinity of cluster group 16, were identified at the time of the study and therefore results in a 'red' RAG rating for this cluster group.

Metric 7: Access to district centres

4.381 Where areas of RED01 can access a district centre by public transport within 45-minutes the quickest for most is Bromsgrove, rather than the more closely located Redditch, relative to distance. This results in longer than average journey times and receives an 'Amber' RAG rating.

Sub-cluster	Average journey time	RAG Rating
RED01	25.4	Amber
Average - Cluster Group 16	25.4	Amber

Table 4-128: Cluster Group 16 – Metric 7.1 - Public transport access to district centres

Summary and recommendations

- 4.382 Table 4-129 shows a summary of the RAG rating outputs

 where 2 is 'Green, 1 is 'Amber' and 0 is a 'Red' rating.

 Where applicable the numerical outputs are shown
 alongside. Figure 4-94 shows the number of each
 category of rating for this cluster.
- 4.383 Overall, the metrics assessed indicate an average level of suitability of this area in sustainable transport terms with the cluster group scoring 45%, with most metrics given a 'red' rating. This is despite the good level of sustainable transport accessibility to existing healthcare sites.
- 4.384 While there is only one cluster location within this 'group' some clear distinction can be seen in the relative connectivity between the most northern areas of RED01 comparative to elsewhere. This is due to the relationship this area has with the facilities within Tardebigge and the major road network and existing bus routes.
- 4.385 Depending on the scale of growth delivered at this location, additional provision may form part of the masterplan. This can help to support more sustainable travel by creating more trips of a shorter distance, internal to the growth area.

Figure 4-94: Cluster Group 16 Results

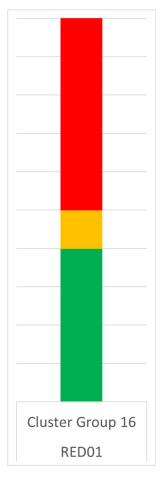
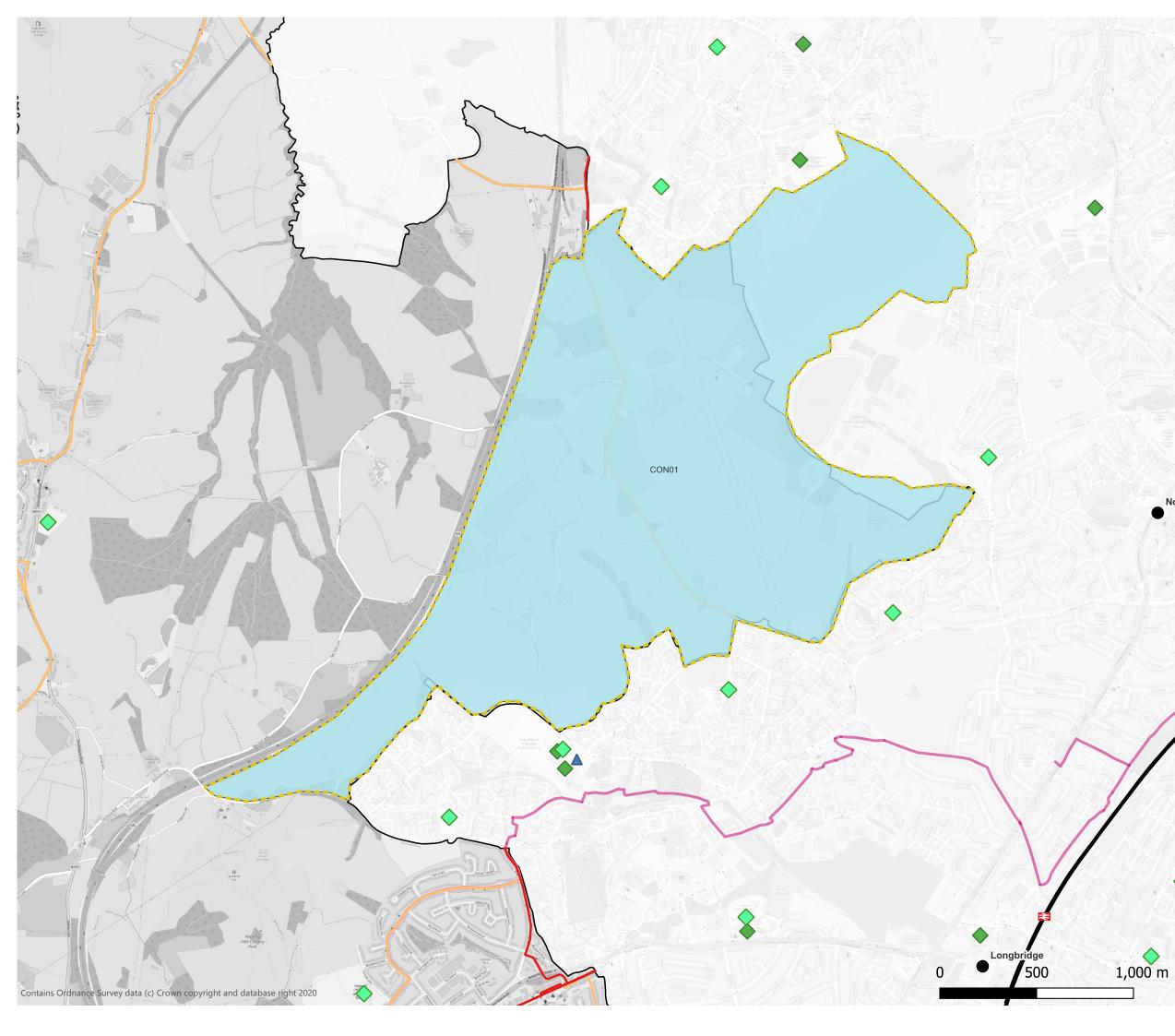


Table 4-129: Cluster Group 16 – Rating summary

	5. cluster crou	J	Sammary
		Cluster	Group 16
	Metric		ter RED01 ebigge
% DRIVE TO WORK	1.1	0	83%
	1.2	-	
TRANSPORT SERVICES	2.1	0	-
LABOUR MARKET	3.1	0	24,254
LAB	3.2	-	
ų	4.1	2	14
HEATHCARE	4.2	2	43
н	4.3	2	10
CATION	5.1	2	8
EDUC	5.2	0	27
DISTRICT PLANNED CENTRES IMPROVEMENTS	6.1	0	0
DISTRICT CENTRES	7.1	1	25.4

Cluster Group 17: Frankley

- 4.386 Cluster Group 17 has been considered separately due to its scale and geographical separation from any other clusters and comprises a single cluster in the north of the district, west of Frankley adjacent to the Bromsgrove District boundary with the conurbation. As shown in Figure 4-95, **CON01** is situated directly east of the M5, in close proximity to Frankley Motorway services, and adjacent to residential areas of Bartley Green to the north.
- 4.387 There are several education sites (primary and secondary) located closely to the clusters' northern and eastern boundaries, with a greater concentration focused within the centre of Frankley, where a general practice surgery is also located.
- 4.388 The nearest rail station is located at Longbridge or Northfield, but at its furthest point, is approximately 2.5miles (crow fly) away. There is some bus route provision around this cluster and an existing service crossing through, albeit at a frequency of less than two buses per hour. The cycle network is much more limited within the area and should this site come forward, improvements to such would form part of the vision.



Prepared	Reviewed	Date	
JP	SN	April 22	
Кеу			
	Cluster 17		
	Bromsgrove District		
\diamond	All Education		
	Secondary / Post16 Ed	lucation	
	All Healthcare		
	Local Centre		
	National Cycle Network	k (NCN)	
	Local Cycle route		
₹	Rail stations		
	railway line		
Bus r	outes service frequer	ncy	
—	2+ buses per hour		
—	< 2 buses per hour		
OSM	Standard		





^{Client} Bromsgrove District Council

Project

Bromsgrove DPR Transport Assessment

Figure title Cluster Group 17

Revision A Project number 3578

Figure number Figure 4-95

Date April 2022

Metric 1: Average commuter travel mode split

4.389 The average drive to work proportion of output areas considered to represent cluster group 17 is 57% and attracts a 'Green' rating within the framework. Reviewing the mapping in Figure 4-96 much of the cluster area within Bromsgrove district represents a higher proportion of those who drive to work. However, a 'green' rating is reflective of the cluster's location across the conurbation and the lower proportion of those who drive to work within this area.

 CON01

 CON01

Figure 4-96: Cluster Group 17 – Metric 1 – Drive to work (%)

Metric 2: Proximity to current sustainable transport services and infrastructure

- 4.390 Cluster group 17 achieves an 'Amber' RAG rating for its proximity to current sustainable transport services and infrastructure. CON01 currently benefits from high frequency bus connections on the urban facing sides of the cluster, with less frequent services throughout the centre. This is shown in Figure 4-97 where cluster group 17 is shown in yellow.
- 4.391 However, the cluster group does not benefit from closely located cycle or rail infrastructure and is reflective of its amber rating.

4.392 There is potential for existing bus coverage to be extended and frequency enhanced within the cluster, whilst additions to cycle connections across the site and into the wider conurbation could improve connectivity locally and public transport accessibility.

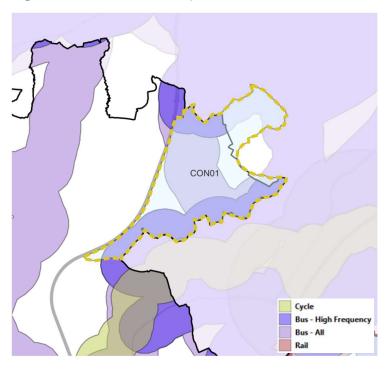


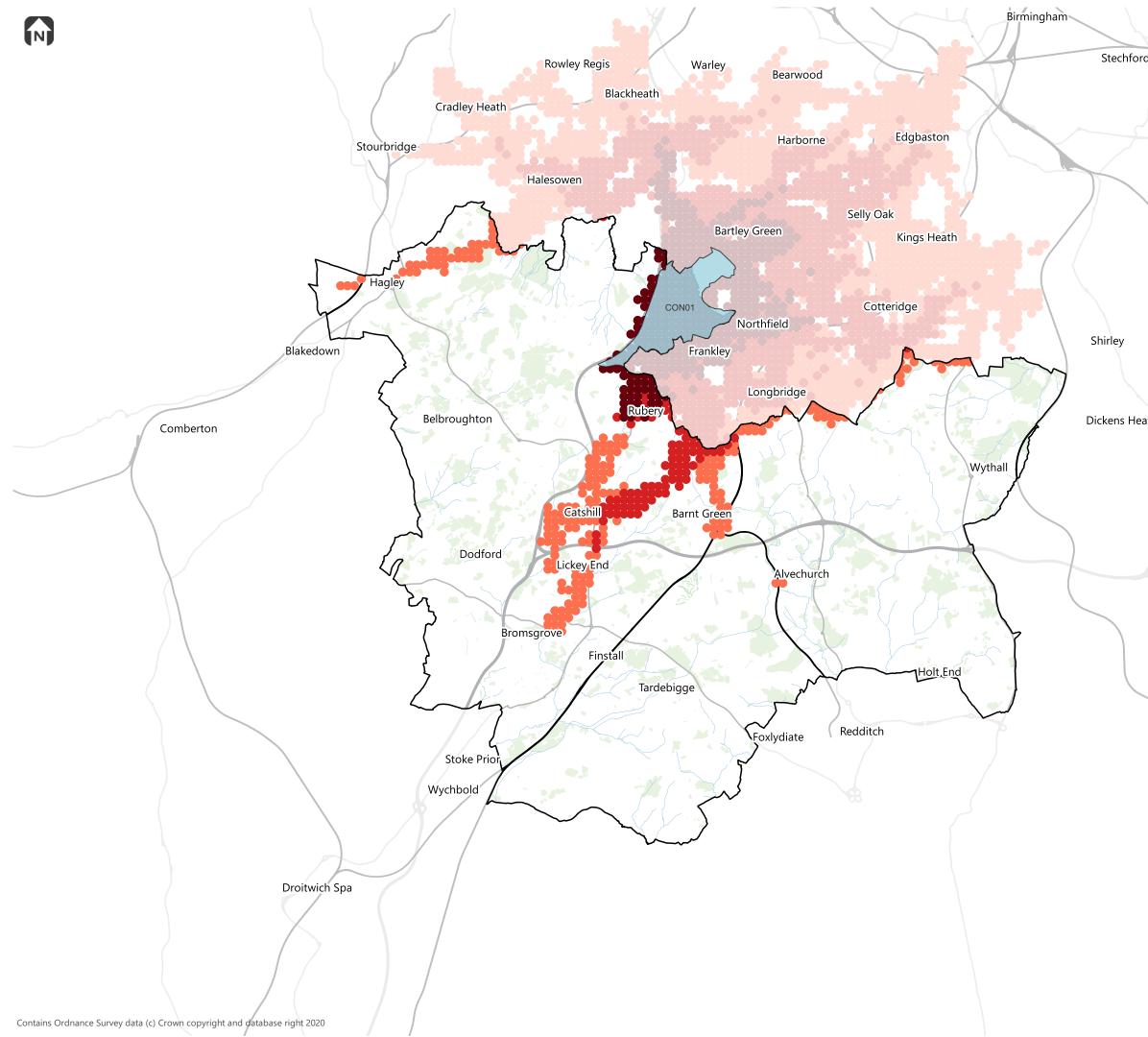
Figure 4-97: Cluster Group 17 – Metric 2.1

Metric 3: Access to jobs by public transport

- 4.393 CON01 has access to over 100,000 jobs within a 45-minute public transport journey time and receives a 'green' rating for this metric. This is likely due to the high frequency bus provision and proximity to built-up areas.
- 4.394 This encompasses areas of key employment such as Selly Oak (Birmingham University and Queen Elizabeth hospital) and south Birmingham, Halesowen and Birmingham City Centre as shown in Figure 4-98.

Table 4-130: Cluster Group 17 – Metric 3.1 – Number of jobs accessible by public transport

Sub-cluster	Number of jobs	RAG Rating
CON01	111,668	Green
Average - Cluster Group 17	111,688	Green



	Prepared JP	Reviewed SN	Date April 22
b	JP	214	April 22
	Кеу		
	Br	omsgrove Distric	t
		b - Sites and Cl	usters
	Clu	uster17 - CON01	
	Metric 3	8.1 - Number of	f Jobs (PT)
		.7_PT_FROM_C	ON01
		- 15 minutes	
		- 30 minutes	
		- 45 minutes	
Solihull	-	ortNetwork	
Solindi		iilway Line rategic Road Net	work
		ajor Road Networ	
	I*ic		ĸ
\setminus X			
ath			
		itp	
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	Client		
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	Project		
	-	rove DPR Ti	ransport
Henley-in-Arden	Assessr		·
	Figure title	– Metric 3.1	
	uanspo	rt access to	Jonz
l			
	Revision	Pro	ject number
	А		3578

Figure number Figure 4-98 Date April 2022

Metric 4: Access to healthcare

- 4.395 CON01 is rated 'green' for its public transport access to both local healthcare and A&E, as highlighted in Table 4-131 and Table 4-132 respectively. The cluster group benefits from high frequency bus services (Diamond Bus Service 202 in the interpeak period) through the centre of the cluster group area and journey times are an average 14-minutes by public transport.
- 4.396 Whilst journey times are good, improvements could be made to morning and evening peak frequencies with extensions through the cluster group to improve overall connectivity.

Table 4-131: Cluster Group 17 – Metric 4.1 – Public transport access to healthcare

Sub-cluster	Average journey time	RAG Rating
CON01	14	Green
Average - Cluster Group 17	14	Green

Table 4-132: Cluster Group 17 – Metric 4.2 – Public transport access to A&E

Sub-cluster	Average journey time	RAG Rating
CON01	41	Green
Average - Cluster Group 17	41	Green

4.397 Comparative drive times to the Queen Elizabeth Hospital are shown in Table 4-133. The 'amber' rating is likely reflective of the cluster groups positioning in relation to the existing built-up area.

Table 4-133: Group 17 – Metric 4.3 – Driving access to A&E

Sub-cluster	Estimated journey time	RAG Rating
CON01	19	Amber
Average - Cluster Group 17	19	Amber

Metric 5: Access to education

- 4.398 As shown in Figure 4-95, there are numerous primary and secondary schools within the surrounding areas of Frankley, Bartley Green and Shenley Green. This is reflected in the 'green' rating against metric 5.1 and metric 5.2 for CON01.
- 4.399 While journey times by public transport are good, this cluster area presents opportunities to encourage active mode travel given its proximity to existing education provision of less than one mile. Safe cycle and pedestrian routes to these schools should be considered should any development come forward at these locations.

Table 4-134: Cluster Group 17 – Metric 5.1 – Public transport access to education

Sub-cluster	Average journey time	RAG Rating
CON01	9	Green
Average - Cluster Group 17	9	Green

Table 4-135: Cluster Group 17 – Metric 5.2 – Public transport access to secondary

education

Sub-cluster	Average journey time	RAG Rating
CON01	13	Green
Average - Cluster Group 17	13	Green

4.400 It is worth noting that these journey time results represent access opportunities along the northern, eastern, and southern extents of the cluster group, and any homes delivered further centrally may not have such good connections without enhancements.

Metric 6: Proximity to planned local transport improvements

4.401 No planned sustainable transports improvements within the vicinity of cluster group 17, were identified at the time of the study and therefore results in a 'red' RAG rating for this cluster group.

Metric 7: Access to district centres

4.402 The nearest district centres to CON01 (crow fly) are similarly Northfield and Longbridge. However, the TRACC analysis shows that a few points within this cluster group travel to Halesowen as their fastest public transport trip, likely due to the availability of public transport connections to Halesowen through CON01 in more northwestern areas. 4.403 This analysis focuses on journey times to identified district centres and does not review the relative attractiveness nor retail / leisure offering of the centres in question.

Table 4-136: Cluster Group 17 – Metric 7.1 - Public transport access to district centres

Sub-cluster	Average journey time	RAG Rating
CON01	22.9	Amber
Average - Cluster Group 17	22.9	Amber

Summary and recommendations

- 4.404 Table 4-137 shows a summary of the RAG rating outputs where 2 is 'Green, 1 is 'Amber' and 0 is a 'Red' rating.
 Where applicable the numerical outputs are shown alongside. Figure 4-99 shows the number of each category of rating for the cluster group.
- 4.405 Overall, the metrics assessed indicate a very good level of suitability of this area in sustainable transport terms with the cluster group scoring 75%. This is one of the best performing cluster groups within the study.
- 4.406 There is some clear distinction in the relative connectivity between the western boundary extents and central areas of CON01 comparative to elsewhere within this cluster group. This is likely due to the relationship this area has with facilities in the surrounding built-up area, high frequency bus provision and the constraint of the M5 motorway.
- 4.407 Any build out of this area, could consider additional internal public transport routes and active mode connections.

Figure 4-99: Cluster Group 17 Results

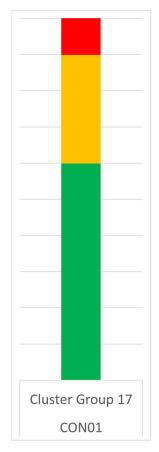
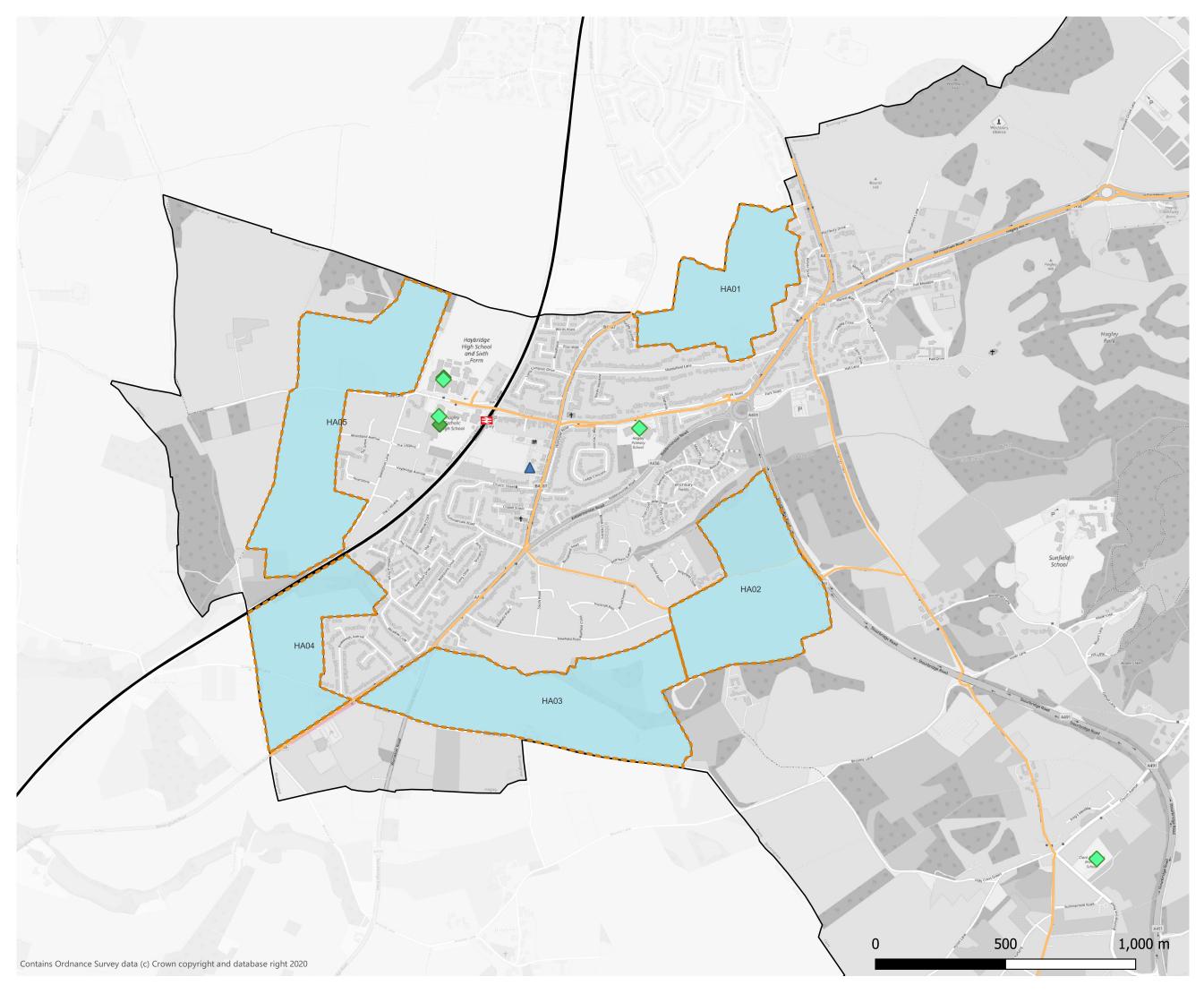


Table 4-137: Cluster Group 17 – Rating summary

		9		
		Cluster G	roup 17	
	Metric	Sub-cluster CON01 Frankley		
% DRIVE TO WORK	1.1	2	57%	
% DR W(1.2	-		
TRANSPORT SERVICES	2.1	1	-	
	3.1	2	111,668	
LABOUR MARKET	3.2	-		
RE	4.1	2	14	
HEATHCARE	4.2	2	41	
Т	4.3	1	19	
EDUCATION	5.1	2	9	
EDUC	5.2	2	13	
DISTRICT PLANNED CENTRES IMPROVEMENTS	6.1	0	0	
DISTRICT CENTRES	7.1	1	22.9	

Cluster Group 18: Hagley

- 4.408 Cluster Group 18 comprises areas in and around the existing built-up area of Hagley. As shown in Figure 4-100 the five clusters are situated:
 - HA01 north-east of the built-up area of Hagley, with the BDC boundary north of this cluster.
 - **HA02** further south, on the eastern side of the built-up area. This cluster covers greenfield land, and its eastern boundary is aligned to the road network.
 - **HA03** across greenfield land and existing road links (A450). The existing residential built-up area is directly north of the cluster.
 - **HA04** west of the built-up area, bounded by existing rail and road infrastructure on the northern and southern extents respectively.
 - **HA05** further north, within an area between the railway line and the BDC boundary. This cluster is situated closest to the rail station.
- 4.409 These clusters have been considered collectively and have not been further spilt as their collective scale and proximity to each other represents opportunity to develop a scale which would complement sustainable transport outcomes and to create a sustainable transport vision for Hagley.
- 4.410 The existing built-up areas in and around Hagley encompass a number of primary and secondary schools, as well as healthcare provision. Services and facilities are more clustered around the rail station, north of the A456.
- 4.411 There are a number of bus routes close to the clusters but have limited-service frequencies. Cycle routes are even more limited. If some or all of these clusters were to come forward improvements in these would form part of the vision.



_		
Prepared		Date
JP	SN	April 22
Key		
	Cluster 18	
	Bromsgrove District	
\diamond	All Education	
	Secondary / Post16 E	ducation
	All Healthcare	
	Local Cycle route	
₹	Rail stations	
	railway line	
Bus ı	outes service freque	ency
	< 2 buses per hour	
OSM	Standard	



Client Bromsgrove District Council

Project

Bromsgrove DPR Transport Assessment

Figure title Cluster Group 18

Revision A Project number 3578

Figure number Figure 4-100 Date April 2022

Metric 1: Average commuter travel mode split

- 4.412 The average drive to work proportion of output areas considered to represent cluster group 18 is 83%, this reflects a proportion above the regional average and thus receives a 'red' rating within the framework.
- 4.413 Within this grouped average, sub-cluster HA05 receives an 'amber' rating whilst HA01, HA02, HA03 and HA04 all receive a 'red' rating, reflecting the existing travel to work patterns within and in surrounding output areas which any new development would be expected to share similar characteristics to.

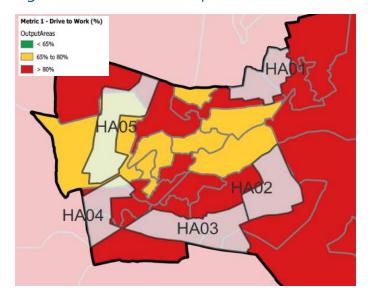
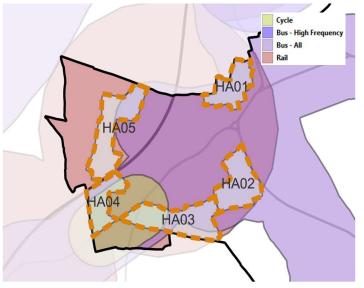


Figure 4-101: Cluster Group 18 - Metric 1 - Drive to work (%)

Metric 2: Proximity to current sustainable transport services and infrastructure that serve key settlements

- 4.414 Cluster group 18 has a wide range of sustainable transport provision as seen in Figure 4-102 and this is reflected by the overall cluster group rating of 'green'.
- 4.415 Sub-clusters HA01, HA02, HA03 and HA04 have rail and bus connections with potential to extend existing high frequency services or enhance frequency on other routes. In addition, HA03 and HA04 have cycling provision. This results in these 4 sub-clusters having a 'green' RAG rating.
- 4.416 Sub-cluster HA05 has slightly poorer sustainable transport provision with rail connections nearby and less bus coverage than the other sub-clusters. There is also the impact of severance caused by the rail line, particularly to the south of the sub-cluster, which could be mitigated by extending existing cycle connections. As such, this results in a 'red' RAG rating.



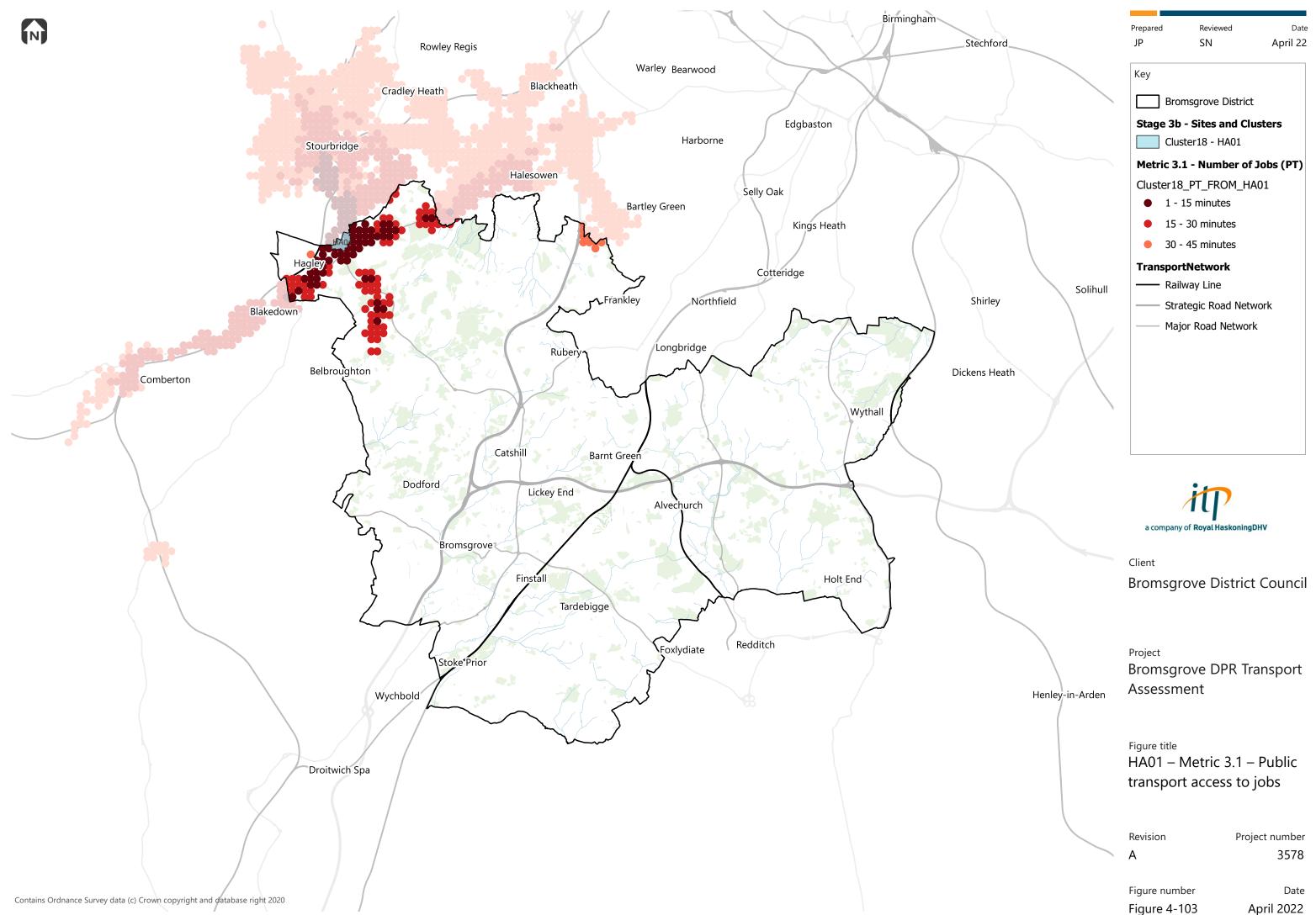


Metric 3: Access to jobs by public transport

- 4.417 Figures 4-57, 4-58, 4-59, 4-60 and 4-61 show the mapped outputs of the analysis for each cluster for this metric, with Table 4-138 providing a summary of the resulting number of jobs accessible within 45 minutes by public transport.
- 4.418 Whilst sub-cluster HA01 receives an 'amber' rating, HA02, HA03, HA04 and HA05 all have under 40,000 jobs accessible by public transport within 45 minutes meaning they are classified as 'red'.

Table 4-138: Cluster Group 18 – Metric 3.1 – Number of jobs accessible by public transport

Sub-cluster	Number of jobs	RAG Rating
HA01	44,657	Amber
HA02	27,420	Red
HA03	25,816	Red
HA04	19,900	Red
HA05	24,410	Red
Average - Cluster Group 18	28,441	Red



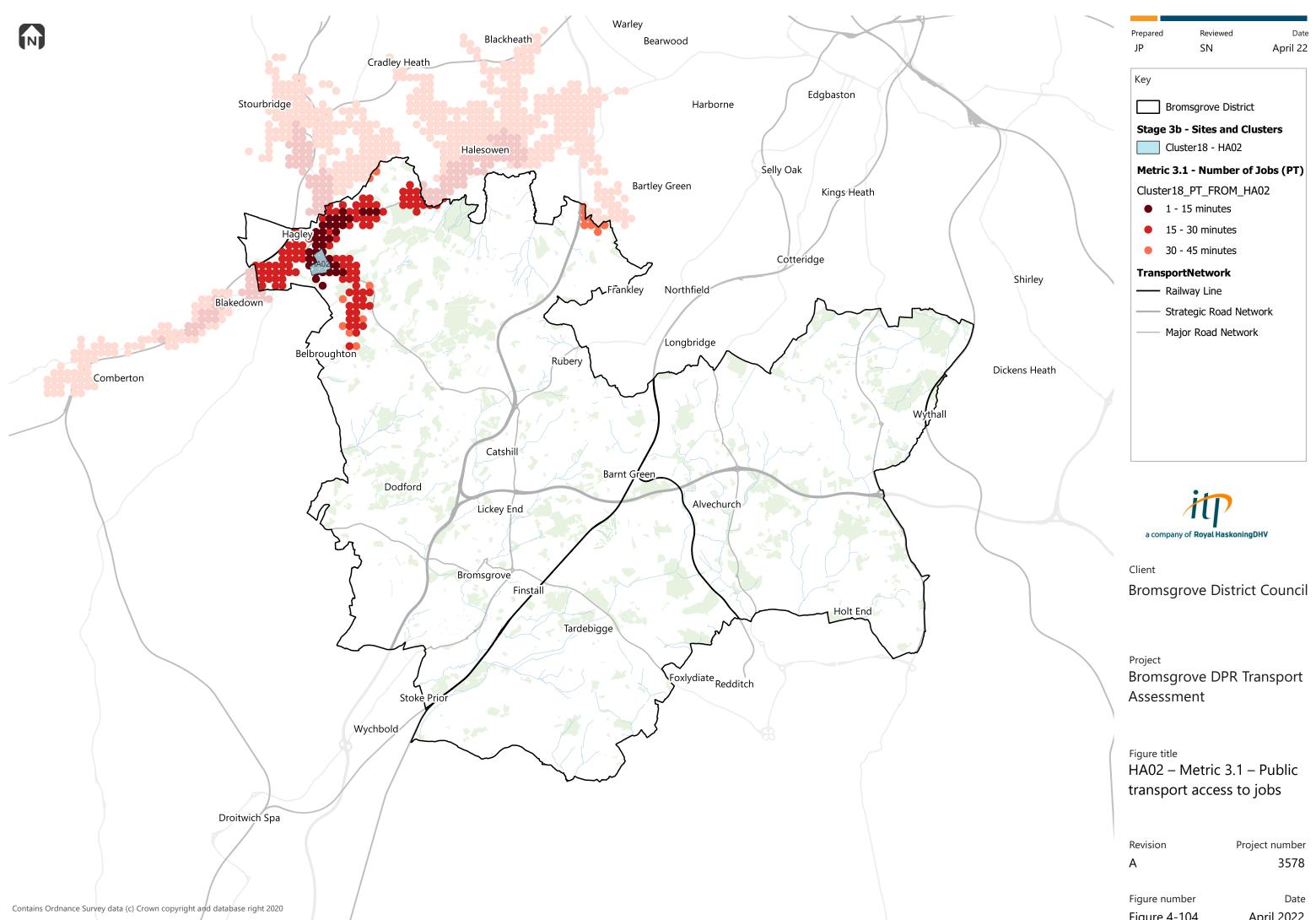
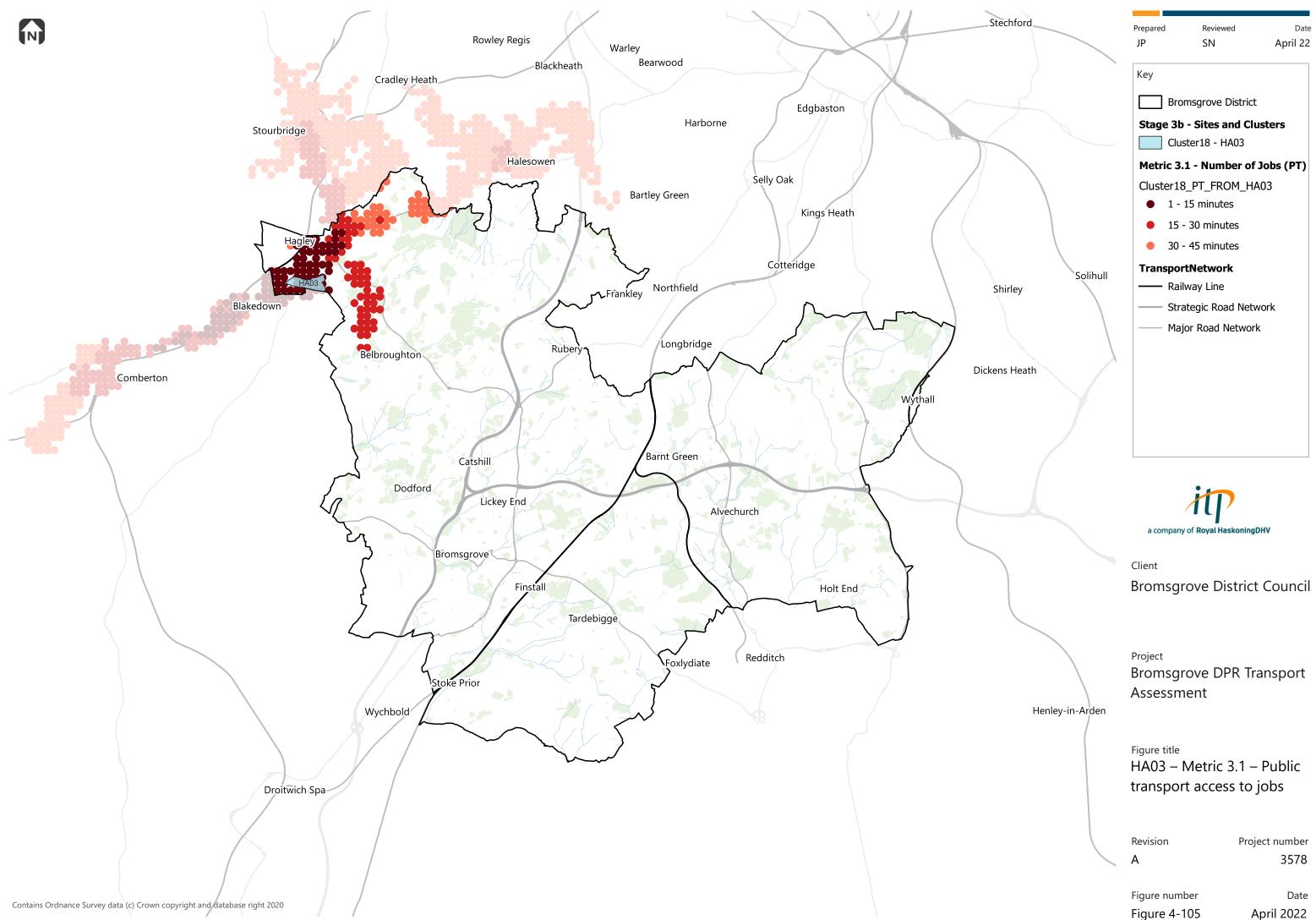
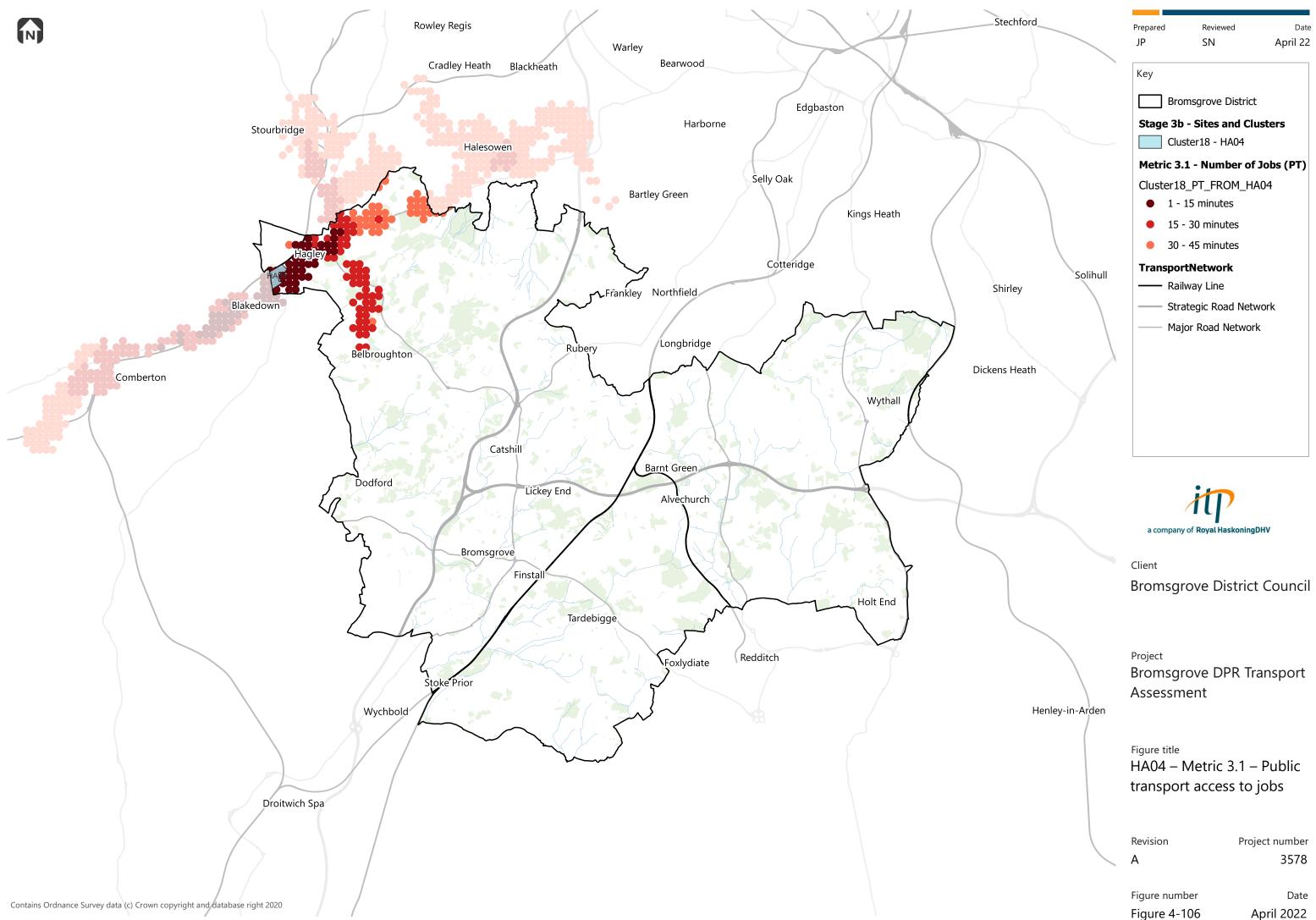
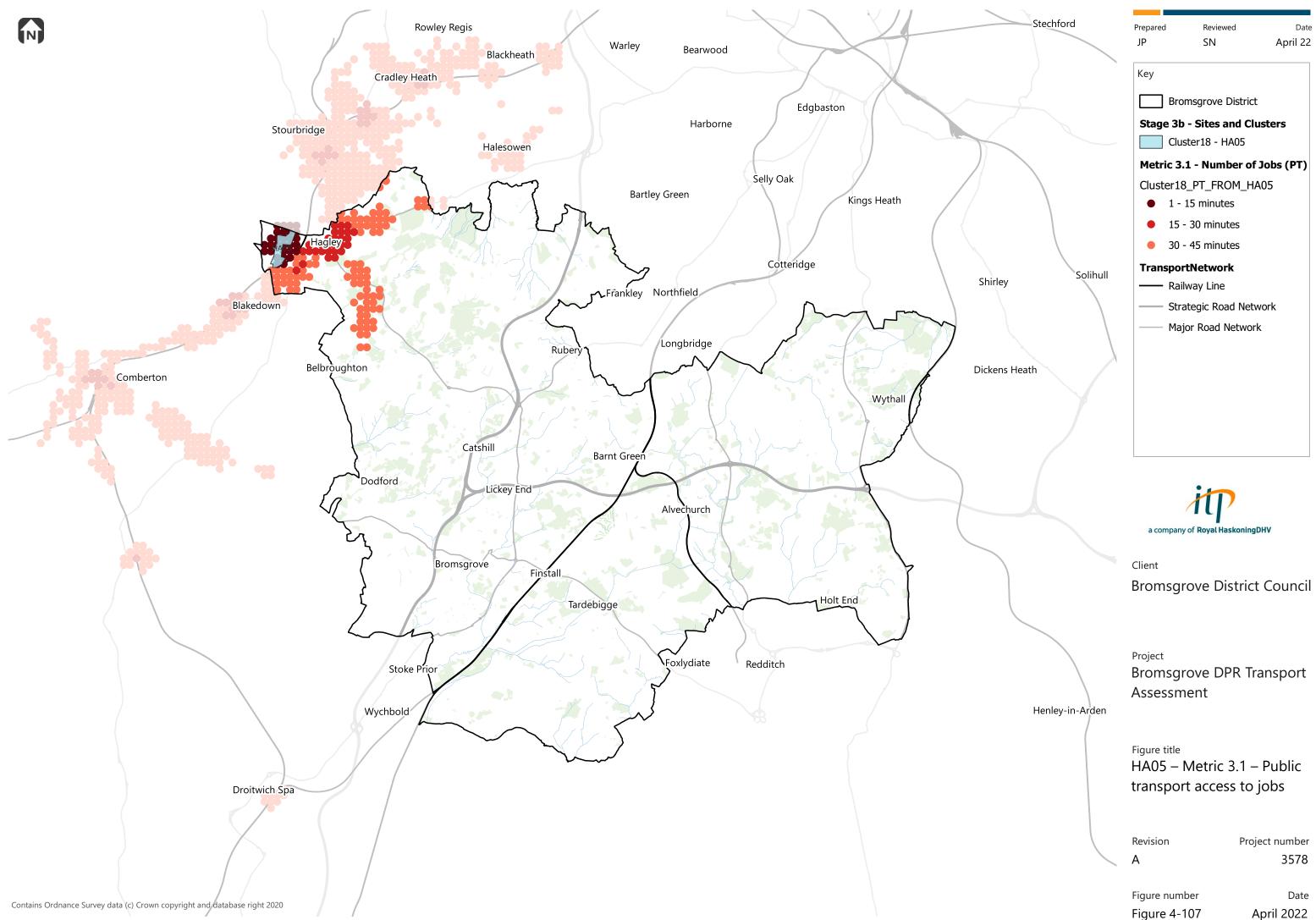


Figure 4-104

April 2022







Metric 4: Access to healthcare

4.419 As seen in Figure 4-100 there is one healthcare facility in Hagley. Sub-cluster HA01, HA03 and HA04 have 'green' ratings given the relatively shorter average journey time, whilst HA05 has a 'red' rating reflecting its poorer public transport provision. Some of the public transport journey time results represent travel to healthcare a further distance away. This is reflected in the lengthier journey time and a 'red' rating for a sub-cluster, and likely due to the availability of public transport services to particular areas of the cluster. While enhancement of the bus service frequency could improve these journey times, the nearer GP in Hagley presents opportunities to encourage active mode travel given its proximity to the cluster of less than one kilometre.

Table 4-139: Cluster Group 18 – Metric 4.1 – Public transport access to healthcare

Sub-cluster	Average journey time	RAG Rating
HA01	12	Green
HA02	-	-
HA03	9	Green
HA04	12	Green
HA05	28	Red
Average - Cluster Group 18	13	Green

4.420 No hospital with an A&E department can be accessed within 60 minutes by public transport in any of the sub-clusters. As such, a 'red' RAG rating is given to all including the cluster group average.

Table 4-140: Cluster Group 18 – Metric 4.2 – Public transport access to A&E

Sub-cluster	Average journey time	RAG Rating
HA01	>60	Red
HA02	>60	Red
HA03	>60	Red
HA04	>60	Red
HA05	>60	Red
Average - Cluster Group 18	>60	Red

4.421 In terms of driving access to A&E, the nearest hospital for all sub-clusters is Russells Hall, Dudley. However, every sub-cluster is over 20 minutes away meaning they are given a 'red' rating. The estimated journey time for the group 18 cluster is 29 minutes ('red' rating). However, in comparison to public transport access this is still a considerably shorter journey time.

Sub-cluster	Estimated journey time	RAG Rating
HA01	28	Red
HA02	28	Red
HA03	29	Red
HA04	29	Red
HA05	30	Red
Average - Cluster Group 18	29	Red

Table 4-141: Cluster Group 18 – Metric 4.3 – Driving access to A&E

Metric 5: Access to education

- 4.422 As shown in Figure 4-100 there are 4 educational facilities in Hagley and another further out of the centre to the south-east. The average journey time for the group 18 cluster is 8 minutes, therefore receiving a 'green' rating. Average journey times for HA01, HA03, HA04 and HA05 are also under 10 minutes and subsequently receive a 'green' score as well.
- 4.423 However, this average does not take into account sub-cluster HA02 which was found to not be realistically accessible to the educational facilities by public transport. While enhancement of the bus services could improve these connections, the proximity of existing schools in Hagley presents opportunities to encourage active mode travel to improve access.

Sub-cluster	Average journey time	RAG Rating
HA01	7	Green
HA02	-	Red
HA03	8	Green
HA04	9.8	Green

Table 4-142: Cluster Group 18 – Metric 5.1 – Public transport access to education

HA05	5	Green
Average - Cluster Group 18	8	Green

4.424 The average journey time to secondary education for cluster group 18 is under 20 minutes, meaning it receives a 'green' rating. However, there is a wide range of average journey times amongst the sub-clusters, with HA05 being the shortest (8 minutes) and HA02 being the longest (32 minutes) and rating as 'red'.

Table 4-143: Cluster Group 18 – Metric 5.2 – Public transport access to secondary education

Sub-cluster	Average journey time	RAG Rating
HA01	19	Green
HA02	32	Red
HA03	22	Amber
HA04	23	Amber
HA05	8	Green
Average - Cluster Group 18	18	Green

Metric 6: Proximity to planned local transport improvements

- 4.425 Planned sustainable transport improvements within the vicinity of cluster group 18, that were identified at the time of the study include:
 - Hagley Rail Station Enhancement Scheme
- 4.426 This scheme results in an 'amber' rating for the overall cluster group, with sub-cluster HA05 also receiving an 'amber' rating. The remaining four sub-clusters receive a 'red' rating.

Metric 7: Access to district centres

4.427 For sub-clusters HA03 and HA04 the closest district centre in terms of average journey time is Kidderminster which can be accessed in 30 minutes and under. For HA01, Kidderminster can be accessed in 40 minutes from some points and Stourbridge in under 20 minutes from others. HA02 can access Halesowen in under 30 minutes. The analysis indicates poor access between HA05 and a district centre by public transport, this could be attributable to the limitations of the road network near Hagley Station, particularly to the west towards the sub-cluster which results in a walk journey time over the threshold assessed.

4.428 This results in an average cluster group journey time of 26.1 minutes to district centres which gives it a RAG rating of 'amber'. A score of 'amber' is also given to all other subclusters aside from HA05 which receives a 'red'.

Sub-cluster	Average journey time	RAG Rating
HA01	22	Amber
HA02	28	Amber
HA03	28	Amber
HA04	29	Amber
HA05	-	Red
Average - Cluster Group 18	26.1	Amber

Table 4-144: Cluster Group 18 – Metric 7.1 - Public transport access to district centres

Summary and recommendations

- 4.429 Table 4-145 shows a summary of the RAG rating outputs where 2 is 'green', 1 is 'amber' and 0 is a 'red' rating. Where applicable the numerical outputs are shown alongside. Figure 4-108 shows the number of each category of rating for each cluster.
- 4.430 Overall, the metrics assessed indicate an average level of suitability in sustainable transport terms with the cluster group scoring 50%.
- 4.431 There is a wide range of scores within the sub-clusters with HA01 receiving the highest score (50%) and HA02 with significantly the lowest (15%).

Figure 4-108: Cluster Group 18 Results

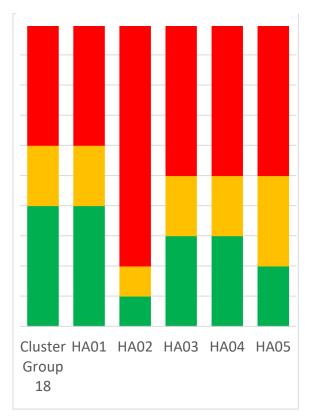
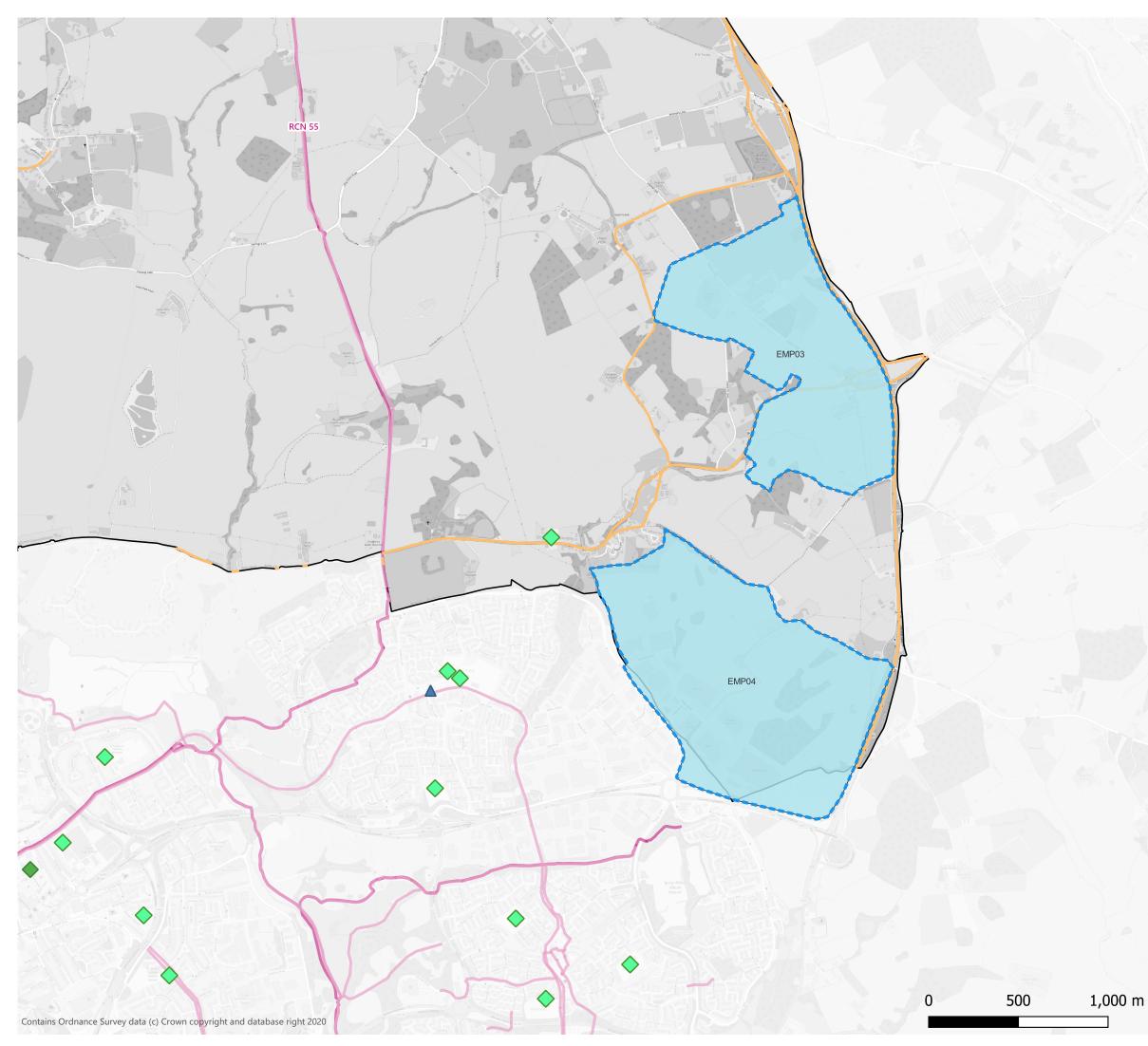


Table 4-145: Cluster	Group 18 -	- Rating	summary
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				Cluster Group 18										
			18		Sub-clusters									
	Metric	Н	lagley	н	IA01	l	HA02		HA03		HA04		HA05	
% DRIVE TO WORK	1.1	0	83%	0	-	0	-	0	-	0	-	1	-	
		-												
TRANSPORT SERVICES	2.1	2	-	2	-	2	-	2	-	2	-	1	-	
DUR KET	3.1	0	28,441	1	44,657	0	27,420	0	25,816	0	19,900	0	24,410	
LABOUR MARKET	3.2	-												
RE	4.1	2	13	2	12	0	-	2	9	2	12	0	28	
HEATHCARE	4.2	0	-	0	-	0	-	0	-	0	-	0	-	
H	4.3	0	29	0	28	0	28	0	29	0	29	0	30	
ATION	5.1	2	8	2	7	0	-	2	8	2	9.8	2	5	
EDUCATION	5.2	2	18	2	19	0	32	1	22	1	23	2	8	
PLANNED IMPROVEMENTS	6.1	1	1	0	-	0	-	0	-	0	-	1	-	
DISTRICT CENTRES	7.1	1	26.1	1	22	1	28	1	28	1	29	0	-	

Cluster Group 19: Employment A435

- 4.432 Cluster Group 19 comprises potential employment areas adjacent to the A435, within the south-east of the BDC area. As shown in Figure 4-109, the two clusters are situated:
 - **EMP03** across the B4101, covering greenfield land and areas of established employment land.
 - **EMP04** further south, adjacent to the BDC and Redditch area boundary and east of the existing Ravensbank employment area. This cluster again covers greenfield land and some areas of established employment land.
- 4.433 These employment clusters have been considered separately due to their geographic separation from any other clusters and non-residential proposed land use.
- 4.434 This cluster group is closely related to the major road network to offer greater employment opportunity and there is some level of existing bus connectivity in the surrounding area with lower frequency services aligned through or adjacent to this cluster group.





Durana di	Deviewed	Data			
Prepared JP	Reviewed SN	Date April 22			
		-			
Кеу					
	Cluster 19				
	Bromsgrove District				
\diamond	All Education				
\diamond	Secondary / Post16 E	Education			
	All Healthcare				
	National Cycle Netwo	National Cycle Network (NCN)			
—	Local Cycle route				
¥	Rail stations				
	railway line				
Bus r	outes service freque	ency			
	< 2 buses per hour				
OSM	Standard				

a company of **Royal HaskoningDHV**

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Project

Bromsgrove DPR Transport Assessment

Figure title Cluster Group 19

Revision A Project number 3578

Figure number Figure 4-109 Date April 2022

Metric 1: Average commuter travel mode split

4.435 The average car mode split of workplace zones considered to represent cluster group 19 is 71% and attracts an 'Amber' rating for metric 1.2. Reviewing the mapping in Figure 4-110 sub-cluster EMP04 appears to have a higher proportion of those likely to commute to work by car.

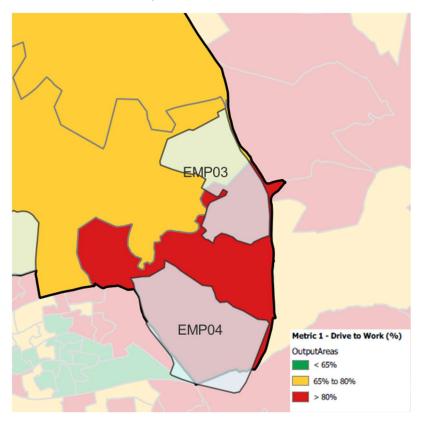
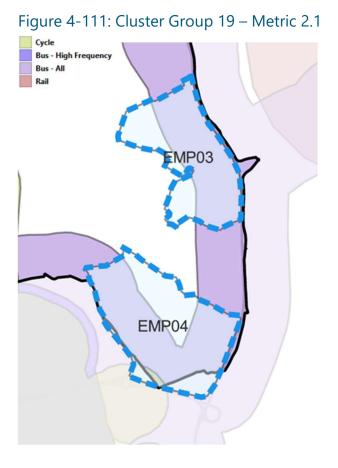


Figure 4-110: Cluster Group 19 – Metric 1 – Drive to work (%)

Metric 2: Proximity to current sustainable transport services and infrastructure

- 4.436 Both sub-clusters within cluster group 19 currently only have single mode sustainable transport provision (shown in Figure 4-111), with the group rating as 'red' collectively.
- 4.437 The cluster group currently has access to lower frequency bus services, which have the potential to be enhanced. Each of the sub-clusters would also benefit from the delivery of new and extended cycle routes to offer connections locally and to other sustainable transport modes.

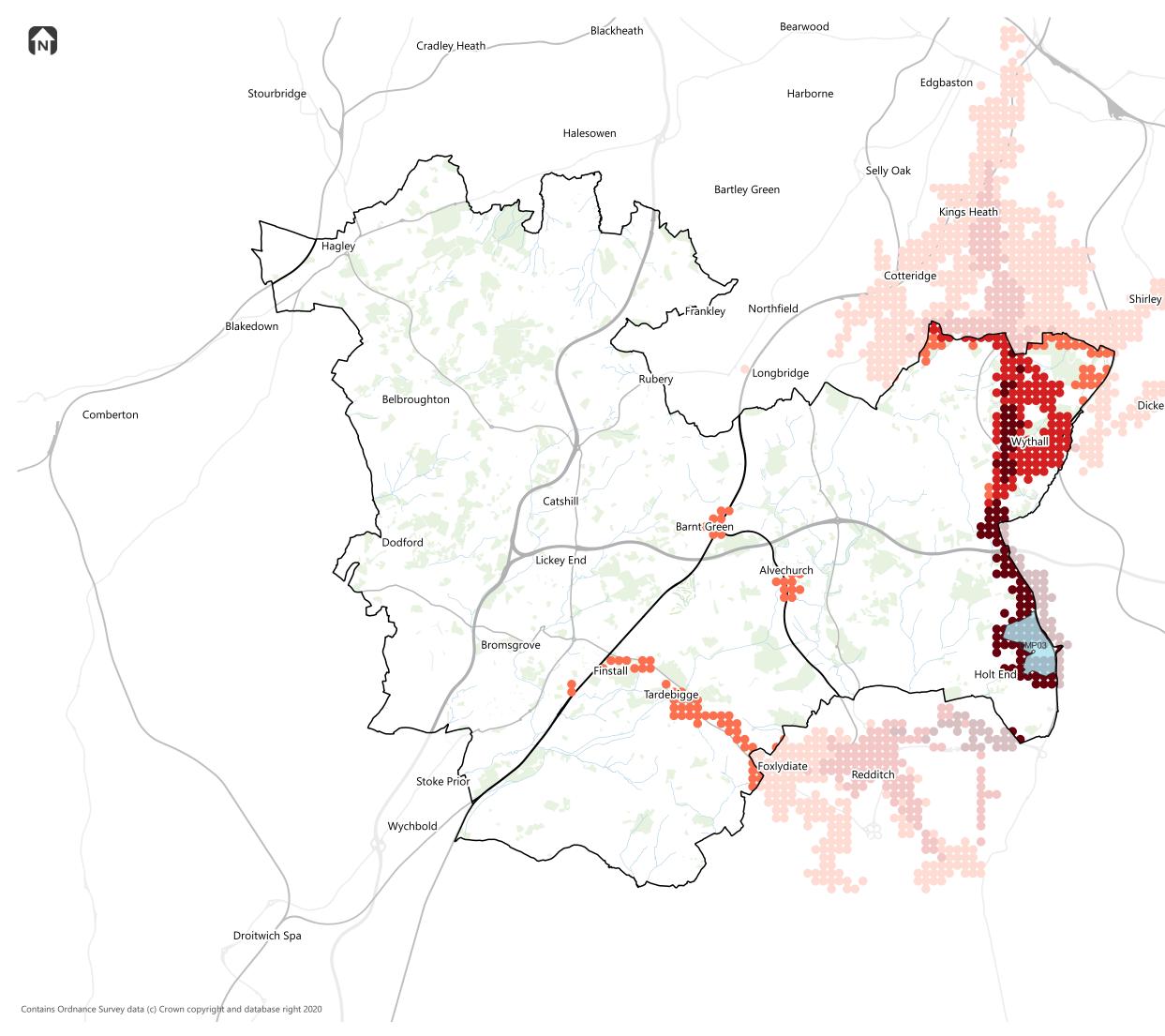


Metric 3: Access to potential workforce by public transport

- 4.438 Figure 4-112 and Figure 4-113 show the mapped outputs of the analysis for each subcluster for this metric, with Table 4-146 providing a summary of the resulting number of workers within 45 minutes by public transport.
- 4.439 Sub-cluster EMP03 has a greater potential workforce within a 45-minute public transport journey time comparative to sub-cluster EMP04 and rated 'green'. This reflects its positioning further north towards the conurbation, with bus provision along the A435 corridor, to residential areas such as Wythall. Access to potential workforce in areas of Solihull Borough (around Dickens Heath) is also possible within a 45-minute journey time for this sub-cluster comparative to EMP04.
- 4.440 While EMP04 has better connections with areas in and around Redditch by public transport, this doesn't extend over areas of greater potential workforce (as shown in Figure 3-4) and therefore attracts an 'amber' rating.
- 4.441 These differences in results within the cluster group is reflected in the overall 'amber' rating for this cluster group.

Table 4-146: Cluster Group 19 – Metric 3.2 – Number of potential workforce accessible by public transport

Sub-cluster	Number of workers	RAG Rating
EMP03	73,923	Green
EMP04	46,613	Amber
Average - Cluster Group 19	60,269	Amber



Date Prepared Reviewed SN April 22 JP Key Bromsgrove District Stage 3b - Sites and Clusters Cluster19 - EMP03 Journey Time Accessibility Metric 3.2 - Number of Potential Workforce (PT) Cluster19_PT_TO_EMP03 • 1 - 15 minutes • 15 - 30 minutes • 30 - 45 minutes TransportNetwork — Railway Line Strategic Road Network Major Road Network

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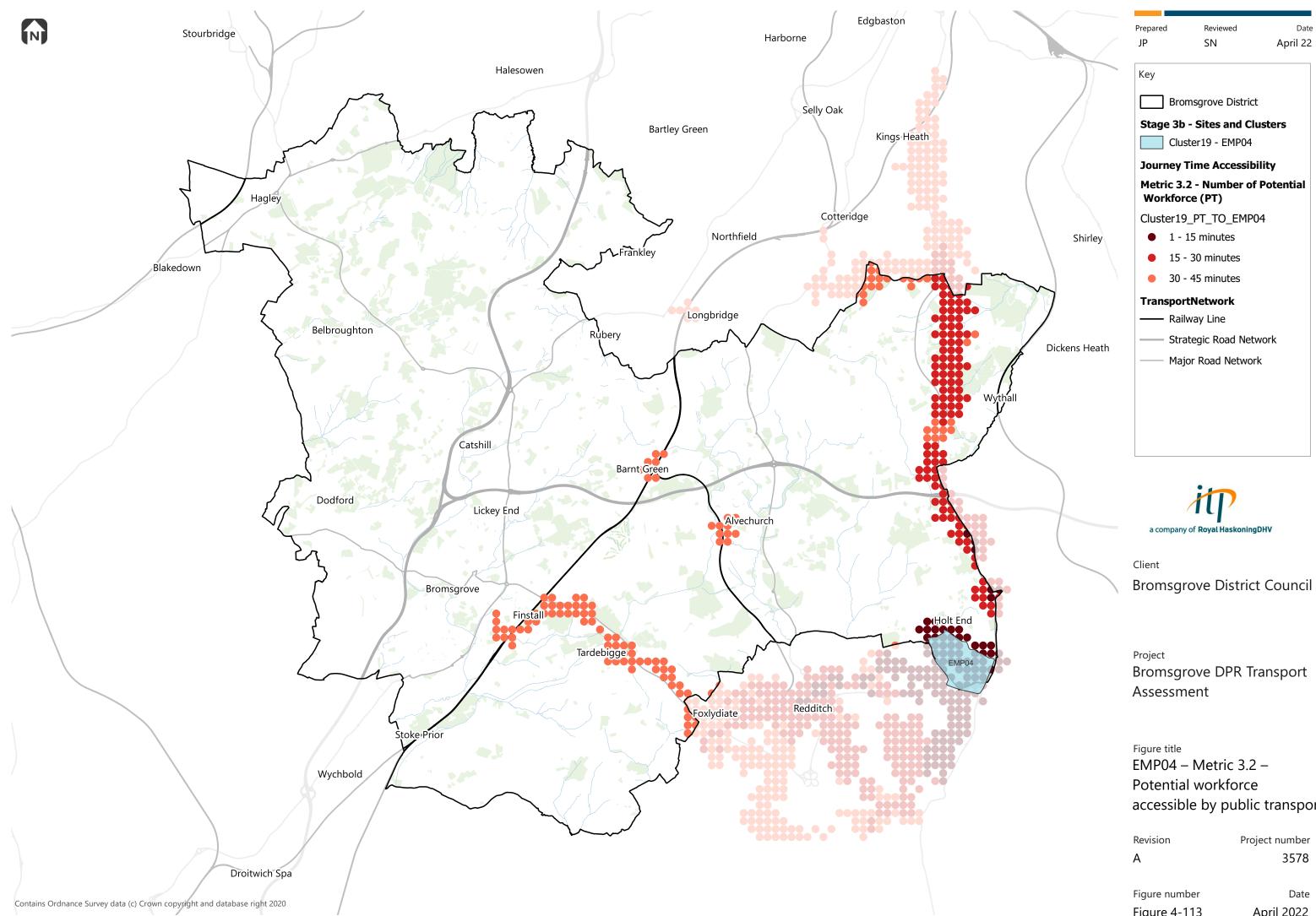
Project Bromsgrove DPR Transport Assessment

Figure title EMP03 – Metric 3.2 – Potential workforce accessible by public transport

Revision A Project number 3578

Figure number Figure 4-112 Date April 2022

Dickens Heath



accessible by public transport

Project number 3578

Figure 4-113

Date April 2022

Metric 4: Access to healthcare

- 4.442 As shown in Figure 4-109, there is one healthcare site located south-west of the cluster group, which is also the closest located in journey time for sub-cluster EMP03.The low frequency of existing bus provision (Johnsons 150 Bus Service - Birmingham to Redditch and Worcester) reflects the 'amber' RAG rating for this sub-cluster. It is noted the average journey time of 19-minutes reflects areas within EMP03 around the existing B4101.
- 4.443 There are quicker journey times to Smallwood Health Clinic in Redditch town centre for sub-cluster EMP04 despite the further distance, and likely reflective of existing bus service routings with access to Diamond Bus Service 62 Redditch Circular. Table 4-147 shows the average journey time to be close to the green-amber threshold of 15 minutes and suggests enhancements of this service in frequency could improve ratings further.

Sub-cluster	Average journey time	RAG Rating
EMP03	19	Amber
EMP04	16	Amber
Average - Cluster Group 19	18	Amber

Table 4-147: Cluster Group 19 – Metric 4.1 – Public transport access to healthcare

4.444 The Alexandra Hospital is the closest located hospital with A&E provision in both journey time and distance to cluster group 19 and both sub-clusters are rated 'green' against this metric as shown in Table 4-148. There are direct bus services from each sub-cluster to the Hospital.

Table 4-148: Cluster Group 19 – Metric 4.2 – Public transport access to A&E

Sub-cluster	Average journey time	RAG Rating
EMP03	41	Green
EMP04	40	Green
Average - Cluster Group 19	40	Green

4.445 Comparative drive times to the Alexandra Hospital are presented in Table 4-149. These show the discrepancy between public transport and driving, with average journey times by public transport approximately four times longer than the estimated car journey.



Sub-cluster	Estimated journey time	RAG Rating
EMP03	12	Green
EMP04	11	Green
Average - Cluster Group 19	12	Green

Table 4-149: Cluster Group 19 – Metric 4.3 – Driving access to A&E

Metric 6: Proximity to planned local transport improvements

4.446 There are no planned sustainable transport improvements within the vicinity of either sub-cluster that comprise cluster group 19 (EMP03 and EMP04) and results in a 'Red' RAG rating for the cluster group.

Metric 7: Access to district centres

- 4.447 The closest district centre to sub-cluster EMP04, as the crow flies and in public transport journey time, is Redditch. This is approximately 2.75 miles from the centre of this subcluster, and the low frequency bus services are reflective of its 'amber' rating.
- 4.448 Similarly, Redditch is the closest located district centre for much of sub-cluster EMP03. However, TRACC analysis shows there are some points within this area, where the closest district centre in journey time is Kings Heath. The longer distance required for travel reflects the lengthier journey times comparative to EMP04 as shown in Table 4-150.
- 4.449 Improved bus frequencies to Redditch town centre may improve public journey times to and from this cluster group (such as Bus route 517/519 between Solihull and Redditch)

Sub-cluster	Journey time	RAG Rating
EMP03	29	Amber
EMP04	23	Amber
Average - Cluster Group 19	25.9	Amber

Table 4-150: Cluster Group 19 – Metric 7.1 - Public transport access to district centres

Summary and recommendations

- 4.450 Table 4-151 shows a summary of the RAG rating outputs where 2 is 'Green, 1 is 'Amber' and 0 is a 'Red' rating. Where applicable the numerical outputs are shown alongside. Figure 4-114 shows the number of each category of rating for each cluster, and the cluster group as a whole.
- 4.451 Overall, the metrics assessed indicate a good level of suitability of these employment areas in sustainable transport terms with cluster group 19 scoring 50%.
- 4.452 EMP04 generally has quicker journey times to key facilities but existing sustainable transport provision does not extend into areas of high potential workforce.
- 4.453 The location of the cluster group in close proximity to the major road network, could lend itself to enhanced public transport routes to maximise the benefit of the existing connections at this location,

Figure 4-114: Cluster Group 19 Results

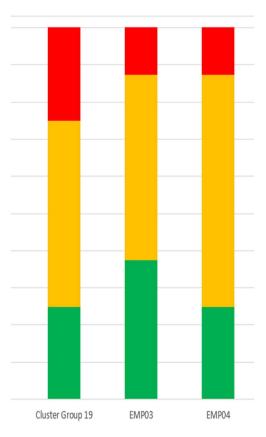
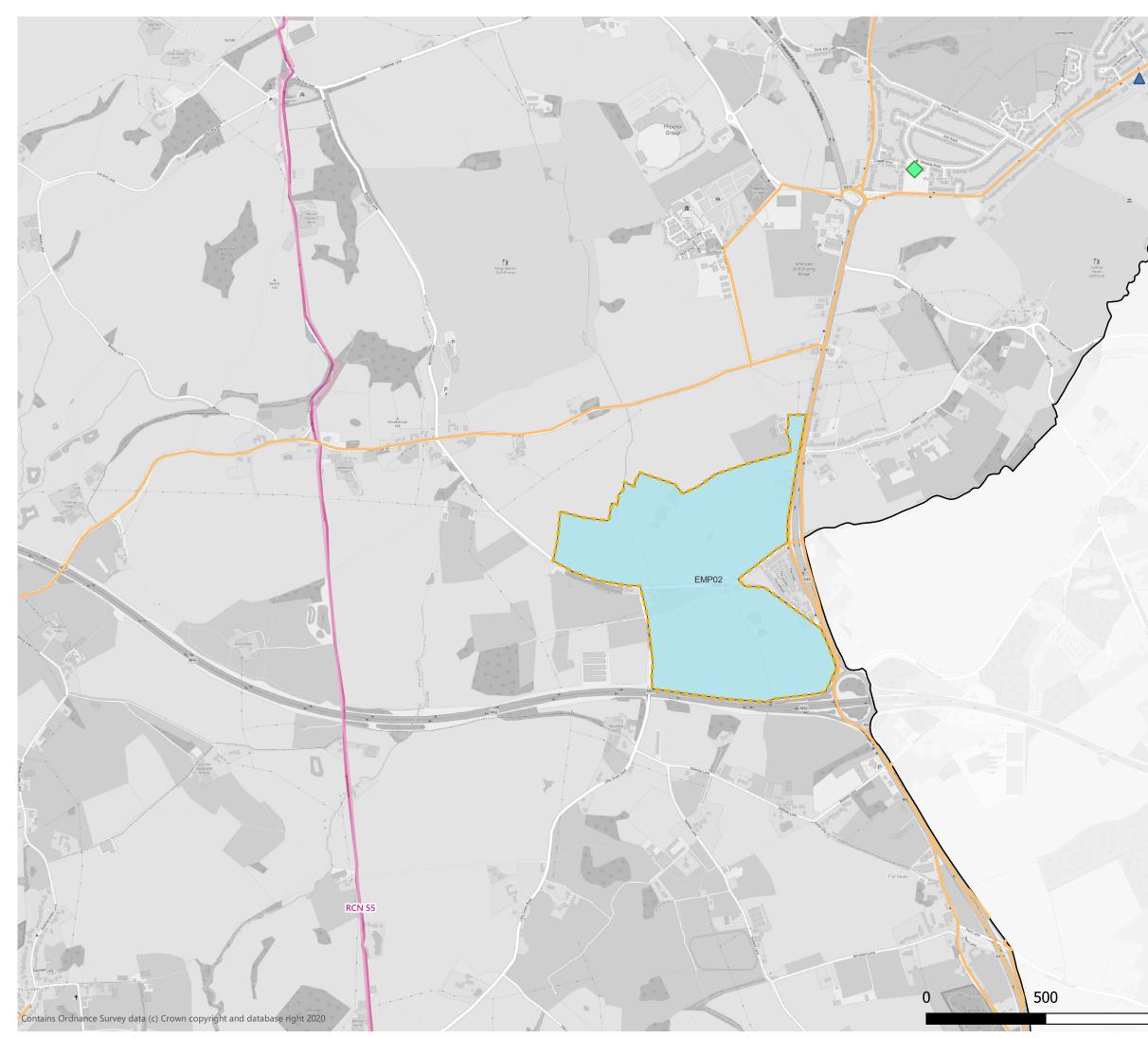


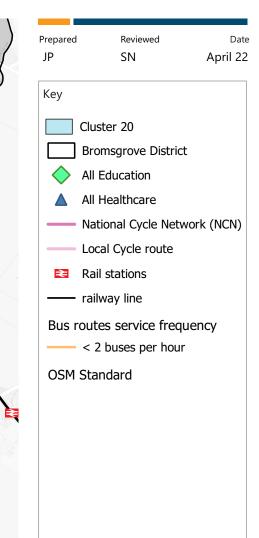
Table 4-151: Cluster Group 19 – Rating summary

		Cluster Group 19					
			19	Sub-clusters			
	Metric	Employn	nent A435	EMP03		EMP04	
VE TO JRK	1.1	-					
% DRI WC	1.2	1	71%	1	71%	1	71%
TRANSPORT % DRIVE TO SERVICES WORK	2.1	0	-	0	-	0	-
LABOUR MARKET	3.1	-					
LABC MAR	3.2	1	60,269	2	73,923	1	46,615
	4.1	1	18	1	19	1	16
HEATHCARE	4.2	2	40	2	41	2	40
-	4.3	2	12	2	12	2	11
ATION	5.1	-					
EDUCATION	5.2	-					
PLANNED IMPROVEMENTS	6.1	0	-	0	-	0	-
DISTRICT CENTRES	7.1	1	25.9	1	29	1	23

Cluster Group 20: Employment M42 J3

- 4.454 Cluster Group 20 considers a single area directly north-west of M42 junction 3. **EMP02** predominantly covers areas of greenfield land, as shown in Figure 4-115, with further greenfield north and west of the cluster. The M42 forms the southern boundary whilst the A435 largely aligns with the eastern boundary. This proximity to the SRN and its east-west and north-south road connections offers good opportunity for employment growth.
- 4.455 This cluster site has been considered separately due to its geographic separation from other clusters and its relationship with the SRN.
- 4.456 Closely located bus routes are limited in their frequency and there is no immediate access to the rail network. The cycle network in the surrounding area is also limited.







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Figure title Cluster Group 20

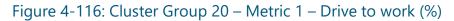
Revision A Project number 3578

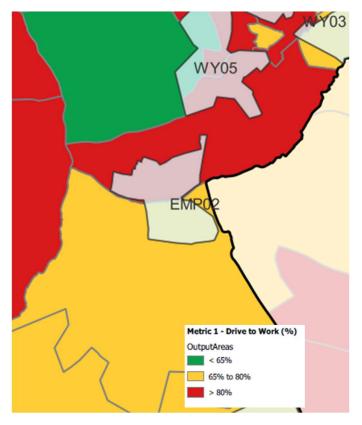
Figure number Figure 4-115 Date April 2022

1,000 m

Metric 1: Average commuter travel mode split

4.457 The average car mode split of workplace zones considered to represent cluster group 20 is 77% and attracts an 'Amber' rating for metric 1.2. This may be reflective of the cluster groups position relative to the strategic road network.

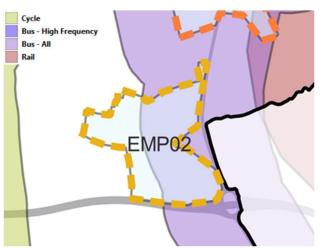




Metric 2: Proximity to current sustainable transport services and infrastructure

- 4.458 Cluster group 20 is limited in its level of sustainable transport provision currently (shown in Figure 4-117), with the group rating 'Red' in the framework. There is single mode bus provision within the central and eastern areas of the cluster group, but with lower frequency services.
- 4.459 There is potential to improve this cluster group, with bus frequency enhancements and/or route extensions and active mode improvements to enhance access to any new and existing connections.



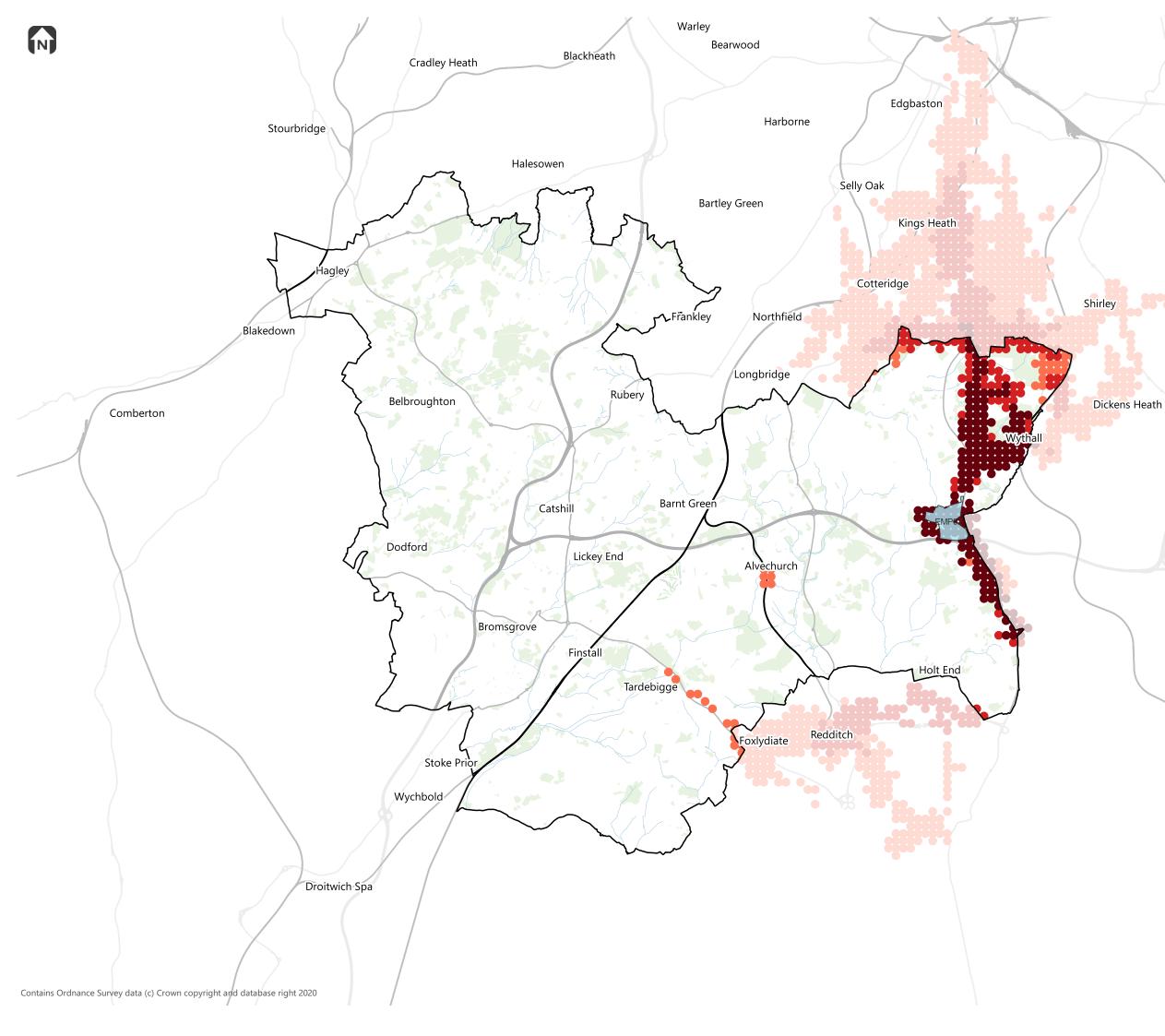


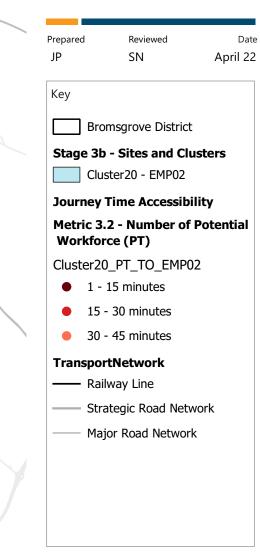
Metric 3: Access to potential workforce by public transport

- 4.460 This cluster group is accessible within a 45-minute public transport journey to a potential workforce of over 70,000 (as shown in Table 4-152) and is rated 'green' for metric 3.2.
- 4.461 The mapping in Figure 4-118, shows accessibility is primarily concentrated along the A435, through Wythall, Kings Heath and towards southern areas of Birmingham City Centre. There are also areas of Redditch, and to a lesser extent, Dickens Heath and Shirley where potential workforce can reach EMP02 within a 45-minute journey by public transport.

Table 4-152: Cluster Group 20 – Metric 3.1 – Number of jobs accessible by public transport

Sub-cluster	Number of workers	RAG Rating
EMP02	82,836	Green
Average - Cluster Group 20	82,836	Green







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Project Bromsgrove DPR Transport Assessment

Figure title EMP02 – Metric 3.2 – Potential workforce accessible by public transport

Revision A Project number 3578

Figure number Figure 4-118 Date April 2022

Metric 4: Access to healthcare

4.462 As shown in Figure 4-115, the nearest healthcare provision to EMP02 is situated in Wythall with an average journey time of 16-minutes. This sits on the green-amber threshold of 15-minutes for this metric.

Table 4-153: Cluster Group 20 – Metric 4.1 – Public transport access to healthcare

Sub-cluster	Average journey time	RAG Rating
EMP02	16	Amber
Average - Cluster Group 20	16	Amber

4.463 The nearest Hospital with an A&E department is the Alexandra Hospital in Redditch. Figure 3-8 shows that this is only possible to access within 60 minutes by public transport from the eastern extents of the cluster group, with an average journey time of 45 minutes. This is reflective of the direct bus provision along the A435, and results in a 'green' RAG rating.

Table 4-154: Cluster Group 20 – Metric 4.2 – Public transport access to A&E

Sub-cluster	Average journey time	RAG Rating
EMP02	45	Green
Average - Cluster Group 20	45	Green

4.464 Comparative drive times to the Alexandra Hospital are presented in Table 4-155. These show the discrepancy between public transport and driving access with journeys by public transport three times longer than by car.

Table 4-155: Cluster Group 20 – Metric 4.3 – Driving access to A&E

Sub-cluster	Estimated journey time	RAG Rating
EMP02	16	Amber
Average - Cluster Group 20	16	Amber

Metric 6: Proximity to planned local transport improvements

4.465 There are no planned sustainable transport improvements within the vicinity of cluster group 20 at the time of the study and results in a 'Red' RAG rating.

Metric 7: Access to local centres

4.466 The nearest district centre to sub-cluster EMP02 as the crow flies is Redditch (approximately four miles from the centre of EMP02). However, TRACC analysis shows Kings Heath can be accessed more quickly by public transport in an average journey time of 23.9 minutes. This is despite being a further mile from the cluster group and reflects the 'amber' rating within the framework.

Table 4-156: Cluster Group 20 – Metric 7.1 - Public transport access to district centres

Sub-cluster	Average journey time	RAG Rating	
EMP02	23.9	Amber	
Average - Cluster Group 20	23.9	Amber	

Summary and recommendations

- 4.467 Table 4-157 shows a summary of the RAG rating outputs where 2 is 'Green, 1 is 'Amber' and 0 is a 'Red' rating.
 Where applicable the numerical outputs are shown alongside. Figure 4-119 shows the number of each category of rating for the cluster group.
- 4.468 Overall, the metrics assessed indicate a good level of suitability of this area in sustainable transport terms with the cluster group scoring 50%.
- 4.469 Much of the eastern area of this cluster group benefits from its positioning adjacent to the A435, and the access to existing bus services along this route. Frequency enhancements and extensions of these services internally would improve connectivity across cluster group 20, with potential along 'Watery Lane'.

Figure 4-119: Cluster

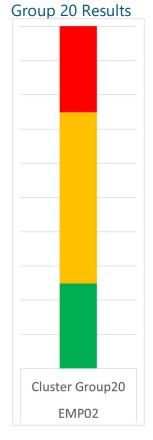


Table 4-157: Cluster Group 20 - Rating summary

		Cluster Group 20	
	Metric	EMP02 - Employment M42 J3	
% DRIVE TO WORK	1.1	-	
	1.2	1	77%
TRANSPORT SERVICES	2.1	0	-
LABOUR MARKET	3.1	-	
	3.2	2	82,836
HEATHCARE	4.1	1	16
	4.2	2	45
	4.3	1	16
EDUCATION	5.1	-	
	5.2	-	
PLANNED IMPROVEMENTS	6.1	0	-
DISTRICT CENTRES	7.1	1	23.9