

PROJECT	BLAKEDOWN STATION CAR PARK OPTIONS		
CLIENT	WORCESTERSHIRE COUNTY COUNCIL		
PREPARED BY	SAM UREN	DATE	25 TH JUNE 2019
CHECKED BY	IAN BAXTER	REV NO.	4.0

EXECUTIVE SUMMARY

1. A 99% growth in passenger numbers using rail stations in the Wyre Forest District Council (WFDC) area between 2013 and 2043 was anticipated in Network Rail's Markets Studies (2013/14) which have set the agenda for the rail industry's long-term strategic planning.
2. Growth at both stations over the 20 year period 1998-2018 was over 146%, suggesting that the 99% growth forecast over the longer 30 year period may well prove to be conservative.
3. Kidderminster and Blakedown stations offer the most frequent services in the WFDC area, with 1.81 million passenger journeys in 2018, c. 2,824 return passengers each day.
4. The 2 stations offer a total of 234 car park spaces, c. 1 space for every 12 passengers, lower than the County average of 1 space for each 9 passengers, and significantly lower than at stations in Warwickshire on the neighbouring Chiltern line, which provide 1 space for every 6 passengers.
5. Some Wyre Forest residents thus drive to use stations such as Warwick Parkway and Birmingham International, or use free car parks such as that at Stourbridge Junction. Others park in residential streets close to both Kidderminster and Blakedown stations.
6. Kidderminster and Blakedown together would require a further 79 spaces, to a total of 313, to reach the County average of 1 space per 9 passengers. The site at Station Yard, Blakedown is included within the emerging Wyre Forest Local Plan for a station car park. This would deliver the 80 spaces required across Kidderminster and Blakedown to reach this County average. Accommodating the forecast 30 year growth of 99%, even if conservative, would require a further 311 spaces, to a total of 390 more than in 2019.
7. Meeting some capacity growth at Kidderminster Station was considered via a de-mountable decking scheme proposed by former operator, London Midland in 2016. This was, however, precluded given highway capacity issues which continue to exist. Other options, such as development at Hagley or Blakedown are neither feasible nor within the control of WFDC.
8. A proposed development site immediately adjacent to Blakedown station offers potential for up to 170 car park spaces for rail users, making a substantial contribution to the requirement for capacity growth at stations in Wyre Forest District with the most regular services.
9. The 2 sites at Blakedown could offer 250 new spaces. c.64% of the 390 space requirement.
10. This note proposes that this site is allocated for Blakedown Station car park use in the Wyre Forest Local Plan as a prudent means of supporting sustainable growth in rail travel, and addressing on-street parking by rail users. The County Council will continue to work with the

rail industry to identify means of meeting the need for a further 140 spaces at Kidderminster or other station locations.

1. INTRODUCTION

- 1.1 Past and prospective growth in rail passenger volumes at Kidderminster and Blakedown stations has not been matched by delivery or planning of car park capacity increases. This paper summarises the scale of anticipated growth, the estimated requirement for additional station car park capacity in this part of the Wyre Forest District Council (WFDC) area, the challenges in providing this at Kidderminster Station, and the opportunity for meeting a proportion of this requirement at Blakedown Station.
- 1.2 Blakedown Station is located in the northern part of Worcestershire within the WFDC area. Located adjacent to the A456 Birmingham Road to the east of Kidderminster, the station offers car park capacity for only 10 vehicles, leading many rail passengers to use adjacent local streets for parking. This is illustrated at Figure 2 (over).

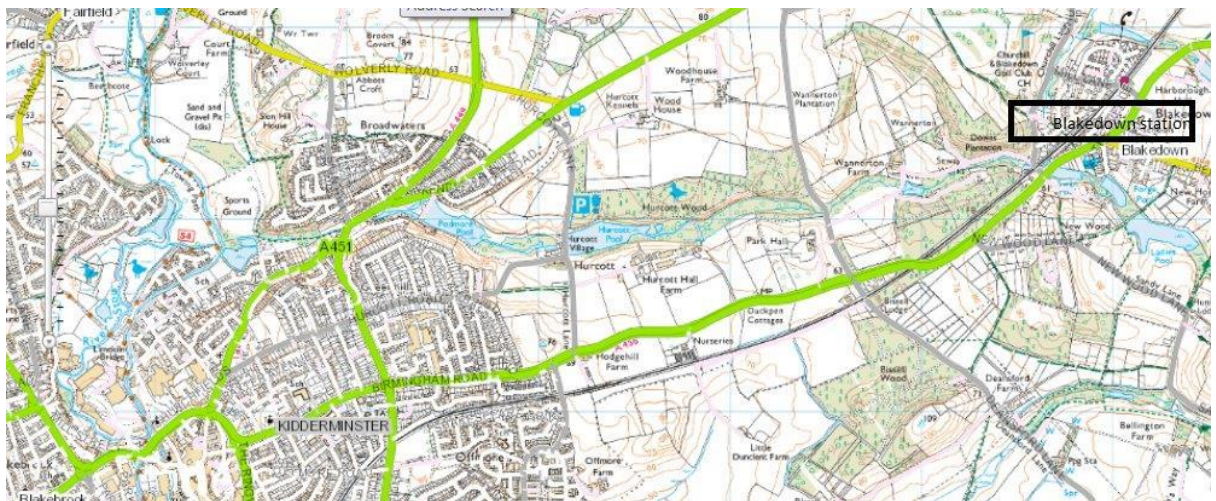


FIGURE 1: LOCATION OF BLAKEDOWN STATION

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- 1.3 Worcestershire County Council (WCC) has been assessing options to provide additional car park capacity at Blakedown Station, both to meet the wider Wyre Forest District requirement and to mitigate on-street parking in Blakedown itself. Site visits have been undertaken with WCC's rail advisor, SLC Rail, considering two potential sites, the first to the south of the station on Station Drive, and the second being a development site to the east of the station and west of the A456 (shown at Figure 3 over).
- 1.3 Informal discussions have taken place with a local land developer around options for the second of these with a potential housing and station-related car parking scheme.
- 1.4 This advisory note has been completed by SLC Rail to consider the provision of rail station car parking in Wyre Forest District, the options at Blakedown Station, and to provide guidance to WCC on their response to the developer proposal.

- 1.5 This report does not constitute a full demand study or engineering feasibility report. Further work will be required to inform any preferred scheme in more detail.



FIGURE 2: CURRENT CAR PARK AT BLAKEDOWN STATION WITH OBSERVED ON-STREET PARKING



FIGURE 3: POTENTIAL CAR PARK AND DEVELOPMENT SITE – EAST OF BLAKEDOWN STATION/WEST OF A456

Source Mott MacDonald (MMD-375714-C-DO-00-BA-0001)

2. BACKGROUND: DEMAND FOR CAR PARKING IN KIDDERMINSTER AND BLAKEDOWN

THE COUNTY CONTEXT

- 2.1 WCC's Rail Investment Strategy (WRIS-2017¹) identifies increased railway station car parking capacity as a key facilitator in providing access to transformed, sustainable rail connectivity between the County and other UK economies. This will *"address the structural shortfall of current car parking capacity and provide capacity for up to 100% passenger growth by 2043, either at existing or new stations"*. (WRIS 1.8)
- 2.2 In 2018 all 17 Worcestershire railway stations had a total car park capacity of 1,577 spaces. With 9.736m passenger journeys per annum, or c. 15,165 *return* passenger journeys per weekday, this capacity offers an average across the County of 1 car park space for every 9 passengers. (Source: Office of Rail and Roads – Passenger Estimates: 2018).

By comparison car park capacity at 5 Chiltern stations in neighbouring Warwickshire, with 1,453 spaces, offer a car park space for 1 in every 6 passengers.

Many Worcestershire residents travel by road to use other stations such as Stourbridge Junction (797 spaces), Warwick Parkway (900 spaces) and Birmingham International (2,124 spaces) given much greater certainty that they will find a car park space, contributing to peak congestion on both the local and regional highway network.

Stourbridge Junction car parking is free under the policies of the West Midlands Rail Executive (WMRE) and its predecessor, Centro, forming an incentive for some Wyre Forest passengers to use this station rather than charged car parks such as Kidderminster.

- 2.3 Network Rail's Market Studies (2013), which form the basis of overall industry forecasts, indicate growth of 99% in passenger numbers over a 30-year period between 2013 and 2043. It is notable that over the 20-year period 2008-2018 Worcestershire passenger volumes grew by 132%; those at Kidderminster and Blakedown grew, respectively, by 146% and 147%. Notwithstanding current uncertainties regarding the future economic climate it is thus notable that this historic 20-year growth significantly outperforms Network Rail's 30-year forecast which may be seen as cautious.
- 2.4 The WRIS has assumed that the average ratio of car parking spaces to passenger numbers should remain, at minimum, 1 in 9 given the rural nature of the county, requiring in turn a minimum addition of more than 1,577 new car park spaces across Worcestershire stations to accommodate Network Rail's forecast growth. Worcestershire Parkway will add a further 500 spaces to the County total in 2019. In assessing options for expansion WCC has taken account

¹ http://www.worcestershire.gov.uk/downloads/download/1200/worcestershire_rail_investment_strategy

of location, population growth, highway feasibility and the nature of the train service. Blakedown is one of 5 locations under consideration, the other 4 being Droitwich Spa, Alvechurch, Pershore and Honeybourne.

CAR PARK CAPACITY AND GROWTH AT KIDDERMINSTER AND BLAKEDOWN

2.5 KIDDERMINSTER STATION

At Kidderminster 1,700,966 journeys were made in 2018, c. 2,649 return passengers per weekday. With a car park capacity of 224 spaces, Kidderminster offers 1 space per 12 passengers, lower than the County average, and significantly lower than the Chiltern average of 1 per 6 passengers in Warwickshire.

There are problems caused by rail users parking in nearby residential streets, although there has not thus far been support for any residents parking scheme.

Provision of additional car parking is challenged by highway capacity on the A449 Chester Road, A456 Comberton Hill which passes the station, and on the A451 Kidderminster Ring Road. WCC's current view is that this precludes an immediate increase in provision of more car park spaces at Kidderminster Station.

Options that have been considered for capacity increases at Kidderminster Station include: -

- **DECKED CAR PARK** - A scheme for demountable decking of the existing car park was considered by former operator, London Midland, in 2016 but not proceeded with given the highway capacity issues. There may be planning and design hurdles given the presence of locally listed structures immediately adjacent to the existing car park. Notwithstanding the station regeneration scheme under delivery in 2019, funded by Worcestershire LEP, Greater Birmingham and Solihull LEP, WCC and Wyre Forest DC, there is no obvious funding stream for such a solution at present.
- **SEVERN VALLEY RAILWAY CAR PARK** - Use of the existing Severn Valley Railway car park to the west of the SVR Station – this was rejected given the distance from the main line station, the SVR's own need for this capacity, and the narrow vehicular access route being immediately adjacent to the Railway Children Childcare Nursery.
- **WFDC CAR PARKS** - Use of Wyre Forest District Council's car park facilities at Comberton Place and Stadium Close. These were also rejected given their key roles for other users of the retail businesses on Comberton Hill and its proximity to the courts.

2.6 BLAKEDOWN STATION

Blakedown Station has 2 trains per hour in the off peak in Kidderminster/Birmingham services. In the peak it is served by up to 3 trains per hour in Worcester-Birmingham services, with calls in 2 Kidderminster-London Marylebone services in the morning peak.

In 2018 111,770 journeys were made from Blakedown, or c. 174 return passengers per weekday. The station's car park capacity is limited to 10 spaces, offering approximately 1 space per 17 passengers, considerably lower than the County average of 1 per 9 spaces. Some rail users park on nearby local roads.

- 2.7 Kidderminster Station generates 17.5% of rail passengers in Worcestershire whilst providing only 14.2% of the County's car parking capacity. Blakedown generates 1.1% of passenger trips with 0.6% of the car parking capacity. Taken together the 2 stations generate 18.6% of County rail demand, whilst offering 14.8% of its car parking capacity.

If Kidderminster and Blakedown stations had car parking at the County average ratio of 1 space per 9 passengers now (2.5 above) it would require 70 additional car parking spaces at Kidderminster and 9 at Blakedown, to a total of 79 spaces as shown at Figure 4 below. This would increase the joint provision of spaces from 234 today to 313.

As noted at 2.2 above it is likely that this currently suppressed demand at both stations is manifested either by highway journeys to other regional stations, or in whole origin-destination journeys by road.

Station	RTN		Car Park Capacity	Ratio		% of Worcs stations car park capacity	Capacity needed to = 1:9	New spaces required
	Passengers 2018	Passengers per day		Spaces to Passengers	% of Worcs passengers			
Worcestershire	9,735,612	15,165	1,577	1:9	100%	100%		
Kidderminster	1,700,966	2,649	224	1:12	17.5%	14.2%	294	70
Blakedown	111,770	174	10	1:17	1.1%	0.6%	19	9
Total	1,812,736	2,824	234	1:12	18.6%	14.8%	313	79

FIGURE 4: WORCESTERSHIRE AVERAGE RATIO OF PASSENGERS TO CAR PARK CAPACITY AT KIDDERMINSTER AND BLAKEDOWN

2.8 ACCOMMODATING FORECAST GROWTH TO 2043

The 99% passenger growth by 2043 forecast by Network Rail would see return passengers per day grow from c. 2,649 per day at Kidderminster and Blakedown to c. 5,619, a dramatic practical increase in people seeking to access the National Rail network in this part of Wyre Forest District. Assuming delivery of the 79 spaces noted at 2.7, this would in turn require Kidderminster and Blakedown stations to accommodate a further 311 car park spaces, to a joint total of 624 spaces, to maintain a ratio of 1 space per 9 passengers, as per the current County average. If this capacity were *not* to be delivered the joint ratio of passengers to spaces would fall from the current 1:12 to 1:18, likely to lead to further 'rail-heading' by road to other stations.

The total increase thus required at both stations would be 390 spaces, made up of 79 spaces to maintain the 1:9 ratio, and 311 spaces to accommodate Network Rail's forecast growth.

This is shown at Figure 5 below.

Station	RTN		Car Park Capacity	Ratio		Capacity needed to = 1:9	New spaces required
	Passengers 2018	Passengers per day		Spaces to Passengers	% of Worcs passengers		
Kidderminster	1,700,966	2,649	224	1:12		294	70
Blakedown	111,770	174	10	1:17		19	9
Additional spaces to meet 1:9 ratio			79				
Subtotal before growth to 2043	1,812,736	2,824	313	1:12			
99% growth to 2043	3,607,345	5,619	313	1:18		624	311

FIGURE 5: KIDDERMINSTER AND BLAKEDOWN CAR PARK CAPACITY REQUIRED TO MEET FORECAST GROWTH TO 2043

- 2.8 Given the challenges noted at 2.5 in accommodating car park growth at Kidderminster, part of the capacity requirement could be met at Blakedown Station.

Blakedown's service frequency noted at 2.6, whilst not as high as Kidderminster's offers an attractive passenger service offer.

The two stations are c. 3.8 miles or 6.2km apart (source: AA Route Planner), with shared catchment areas where highway capacity conditions and car park capacity may be a deciding factor for passengers' choice of station to use. Existing commuters from eastern and northern parts of Kidderminster, as well as some outlying villages such as Wolverley and Cookley, may find it easier to reach Blakedown than travel through the congested central area of Kidderminster including the area around Kidderminster station.

The significant housing growth proposed at Lea Castle and east of Kidderminster within the Wyre Forest Local Plan Review provide further justification for an anticipated increase in passenger demand (potentially beyond the more widely-based Network Rail forecasts) and hence additional parking capacity at Blakedown Station.

2.9 ALTERNATIVES TO GROWTH AT BLAKEDOWN STATION

- **HAGLEY STATION** - Growth at Hagley Station (within the Bromsgrove District Council area), c. 5.9 miles or 9.5 km north east from Kidderminster towards Stourbridge, is not practical. The station currently has 33 car park spaces and is bounded on the east by housing and a school to the west with no potential for expansion.
- **HARTLEBURY STATION** - Growth at Hartlebury Station (within the Wychavon District Council area), c. 4.6 miles or 7.4km south of Kidderminster, may offer greater opportunities for car park expansion beyond its current 20 spaces if land could be purchased. However Hartlebury has only an hourly off-peak train service, with some peak supplements. The structure of the train service and its interactions with multiple other services at Droitwich Spa and Worcester limits opportunities for raising of frequency of services at Hartlebury. Being to the south of Kidderminster it is unlikely to be attractive to Birmingham commuting markets as it would require passengers to 'go south to go north'.
- **SEVERN VALLEY RAILWAY** - In the long-term future some demand at Kidderminster could potentially be transferred to stations at Bewdley or a new station at Silverwoods on the Severn Valley Railway, within the WFDC area. At time of writing, notwithstanding interest in a through Bewdley-Birmingham services, there is no currently feasible plan or funding for the train services themselves, the rolling stock required, any upgrade of SVR infrastructure of signalling to accommodate them, a new station at Silverwoods or expansion of car park capacity at Bewdley Station (itself constrained by adjacent housing).

- 2.10 **In these circumstances the two potential expansion sites at Blakedown Station thus offer a key opportunity for growth in car park capacity for this key part of the WFDC area.**

- 2.11 The 2 sites, which are more fully described below, could offer up to 250 spaces, 64% of the overall requirement for a further 390 spaces (2.8 above).

- 2.12 It is recognised that WCC would need to ensure an appropriate pricing strategy for additional car parking at Blakedown. In order to be attractive to current users of Kidderminster station, car parking charges at Blakedown might need to be pitched lower than Kidderminster. However it would be important that parking is not free, because otherwise there is a risk that it would divert commuters from outside Wyre Forest who use Stourbridge station: for example, Blakedown is easier to reach from Hagley than Stourbridge station, where parking is free.

3. MEETING THE PARKING DEMAND AT BLAKEDOWN

- 3.1 The 2 sites, and 4 options within these, to offer up to 250 spaces towards the WFDC area requirement of 390 spaces, are described below.
- 3.2 **STATION DRIVE, BLAKEDOWN** - Station Drive at Blakedown, located off the A456 from Kidderminster currently enables access to the small amount of parking and access to the level crossing over to Mill Lane to the west of the railway. It also enables access to the housing estate to the south of Station Drive. This is illustrated below at Figure 6 below.



FIGURE 6 STATION DRIVE, BLAKEDOWN Source: Google Maps

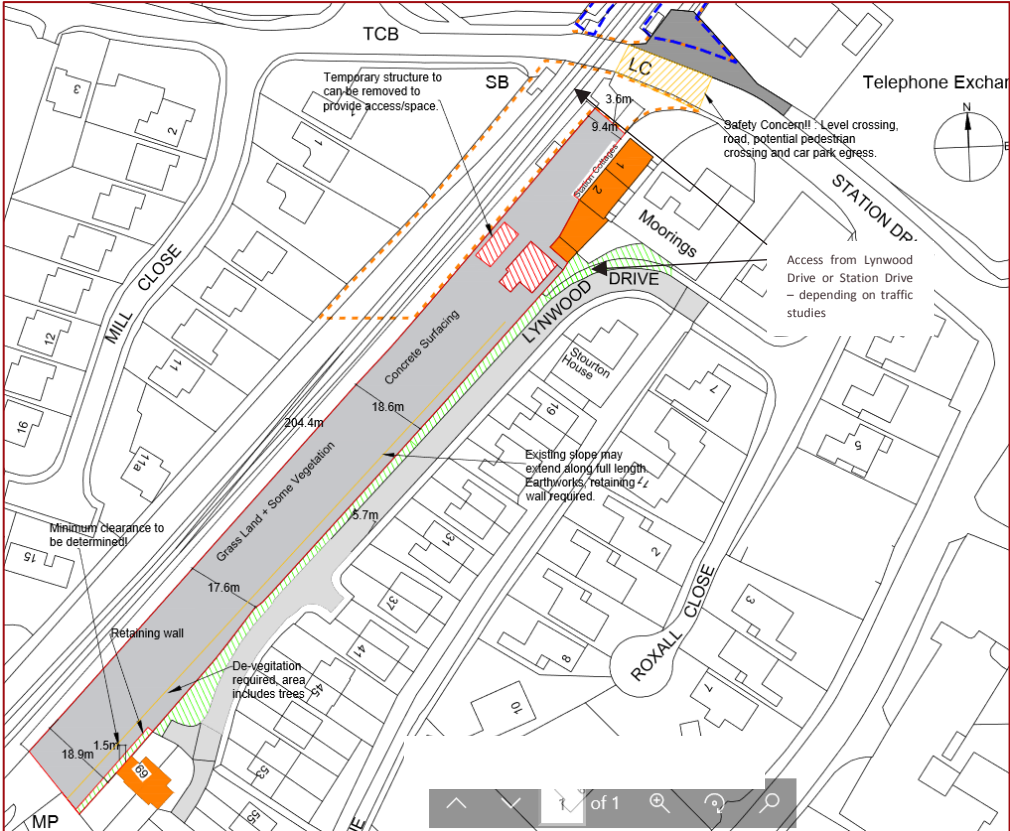
- 3.3 SLC Rail identified options for various plots of land adjacent to Blakedown Station for car park expansion. Two areas of land were examined, both with challenges around accessibility.
- 3.4 The first, Option 1, is located to the south of Station Drive, and known as Station Yard. The second, Options 2 to 4, offer three options on the open land to the north of Station Drive of varying land areas. These 4 options offered available parking spaces are summarised in Figure 7 (over).

Option	Details	No. of spaces
1	Station Yard area – long strip of land – access from Lynwood or Station Drive.	80 spaces
2	Small area to the north of Station Drive	80 spaces
3	Medium Area to the north of Station Drive	335 spaces
4	Large Area to the north of Station Drive	780 spaces

FIGURE 7: KEY BLAKEDOWN CAR PARK OPTIONS EXAMINED BY SLC RAIL FOR WCC

These options are shown in plans at Figures 8-11 (over).

FIGURE 8: OPTION 1 – UTILISING STATION YARD (80 SPACES)



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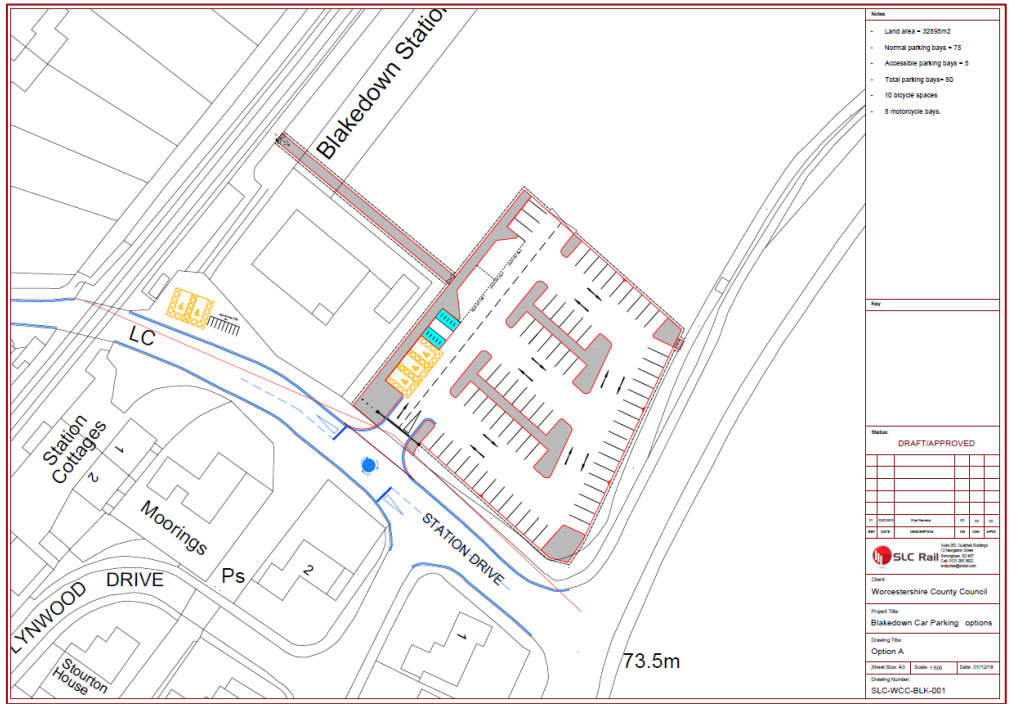


FIGURE 9: OPTION 2 – SMALL AREA OF LAND TO THE NORTH (80 SPACES)

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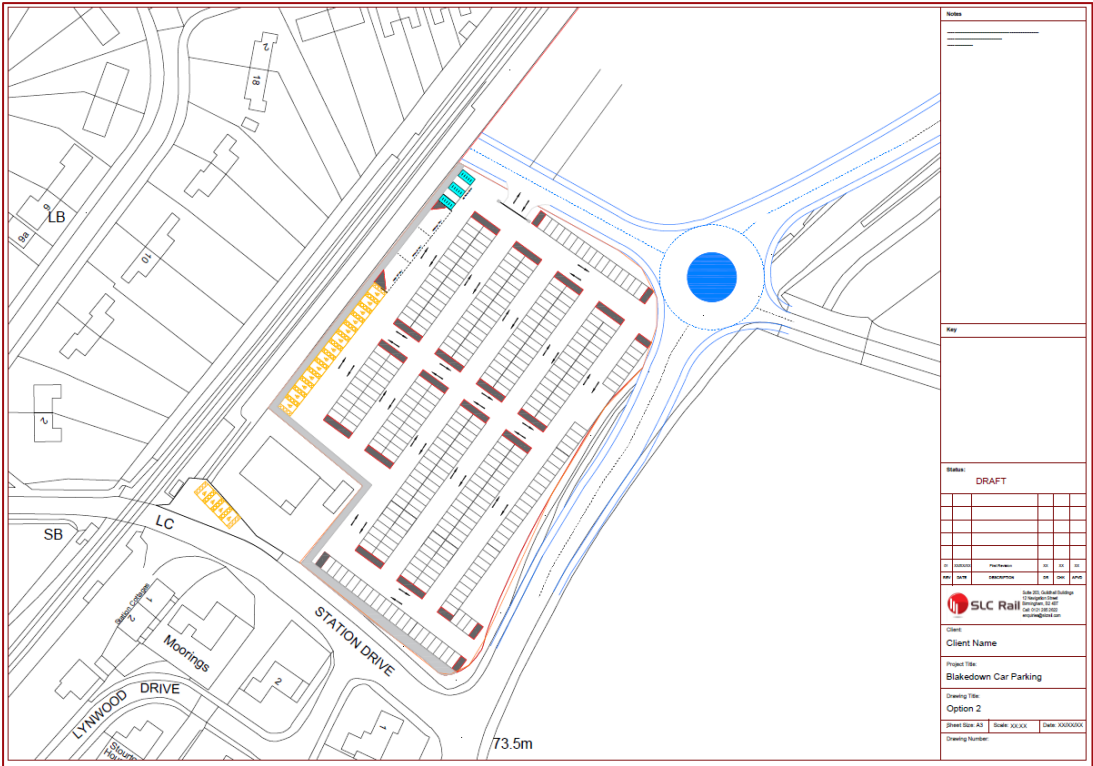
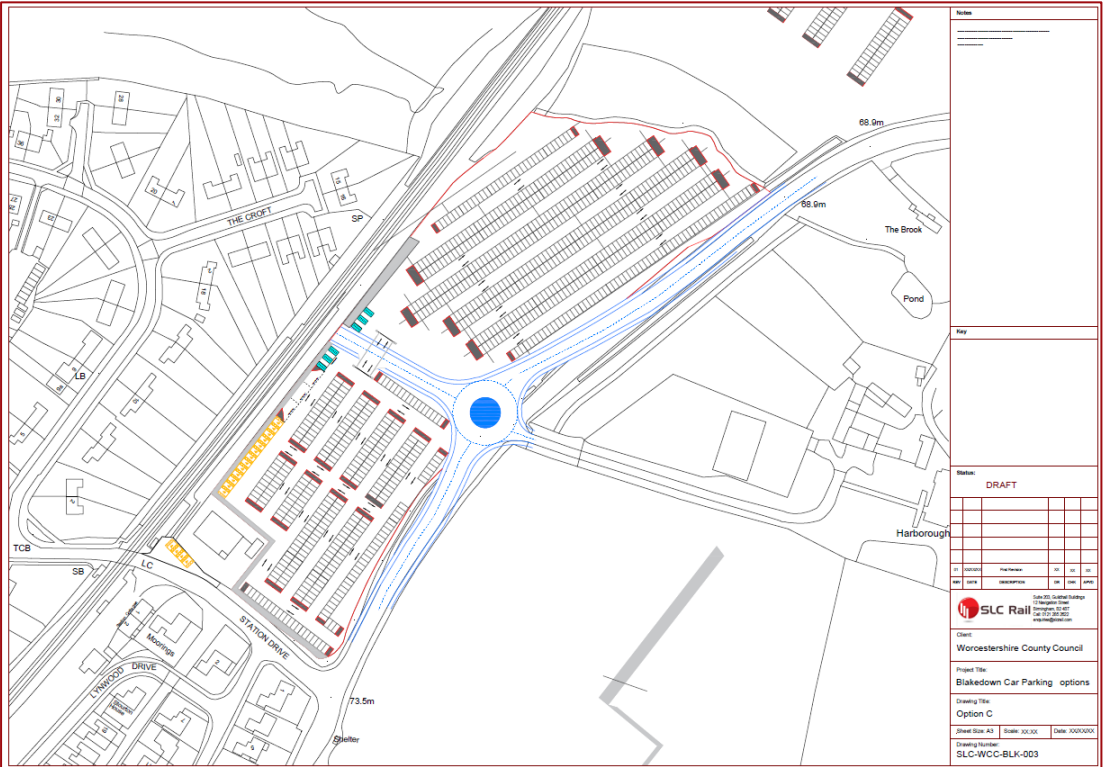


FIGURE 10: OPTION 3 – MEDIUM AREA OF LAND TO THE NORTH (335 SPACES)

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FIGURE 11: OPTION 4 – LARGE AREA OF LAND TO THE NORTH (780 SPACES)



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3.5 The following points should be noted in respect of the proposals presented: -

- All options were examined in a pre-feasibility manner and therefore do not constitute a full feasibility study. This will need to be undertaken before any commitment to a particular scheme.
- Detailed issues around access will need to be resolved through design.
- Options 3 and 4 included the use of a car park access via an island rather than rely upon the T junction to accommodate the increased traffic on the A456.

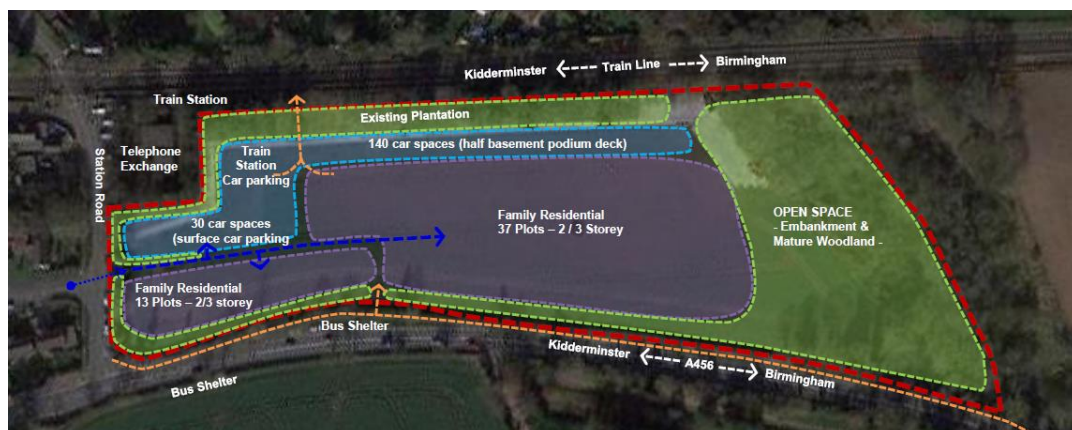
3.6 These issues need to be taken into consideration at the development management stage. It is fair to say that the appetite for the 780-space car park does not exist, as this would represent a major regional 'Parkway' style station, presenting highway capacity and access challenges and being above and beyond the train service specification likely to be deliverable at Blakedown, and beyond the demand analysis set out at Section 2.

The preferred car park layout from the pre-feasibility analysis was Option 2 with 335 spaces meeting the demand and providing good value for money.

4. DEVELOPER OPTION

4.1 An alternative option prepared by developers shows a land allocation as shown at Figure 12, with 50 proposed residential units, and 170 car park spaces for rail users. This shows a half basement podium deck. This design has not been developed by SLC Rail but it is assumed to incorporate a structural arrangement where the floors alternative height on each side to provide a split deck arrangement with part of the structure sunk slightly into the ground.

FIGURE 12: DEVELOPER OPTION (170 SPACES)



Source 3D REID Updated Masterplan Diagram Blakedown (180154-PF-AMZ090419)

5. CONCLUSION

- 5.0 As detailed in section 2, there is a demand for 390 new car parking spaces across Kidderminster and Blakedown. Depending on layout and final design, spaces at the Station Yard site and the developer option could provide a capacity of up to 250 spaces. This could thus meet up to 64% of the capacity needed to match growth, whilst maintaining the County ratio of availability of 1 space per 9 passengers. It will be necessary to consider where additional space can be found to accommodate the remaining 140 spaces required, whether within the WFDC area or other parts of the County.

[ENDS]