If you thought that the only parking 'first' being chalked up in Nottingham was the introduction of the Workplace Parking Charge, then you should think again. While discussions about this contentious proposal have rumbled on in the national press, Nottingham City Council has been quietly introducing a city-wide parking strategy, under the name ParkSmart, which is pioneering on several fronts and has some notable firsts to its name.

It all started when the Nottingham Express Transit (NET) tram system was first being planned. The rationale behind the new service, which was formally launched in March 2004, was congestion busting. Today, with passengers running at over 11 million a year, that translates into two million car journeys which have been taken off Nottingham's roads.

The new tram service was accompanied by a strategic Park & Ride/Park & Tram Ride network. Five Park & Tram Ride sites have been introduced as part of the NET project and these are supported by dynamic signing designed to encourage drivers to leave their cars and take the tram to the city centre. As part of the procurement for the project, NCC purchased Siemens Sisexpace system.

Sunil Budhdeo, Team Leader Traffic Control Centre with Nottingham City Council, explains that it was the success of this project that led to the concept of a much more ambitious, city-wide parking strategy. 'Using only a small number of VMS we were able to demonstrate that this kind of signing works.' VMS were also used successfully within the city centre to manage access queues at a car park that was situated close to the tram route. Sunil explains. 'This was a very busy car park and we were concerned that the queues could tail back across the tram route which would increase the risk of conflict. We used the VMS to put up a message as soon as the car park reached 90% occupancy directing drivers to other car parks in the city. We could see the impact of this policy – we knew that dynamic signing worked.'

He points out that at the same time the new Traffic Management Act was putting increasing pressure on the authorities to tackle congestion within the city centre. 'At busy times, such as Christmas, the queues at some car parks could be very long and this had a negative impact on traffic flows. This was a key action point that had to be tackled in order to meet our obligations under the TMA.'

From all this emerged the ParkSmart project which is now in the process of being rolled out across the city. The project will see the establishment of a comprehensive car-park guidance strategy which will link traffic management and destination management and see the installation of 44 modular, single-pole variable message signs and a further 40 non-VMS advanced directional signs. Siemens are responsible for supplying, installing and commissioning this new equipment.

However, ParkSmart is a story of two parts. While the traffic managers were considering how to use technology to support a comprehensive parking strategy, there was a simultaneous exercise going on within the council looking at how to reduce street clutter and improve the quality of the directional and pedestrian signing within the city. Sunil says there had been some interest in work that had been done in Leicester where they had experimented with colour coded signs to different areas of the city, such as the north or south. However, when the concept was applied to Nottingham, it didn't work, he says. 'When you get a sign in Nottingham to the M1 Northbound, you are actually going south. We simply couldn't make the compass points work.'

Another idea came from Karlsruhe in Germany, with which Nottingham is twinned. Karlsruhe uses colour-coded signs and visitors came back with the impression that the system was both effective and neat. Sunil, himself, was struck by the system used by a car park operator in Dubai. 'The car park was enormous, 3,000 cars, so making sure that drivers knew where they had parked their car was essential. I was parked in the green giraffe zone – it was easy to remember.'

From this amalgam of experiences emerged an exciting new concept. The proposal was that the city of Nottingham be divided into zones. These zones would be colour coded and colour coordinated signs would enable drivers to easily identify their destination.
zones were named and then associated with both a colour and an icon. It may not sound that ground breaking a concept but in fact the signs which are currently being erected all over Nottingham are the first to be approved by the Department for Transport for the use of both symbols and colours.

Sunil Budhdeo says that the names of the zones were chosen to reflect the individual character of the area. ‘We were mindful that we didn’t want to advertise a single company so we wanted the zone names to be neutral. And we wanted to preserve traditional names. For instance the zone designated Broadmarsh has been associated with that name for centuries- we didn’t want the name to disappear.’

The five Nottingham City zones are Royal which is represented by a crown, Castle which has an icon of a castle, Broadmarsh with bull rushes, Lace Market which has an image of lace and Victoria which is represented by the profile of Queen Victoria’s head. These icons are simple and distinctive and have been subjected to the most detailed scrutiny by the Department for Transport down to the angle of Queen Victoria’s nose and the exact design of the lace.

So, where are these icons going to be used? Visitors approaching the city will see the normal brown tourist signs which will indicate which zone the driver should head for and park in, in order to visit a particular attraction. So, if it is the castle that is the target, then the driver will need to follow the signs for the Castle zone. All the literature produced by Nottingham’s streets, brown signs, finger posts and street names are being reviewed. Out on Nottingham’s streets, brown signs, finger posts and street names are being replaced across the city to incorporate the zone icons – a huge undertaking. When this is complete, no matter where you are in the city, you will know at a glance which zone you are in and will see directions to the zone you want to reach. An important part of this project, adds Sunil, has been getting the buy-in of all the attractions within the city to support the zoning concept.

This partnership also applies to the city’s car park operators who will in future be supplying data about occupancy rates direct to Nottingham’s COMET database.

Sunil Budhdeo explains that the bigger picture is about making sure that drivers are directed not only to the nearest car park to their final destination – which is where the zone symbols play their part – but also to car parks which have vacancies. ‘We have the ability to intervene on the outer peripheral roads. The VMS will be used at important “decision making” points around the city centre road network to inform motorists in real-time of the availability of parking spaces in each of the zones. As motorists get closer to the city centre, then we can direct them to individual car parks.’

Until the advent of ParkSmart, car park occupancy data for privately owned car parks was collected from induction loops installed at the entrances and exits to the cars parks. However, the data collected was not always reliable, Sunil explains. ‘There are a number of reasons why the data may not be correct, for instance if maintenance is being carried out it can take a number of bays out of use. As part of the ParkSmart roll out we have commissioned Siemens to integrate occupancy data direct from all car park operators in Nottingham. We believe that operators will have the most accurate information about occupancy because it relates to revenue so we’ve asked for a direct feed into the COMET database. This data can then be used to update the VMS.’

Sunil stresses that the priority has been to make sure that the information which is published on the VMS is accurate. ‘We want the system to be totally reliable because credibility is very important. If people are not confident that the information they are receiving from the signs is correct, they will not follow the directions.’ It is a message which has been fully endorsed by independent car park operators in Nottingham all of whom are participating in the project both in terms of contributing to the development costs but also in publicising the benefits of the system to their customers. In Sunil’s words, it has been a very good partnership.

Back at Nottingham’s Traffic Control Centre work is now ongoing to ensure that the new free-text VMS signs are supplied with the necessary data. The aim is to provide not just up-to-the minute information on car park spaces but also traffic waiting times and alerts on incidents and congestion levels. Sunil explains that the aim is for the VMS on the outer arterial routes to give journey time information to the city centre. Along a four mile route into the city centre, eight PIPS ANPR cameras have been installed. It is a busy route with many vehicles joining and exiting along the way but Sunil says that they are getting a good match of number plates and decent journey times. ‘When the journey time into the city becomes very slow because of congestion, we can tell drivers as they approach the city and suggest that they take the Park & Tram Ride option as a quicker alternative.’

ParkSmart is a two year project and many of the milestones have already been reached. By the end of this financial year, most of the signage will be in place and the strategies to integrate the data within COMET are all currently being written. Out on Nottingham’s streets, brown signs, finger posts and street names are being replaced and a major publicity campaign is under way to bring local businesses on board and to educate the public. ParkSmart is expected to be fully operational by summer 2010.