

Accessibility Appraisal

Childerditch Properties
The Range North, Childerditch Industrial Estate
September 2013





Childerditch PropertiesThe Range North, Childerditch Industrial Estate September 2013



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1 INTRODUCTION

Brief

1.1 Journey Transport Planning Ltd has been instructed by Mr J Ford of Childerditch Properties to provide an Access Appraisal in support of representations to the emerging Brentwood Local Plan with respect for the promotion of an allocation for the purposes of a mixed B1, B2 and B8 Industrial use on land at the Childerditch Industrial Estate known as the Range North. The site location is illustrated in **Appendix 1**.

Background

- 1.2 The site has been previously utilised for the temporary storage of building and other materials and has a direct connection with the existing industrial estate road network.
- 1.3 This Access Appraisal considers the suitability of the site for a mixed B1, B2 and B8 allocation in terms of highway access, accessibility and the suitability of connections to the wider community. Moreover this Appraisal seeks to demonstrate that the site is deliverable for the purposes of transport and access and would not harm the interests of highway safety or capacity in the vicinity.

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2 NATIONAL AND LOCAL POLICY

National Policy

- 2.1 Relevant policy guidance relating to new development, and transport and land use planning is set out at national and local levels in the following documents:
 - the National Planning Policy Framework; and
 - the DfT Transport Assessment Guidelines.
- 2.2 These documents set the context in which the site's proposals have been assessed.

The National Planning Policy Framework (NPPF)

- 2.3 The current National Planning Policy Framework (NPPF, Mar 2012) supersedes all previous Planning Policy Statements (PPS) and Planning Policy Guidance (PPG), and within which the government set outs its core principles for the planning system in England, considering that the system should:
 - be genuinely plan-led, empowering local people to shape their surroundings, with succinct local and neighbourhood plans setting out a positive vision for the future of the area. Plans should be kept up-to-date, and be based on joint working and co-operation to address larger than local issues. They should provide a practical framework within which decisions on planning applications can be made with a high degree of predictability and efficiency;
 - not simply be about scrutiny, but instead be a creative exercise in finding ways to enhance and improve the places in which people live their lives;
 - proactively drive and support sustainable economic development to deliver the homes, business and industrial units, infrastructure and thriving local places that the country needs. Every effort should be made objectively to identify and then meet the housing, business and other development needs of an area, and respond positively to wider opportunities for growth. Plans should take account of market signals, such as land prices and housing affordability, and set out a clear strategy for allocating sufficient land which is suitable for development in their area, taking account of the needs of the residential and business communities;
 - support the transition to a low carbon future in a changing climate, taking full account of flood
 risk and coastal change, and encourage the reuse of existing resources, including conversion of
 existing buildings, and encourage the use of renewable resources (for example, by the
 development of renewable energy);

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- contribute to conserving and enhancing the natural environment and reducing pollution.
 Allocations of land for development should prefer land of lesser environmental value, where consistent with other policies in the Framework;
- encourage the effective use of land by reusing land that has been previously developed (brownfield land), provided that it is not of high environmental value; and
- actively manage patterns of growth to make the fullest possible use of public transport, walking
 and cycling, and focus significant development in locations which are or can be made
 sustainable.

Promoting Sustainable Transport

- 2.4 Whilst not prescriptive, the current National Planning Policy with regards to transport, Section 4 of the National Planning Policy Framework Promoting sustainable transport, considers that 'transport policies have an important role to play in facilitating sustainable development' and also in 'contributing to wider sustainability and health objectives'. Wherein the transport system needs to be 'balanced in favour of sustainable transport modes, giving people a real choice about how they travel'.
- 2.5 The NPPF therefore considers that Local Plans through Land Use Planning should support a pattern of development which facilitates the use of sustainable modes of transport and development should be located so as to minimise the need to travel. Furthermore, planning policies should aim for a balance of land uses within an area which will encourage people to 'minimise journey lengths for employment, shopping, leisure, education and other activities'.
- 2.6 Notwithstanding the above, the NPPF recommends that developments should only be prevented or refused on transport grounds where the residual impacts of development are severe.

Local Policy

- 2.7 The following local policy document presently constitutes the development plan for Brentwood Borough Council and continues to have relevance to the site although the Council is in the process of preparing its new Local Plan, which will eventually supersede the Adopted 2005 Local Plan in its entirety.
 - Saved policies of the Adopted Brentwood Local Plan 2005

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- 2.8 The advice contained in the national, regional and local policy documents has been considered during the development of this proposal.
- 2.9 The Adopted Brentwood Local Plan identifies Policy Aims and Objectives for new development and sustainable transport that support national guidance, and in relation to Travel Plans requires under Policy T1 that:
 - The council will expect businesses, schools, hospitals and other uses to adopt travel plans. All applications for proposals which are likely to give rise to significant transport implications (either of themselves or in conjunction with other proposals) will be required to provide a travel plan incorporating, for example, measures to reduce travel to and from the site by car, provision of on-site facilities for cyclists, contributions to the improvement or expansion of public transport provision, and the promotion of safe cycle and pedestrian routes.
 - Applicants will be expected to enter into a legal agreement setting out how any measures referred to above are to be achieved
- 2.10 Under Policy T2, New Development and Highway Considerations, it sets out that:
 - Planning permission will not be granted for proposals where:
 - i) an assessment of the proposal indicates an unacceptable detrimental impact on the transport system which cannot be resolved by agreed mitigation measures
 - ii) it does not comply with the current county highway authority's guidance as set down in the following publications:
 - A) The Essex Design Guide for Residential and Mixed use areas "service and access"•
 - B) "THE HIGHWAY ASPECTS OF DEVELOPMENT CONTROL"
- 2.11 It is considered that the proposed allocation is in accordance with the aims and objectives of transport policy as it applies to both its location and the use proposed as is demonstrated by this Accessibility Appraisal.

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3 EXISTING CONDITIONS

Existing Information

- 3.1 The site is situated on the Childerditch Industrial Estate which takes access via a private road, Childerditch Hall Drive, leading to the A127 Arterial Road. The roads on the Estate, including the access to the site, are all non-adopted private roads.
- 3.2 The site is well connected to the strategic road network via the A127 to the south offering good access to South East Essex, London and beyond.
- 3.3 Childerditch Hall Drive is standard 6.0m carriageway road from its junction with the Industrial Estate to the A127 and is of a suitable construction and width to accommodate traffic associated with the industrial area.
- 3.4 Childerditch Hall Drive is connected to the A127 via a left in-left out arrangement that was modified with improved tapers by the Highways Agency as part of a Section 278 Agreement connected with development on the Childerditch Industrial Estate ensuring that the access could safely accommodate the traffic associated with the Estate.
- 3.5 Traffic leaving the Estate heading toward the M25 from Childerditch Hall Drive, due to the left inleft-out only arrangement, is required to turn round at the A127/A128 interchange, similarly, traffic arriving from the east is required to turn round at the A127/B186 Warley Interchange to access the left-in from the A127.

Baseline Transport Data

- 3.6 Traffic surveys undertaken on behalf of Essex Highway Services on the Childerditch Hall Drive/Industrial Estate Road on 13 June 2012 have been utilised in this assessment. The Traffic data is held in **Appendix 2.**
- 3.7 The surveys were conducted between 05:00-19:00 and were fully classified with all movements recorded. Peak hour turning movement diagrams are held in **Appendix 3.**

Public Transport Accessibility

3.8 There is no direct public transport coverage to the site. The nearest service runs on the A128 some two miles from the site.

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3.9 The closest railway station to the site is West Horndon Rail Station which is approximately two miles distant which accessible by cycle and within the recommended 5km cycle catchment area.

Walking and Cycling Assessment

- 3.10 Cycling has the potential to substitute for short car trips, particularly those less than five kilometres. Cycle access to the proposal has been considered in detail. For the purposes of cycle accessibility, a cycle time of 20 minutes, which equates to five kilometres at an average speed of 15kph, has been assumed.
- 3.11 The five kilometre catchment area of the proposal site covers a large part of south Brentwood including the town centre, Warley and residential areas to the south which can be reached via cycle friendly country lanes.
- 3.12 With respect to pedestrian access, a walk time of ten minutes is generally considered the maximum acceptable to directly access any local facility or amenity and equates to a distance of 800 metres. Due to the site's relatively remote location, pedestrian access is not a suitable option for access.

Safety Considerations and Accident Analysis

- 3.13 www.Crashmap.UK has been interrogated to view any accident data associated with the site. The information available indicates that there have been no accidents in the vicinity of the access in the last three year period which demonstrates that there are no significant safety issues with respect to the use of the access.
- 3.14 The access from Childerditch Lane onto the A127 has been examined and only one accident occurred near to the junction and involved a stationary vehicle shunt following a previous accident further along on the A127. The accident was not associated with the use of the junction.

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4 DEVELOPMENT PROPOSALS

Description of Proposal

- 4.1 Illustrative plans of options of the proposed development are shown in **Appendix 4** and indicates the principal points of access to the site and the general site layout.
- 4.2 Access to the site can be achieved via a direct extension of the existing industrial estate roads infrastructure which is provided by way of standard 6.0m carriageways with footways to both sides.
- 4.3 The proposed allocation considers the development of between 3,000m² and 5,000m² of mixed B1, B2 and B8 use in keeping with the on-going uses on the industrial estate.

Trip Generation

- 4.4 In accordance with the requirements set out in the Guidance for Transport Assessment (DfT 2007), the proposals have been considered with respect to the likely level of trips that could be generated and the impact they would have on the local highway network.
- 4.5 The TRICS 2013 trip generation database has been interrogated to assess the likely number of vehicular trips that could be associated with a generic office use in this location.
- 4.6 The travel demand that could be associated with the proposal has been considered in detail and assessed utilising data from the TRICS trip generation database. Sites within the database have been interrogated to consider sites that are similar in land use, location, car parking and size to the proposal being considered.
- 4.7 It is considered, given the on-going uses on the site typify those undertaken on an Industrial Estate and as such the Industrial Estate land use category has been utilised to provide an estimate of trip generation for an allocation on the site.
- 4.8 **Table 4.1** summarises the trip generation rates and provides an estimate of vehicular movements associated with up to 5,000m² of Industrial Estate Use.

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Table 4.1 TRICS Industrial Estate Use Trip Rate and Forecast Generation Summary

		/I Peak 10-09:00)		VI Peak 00-18:00)
	Arrivals	Departures	Arrivals	Departures
Trip Rate	0.539	0.213	0.165	0.401
Total trips 5,000 m ²	27	11	8	20

4.9 **Table 4.1** indicates that a 5000m² allocation could result in up to 38 two-way trips in the AM peak and in the PM peak 28 two-way trips. The data obtained from TRICS is shown in **Appendix 5**.

Trip Distribution and Assignment

- 4.10 An examination of the traffic survey indicates that all traffic arriving and departing the Childerditch Industrial Estate does so to and from the A127 and as such all development traffic is assumed to adopt the same route.
- 4.11 Given the left in left out arrangement it is assumed that west bound development traffic will U-turn at the A128 and traffic from the east will U-turn via the B186 as per the existing traffic to the estate.

Traffic Impact

- 4.12 The traffic flows at the Childerditch Hall Drive/Industrial Estate junction are set out in the network flow diagrams in **Appendix 3**. The level of traffic at the junction is very light and as there is no through traffic there are no capacity issues at the junction and the very small increase traffic that could be generated by an allocation will not have an impact on the capacity of the junction.
- 4.13 In any event, Childerditch Hall Drive is not adopted highway and as such there is no requirement to undertake a detailed assessment of this junction and furthermore, the small traffic flow increases at this junction will not have an impact on the County Road Network.
- 4.14 Data set out in the Basildon Saturn Model Technical Note 2012 indicates that peak hour traffic flows on the A127 near to the site are around 3,000 vph in each direction.
- 4.15 **Table 4.2** below sets out the percentage increase in traffic on the A127 adjacent to Childerditch Hall Drive junction assuming a 50-50 split east and west distribution at the A127.

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Table 4.2 Development Traffic Percentage Increase on A127

		AM Peak 08:00-09:00			PM Peak 17:00-18:00	
	One Way Flow	Dev Traffic	%age Increase	One Way Flow	Dev Traffic	%age Increase
A127	3000	14	0.5%	3000	10	0.3%

- 4.16 Table 4.2 demonstrates that any traffic associated with an allocation on the site could increase traffic on the A127 by less than 1.0% in the AM and PM peak periods.
- 4.17 In consideration of the above, the projected increase in traffic associated with the development proposals will not have a significant or material impact either on the A127 or its junction with Childerditch Hall Drive.
- 4.18 In consideration of the above, the traffic impacts of an allocation of 5,000m² of mixed B1/B2/B8 can be accommodated on the local highway network and will not have a detrimental impact on the operation of that network for the purposes of either safety or capacity.

Vehicle Parking

- 4.19 The car parking requirements of the proposal have been considered in the context of the requirements set out in the Essex Planning Officer Association Parking Standards Design and Good Practise (2009 EPOA).
- 4.20 The current standards require a maximum of 1 space per 50m² for B2 development which for a development of up to 5,000m² equates to 100 spaces. In accordance with the aims and objectives of that standard, 100 spaces can be accommodated on the site and can easily be designed in accordance with the standards and be provided at 5.5m by 2.9m.

Cycle Parking

4.21 Cycle parking standards are also set out in the EPOA guidance and recommend a minimum of 1 space per 250m² for employees and 1 space per 200m² for visitors. In view of the relatively low cycle accessibility of the site it is considered that the application of these standards would result in an over provision and as such a low level of provision is considered more appropriate. Nonetheless a level of provision can be accommodated on site in accordance with the requirements of the Highway Authority.

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5 Travel Planning

- 5.1 Notwithstanding the fact that the unmitigated trip generation associated with the site a Travel Plan would be promoted for the site and would seek to encourage access via means other than the private car and whilst the opportunities for access by such means are limited, the following measures could be considered:
 - Car sharing database;
 - Cycle Buddy Schemes; and
 - Workplace changing areas and showers.
- 5.2 A detailed Travel Plan will be provided should a full application be submitted for the site.

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6 SUMMARY AND CONCLUSIONS

Summary

- 6.1 This Access Appraisal has been provided in support of representations to Brentwood District Council for an allocation of up to 5000m² of mixed B1/B2/B8 use on land known as the Range North at the Childerditch Industrial Estate, Brentwood.
- 6.2 The development site will be accessed via a direct extension of the existing industrial estate road infrastructure.
- 6.3 The existing access arrangements can accommodate all the movement requirements of the allocation
- 6.4 The additional trips associated with the proposal can be accommodated on the local road network and will not have a significant or material impact for the purposes of road safety or capacity.
- 6.5 100 car parking spaces can be accommodated on the site in accordance within the current Essex Planning Officer Association car parking standards.
- 6.6 Whilst the site is not in the traditional sense 'accessible' its location is appropriate for the uses proposed as it would not result in inappropriate vehicle movements on sensitive locations.
- 6.7 The refuse and servicing requirements for the proposals can be met within the development boundaries.

Conclusions

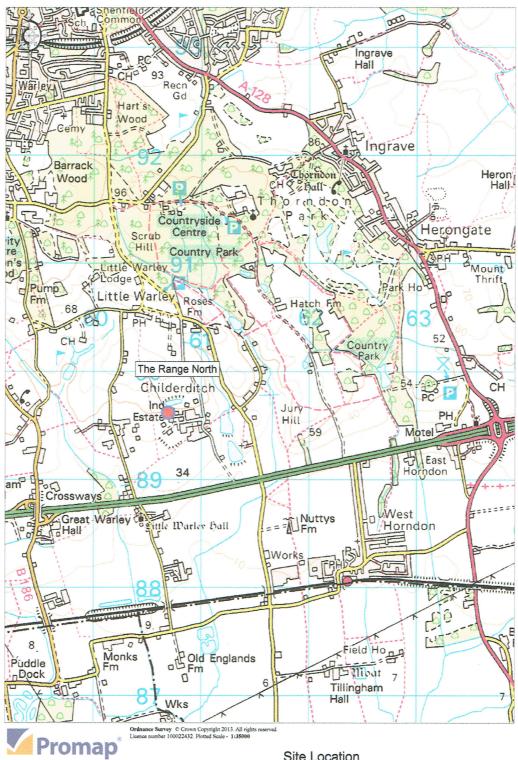
- This Access Appraisal demonstrates that the proposals have been developed in accordance with the aims and objectives of current policy as it relates to transport, can be accessed appropriately and will not have a significant impact on the efficiency or safety of the local transport network.
- 6.9 In view of the foregoing, it is considered that there are no substantive highway or transportation reasons why the site at the Range North on the Childerditch Industrial Estate should not receive an allocation for a mixed B1/B2/B8 development use.



Appendix 1 Site Location

The Range North Childerditch Industrial Estate





Site Location



Traffic Data

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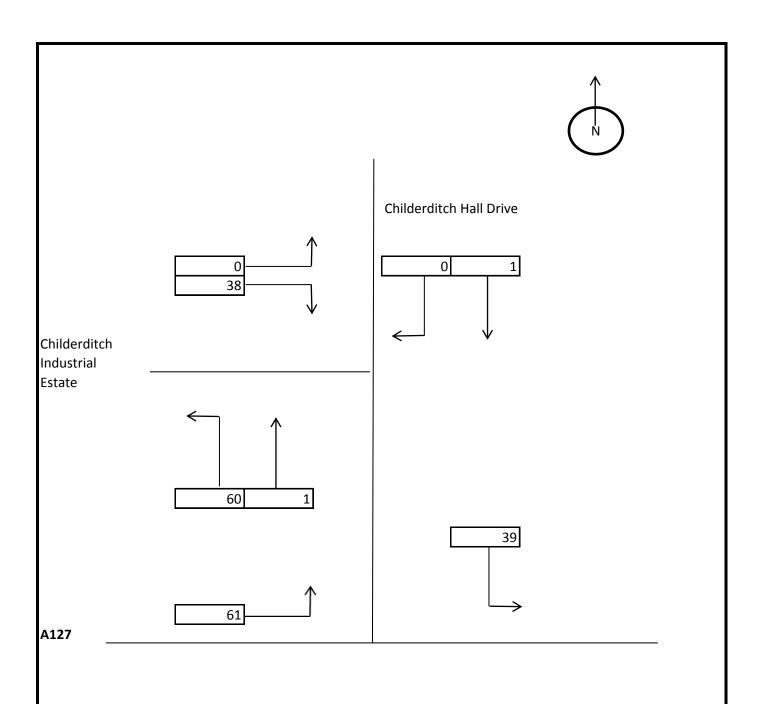
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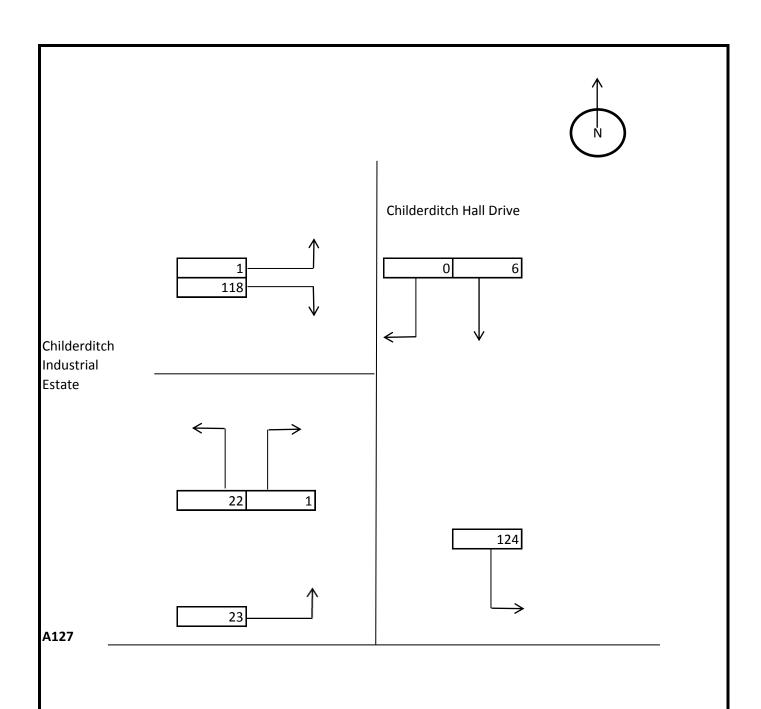
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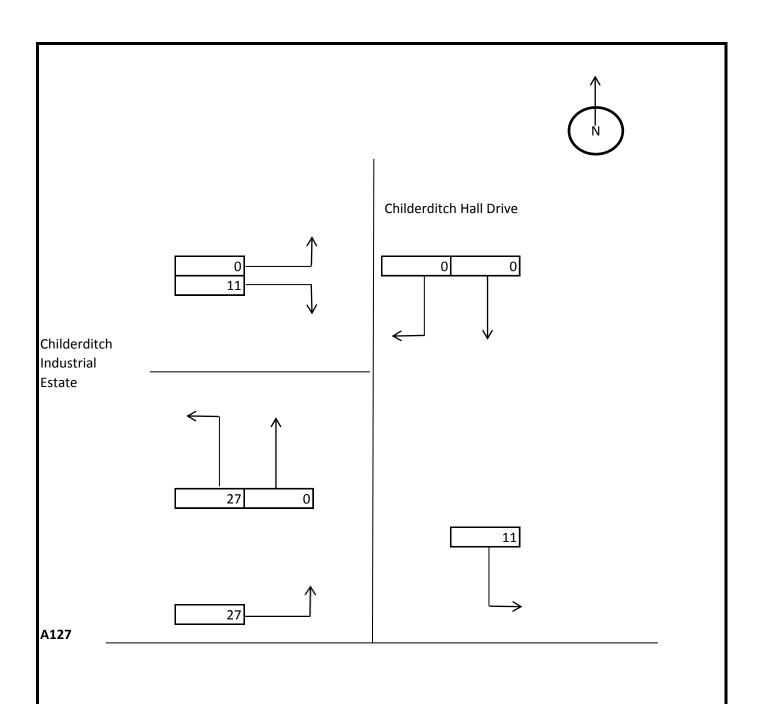
Network Flow Diagrams



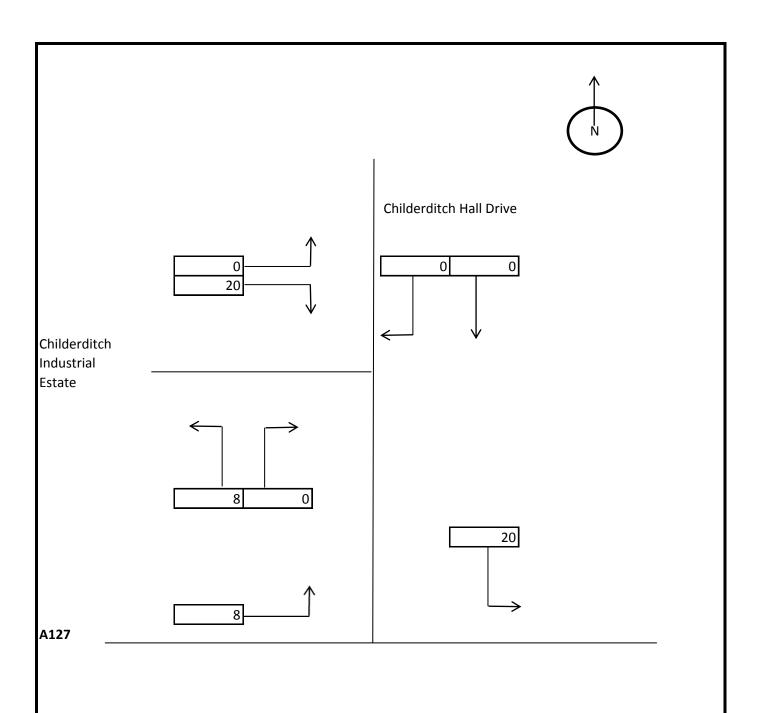
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	The Range North - Childerditch Industrial Estate	Ref	Fig 1	



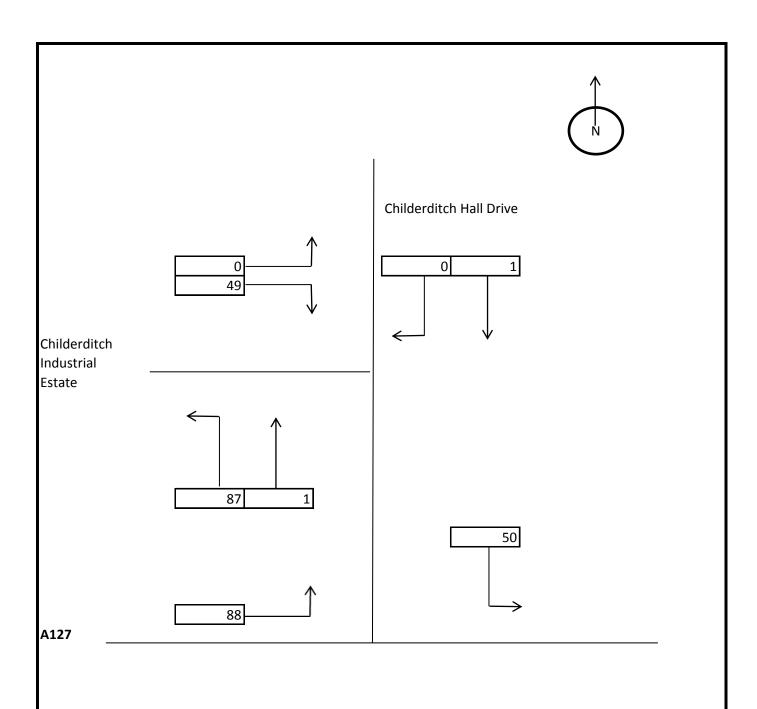
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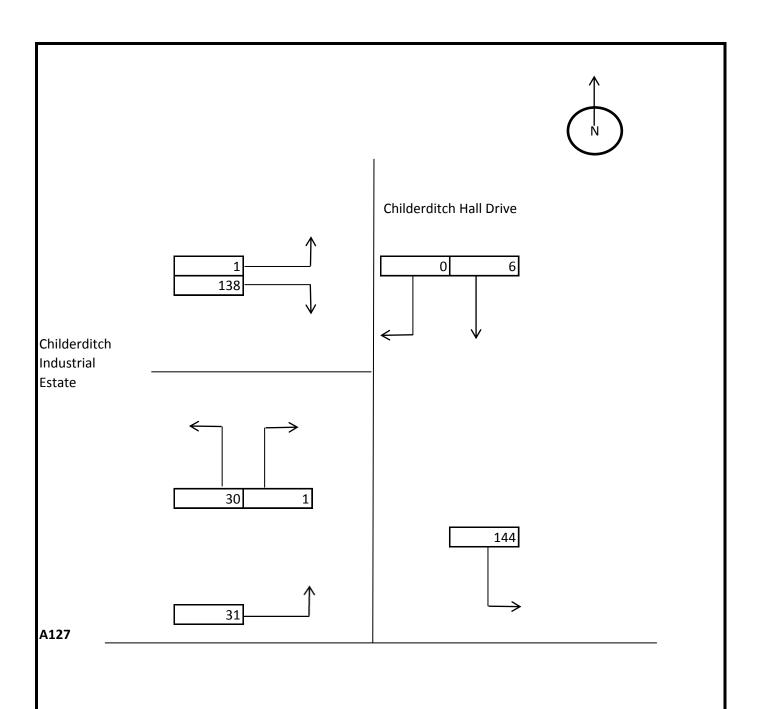
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Project Title			Date	Sept 2013	transport planning		
	The Range North - Childerditch Industrial Estate		Ref	Fig 4			



Drawing Title	Childerditch Hall Drive Site Access AM Peak 08:00-09:00 With Development Traffic Movements		Drawn By	SAA	loucoev		
Project Title			Date	Sept 2013	transport planning		
	The Range North - Childerditch Industrial Estate		Ref	Fig 5			



Drawing Title	Childerditch Hall Drive Site Access PM Peak 17:00-18:00 With Development Traffic Movements		Drawn By	SAA	loucoev		
Project Title			Date	Sept 2013	transport planning		
	The Range North - Childerditch Industrial Estate		Ref	Fig 6			



Indicative Development Layout











TRICS Data

TRIP RATE for Land Use 02 - EMPLOYMENT/D - INDUSTRIAL ESTATE

VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

		ARRIVALS		DEPARTURES			TOTALS			
Time Range	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	
00:00 - 00:30	Days	GFA	Nate	Days	GFA	Nate	Days	GIA	Nate	
00:30 - 01:00										
01:00 - 01:30										
01:30 - 02:00										
02:00 - 02:30										
02:30 - 03:00										
03:00 - 03:30										
03:30 - 04:00										
04:00 - 04:30										
04:30 - 05:00				-						
05:00 - 05:30										
05:30 - 06:00										
06:00 - 06:30										
06:30 - 07:00										
07:00 - 07:30	3	6241	0.198	, 3	6241	0.075	3	6241	0.273	
07:30 - 08:00	3	6241	0.411	3	6241	0.096	3	6241	0.507	
08:00 - 08:30	3	6241	0.251	3	6241	0.085	3	6241	0.336	
08:30 - 09:00	3	6241	0.288	3	6241	0.128	3	6241	0.416	
09:00 - 09:30	3	6241	0.240	3	6241	0.128	3	6241	0.368	
09:30 - 10:00	3	6241	0.160	3	6241	0.198	3	6241	0.358	
10:00 - 10:30	3	6241	0.144	3	6241	0.198	3	6241	0.342	
10:30 - 11:00	3	6241	0.166	3	6241	0.112	3	6241	0.278	
11:00 - 11:30	3	6241	0.171	3	6241	0.208	3	6241	0.379	
11:30 - 12:00	3	6241	0.171	3	6241	0.150	3	6241	0.321	
12:00 - 12:30	3	6241	0.128	3	6241	0.166	3	6241	0.294	
12:30 - 13:00	3	6241	0.128	3	6241	0.155	3	6241	0.283	
13:00 - 13:30	3	6241	0.134	3	6241	0.144	3	6241	0.278	
13:30 - 14:00	3	6241	0.160	3	6241	0.123	3	6241	0.283	
14:00 - 14:30	3	6241	0.139	3	6241	0.128	3	6241	0.267	
14:30 - 15:00	3	6241	0.112	3	6241	0.118	3	6241	0.230	
15:00 - 15:30	3	6241	0.134	3	6241	0.160	3	6241	0.294	
15:30 - 16:00	3	6241	0.085	3	6241	0.134	3	6241	0.219	
16:00 - 16:30	. 3	6241	0.118	3	6241	0.224	3	6241	0.342	
16:30 - 17:00	3	6241	0.123	3	6241	0.454	3	6241	0.577	
17:00 - 17:30	3	6241	0.112	3	6241	0.278	3	6241	0.390	
17:30 - 18:00	3	6241	0.053	3	6241	0.123	3	6241	0.176	
18:00 - 18:30	3	6241	0.021	3	6241	0.080	3	6241	0.101	
18:30 - 19:00	3	6241	0.000	3	6241	0.059	3	6241	0.059	
19:00 - 19:30										
19:30 - 20:00										
20:00 - 20:30										
20:30 - 21:00										
21:00 - 21:30									*****************	
21:30 - 22:00										
22:00 - 22:30										
22:30 - 23:00										
23:00 - 23:30										
23:30 - 24:00										
Total Rates:			3.647			3.724			7.371	

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places



