

# Tamworth Borough Council Local Plan

## Accessibility Appraisal



August 2014

 Staffordshire  
County Council



## **Introduction**

Tamworth Borough Council (TBC) is engaged in the staged preparation of their Local Plan which will guide development in the Borough in the period to 2031. Staffordshire County Council (SCC) is working alongside the Borough Council to provide transport advice.

Tamworth Borough Council has recently completed a period of public consultation on their Draft Local Plan. The spatial strategy included in the document forms the basis of the accessibility appraisal.

Government guidance suggests that new development should be focussed in locations where residents can make use of existing services and facilities to maximise travel choice and minimise additional travel by private car. Visography TRACC analysis has been undertaken by SCC to help identify the most sustainable locations across the Borough and provide a basis for establishing the relative sustainability of proposed development sites, based on existing service provision. Access to a subset of destinations was then calculated including potential public transport improvements for the strategic residential locations and the Bitterscote South employment area. The impact of future employment development was also incorporated into a future access to employment estimation.

This report details the findings of the study describing the analysis of the Visography TRACC work. It demonstrates that with the appropriate level of mitigation, the main development allocations can be made acceptable in sustainable connectivity terms.

## Approach

Visography TRACC accessibility planning software supersedes Accession which was developed by Basemap for the Department for Transport to enable Local Authorities to measure and monitor local accessibility as part of the Accessibility Strategy in their Local Transport Plans. Visography TRACC calculates journey times based upon public transport timetable data, road network information and a range of user-defined parameters. The calculations can be applied to a range of destination types including doctor's surgeries, schools and town centres.

Accessibility in Tamworth Borough was calculated for the following destinations:

|                    |                                  |
|--------------------|----------------------------------|
| Employment;        | Town centre;                     |
| Secondary Schools; | Further Education Colleges;      |
| Primary Schools;   | Hospitals; and                   |
| GP Surgeries;      | Local and neighbourhood centres. |
| Supermarkets;      |                                  |

It should be noted that the provision of these services and facilities may change over time. Destination datasets are accurate for May 2014.

Tamworth Borough Council (TBC) identifies a number of local and neighbourhood centres in the Local Plan. They define a local centre as including 'a range of small shops and perhaps limited services of a local nature, serving a small catchment.' Access to local centres has been calculated by public transport and access to local and neighbourhood centres combined has been calculated for walking journeys.

A number of future accessibility calculations were also made that include potential public transport mitigation for the strategic residential locations proposed in the Draft Plan and Bitterscote South employment area. The additional jobs to be created through the delivery of employment development land were also incorporated into a future 'access to employment calculation'. Details of the recommended bus service extensions and additional jobs are included in the Development Proposals section.

Accessibility was calculated using public transport for the majority of destinations; this included the use of bus and/ or rail services. The timetables used were dated May 2014 and December 2013 for bus and rail respectively. An alteration to service 3 in terms of route and timetable has been registered to take effect in August 2014; the new timetable 3 has been included in the calculations. When calculating accessibility for public transport, the software takes into account walk time to the stop/ station, wait time for the service, in-vehicle travelling time and walk time to the destination. It also allows for interchange between services and modes such as bus and rail. The software includes a five minute interval between changes of services to model passenger acceptance of service interchange. Parameters have been set to define the maximum walk distance to access a public transport stop as 350m.

All calculations, with the exception of access to employment, make use of the existing road network either to make the full journey in the case of walking or to access the public transport network and final destination in the case of public transport journeys. Urban paths, an Ordnance Survey dataset, which includes man-made footpaths, subways, steps, footbridges and cyclepaths in all urban areas of Britain over 5 km<sup>2</sup> is included with the traditional road network. This was not possible for employment as a number of destinations are outside the County and road network data was not available for these areas.

For primary and secondary school accessibility calculations; it is more appropriate to calculate accessibility on foot as children who live beyond 2 miles for primary school and 3 miles for secondary school are provided with free transport. This calculation uses the road network and applies an average walk speed of 4.8kph.

For all calculations, a threshold of 60 minutes was set within which the entire journey must be completed including any interchanges. The software computes a journey time for every ten minute interval within the defined time period to the nearest destination point and the shortest journey times are returned. Therefore, the accessibility contour maps represent the best journey time that can be achieved within the defined time period.

For some destination types, such as employment, it is not appropriate to calculate accessibility to the nearest destination point; as the nearest point of employment may not be suitable i.e. lack of job choice. For employment destinations a Hansen score was calculated. This combines the number of destinations that can be accessed within a 60 minutes journey time with the disbenefits of travel in terms of journey time, origin point population and the total number of jobs available at the destination. The higher the score, the greater the level of access and choice.

In all the following Visography calculations were made:

- Public transport access to Employment (bus and rail) - Wednesday 07:30 to 09:30 hours – Hansen scores;
- Walking times to Secondary Schools (10 minute travel time isochrones);
- Walking times to Primary Schools (10 minute travel time isochrones);
- Public transport access to Further Education Colleges (bus and rail) Wednesday 0700 to 0900 hours (10 minute travel time isochrones);
- Public transport access to Retail Supermarkets (bus and rail) Saturday 1000 to 1300 hours (10 minute travel time isochrones);
- Public transport access to Retail Supermarkets (bus and rail) Wednesday 1000 to 1300 hours (10 minute travel time isochrones);
- Public transport access to Hospitals (bus and rail) Wednesday 0800 to 1000 hours (10 minute travel time isochrones);
- Public transport access to GP Surgeries (bus and rail) Wednesday 0800 to 1000 hours (10 minute travel time isochrones);

- Walking times to GP surgeries (10 minute travel time isochrones);
- Public transport access to the town centre (bus and rail) Wednesday 0700 to 0900 (10 minute travel time isochrones);
- Public transport access to the town centre (bus and rail) Wednesday 1000 to 1300;
- Public transport access to local centres (bus and rail) Wednesday 1000 to 1300 (10 minute travel time isochrones); and
- Walk times to local and neighbourhood centres (10 minute travel time isochrones).

Contour maps showing the results of these calculations are included in Appendix A. The plots highlight relative levels of existing accessibility by mode across Tamworth Borough to individual destinations.

## Development Proposals

Where site access information was available for the major residential development proposals, this informed the accessibility appraisal.

**Anker Valley** – The May 2014 transport assessment includes a north-south spine road and proposals for a pedestrian/ cyclists access bridge across the Derby to Birmingham rail line. The majority of the site therefore has access to existing bus stops located on either Perrycrofts Crescent and Ashby Road via the proposed pedestrian rail bridge or the vehicular site entrance respectively. Provision of the new pedestrian bridge is fundamental to the site being assessed as accessible by bus and walking. Therefore no public transport improvements have been proposed by the developer.

**Dunstall Lane** – The site does not have access to existing bus services due to its location. An extension to service 6 has been developed in response to information provided by GVA consultancy to serve Dunstall Lane. The bus will enter the site after serving Ventura Park and then travel back via Ventura Park to the town centre providing the best connectivity to the neighbouring employment area. The resulting accessibility is dependent on a suitable site layout that allows a bus to loop through the site.

**Coton Lane** – The entire site has good access to an existing bus service and therefore no additional public transport proposals have been made. This site in particular benefits from Arriva's changes to service 3 which are effective from August 2014. The current service 3 serves the Coton Lane site via Masefield Drive and travel back towards the town centre along the same route. From August the service will operate as two circular services, clockwise and anti-clockwise, travelling to Coton Lane either via Masefield Drive or the Lichfield Road and returning along the other route.

**The Golf Course** – Consultants BWB have developed initial access proposals for this site. It is intended to make use of the existing golf course access road and provide an additional site access point along Mercian Way to the south of the roundabout. Based on knowledge of the existing bus services in the area, it is proposed to amend service 5 to have two route variants, one serving the existing Amington estate and the other travelling through the northern site entrance, looping through the whole site and exiting through the existing golf course entrance. The resulting accessibility is dependent on a suitable site layout that allows a bus to loop through the site.

**Employment Allocations** – The Bitterscote South employment area is not served by the existing public transport services. Service 780 passes directly by the site entrance but without an extension into the site, it couldn't serve the new employment as the bus couldn't stop on a slip road. It is proposed to provide an extension to the middle of the site. The resulting accessibility will be dependent on site layout allowing bus penetration.

A 'future year' access to employment calculation has been made utilising the proposed bus service improvements and amending the employment

destination dataset to incorporate the estimated number of jobs that the employment development will deliver.

## Results

**Access to employment** – The areas around Tamworth and Wilnecote rail station show the highest levels of overall access to employment. These areas can access the job opportunities in Birmingham City Centre within a 60 minute travel time. A parameter in the software sets the maximum interchange distance at 500m which means that some buses for example stopping in Corporation Street are beyond this distance from the station, making Birmingham City Centre unachievable. The town centre, Bonehall, Kettlebrook and parts of Amington also have good overall access to employment.

Areas that fall into the bottom quartile for accessibility are Hockley and areas of Wilnecote and Stonydelph in the south and Coton and Perrycrofts in the north.

**Walking access to schools** – Tamworth has good access to secondary schools as the majority of the built up area is within a 30 minute walk time. Travel times of 40 minutes are experienced by parts of Stonydelph and the Dunstall Lane site is up to a 50 minute walk time from an existing secondary school.

The majority of the built up area is within a 20 minute walk of a primary school. Parts of Coton and the furthest extent of the Golf Course site are a 30 minute walk away and Dunstall Lane is up to a 40 minute walk.

It may be that additional schools are provided as part of some development proposals which could significantly improve travel times for the site and local area.

**Access to further education colleges** – Tamworth College is located along the Gungate corridor to the north of the town centre. Visography Tracc software parameters only allow for a short walk and therefore a number public transport journeys may require an interchange in the town centre. Whereas in practice it is likely that college students would walk from the town centre.

Central and northern parts of Tamworth have the best access to the college and this extends south and east along bus corridors. Coton Lane and Anker Valley can access the college within a 20 minute public transport journey whereas the majority of the Golf Course and Dunstall Lane have no public transport access.

**Access to supermarkets** – Public transport access to supermarkets is calculated for a Wednesday and Saturday daytime. In many cases the resulting Saturday accessibility is lower than the same time period for a weekday due to timetables being Monday to Friday with separate, less frequent Saturday timetables. It is noticeable that the differences in Tamworth are very slight. Access to a supermarket is good overall with the majority of Tamworth, including Anker Valley and Coton Lane, within a 20 minute journey time. Parts of Stonydelph have a 40 minute journey to access a

supermarket. The majority of the Golf Course and Dunstall Lane have no public transport access; this is also the case for the remainder of services and facilities.

**Access to the town centre** – Public transport access was calculated for the morning peak and off peak periods to reflect different potential journey purposes. Access to the town centre is best for central and northern parts of Tamworth, including Anker Valley and Coton Lane. The longest travel times (40 minutes) are experienced by parts of Stoneydelph and Hockley. Bitterscote South employment site has no public transport access to the town centre as it is located beyond the threshold distance to a bus stop. This is the case for the other services and facilities.

**Access to local and neighbourhood centres** – Local centres are not evenly distributed across Tamworth. Belgrave, Wilnecote and Hockley do not have local centres and have the longest travel times. Ankey Valley experience travel times of up to 40 minutes whereas Coton Lane is within a 10 minute travel time of a local centre. It may be that local centres are provided at some of the major residential developments which would reduce travel times.

Walking access to both local and neighbourhood centres is good in Tamworth. Large areas are within a 10 minute walk and the majority of the urban area is within a 20 minute travel time. Anker Valley, Coton Lane and the Golf Course are all within a 20 minute travel time. Dunstall Lane is within a 40 minute travel time. The majority of the employment sites are within a 20 minute travel time except Relay and Centurion Parks which are a 30 minute travel time from local shopping facilities.

**Access to healthcare** – Travel times to the hospital are longer in general than for any other service or facility. For many parts of Tamworth the journey involves an interchange in the town centre. The hospital is served by the 110 hourly frequency service travelling from the town centre to Birmingham and the 780 hourly frequency service that serves the residential estates in the east of Tamworth and travels to the hospital via Ventura Park but not the town centre. Areas on direct bus route experience the best accessibility and for some areas the interchange time may be long due to the low frequency of buses going to the hospital.

Access to GP surgeries is good across Tamworth for both public transport and walking. For the vast majority of the Borough, 20 minutes is the maximum travel time. Walking times are the longest for Coton, Coton Lane and the Golf Course due to the location of the facilities.

### **Accessibility with Proposed Bus Improvements**

Public transport access to town centres during the morning peak and local centres off peak have been calculated using a public transport network that includes the proposed bus improvements that relate to Dunstall Lane, the Golf Course and Bitterscote South developments. The results show that depending on the actual site layouts used, it is possible to provide public

transport access across the entire site area for the housing developments. In terms of access to the town centre, the travel times are within 30 minutes for Dunstall Lane and the furthest reaches of the Golf Course are within a 40 minute travel time. As the Golf Course is located at the edge of Tamworth, the travel times that can be achieved reflect the geographical separation.

Access to employment was also calculated to take into account the public transport improvements and the additional jobs that will be delivered in Tamworth. With the public transport improvements in place, Dunstall Lane and the Golf Course have access to employment. Their overall scores fall into the bottom quartile and third quartile respectively.

The additional jobs in Tamworth provide an increased overall employment accessibility score for residents in Hockley, Wilnecote and west of the town centre.

## Summary

Accessibility by sustainable modes, including public transport and walking, is generally good in Tamworth to a wide range of services and facilities. The only exception being access to the hospital as for many residents this involves an interchange in the town centre to an hourly frequency service. This is due to the location of the hospital at the edge of the urban area.

Areas around the two rail stations have access to the greatest number of job opportunities. Parts of Stoneydelph around Watling Street and parts of Hockley show consistently longer travel times than other residential areas. The bus that serves Watling Street operates a hourly frequency and uses a one way route that in this area is travelling away from the town centre before routing along Pennine Way.

Hockley estate has the most frequent town service into Tamworth with a bus every 10 minutes on services 8/9, but the journey time from the bottom of the estate around Overwoods Road is the longest of any town service into Tamworth due to the service operating via all the estates around Wilnecote and Belgrave so journey times to key services from this area are much longer than from other estates.

Coton Lane and Anker Valley residential development sites have public transport access utilising the existing bus services. Coton Lane accesses service 3/3A which provides a combined frequency of every 15 minutes travelling two different routes to the town centre. Anker Valley utilises service 2 that operates every 30 minutes.

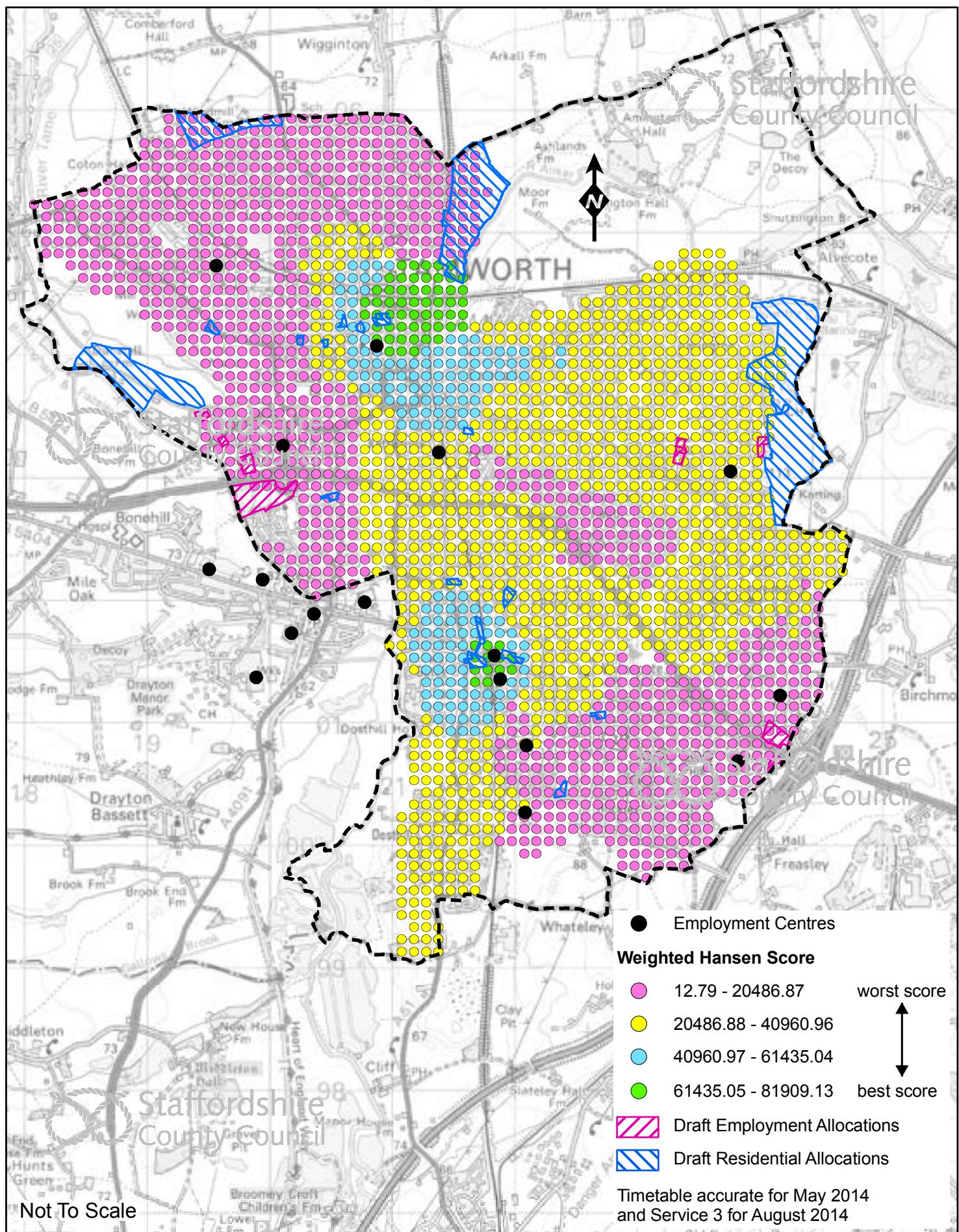
The Golf Course and Dunstall Lane have limited existing public transport access due to the location and size of the sites. Proposed public transport improvements have been developed and tested using Visography Tracc to demonstrate that the whole site can be made accessible by public transport; dependent on site layout.

The Draft Local Plan proposes employment development which forms extensions to existing employment areas. The Bitterscote South development is separated from existing employment areas by the A5 and due to its location does not have existing public transport accessibility. A proposed bus service extension to service 780 to serve the site shows that the site can be made accessible; dependent on site layout.

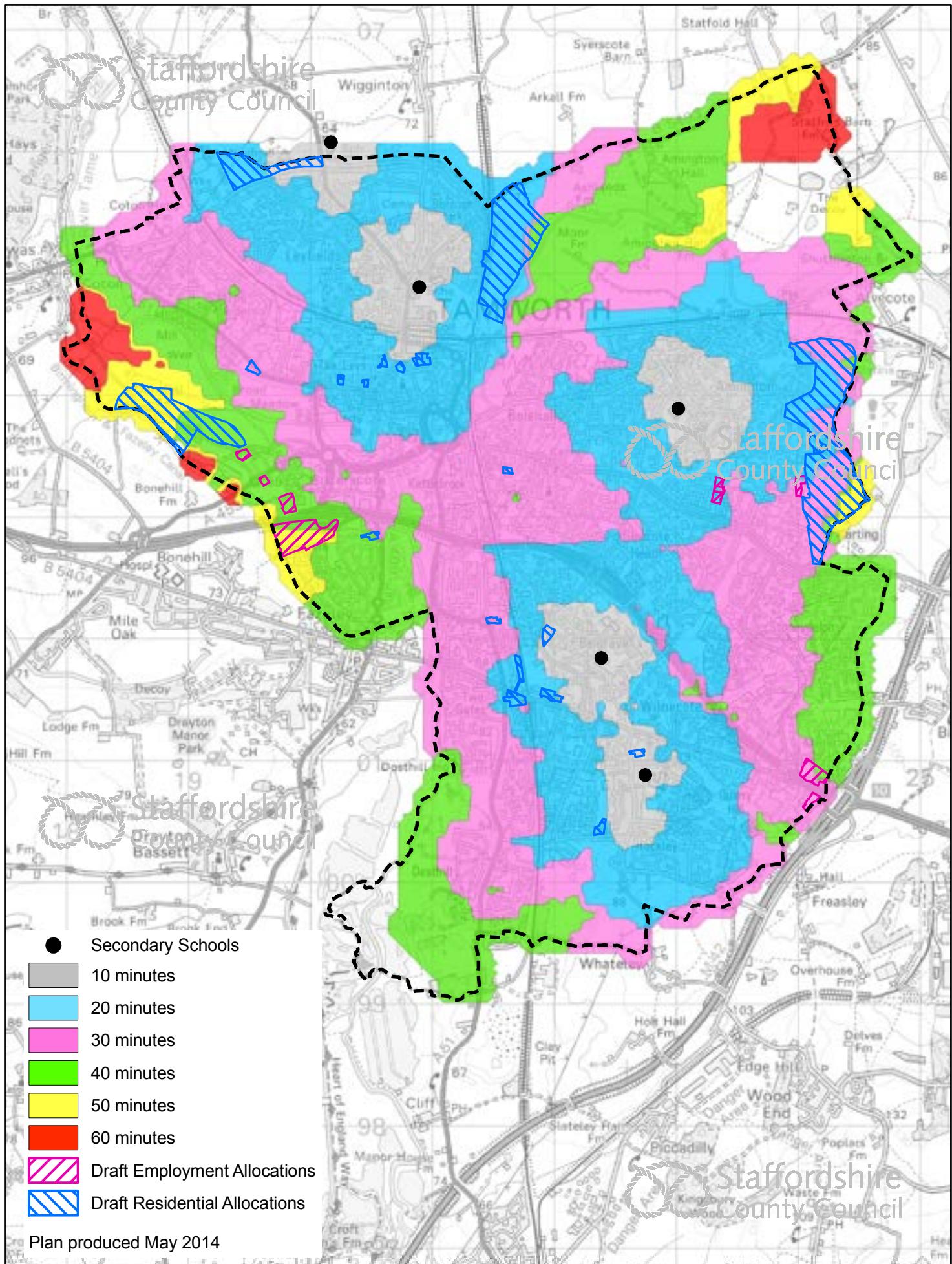
## **Appendix A – Accessibility Plans**



Public Transport Access to Employment Centres (Bus and Rail)  
with Existing Bus Network  
Wednesday 07.30 - 09.30 hours



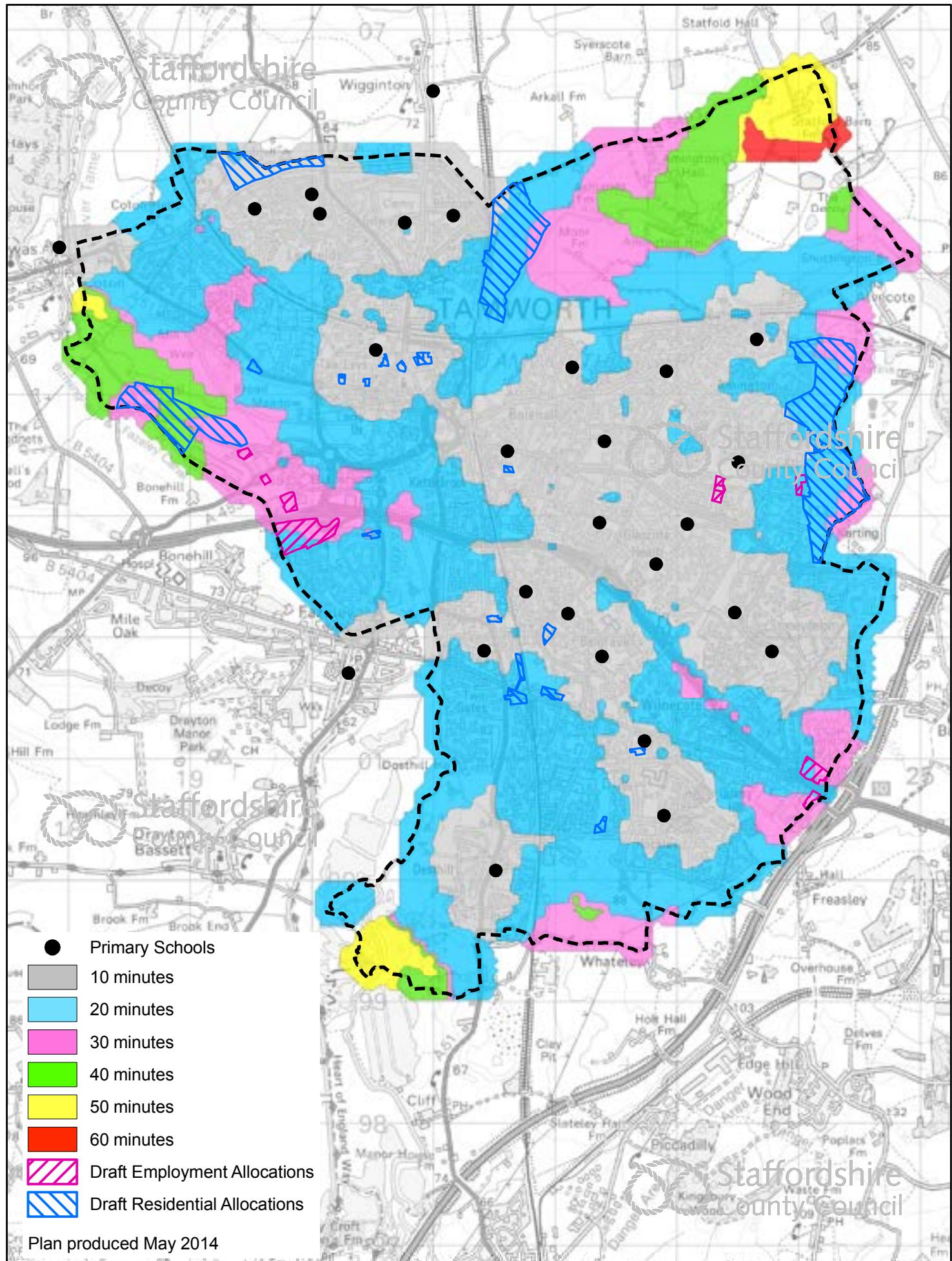
# Walking Times to Secondary Schools



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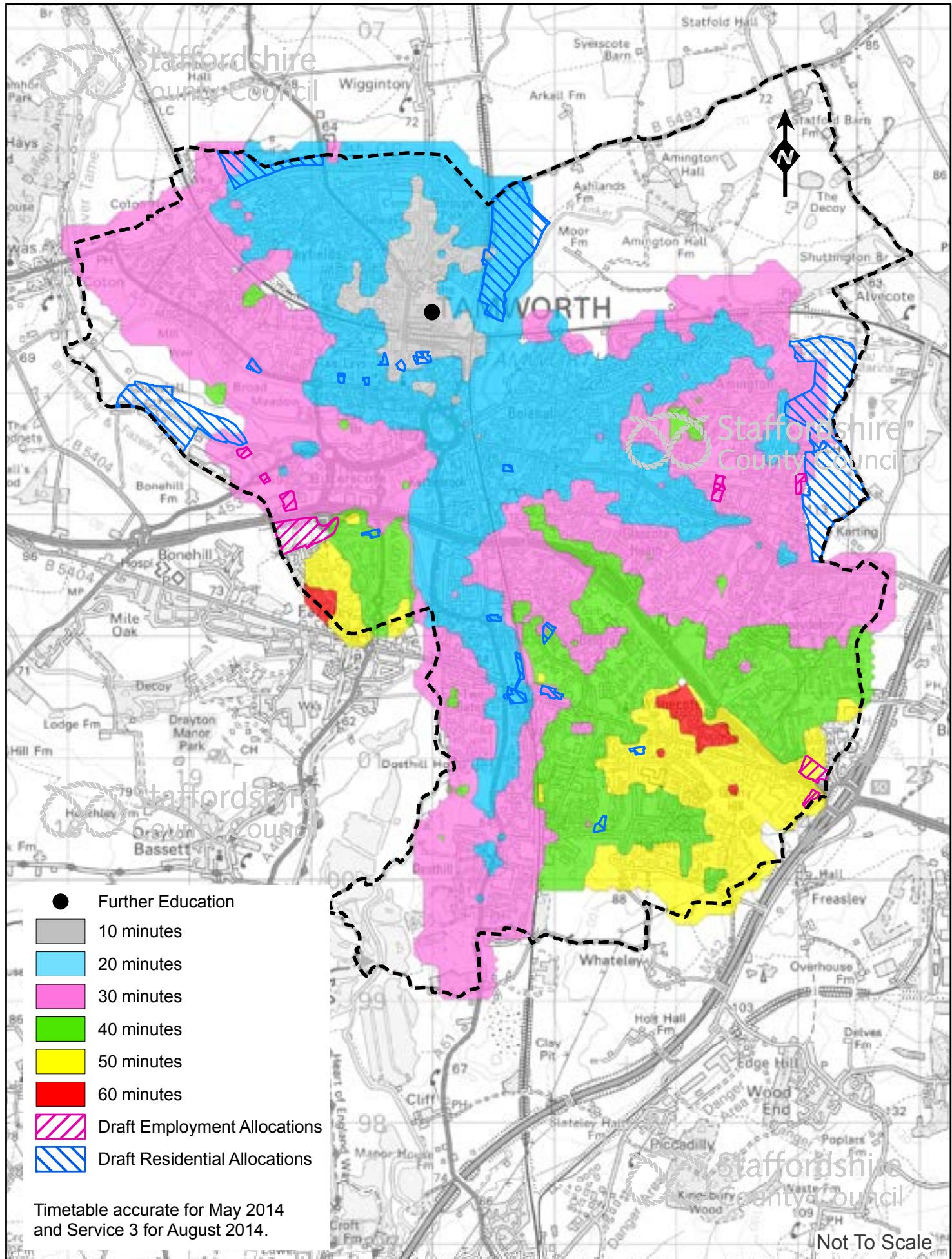
## Walking Times to Primary Schools



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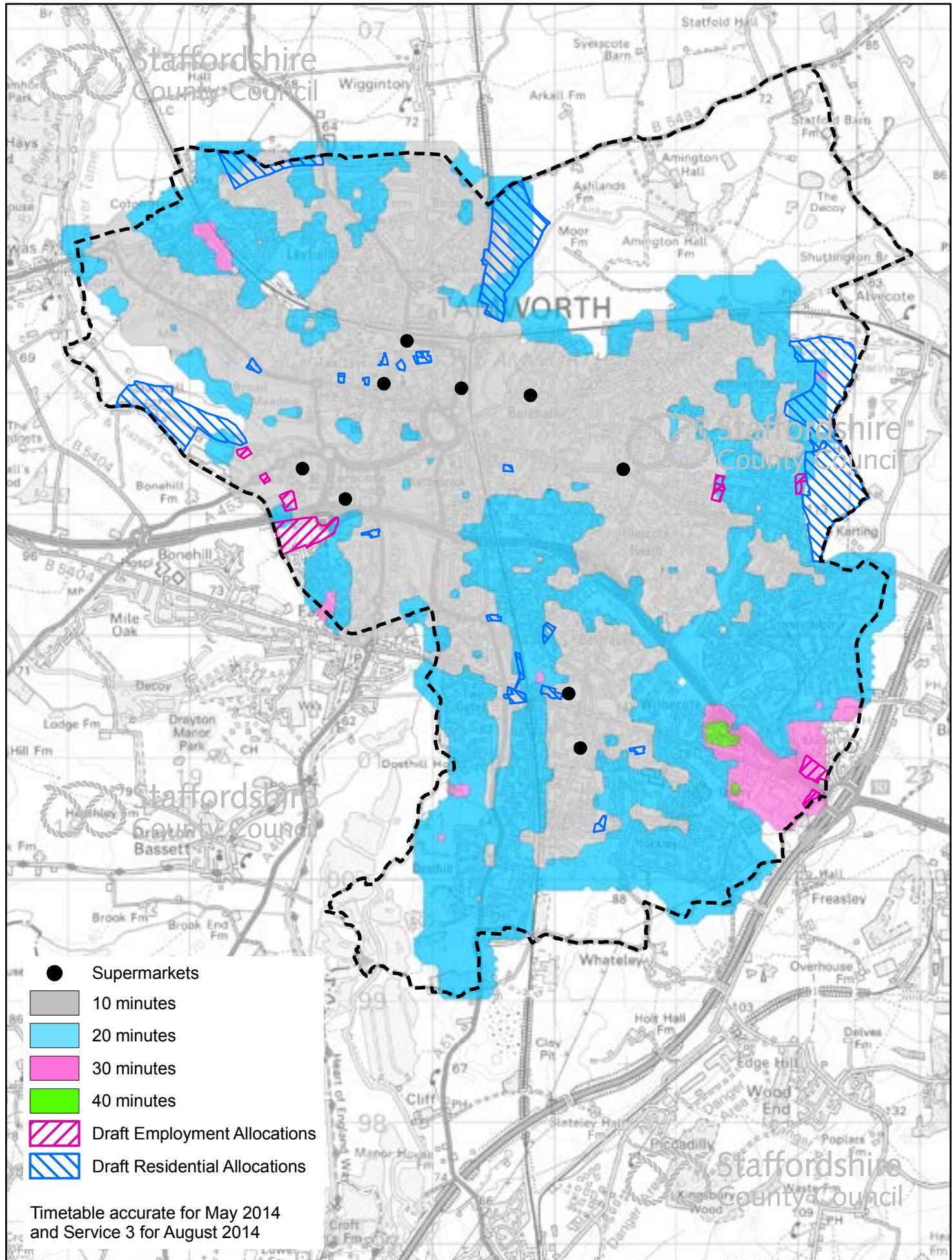


Public Transport Access to Further Education (Bus and Rail)  
Wednesday 07:00 to 09:00 hours



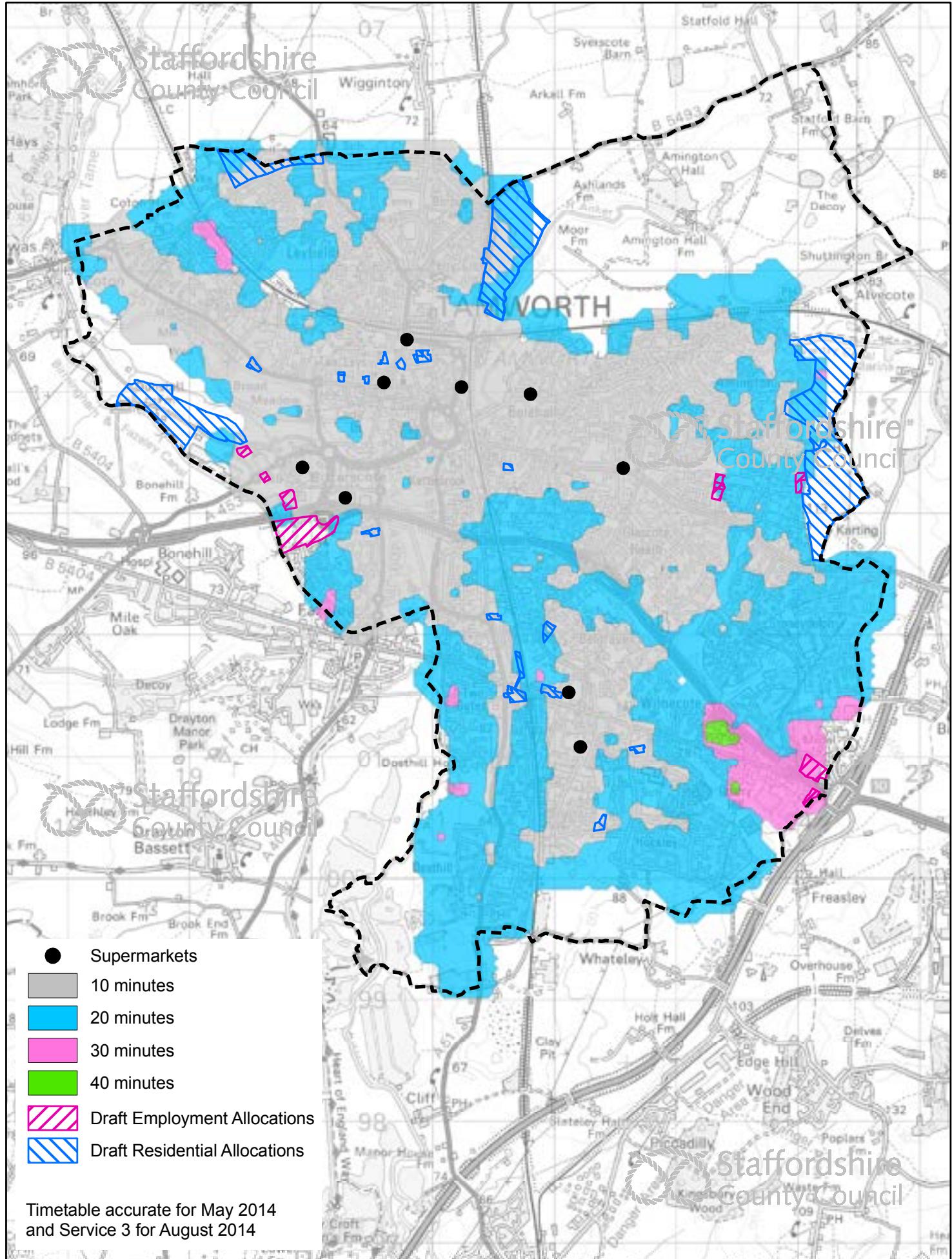
# Public Transport Access to Supermarkets (Bus and Rail)

Wednesday 10:00 to 13:00 hours

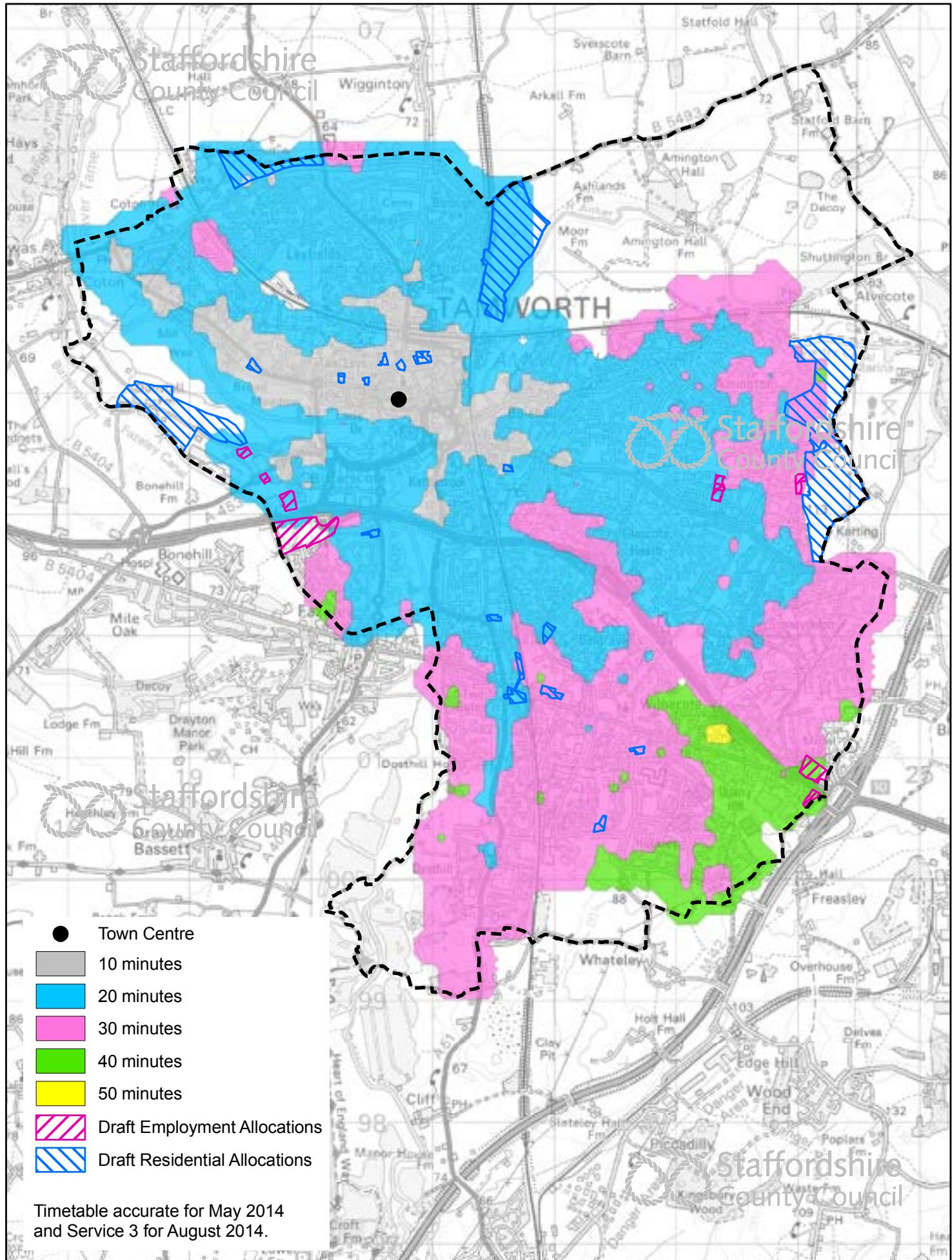


# Public Transport Access to Supermarkets (Bus and Rail)

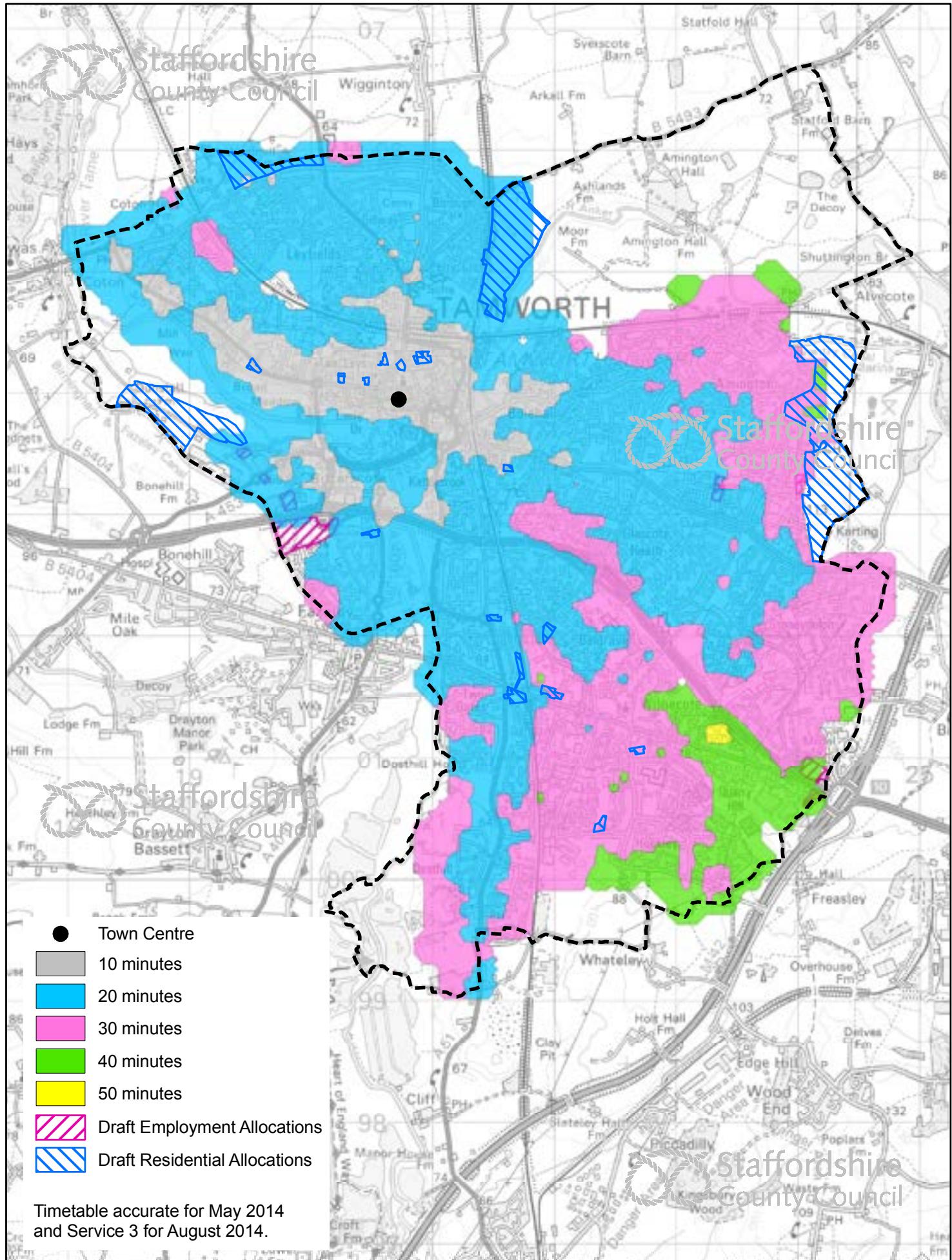
## Saturday 10:00 to 13:00 hours



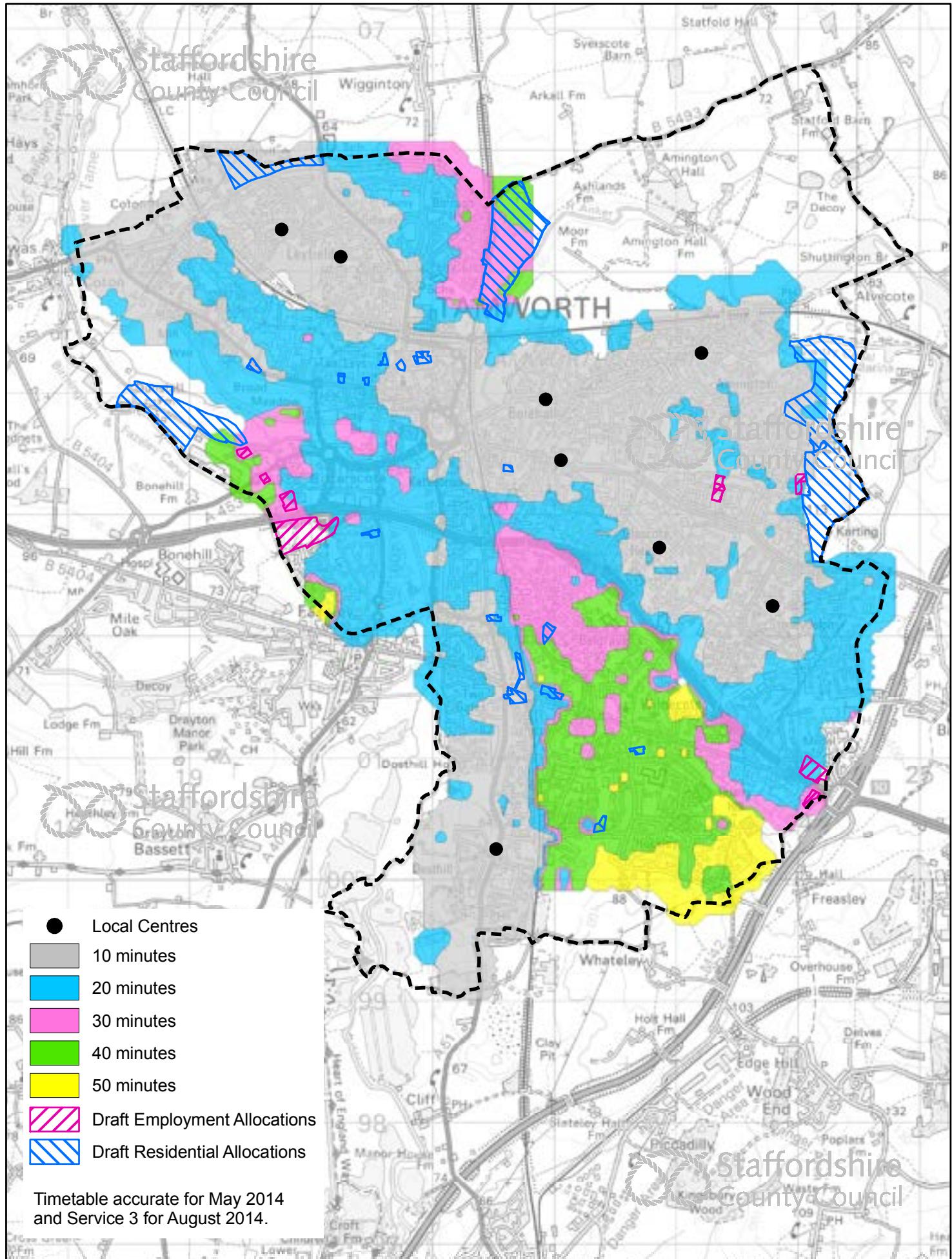
Public Transport Access to Town Centre (Bus and Rail)  
Wednesday 07:00 to 09:00 hours



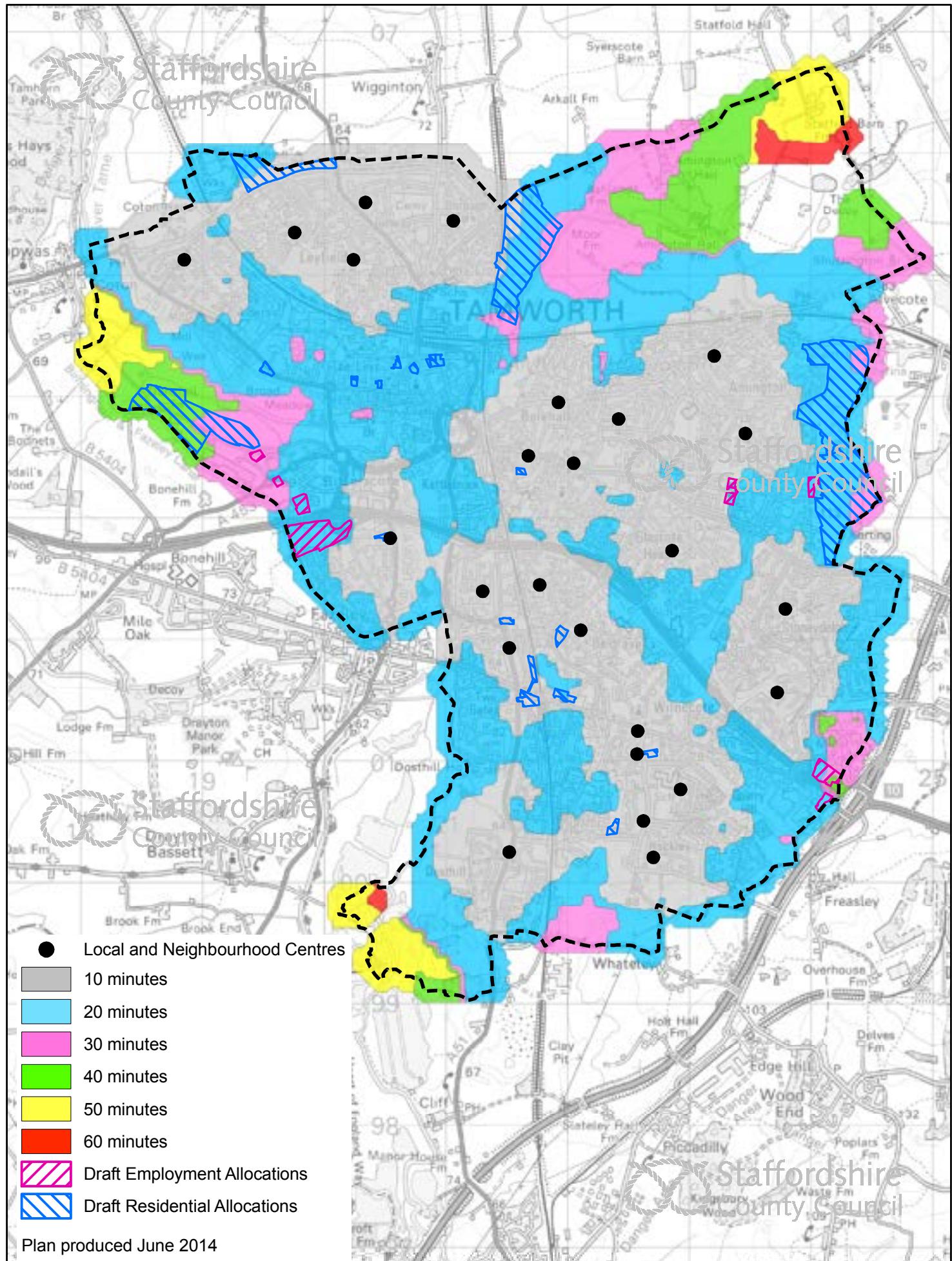
Public Transport Access to Town Centre (Bus and Rail)  
Wednesday 10:00 to 13:00 hours



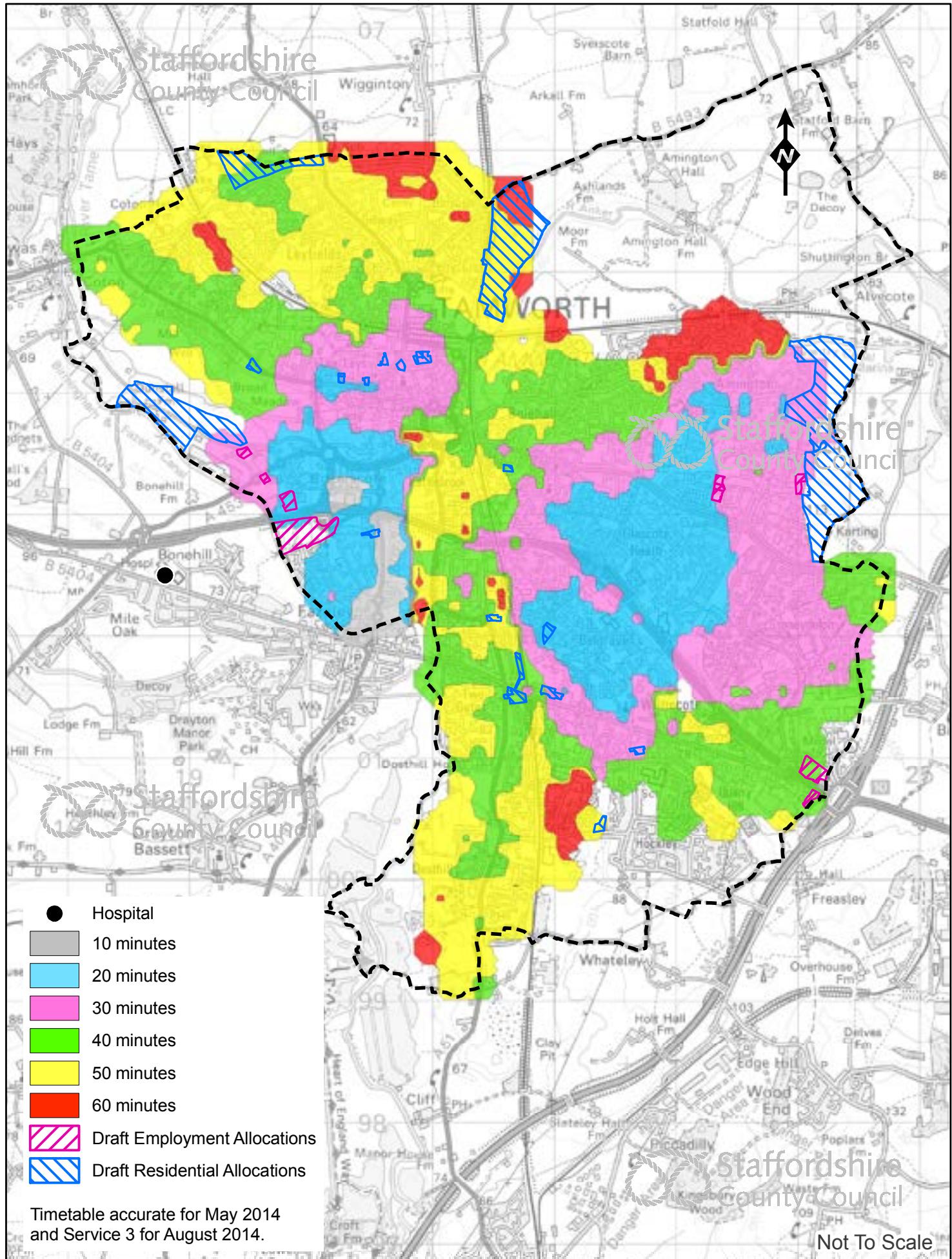
Public Transport Access to Local Centres (Bus and Rail)  
Wednesday 10:00 to 13:00 hours



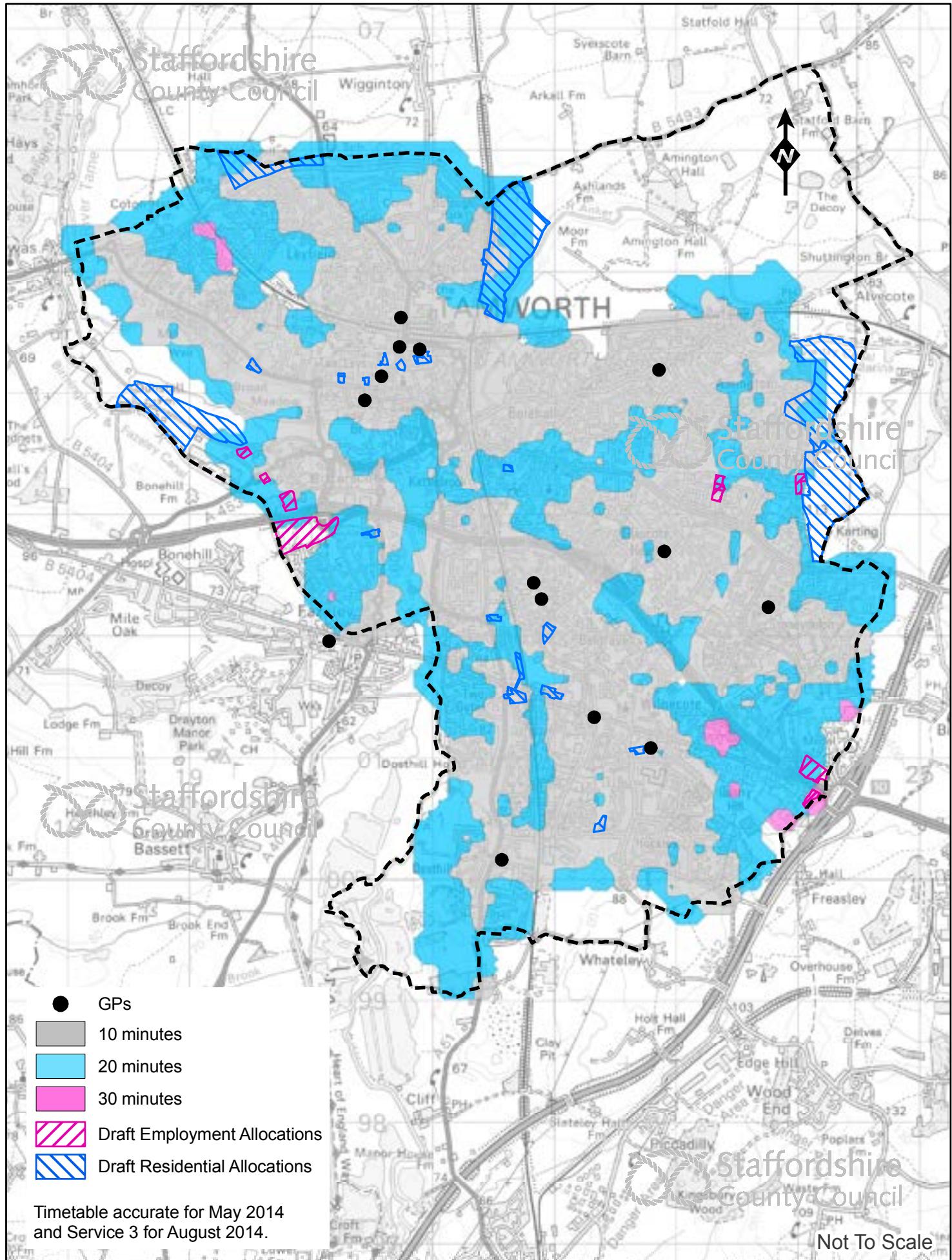
# Walking Times to Local and Neighbourhood Centres



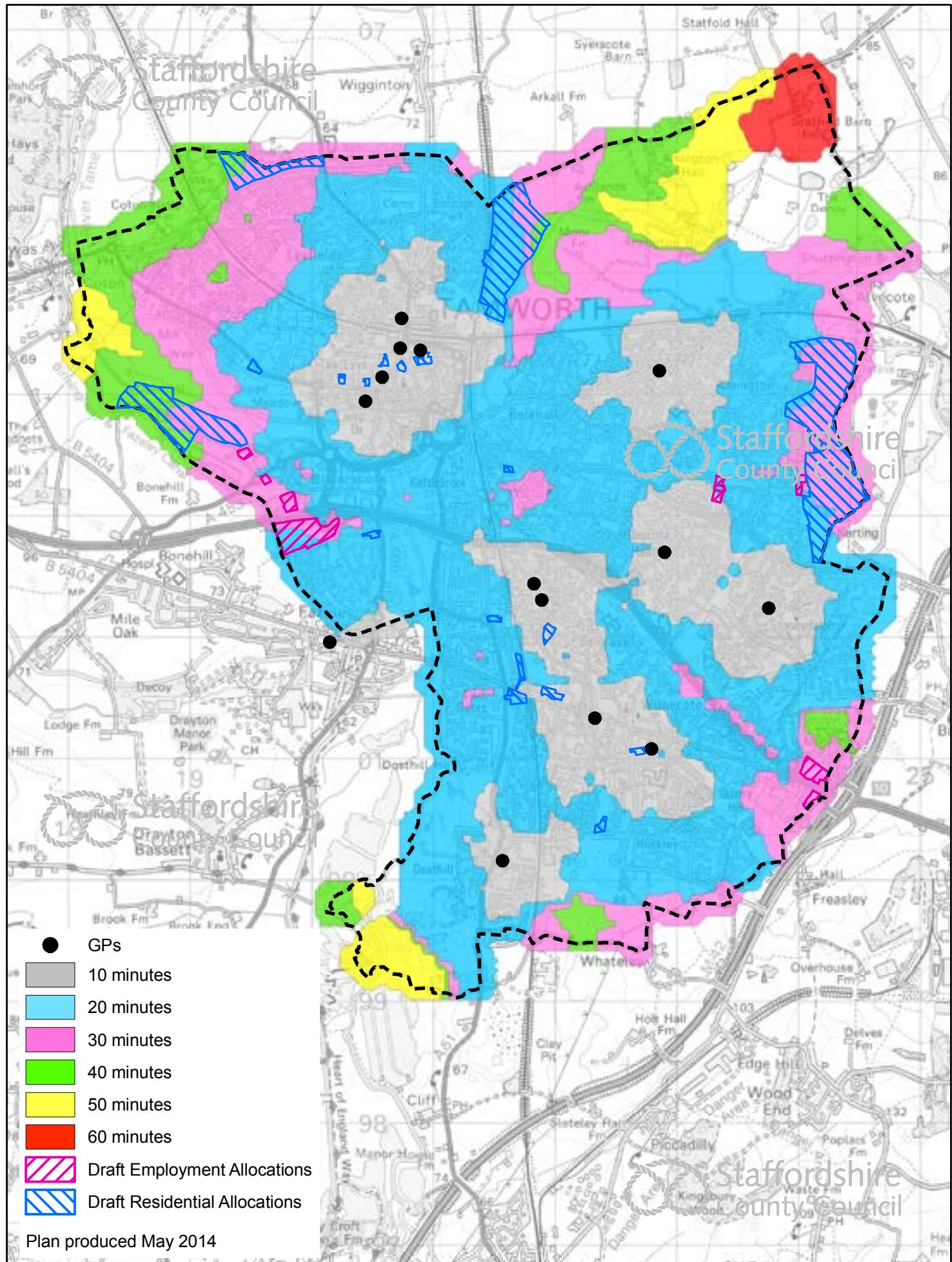
Public Transport Access to Hospital (Bus and Rail)  
Wednesday 08:00 to 10:00 hours



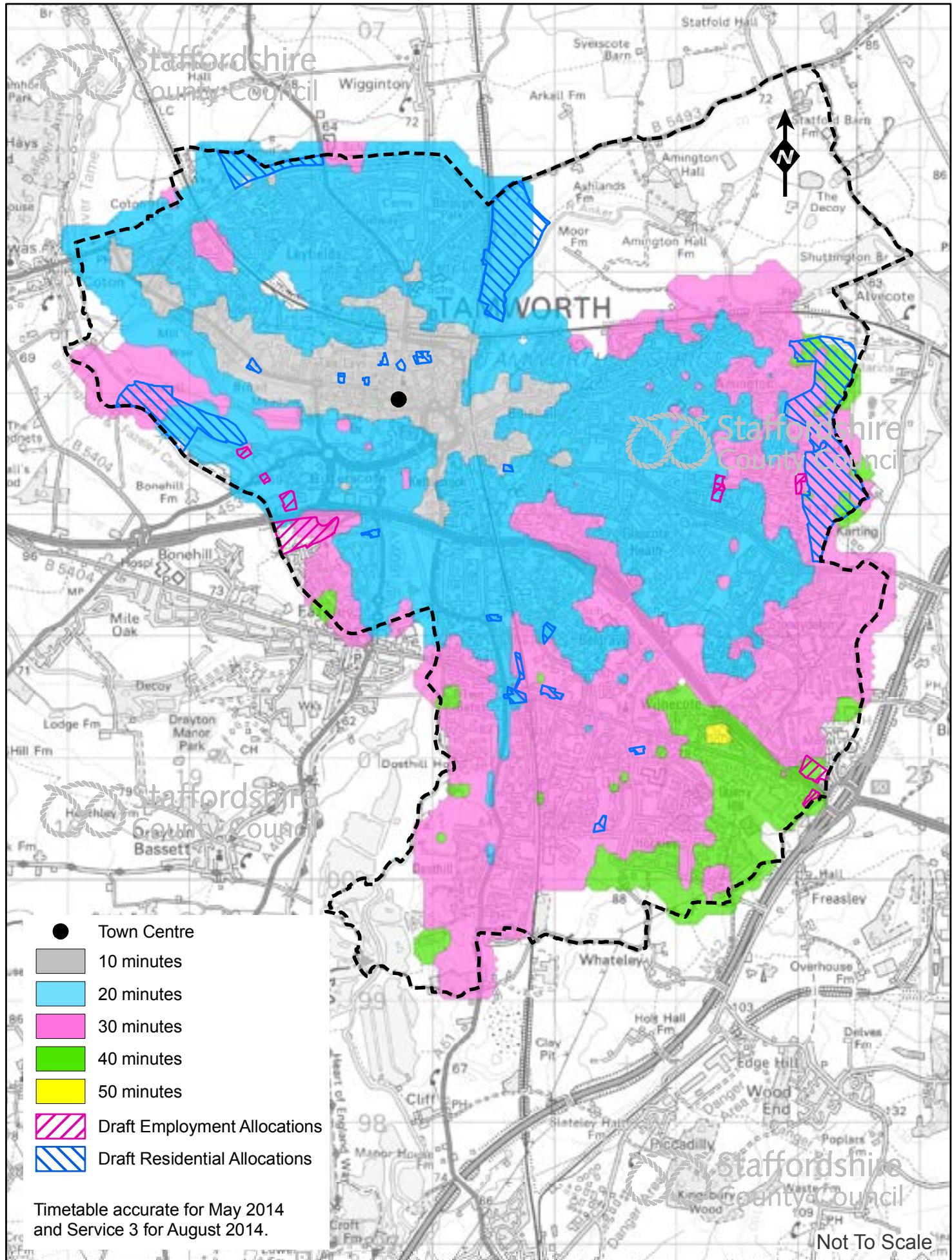
Public Transport Access to GPs (Bus and Rail)  
Wednesday 08:00 to 10:00 hours



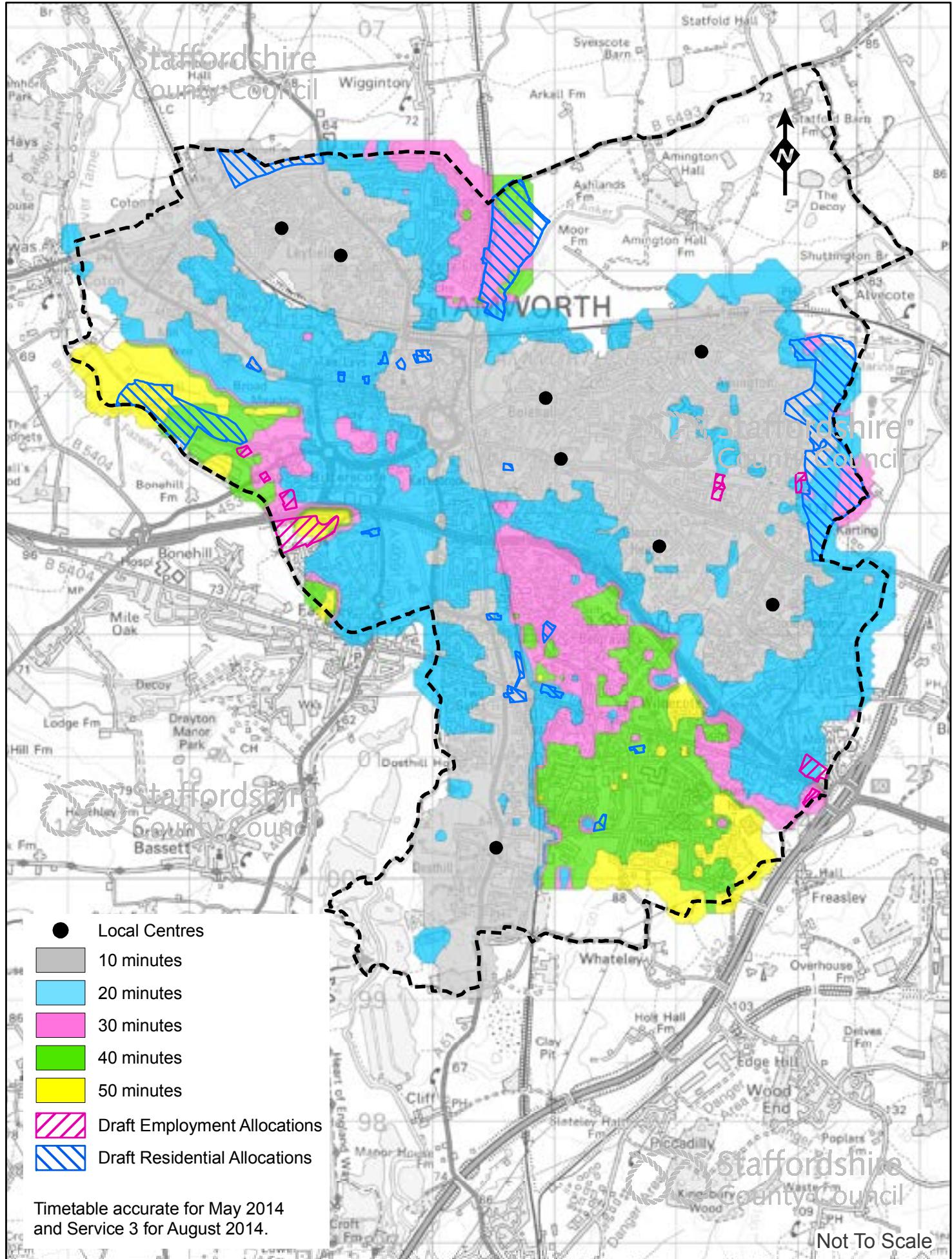
## Walking Times to GPs



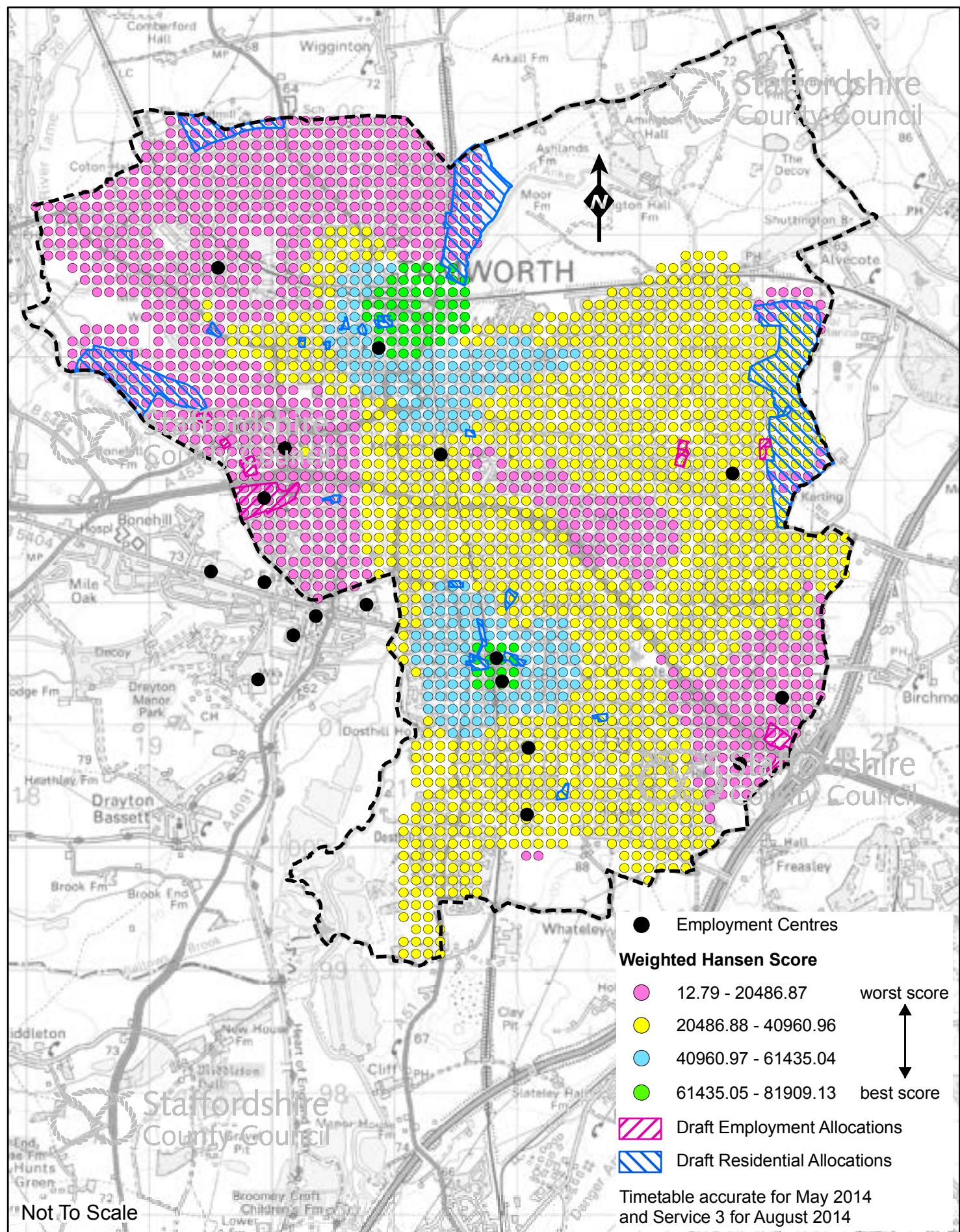
Public Transport Access to Town Centre with Proposed Bus Improvements  
Wednesday 07:00 to 09:00 hours



Public Transport Access to Local Centres with Proposed Bus Improvements  
Wednesday 10:00 to 13:00 hours



Public Transport Access to Employment Centres (Bus and Rail)  
with Bus Improvements  
Wednesday 07.30 - 09.30 hours





For more information please contact:

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