Chapter 4:
Regional Analysis

4 Regional Analysis

4.1 Introduction

This chapter provides a regional analysis of the study results. By breaking England into the nine regions it aims to inform stakeholders at a more detailed level. A number of the outputs in this chapter also present data at the local authority level within each region. This further segmentation of the results enables the analysis to be more targeted in its approach and identify the specific locations of greatest demand for lorry parking in each region.

4.1.1 Structure of Regional Analysis

All of the nine regions have a consistent format. The analysis is structured to guide the reader through a logical narrative. The sequence of outputs therefore aim to build up the overall picture of lorry parking demand, from the base information through to more complex presentations of multiple layers of data. As an outline, the analysis of each region has the following structure:

- ***Regional Overview:*** Three tables are used to depict base information such as the facilities, utilisation and crime totals. These are important to provide the context for each region before it is discussed in detail.
- ***Facilities and Capacity:*** There are two maps that illustrate capacity by specific location and within each local authority. This helps the reader to understand the options that were available to drivers and the locations in relation to the SRN.
- ***On-Site Parking:*** This is used to start the process of understanding demand. It therefore maps the on-site utilisation of each local authority within the region (as a percentage of total capacity). This will start to highlight areas that do not have enough capacity to accommodate on-site parking demand.
- ***Off-Site Parking:*** The analysis is separated into three sections with corresponding maps, including:
  i. A map that shows the total number of vehicles that were parking off-site in each local authority of the region. This shows the overall extent of off-site parking.
  ii. A more detailed analysis showing the specific location and type of off-site parking. This includes a differentiation between lay-bys, industrial estates and types of vehicle. Due to the level of detail means the region must be broken down into a number of maps[10]. The maps also include the individual on-site parking locations and depict how full they were. This helps to identify patterns of off-site parking compared to on-site availability.
  iii. A hotspots map is used to identify locations where there was high off-site parking (25 vehicles or more, within a 5km radius of each other). This is a focussed analysis used to uncover specific locations of high off-site parking within the large area of a region.
- ***Excess Demand:*** This analysis presents an overall situation of demand for each local authority in the region, in terms of the total vehicle numbers that needed to park (on and off-site combined) compared to total capacity. Excess demand is important to identify local authorities, where even if off-site parking could be moved to on-site locations, there would not be enough capacity. Excess demand is therefore an indicator for potential required development, and at a minimum it is an indicator that there is an issue within the region.
- ***Crime:*** This is used to add a further level of comparison to demand issues[11]. The total number of crimes is highlighted in each local authority of the region. A further map is then used to show specific locations of where crime was happening in relation to the hotspots of off-site parking and utilisation of on-site parking. This helps to understand any relationship between location of crime and demand.

[10] The number of maps depends on the size of the region
[11] All crime data sourced from Truckpol 2010

4.10 Yorkshire and Humber

List of Key Facts:

1. **There were 520 recorded crimes in Yorkshire and Humber in 2010 costing the industry an estimated £13 million. This was a significant amount of crime, and the highest compared to all other regions**
2. **In Yorkshire and Humber there were 1,578 lorry parking spaces spread across 32 on site lorry parking locations**
3. **The utilisation in Yorkshire and Humber was 47%. When compared nationally to other regions this was relatively low**
4. **Approximately 40% of vehicles parking in Yorkshire and Humber were parking off site. This was despite lorry parking sites being less than 50% full**
5. **Utilisation was recorded as 75 100% in Calderdale, and 100% or over in North Lincolnshire, which indicates that high levels of utilisation in some locations could lead to increased off site parking**
6. **The number of vehicles parking in lay bys and industrial estates was greatest in North Lincolnshire and Wakefield. Every local authority except Scarborough in the region had some level of off site parking**
7. **Off site parking hotspots were concentrated along the M180 / A180 around Scunthorpe, around the M62 / M1 covering Leeds and Wakefield and also along the M62 east of the M1 towards Hull**

4.10.1 Overview

The base information contained in the following Tables 4.25, 4.26 and 4.27 will be analysed in detail throughout the Yorkshire and Humber regional analysis. This will include the use of maps, graphs and written commentary as described in section 4.1.1 Structure of Regional Analysis.

Table 4.25 Overview of facility types and capacity in the Yorkshire and Humber region

Name	Type	Overnight Cost (£s)	Capacity
Barton Park Lorry Park	Independent	£10 or less but more than £5	120
Bp Service Station Northbound	TRSA	£5 or less	42
Bp Service Station Southbound	TRSA	£5 or less	60
Cleethorpes Overnight Park	Local Authority	£5 or less	14
Colbourn Lorry Park	Local Authority	Free	25
Darrington {Wayside/Waywest Cafe]	Independent	£5 or less	12
Docklands Diner And Truckstop	Independent	£15 or less but more than £10	55
Doncaster North Services	MSA	£20 or less but more than £15	56
Ferrybridge Services	MSA	£20 or less but more than £15	48
Hartshead Moor Services Eastbound	MSA	£20 or less but more than £15	50
Hartshead Moor Services Westbound	MSA	£20 or less but more than £15	85
Ingleton Lorry Park	Local Authority	£5 or less	10
Leeming Bar	TRSA	£10 or less but more than £5	30
Little Chef Barnsdale Barr Northbound	TRSA	£10 or less but more than £5	20

Little Chef Barnsdale Barr Southbound	TRSA	£10 or less but more than £5	50
Londonderry Lodge	Independent	£5 or less	40
Priory Park	Independent	£10 or less but more than £5	30
Quernhow Cafe	Independent	£10 or less but more than £5	80
Redbeck Motel	Independent	£15 or less but more than £10	40
Settle Sowarth Lorry Park	Local Authority	£5 or less	10
Shell Beacon	TRSA	Free	20
The Stockyard Truckstop	Independent	£15 or less but more than £10	200
Thirsk Service Station A19	TRSA	Free	25
Ulceby Truckstop	Independent	£15 or less but more than £10	60
Wetherby Services	MSA	£25 or less but more than £20	110
Whitwood Truckstop	Independent	£10 or less but more than £5	70
Woodall Services Northbound	MSA	£20 or less but more than £15	30
Woodall Services Southbound	MSA	£20 or less but more than £15	24
Woodside Cafe A614 Rawcliffe Road.	Independent	£5 or less	50
Woolley Edge Services Northbound	MSA	£20 or less but more than £15	40
Woolley Edge Services Southbound	MSA	£20 or less but more than £15	40
York Lorry Park	Independent	£15 or less but more than £10	32
Total			1,578

Table 4.26: Overview of on-site utilisation, off-site parking and excess demand in the Yorkshire and Humber region

Utilisation							
Vehicle Type		UK Artic	non-UK Artic	UK Rigid	non-UK Rigid	**Total**	% Utilisation
On-site parking		313	103	89	9	734	47%
Off-site Parking	Lay-bys	308	43	23	0	374	
	Industrial Estates	118	15	11	1	145	
Excess Demand		-325					

Table 4.27: Overview of 2010 reported freight crime in the Yorkshire and Humber region

Reported Freight Crime[30]					
Number of recorded crimes in 2010	520				
Severity Index[31]	1	2	3	4	5
Number of crimes recorded	48	357	112	0	3
Value of freight crimes recorded	£3,685,201*				
Estimated total value of freight crimes recorded	£13,000,000**				

**Note that only reported costs are included in this data. Not all crimes were given an associated cost due to information not being available.*

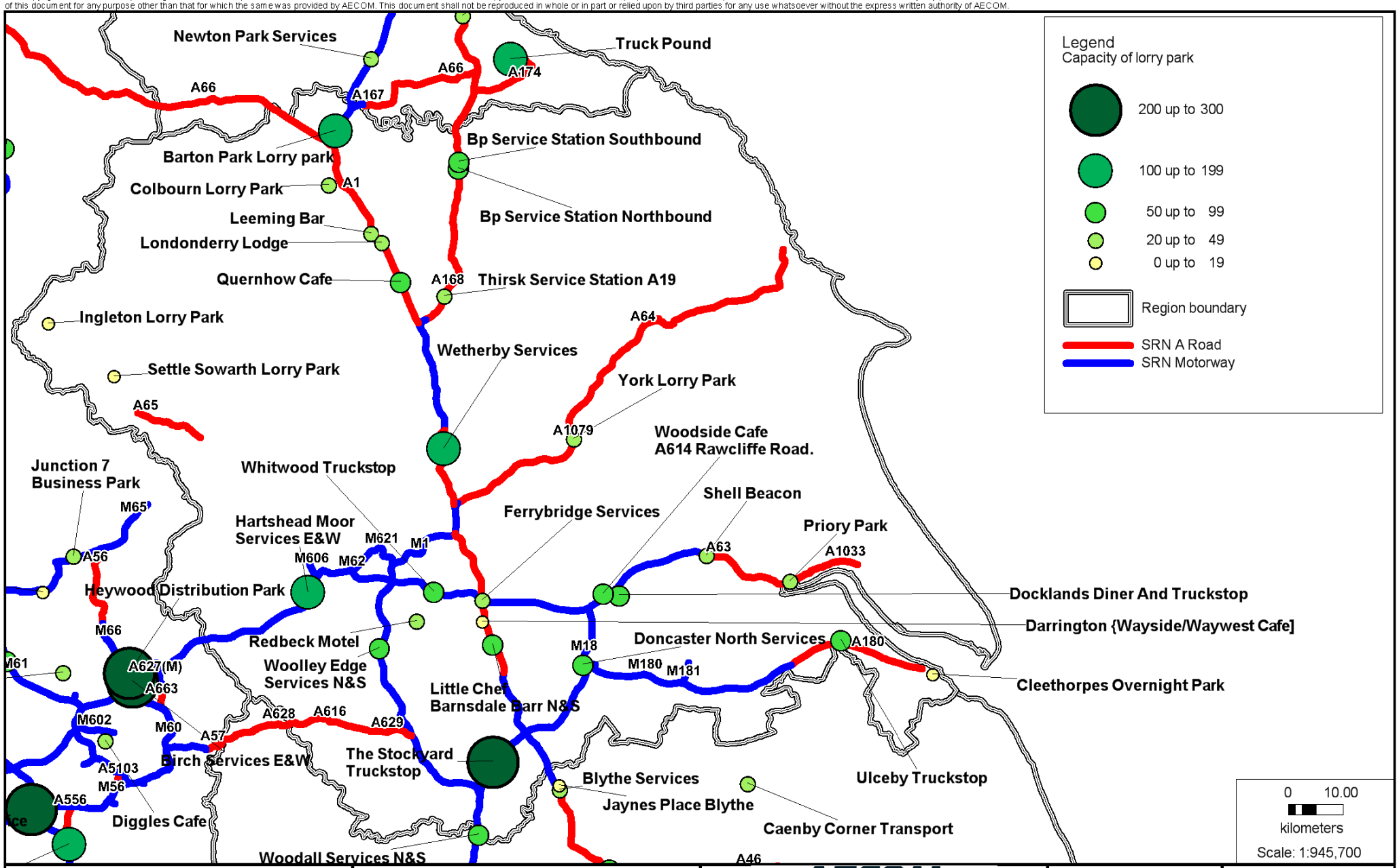
***In 2008 Truckpol estimated an average incident to cost £25,000. This base figure is used to estimate the total cost of freight crime in the region. This accounts for where cost information was not available.*

[30] Truckpol 2010
[31] See Appendix 5 for explanation of crime severity index

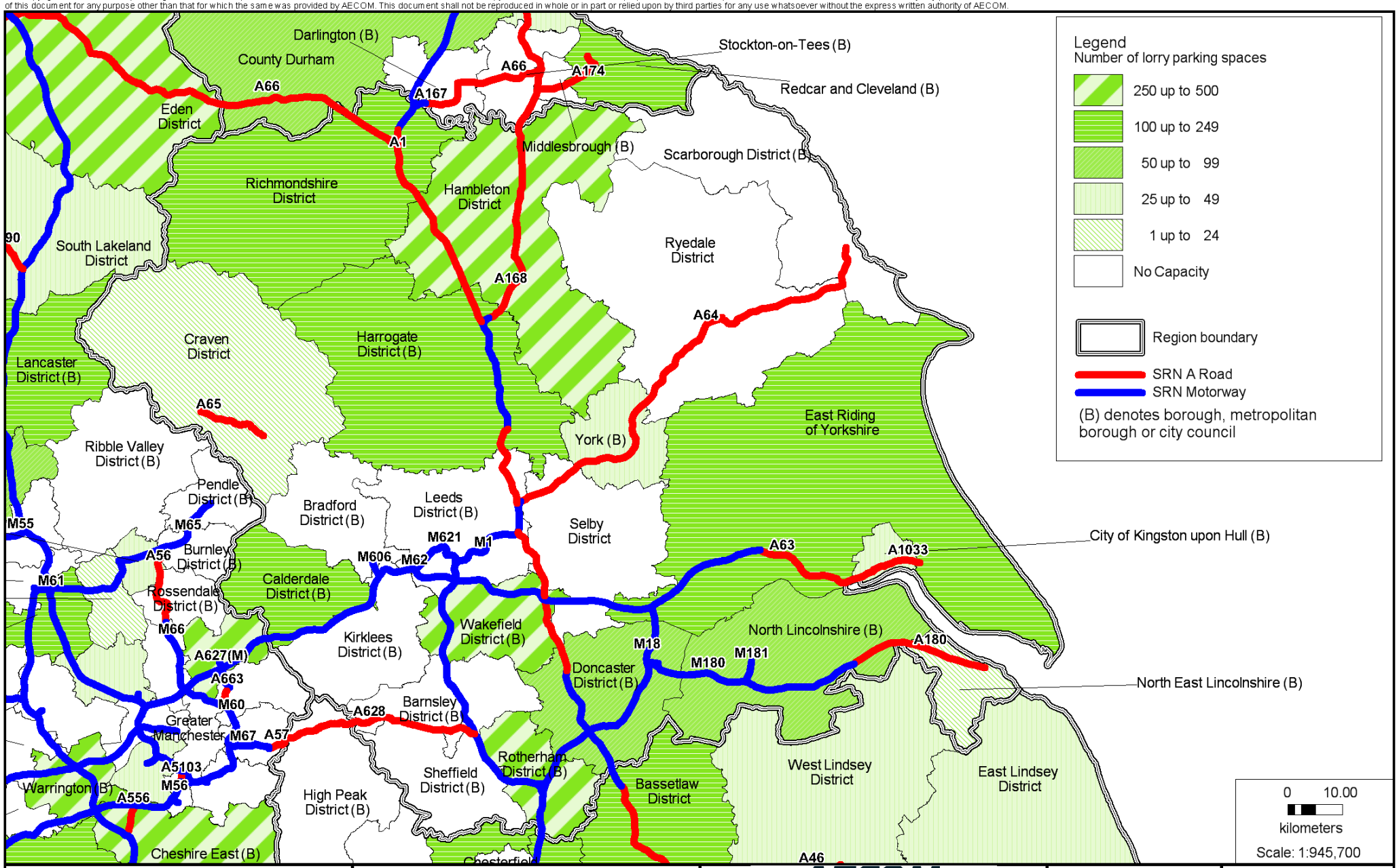
4.10.2 Facilities and Capacity

In Yorkshire and Humber there were 1,578 lorry parking spaces spread across 32 on-site lorry parking locations. There were 19 sites that had fewer than 50 spaces, and three that had more than 100 spaces. The region did have a good spread of different sized facilities. Map 4.10.1 shows that the parking provision was generally focused on the North-South A1 corridor and the East-West corridor to the south of the region. On both of these corridors there was a good mix of MSAs, TRSAs, local authority and independent lorry parks.

As shown in map 4.10.2 Wakefield, Hambleton and Rotherham provided the largest number of spaces with Calderdale, Doncaster, North Lincolnshire, North East Lincolnshire, East Riding of Yorkshire, York, Harrogate, Richmondshire and Craven also having some capacity. However, many urban areas had no provision at all, which could potentially lead to high levels of off-site parking. The chances of this were further increased if, for example there were freight hubs nearby. This was the case in the Leeds, Bradford, Sheffield and Barnsley and Kingston upon Hull. There was also no capacity on the A64 east of York.



Client: Department for Transport	Title: Yorkshire and the Humber: Capacity of lorry parking sites	AECOM Lynnfield House Church Street Altrincham, WA14 4DZ Tel: +44 (0) 161 927 8200 www.AECOM.com	Design: T.F; Mapinfo: T.F; Chk'd: J.M; App'd: S.H; Date: 21.06.11; Scale: 1:945,700; No: Map 4.10.1
Project: Lorry Parking Study			



Client: Department for Transport	Title: Yorkshire and the Humber: Onsite lorry parking capacity	AECOM Lynnfield House Church Street Altrincham, WA14 4DZ Tel: +44 (0) 161 927 8200 www.AECOM.com	Design: T.F Chk'd: J.M Date: 21.06.11 No: Map 4.10.2
Project: Lorry Parking Study			Mapinfo: T.F App'd: S.H Scale: 1:945,700

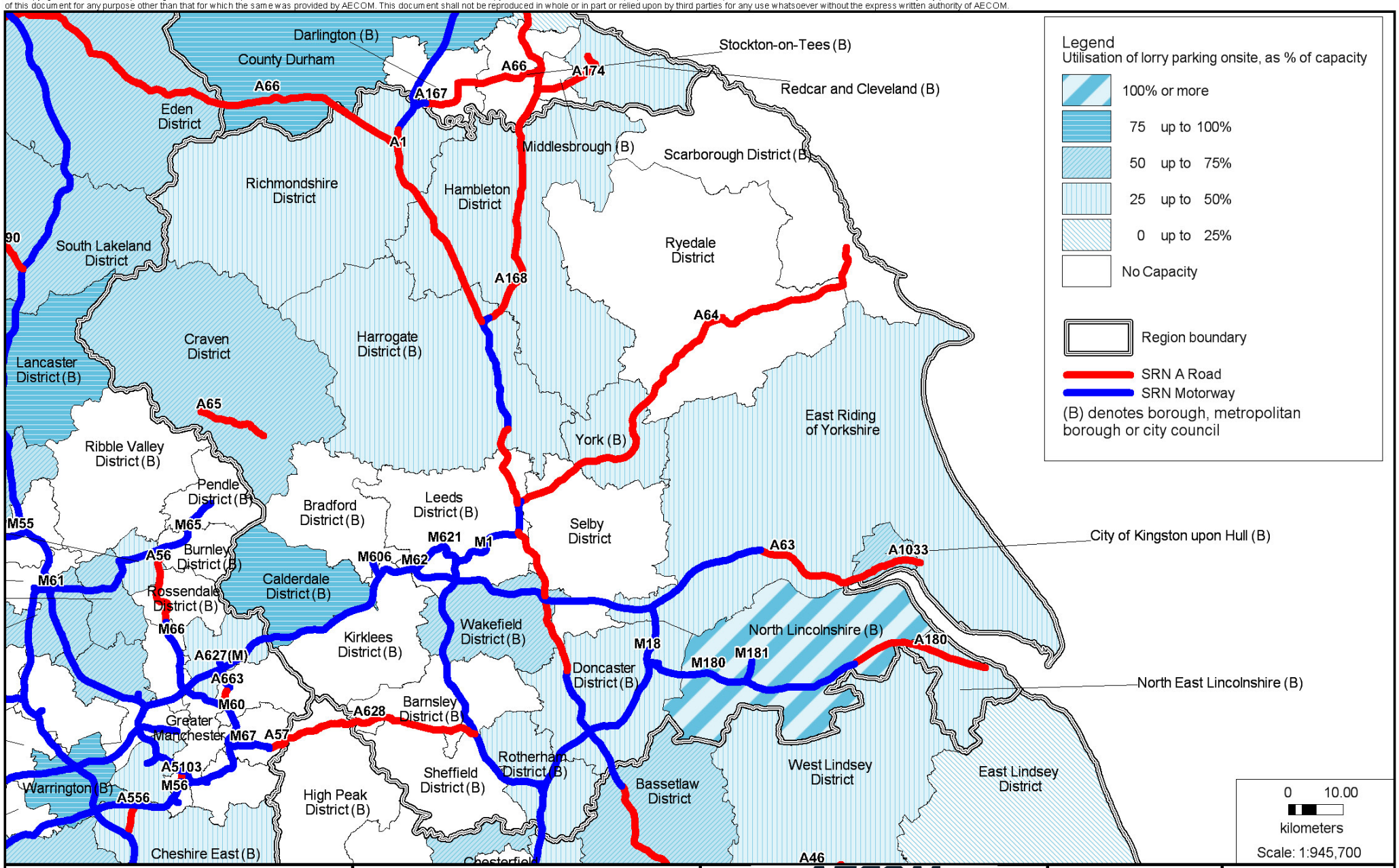
4.10.3 On-site Parking

When assessing the level of on-site utilisation in Yorkshire and Humber, Table 4.26 (see section 4.10.1) showed that overall lorry parking sites were underutilised. The utilisation in Yorkshire and Humber was 47%. When compared nationally to other regions this was relatively low.

At the local authority level (see map 4.10.3) it was clear that North Lincolnshire and Calderdale were considerably busier than the rest of the region. Given that utilisation was recorded as 75 – 100% in Calderdale, and 100% (or over) in North Lincolnshire, this indicated that high levels of utilisation could be contributing to off-site parking.

With regards to other authorities in the region, Wakefield District was 50 – 75% utilised showing that there was significant demand for parking. The rest of the districts in the region with lorry parking provision were 25 – 50% utilised, which indicated that there was some demand in these locations but also that there was spare capacity on-site.

The hotspot and on site utilisation map (4.10.9) showed that only seven of the 31 lorry park sites in the region were more than 75% utilised. This showed that although there were local authorities with high usage, and a shortage of supply, there was also a surplus of provision in large parts of the region. This indicated that in some cases where there was off-site parking there may have been scope to encourage drivers to use lorry parking sites nearby that had spaces to accommodate them.



Client: Department for Transport	Title: Yorkshire and the Humber: Onsite lorry parking utilisation	AECOM Lynnfield House Church Street Altrincham, WA14 4DZ Tel: +44 (0) 161 927 8200 www.AECOM.com	Design: T.F / Mapinfo: T.F
Project: Lorry Parking Study			Chk'd: J.M / App'd: S.H
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			No: Map 4.10.3

4.10.4 Off-site Parking

The off-site parking maps (see maps 4.10.4, 4.10.5, 4.10.6, 4.10.7, 4.10.8 and 4.10.9 - all immediately after this page) show that the number of vehicles parking in lay-bys and industrial estates was greatest in North Lincolnshire and Wakefield. Further off-site parking was occurring in East Riding of Yorkshire, York, Hambleton, Richmondshire, Calderdale and Barnsley. There was also off-site parking in Leeds, Selby, Bradford, Doncaster, Rotherham and Sheffield and Kirklees. Every local authority in the region except Scarborough had some level of off-site parking.

Table 4.26 (see section 4.10.2) shows that approximately 40% of vehicles parking in Yorkshire and Humber were parking off-site. This was despite lorry parking sites being less than 50% full. This could indicate that drivers were not using sites, in order to save money, and that the facilities and security may not have been sufficient enough to attract them.

Map 4.10.4 showed which local authorities had high levels of off-site parking. More than 75 vehicles were parked either in lay-bys or industrial estates in North Lincolnshire and Wakefield. Traffic in North Lincolnshire was most likely related to agriculture, industries and the ports. Wakefield was close to urban areas and at the intersection of major North-South and East-West motorways and thus attracted high levels of traffic.

Map 4.10.4 also showed that East Riding of Yorkshire, York, Hambleton, Richmondshire, Calderdale and Barnsley had between 25 and 50 vehicles parking off-site. Leeds, Selby, Bradford, Doncaster, Rotherham and Sheffield, North East Lincolnshire and Kirklees had between 10 and 25 vehicles parked off-site. East Riding of Yorkshire, Hambleton and Richmondshire were all larger local authorities with major routes going through them. This indicated that drivers may be using lay-bys and industrial estates to stop overnight before continuing their journey. Particularly in East Riding of Yorkshire as it was likely to be the case that some drivers had stopped overnight before using the port the following day.

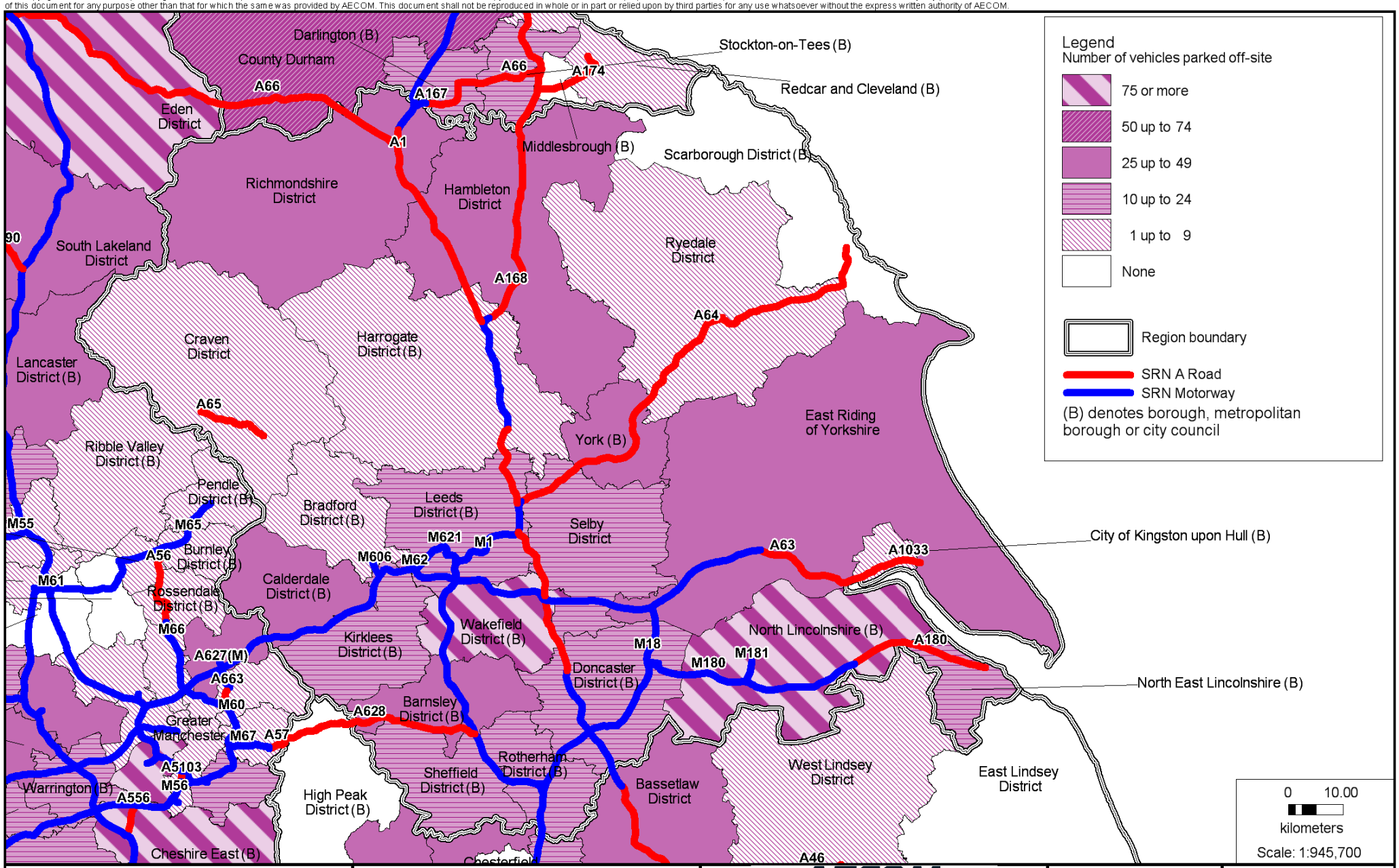
Given the size of some local authorities within the region it is important to understand exactly where the hotspots of off-site parking were. The Yorkshire and Humber hotspot map (see map 4.10.9) shows five locations where there were more than 25 vehicles parked off-site within in a 5km radius of each other. Two of these had been 50 and 75 vehicles parking within 5km of the SRN; south of the Humber around Ulceby Truckstop and where the M62 meets the M1. The other hotspots had between 25 and 50 vehicles parking off-site within 5km of the SRN. These were located on the A629 west of the M1 and between Shell Beacon and Docklands Diner near the M62. There was also a further hotspot on the border of Richmondshire and County Durham on the A69 of 25 to 50 vehicles. The final hotspot was on the A629 to the west of the M1 between Barnsley and Sheffield.

The detailed off-site parking map (see Maps 4.10.5 to 4.10.8) shows the exact locations of the lay-bys and industrial estates that were being used for parking, which can be related back to the hotspot analysis. Near to Ulceby Truckstop vehicles were parking on the A180. To the west of the Truckstop there were also vehicles parking in several industrial estates; Elshaw Wood and Brigg industrial estates.

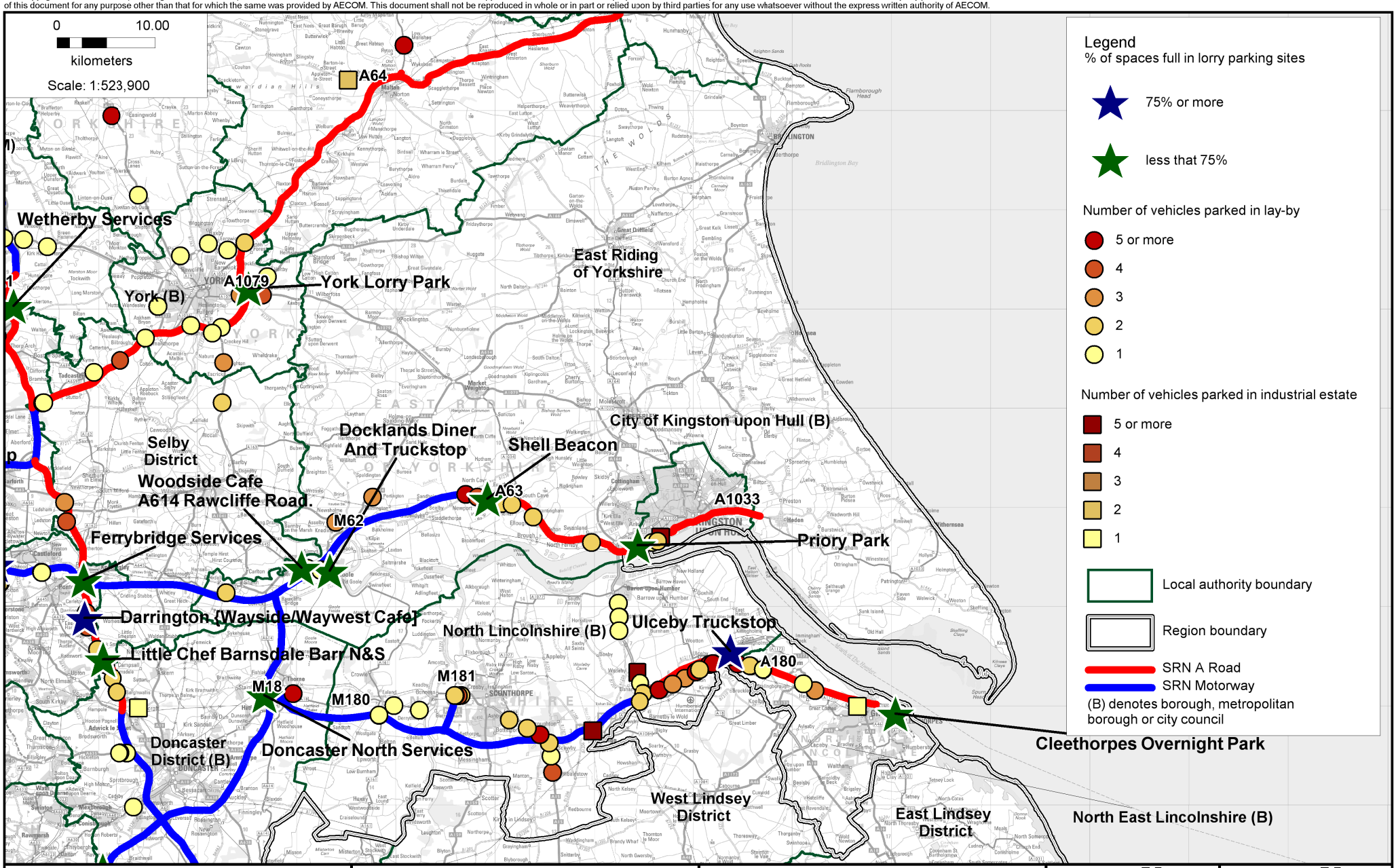
The hotspot between Shell Beacon and Docklands Diner had a high number of vehicles parking in lay-bys near to Shell Beacon, particularly on the M62 Junction 38 slip road. The hotspot in the A629 was caused by vehicles parking in lay-bys on this road.

The hotspot close to Wakefield was caused by several factors; vehicles parking in lay-bys on the A1, vehicles parking in industrial estates just off the M62, and in industrial estates in Wakefield itself. It was in Wakefield where the most vehicles were parking.

The hotspot on the Richmondshire, County Durham border was caused by vehicles parking on the A66 just off the A1. These vehicles were likely to be transpennine traffic and parking on the A66. They could also have been using up the remainder of their daily drivers hours, which would explain why they were spread out along the length of the road.



Client: Department for Transport	Title: Yorkshire and the Humber: Number of vehicles parked off-site (lay-bys and industrial estates) by authority	AECOM Lynnfield House Church Street Altrincham, WA14 4DZ Tel: +44 (0) 161 927 8200 www.AECOM.com	Design: T.F Chk'd: J.M Date: 21.06.11 No: Map 4.10.4
Project: Lorry Parking Study			Mapinfo: T.F App'd: S.H Scale: 1:945,700



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Project:	Lorry Parking Study			Chk'd: J.M	App'd: S.H
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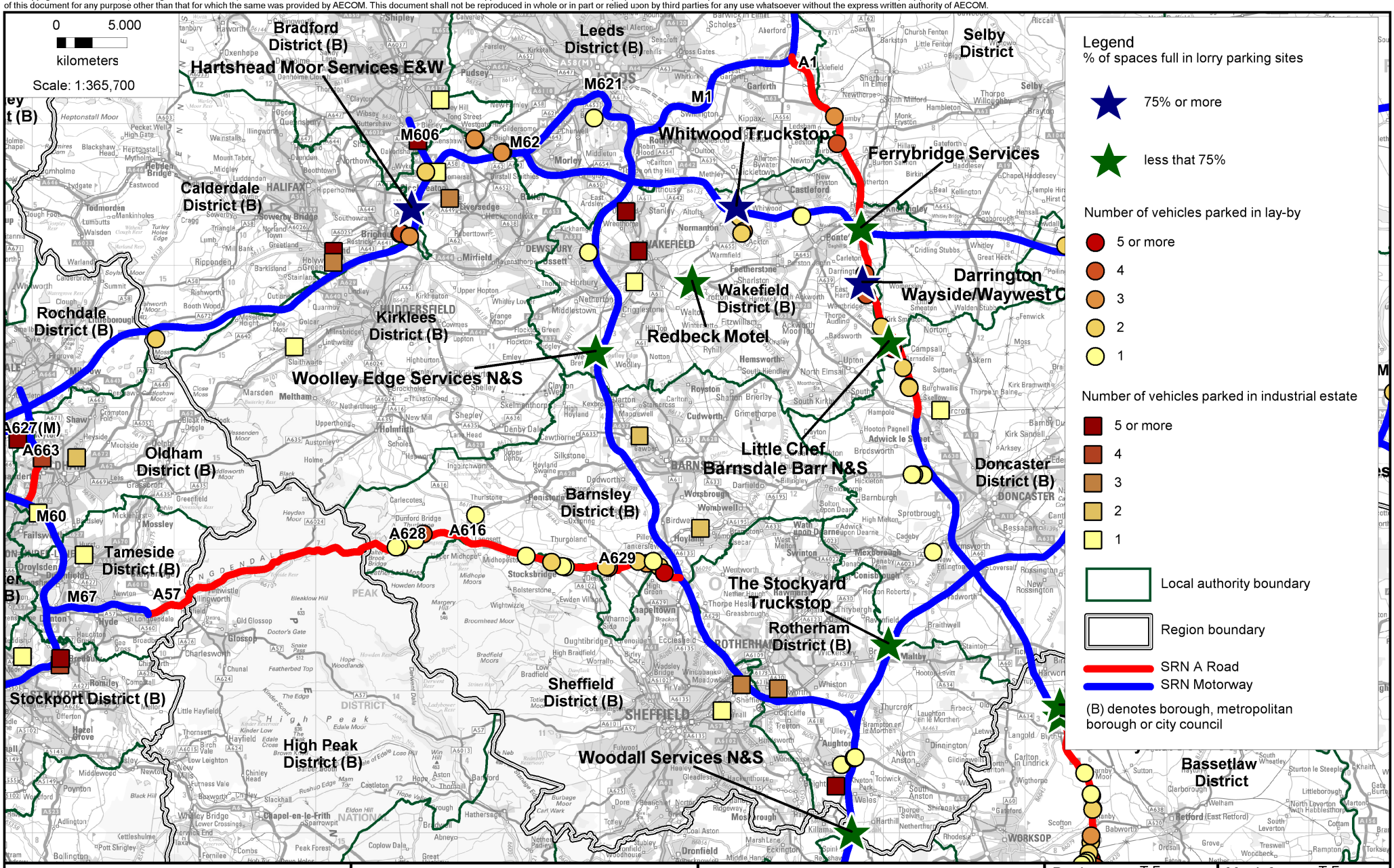

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				No: Map 4.10.6	

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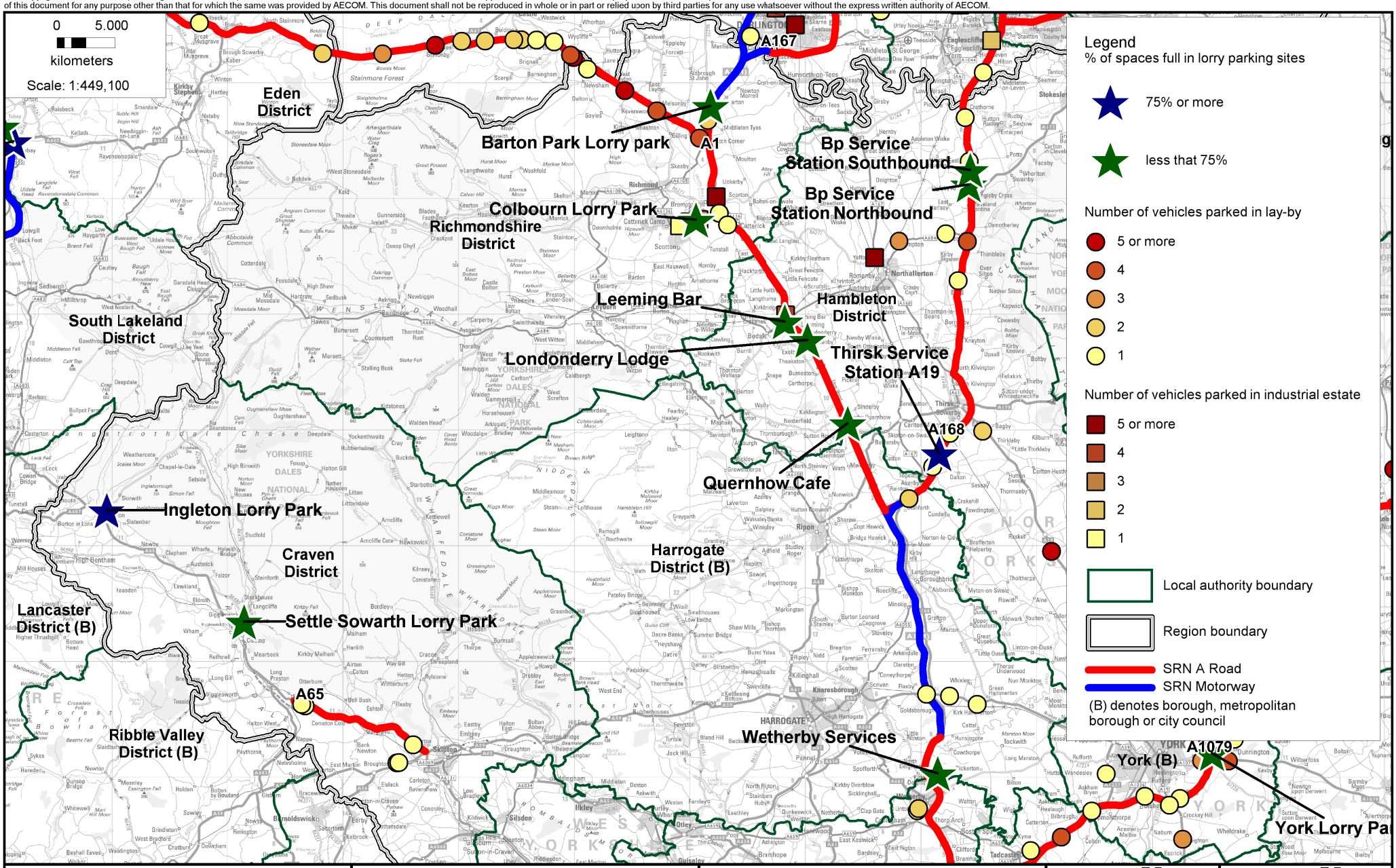

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Project:	Lorry Parking Study			Chk'd: J.M	App'd: S.H
				Date: 21.06.11	Scale: 1:449,100
				No: Map 4.10.7	

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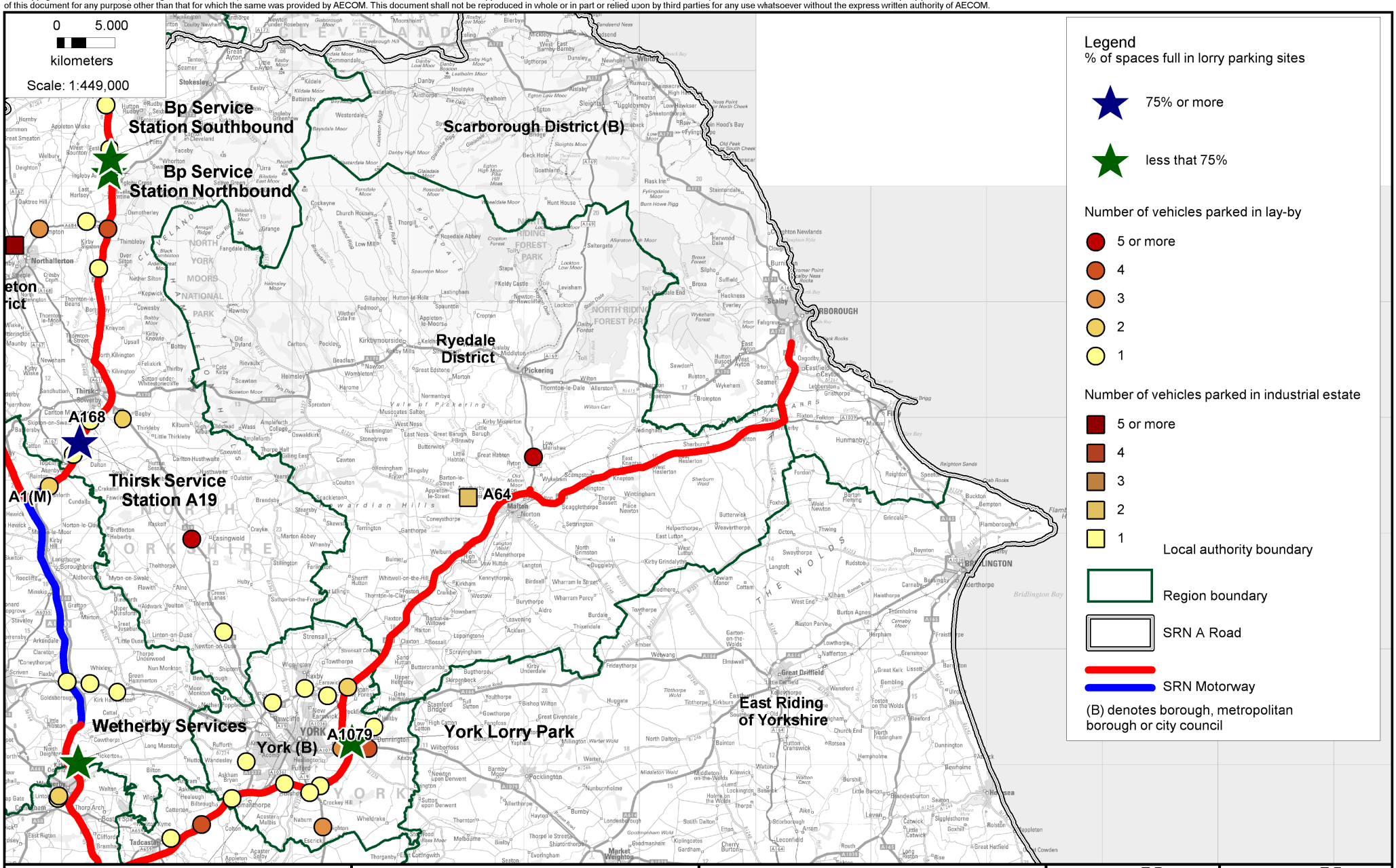

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Project:	Lorry Parking Study	Chk'd: J.M	App'd: S.H
Title:	Yorkshire and the Humber: Off-site parking in lay-bys and industrial estates and use of lorry parking sites northeastern section	Date: 21.06.11	Scale: 1:449,000
		No: Map 4.10.8	

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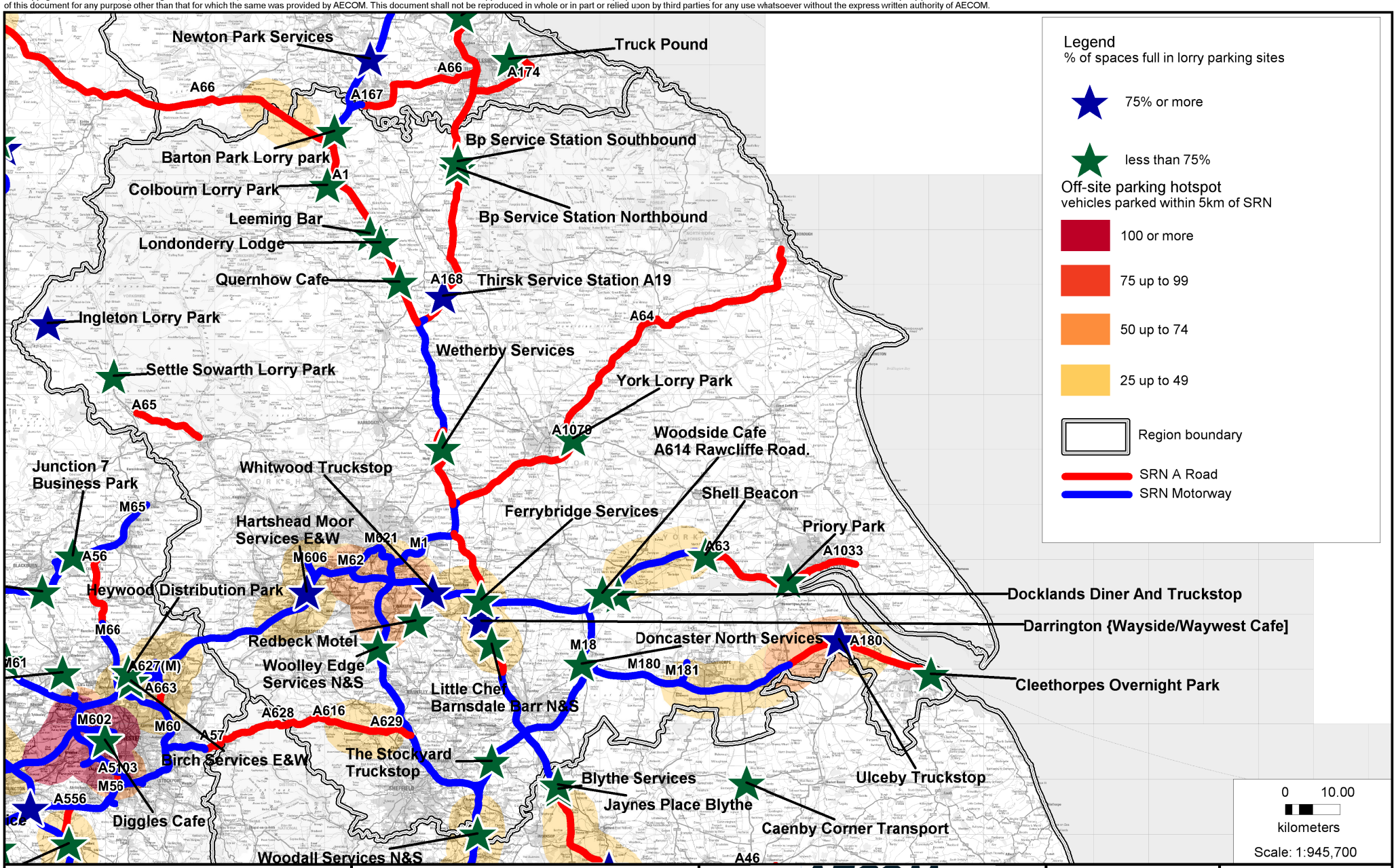
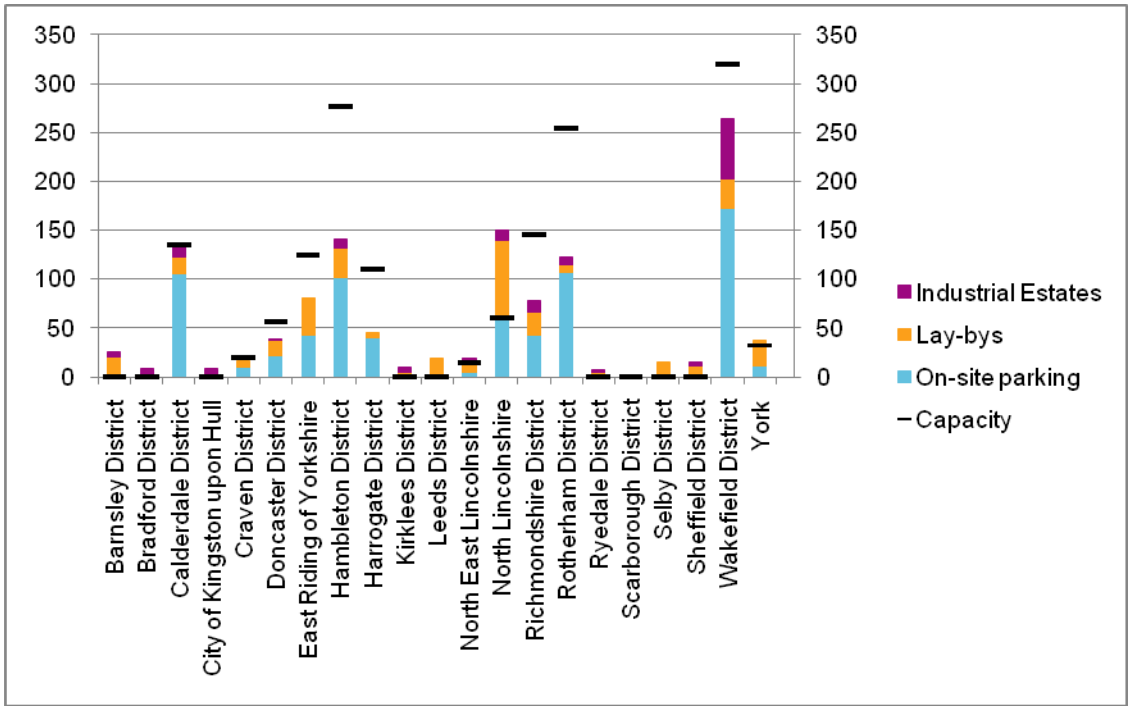


Client: Department for Transport	Title: Yorkshire and the Humber: Off-site parking hotspots and use of lorry parking sites	AECOM Lynnfield House Church Street Altrincham, WA14 4DZ Tel: +44 (0) 161 927 8200 www.AECOM.com	Design: T.F Chk'd: J.M Date: 21.06.11 No: Map 4.10.9
Project: Lorry Parking Study			Mapinfo: T.F App'd: S.H Scale: 1: 945,700

4.10.5 Excess Demand

The chart below (Figure 4.25) shows the amount of on and off-site parking by local authority. Each column in the chart represents the total vehicles parked in the local authority broken down into on-site, lay-by and industrial estate. The black line denotes the amount of capacity in each local authority, and where the column goes above the black line it shows there was an excess of vehicles parked. This chart aims to show whether there was spare capacity in lorry parks to accomodate all the vehicles in the region, and where vehicles were parking. For example, Wakefield had some available space on-site, and even if all vehicles in Wakefield parked on-site there would still be spare capacity. Whereas, demand in North Lincolnshire meets the black line with just on-site parking, meaning any extra off-site parking could not be accomodated.

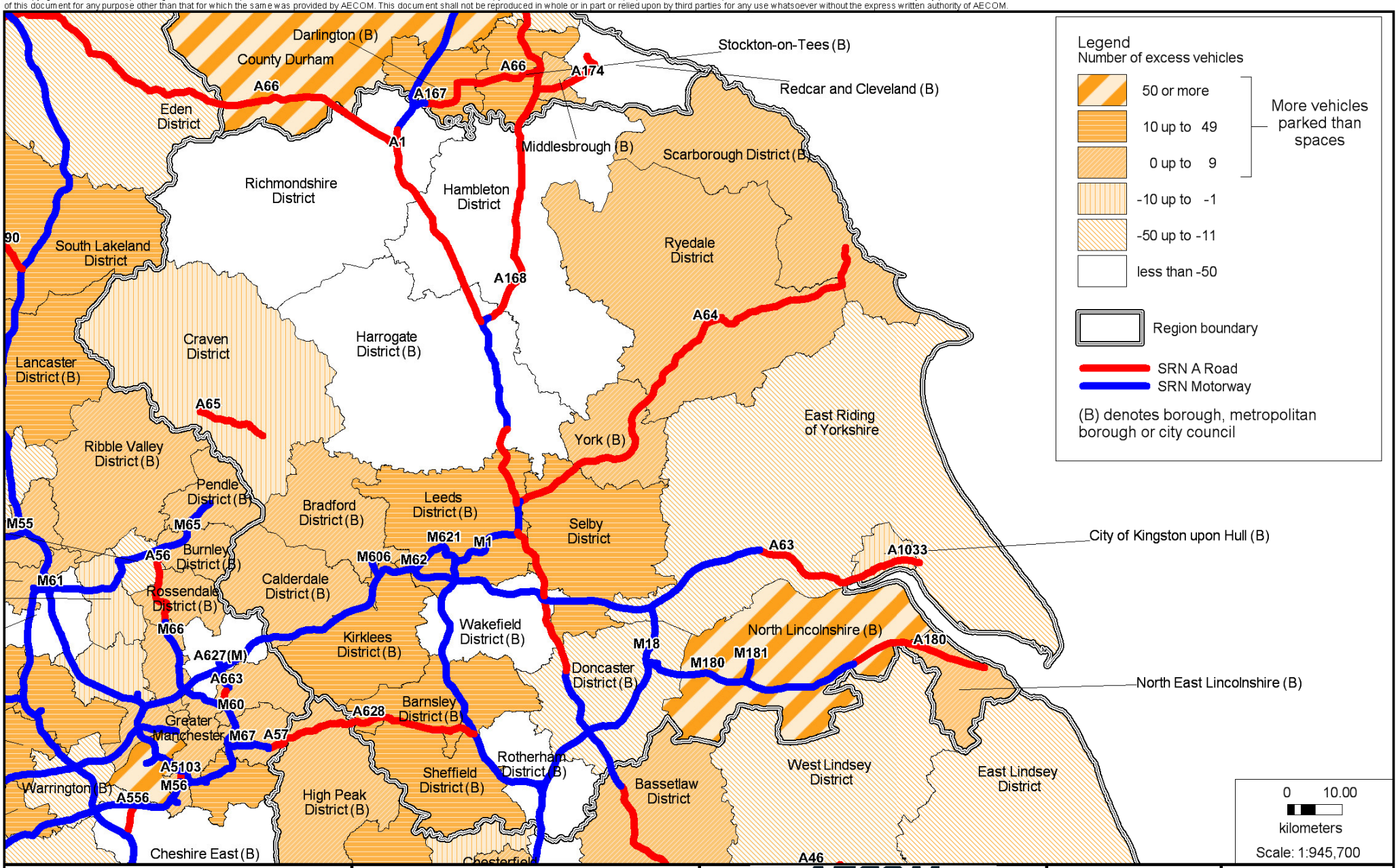
Figure 4.25: Graph of parking trends across local authorities in Yorkshire and Humber



Map 4.10.10 and Figure 4.25 above highlights that whilst many local authorities in Yorkshire and Humber have more vehicles parked than spaces, particularly North Lincolnshire, there are still other areas in Yorkshire and Humber which have significant levels of spare parking capacity available.

This chart combined with Map 4.10.10 highlighted clear problems; in North Lincolnshire there was not enough supply of spaces to accomodate the demand for spaces. In this authority there were almost three times as many vehicles parking as number of spaces in lorry parking sites.

There were also numerous local authorities where there was no on-site capacity and vehicles were parking off-site. In York there was a slight excess with a significant amount of parking in lay-bys. In Calderdale there was not a shortage of supply, although on some busier days there may be an excess demand. There were numerous local authorities in Yorkshire and Humber with no



Client: Department for Transport	Title: Yorkshire and the Humber: Difference between number of vehicles parked (on and off-site) and capacity of lorry parking	AECOM Lynnfield House Church Street Altrincham, WA14 4DZ Tel: +44 (0) 161 927 8200 www.AECOM.com	Design: T.F Chk'd: J.M Date: 21.06.11 No: Map 4.10.10
Project: Lorry Parking Study			Mapinfo: T.F App'd: S.H Scale: 1:945,700

lorry parking capacity and small levels of off-site parking. In such circumstances there may be scope to look to stakeholders in other local authorities to collaborate in the creation of new facilities, or to move vehicles parking off-site into those neighbouring authorities with spare capacity. This may include Wakefield, Hambleton or Harrogate.

Referring back to the hotspots identified earlier in section 4.10.4 (map 4.10.9) the Ulceby Truckstop was full meaning that any other vehicles wishing to park nearby had to use lay-bys or industrial estates. The hotspot between Shell Beacon and Docklands Diner was very close to three lorry parking sites with capacity available. Between these three sites there was enough capacity to cater all the vehicles parking off-site in the hotspot. This indicated that drivers were either avoiding these sites, or were unaware of them.

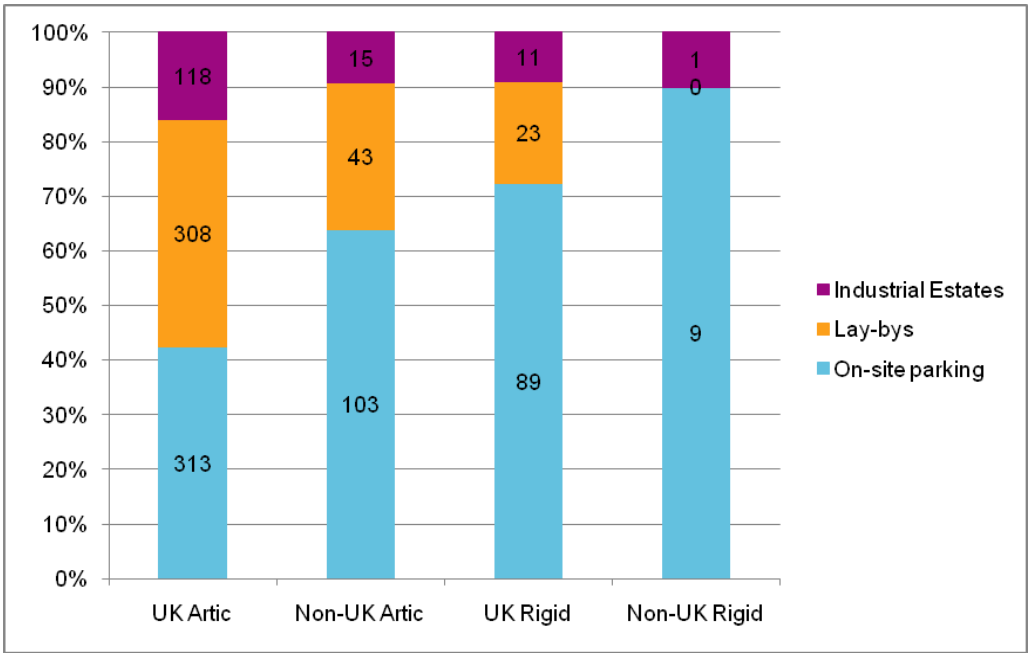
The hotspot where the M62 meets the M1 was best considered as three separate hotspots. To the east Map 4.10.6 shows that on the A1 there were numerous vehicles parking in lay-bys despite Little Chef Barnsdale Barr and Ferrybridge Services being under-utilised. In the middle of the hotspot there were two very busy industrial estates; Wentworth Business Park and Wakefield Industrial Estate. Redbeck Motel and Woolley Edge Services were in close proximity to these and were under-utilised. To the west there was a mix of lay-by and industrial estate parking near to the busy Hartshead Moor Services.

The hotspot on the A629 was caused by vehicles parking in lay-bys, the nearest on-site facilities are Woolley Edge Services, Stockyard Truckstop and Woodall Services, all of which were under-utilised but may have been too far away from the hotspot to encourage all drivers to park on-site.

The hotspot on the A66 on the border of Richmondshire and County Durham was near to Barton Park Lorry Park and Colbourn Lorry Park, both of which had space for more vehicles. The A66 is a trans-Pennine route between the A1 and M6. HGVs parked on this route were likely to be en-route to destinations outside of Yorkshire and Humber. This may suggest that drivers were using their full drivers' hours and stopping in a lay-by, rather than stopping early in a lorry park before the A66.

Figure 4.26 shows the split of how different vehicle types park on-site, in lay-bys or industrial estates. This shows that although UK articulated vehicles account for around 60% of on-site parking, they were also the most likely to park off-site.

Figure 4.26: Split of different parking areas across UK and non-UK vehicle types in the North East



4.10.6 Crime Analysis

Yorkshire and Humber had the highest number of reported crimes nationally. The majority of this was focussed to the south of the region (see Map 4.10.11). In detail the crimes were located to the south west around the major urban areas of Leeds, Wakefield, Doncaster, Kirklees.

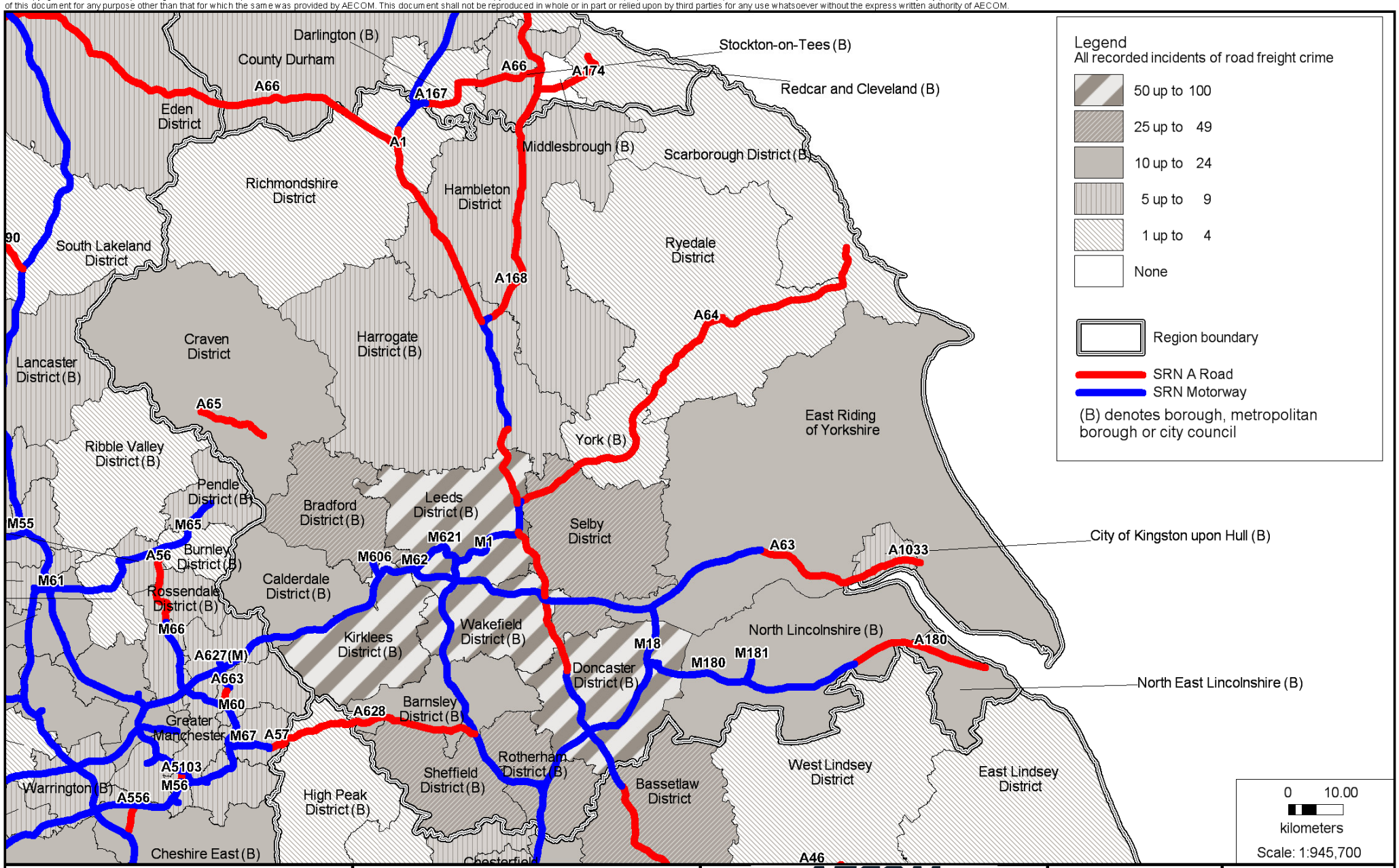
Crime was a serious problem across the entire region, caused by a combination of factors including perhaps the lack of secure lorry parking as well as the more general geographic causes making crime more attractive in this region than others. This may also be an ongoing attractor to organised gangs who carryout road freight crime..

Reported crime in 2010 cost the industry over £13 million, and the real figure may be much higher. Map 4.10.12 shows the location of crimes, including off-site parking hotspots. This map shows that the vast majority of road freight crime was located in and around the urban areas of south west Yorkshire.

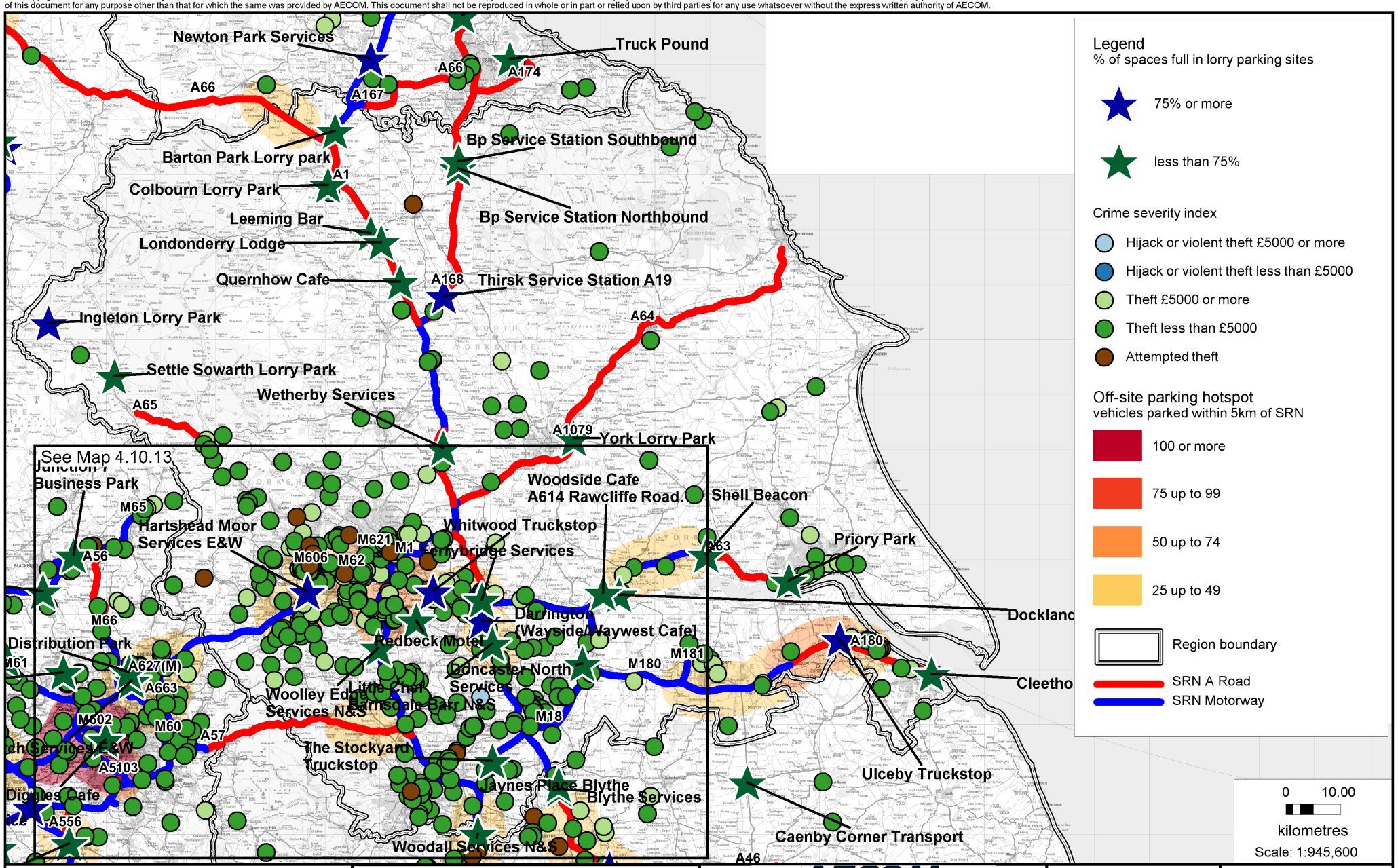
4.10.7 Summary

At the regional level Yorkshire and Humber had above average capacity and below average utilisation, meaning that overall there was enough supply to cater for the level of demand. However, this space would need to be better utilised by off-site parked vehicles to reduce the risk of crime and improve utilisation.

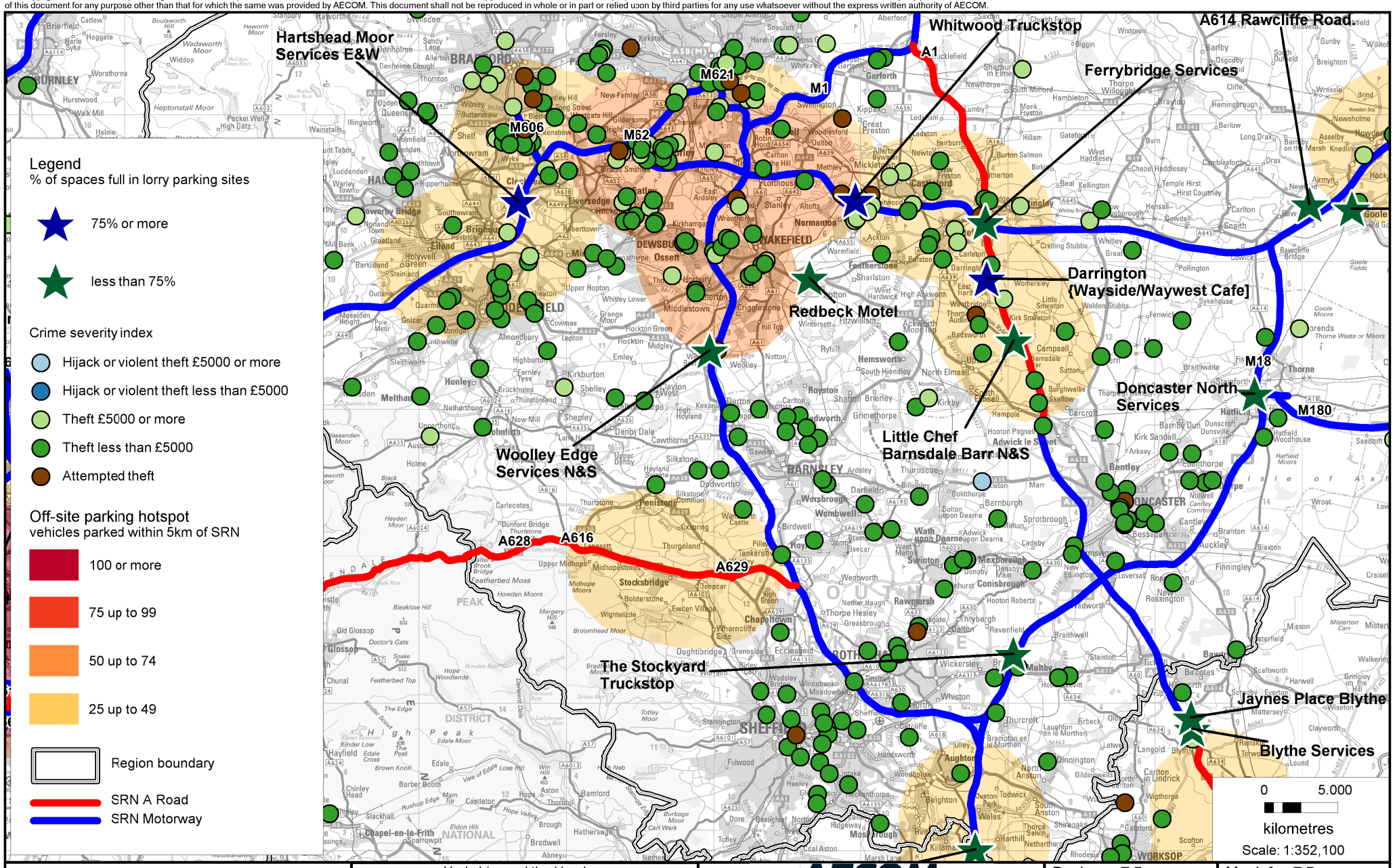
There were serious issues with road freight crime, particularly in the south of the region. There were also high levels of off-site parking in specific areas such as, North Lincolnshire and Wakefield. In both of these areas there was also a shortage of capacity for vehicles travelling on the East-West corridor. This shows that whilst regionally there was enough capacity, there were still pockets of shortages.



Client: Department for Transport	Title: Yorkshire and the Humber: All recorded incidents of road freight crime Truckpol 2010	AECOM Lynnfield House Church Street Altrincham, WA14 4DZ Tel: +44 (0) 161 927 8200 www.AECOM.com	Design: T.F / Mapinfo: T.F
Project: Lorry Parking Study			Chk'd: J.M / App'd: S.H
			Date: 21.06.11 / Scale: 1:945,700
			No: Map 4.10.11



Client: Department for Transport	Title: Yorkshire and the Humber: Severity of all recorded road freight crime in relation to off-site parking hotspots and on-site utilisation	AECOM Lynnfield House Church Street Altrincham, WA14 4DZ Tel: +44 (0) 161 927 8200 www.AECOM.com	Design: T.F Chk'd: J.M Date: 21.06.11 No: Map 4.10.12 Mapinfo: T.F App'd: S.H Scale: 1: 945,600
Project: Lorry Parking Study			



Client: Department for Transport	Title: Yorkshire and the Humber: Severity of all recorded road freight crime in relation to off-site parking hotspots and on-site utilisation Southwestern section	AECOM Lynnfield House Church Street Altrincham, WA14 4DZ Tel: +44 (0) 161 927 8200 www.AECOM.com	Design: T.F Chk'd: J.M Date: 21.06.11 No: Map 4.10.13
Project: Lorry Parking Study			Mapinfo: T.F App'd: S.H Scale: 1: 352,100