

 Claire Rodway

From: Mark Smith [mark@paulbashamassociates.com]
Sent: 08 October 2010 12:58
To: [REDACTED]
Cc: [REDACTED]
Subject: Windroos, Worthing Road, Littlehampton - Trip Distribution Technical Note
Attachments: 028 0007TN2 Windroos Technical Note (Final).pdf

Garry/Kerry,

Please find enclosed a technical note which considers the peak period traffic impact of the redevelopment of the Windroos Nursery site on Worthing Road Littlehampton (planning reference LU/229/10).

This technical note has been prepared specifically to respond to your letter dated 31st August 2010 (your reference TQ 032 057), requesting further information of the proposed redevelopment impact on the A27.

We trust that following review of this report, you will be able to replace the TR110 with confirmation of no objection.

Please do not hesitate to contact either Paul Basham or myself on the details below should you wish to discuss.

Regards

Mark Smith
Transport Planning Engineer

[REDACTED]
031 4HA

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08/10/2010

ARUN DISTRICT COUNCIL LU/229/10/



Report No. 028.0007/TN/2
October 2010

Stuart Lyons (Haulage) Ltd
Windroos Nursery
Worthing Road
Littlehampton
West Sussex
BN17 6LY

WINDROOS NURSERY
WORTHING ROAD, LITTLEHAMPTON
TRAFFIC DISTRIBUTION TECHNICAL NOTE

WINDROOS NURSERY
 WORTHING ROAD, LITTLEHAMPTON
 TRAFFIC DISTRIBUTION TECHNICAL NOTE

CONTROLLED DOCUMENT

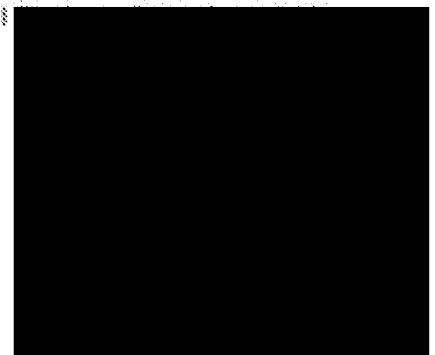
PB-Associate's Document No:		028.0007/TN/2	
Status:	Draft	Copy No:	
	Name:	Signature	Date
Prepared by:	Chris Holdup	Chris Holdup	October 2010
Checked:	Mark Smith	Mark Smith	October 2010
PBA Approved:	Paul Basham	Paul Basham	October 2010

Revision Record					
Rev.	Date	By	Summary of Changes	Chkd	Aprvd
2	08.10.2010	MS	Revised based on project team comments	PB	PB

Pb paulbasham
ASSOCIATES

Stuart Lyons (Haulage) Ltd
 Windroos Nursery
 Worthing Road
 Littlehampton
 West Sussex
 BN17 6LY

Paul



WINDROOS NURSERY
WORTHING ROAD, LITTLEHAMPTON

TRAFFIC DISTRIBUTION TECHNICAL NOTE

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1. INTRODUCTION

- 1.1 Paul Basham Associates have been approached and instructed by Stuart Lyons (Haulage) Ltd to prepare a Traffic Distribution Technical Note (TN) in support of a proposed residential redevelopment of Windroos Nursery in Littlehampton. An outline planning application has been submitted (planning reference number LU/229/10) for 91 dwellings to replace the existing haulage businesses and two dwellings.
- 1.2 The Highways Agency (HA) highlighted (in their letter dated 31st August 2010) that the submitted Transport Assessment (TA) (prepared by Upton McGougan Ltd (UML)), did not provide sufficient details of the existing and proposed traffic distributions and overall impact on the Strategic Road Network (SRN) during the AM and PM peak hour periods, in particular the A27. The UML TA did however consider daily traffic flows, and identified a reduction in PCUs for the residential development when compared to the existing business use. Correspondence with the HA is attached as **Appendix A**.
- 1.3 This TN will firstly assess the existing vehicle distributions onto the SRN generated by the current haulage operation, two residential dwellings, other businesses on-site and associated traffic. Secondly, the TN will assess the proposed traffic distributions onto the SRN and provide a comparative summary.
- 1.4 With regards to the comments received by the HA on the Framework Travel Plan (prepared by UML), we understand that West Sussex County Council (WSCC) Travel Plan Officers are thoroughly reviewing the submitted document, and that formal feedback will be provided by WSCC, as the highway authority, in this regard. The Travel Plan will therefore be dealt with under separate cover and does not form part of this TN.

2. EXISTING VEHICLE DISTRIBUTIONS

- 2.1 The existing development comprises of predominately haulage traffic, which adopts a very different trip origin-destination pattern than residential development. Predominantly, haulage traffic requires access to major trunk roads in order to efficiently distribute to depots/suppliers.
- 2.2 The UML TA identified that on an average day, the existing site generates 126 two-way car movements and 208 two-way HGV movements. This calculation equated to a total of 542 PCU movements, based on detailed analysis of the data provided at that time by the site owner.

2.3 Further information has more recently been provided by the site owner specifically reviewing the peak period traffic flows, and the origin-destination of these flows. This information forms the base on this TN in order to respond to the HA's request for further information regarding "the number of vehicles expected to use the A27 in the peak hours". These flows differentiate between HGV and private car trips, and are summarised within **Table 1**.

Site Element	Vehicles	AM Peak (0800-0900)		PM Peak (1700-1800)	
		Arrivals	Departures	Arrivals	Departures
Stuart Lyons (Haulage) Ltd	Staff (48 cars)	48 (100%)	0	0	12 (25%)
	HGVs (28)	0	28 (100%)	16 (57%)	0
Residential	2 Dwellings (4 Cars)	0	1	1	0
Other Businesses	HGVs (20)	0	15 (75%)	10 (50%)	0
Services Deliveries Etc	Cars (8)	2 (25%)	1 (12.5%)	0	0
	HGVs (2)	0	0	0	0
Total Vehicles		50	44	26	12
Total PCUs		50	87	52	12

Table 1: Existing Development Peak Hour Trips

2.4 **Table 1** indicates that all staff arrive at the application site during the AM peak, along with 2 servicemen who complete any necessary repairs to the haulage vehicles prior to departure. On a typical day, all of Stuart Lyons vehicles depart during the AM peak, with 75% of delivery vehicles associated with the other companies on site also departing during the AM peak hour.

2.5 During the PM peak, a percentage of these HGVs return, some of which would have already delivered twice that day, whilst others travelling further afield would be yet to make a second delivery. Of the 26 vehicles returning during the PM peak, a percentage of these will set out again after the PM peak, resulting in approximately 25% of the 48 staff completing their days work and leaving by their own private car during this period.

2.6 A total of 102 PCU arrivals occur during the AM (50) and PM (52) peak combined, with 99 PCU departures (87 + 12) during these peaks, as identified in **Table 1**. In total 201 PCU movements out of the average daily 542 movements (37%) are made during the network peak periods.

2.7 Information has also been supplied with regards to the destination of all HGV movements, allowing indicative distribution models to be identified for the peak hour periods for the existing use. Of the 55 regular clients of Stuart Lyons (Haulage) Ltd, 5 are based in the Littlehampton area and these vehicles do not access the SRN. Of the remaining 50 clients, 16 are based in the Barnham area, whilst 25 are located near Chichester, 7 in Hampshire and 2 near Billingshurst. As a result, on a typical day, in the order of 90% of HGV traffic associated with the haulier utilises the A27, accessing via the Lyminster Road (A284) roundabout junction travelling westbound in the AM peak and southbound in the PM peak.

2.8 Staff distributions are more widespread, with circa 25% arriving from the Littlehampton area, 45% from the west via the A27 and 30% from the east via the A27.

2.9 The distribution percentages of existing development traffic are summarised for the AM peak hour (Appendix B) and PM peak hour (Appendix C).

3. PROPOSED VEHICLE DISTRIBUTIONS

3.1 The proposed development comprises of residential traffic, which as previously indicated, adopts different peak hour distribution patterns. UML's TA identifies TRICS vehicular trip rates (demonstrated within Table 2), which also compares the net impact relative to the existing development in regards to PCU flows.

	AM Peak (0600-0900)		PM Peak (1700-1800)		Total Daily
	Arrivals	Departures	Arrivals	Departures	
Trip Rate (per dwelling)	0.141	0.417	0.324	0.211	5.096
Total trips (91 dwellings)	13	38	29	19	464
Existing PCUs	50	87	52	12	542
Net Impact	-37	-49	-23	7	-78

Table 2: Proposed Development Trip Rates relative to Existing

3.2 The redevelopment of the application site would result in a net decrease of 78 vehicles across the day, however it is worth highlighting that there would be a significant reduction in trips during the AM (-86 trips) and PM (-15 trips) peak hour periods. Although the total PM arrivals would reduce, the PM peak departures are anticipated to increase. This is to be expected as a direct result of the change of use class, although anticipated to be modest in the order of 7 vehicles.

- 3.3 The proposed trip rates have also been distributed on the SRN to provide an overall comparison of the impact of the proposals on the A27. At this stage, an estimation of the peak period traffic distribution has been compiled based on local employment zones and larger urban areas. This can only be estimated at this stage, and is largely dependent on the end user and their specific travel to work demands (e.g. place of work etc).
- 3.4 The distribution percentages for the proposed development traffic are summarised for the AM peak hour and PM peak hour as **Appendix D** and **Appendix E** respectively. It has not been considered necessary to distribute the AM peak hour arrivals or the PM peak hour departures. These are relatively few in number and more than likely to be to within the local road network (visiting friends, trips to local shops etc.) rather than trips on the wider SRN.

4. IMPACT ON THE A27 JUNCTIONS

- 4.1 Based on the appended distribution diagrams, it is possible to ascertain the percentage of development traffic utilising the A27 junctions with A284 Lyminster Road (to the west) and the A280 to the east. A summary of the traffic impact during the peak hour periods, for both the existing and proposed developments are presented in **Table 3**.

	A27/A284 Junction			A27/A280 Junction		Period Total	
	Percentage	Vehicles	PCUs	Percentage	Vehicles/PCUs	Vehicles	PCUs
Existing AM Peak	91% Dep 45% Arr	40 22	79 22	0% Dep 30% Arr	0 15	77	116
Proposed AM Peak	36% Dep 0% Arr	14 0		41% Dep 0% Arr	16 0	30	
Existing PM Peak	45% Dep 91% Arr	5 24	5 47	30% Dep 0% Arr	4 0	33	56
Proposed PM Peak	0% Dep 36% Arr	0 10		0% Dep 41% Arr	0 12	22	

Table 3 Existing and Proposed Development Impact on A27

- 4.2 The proposed redevelopment would result in an overall reduction in peak period vehicular traffic utilising the A27. During the AM peak hour, it is anticipated that a reduction of 47 vehicles (86 PCUs) would be experienced, whilst the PM peak hour would experience a reduction of 11 vehicles (34 PCUs).
- 4.3 The only instance where an increase in traffic on a particular SRN junction may occur is at the A27/A280 junction during the AM and PM peak hour, which are anticipated to be in the order of 1 and 8 additional vehicles respectively. During the AM peak, an overall reduction is anticipated and therefore the operational capacity and/or highway safety at this junction would not be exacerbated by the development proposals.

- 4.4 During the PM peak period, only 7 trips (23%) of the anticipated 12 (41%) are actually turning off the A27 at this junction, whilst the remaining 5 through-traffic trips (18%) continue to the junction with the A284, as demonstrated in **Appendix E**. Therefore the impact on the operational capacity of the junction itself would be negligible, with only three additional vehicles actually utilising the junction. Again, this is not anticipated to affect the operational capacity or highway safety at this junction.
- 4.5 From the findings of this TN, it is clear that the impact of the proposed development on the SRN would be negligible, and therefore we urge the HA to replace the TR110 dated 31st August 2010 with one of no objection.

5. SUMMARY AND CONCLUSIONS

- 5.1 Paul Basham Associates have been approached and instructed by Stuart Lyons (Haulage) Ltd to prepare a Traffic Distribution Technical Note (TN) in support of a proposed residential redevelopment of Windroos Nursery in Littlehampton.
- 5.2 This TN has been prepared to respond directly to comments made by the HA with regards to peak hour traffic distributions associated with the existing and proposed developments, and more specifically the impact on the A27 of the proposed redevelopment.
- 5.3 This TN identifies that the proposals would result in a significant reduction in both vehicle and PCU flows through the junction of the A27 with the A284 (Lyminster Road), which would provide a net benefit to the operational capacity of the network. The junction of the A27 with the A280 could experience in the order of 1 additional vehicle in the AM peak hour and 3 additional vehicles in the PM peak hour. This is not however anticipated to have any effect on highway safety or operation capacity of this junction, and we would urge the HA to replace the TR110 with one of no objection.

Mark Smith

From: Hellewell, Kerry <HellewellK@pbworld.com>
Sent: [REDACTED]
To: [REDACTED]
Subject: [REDACTED]

Dear Paul

Please see the email below for info. If it can be demonstrated that the proposed development would not have a material impact upon the SRN, then the HA would be minded to replace the TR110 dated 31 August 2010 with one of no objection.

Best wishes,

Kerry

Kerry Hellewell
Assistant Transportation Planner, Transportation Planning & Visualisation

[REDACTED]

From: Hellewell, Kerry
Sent: 15 September 2010 15:00
To: 'Frostick, Garry'
Subject: FW: LU/229/10 Windroos Nursery, Worthing Road, Littlehampton BN17 6LY

Garry

I have just spoken to Paul Basham of Paul Basham Associates (who have taken over from Upton McGougan as the transport consultants) regarding our response to Arun DC.

I confirmed that the net impact upon the A27 trunk road would need to be demonstrated so that we can understand whether the proposed development would have a material impact upon the SRN. I advised that peak hour trip profiles and distributions for the existing and proposed use would be satisfactory. Given the site's location and the fact that it's existing use is as a haulage depot, then it is may be demonstrated that the net impact upon the A27 would be negative.

I also confirmed that the issues relating to the Travel Plan could be dealt with either through a planning condition or left to the LPA to agree through a S106.

Hopefully we should be receiving something soon.

Kerry

Appendix A

From: [REDACTED]
Sent: 01 September 2010 14:43
To: Hellewell, Kerry
Subject: FW: LU/229/10 Windroos Nursery, Worthing Road, Littlehampton BN17 6LY

From: Henderson, John
Sent: 31 August 2010 17:28
To: Frostick [REDACTED]
Subject: FW: LU/229/10 Windroos Nursery, Worthing Road, Littlehampton BN17 6LY

Gents:

Sent as requested and added to the holding directions database. Planning database has been updated.

Regards

John

From: Henderson, John
Sent: 31 August 2010 16:47
To: 'planning.responses@arun.gov.uk'
Subject: LU/229/10 Windroos Nursery, Worthing Road, Littlehampton BN17 6LY

For the attention of Mrs C Rodway

Dear Mrs Rodway

Thank you for consulting with the Highways Agency on the above mentioned application. Please find attached our response.

Regards

John Henderson

John Henderson, NDD SE Planner

Highways Agency | Embankment House | London Road | Dorking | Surrey | GU14 1EF

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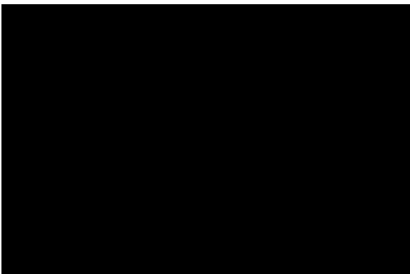
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Our ref: TQ 032 057
Your ref: LU/229/10

Arun District Council
Civic Centre
1 Maltravers Road
Littlehampton
West Sussex
BN17 5LF


31 August 2010

For the attention of Mrs C Rodway

Dear Mrs Rodway

WINDROOS NURSERY WORTHING ROAD LITTLEHAMPTON

Thank you for inviting the Highways Agency (HA) to comment on the planning application for the above site.

As you are aware, the HA, on behalf of the Secretary of State for Transport is responsible for managing and operating a safe and efficient Strategic Road Network (SRN), i.e. the Trunk Road and Motorway Network in England, as laid down in Department for Transport (DfT) Circular 02/2007 (*Planning and The Strategic Road Network*). Our main interest therefore relates to the impact of the above proposals on the A27 trunk road due to the proximity of the site to this road.

We understand that the site is currently operating as a haulage depot and that the development proposals are to redevelop the site to provide 91 residential units. The planning application is accompanied by a Transport Assessment, Traffic and Access Statement and Framework Travel Plan, which we have considered in our comments outlined below:

Transport Assessment

The HA expects Transport Assessments (TAs) to be undertaken in line with the DfT's Guidance on Transport Assessment (2007). There are several components missing from the TA, of particular importance to the HA is trip distribution and assignment and the associated assessment of the impact of the development on the A27. Accident history at the A27 junctions should also be assessed.

Existing Environment

The traffic generation from the existing site operation has been set out in Table 2, an average of 334 two way trips are generated each day. It is not clear whether this information is based on surveys of the site or other assumptions. The source of this data should be clarified.

Detail should also be provided about the distribution of the existing trips, specifically outlining the number of trips currently using the A27 and the proportion of these trips

that occur during the peak hours so that these can be compared to the proposed development.

Proposed Development

Table 8 sets out estimated trip rates for the site which have been sourced from the TRICS database. These are generally considered to be reasonable for this site. On the basis of these rates, the 91 houses proposed within this application would be expected to generate approximately 463 two way trips each day, with 51 of these expected in the AM peak hour. Further detail on how this compares with the existing peak hour traffic generated by the site is required.

Whilst the daily traffic generation from the existing site, when converted to PCUs, appears to be similar to that expected of the development proposals, no detail has been provided about the number of vehicles expected to use the A27 in the peak hours for either existing or proposed site use, and therefore it is not possible for the HA to assess the impact of this development on the SRN. We expect that a haulage depot could generate fewer trips in the peak hours than the proposed residential development and therefore the development proposals could have a more significant impact on the SRN than the existing operation.

Travel Plan

The HA expects Travel Plans (TPs) to be used to manage the demand for car trips from traffic generating developments, particularly those located close to congested sections of the SRN, such as this site.

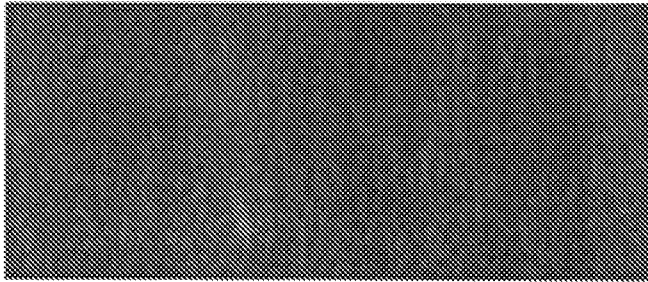
The Framework Travel Plan produced for this application does not include specific targets, mitigation measures or monitoring. The nature of the development site is already known and therefore specific details should be established at this stage. The HA expect TPs to be supported by a strong monitoring framework in order to ensure that they are effective. Effective monitoring is important and should give a clear indication of performance against set targets. If targets are not being met then effective enforcement measures should be triggered through a Section 106 agreement.

Transport and Access Feasibility Report

This document relates to improved access to the A250, the HA does not have any specific comments in relation to this document.

Further information relating to the peak hour impact on the A27 from the development proposals is required before the HA can assess whether the development will have a significant impact on the SRN. A strong travel plan should also be developed that can effectively manage the demand for vehicular trips from the site.

I hope the above information is helpful in clarifying the HA's requirements for inclusion within the TA and TP. The HA would like to work constructively with the applicant to ensure that the TA contains sufficient evidence, an effective TP is delivered and that impact on the SRN is minimised. In view of this, the HA is directing that planning permission should not be granted for a period of 56 days to enable the applicant time to provide the information we require as set out in this letter.



TR110 (May 2010)

An Executive Agency of
The Department for Transport

**Developments Affecting Trunk Roads and Special Roads
Highways Agency Response to an Application for Planning Permission**

From: Divisional Director, Network Delivery and Development, South East, Highways Agency.

To: Arun District Council

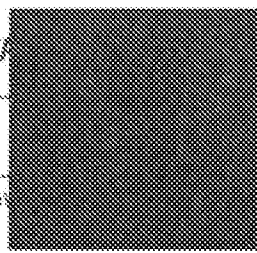
Council's Reference: LU/229/10

Referring to the notification of a planning application dated 9 August 2010, your reference LU/229/10, in connection with the A27, Windroos Nursery, Worthing Road, Littlehampton, BN17 6LY, notice is hereby given under the Town and Country Planning (General Development Procedure) Order 1995 that the Secretary of State for Transport:-

- ~~a) offers no objection;~~
- ~~b) recommends that planning permission should either be refused, or granted only subject to conditions~~
- ~~c) directs conditions to be attached to any planning permission which may be granted;~~
- ~~d) directs that planning permission is not granted for an indefinite period of time;~~
- e) directs that planning permission not be granted for a specified period (see Annex A).

(delete as appropriate)

Signed by authority of the Secretary of State for Transport



Date: 31 August 2010	Signature:
Name: Garry Frostick	Position: Development Manager
The Highways Agency: Federated House, London Road, Dorking RH4 1SZ	

Condition(s) to be attached to any grant of planning permission:

Reason(s) for the direction given at b), c) or d) overleaf and the period of time for a direction at e) when directing that the application is not granted for a specified period:

Planning permission should not be granted until 26 October 2010.

This is to allow the applicant to supply us with the required further information.

Map of the Arundel area showing the distribution of arrivals and departures. The map includes roads like Arundel Road, Arundel Road Bypass, and various lanes. A key indicates that solid arrows represent departures and dashed arrows represent arrivals. Percentages in boxes show the distribution at various points. A scale bar indicates 0 km.

100

Appendix B

The map displays the Clwyd and Denbighshire region with bus routes and passenger percentages. A key indicates that upward arrows represent departures and downward arrows represent arrivals. The map shows various roads including A55, A5, A130, and A131. Key locations marked include Warrington, Wrexham, Chester, and several smaller towns like Clwyd, Denbigh, and Wrexham. Passenger percentages are shown in boxes along the routes, such as 4%, 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%, 55%, 60%, 65%, 70%, 75%, 80%, 85%, 90%, 95%, and 100%. A scale bar at the bottom right indicates 0 km.

Appendix C

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Appendix D

Appendix E