

THFC New Stadium Bus Analysis

Bus Capacity Assessment

- Bus routes: 149, 259, 279, 349, N349
- Capacity per bus: 70 pax*
- Timetables: TfL website July 2014
- Background Demand: TfL BODS 2011 (factors applied to account for periods where BODS data is not available based on relative bus capacities at these times)
- Post-Match period: road closure in the vicinity of the Stadium means that buses are not available for spectators for **30 minutes** after the final whistle.

* Plated capacity is 87 people per bus. Based on TfL advice, this is reduced for planning purposes.

Capacity Considerations

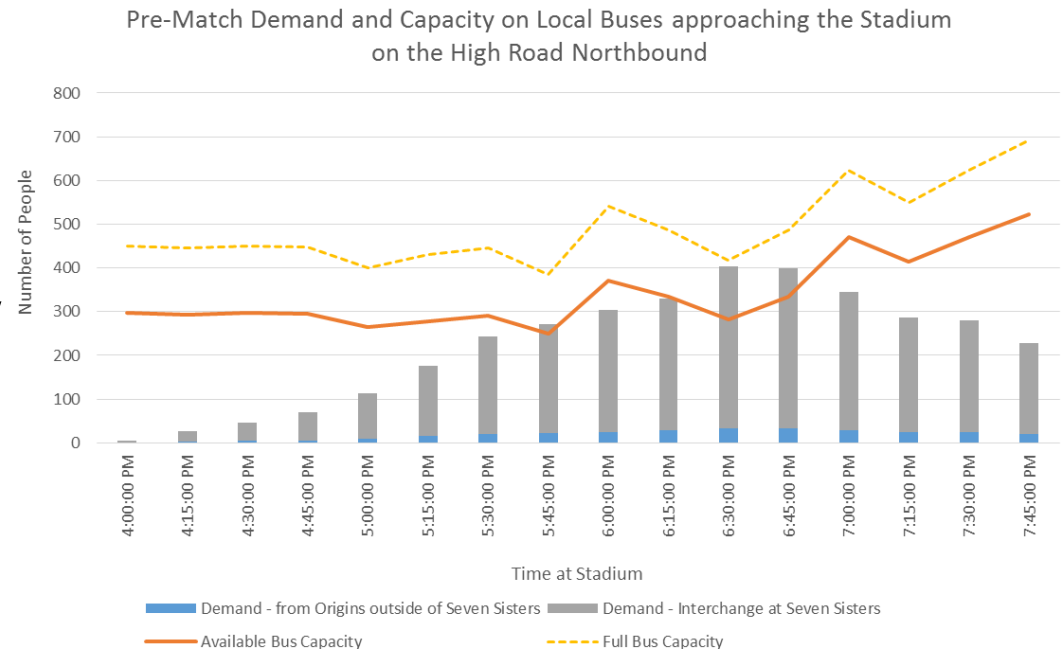
- The reduction in bus capacity is applied to align with the TfL planning approach. We have also made assumptions related to non-spectator use of the bus network that draw on limited information.
- It is our conjecture that in combination, this underplays the available capacity for spectators for a number of reasons:
 - The reduction in planning capacity is to take account of service delays. As this is such a high-frequency corridor served by several routes, a 20% capacity reduction across all services may not be appropriate.
 - Spectators using these bus routes have been observed to accept high density loading for the short trip between the existing Stadium and Seven Sisters.
 - The reference point for background demand assumptions is the PM commuter peak. Heavier loading on a per service basis during this period than others would lead to overstating background usage in other periods.
 - Late night travellers are less likely to have buggies etc. and therefore the available capacity for spectators are increased.
- Due to the constrained layout of the area immediately outside Seven Sisters Station on the High Road, there may be a need for additional management measures to maximise the capacity utilisation during the pre-match period.



Midweek Matchday Scenario

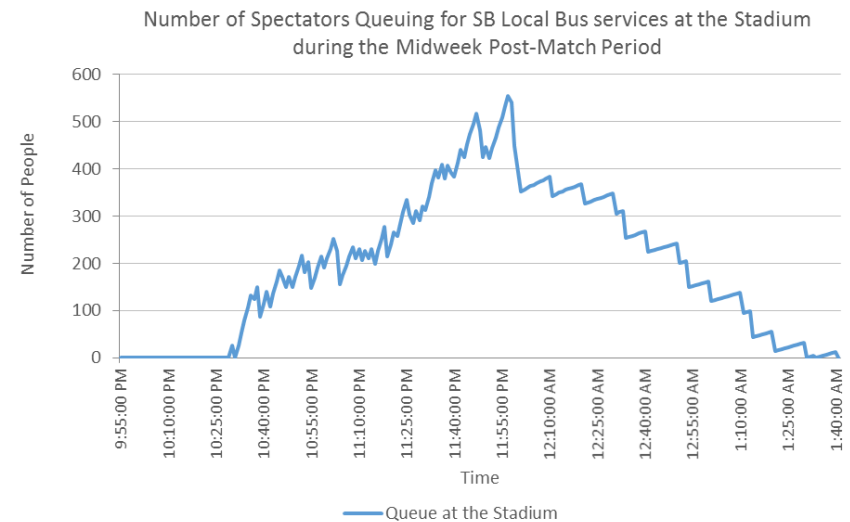
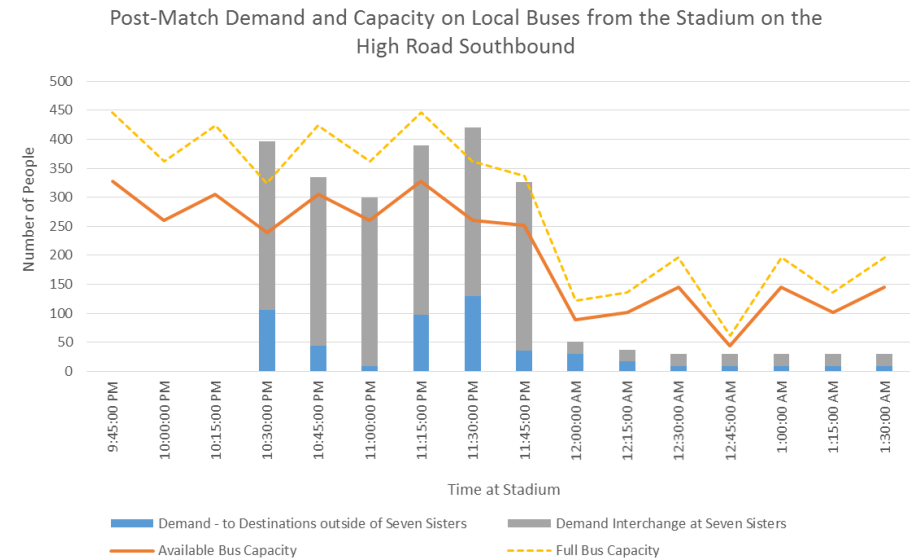
Pre-Match – capacity analysis

- Northbound flows on the High Road have the option to use four bus routes.
- Available capacity is the total capacity minus background travel demand – the calculated ‘available capacity’ across the pre-match period is shown as a line on the adjacent chart.
- Forecast spectators are mostly expected to interchange onto buses at Seven Sisters, although there are some spectators travelling on Local Buses from further south.
- This analysis suggests that there may be a shortfall in capacity between 18:30 and 19:00.
- However, if full plated capacity is used (and current matchday behaviour suggests that this will be the case), this capacity shortfall will be addressed. It may be that interventions are put in place at Seven Sisters during this period to encourage efficient boarding and use of capacity.
- If there is a short-lived capacity shortfall, as it is more than 1 hour before kick-off, spectators unable to board buses may choose to walk to the Stadium instead.



Post-Match – capacity analysis

- Southbound flows on the High Road have the option to use four bus routes, reducing to two night routes after midnight.
- Available capacity is the total capacity minus background travel demand – the calculated ‘available capacity’ across the post-match period is shown as a line on the adjacent chart.
- Forecast spectators are mostly expected to interchange at Seven Sisters station, although there are some spectators travelling further south on Local Buses.
- This analysis suggests that there may be a shortfall in capacity between 22:30 and 23:45, and this is reflected by the calculated queues shown in the adjacent graph.
- However, if full plated capacity is used (and current matchday behaviour suggests that this will be the case), this capacity shortfall will be significantly reduced. It may be that interventions are put in place at the Stadium during this period to encourage efficient boarding and use of capacity.
- If there is a short-lived capacity shortfall, spectators unable to board buses may choose to walk to the Seven Sisters station instead.

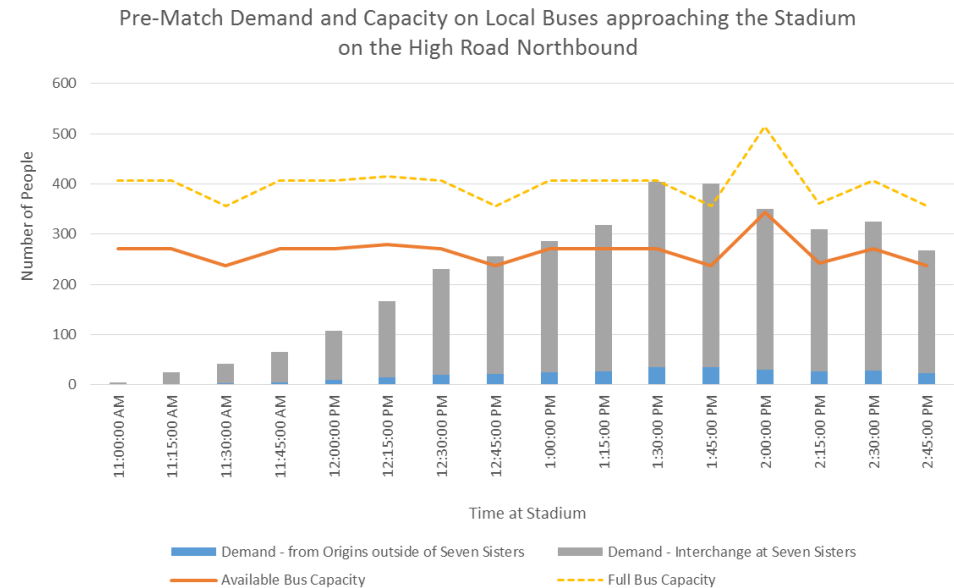




Weekend Matchday Scenario

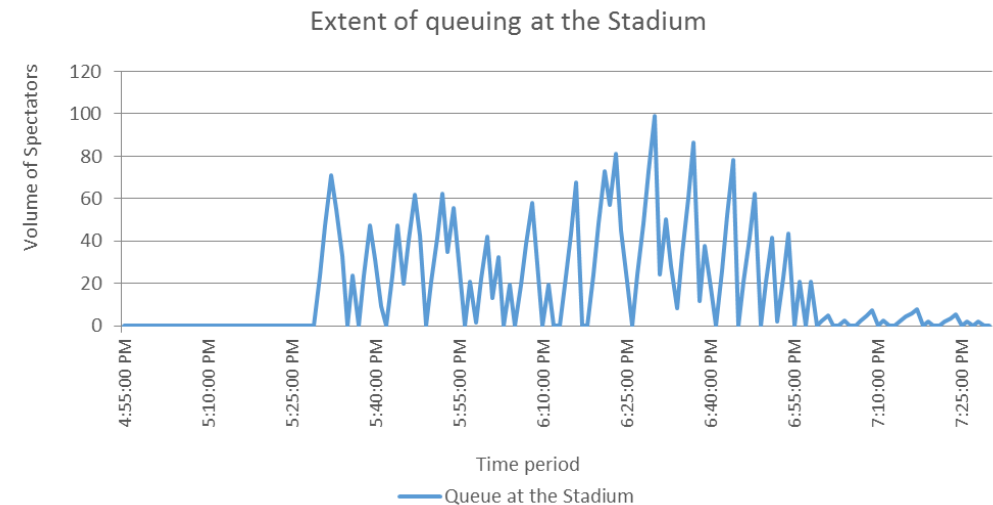
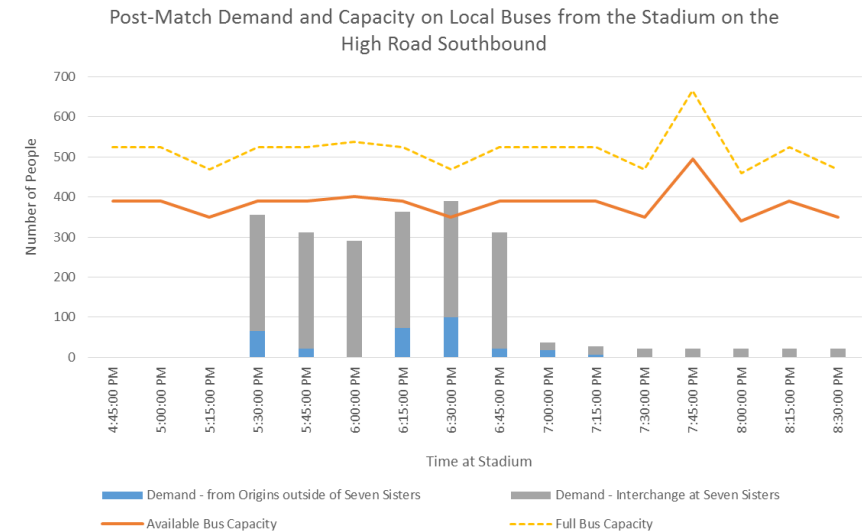
Pre-Match – capacity analysis

- Northbound flows on the High Road have the option to use four bus routes.
- Available capacity is the total capacity minus background travel demand – the calculated ‘available capacity’ across the pre-match period is shown as a line on the adjacent chart.
- Forecast spectators are mostly expected to interchange onto buses at Seven Sisters, although there are some spectators travelling on Local Buses from further south.
- This analysis suggests that there may be a shortfall in capacity between 12:45 and 14:45.
- However, if full plated capacity is used (and current matchday behaviour suggests that this will be the case), this capacity shortfall will be significantly reduced. It may be that interventions are put in place at Seven Sisters during this period to encourage efficient boarding and use of capacity.
- If there is a short-lived capacity shortfall, as it is more than 1 hour before kick-off, spectators unable to board buses may choose to walk to the Stadium instead.



Post-Match – capacity analysis

- Southbound flows on the High Road have the option to use four bus routes.
- Available capacity is the total capacity minus background travel demand – the calculated ‘available capacity’ across the post-match period is shown as a line on the adjacent chart.
- Forecast spectators are mostly expected to interchange at Seven Sisters station, although there are some spectators travelling further south on Local Buses.
- This analysis suggests that there may be a small shortfall in capacity at 18:30 and 18:45. Even then the numbers would not exceed 100, and the wait time for any individual will be less than 10 minutes.
- However, if full plated capacity is used (and current matchday behaviour suggests that this will be the case), this capacity shortfall will be addressed. It may be that interventions are put in place at the Stadium during this period to encourage efficient boarding and use of capacity.



Conclusions

- The four bus routes serving the Stadium along the High Road have an important part to play in moving spectators to/from Seven Sisters station, particularly during the pre-match period.
- Calculations suggest that with both spectators and other bus users combined, there may be a shortfall in capacity. However, capacity assumptions are conservative in nature, and there is also a lack of data on background travel volumes outside of the commuter peaks, so further assumptions have been made – which are also believed to be conservative.
- However, were there to be a shortfall in capacity, the walk route between Seven Sisters station and the Stadium is available as an alternative, and it would be expected that many spectators would choose this option rather than queuing for access to buses.



info@movementstrategies.com

+44 (0)20 3540 8520

© Movement Strategies 2014

