

**ANGUS COUNCIL**

**COMMUNITIES COMMITTEE – 18 AUGUST 2015**

**A933 FORFAR ROAD, B961 KINGENNIE AND C37 MAIN ROAD, HILLSIDE  
AMENDMENTS TO EXISTING SPEED LIMITS**

**REPORT BY HEAD OF TECHNICAL AND PROPERTY SERVICES.**

**ABSTRACT**

This report informs the Committee of concerns raised by local residents over speeding on the B961 in Kingennie; concerns raised by local residents over speeding on the C37 Main Road, Hillside and details the findings of engineering investigations carried out at both locations. The report also informs the Committee of the findings of investigations carried out for the junction of Kirkton Road with the A933 Forfar Road.

**1. RECOMMENDATIONS**

It is recommended that the Committee:

- (i) Notes the concerns of the local residents in Kingennie and Hillside.
- (ii) Notes the findings of the engineering investigations carried out to assess the concerns.
- (iii) Notes the findings of the investigation work carried out for the A933.
- (iv) Agrees to the implementation of amendments to the existing speed limits at the three locations.

**2. ALIGNMENT TO THE ANGUS COMMUNITY PLAN/SINGLE OUTCOME AGREEMENT/COPORATE PLAN**

This report contributes to the following local outcomes contained within the Angus Community Plan and Single Outcome Agreement 2013-2016:

- Angus is a good place to live in, work in and visit,
- Our communities are safe, secure and vibrant

**3. BACKGROUND**

- 3.1 Concerns have been raised recently via a Local Elected Member on behalf of residents over speeding through Kingennie. A meeting was held with the Local Member and a delegation of residents from Kingennie on 18 May 2015. Residents raised their concerns over the speed of traffic travelling through Kingennie on the B961 and noted the occurrence of 2 recent road traffic collisions on the stretch of road in close succession. An undertaking was given to the residents that a full investigation into their concerns would be carried out.
- 3.2 Concerns have been raised via Local Elected Members on behalf of residents of Main Road in Hillside over the speed of traffic on the C37 heading southbound into the village. An undertaking was given to the Elected Members that a full investigation would be carried out to assess the concerns.
- 3.3 Concerns have been raised on a number of occasions in previous years regarding traffic queuing and associated delays at the junction of Forfar Road (A933) with Kirkton Road in Arbroath. In 2009 a peak time traffic count exercise was carried out and results confirmed that there were substantial delays at the pm peak and that the junction was not performing well. Traffic modelling software was utilised and a proposal was made to improve the junction by

creating a left-turn filter lane for traffic exiting Kirkton Road onto the A933. The left-turn filter lane was installed in 2009 and an undertaking was given to monitor the performance of the junction thereafter.

#### **4. DETAILS**

- 4.1 In August 2006 the Scottish Government published new guidance on setting local speed limits (Circular 1/2006). Within this guidance was the requirement for all Local Authorities to review their A and B Class road network by 2011. In Committee Report No 1397/06 (23 November 2006) an undertaking was made to complete the review of A and B Class roads by the end of 2007.
- 4.2 The review of speed limits on the "A" and "B" Class roads in Angus was completed and the findings were detailed in Committee Report No 266/08 (4 March 2008). In addition to reporting the findings of the review, the Infrastructure Services Committee was requested to approve the adoption of an Angus Council Speed Limit Strategy 2008. The approved strategy has been attached for reference purposes as appendix 1 to this report.
- 4.3 A subsequent review of "C" Class roads in Angus was completed and the findings were detailed in Committee Report No 51/13 (22 January 2013)
- 4.4 The review of A, B and C Class roads was undertaken using the principles and criteria set out in Scottish Government Circular 01/2006. The key objectives of the guidance are:
- The provision of up-to-date and consistent advice,
  - Improved clarity which will aid greater consistency of speed limits nationally,
  - The setting of more appropriate local speed limits,
  - Local speed limits that better reflect the needs of all road users,
  - Improved quality of life for local communities and a better balance between road safety, accessibility and environment objectives,
  - Improved respect for speed limits and therefore compliance, and
  - Continued reductions in the number of road accidents in which excessive or inappropriate speed is a contributory factor.
- 4.5 The assessment of the A, B and C Class roads was carried out using the assessment framework recommended for use by the above guidance. Key information was gathered and considered for all rural A, B and C Class roads in the county, namely:
- Accident records,
  - Traffic volumes,
  - Existing speed limits,
  - Geometric layout and physical characteristics, and
  - Location and type of existing speed limit and village signing.
- 4.6 In addition to the framework assessment of the A, B and C Class roads, a review of speed limits through rural villages on A, B and C Class roads was carried out. It is Government policy that, where appropriate, a 30mph speed limit should be the norm in villages.
- 4.7 The broad definition of a village was used to assess the rural villages on A, B and C Class roads in Angus; the definition adopted for use in the Angus Council Speed Limit Strategy. The definition of a village was adopted from Traffic Advisory leaflet 1/04 – "village speed limits". The definition is based on simple criteria relating to frontage development and distance. Both upper and lower tier roads will be subject to a 30mph speed limit through a village if the following criteria are met:
- 20 or more houses (on one or both sides of the road)
  - A minimum density of 3 houses per 100m, and
  - A minimum length of 600m.
- 4.8 Kingennie on the B961 was assessed in 2008 as part of the A and B Class review using the above criteria and it was concluded that it did not meet the requirements for a village and that a 40mph speed limit was the appropriate speed limit.

- 4.9 Following the aforementioned meeting at Kingennie on 18 May 2015 a new assessment of the speed limit on the section of the B961 through Kingennie was carried out using the criteria set out in the Speed Limit Strategy for the definition of a village. The assessment confirmed that development in recent years has provided the necessary frontage development to meet the criteria (20 or more houses) to class Kingennie as a village and therefore a 30mph speed limit would now be the appropriate speed limit. A plan (**Appendix 2**) has been attached to this report to show the proposed amendment to the existing speed limit.
- 4.10 Following receipt of concerns raised by residents of Hillside regards speeding on the C37 heading into the village; a speed survey was carried out in November 2014 by the start of the existing 30mph speed limit at the north end of the village. The results of the survey returned results of an average recorded speed (over 7 days) of 33.2mph and an 85%ile speed (speed at or below which 85% of vehicles were travelling) of 39.3mph. The results of the survey were discussed at a meeting of the Traffic Co-ordination Group and it was agreed that speeds were high and that Police Scotland would give the location additional enforcement attention.
- 4.11 Further concerns have been raised more recently from two Local Elected Members over continued concerns of speeding and over a reported road traffic accident involving a vehicle heading southbound on the C37, into Hillside. Angus Council's Speed Limit Strategy states that "Intermediate (buffer) 40mph limits may also considered where there are outlying houses beyond the village boundary or on roads with high approach speeds". Further discussion was held at the Traffic Co-ordination Group forum and it was agreed that approach speeds southbound into Hillside were high and therefore an Intermediate (buffer) 40mph speed limit would be appropriate. A plan (**Appendix 3**) has been attached to this report to show the proposed amendment to the existing speed limit.
- 4.12 As mentioned earlier in this report, the junction at the A933 Forfar Road with Kirkton Road was upgraded in 2009 following complaints received over peak-time delays. It was stated at the time that this junction would be monitored thereafter to assess performance of the junction. A recent check of the junction confirmed that it continues to operate satisfactorily, with delays at peak times kept to an acceptable minimum. However, in addition to assessing delays; an analysis of accident records for the location was undertaken.
- 4.13 Accident records show that there has been one recorded Personal Injury Accident (PIA) at the above location in the last three years. There was a fatal road traffic accident in 2010. Although this location has not shown up on recent Accident Investigation Programme (AIP) work, further in-depth analysis of the section of the A933 from the Keptie Road/Cairnie Road junction northbound towards the junction with the U494 Woodville Road has shown a high number of damage only accidents. The AIP programme will highlight sites with 2 or more PIA's that are recommended for mitigation measures. Investigations for the section of the A933 in question has shown a very high number of non-injury, damage only type accidents and it is considered, following analysis, that speeds have been a contributory factor in many of these incidents.
- 4.14 In light of the findings, it is proposed that the existing intermediate (buffer) 40mph speed limit at the junction of Kirkton Road with the A933 Kirkton Road is moved further north, approximately 630 metres to a point on the A933 just north of Woodfield House and the Ashbrook Nursery. It is intended that by extending the existing 40mph buffer speed limit, this in turn will reduce the speed of traffic approaching the Kirkton Road junction and also the speed of traffic heading north out of Arbroath. Currently, traffic heading north out of Arbroath can see the National Speed Limit signage just north of the Kirkton Road junction and this can lead to vehicles accelerating early before they pass the junction. Extending the 40mph speed limit further north should address this issue with vehicles approaching the junction, in either direction, at lower speeds. A plan (**Appendix 4**) has been attached to this report to show the proposed amendment to the existing speed limit.

## 5 FINANCIAL IMPLICATIONS

The estimated cost of implementing the Traffic Order proposals including signage is £5,000 which will be met from the 2015/2016 Communities Roads Division (Traffic) Revenue Budget. Additional maintenance costs will amount to £500 per annum and this will require to be provided for in future years Roads Maintenance Revenue Budgets.

## 6. CONSULTATION

The Chief Executive, Strategic Director of Resources, Head of Corporate Improvement & Finance, Head of Legal & Democratic Services and the local Divisional Police Commander for Tayside have been consulted in the preparation of this report.

**NOTE:** The background papers, as defined by Section 50D of the Local Government (Scotland) Act 1973 (other than any containing confidential or exempt information) which were relied on to any material extent in preparing the above report are:

- Report No 1397/06 – “Setting Local Speed Limits” – Infrastructure Services Committee on 23 November 2006.
- Enterprise, Transport & Lifelong Learning Department (ETLLD) Circular No 01/2006: “Setting Local Speed Limits”.
- Report No 266/08 – “Speed Limit Review – A & B Class Local Roads” – Infrastructure Services Committee on 4 March 2008.
- Report No 459/09 – “Proposed Junction Improvement A933 Forfar Road/Kirkton Road, Arbroath”. – Infrastructure Services Committee on 2 June 2009.
- Report No 51/13 – “Speed Limit Review C Class Local Roads” – Infrastructure Services Committee on 22 January 2013.

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List of Appendices:

Appendix 1:- Angus Council Speed Limit Strategy 2008

Appendix 2:- Proposed amendment to speed limit – B961 Kingennie

Appendix 3:- Proposed amendment to speed limit – C37 Hillside

Appendix 4:- Proposed amendment to speed limit – A933 Forfar Road, Arbroath

**ANGUS COUNCIL**  
**SPEED LIMIT STRATEGY 2008**

**Background**

In August 2006 the Scottish Government published new guidance on setting local speed limits [Enterprise, Transport and Lifelong Learning Department (ETLLD) Circular 1/2006]. The production of this guidance followed a 4 year period of development and consultation and it replaces the previous guidance [Scottish Office Industry Department (SOID) Circular 1/93] which has now been withdrawn.

Contained within Circular 1/2006 is a requirement to review formally the speed limits on all Class A and B roads in Angus by 2011, in accordance with the revised guidance. In order to ensure that all future speed limits are assessed consistently, in line with the review of A and B class roads, it was decided to update the current Angus Council Speed Limit Policy which was agreed by the Roads Committee on 22 November 2001.

The setting of national speed limits for different road types, and which exceptions to the general limits can be applied, is the responsibility of the UK Government. The three national speed limits are:

- The 30mph speed limit on restricted roads (in Scotland Class C or Unclassified roads with street lighting)
- The speed limit of 60mph on single carriageway roads
- The 70mph limit on dual carriageways and motorways

These national limits are not necessarily appropriate to all roads. The responsibility for determining local speed limits lies with Traffic Authorities having regard to guidance issued by the Scottish Government together with relevant advice from the Department for Transport (DfT).

The current guidance, to which this strategy makes reference, is as follows:

- ETLLD Circular No 1/2006 - "Setting Local Speed Limits"
- Scottish Executive Development Department (SEDD) Circular No 6/2001 - "20mph Speed Limits"
- ETLLD Circular No 1/2004 - "20mph Speed Limits Around Schools on Roads with Speed Limits Higher Than 30mph"
- DfT Traffic Advisory Leaflet 1/04 - "Village Speed Limits"

**Legislation and Regulations**

Speed limits are covered by legislation set out in Part VI of the Road Traffic Regulation Act 1984. Local speed limits are made by Traffic Authorities, by order, under section 84 of this Act. Speed limits must be signed in accordance with section 85 of the Act and all signs must comply with The Traffic Signs Regulations and General Directions 2002 as amended.

**Strategy Objectives**

Effective speed management on the road network involves many components designed to encourage, help and require road users to adopt appropriate and safe speeds. Speed Limits are a key source of information to road users and play a fundamental role in indicating the nature of, and risks posed by a road to both themselves and other motorised and non-motorised road users. Therefore, speed limits should be evidence led, self-explaining and seek to reinforce peoples' assessment of what is a safe speed at which to travel. They should also encourage self-compliance and not be seen by drivers as being a target speed at which to drive in all circumstances.

## **Responsibility and Underlying Principles**

The Scottish Government is responsible for determining speed limits on the trunk road and motorway network. Angus Council, as Traffic Authority for Angus, is responsible for determining local speed limits on the local road network. The underlying principles of this new speed limit strategy are as follows:

- Angus Council and Tayside Police will work closely together in determining, or considering, any changes to speed limits
- Alternative speed management options will always be considered before a new speed limit is introduced
- The underlying aim is to achieve a 'safe' distribution of speeds which reflects the function of the road and the impacts on the local community. The needs of vulnerable road users will be fully taken into account.
- What the road looks like to road users will be a key factor when setting a speed limit.
- Mean speeds will be used to determine local speed limits.
- The minimum length of a speed limit will generally be not less than 600 metres to avoid too many changes of speed limit along a route.
- Speed limits will not be used to attempt to solve the problem of isolated hazards, such as a single road junction or reduced forward visibility such as a bend.

## **Speed Limits in Urban Areas**

The national speed limit in urban areas is 30mph. A 40mph limit may be used where appropriate and, in exceptional circumstances, a 50mph limit may be considered.

Roads suitable for 40mph are generally higher quality suburban roads or those on the outskirts of urban areas where there is little development. These roads should have good width and layout and wherever possible cater for the needs of non-motorised road users through segregation of road space or the provision of adequate footways and crossing points. In exceptional circumstances a 50mph limit may be used on higher quality roads where there is little or no roadside development and segregation of both junctions and vulnerable road user facilities. 20mph limits can be applied in residential areas and in situations where there is a particular risk to vulnerable road users subject to the criteria of SEDD Circular No 6/2001 - "20mph Speed Limits" being met.

## **Rural Speed Limits**

In accordance with the guidance set out in Circular 1/2006, the rural road network in Angus has been divided into upper and lower tier roads. Upper tier roads are those with a primarily through function where mobility is important, typically Class A and B roads, whilst, lower tier roads are those with a primarily local or access function. However, where accident rates exceed the thresholds specified in Circular 1/2006 lower speed limits will be considered. The accident rates for upper and lower tier roads are as follows:

- Upper Tier - threshold of 35 accidents per 100 million vehicle kilometres
- Lower Tier - threshold of 60 accidents per 100 million vehicle kilometres

The accident rate is a trigger for possible intervention, indicating that speed management measures may be required on a particular section of road. In accordance with the guidelines, accident remedial measures and alternative speed management options will always be considered in detail before the introduction of a lower speed limit. Circular 1/2006 states quite clearly "speed limits should not be used to attempt to solve the problem of isolated hazards, such as a single road junction or reduced visibility such as a bend". For both Upper and Lower tier roads, 30mph will be the norm in villages.

## Village Speed Limits

In order to implement the government policy that, where appropriate, 30mph speed limit should be the norm in villages it is necessary to define a 'village'. For the purpose of this speed limit policy Angus Council will adopt the definition from Traffic Advisory Leaflet 1/04 - "Village Speed Limits". This definition is based on simple criteria relating to frontage development and distance. Both upper and lower tier roads, will therefore be subject to a 30mph speed limit through a village if the following criteria are met:

- 20 or more houses (on one or both sides of the road);
- a minimum density of 3 houses per 100m; and
- a minimum length of 600m.

The minimum length of 600m is recommended so as to avoid too many changes of speed limit along a given road and because many drivers are unlikely to reduce their speed to a new 30mph limit if it is over a very short stretch of road, particularly if the end of the limit can be seen from the entry point. However, in Angus there are several 'villages' where the development density criteria are met over a much shorter distance. In these instances the 30mph limit will be imposed over the length of the development (minimum length 300m), and in this case an intermediate (buffer) speed limit of 40mph will be implemented prior to the 30mph terminal signs at the entrance to the village to ensure a minimum 'speed restricted' length of 600m. Intermediate 40mph limits may also be considered where there are outlying houses beyond the village boundary, or roads with high approach speeds.

In situations where the above criteria for a village are not strictly met, and there are just fewer than 20 houses, extra allowances will be made for buildings such as schools or churches. In order to avoid ambiguity of this definition, a minimum of 80% of the required housing (16 houses) plus significant other building(s) is necessary for a 30mph limit. Housing density in the 50% to 80% range will be considered for a 40mph speed limit.

Village speed limits will be signed to a standard layout to ensure consistency across Angus. This layout is described in a separate section of this strategy.

All new 30mph speed limits will be monitored and should mean speeds be found to be significantly above the new limit then further measures, designed to reinforce the new speed limit, such as speed activated signs, will be considered.

Villages on 'C' and Unclassified roads are predominantly subject to a 30mph speed limit by virtue of the presence of street lighting. Any changes to existing limits where required will be made by Traffic Regulation Order. Buffer speed limits on C and Unclassified roads should not normally be necessary because of low traffic volumes and the localised nature of the traffic.

## 20mph Speed Limits

As there has been no change to the Scottish Government Guidance on 20mph speed limits (Scottish Executive Circular No 6/2001), the relevant sections of Angus Council's Speed Limit Policy of November 2001 remain valid. For completeness relevant sections from that report (1347/01) are updated below.

20mph Zones - These require traffic calming features to bring down vehicle speeds in order that the legal limit in these zones is effectively self enforcing. Such schemes can be very expensive and this level of expenditure can normally only be justified where a significant number of accidents have occurred or around schools.

It may be appropriate in new developments for developers to consider the introduction of 20mph limits from the outset and this is an issue which will be considered when approving proposed layouts.

Mandatory 20mph Speed Limits - Where there are no traffic calming features the guidance says that 20mph limits should only be introduced where vehicle speeds are already low (i.e. not greater than 24mph). However the following quote from the guidance is of particular relevance:- "Authorities may regard mandatory 20mph speed limits without relatively expensive speed reduction features as an attractive option, but such limits should not be introduced where there is no realistic expectation that they will achieve the required decrease in traffic speeds, or where the police are unable to give an undertaking to provide an effective level of enforcement.

In situations where speeds are low there is little benefit in introducing a mandatory limit simply to provide a “feel good factor”. It is not considered best value to spend limited resources on providing such limits where speeds are already low (For example in town centres).

Part time mandatory 20mph limits (i.e. implemented with a traffic regulation order) have been introduced around schools where appropriate.

Advisory 20mph limits are suitable for areas where the existing speeds are in the range 25 to 30mph. By their nature, advisory speed limits cannot be enforced and therefore the guidance recommends that consultation to gain the support of local residents is crucial. The SEDD guidance recommends that monitoring of the effectiveness of advisory limits be carried out and that consideration be given to the possibility of introducing mandatory limits if the advisory limits are deemed successful. Many advisory limits have been introduced over the years in Angus and these have been well received by residents. However as they are not enforceable, the initial effect can soon wear off. Before and after speed measurements have shown only very minor reduction in speed. No more ‘Twenty’s Plenty’ schemes are proposed, however, existing schemes will be reviewed with a view to making them self enforcing.

### **Data Collection and Analysis**

The following is a list of data required when carrying out a speed limit assessment:

- Traffic flow data - should be Annual Average Daily Flow (AADF)
- Traffic speed data - based on typical mean journey speeds along individual sections
- Accident data - typically for a minimum of 3 year period, personal injury accidents are required when calculating the accident rate, but such non-injury accidents as are known may be also considered in any detailed investigation.

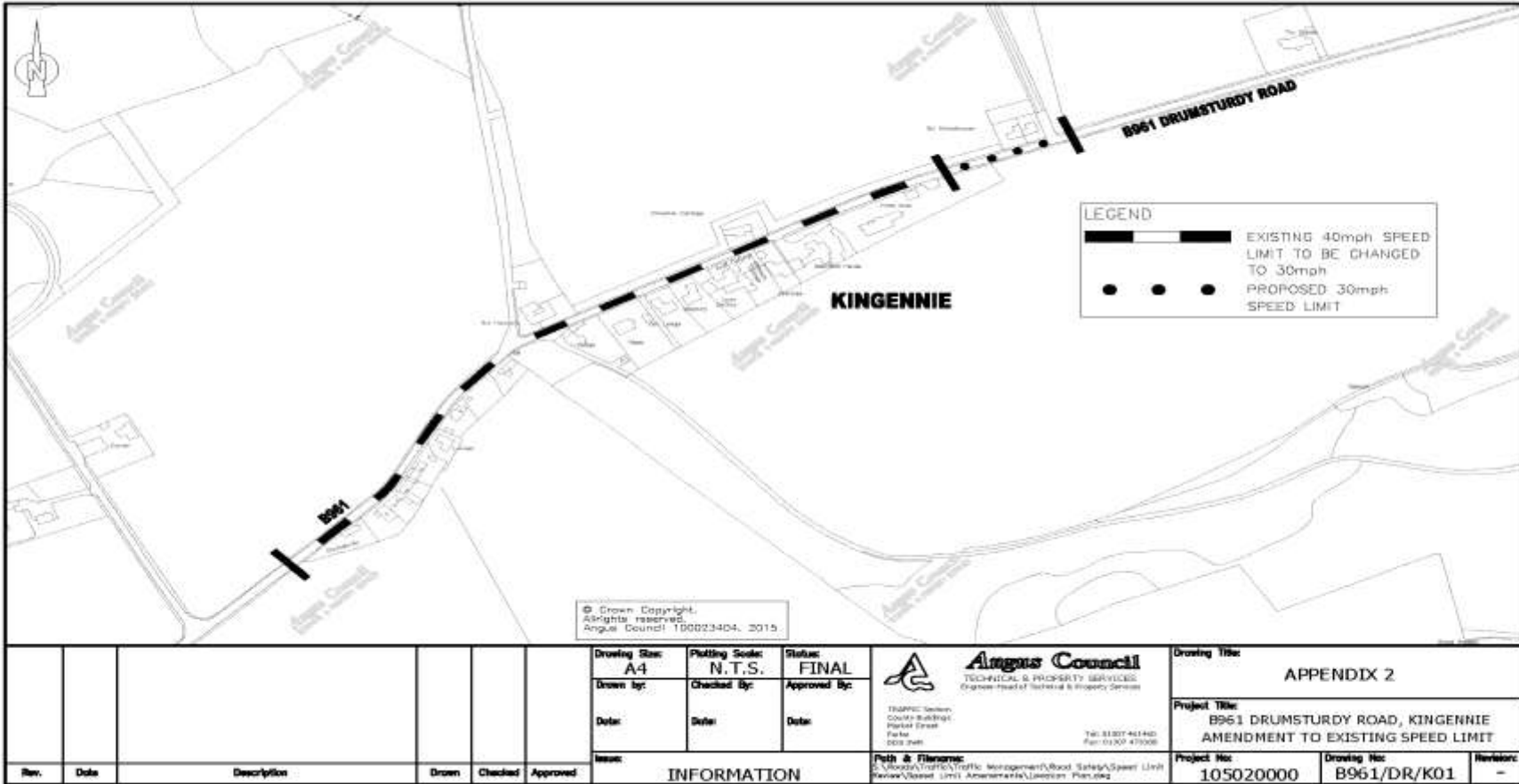
### **Signing**

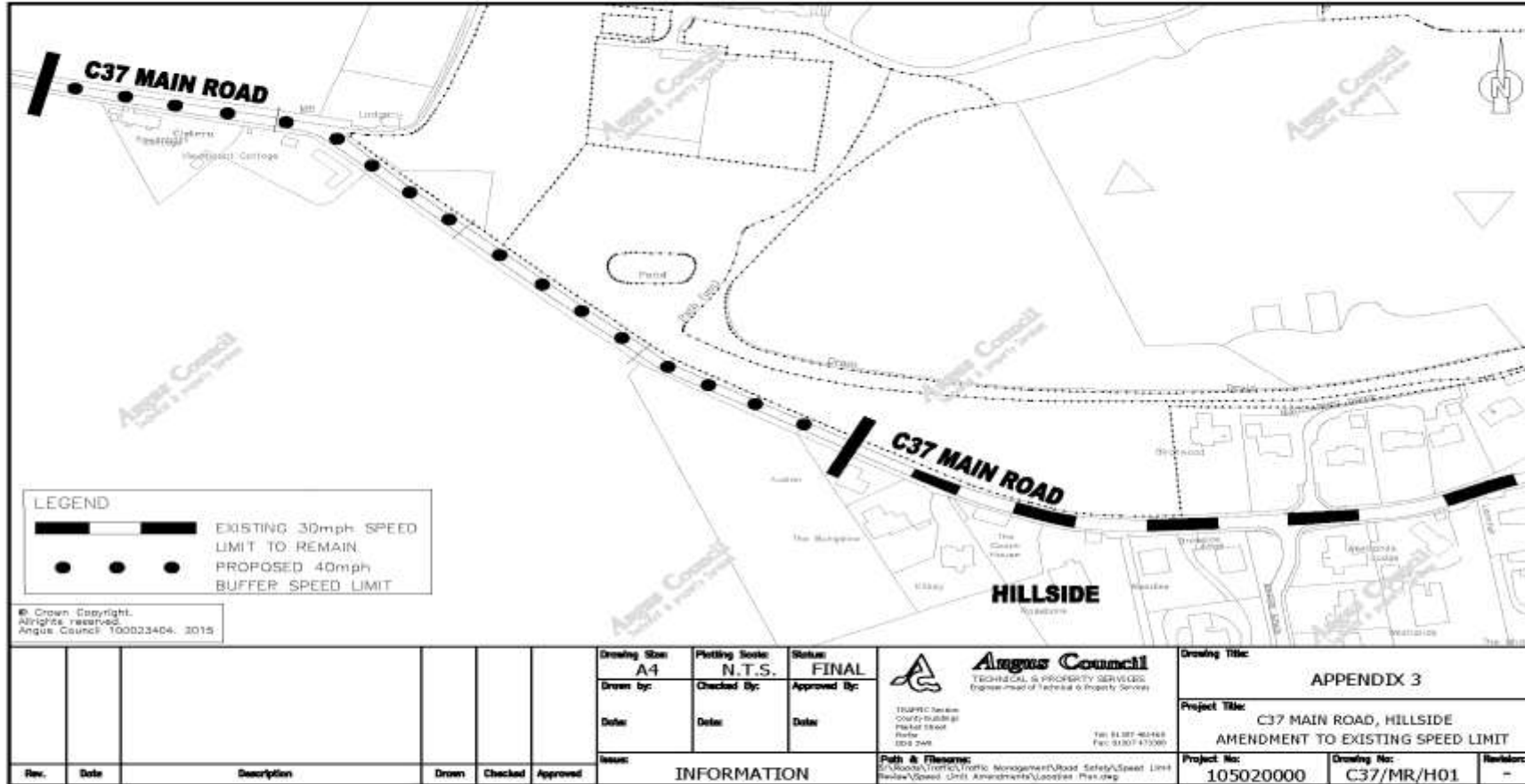
The signing of speed limits will be standardised throughout Angus. The layout will be based on a single sign plate incorporating the speed limit roundel, village nameplate and a ‘Drive Safely’ message, on entry to the village, complemented by a speed limit roundel marked onto the carriageway itself (see Appendix 4). Exit signs (see also Appendix 4) will also be used as indicated. On ‘A’ and ‘B’ class roads this sign arrangement will be installed on both the near and offside of the road. On ‘C’ and Unclassified roads will be by way of standard speed limit roundels in accordance with the requirements of the Traffic Signs Regulations and General Directions (Diag 670 & 671). Where possible, the speed limit signs and a village nameplate, incorporating the ‘Drive safely’ message, will be brought together at a single location. This provision is also illustrated graphically in Appendix 4.

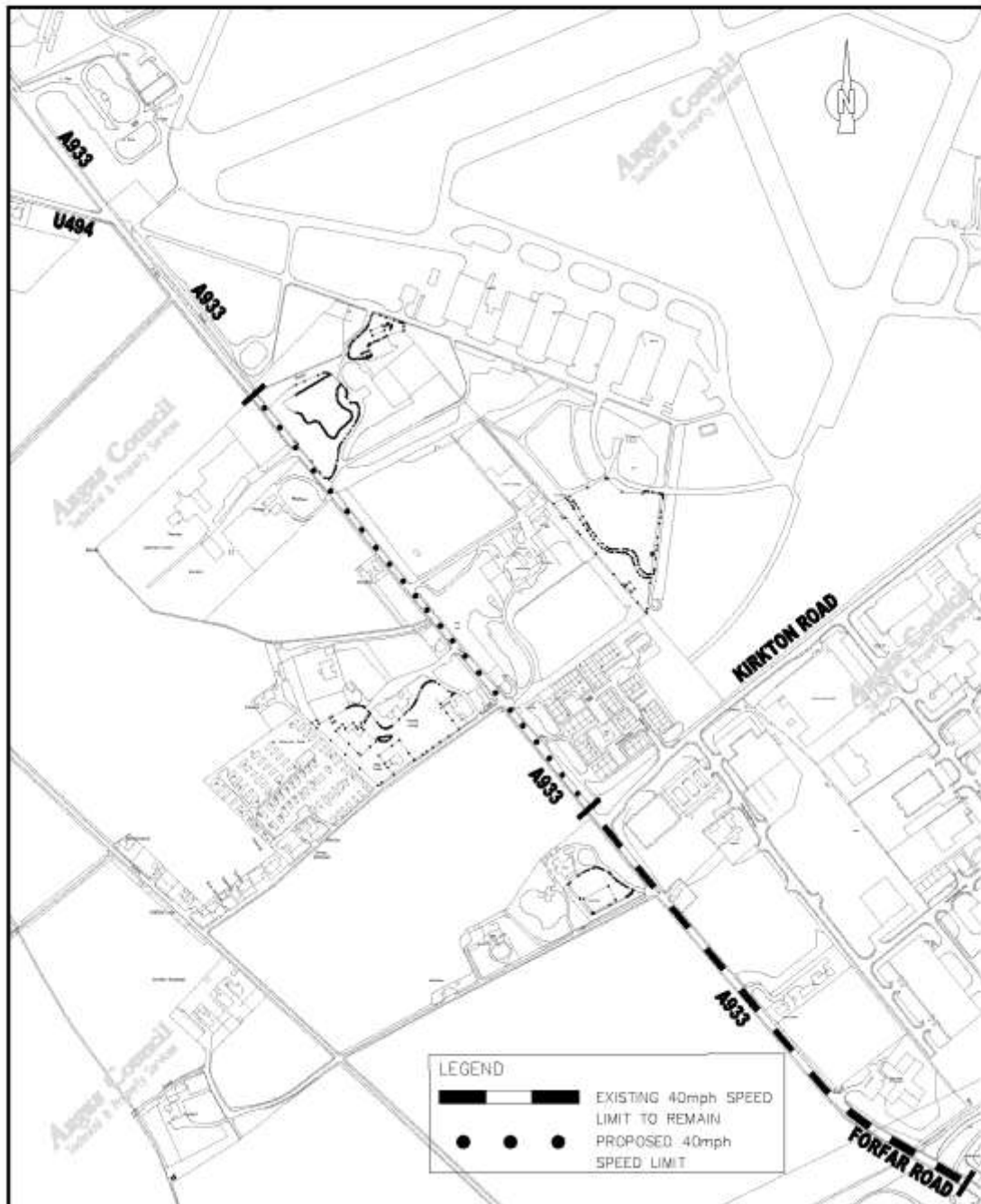
Current guidance recommends a minimum length of 600m for a single speed limit, with an allowable minimum of 400m. In situations where an appropriate limit is too short (for example villages where the development is over a short length such as Marywell) then buffer limits will be provided to give overall speed limit of 600m or more as appropriate to the circumstances.

If at any time, additional measures are deemed necessary, to improve the effectiveness of a speed limit, consideration will be given to using speed activated signs either on a cyclic temporary basis or on a semi-permanent basis depending on the individual conditions.









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<b>Drawing Size:</b> A4	<b>Plotting Scale:</b> N.T.S.	<b>Status:</b> FINAL	 <b>Angus Council</b> TECHNICAL & PROPERTY SERVICES Engineer/Head of Technical & Property Services 044792 Section County Buildings Market Street Forfar DD8 3JH Tel: 01307 461460 Fax: 01307 473300	<b>Drawing Title:</b> APPENDIX 4		
<b>Drawn by:</b>	<b>Checked By:</b>	<b>Approved By:</b>		<b>Project Title:</b> A933 FORFAR ROAD, ARBROATH AMENDMENT TO EXISTING SPEED LIMIT		
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<b>Issue:</b> INFORMATION			<b>Path &amp; Functions:</b> Road, Speed Limit, Road Safety, Speed Limit Signs, Speed Limit Amendments, Location Planning			