

# Town and Country Planning Act 1990 Section 77 Flintshire County Council Planning Application by Welsh Development Agency

## THE CASE FOR NAW TRANSPORT DIRECTORATE

<u>The Case</u>	<u>The</u>
<u>For NAW</u>	<u>Case For</u>
<u>Agriculture</u>	<u>Flintshire</u>
<u>Department</u>	<u>Green</u>
	<u>Party</u>

- 11.0 **The Case For the NAW  
Transport Directorate**
- 11.1 **Background**
- 11.3 **Existing Conditions**

- 11.5 **The Proposals of the Applicant**
- 11.6 **The Impact on the Trunk Road Network**
- 11.8 **Comments**
- 11.18 **Summary and Conclusions**

The material points were:

### **Background**

- 11.1 The National Assembly for Wales was the highway authority for all trunk roads and motorways in Wales. Responsibility for managing, maintaining and improving trunk roads rested with the Transport Directorate. The A494/A550 was a designated trunk road under the Trunk Roads Act 1936. Further, in July 1998, as part of the Strategic Review of the Welsh Trunk Roads Programme, it was designated as forming part of the "New Core Network". The route also formed part of the Trans European Network (E22 Ireland-Poland) between the A55 and the A5117/M56 motorway.

11.2 In July 1997, the Highways Directorate of the then Welsh Office was consulted about the application proposal under Article 10 of the Town and Country Planning (General Development Procedure) Order 1995. Volume 3F of the Environmental Statement on Transportation and Traffic (Core Document 10) was supplied as part of the consultation. A revised Traffic Impact Assessment (Core Document 20) was received in April 1999. Correspondence was exchanged and meetings were held in an attempt to resolve areas of disagreement. However, the scale and nature of the problem in Wales was such that it had not been possible to reach an agreement that would allow the Transport Directorate to withdraw its objection to the proposed development.

### **Existing Conditions**

11.3 The A494/A550 trunk road between Ewloe Interchange and its junction with the A5117 (see Figure 5.1b in Document WDA9) was one of the busiest sections of trunk road in Wales. It was already operating at or close to its maximum capacity for increasing periods of the day. The off-peak (daytime) flows were so high that, since 1996, routine maintenance involving

lane closures had been carried out overnight. The northbound carriageway carried between 3,200 and 3,400 vehicles per hour between 0700 and 0900 hours. The absolute maximum for this sort of road, derived from TA 79/99, was considered to be around 3,600 vehicles. Similarly, the southbound carriageway ran at or close to its capacity between 1600 and 1800 hours on most weekdays. This period of flow close to capacity extended to between 1500 and 2200 hours on Fridays throughout most of the spring and summer.

- 11.4 The high flows and poor alignment combined to give this section of trunk road a poor accident record. Accident breakdowns often led to serious congestion. One or both carriageways were completely closed on three occasions in 2000 for in excess of four hours by multiple shunt type accidents.

### **The Proposals of the Applicant**

11.5 The applicant's traffic consultants had calculated that the development would generate 3,916 inbound trips and 3,916 outbound trips each day, that is a two-way flow of 7,832 movements. The current agricultural use of the site generated a negligible amount of traffic. It had been further calculated that the development would generate a peak hour two-way flow of 977 vehicles with a one-way maximum of 781 movements. From the supplement (Core Document 20a) to the Traffic Impact Assessment, it could be seen that the peak hour flow on the trunk road in Wales was forecast to increase by 300 vehicles am and 355 vehicles pm. Expressing 355 as a percentage of the maximum flow that the carriageway could accommodate (3,600 vehicles) gave a figure of 9.8%. This was well above the guideline figure of 5% set out in Technical Advice Note (Wales) 18: Transport and was therefore a material increase.

### **The Impact on the Trunk Road Network**

11.6 The Transport Directorate was concerned about the volume of traffic that the development would generate. It was considered that the submitted forecasts were at the lower end of the range of possible forecasts. The figures were not sufficiently robust. There were known examples of the difficulty of making accurate traffic forecasts in this part of Flintshire.

11.7 Over the last eight years, a number of traffic reports had been produced by consultants looking at traffic problems in the Queensferry area or the potential impact of development proposals. These studies included the North East Clwyd Traffic Study; an operational assessment of the Deeside Park Junction; and TIM for several development sites. These studies demonstrated:

- the pressures that the trunk road and its junctions were under in this area from adjacent developments;
- the consensus between the reports about the problems that were likely to occur at both the Queensferry and the Deeside Park junctions (although the reports did differ in their

forecasts about the severity of the problems); and

- the fact that the volume of traffic on the trunk road between Queensferry and Deeside Park was already above recommended flow levels (with resultant congestion) in 1991.

### **Comments**

- 11.8 In recent years, North East Wales had witnessed traffic growth rates that were well above the 1989 National Road Traffic Forecast (NRTF) growth rates. These rates were themselves reduced in 1997 (see Document NAWTDI, *Appendices A and B*). The development of the Deeside Industrial Park had been one of the major factors behind this very high rate of growth.
- 11.9 The Queensferry corridor was one of the most highly stressed sections of trunk road in Wales in terms of congestion reference flow (CRF). CRF was a measure of the performance of a road link between junctions and was defined as an estimate of the Annual Average Daily Flow (AADF) at which the carriageway was likely to be congested in the peak periods

on an average day.

11.10 For the purposes of calculating the CRF, "congestion" was defined as the situation when the hourly traffic demand exceeded the maximum sustainable throughput of the link. At this point, the effect on traffic would be likely to be one of the following:

- flow breaks down with speed varying considerably and average speed dropping significantly; or
- the sustainable throughput is reduced and queues are likely to form.

11.11 Whilst design reference flow contained an allowance for the effects of lane closures for maintenance, congestion reference flows did not. Hence accidents or maintenance work would cause significant delays on links carrying these traffic levels.

11.12 Service levels were defined as:

A Free flow conditions

B Stable flow with some restrictions on manoeuvring, for example, overtaking

C Stable flow but speed and manoeuvring closely confined

D Approaching unstable flow (stop/start conditions)

E Unstable flow (stop/start conditions)

F Continuous congestion with capacity reductions as a consequence

- 11.13 Reference to Document NAWTD1, *Appendix C*, indicated that, by 2016, the trunk road would be seriously and continuously congested between 0700 and 2000 hours every day.
- 11.14 The problems on the Queensferry corridor, already apparent in the late 1980's, led the Welsh Office to commission in 1989 the North East Clwyd Traffic Study. This study resulted in a number of schemes being added to the Welsh Road Programme to improve the A494/A550/A55 between the border with England, Northop in the west and the northern end of the Mold Bypass. These schemes complemented proposals by

the Department of Transport to grade-separate the Woodbank (A5117/A550) junction and construct a new dual carriageway from Deeside Park to the M53.

- 11.15 Changing priorities led to the cancellation of the proposal to dual the A550 up to the M53. The Highways Agency was undertaking a study of the three ground level junctions on the A550/A5117 between the Welsh border and the M56 in order to identify means of keeping traffic flowing on this part of the trunk road network.
- 11.16 The National Assembly for Wales was currently developing an integrated transport framework. This would be used to inform decisions on whether schemes such as the A494/A550 Deeside Park to Ewloe improvement should be included in the trunk roads programme and, if so, what priority it should attract. Until this had been completed, no decision could be taken on whether additional capacity should be provided on the A494/A550 corridor through Queensferry.

11.17 **The Traffic Impact Assessment (Core Documents 20 and 20a)** carried out by the applicant's transportation consultants did not consider the volume of traffic using the trunk road. If the flow forecast for Shotwick Road in 2019 were added to the existing flows on the trunk road, at least three lanes in each direction would be needed.

### **Summary and Conclusions**

11.18 The main views of the Transport Directorate could be summarised as follows:

- The A494/A550 trunk roads were already congested at peak times. The level and duration of the congestion were forecast to increase without the development.
- The Queensferry and Deeside Park junctions were likely to experience problems without the development.
- The rate of traffic growth on the trunk road had been well above national high growth rates in the past and could well be so in

the future.

- The proposed development could generate considerably more traffic than was forecast.
- The capacity of the existing trunk road would be exceeded well before the 2019 forecast date used in the Traffic Impact Assessment. The trunk road carriageways were already running close to capacity for around four hours per day.
- The level of traffic using the trunk road in the vicinity of the proposed development was high. The increase in traffic from the development would worsen an already poor situation.