Technical Note

Project:	Adamstown -Aderrig Phase 2		
Subject:	CFI Transport Response		
Author:	Peter Foley		
Date:	20/01/2022	Project No.:	5150924
Atkins No.:	5150924DG0101		
Distribution:	SDCC Quintain Design Team		

Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 1.0	For Planning	PF	PF	PF	PF	20012022

1. Aderrig Phase 2

Quintain Developments Ireland submitted a planning application (Ref: SDZ21A/0014) for Aderrig Phase 2 to the South Dublin County Council (SDCC). The SDCC decision order number 1428 has requested further information in relation to the above application. Specifically, item 1 of the CFI relates to the treatment of the north-south Linear Park Road.

Below is Atkins' formal response to the CFI items on behalf of our client Quintain Developments Ireland Ltd.

Atkins met and discussed the CFI with South Dublin County Council Traffic Roads Forward Planning Team (John Joe Hegarty and Goodrock Project Management Ltd to discuss the roads concerns raised in the CFI and develop an appropriate solution. The content below is reflective of an agreed approach which is both in line with the objectives and aims of the Planning Scheme and is in accordance with best practice guidance such as Design Manual for Urban Streets (DMURS).

1.1. Response

The design approach to Linear Park Road has been informed by the following:

1. An understanding of vehicular activity along this street and the adjoining road network; and
2. Best practice guidance as set out in Design Manual for Urban Roads and Streets and Manual for Streets(DMURS).

The following sections provide the above context and justification for the design approach

Understanding of Traffic Activity

Upon review of the Adamstown VISSUM Traffic Model, produced by Atkins on behalf of Adamstown Infrastructure DAC for the entire of Adamstown SDZ, it became apparent that traffic flows along Linear Park Road are anticipated to be light in comparison to the road network surrounding it and specifically in relation to other avenues. Figures 1 and 2 below show the AM and PM Peak traffic flows on the Adamstown Road Network. The thickness of the line is representative of the volume of traffic flowing on each road. As shown in these figures peak traffic flows along Linear Park Road is anticipated to be very light in comparison to other avenues and is more reflective of traffic flows along local roads. Details of actual traffic flows are shown in Table 1.

Figure 1- AM Peak Hour Average Traffic Volumes

Figure - PM Peak Hour Average Traffic Volumes

It is clear from the traffic model that vehicular flows along Linear Park Road are anticipated to be very low as shown in Table 1.

Table 1 – Traffic flows to and from Linear Park Road during AM / PM peak period

Junction 3	PCU's AM	PCU's PM
ABC to D (Linear Park Road)	41	22
D (Linear Park Road) to ABC	63	7
Junction 4	**PCU's AM**	**PCU's PM**
AC to B (Linear Park Road)	38	2
B (Linear Park Road) to AC	40	11

In traffic terms, this is less than 1 Passenger Car Unit (PCU) per minute in the AM peak entering or leaving Linear Park through either junction 3 or 4. Anticipated flows in PM peak are expected to be substantially less with maximum flows of 1 PCU every 3 minutes. These flows are more typical of very low traffic environments rather than an avenue type street.

Specifically in relation to actual traffic flows, Figures 3 and 4 below indicate anticipated AM and PM peak traffic flows from the Traffic Model on the Linear Park Road and the surrounding road network.

Figure 3 – AM Peak Traffic Flows on network surrounding Aderrig Phase 2

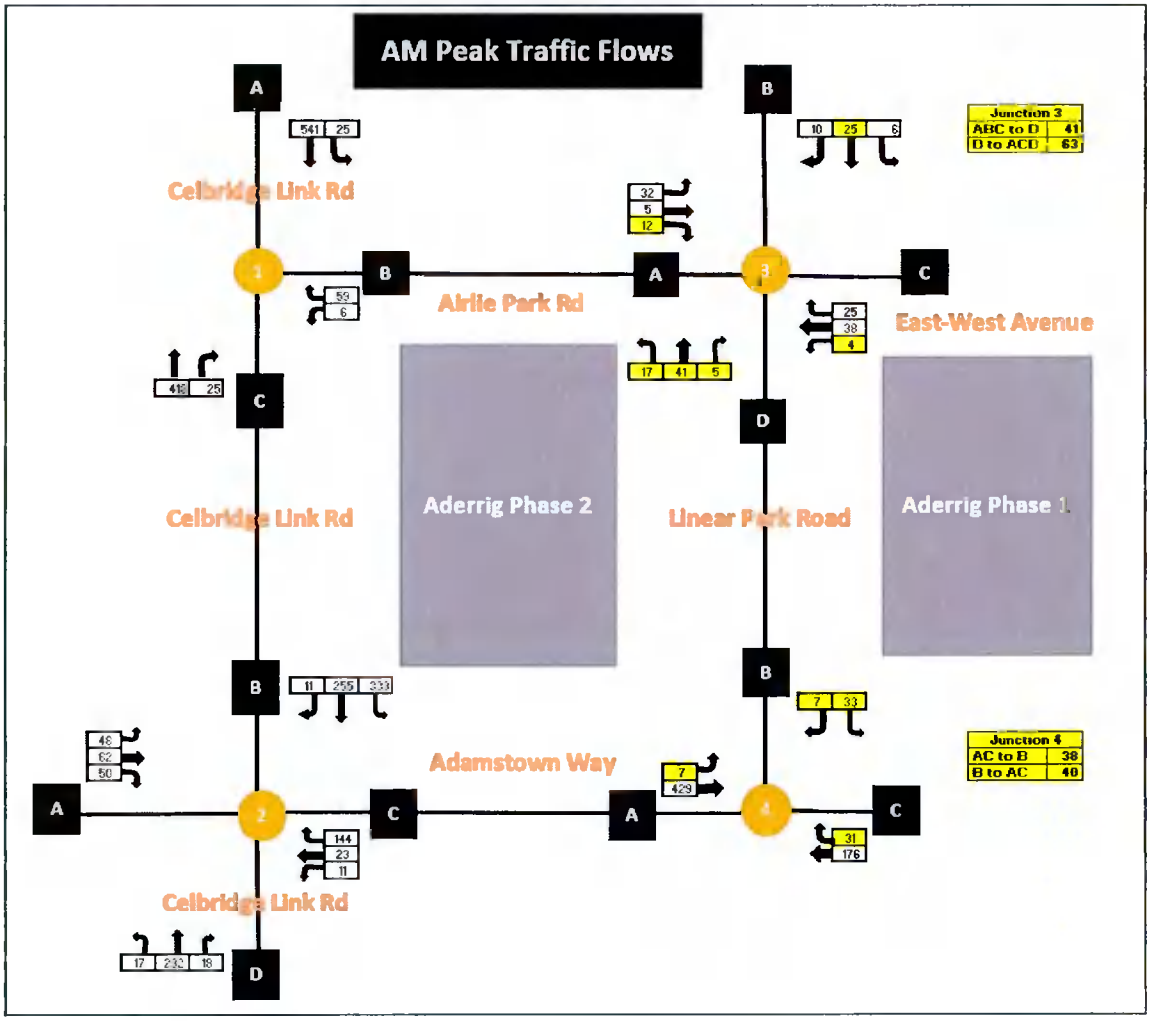
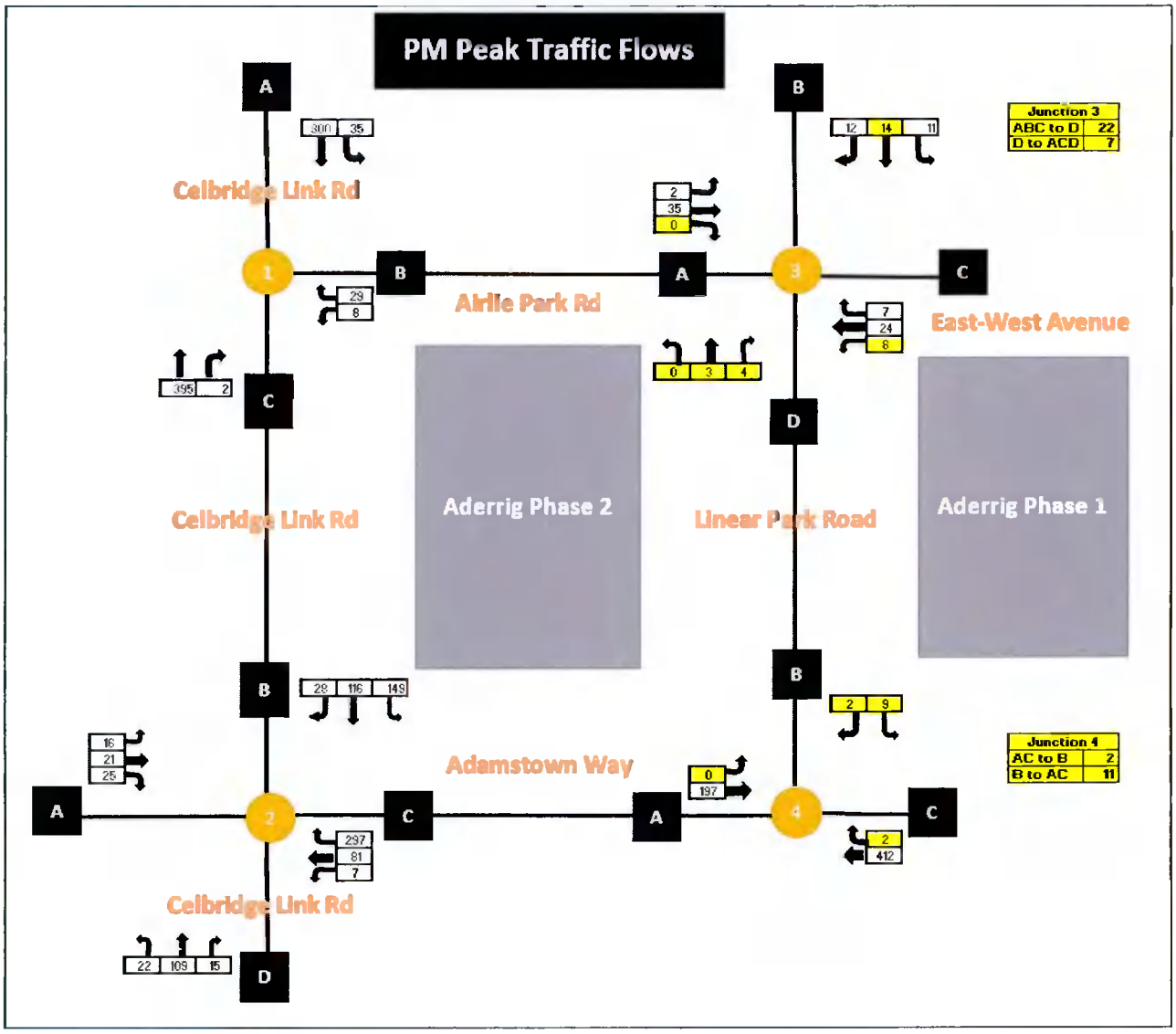


Figure 4 – AM Peak Traffic Flows on network surrounding Aderrig Phase 2



DMURS Approach

Based on the above precedent and understanding of the low traffic flows experienced on Linear Park Road, DMURS and the Manual for Streets Design guidance were used to inform the appropriate design approach for this street.

As set out in DMURS (Chapter 2 Re-Examining the Street) Safety (page 22-23):

"*By limiting elements such as junctions and on-streetcar parking, the number of potential vehicular traffic conflicts/stoppages is reduced. Clearer sightlines and wide carriageways also allow for greater driver reaction time/error correction. Whilst this approach is sensible on isolated roads, within urban areas it can be counterproductive as it may transfer risk to more vulnerable users. Research has found that:*

The speed at which drivers travel is principally influenced by the characteristic of the street environment

If the design of a street creates the perception that it is safe to travel at higher speeds drivers will do so, even if this conflicts with the posted speed limit.

By eliminating risk and promoting free-flowing conditions, drivers feel more inclined to drive at higher speeds. The extent to which speeding in urban areas is a problem has been identified in successive surveys carried out by the Road Safety Authority, with 3 out of 5 drivers on urban streets driving in excess of the posted speed limit."

The solution to this is the development of **self-regulating streets** that manage driver behaviour and calm traffic promoting safer streets. There are a range of traffic calming measures (see Manual for Streets section 7.7.4) that can be incorporated to achieve this including:

- Introduction vertical and horizontal deflection
- Reducing street widths
- Reductions to forward visibility
- Sense of enclosure and active frontages
- Increased pedestrian activity
- On street parking, particularly perpendicular parking to the carriageway

Given that there is a linear park on the eastern side of the street, the sense of enclosure and active frontage along Linear Park Road is only really achieved by the dwelling units associated with Aderrig Phase 2. In order to calm traffic and create a self-regulating street, the design approach considered most appropriate was to introduce perpendicular parking along the street frontage as recommended in the **Manual for Streets**. This traffic calming will also benefit future users of the primary school proposed at the junction of Linear Park Road and East-West Avenue. The traffic calming will slow vehicle speeds and make this a more holistically pleasant environment which will encourage active travel modes for pupils.

1.2. Conclusion

Based on the above analysis we believe that the provision of perpendicular car parking on Linear Park Road is the correct design approach to take for this street and is in line with the SDZ Planning Scheme.