SECTION 1  INTRODUCTION

1.1  Clients of Fairlie Real Estate have appointed i-Transport LLP to provide transport and highways advice in relation to a proposed residential development at land north of Springfield Oval, located some 800m north-west of Witney town centre. The site is capable of accommodating approximately 50 dwellings.

1.2  This technical note summarises the proposed access arrangements to serve the development and sets out the compliance with current national and local design guidance.

SECTION 2  SITE ACCESS ARRANGEMENTS

2.1  Clients of Fairlie Real Estate currently control properties no’s 27 and 28 Springfield Oval. It is proposed these existing homes will be demolished to provide a simple priority T-junction onto Springfield Oval in this location to provide access to the site. The access road will be 5.0m wide and a 2.0m wide footway will be provided on both side of the carriageway to provide pedestrian access into the site, which will tie in with the existing footway provision on Springfield Oval.

2.2  On-site observations indicate that vehicles are travelling no faster than 15mph in the vicinity of the proposed site access due to the presence of parked cars and the proximity of the site access to the bend in the road to the east of the access. These characteristics act as traffic calming features along Springfield Oval and assist in reducing prevailing vehicle speeds.
2.3 Using the formula set out in Manual for Streets (MfS), vehicle speeds of 15mph on Springfield Oval require a minimum visibility provision along the main road of some 17m, i.e. a vehicle approaching along Springfield Oval needs to see to and be seen by a vehicle emerging from the site at a distance of 17m. A 2.4m set back distance represents a reasonable maximum distance between the front of a vehicle and the driver’s eye without the vehicle protruding into the carriageway. However, in order to undertake a worst case assessment, the visibility splays at the proposed site access required for vehicles travelling at 25mph, i.e. 2.4m x 33m, are shown on i-Transport drawing number ITB9185-GA-002.

2.4 This drawing shows that the proposed site access arrangement complies with the guidance in MfS and provides safe and acceptable visibility from the site, exceeding the requirements for the likely vehicle speeds on Springfield Oval.

2.5 i-Transport drawing no. ITB9185-GA-002 also demonstrates that a large refuse vehicle can safely manoeuvre into and out of the proposed site access.

2.6 Springfield Oval / Springfield Park forms a residential cul-de-sac providing access to a total of some 93 dwellings. The layout of the estate is in the form of a circuit. The carriageway is approximately 5.0m wide with footways on both sides separated from the carriageway by wide grass verges.

2.7 Oxfordshire County Council’s current highway design guidance was adopted prior to (MfS\(^1\)) and therefore sets out more onerous requirements than current national design guidance. Notwithstanding this, the Oxfordshire Residential Road Design Guide states that a minimum carriageway width of some 4.8m is required to serve up to 200 dwellings via a residential loop road. The carriageway width on Springfield Park and Springfield Oval therefore meets this criterion to serve at least 50 dwellings on the site (including the 93 dwellings already served).

2.8 The existing 5.0m width is sufficient to enable a HGV to comfortably pass a car (ref: MfS Figure 7.1), and is also in accordance with the minimum streets width recommended by BS5906:2005, which allows a refuse vehicle to pass a parked car (ref: MfS paragraph 6.8.7).

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\(^1\) The Manual for Streets was published in March 2007 and superseded the guidance previous set out in ‘Design Bulletin 32’ and ‘Places, Streets and Movement’. The latter two documents were based on the highways led guidance set out in the Design Manual for Roads and Bridges (DMRB), which is the statutory guidance for motorways and trunk roads, i.e. it is based on providing for traffic movement rather than facilitating good design or providing for walking and cycling.
2.9 It is also fully acceptable to serve 150-or-so dwellings from a cul-de-sac. Even with the pre-MfS guidance the maximum threshold was 300 dwellings. The current guidance is set out below:

“the length of cul-de-sacs or the number of dwellings have been used by local authorities as criteria for limiting the size of a development by a single access route. Authorities have often argued that the larger the site, the more likely it is that a single access could be blocked for whatever reason. The fire services adopt a less-numbers driven approach and consider each application based on a risk assessment for the site, and response time requirements”. (ref: MfS paragraph 6.7.3)

2.10 Against this background, the proposed access via Springfield Oval is in full accordance with current national and local design standards.

SECTION 3 SPRINGFIELD PARK / A4095 BURFORD ROAD JUNCTION

3.1 Springfield Park forms a simple priority junction on the A4095 Burford Road to the south of the site. The A4095 Burford Road is subject to a 30mph speed limit in the vicinity of the junction with Springfield Park.

3.2 MfS2 provides guidance of where the main principles of the Manual for Streets apply for streets of differing speeds. As set out in paragraph 1.3.2 of MfS2:

“... most MfS advice can be applied to a highway regardless of speed limit. It is therefore recommended that as a starting point for any scheme affecting non-trunk roads, designers should start with MfS.”

3.3 Paragraphs 1.3.6 of MfS2 also states:

“It is only where actual speeds are above 40mph for significant periods of the day that DMRB parameters for SSD are recommended. Where speeds are lower, MfS parameters are recommended.”

3.4 On-site observations indicate that vehicle speeds are broadly in accordance with the posted speed limit and therefore Burford Road meets this criterion.
3.5 MfS states that for streets with vehicle speeds of 30mph, the visibility provision along the main arm should be some 43m, i.e. a vehicle approaching along Burford Road needs to see and be seen from a vehicle emerging from Springfield Park at a distance of 43m. A 2.4m set back distance represents a reasonable maximum distance between the front of a vehicle and the driver’s eye without the vehicle protruding into the carriageway. In order to undertake a worst case assessment, the visibility splays required for vehicles travelling at 37mph (i.e. 2.4m x 59m) have also been included on the drawing.

3.6 i-Transport drawing no. ITB9185-GA-001 demonstrates that the achievable visibility at the Burford Road / Springfield Park junction exceeds the requirements for vehicle speeds of 37mph to both the left and right. This has also been confirmed through on-site measurements.

3.7 Furthermore, a review of the ‘Crashmap’ website suggests that no personal injury accidents have been recorded at the Burford Road / Springfield Park junction between 2005 and 2012 which indicates the junction performs safely.

3.8 The existing junction therefore provides safe and acceptable visibility from Springfield Park onto Burford Road in full accordance with the guidance in MfS.

SECTION 4 SUMMARY AND CONCLUSION

4.1 Clients of Fairlie Real Estate propose to develop approximately 50 residential dwellings on land north of Springfield Oval, Witney.

4.2 A new simple priority junction will be provided onto Springfield Oval to provide vehicular and pedestrian access to the site. The proposed access arrangements provide safe and acceptable visibility from the site to Springfield Oval appropriate for the vehicular traffic speeds and road conditions in compliance with the guidance in MfS and the Oxfordshire Residential Road Design Guide. The proposed access can also safely accommodate a large refuse vehicle.

4.3 The existing A4095 Burford Road / Springfield Park junction also provides safe and acceptable visibility appropriate for the vehicular traffic speeds and road conditions on Burford Road in accordance with the requirements of MfS.
DRAWINGS
PROPOSED SITE ACCESS ARRANGEMENTS VIA SPRINGFIELD OVAL

1. REFUSE VEHICLE ENTERING SITE
2. REFUSE VEHICLE EXITING SITE

PROPERTY UNDER APPLICANT'S CONTROL

SITE BOUNDARY