

REPORT TO: CITY DEVELOPMENT COMMITTEE - 25 JUNE 2012

REPORT ON: A92 ARBROATH ROAD SAFETY REPORT

REPORT BY: DIRECTOR OF CITY DEVELOPMENT

REPORT NO: 159-2012

1 PURPOSE OF REPORT

- 1.1 At the City Development Committee meeting dated 23 January 2012 an Agenda item (AN12-2012) was discussed and the Committee instructed officers to undertake a review of road safety on the A92 between Claypotts junction and Grange Road at the Dundee City Council/Angus Council boundary. This report details the outcome of this review.

2 RECOMMENDATION

- 2.1 It is recommended that the Committee
- a Note that officers have undertaken a road safety review of the A92 between Claypotts junction and Grange Road at the Dundee City Council/Angus Council boundary.
 - b Notes the outcomes of this report which determines that the A92 road between Claypotts junction and Grange Road at the Dundee City Council/Angus Council boundary is operating in a safe manner and that the existing pedestrian facilities are appropriate.

3 FINANCIAL IMPLICATIONS

- 3.1 There are no financial implications for the Council associated with this report.

4 BACKGROUND

- 4.1 The Tayside section of A92 is a vital strategic route following the coast from Dundee through Angus linking Dundee to the Angus towns of Carnoustie, Arbroath and Montrose and onwards to the A90 at Stonehaven. The road carries significant volumes of commuter and commercial traffic and is Dundee's main link to the east of the city.
- 4.2 Prior to 2003 and the construction of the dual carriageway (between Claypotts junction and Elliot junction at Arbroath) the A92 had a poor road safety record with an accident rate significantly higher than the national average.
- 4.3 In 1996 Dundee City Council introduced a 40mph speed limit on the single carriageway road between Claypotts junction and Grange Road as a measure to reduce accidents, however given the poor accident rate and unreliable journey times Angus Council and Dundee City Council agreed that a dual carriageway would be constructed between Dundee and Arbroath. The procurement process for the new dual carriageway road was led by Angus Council with support of Dundee City Council and this resulted in a Design Build Finance and Operate (DBFO) contract between Angus Council and Claymore Roads who were a Private Finance Initiative Company.

Construction for the new dual carriageway began in 2003 and the whole route was complete two years later in September 2005.

- 4.4 Dundee City Council maintained the 40 mph speed limit within its administrative boundaries even though the road converted from single carriageway to dual carriageway.
- 4.5 BEAR Scotland Limited have been appointed by Claymore Roads to maintain the A92 between Claypotts junction and Elliot junction at Arbroath.
- 4.6 During the construction period of the A92 dual carriageway, Dundee City Council gave planning consent to housing developments to the north of the A92 which would have direct road links onto the A92 dual carriageway. As part of the Development Management process it was acknowledged that pedestrian movement would have to be facilitated across this busy section of the A92 and this resulted in the construction of three pedestrian crossings, one on each side of the East Balgillo Road Roundabout and one installed to the west of the Panmurefield Roundabout.

Local Residents concerns

- 4.7 Residents who live in the new housing developments north of the A92 have raised concerns relating to pedestrian safety particularly near the East Balgillo Road and Panmurefield roundabouts and at the 23 January 2012 City Development Committee considered an Agenda Note ([AN12-2012](#)) requesting a road safety review of the A92 between Claypotts junction and the city council boundary.
- 4.8 In particular concerns were raised in relation to the main pedestrian routes to the south from both the new residential developments at Clearwater Park and Balmossie across the A92 using pedestrian crossings near both the East Balgillo Road and Panmurefield roundabouts.
- 4.9 The Clearwater Park and Balmossie developments fall within the school catchment areas for Barnhill and Forthill Primary Schools and Grove Academy secondary school and has introduced a travel demand to and from these schools.
- 4.10 Residents' concerns have focused on mainly pedestrian safety of crossing the A92 although there has also been concerns raised relating to traffic congestion particularly during the morning peak period.

Existing Traffic Conditions and Surveys.

- 4.11 On this section of the A92 the road carries approximately 21,000 vehicles a day with approximately 10% of the traffic being Heavy Goods Vehicles. Whilst this is a significant traffic volume it has to be recognised that the function of the road is to carry strategic traffic between Dundee and Arbroath/Montrose and these volumes are typical for this type of road and not excessively high. During the morning peak period traffic queues back up from Claypotts signalised junction towards the East Balgillo Road Roundabout and beyond, and this is primarily caused by commuters travelling on their journey to work. Outwith the main peak hours the junction operates well and there is little congestion.

- 4.12 Recent speed surveys indicated that there is evidence of speeding vehicles as the average vehicle speed is 45mph West of East Balgillo Roundabout and 47mph to the east of the Roundabout. These speeds are not considered unusual for a high design standard dual carriageway with a 40mph speed limit in place such as the A92.
- 4.13 Central government guidance (Circular No 1/2006) suggests that average speeds should be used to assist in determining the actual speed limit. The guidance states:
- "Mean speeds should be used to determine local speed limits. This reflects what the majority of drivers perceive as an appropriate speed to be driven for the road."*
- 4.14 Given that there is evidence of speeding on the road Tayside Police undertake regular speed enforcement on this section of the A92 as the current speed limit on this road is 40mph. The 40mph Limit was confirmed through the Speed Limit Review report that was recently approved by the City Development Committee in December 2011.
- 4.15 Recent Land use changes to the North of the A92 have created a pedestrian demand across this stretch of road.
- 4.16 Pedestrian surveys have been undertaken at both the East Balgillo Road and Panmurefield roundabouts at the traffic signal controlled pedestrian crossings. On the west side of East Balgillo road Roundabout there were 98 pedestrian/cyclists in addition there was 58 pedestrian/cyclists crossing on the east side pedestrian crossing. The pedestrian crossing on the west side of the Panmurefield Roundabout had 100 pedestrian / cyclists. All these surveys were conducted over a twelve hour period from 0700hrs to 1900hrs and these volumes are relatively low and the pedestrian crossing facilities are more than suitable to accommodate these flows.
- 4.17 A survey was also undertaken on the number of red light running violations at all three pedestrian crossings in the review area and it was found that during the 12 hour survey period only one red light running violation occurred and this was on the West side of East Balgillo Road roundabout. This indicates that there is a low level of red light running at the A92 pedestrian crossings studied.

A92 Road Safety Audits

- 4.18 As part of the construction and post construction process the operators of the A92 road have undertaken Road Safety Audits (RSA) for the whole of the A92 between Claypotts junction and Elliot junction, Arbroath. The post construction Audits which are Stage 4, 5 and 6 have all indicated that the road has been performing well in relation to road safety. A summary of the Road Safety Audits follow:

Road Safety Audit Stage 4 - report date - January 2007

- 4.19 The Stage 4 RSA considers the period one year after opening and during this period there has been only one road injury accident and the accident rate for the scheme per million vehicle kilometres is 0.0085. This compares with the national figure of 0.116. There have been no pedestrian accidents during this period and the report summaries stating that:

"The A92 Dundee to Arbroath upgrading is performing well with very few problems and a good accident record."

Road Safety Stage 5 - report date -November 2009

- 4.20 The Stage 5 RSA considers the period three years after opening and during this period there have been 13 injury accidents in the 3 years since the scheme opened. There were no fatalities and no pedestrian injury accidents. The accident rate for the scheme is per million vehicle kilometres is 0.0363. This compares with the national figure of 0.119. The report concluded that:

"The A92 Dundee to Arbroath Road is operating very efficiently and relatively safely."

Road Safety Stage 6 - report date - October 2011

- 4.21 The Stage 6 RSA considers the performance of the A92 six years after the road has opened. The report considered the last three and a half years accidents and in this period there has been 32 accidents resulting in 40 casualties - 13 seriously injured and 27 slightly injured. There were no fatalities and only one pedestrian injury. The report recognised that there has been accidents at Ethiebeaton, Grange, Panmurefield and Balgillo Roundabouts. These accidents are not untypical for the type of road. The accident rate for the scheme per million vehicle kilometres is 0.0787 which is higher than before but still much lower than the national figure of 0.119. The Stage 6 RSA concluded that:

"The A92 Dundee to Arbroath road is operating very efficiently and relatively safely."

Road Injury Accident Analysis A92 East of Claypotts junction to Dundee City Boundary.

- 4.22 The injury accident data for the A92 between Claypotts and the Dundee City Council boundary reveals that there have been 9 injury accidents on this stretch of road over a period of over 6 years since the road opened in September 2005. This gives an average annual injury accident rate of 1.46 per year.
- 4.23 Further analysis of the 9 injury accidents along this section of the A92, 7 occurred at the roundabout junction with Balgillo Road East. Of the 7 accidents;
- a 4 (2 serious and 2 slight) occurred on the eastbound A92 approach involving the driver failing to negotiate the roundabout. In all 4 of these accidents the road surface was wet. Other contributory factors included driver fatigue, driving under the influence of alcohol and where the driver was dazzled by a low sun.
 - b 2 (slight) occurred on the roundabout where the driver lost control. 1 as a result of oil deposits on the road and the other where it was judged the driver was travelling too fast for the conditions.
 - c The remaining accident (slight) occurred on the Balgillo Road East approach and involved a driver failing to judge a preceding vehicle's path/speed.
- 4.24 The other 2 injury accidents (slight) occurred on the eastbound carriageway near to Tom Johnston Road. 1 involved a driver following too close to a preceding vehicle and the other where a driver failed to give way at the junction and collided with a pedal cyclist on the main road.

- 4.25 It was identified by BEAR Scotland who maintains the A92, that there were wet road accidents at the East Balgillo Road Roundabout. BEAR Scotland investigated and found that the skid resistance was deficient. In December 2009 BEAR Scotland carried out mitigation measures to improve the skid resistance at this location.
- 4.26 It must be noted that there has been no pedestrian injury accidents on the A92 between Claypotts junction and the Dundee City Council boundary since the road opened in 2005 until the end of 2011.

Consideration of Road Safety Measures for the A92

- 4.27 It is acknowledged that there is evidence of speeding on the A92 between Claypotts junction and the city boundary and concerns have been raised by residents over this. The speed surveys were undertaken mid-link, between the junctions, where speeds tend to be faster. However near the roundabouts where the pedestrian crossings are located speeds would be lower than the mid-link speeds. There is also high friction grip material on all the approaches to the pedestrian crossings.
- 4.28 The only measure available to totally guarantee pedestrians safely across the A92 would be to construct one or more pedestrian bridges or underpasses as this would remove the pedestrian/vehicle conflict and associated risks. Whilst this would be the ideal solution in terms of pedestrian road safety the costs involved in constructing these facilities would be very significant and it is estimated that it would be £750,000 plus for one bridge/underpass. It should also be noted that grade separation is no longer favoured for pedestrian movement in urban environment and that such bridge structures would be visually intrusive and unwelcome along this corridor.
- 4.29 Given that there has been no pedestrian injury accidents on this stretch of road there is little evidence to justify a grade separated crossing especially when there are existing signal controlled pedestrian crossings available. Therefore this is not recommended as it is not economically viable nor conducive to our general approach to integrated transport.
- 4.30 Rumble strips have also been considered to reduce speed however these would generate noise and it was considered that this would be unacceptable to nearby properties and therefore are inappropriate. It may be possible to erect some form of signage to warn drivers however its impact on vehicle speed is considered to be minimal considering the location of the pedestrian crossings.

Vehicle Speed Enforcement

- 4.31 Speed enforcement on the road is primarily undertaken by Tayside Police and through discussions with them it is clear that regular and consistent enforcement does occur on this section of the A92.
- 4.32 It has been highlighted by members of the City Development Committee that the Tayside Safety Camera Partnership (TSCP) could be used to undertake additional enforcement in this area using mobile speed cameras as they have been carrying out speed enforcement on the A92 at East Dock Street. The TSCP are an organisation funded and governed by the Scottish Government and any enforcement must be undertaken in accordance with the Scottish Safety Camera Partnership Programme Handbook. Fixed and mobile camera enforcement sites are selected through an

evidence based approach that considers vehicle speed and injury accidents. Council officers have discussed this section of the A92 with the TSCP Manager and it has been concluded that this section of the A92 does not meet the criteria within the scope of the Safety Camera Handbook as the location of the accidents are primarily at the East Balgillo Road Roundabout where speeds are already low due to the roundabout. There have been no injury accidents at the pedestrian crossings on the A92 within the Dundee City Council boundary.

- 4.33 Comparisons with the TSCP site on the A92 at East Dock Street were raised with TSCP and it has been confirmed that the East Dock Street site meets the criteria on both accident and speed criteria as detailed by the Safety Camera Handbook. The A92 at Claypotts / East Balgillo does not.

Conclusion

- 4.34 It is considered that recent land use changes have created pedestrian demand across the A92 and this has led local residents and elected members to raise concerns about the safety of pedestrians crossing the dual carriageway. Having considered A92 Road Safety Audits, injury accidents, traffic surveys and site visits in this review to support its findings, all the evidence gathered suggests that the A92 between Claypotts junction and the Grange Road at the Dundee City Council / Angus Council boundary is operating relatively safely and there is little evidence to suggest otherwise.

5 POLICY IMPLICATIONS

- 5.1 This Report has been screened for any policy implications in respect of Sustainability, Strategic Environmental Assessment, Anti-Poverty, Equality Impact Assessment and Risk Management.

The major issues identified are:

a Sustainability

Road safety initiatives promote a safer environment for all road users and encourage walking and cycling which are key principles of Transport and Travel.

b Strategic Environmental Assessment

There are no implications in relation to this report.

c Anti-Poverty

Road safety initiatives promote safety, especially for vulnerable groups such as the elderly and children, thus ensuring that the local road network meets the transport needs of all road users, allowing equal access to all services.

d Equality Impact Assessment

There are no implications in relation to this report.

e Risk Management

The promotion of road safety initiatives helps the Council to manage the accident risk to all users of the local road network and to minimise the consequences that arise from road accidents both in terms of human suffering and financial costs.

6 CONSULTATIONS

- 6.1 The Chief Executive, Director of Corporate Services, Head of Democratic & Legal Services, BEAR Scotland Limited, Chief Constable and Tayside Safety Camera Partnership Manager have been consulted and are in agreement with the contents of this report.

7 BACKGROUND PAPERS

- 7.1 AN12-2012 - Review of Road Safety on the A92 between Claypotts and Grange Road.
- 7.2 Report 291-2011 Road Safety Progress Report 2011
- 7.3 Report 500-2011 Local Speed Limit Review
- 7.4 Report 83-2002 A92 Project - Issue of Scottish Ministers' Decision and Consequential Action

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