

finish at different times and dates and it is therefore very unlikely that all visitors will arrive and depart on the same day. As a worst case, therefore, it can be assumed that 200 cars arrive and depart the facility every 2 days (400 trips in total, 200 in and 200 out). Trips out may take place over the morning, as the accommodation is vacated. Trips in may take place over the afternoon, as a new set of players, coaches and support staff arrive for their first nights stay, ready to begin training the following day.

4.12 From that worst case, the overall daily trip pattern may be as follows:

Table 4.1 - Monday to Friday Trip Pattern – Worst Case Scenario

Trip Type	AM PEAK		PM PEAK		DURING DAY		TOTAL
	In	Out	In	Out	In	Out	
Office Staff	75	0	0	75			150
Staff Living on site					9	9	18
Players, etc.					200	200	400
Total	75			75	209	209	568

4.13 In order to provide a better understanding of likely travel patterns to this unique facility, the Football Association have provided examples of future users, how they will use the facility and hence how this will affect travel to the site. These details are set out in the following pages.

Example of senior team activity and mature student activity

4.14 The senior men’s international team meets upon average 3 - 4 times a year for periods of circa 4 days preparation in advance of a home match, or 4 - 7 days preparation in advance of a home match, followed by an away match.

4.15 When the men’s senior international team are in residence, the men’s Under 21’s are in residence at the same time given that the men’s Under 21’s traditionally play their match fixtures on the day preceding the senior men’s international team fixture.

4.16 Both the men’s senior international team and the men’s Under 21’s enjoy the use of single occupancy within the Elite accommodation for up to 50 people per team, inclusive of the team support structure surrounding the teams.

- 4.17 If both the men's senior international team and the men's Under 21's are in residence, the Football Association has decided that the only type of education course to be held at the facilities would be the more senior license coaching course. This would most likely include up to 50 student residents and staff in single rooms in the student block. The students that take this type of course are professional, senior football managers.
- 4.18 The reason for this is to minimise the amount of people on site whilst the men's senior international and men's Under 21 teams are in residence.
- 4.19 The players will arrive at site in the following way:
- By individual car
 - As a group of 3 - 4 players in a shared car if travelling from the same football club and similar location
 - By chauffeur driven car either individually or in a shared car if travelling from the same football club and similar location
- 4.20 Players often opt for a chauffeur driven car since they tend to go straight home upon finishing a home match at the relevant stadium and upon airport arrival back into England. Most players are not keen to return to site to retrieve their cars.
- 4.21 Players leave site by the team bus to attend their football match at the relevant stadium.

4.22 The students tend to arrive in the following way:

- By individual car
- As a group of 3 - 4 students in a shared car if travelling from a similar location
- By chauffeur driven car either individually or in a shared car if travelling from a similar location
- By train, then taxi from the train station

4.23 **As a worst case scenario, we can expect circa 150 cars at senior level. Neither players nor students leave site during their course or training activities. No one travels at peak times; agendas lend start times to circa 12 noon before lunch or circa 4.00 pm before tea.**

Example of youth Under 18 teams activity and younger student activity

4.24 The youth Under 18's, Under 16's, Under 15's, and Under 14's meet upon average 3 - 4 times a year for periods of circa 4 days preparation in advance of a home match, or 4 - 7 days preparation in advance of a home match, followed by an away match.

4.25 The youth Under 18's could be in residence at the same time as the men's senior international team and the men's Under 21's. Youth Under 18's get dropped off at the site by either parents or by football academy transport.

4.26 The youth Under 16's, Under 15's, Under 14's could be resident together. These teams get dropped off at the site by either parents or by football academy transport. As with the Under 18's, these attendees do not drive themselves.

4.27 Every second or third year, one of these youth teams might get the opportunity to host a residential tournament for up to 6 countries participating over a period of circa 14 days. Foreign country teams will arrive at the facility by team coach.

4.28 The youth teams enjoy the use of twin occupancy within the Elite or Student accommodation for up to 50 people per team, inclusive of the team support structure surrounding the teams.

4.29 Depending on how many youth teams are resident at any one time, there could be rooms available for an additional student course for referees or sports medicine professionals. This would most likely include up to 50 student residents and staff in single rooms in the student block.

4.30 The youth players tend to arrive at site in the following way:

- Dropped off by parents
- Dropped off by the football academy they represent
- By train, then picked up by a Football Association mini bus from the station

4.31 Youth players leave site by the team bus to attend their football match at the relevant stadium.

4.32 The students tend to arrive in the following way:

- By individual car
- As a group of 3 - 4 students in a shared car if travelling from a similar location
- By chauffeur driven car either individually or in a shared car if travelling from a similar location
- By train, then taxi from the train station
- If junior students, then dropped off by parents or by train, then picked up by a Football Association mini bus from the station

4.33 **As a worst case scenario, we can expect circa 50 cars whilst youth level players and a students course are in residence. Neither players nor students leave site during their course or training activities. No one travels at peak times; agendas lend start times to circa 12 noon before lunch or circa 4.00 pm before tea.**

Women's and girl's activities

- 4.34 The senior women's international team meet upon average 3 - 4 times a year for periods of circa 4 days preparation in advance of a home match, or 4 - 7 days preparation in advance of a home match, followed by an away match.
- 4.35 When the women's team is in residence, they will have exclusive use of either the senior international Elite block, the Under 21's Elite block or the Student block. Women and girls do not share accommodation facilities with men or boys. Depending upon their age group; the manner in which the women and girls teams arrive on site can be compared with the senior men international team or the youth international teams.

Student courses

- 4.36 When none of the senior international teams or youth teams are in residence, the Football Association would hold other educational courses for coaches, referees, and sports medicine professionals.
- 4.37 The alternative could be a sports medicine conference held on an annual basis whereby circa 200 students attend a residential course for up to 5 days. The students tend to arrive in the following way:
- By individual car
 - As a group of 3 - 4 students in a shared car if travelling from a similar location
 - By chauffeur driven car either individually or in a shared car if travelling from a similar location
 - By train, then taxi from the train station
- 4.38 **As a worst case scenario, we can expect circa 200 cars a day on those days when conferences start and finish. As courses are residential, there will be little coming and going in between these times.**

5. TRIP DISTRIBUTION AND ASSIGNMENT

Trip Distribution

- 5.1 Located in the middle of the country and with the future users of the site unknown, it has been assumed that trips will be made from all quarters of the country in equal proportions (players, coaches and staff based all around the country and it is impossible to be specific about trip origins).
- 5.2 It can reasonably be expected however, that the majority of these trips will be long distance and therefore strategic routes will be taken. Following these assumptions through, a typical trip distribution for the users of the site may look as follows:

Table 5.1 – Origin of Trips to Site (Players)

% of trips	Origin of Trips	Route Taken
25%	North West	M6, A50, A515, B5234 (from west)
25%	North East	M1, A38, A50, A515, B5234 (from west)
25%	South West	M6, A38, A5121, B5017 (from East)
25%	South East	M1, A50, A515, B5234 West (12.5%) or M40, A38, or M42, A444, A515 East (12.5%).

- 5.3 An amount of control over routeing patterns is possible through the development of a signing strategy. This is required in order to direct and keep long distance traffic onto the most appropriate roads. Players will be asked to use the strategic road network until a specified exit. Thereafter, local signs will direct the route to the site. A local signing strategy is currently being developed in consultation with Staffordshire County Council as Highway Authority and East Staffordshire Borough Council as Planning Authority.
- 5.4 Office staff are more likely to live locally, with distribution weighted towards Burton. Similarly, permanent residential staff will make local trips, with distribution again weighted towards Burton.

Trip Assignment

- 5.5 Following through these assumptions about distribution, the following route patterns were derived for trips made by players, coaches and staff:

Table 5.2 – Trip Assignment Pattern (Players, coaches and their staff)

Route	% of traffic to site
A515 southbound (between A50 and B5234)	62.5%
B5234 (between A515 junction and site)	62.5%
B5017 (between Burton and Five Lanes End)	37.5%
B5234 left turn into site (from east)	37.5%
B5234 right turn into site (from west)	62.5%

This distribution pattern is shown in Figure 5.1.

- 5.6 Trips by office staff and permanent staff living on the site will have a different composition, being weighted towards Burton. For the purposes of assessing traffic impact, the following assumptions about routeing have been made:

- **70% of trips will originate from Burton**, of which 60% will use the B5017, 5% the Tutbury Road from Tutbury and 5%, Needwood Road from either the Rangemore Tattenhill direction or from Barton under-Needwood.
- **30% of trips will originate from the A515 to the west**, with 15% coming from the north and 15% from the south, in both cases using the B5234.
- Trips out of the site will follow the same routeing in reverse.

- 5.7 This distribution is shown in Figure 5.2. Both distribution patterns described result in the daily, peak hour and off-peak traffic flows shown in Figures 5.3 to 5.7.

Area of Assessment and Junctions to be considered

- 5.8 Initial discussions with the Highway Authority identified the need to consider the following links and junctions:

- Six Roads End junction
- Five Lanes End junction

- A515 / B5234 junction
- Site access junction (proposal only)
- B5017 East (between Burton and Five Lanes End)
- Needwood Road (between B5016 and Five Lanes End)
- B5017 West (between 6 Roads End and Five Lanes End)
- A515 (between 6 Roads End and B5234 junction)
- B5234 (between A515 Junction and Five Lanes End)

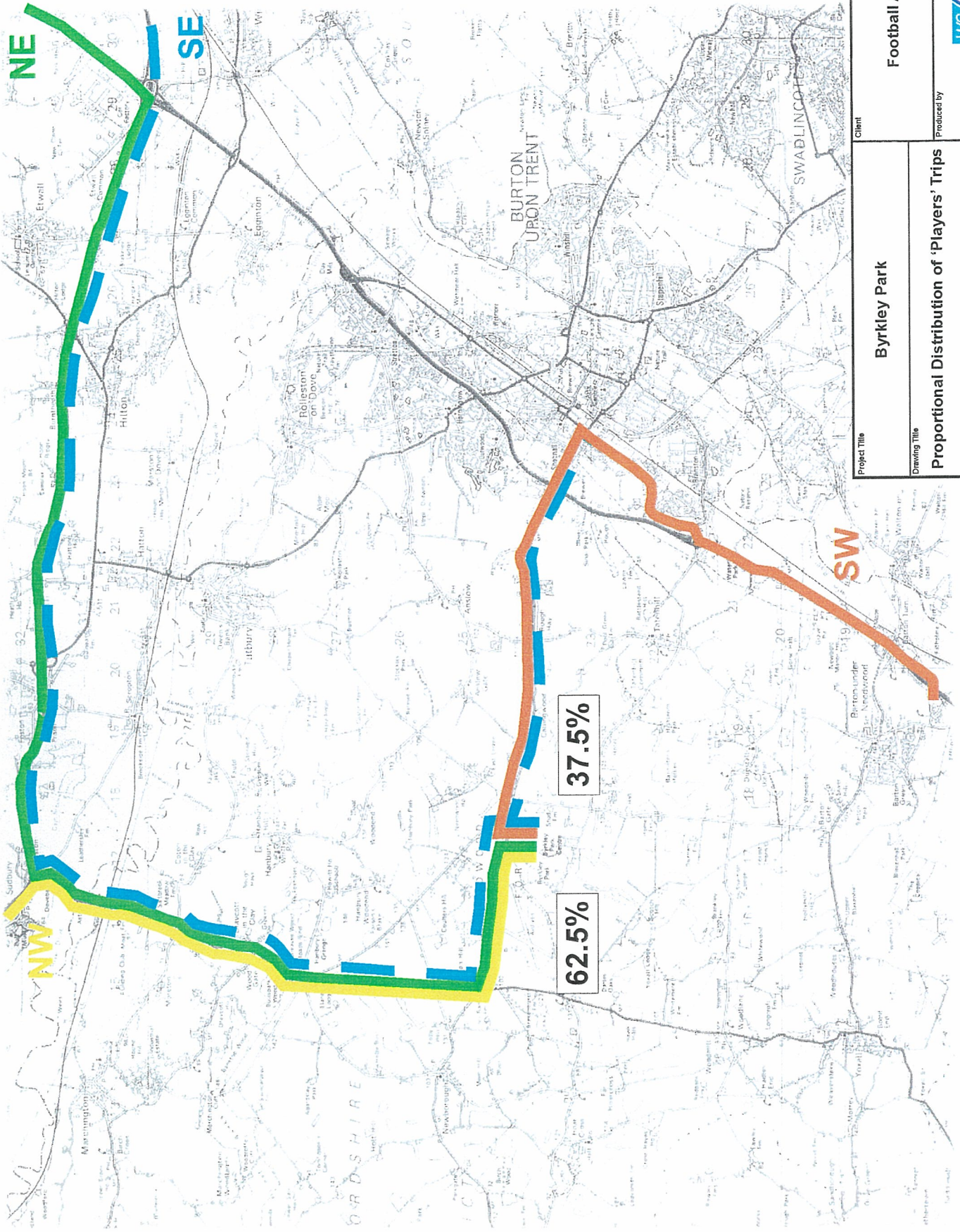
5.9 At the meeting of 16th February 2001, Officers from East Staffordshire Borough Council expressed the need to avoid traffic being routed through the nearby villages of Rangemore and Tatenhill. The users of the site (Players, coaches and associated staff) will be arriving from all over the country and will therefore use the strategic road network to travel to the site. The local network around the site will be signed. A signing strategy is currently being developed with both Councils, which will aim to keep traffic to the most appropriate local roads.

Calculation of Impact

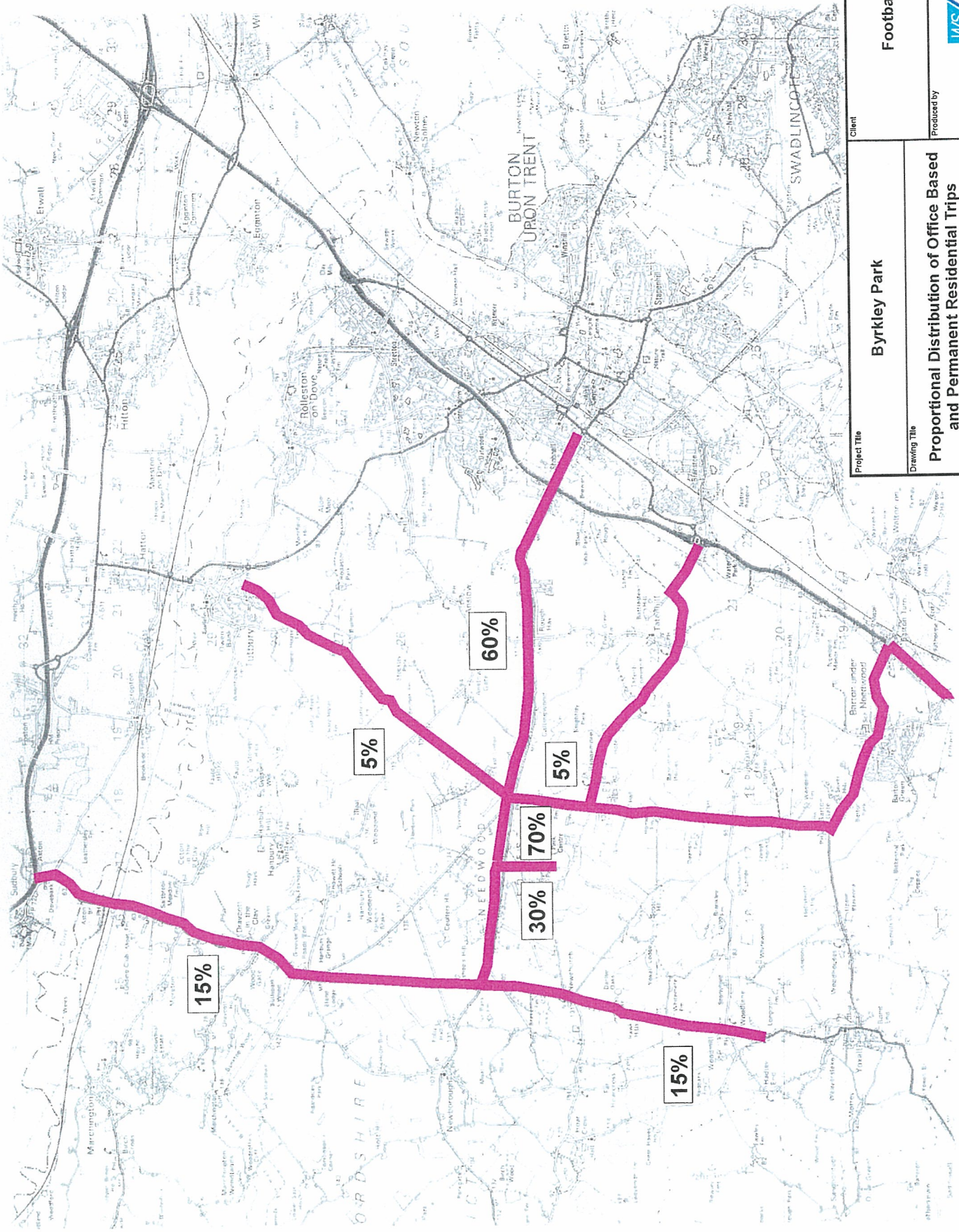
5.10 The impact of the development proposal was considered over 3 time periods:


- Daily (= 568 trips in total)
- Peak Hour (= 75 office trips arriving in the a.m. and leaving in the p.m.).
- Off Peak Hour (402 trips over 6 hours = 67 trips per hour). Base traffic flows for the off-peak periods were taken from traffic counts. Flows from 10.00 – 11.00 and 14.00 – 15.00 were used in the assessments to represent an off-peak hour in the morning and afternoon.

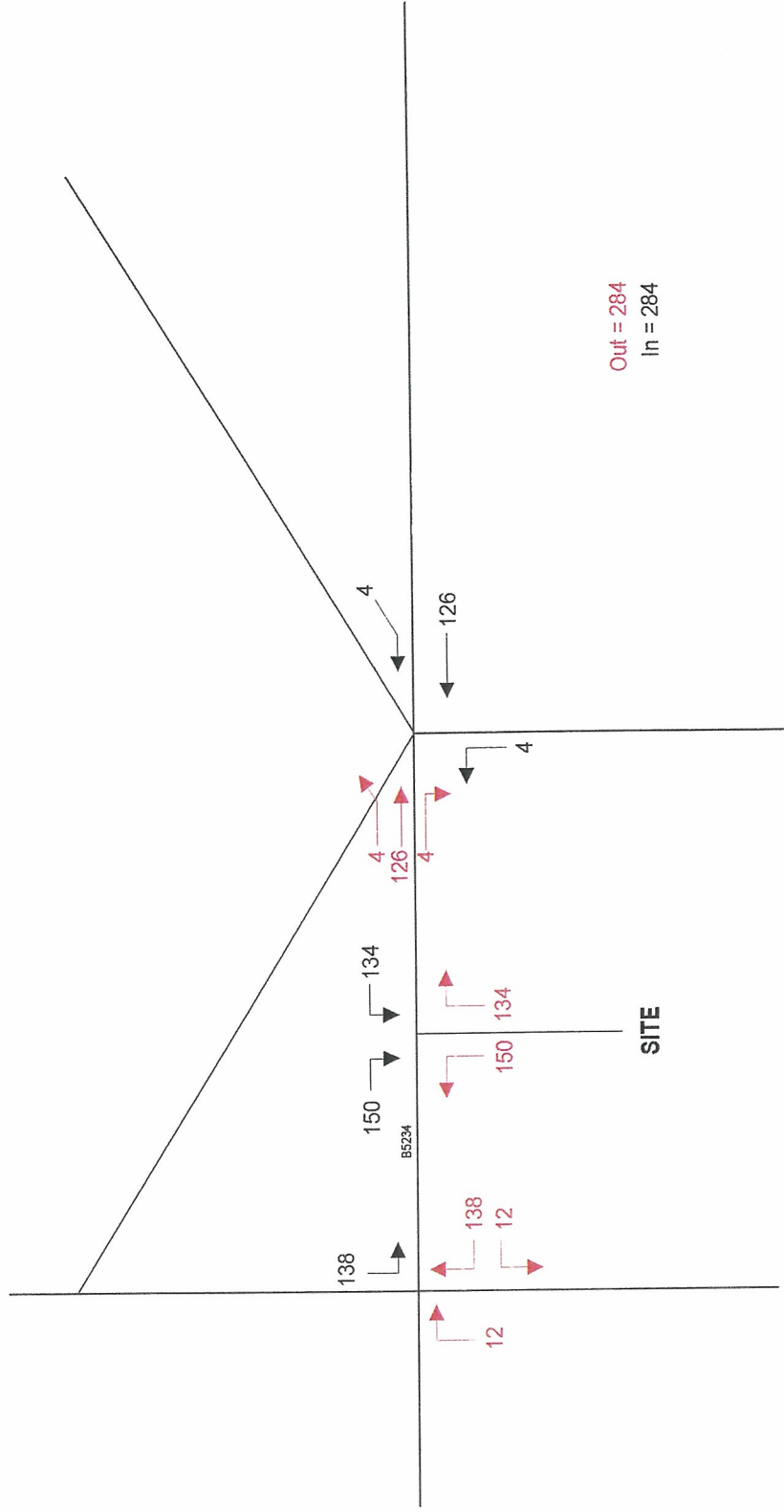
5.11 The development is expected to open in summer 2004.




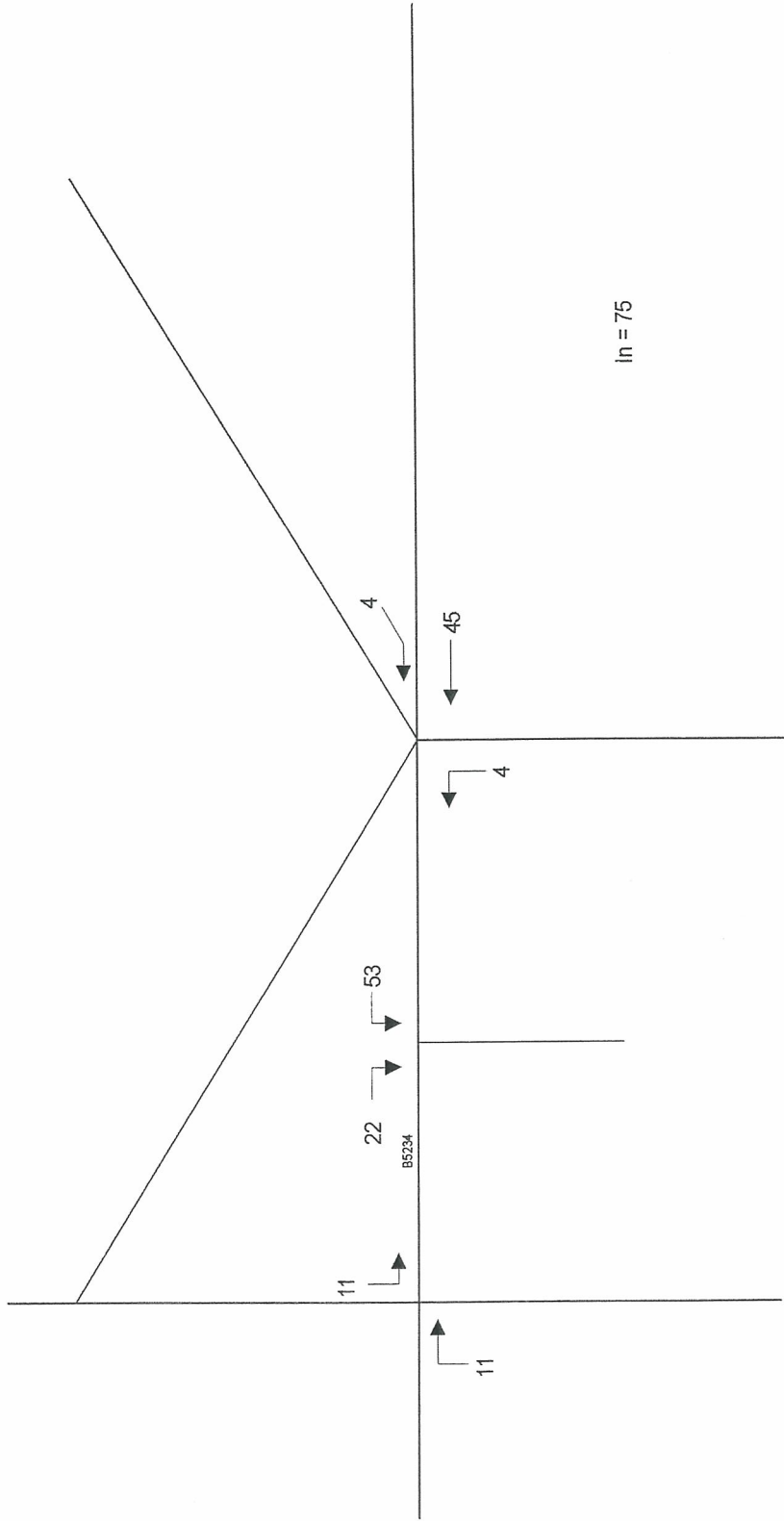
Project Title		Client	
Byrkley Park		Football Association	
Drawing Title		Produced by	
Proportional Distribution of 'Players' Trips		WS Atkins Audioback House, Five Ways Birmingham, B15 1DJ Tel: 0121 643 9621 Fax: 0121 643 9689	
Drg No.		Figure 5.1	



Project Title Byrkley Park	Client Football Association
	Produced by  Atchley House, Elm Way Birmingham, B15 1DJ Tel: 0121 643 9621 Fax: 0121 643 9680
Drawing Title Proportional Distribution of Office Based and Permanent Residential Trips	
Dig No. Figure 5.2	



Project Title	Byrkley Park	Client	Football Association
Drawing Title	Development Traffic Flows - Daily	Produced by	 WSP Atkins Auchinleck House, Five Ways Birmingham, B16 1DJ Tel: 0121 643 9621 Fax: 0121 643 9608
Dwg No.	Figure 5.3		



Project Title

Byrkley Park

Client

Football Association

Drawing Title

Development Traffic Flows - AM Peak

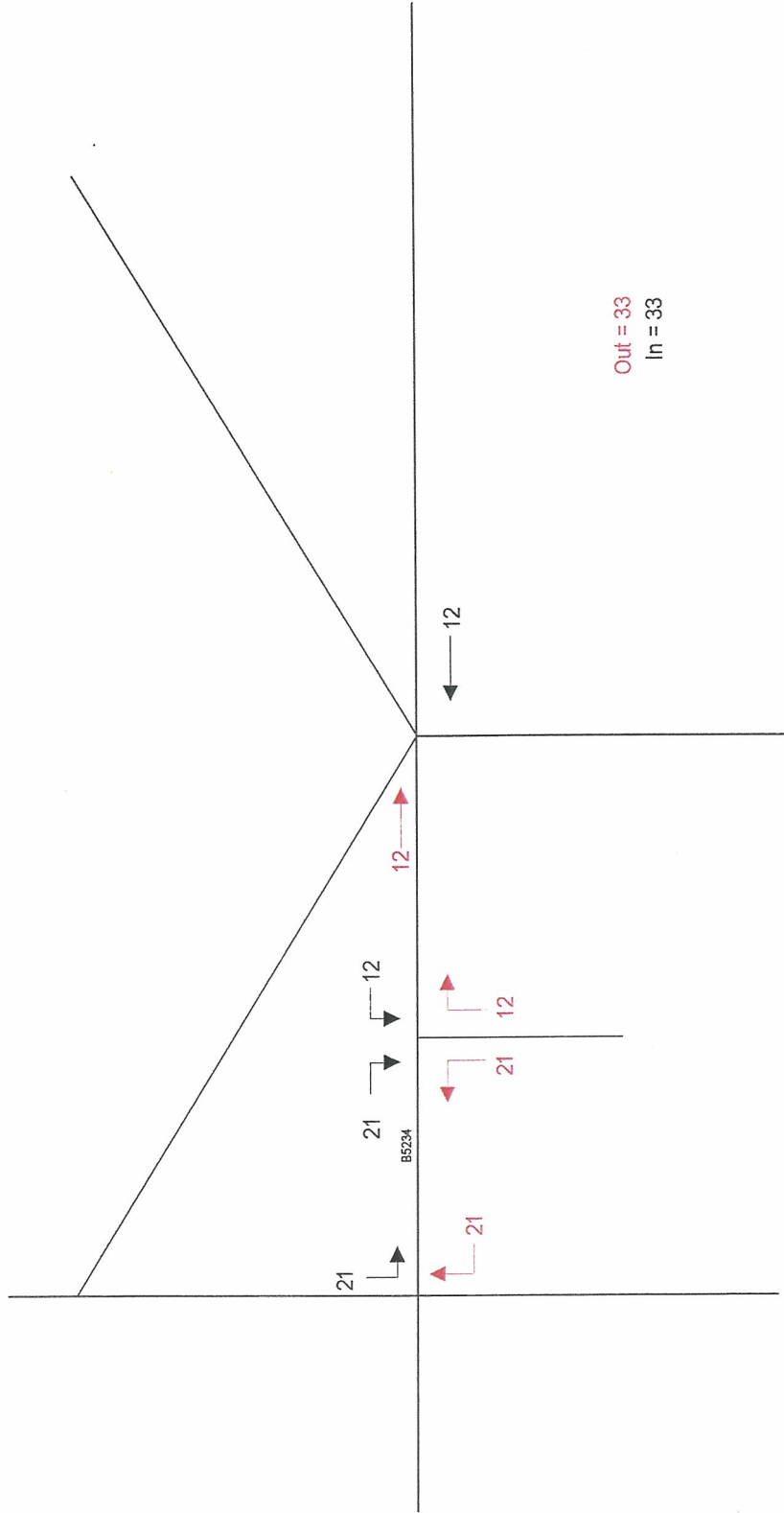
Produced by



Architect House, Five Ways
Birmingham, B15 1DJ
Tel: 0121 643 9621 Fax: 0121 643 9689

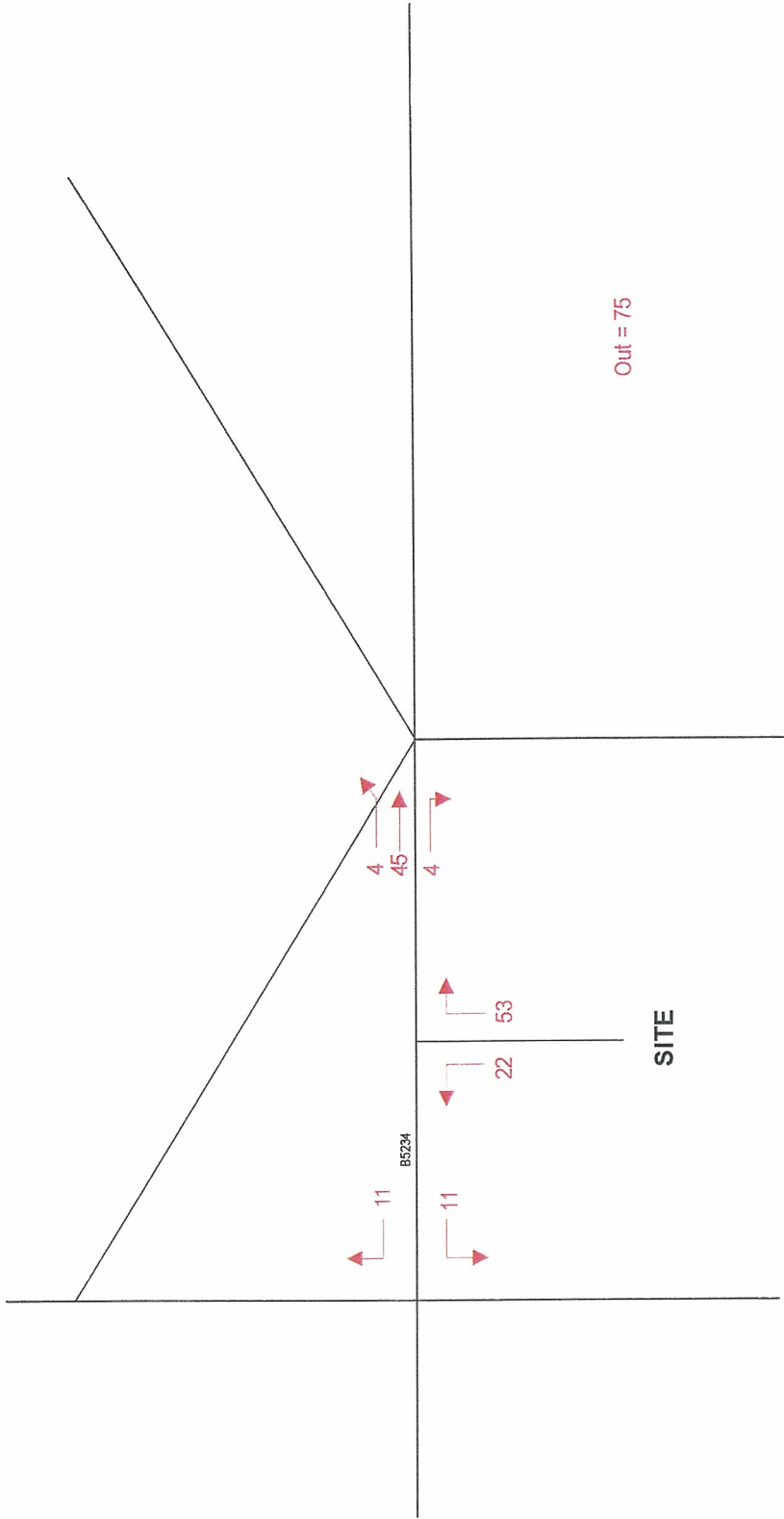
Drg No.

Figure 5.4



<p>Project Title Byrkley Park</p> <p>Drawing Title Development Traffic Flows - AM Off Peak</p> <p>Dig No.</p>	<p>Client Football Association</p> <p>Produced by WS Atkins Auchinleck House, Five Ways Birmingham, B15 1DJ Tel: 0121 643 9621 Fax: 0121 643 9689</p>
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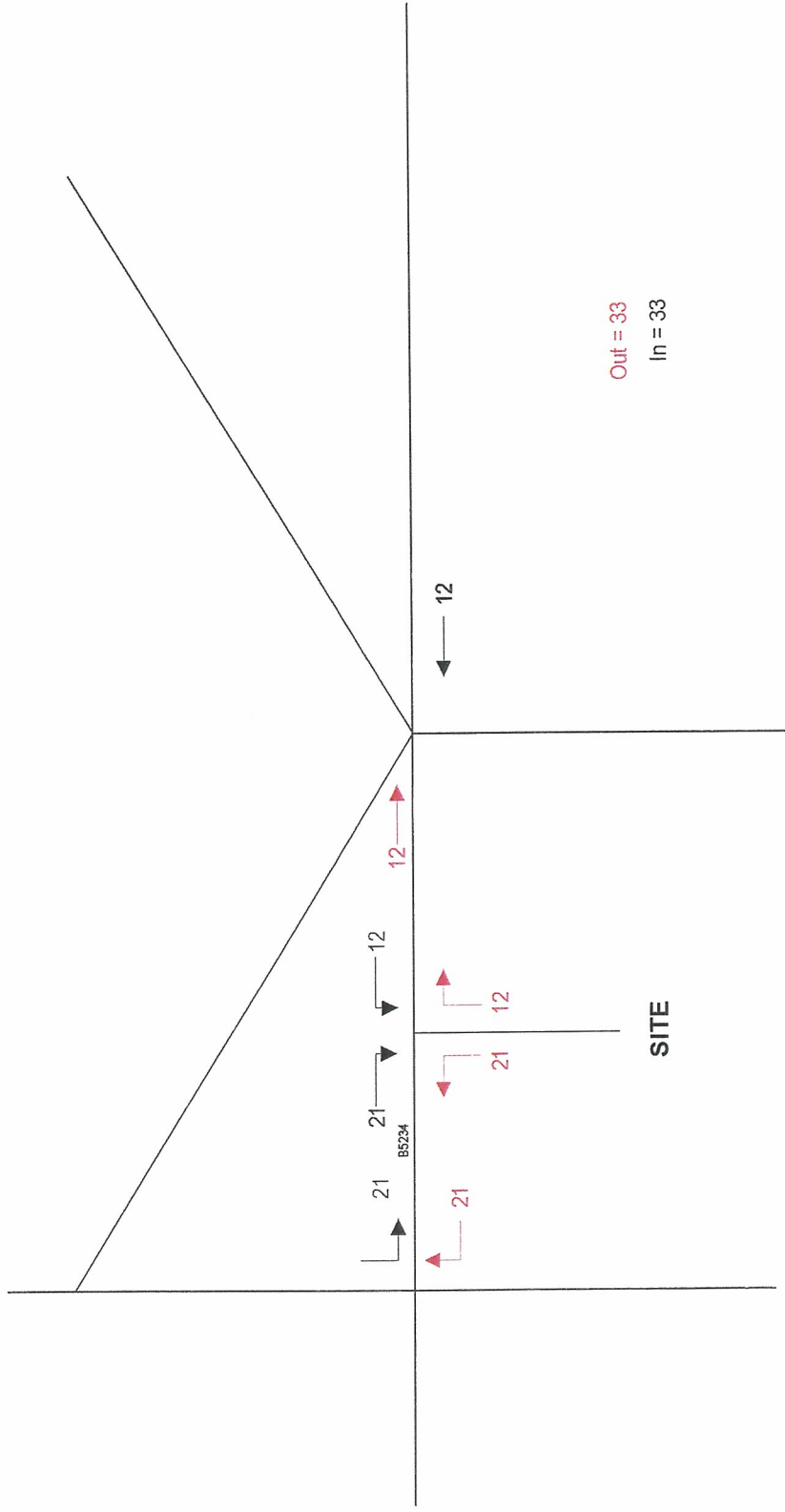
Figure 5.5



Project Title
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 Drg No.

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 Development Traffic Flows - PM Peak
 Figure 5.6

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Project Title
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Byrkley Park
 Development Traffic Flows - PM Off Peak
 Figure 5.7

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6. TRAFFIC IMPACT

Impact on Surrounding Roads and Junctions

- 6.1 The development traffic was assigned to the network following the assumptions outlined in Section 5. The table below describes the proportional impact of development traffic on each relevant link.

Table 6.1 – Proportional increase in traffic on Surrounding Roads

Road Link	Daily	AM		PM	
		Peak	Off Peak	Peak	Off Peak
B5234 East of site access	10%	15%	14%	18%	10%
B5234 West of site access	11%	6%	25%	8%	17%
B5017 East	5%	7%	6%	8%	8%
A515 North	8%	3%	16%	3%	17%

- 6.2 As can be seen from the table, the greatest impact is likely to occur on the B5234 west of the site access, between the site and the A515 junction. This impact will be greatest in the off peak period, when traffic flows on this road could increase by 25% in the AM off peak. However, it should be noted that although this increase might seem large, in proportional terms, existing background traffic levels on this route are very low. For example, development traffic on the B5234 west of the site access may amount to 42 vehicles per hour (two way) in the off-peak period against a background two way flow of 166 vehicles. These traffic levels are low considering a single carriageway road of this nature is capable of carrying up to 1,800 vehicles per hour in each direction. It is also unlikely that queues and delays at the B5234 / A515 junction will be significantly affected by these increases.
- 6.3 The following table summarises the likely impact on each of the links and junctions considered as part of this report.