The Cranbrook Plan 2013-2031

Hearing Position Statement
By Network Rail

Hearing commencement 21 January 2020

Summary of Network Rail's Position

Network Rail (NR) is a statutory undertaker responsible for maintaining and operating the country's railway infrastructure and associated estate. NR owns, operates, maintains and develops the main rail network; This includes level crossings.

Cranbrook Plan looks to provide 7,750 homes along with businesses, community infrastructure (including new schools) and a town centre. This new town is located south of the railway line and there are three access points from the north of the proposed development into the town, over or under the railway.

Far west of the town is a bridge which carries Station Road (two vehicle lanes, no footpath) over the railway. Towards to the east of the town is an under bridge which takes Southbrook Lane (single vehicle lane, no footpath) under the railway. In between is Cranaford level crossing which takes Crannaford Lane (two vehicle lanes, with a footpath either side of the level crossing only) directly across the railway.

NR belives that given the nature of Station Road and Southbrook Lane, a driver would choose to drive along Crannaford Lane because it is straighter and wider than the other highways. In order to illustrate this, it is requested that during the site visit the Inspector drives all three routes to assess this theory.

Crannaford Level Crossing (LC) is the easiest route to drive and most central of the three crossings describe above to the new town, albeit at the northern most point of the town. The change in environment and the increased use of the crossing is the cause for NR's concern. Prior to development of the Cranbrook Plan this rural crossing was a low use crossing with no public right of way. The change in environment surrounding the crossing (new school and suitable alternative natural greenspaces (SANGs)) along with the additional use of the crossing has increased the risk of incidents or accidents occurring, this will be exasperated further with the addition of more occupants and a town centre which would likely attract additional visitors to the town.

NR considers that the Cranbrook Plan is not sound because the plan is not consistent with local or national policy, insomuch as it fails to meet the requirements of paragraph 35 of the National Planning Policy Framework (NPPF) February 2019.

Paragraph 35 requires that development plans should be consistent with national policy. Section 8 of the NPPF aims for policies to achieve safe places and encourages pedestrian and cycle connections. Whilst section 9 of the framework requires development proposals to identify impacts of traffic and transport infrastructure for mitigating any adverse effects.

In addition, the plan fails to accord with Strategy 9 and 11 of the East Devon Local Plan (EDLP) 2013-2031, adopted 28 January 2016, which requires high quality walking and cycling connections and improved highway provision.

NR is seeking modifications to the plan, as set out below, in order to reduce or eliminate the increased risk imported by the development of the plan on to Crannaford LC.

NR has continually raised concerns during the progression of the plan document regarding the risk imported to Crannaford LC associated with the proposed development. See below a list of comments provided (full comments can be found at Appendix 1): -

Date comments sent	Format comments sent	Consultation
24/04/2019	By email	The Cranbrook Plan – Notice of Publication – Representation period 11 March 2019 until 5.00 p.m. 24th April 2019
04/01/2018	By email	Cranbrook Plan – Preferred Approach – Representation period 10 November 2017 until 8.00 a.m 8 January 2018.
25/07/2016	By email	Cranbrook Development Plan Issues and Options Report - Representation period 13th June 2016 to 25th July 2016 at 5pm.
31/07/2015	By email	Planning for the Future Development of Cranbrook - Representation period 25th June 2015 to 7th August 2015 at 5pm.

<u>Question 4:</u> Is the plan compliant in relation to the East Devon Local Plan 2016 (EDLP)?

NR considers that the additional use and the change of environment south of the crossing will increase the risk of incidents or accidents occurring at the level crossing where Crannaford Lane crosses the railway (detail's can be found in Appendix 2 of this statement).

Strategy 9 of EDLP requires high quality walking and cycling connections, improved highway provision as well as enhanced rail services by way of funding contributions from all developments in the West End.

EDLP Strategy 11 states that infrastructure provision at East Devon's West End will promote high quality and integrated transport provision with a hierarchy of walking, cycling, public transport and private motor vehicles.

The development plan, as proposed would lead to a diminish in the provision of walking, cycling, vehicular access along Crannaford Lane, as well as an adverse impact on rail services.

Question 38: Do the expansion area policies provide sufficient clarity and guidance for Plan users and are any main modifications necessary for soundness?

The residential development proposed will lead to additional traffic over Crannaford Lane creating an intolerable safety risk. The type of level crossing installed on Crannaford Lane is designed for very lightly used roads in rural locations. The vast residential and urban growth of the area surrounding the level crossing means it is no longer suitable, and with further builds planned the safety risk will rise yet further. Policy CB2, CB3, CB4 and CB5 should include the requirement for financial contributions for the provision of safety improvements at Crannaford Level Crossing in the form of recontrol of the crossing to a signalling-interlocked design with full barriers and obstacle detection, or a bridge.

The following questions all have the same response as set out below them.

- **Question 50: Has full consideration been given to the impact of this allocation on: a) Access arrangements.**

- **Question 58: Has full consideration been given to the impact of this allocation on: a) Access arrangements.**

- **Question 75: Has full consideration been given to the impact of this allocation on: a) Access arrangements.**

- **Question 107: Has full consideration been given to the impact of this allocation on: a) Access arrangements.**

The residential developments proposed will lead to additional traffic over Crannaford Lane thus increasing the risk to the users of Crannaford Level Crossing. Policy CB2, CB3, CB4 and CB5 should include the requirement for financial contributions for the provision of safety improvements at Crannaford Level Crossing in the form of recontrol of the crossing to a signalling-interlocked design with full barriers and obstacle detection,or a bridge.

Question 106: Is the proposed housing allocation, deliverable and/or developable in accordance with the housing trajectory? b) supported by evidence to demonstrate that safe and appropriate access for vehicle and pedestrians can be provided?

Traffic censuses over Crannaford LC have been carried out by Devon County Council in 2011, 2016 and 2019. The data provided would enable predictions to be calculated on future increase in traffic, in addition to the growth that has already occurred. following the recent development at Cranbrook (see Appendix 3 for the data provided to NR). No such detail has been provided within the evidence recorded for the plan.

The data shows that in 2011 there were 400 vehicles traversing the crossing with a 50 % rise to 600 in 2019. Unfortunately, this data does not show how many pedestrians or cyclists are crossing, however it is highly likely that these will have grown by similar proportions.

<u>Question 232:</u> How will the required improvements to the rail crossing be achieved given that some traffic will be drawn from the north of the rail line?

NR believes that the plan does not provide for any improvements. Policy CB22 should include the requirement for financial contributions for the provision of safety improvements at Crannaford Level Crossing in the form offull upgrade of the level crossing to a more appropriate type, or a bridge.

Appendix 1 – Comments provided on The Cranbrook Plan by Network Rail

Appendix 2 – Risk Assessment of Crannaford Level Crossing by Network Rail

Appendix 3 – Crannaford Level Crossing Traffic Flows

Crannaford Level Crossing

Traffic Flows 2011 - 2019

1. Introduction

1.1 Three single day, 12 hour traffic surveys have been undertaken at the level crossing since 2011, and a new 24hr multi-day survey was undertaken in May 2019. This report details the results of all the surveys.

2. Previous Traffic Survey Results

2.1 The three previous 12hr single day surveys were undertaken on the following dates:-

- Thurs 12th May 2011
- Sat 14th May 2011
- Fri 13th May 2016

2.2 Each survey started at 07:00hrs and ended at 19:00hrs.

2.3 Tables 1,2 and 3 below show the total number of vehicles which traversed the crossing during different time periods.

Table 1 - Northbound traffic only

Date of Survey	07:00 - 08:00hrs	08:00 - 09:00hrs	16:00 - 17:00hrs	17:00 - 18:00hrs	07:00 - 19:00hrs	24hrs
Thurs 12th May 2011	13	27	23	22	223	N/A
Sat 14th May 2011	5	14	24	15	211	N/A
Fri 13th May 2016	12	46	34	25	245	N/A

Table 2 - Southbound traffic only

Date of Survey	07:00 - 08:00hrs	08:00 - 09:00hrs	16:00 - 17:00hrs	17:00 - 18:00hrs	07:00 - 19:00hrs	24hrs
Thurs 12th May 2011	13	12	23	35	207	N/A
Sat 14th May 2011	5	17	14	16	208	N/A
Fri 13th May 2016	23	38	21	38	249	N/A

Table 3 - Both directions

Date of Survey	07:00 - 08:00hrs	08:00 - 09:00hrs	16:00 - 17:00hrs	17:00 - 18:00hrs	07:00 - 19:00hrs	24hrs
Thurs 12th May 2011	26	39	46	57	430	N/A
Sat 14th May 2011	10	31	38	31	419	N/A
Fri 13th May 2016	35	84	55	63	494	N/A

3. Latest Traffic Survey Results

3.1 The latest survey was undertaken for 25 days between Fri 30th April to Fri 24th May 2019 inclusive.

3.2 Tables 4, 5 and 6 below show the number of vehicles which traversed the crossing in different time periods.

Table 4 - Northbound only

Date of Survey	07:00 - 08:00hrs	08:00 - 09:00hrs	16:00 - 17:00hrs	17:00 - 18:00hrs	07:00 - 19:00hrs	24hrs
Tues 30th April 2019	45	15	47	41	290	338
Wed 1st May 2019	53	17	39	33	293	352
Thurs 2nd May 2019	36	22	41	24	296	339
Fri 3rd May 2019	54	26	44	33	338	395
Sat 4th May 2019	5	14	25	20	176	202
Sun 5th May 2019	6	8	19	10	166	198
Mon 6th May 2019*	7	12	15	19	175	207
Tues 7th May 2019	43	22	42	30	289	333
Weds 8th May 2019	45	21	33	30	296	337
Thurs 9th May 2019	45	17	39	38	304	350
Fri 10th May 2019	46	24	33	25	299	344
Sat 11th May 2019	14	13	25	20	204	245
Sun 12th May 2019	8	17	16	12	218	243
Mon 13th May2019	45	21	42	25	269	324
Tues 14th May 2019	38	25	39	30	303	350
Weds 15th May 2019	40	22	36	30	289	350
Thurs 16th May 2019	45	25	49	29	328	386
Fri 17th May 2019	48	22	48	27	313	364
Sat 18th May 2019	13	21	19	8	199	230
Sun 19th May 2019	5	13	12	16	165	191
Mon 20th May2019	49	18	42	24	302	358
Tues 21st May 2019	50	20	50	30	293	333
Weds 22nd May 2019	51	13	57	30	341	392
Thurs 23rd May 2019	43	31	51	26	299	356
Fri 24th May 2019	56	21	43	31	352	411
Maximum Flow	56	31	57	41	352	411
Workday Average Flow	44	21	42	29	298	348
7 Day Average Flow	36	19	36	26	272	317

* Mon 6th May 2019 was a Bank Holiday

Table 5 - Southbound only

Date of Survey	07:00 - 08:00hrs	08:00 - 09:00hrs	16:00 - 17:00hrs	17:00 - 18:00hrs	07:00 - 19:00hrs	24hrs
Tues 30th April 2019	76	31	35	26	321	379
Wed 1st May 2019	71	42	32	29	312	361
Thurs 2nd May 2019	70	39	27	30	346	407
Fri 3rd May 2019	78	31	26	30	347	413
Sat 4th May 2019	7	13	13	14	177	202
Sun 5th May 2019	7	1	20	14	180	216
Mon 6th May 2019*	9	12	20	15	194	227
Tues 7th May 2019	71	34	28	30	333	384
Weds 8th May 2019	70	37	28	26	316	356
Thurs 9th May 2019	57	38	43	29	325	396
Fri 10th May 2019	65	29	31	25	315	367
Sat 11th May 2019	5	30	20	15	232	279
Sun 12th May 2019	10	19	30	20	238	264
Mon 13th May2019	74	31	38	30	323	375
Tues 14th May 2019	70	34	48	22	318	373
Weds 15th May 2019	70	36	36	33	331	397
Thurs 16th May 2019	64	51	51	24	346	421
Fri 17th May 2019	77	29	26	35	314	377
Sat 18th May 2019	20	18	18	14	200	235
Sun 19th May 2019	10	9	11	20	173	205
Mon 20th May2019	81	36	48	21	341	401
Tues 21st May 2019	75	33	41	27	334	384
Weds 22nd May 2019	68	39	38	28	327	381
Thurs 23rd May 2019	70	46	48	22	326	391
Fri 24th May 2019	69	34	38	26	348	403
Maximum Flow	81	51	51	35	348	421
Workday Average Flow	68	35	36	27	322	379
7 Day Average Flow	54	30	32	24	293	344

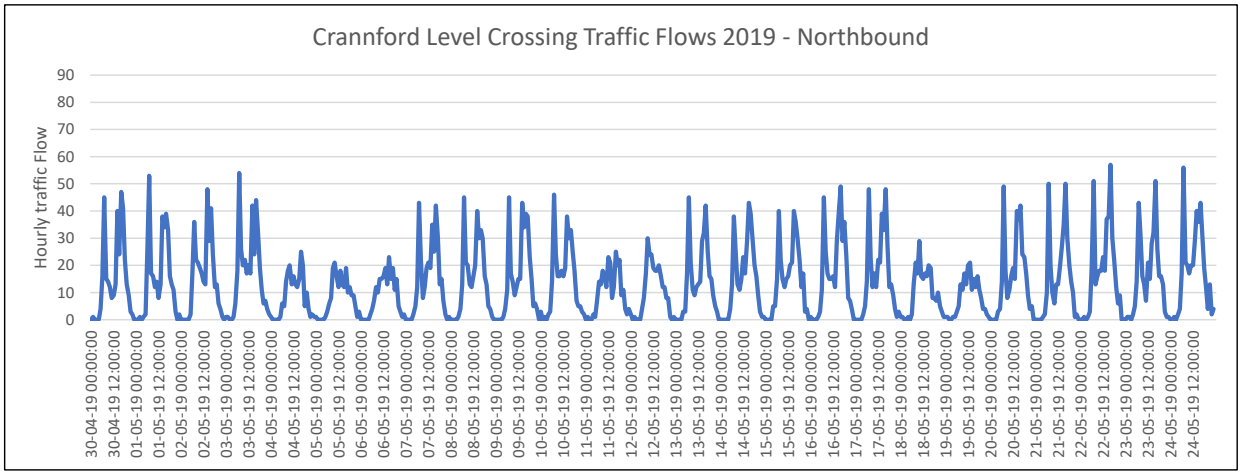
* Mon 6th May 2019 was a Bank Holiday

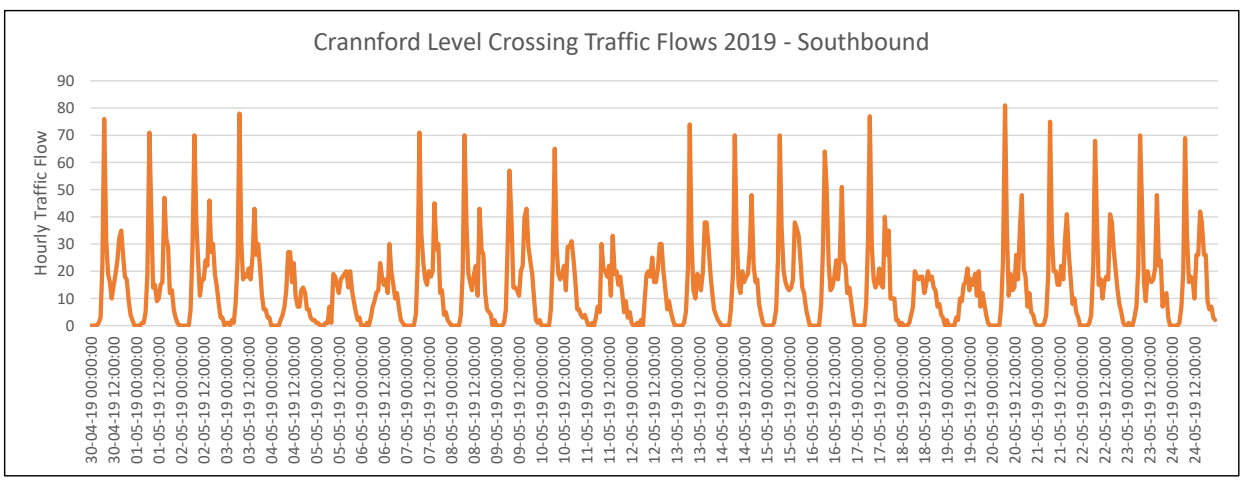
Table 6 - Both Directions

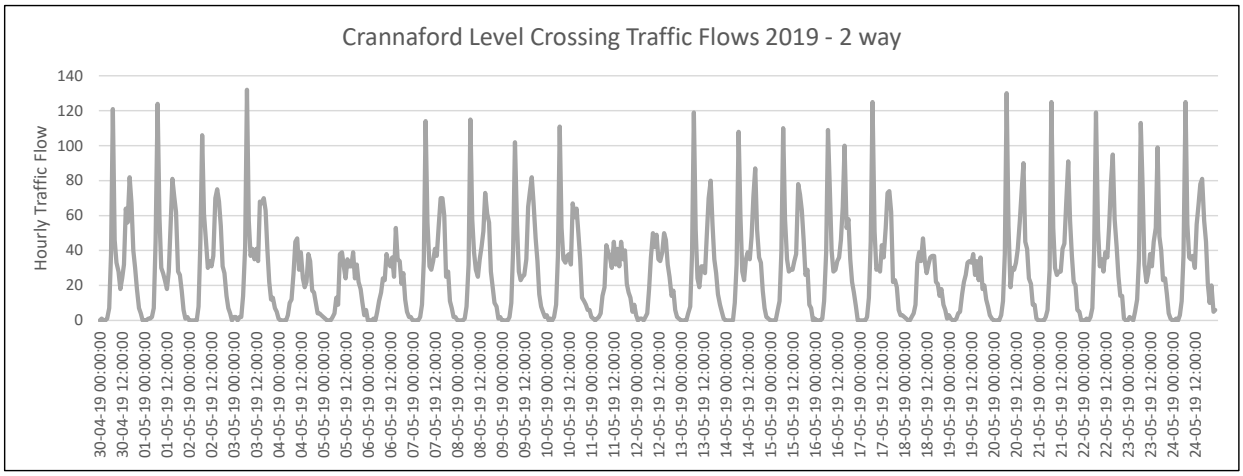
Date of Survey	07:00 - 08:00hrs	08:00 - 09:00hrs	16:00 - 17:00hrs	17:00 - 18:00hrs	07:00 - 19:00hrs	24hrs
Tues 30th April 2019	121	46	82	67	611	717
Wed 1st May 2019	124	59	71	62	605	713
Thurs 2nd May 2019	106	61	68	54	642	746
Fri 3rd May 2019	132	57	70	63	685	808
Sat 4th May 2019	12	27	38	34	353	404
Sun 5th May 2019	13	9	39	24	346	414
Mon 6th May 2019*	16	24	35	34	369	434
Tues 7th May 2019	114	56	70	60	622	717
Weds 8th May 2019	115	58	61	56	612	693
Thurs 9th May 2019	102	55	82	67	629	746
Fri 10th May 2019	111	53	64	50	614	711
Sat 11th May 2019	19	43	45	35	436	524
Sun 12th May 2019	18	36	46	32	456	507
Mon 13th May2019	119	52	80	55	592	699
Tues 14th May 2019	108	59	87	52	621	723
Weds 15th May 2019	110	58	72	63	620	747
Thurs 16th May 2019	109	76	100	53	674	807
Fri 17th May 2019	125	51	74	62	627	741
Sat 18th May 2019	33	39	37	22	399	465
Sun 19th May 2019	15	22	23	36	338	396
Mon 20th May2019	130	54	90	45	643	759
Tues 21st May 2019	125	53	91	57	627	717
Weds 22nd May 2019	119	52	95	58	668	773
Thurs 23rd May 2019	113	77	99	48	625	747
Fri 24th May 2019	125	55	81	57	700	814
Maximum Flow	132	77	100	67	700	814
Workday Average Flow	112	56	77	56	620	727
7 Day Average Flow	89	49	68	50	565	661

* Mon 6th May 2019 was a Bank Holiday

3.3 Charts of 2019 hourly traffic flows







4. Headlines

4.1 Two way 12hr traffic flows passing over the crossing have risen significantly since 2011. In 2011 there were just over 400 vehicles traversing the crossing. By 2016 it had risen to just under 500 per day, and in 2019 the workday average was just over 600 vehicles in 12hrs.

4.2 The rise in traffic flows is almost certainly as result of the continuing developments at Cranbrook, and particularly the nearby school which openeed in September 2015.

4.3 There is a clear workday tidal flow at the crossing, with 50% more vehicles heading south in the morning peak hour, than north. Although there are more vehicles heading north during the evening peak, the difference is much smaller.

4.4 Weekend traffic flows at the level crossing are around 60% of workday flows.

4.5 The minimum 24hr 2-way traffic flow observed at the crossing in 2019 was 338 vehicles (Sun 18th May).

4.6 The maximum 24hr 2-way traffic flow observed at the crossing in 2019 was 814 vehicles (Fri 24th May).

4.7 The 24hr average workday traffic flow observed at the crossing in 2019 was 620 vehicles per day.

K.Reed
Transportation Data Team
Devon County County Council
June 2019

[redacted]

From: Bullock Lisa <Lisa.Bullock@networkrail.co.uk>
Sent: 24 April 2019 13:15
To: Plan Cranbrook - DPD consultation
Cc: Pedley Richard; Williams Chris (Network Ops); James Brown
Subject: The Cranbrook Plan - Consultation response

Follow Up Flag: Follow up
Flag Status: Completed

Dear Matthew

The Cranbrook Plan

Thank you for consulting us on The Cranbrook Plan.

Network Rail is a statutory undertaker responsible for maintaining and operating the country's railway infrastructure and associated estate. Network Rail owns, operates, maintains and develops the main rail network. This includes the railway tracks, stations, signalling systems, bridges, tunnels, level crossings and viaducts. The preparation of development plan policy is important in relation to the protection and enhancement of Network Rail's infrastructure.

As Network Rail is a publicly funded organisation with a regulated remit it would not be reasonable to require Network Rail to fund rail improvements necessitated by commercial development. It is therefore appropriate to require developer contributions to fund such improvements.

During the development of The Cranbrook Plan, and in response to the various planning applications submitted following the allocation of this planned new town, Network Rail have raised concerns (at every opportunity) in regard to the change of environment surrounding the crossing and the likely increase in volume of traffic, both vehicle and pedestrian traversing over Crannaford Level Crossing.

Crannaford crossing is located at the point where Crannaford Lane crosses the Fisherton Short Mile to Exeter St Davids railway line (BAE2) 165miles 20chains. The line speed is 90mph with around 24 trains per day, consisting of passenger and freight trains. The crossing is protected by a half barrier, traffic lights, audible alarm and signage. This type of protection is suitable and frequently used at rural level crossings.

The Cranbrook Plan makes provision for infrastructure that is necessary for the planned community within Policy CB6 (Cranbrook Infrastructure Delivery). Accompanying this policy is the Cranbrook Infrastructure Delivery Plan produced to identify key infrastructure required to support the expanded town of Cranbrook. A provision of £250,000 to reprofile the highway across the railway has been delivered. This improvement stops vehicles from grounding and is very welcome by Network Rail. This does not however, remove the increase in risk that is generated by the change of environment south of the crossing due to the current development and future development proposed within the plan. In addition to this the Cranbrook Infrastructure Delivery Plan lists improvements to rail services in order to increase the frequency of trains serving the community, which would need to cross over Crannaford Lane.

Policy CB22 (Cranbrook Town Centre) sets out the boundary for economic, social, cultural and civic activities for the town located in the centre of the proposed strategic site, just south of Crannaford Level Crossing; it is very likely that this will draw traffic from the north side of the railway.

In addition to the above, the plan requires the delivery of additional housing and facilities from that previously proposed.

In order to make provision for the adverse impact The Cranbrook Plan will have on Crannaford Level Crossing, Network Rail would like to see provision added to the Cranbrook Infrastructure Delivery Plan. This should be in the form of the provision of full barriers, with a view to amending this to a bridge if required.

Network Rail were pleased to meet with the Cranbrook New Community Manager and are happy to work with the team, to gather evidence in the form of a 9 day census and an updated impact study to understand the current change following recent development taking place at Cranbrook. This will give a base to confidently estimate the future change to the crossing post-delivery of the proposed plan. It should be noted that Network Rail is not funded to carry out this type of exercise, as our business is dealing with the day to day operation of the railway, rather than any variation following or predicted planned development.

We trust these comments will be considered in your preparation for the examination and adoption of the proposed plan.

Yours sincerely, Lisa

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Bullock Lisa

From: Plan Cranbrook - DPD consultation <PlanCranbrook@eastdevon.gov.uk>
Sent: 11 March 2019 15:34
To: Thea Billeter; James Brown
Subject: Cranbrook Plan – Notice of Publication – Representation period 11 March 2019 until 5.00 pm 24th April 2019
Attachments: Statement of Representation Procedure.pdf

Dear Sir/Madam

The Cranbrook Plan – Notice of Publication – Representation period 11 March 2019 until 5.00 p.m. 24th April 2019.

East Devon District Council is inviting representations on its Proposed Submission document of The Cranbrook Plan and the accompanying Sustainability Appraisal from 11 March 2019 until 5.00 p.m. on 24 April 2019.

I attach the 'Statement of Representation Procedure and Availability of Documents', which gives details of where the proposed submission documents can be viewed and how to make representations.

The Cranbrook Plan documents and associated evidence may be viewed electronically at www.eastdevon.gov.uk/thecranbrookplan

Yours sincerely

Matthew Dickins
Planning Policy Manager
East Devon District Council

01395 – 571540
Ext 1540

Bullock Lisa

From: Bullock Lisa
Sent: 04 January 2018 16:07
To: 'Plan Cranbrook - DPD consultation'
Subject: RE: Cranbrook Plan – Preferred Approach

Dear Sir or Madam

Thank you for consulting us on the Cranbrook Plan – Preferred Approach. This email forms the basis of our response.

The Masterplan document informs that the aim of the Council is to achieve a mixed use development including around 6300 new homes at Cranbrook. The policy also requires the delivery of a further 1550 houses and associated jobs social, community and education facilities and infrastructure within the Cranbrook Plan Area identified on the West End Inset map.

Crannaford Level Crossing is within the plan area. This level crossing is a public highway automatic half barrier type crossing. The line speed is 90 mph and currently 24 trains travel along here per day. The usage of the crossing has increased from 89 vehicles to 378 per day. Network Rail acknowledges that the Council has recently made improvements to this road crossing but we are concerned that further development in this area, will increase the usage of the crossing to an extent which increases the risk rating, and the safety for users of the crossing. Depending on the extent of the increase in usage and risk, various options might be considered and this ranges from Full Barriers to a Bridge.

Network Rail is a statutory consultee for any planning applications where development is likely to result in a material increase in the volume or a material change in the character of traffic using a level crossing over a railway (as the Rail Network Operators, set out in Schedule 4 (J) of the Development Management Procedure Order); in addition you are required to consult the Office of Rail and Road (ORR).

Any development which would result in a material increase or significant change in the character of traffic using a rail crossing should be refused unless, in consultation with Network Rail, it can either be demonstrated that the safety will not be compromised, or where safety is compromised serious mitigation measures would be incorporated to prevent any increased safety risk as a requirement of any permission.

As Network Rail is a publicly funded organisation with a regulated remit it would not be reasonable to require Network Rail to fund rail improvements necessitated by commercial development. It is therefore appropriate to require developer contributions to fund such improvements. **With this in mind I would strongly urge that when the council undertakes its viability testing for the Cranbrook Masterplan it considers the impact the proposal may have on the railway infrastructure and in particular Crannaford Level Crossing.** The cost of mitigating any impact may have a bearing on the viability and deliverability of any such proposed plan.

Network Rail owns, operates, maintains and develops the main rail network. This includes the railway tracks, stations, signalling systems, bridges, tunnels, level crossings and viaducts. The preparation of development plan policy is important in relation to the protection and enhancement of Network Rail's infrastructure.

Network Rail supports the addition of the following policies proposed for Cranbrook Plan:

- 4.1.1 – Development Management Policies – this policy identifies the need for Travel plans; and
- 3.1.1, 3.1.2 and 3.1.3 – Strategic Infrastructure – provision of a passing loop, a second platform and overbridge at Cranbrook Station and provision of land for a future station.

We trust these comments will be considered in your preparation of the forthcoming Site Allocations Plan document.

Yours faithfully,

Lisa Bullock MRTPI
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From: Plan Cranbrook - DPD consultation [mailto:PlanCranbrook@eastdevon.gov.uk]
Sent: 10 November 2017 14:07
Subject: Cranbrook Plan – Preferred Approach

Dear Sir/Madam

Cranbrook Plan – Preferred Approach

We are delighted to advise that East Devon District Council are consulting on the above plan and we would welcome your comments that need to be received by us by 9:00 am on Monday 8 January 2018.

The Cranbrook Plan Preferred Approach documents set out proposals for the future development of the town and they include a masterplan that shows the proposed location of differing types of buildings and land uses including homes, shops, community facilities and open spaces. In the consultation documents we provide details of evidence and background reports that support the Cranbrook work and we also have a schedule of potential future policies for Cranbrook development and a sustainability appraisal.

The feedback we receive from this consultation will help inform production of a formal development plan document (or DPD) for the town that we hope to produce and consult on in 2018 and then to formally submit for independent examination. You can find out more about the Cranbrook Plan – Preferred Approach, look at supporting documents and find out how to make comments by visiting our web site at:
http://eastdevon.gov.uk/planning/planning-policy/cranbrook-plan/cranbrook-plan-preferred-approach-consultation
and
http://eastdevon.gov.uk/planning/planning-policy/cranbrook-plan/get-involved-share-your-views

Do please contact us if you have any queries or would like further information. We would advise that we are contacting you because your details are logged on our planning policy database or you have previously responded to Cranbrook consultation events. If, however, you no longer wish to be contacted by this Council in respect of planning policy documents do please advise us and we will remove your details from our database.

Yours faithfully
The Cranbrook Team
East Devon District Council

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Email disclaimer

Bullock Lisa

From: Morgan Barbara
Sent: 25 July 2016 09:19
To: 'plancranbrook@eastdevon.gov.uk'
Subject: Cranbrook Development Plan

Dear Sir/Madam

Network Rail has been consulted by East Devon District Council on the Cranbrook Development Plan. Thank you for providing us with this opportunity to comment on this Planning Policy document.

Network Rail is a statutory undertaker responsible for maintaining and operating the country's railway infrastructure and associated estate. Network Rail owns, operates, maintains and develops the main rail network. This includes the railway tracks, stations, signalling systems, bridges, tunnels, level crossings and viaducts. The preparation of development plan policy is important in relation to the protection and enhancement of Network Rail's infrastructure. In this regard, please find our comments below:

We understand the land north of the railway is safeguarded and the railway will "always" be the northern edge. However, one of the transport planners mentioned at a meeting that easier access to the M5 could become an issue as the town expands. We need assurance that Crannaford Level Crossing will keep its existing character and not become a "rat run" or even an official access to an improved northern route towards the M5.

Also within the objective of encouraging cycling, walking etc by residents to the open fields north of the railway, we would not want Crannaford Level Crossing to see a large increase in pedestrian use especially unsupervised children.

Network Rail would like East Devon Council to ensure suitable caps / limits on new developments are in place or a trigger point at which the level crossing would be closed and a bridge over the railway is in place to ensure the safety of the operational would be maintained.

Regards,

Barbara Morgan
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Bullock Lisa

From: PlanCranbrook <PlanCranbrook@eastdevon.gov.uk>
Sent: 14 June 2016 13:24
To: PlanCranbrook
Subject: Plan Cranbrook – Consultation for the Cranbrook Development Plan Issues and Options Report - UNCLASSIFIED:

Good afternoon

Plan Cranbrook – Consultation for the Cranbrook Development Plan Issues and Options Report

As you may be aware, we have been working with key stakeholders and organisations to produce the Cranbrook Development Plan Issues and Options report.

This document sets out a vision, key objectives, issues and options to steer the development of Cranbrook to 2031 and deliver the requirements of the East Devon Local Plan.

The document should be read in conjunction with Strategic Environmental Assessment and Sustainability Appraisal, a high level evaluation of options carried out by external consultants to assess possible social, environmental and economic impacts.

We will be consulting on these reports from **Monday 13th June 2016.** The closing date for comments is **Monday 25th July 2016 at 5pm.** We would therefore like to invite you to read the documents and let us have any comments/recommendations you wish to make.

The documents can be viewed on our website at **www.eastdevon.gov.uk/cranbrook** or at Council offices and Libraries around Cranbrook.

Please let us have your comments by completing the survey online at **http://www.eastdevon.gov.uk/cranbrook**.

To keep costs to the public purse to the absolute minimum, we encourage everyone to use the online response survey. If you wish to have a paper copy, or one in large print or other formats, please phone 01395 517569. You can email us on plancranbrook@eastdevon.gov.uk or follow us on Twitter at **@eastdevon #PlanCranbrook.**

Kind regards

Ed Freeman
Service Lead – Planning
East Devon District Council

Bullock Lisa

From: Gibson Guy
Sent: 31 July 2015 09:52
To: 'MDickens@eastdevon.gov.uk'
Subject: Planning for the Future Development of Cranbrook

Dear Mr Dickens

Thank you for inviting Network Rail (NR) to comment on this local plan consultation relating to the preparation of a Cranbrook Development Plan Document (DPD).

NR area of operation is primarily covered in item 4 of your email relating to 'supporting infrastructure and means for its delivery'. Item 6 relating to defining mitigation required to offset adverse impact of development may also be relevant. NR therefore welcome the inclusion of these items in the proposed DPD. Item 8 relating to determination of planning applications and what conditions might apply will also play an important role in protecting NR assets.

NR owns, operates, maintains and develops the main rail network. This includes the railway tracks, stations, signalling systems, bridges, tunnels, level crossings and viaducts. The preparation of development plan policy is important in relation to the protection and enhancement of Network Rail's infrastructure. It is considered that NR's involvement in the DPD production will be to ensure that new station at Cranbrook and related rail infrastructure continues to meet the needs of the community and that there is an acceptable delivery mechanism in place to meet this commitment. The protection of existing and proposed assets is also an important consideration especially as in addition to the new station there is also a level crossing to the east of the settlement. In this context NR would hope that the DPD would address the following:

Level Crossing Safety

Development proposals' affecting the safety of level crossings is an extremely important consideration for emerging planning policy to address. The impact from future development can result in a significant increase in the vehicular and/or pedestrian traffic utilising a crossing which in turn impacts upon safety and service provision.

As a result of increased patronage, Network Rail could be forced to reduce train line speed in direct correlation to the increase in vehicular and pedestrian traffic using a crossing. This would have severe consequences for the timetabling of trains and would also effectively frustrate any future train service improvements. This would be in direct conflict with strategic and government aims of improving rail services. Therefore the location of proposed new development is an important consideration for Network Rail and should form part of any initial appraisal of future development sites. In this regard NR maintain their objection to any development being allowed north of the railway line as this would clearly result in additional traffic using the level crossing.

Protection Assets

In addition to the level crossing Network Rail, in line with normal practice, would expect to be consulted on any development that may impact on their assets in the area. In this regard the imposition of appropriate planning conditions are likely to be an important tool that will enable planning permissions to be granted whilst also safeguarding NR assets.

Future Funding

Network Rail is a publicly funded organisation with a regulated remit it would not be reasonable to require Network Rail to fund rail improvements necessitated by commercial development. It is therefore appropriate to require developer contributions to fund such improvements.

The likely impact and level of improvements required will be specific to each station and each development meaning standard charges and formulae may not be appropriate. Therefore in order to fully assess the potential impacts, and the level of developer contribution required, it is essential that where a Transport Assessment is submitted in support of a planning application that this quantifies in detail the likely impact on the rail network.

To ensure that developer contributions can deliver appropriate improvements to the rail network we would recommend that Developer Contributions should include provisions for rail.

We therefore ask that the council should consider the following:

- A requirement for development contributions to deliver improvements to the rail network where appropriate.
- A requirement for Transport Assessments to take cognisance of impacts to existing rail infrastructure to allow any necessary developer contributions towards rail to be calculated.
- A commitment to consult Network Rail where development may impact on the rail network and may require rail infrastructure improvements. In order to be reasonable these improvements would be restricted to a local level and would be necessary to make the development acceptable. We would not seek contributions towards major enhancement projects which are already programmed as part of Network Rail's remit.

We trust these comments will be considered in your preparation of the forthcoming DPD document for Cranbrook.

Yours sincerely,

Guy A Gibson

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Bullock Lisa

From: Matthew Dickins <MDickins@eastdevon.gov.uk>
Sent: 25 June 2015 17:55
To: Matthew Dickins
Subject: Planning for the Future Development of Cranbrook - UNCLASSIFIED:

Dear Sir / Madam

Cranbrook: The Future
Development Plan Document (DPD)

East Devon District Council would like to hear your views to help us develop plans and policies to guide the future expansion of Cranbrook new community.

The replies we receive will help us shape the future of Cranbrook in two ways:

1) in the preparation of a Cranbrook Development Plan Document (DPD) - a formal planning policy document to explicitly guide and regulate development (notice of this consultation is given under Regulation 18 of the Town and Country Planning Regulations 2012).
2) feed into wider work being undertaken by specialist consultants on our behalf to develop a 'Cranbrook Plan' – this will provide a framework for the future expansion of the new town, and will be compliant with the policies of the emerging new district-wide East Devon Local Plan.

What should be included?

The Cranbrook DPD may cover the topics listed below and we are particularly interested to know what alternative or additional issues you think should be addressed and what factors you consider should be taken into account in the overall plan production work.

1) allocate specific sites and land areas for new development;
2) designate land for 'protection' or safeguarding which will prevent of limit development;
3) include policies, cross-referencing where appropriate to specific land areas, in respect of development of:
    a) new homes;
    b) gypsy and traveller accommodation;
    c) community facilities;
    d) education facilities;
    e) sports and play areas and facilities;
    f) shops;
    g) parks and open space;
    h) places of employment; and
    i) other possible uses not detailed above.
4) establish the supporting infrastructure and means for its delivery required by the above uses;
5) establish forms and principles of development and materials and design standards to promote the highest quality outcomes;
6) define mitigation required to off-set potential adverse impacts that might otherwise arise as a consequence of development;
7) determine mechanisms for monitoring the success and quality of what is happening and being built and set targets; and
8) determine whether planning applications submitted to the Council should be granted planning permission and what conditions might apply.

The on-going work on the Cranbrook Plan is already involving a wide range of stakeholders and we intend to ensure that this partnership approach continues.

Getting involved

You can find out more about the Cranbrook DPD by viewing the Development Management Committee papers from the 16 June 2015 online at:
http://eastdevon.gov.uk/media/1162155/160615-combined-dmc-agenda-compresed.pdf

Then please either email your comments to
localplan@eastdevon.gov.uk
with 'Cranbrook DPD' in the subject box

or by post to:
Planning Policy Section
East Devon District Council
Knowle
Sidmouth, EX10 8HL

To arrive on or before: Friday 7 August 2015.

Next steps

The Cranbrook Plan will form the overarching evidence base for the DPD and its conclusions and associated outputs will form the basis of, or feed directly into, the publication draft of the Cranbrook DPD. It is the publication draft that is made publically available for formal comment and any comments received will be submitted, along with the DPD, and supporting evidence to the planning Inspectorate for formal examination.

Please pass this communication on to anyone else you think might be interested in getting involved.

Matthew Dickins
Planning Policy Manager
East Devon District Council

Direct Line – 01395 - 571540

Level Crossing Risk Assessment to inform planning consent	
Network Rail Risk Assessment Ref.	- Crannaford Level Crossing BAE2 165m 20ch
Planning Ref.	- The Cranbrook Plan

3 January 2020

1. Introduction

1.1. This report is concerned with the development proposed by East Devon District Council's development plan document, The Cranbrook Local Plan 2013 – 2031, dated February 2019.

1.2. Policy CB6 (Cranbrook Infrastructure Delivery) makes provision for infrastructure that is necessary for the planned community. Accompanying this policy is the Cranbrook Infrastructure Delivery Plan produced to identify key infrastructure required to support the expanded town of Cranbrook. A provision of £250,000 to reprofile the highway across the railway has been delivered. This improvement stops vehicles from grounding and is very welcome by Network Rail. This does not however, remove the increase in risk that is generated by the change of environment south of the crossing due to the current development and future development proposed within the plan.

1.3. In addition the Cranbrook Infrastructure Delivery Plan lists improvements to rail services in order to increase the frequency of trains serving the community, which would need to cross over Crannaford Lane, therefore train movements will also increase.

1.4. Policy CB22 (Cranbrook Town Centre) sets out the boundary for economic, social, cultural and civic activities for the town located in the centre of the proposed strategic site, just south of Crannaford Level Crossing; it is very likely that this will draw traffic from the north side of the railway.

1.5. Policies CB2 (Bluehayes Expansion Area), CB3 (Treasbeare Expansion Area), CB4 (Cobdens Expansion Area) and CB5 (Grange Expansion Area) requires the delivery of additional housing and facilities from that previously proposed.

1.6. Network Rail (NR) has continually raised concerns during the progression of the plan

document in regard to the risk imported to Crannaford level crossing associated with the proposed development.

1.7. Following further information requested by Network Rail on the anticipated increase in traffic over the crossing and along Crannaford Road. Devon County Council has undertaken some traffic surveys, 3 over an 8 year period (in 2011, 2016 and 2019). Based on these results Network Rail has been able to assess the increase already occurred and predict further rises. In addition to this we will provide information on how the change in surrounding environment will also impact on the level crossing. In summary, it is our view that the development will cause additional risk of trains and users of the public highway coming into conflict; therefore mitigation needs to be provided on the grounds of public safety if the development is to proceed.

1.8. Level crossings present the single biggest risk to passenger and public safety on the railway. To manage this risk NR employs over 100 Level Crossing Managers across the national railway network. Their role is dedicated to the safety and risk management of the level crossing estate and they are the rail industry's experts in level crossing user behaviour.

1.9. The following risk assessment has been prepared by the NR Level Crossing Manager responsible for all level crossings in and around the Devon area, including Crannaford Level Crossing (LC); which NR currently considers a high risk crossing.

1.10. This assessment addresses changes in railway safety risk that would result from the development as proposed in The Cranbrook Plan, which is close to Crannaford LC and the railway (namely the Basingstoke and Exeter Line - referred to as the BAE). Although the development is wholly located to the south side of the rail line, it is anticipated that vehicles and pedestrian access to and from Cranbrook when travelling north would primarily be via the route over Crannaford LC.

1.11. Crannaford LC is a public highway automatic half barrier crossing on the BAE2 at 165 miles 20 chains. 26 trains per day pass, with a line speed of 85mph.

1.12. The effect of developing this plan, without mitigation, would be to make this crossing one of the higher risk public road level crossings on Western Route and would pose a substantial risk and would be of great concern to Network Rail, due largely (though not exclusively) to the considerable increase in the number of road vehicles, school children and other vulnerable users (including cyclists)[1] that are progressively increasing the use of the crossing.

1.13. Railways are unfortunately a fascination and an attraction to children; removal of the crossing and preventing unauthorised access to the railway from trespass will also give assurance to the new residents who presumably wouldn't want the worry and stress

[1] Vulnerable Users' are characterised as those who are unable to use the level crossing quickly and effectively, and are not fully aware of the dangers at a level crossing.

caused by their children playing near and/or on this busy railway line.

2. Assessment assumptions

2.1. This assessment considers the impact that the development proposed by The Cranbrook Plan will have on the safety risk at the current Crannaford LC.

2.2. In accordance with the provisions of the Town & Country Planning (Development Management Procedure – England Order 2015) Network Rail is a statutory consultee for all development which is likely to result in a material *increase in the volume* or a material *change in the character* of traffic (including pedestrians) using a level crossing over a railway.

2.3. The Office of National Statistics (ONS) states that, in 2011, the average household in England was home to 2.36 people – a figure that has remained stable over the last decade. That's a total increase of 18,290 residents to the area (of which 2,950 are additional to that previously proposed), this does not include visitors to the proposed new town center or invitees by the new residents.

2.4. The ONS also reports that 29% of occupied households included dependent children and, where present, the average number of dependent children per household was 1.8[2]. That's potentially 4,045 children.

2.5. Statista, an online statistics, market research and business intelligence portal providing data from market and opinion research institutions, reports that (in 2017/18) 26% of all UK households also owned a dog.[3] The level crossing would likely be a route for dog walkers especially with the recently approved suitable alternative natural greenspaces (SANGs) which runs adjacent to the railway.

2.6. These statistics have been used to inform a range of conservative scenarios that Network Rail has modelled for using Crannaford LC (see 2.10 and 4.4 below). The location of Crannaford LC along with the less appealing alternative options (Station Road and Southbrook Lane) makes it the most direct access to Cranbrook from the north of this new town.

2.7. This shows that the risk rating at this level crossing increases following occupation of the proposed plan in full. A diversion of the highway over a bridge would remove the risk to the public crossing over the railway completely. The provision of full barriers would also reduce the risk, especially for vulnerable users who may decide to take a chance and cross via the opening current experienced with the half barriers.

2.8. To illustrate the predicted impact and future level of risk at the crossing if it remains in its current form, risk modelling has been carried out using the ALCRM, which is the

[2] Household make up (ONS)
[3] pets per household (Statista)

industry wide method of quantitatively measuring level crossing risk. The modelling included for Crannaford includes the risk level prior to the development in 2011, when approximately 400 vehicles traversed the crossing in a daytime 12-hour period, compared to the current average of 600 vehicles per daytime 12-hour period in 2019. A figure of 934 has been extrapolated for future use, based on the planned developments in the area.

2.9. A traverse can be defined as the single passage over the crossing of one vehicle. For example, a vehicle who crosses the railway at the start and end of a "there and back" would account for two vehicle traverses.

3. Current risk

3.1. The last assessment of the crossing for 25 days between 30th April to 24th May 2019 averaged at 600 vehicles using the crossing in a 12 hour period. The figures provided by Devon County Council do not seem to include any pedestrian movements. The survey data shows that between 2011 to date there has been a 50% increase in vehicle movements. These figures are not particularly helpful to Network Rail as they do not provide a breakdown of the types of vehicle that use the crossing, which has a big effect on the risk profile, nor do they have any counts of cyclists or pedestrians. Therefore, all risk calculations will be significantly higher than we are able to input into our risk model, due to the fact we know that both cyclists and pedestrians use the crossing on a regular basis and will increase further over the coming years with the development.

Image 1: Aerial view of Crannaford LC

Image 2: Aerial view of Springfield Lane LC from a distance showing in relation to SANGS and Cranbrook Education Campus

3.2. Normal passenger services can run between the hours of 06:00 and 00:00 with freight running through the full 24 hours. During a typical day there are 26 trains per day travelling along this section of railway. Passenger services are operated by South Western Railway. The number and frequency of services can fluctuate, depending on operational requirements, engineering works or during times of disruption.

3.3. The crossing traverses a single line of operational railway with bi-directional working and a line speed of 85mph. The railway is orientated East to West. The approach from the north of Cranbrook is via a Crannaford Lane which is a public highway with a single carriageway of two lanes, with the area over the railway having a separate footpath only, albeit delineated by just road markings.

4. Forecast risk

4.1. Following the building of The Cranbrook Plan on land to the south of the railway there will be a substantial increase in the number of vehicles and pedestrians using the crossing. T o ensure that the proposed development does not have an unacceptable impact on highway safety, this should be addressed under the Planning process.

4.2. New residents will inevitably want to travel north from Cranbrook when travelling to any surrounding village or settlement. As well as the additional vehicles crossing the railway there will be an increase in pedestrians, especially with the provision of the SANGs. NR also has concerns regarding Cranbrook Education Campus and the proximity of its pedestrian access, which is very close (90m) and clearly visible to Crannaford LC. In essence; the character of the crossing will change into a busy thoroughfare. The crossing 'as is' was not built for this purpose.

4.3. The most obvious concern relates to the significantly larger numbers of people that will be using the crossing. Network Rail uses the All Level Crossings Risk Model (ALCRM)[4] to quantify risk at level crossings in two ways: individual risk and collective risk. The former is a measure of the risk that an individual crossing user is exposed to when traversing the railway, whilst the latter is a measure of the total harm, or safety loss, at the crossing and is expressed in terms of Fatalities & Weighted Injuries (FWI) where '1' represents a fatality, 10 major injuries or 2,00 minor injuries (See Appendix A). Described simply, collective risk recognises that the more crossing users there are, the greater probability there will be of an accident occurring.

4.4. When modelling Crannaford LC separately, 600 and 934 vehicular traverses per 12-hour period (see Section *2. Assessment Assumptions*) against its current level, this gives an increase in risk by respectively, as demonstrated in the below tables. As stated earlier, these are extremely conservative figures due to the absence of pedestrian and cyclist usage, which provide a very significant proportion of risk at level crossings.

CRANNAFORD LC – ALCRM assessment of change in risk for 934 traverses per day		
Current Risk Score	New Risk from ALCRM	New FWI
G6	G4	0.0024320

CRANNAFORD LC – ALCRM assessment of change in risk for 600 traverses per day		
Current Risk Score	New Risk from ALCRM	New FWI
G6	G4	0.0011513

4.5. On the Western Route (WR) there are 650 level crossings. Before the development, Cranbrook LC was statistically ranked 194th in terms of risk. This has increased with the extra vehicles to become the 100th. When the traffic model of 934 is applied for a 12-hour period, this becomes 64th. These are conservative estimates – as there are no pedestrian or cyclist counts included in these figures, the actual risk is likely to be much higher. At all of these level crossings Network Rail has had to expend much time and effort to reduce the very high risk posed at these crossings; thus, it is realistic that where a development has not yet been implemented, all measures are duly incorporated so as to ensure such an unacceptable risk is not imposed.

[4] A summary Explanation of ALCRM is provided as an Appendix to this risk assessment.

5. Vulnerable Users

5.1. Network Rail characterises "Vulnerable Users" as those who are unable to use a level crossing quickly and effectively, and/or those who are not fully aware of the dangers at a level crossing.

5.2. There are three groups of vulnerable users that would give Network Rail particular concern at this location.

Children

5.3. Network Rail views children as "vulnerable" because their perception of risk is still developing. Consequently, they tend not to be as risk averse as adults and, at level crossings, this has the potential to exacerbate an already high-risk situation.

5.4. Detailed covert censuses at level crossings have demonstrated a trend in the behaviours of youths in some locations, notably congregating at level crossings. It is human nature to gather at known sites and places of interest, away from the main thoroughfare, especially amongst children and adolescents who are perhaps bored with the limited activities available to them in the local area.

5.5. Of great concern to Network Rail, this behaviour often leads to deliberate trespass by youths. Trespass is a criminal activity and puts individuals at serious risk of harm on the railway.

5.6. Network Rail has a significant amount of photographic evidence of youths alone or in groups, loitering on level crossings, sitting on the deck, walking up and down the rails, chasing each other as though in a playground, and playing 'chicken' with approaching trains (i.e. running out in front of approaching trains or standing in front of them until the very last seconds). The photographs below serve to illustrate some of these findings.

Images 4-8: Examples of children playing, loitering and trespassing at footpath level crossings.

5.7. Network Rail has a duty of care towards trespassers. However, without a realistic ability to police all high risk level crossings on a regular and ongoing basis, such deliberate misuse persists. Aside from providing education in schools and post-incident awareness days at level crossings (for example, following a fatality at a level crossing), Network Rail has only limited means at its disposal to change crossing users' behaviour. Consequently, the risk of an incident and injury remains.

5.8. As set out in Section 2, above, Network Rail estimates that there will be an increase of approximately 4045 dependent children living in a development of 7750 homes. With an education campus within close proximity.

Dog walkers and encumbered users

5.9. Fully able-bodied people become "vulnerable" when they are encumbered. An encumbered user is someone who is crossing with something that reduces their agility and/or can cause distraction. This might include those pushing or riding a bicycle, walking with a pram, and those who are carrying objects (for example, heavy bags or equipment). It often, also, includes those with dogs, either on or off the lead.

5.10. It is anticipated that the development will introduce additional cyclists over the crossing. Many residents of the proposed housing estate will also walk their dogs over Crannabrook LC when walking in the SANGs area.

5.11. Despite Network Rail's targeted education and awareness campaigns, many walkers use level crossings with their dogs unleashed. Such behaviour is always a concern, but it is reasonable to assume that many of the pet dogs moving into their new homes will not be accustomed to a railway environment. The unexpected noise and vibrations caused by trains can easily frighten dogs, causing them to run along the track away from their owner, or to 'freeze' on the crossing even whilst on a leash. This is a serious safety concern as the owner will often put their pet's life ahead of their own wellbeing and risk being hit by a train themselves.

5.12. Even when under the owner's control, a dog still presents a considerable distraction.

5.13. By way of example, on 8th June 2014, an able-bodied dog walker failed to respond to the audible alarm and lights which were warning of an approaching passenger train at a level crossing between Oxford and Banbury. He started to cross the railway in front

of the train.

5.14. The photo below was captured by the train's forward facing camera. It shows the train almost on the crossing with the man and his dog just in front of it. It is evident from the photograph that the pedestrian has not seen the train, which was travelling at high speed, at that moment in time.

Image 9: Still photograph taken from forward-facing camera mounted in a passenger train

5.15. In this case, at the last possible second the man realised the train was there; he was positioned between the tracks (where the dog is pictured) when the train passed over the crossing. However, his dog was killed. Tragically, in other examples the outcome was much worse.

5.16. Network Rail estimates that there will be approximately 2,015 pet dogs will be introduced to the area by the development of this new town.

Elderly crossing users

5.17. Level crossings can cause difficulties for people who move slowly, and are not suitable for users who are unable to see or hear approaching trains.

5.18. The Rail Safety and Standards Board's (RSSB) T984 research project into the causes of pedestrian accidents at level crossings (July 2014) found that the number of accidents increase with the age of crossing users.

5.19. Slips and trips are a recurrent theme reported in level crossing accidents – it is the cause of 14% of all incidents. Elderly crossing users are often less sure footed than regular users and are therefore more vulnerable to this risk.

6. Conclusion and recommendations

6.1. Both the volume and character of users at Crannaford LC will change significantly following the development proposed by The Cranbrook Plan on land south of Crannaford LC.

6.2. The development will add significantly to the risk posed by the crossing at present.

6.3. Modelling the crossing in ALCRM demonstrates that the safety risk will increase considerably as a consequence of the proposed housing development.

6.4. Vulnerable user groups, notably dog walkers, the elderly and children, will be particularly at risk at this location.

6.5. The much increased road traffic, combined with the presence of a large school adjacent to the crossing, will increase the likelihood of vehicular blocking back over the crossing, due to the restricted nature of the road approaches. As the crossing in its current form is 'automatic' i.e. its operation is not controlled by a signaler, then there is much greater likelihood of trains striking road vehicles that are unable to exit the crossing if they have entered if the exit is not clear. There is a minimum of 27 seconds warning time from the first amber light showing at the crossing to the arrival of the quickest train.

6.6. Closure is the only way to completely mitigate and eliminate risk at a level crossing. This is consistent with the Health & Safety Executive's hierarchy of risk control selection for managing hazards and risks; namely that eradication/elimination of risk is always the preferred and safest option.

6.7. Crossing closure is also consistent with the Office of Rail and Road's (ORR's) regulatory requirement for Network Rail to "maximise the reduction in risks of accidents at level crossings."

6.8. The provision of 'full barriers' will reduce the risk to an acceptable level. Full barrier crossings, unlike those at Crannaford are operated in a different method. They will not allow trains to pass unless the crossing is proved 'clear' of obstructions (i.e. person or vehicle) and the barriers have completely closed the access off to users. This is a much more appropriate method of protecting the safety of users, particularly here where we know there are, and will continue to be an increase in users that we categorise as vulnerable.

6.9. NR believes that in order to make The Cranbrook Plan sound and legal in compliance of the Plan mitigation in the order of 'full barriers' or a 'bridge' should be provided by the developers, for the aforementioned reasons.

6.10. Network Rail is willing to work with the Council and developer to help further these requirements.

APPENDIX A – ALCRM and Fatalities Weighted Injuries (FWI) explained

All Level Crossing Risk Model (ALCRM). This is a computer-based application used by Network Rail to assist in the risk management of level crossings. The risk result consists of a 'letter' and 'number' classification of safety risk, giving the 'letter' (A-M for individual risk) or 'number' (1-13 for collective risk) band. These rankings represent the range of risk across all types of crossings where A and 1 are the highest and M and 13 are the lowest.

ALCRM provides an estimate of both the individual and collective risks at a level crossing.

The individual and collective risk is expressed in Fatalities and Weighted Injuries (FWI). The following values help to explain this:

- **1** = 1 fatality per year, or 10 major injuries, or 200 minor RIDDOR events, or 1000 minor non-RIDDOR events
- **0.1** = 1 fatality every 10 years, or 1 major injury per year, or 20 minor RIDDOR events or 100 minor non-RIDDOR events
- **0.005** = 5 minor non-RIDDOR events

INDIVIDUAL RISK

This is the annualised probability of fatality to a 'regular user'.

NOTE: A regular user is taken as a person making a daily return trip over the crossing; assumed 500 traverses per year.

Individual risk:

- Applies only to crossing users. It is not used for train staff and passengers
- Does not increase with the number of users.
- Is presented as a simplified ranking:
  - ➢ Allocates individual risk into rankings A to M
    (A is highest risk, L is lowest, and M is 'zero risk' e.g. temporary closed, dormant or crossings on mothballed lines)
  - ➢ Allows comparison of individual risk to average users across any crossings on the network

Individual Risk Ranking	Upper Value (Probability)	Lower Value (Probability)	Upper Value (FWI)	Lower Value (FW)
A	1 in 1	Greater than 1 in 1,000	1	0.001000000
B	1 in 1,000	1 in 5,000	0.001000000	0.000200000
C	1 in 5,000	1 in 25,000	0.000200000	0.000040000
D	1 in 25,000	1 in 125,000	0.000040000	0.000008000
E	1 in 125,000	1 in 250,000	0.000008000	0.000004000
F	1 in 250,000	1 in 500,000	0.000004000	0.000002000
G	1 in 500,000	1 in 1,000,000	0.000002000	0.000001000

H	1 in 1,000,000	1 in 2,000,000	0.000001000	0.000000500
I	1 in 2,000,000	1 in 4,000,000	0.000000500	0.000000250
J	1 in 4,000,000	1 in 10,000,000	0.000000250	0.000000100
K	1 in 10,000,000	1 in 20,000,000	0.000000100	0.000000050
L	Less than 1 in 20,000,000	Greater than 0	0.000000050	Greater than 0
M	0	0	0	0

COLLECTIVE RISK

This is the total risk for the crossing and includes the risk to users (pedestrian and vehicle), train staff and passengers.

Collective risk:

- Is presented as a simplified ranking:
  - ➢ Allocates collective risk into rankings 1 to 13
    (1 is highest risk, 12 is lowest, and 13 is 'zero risk' e.g. temporary closed, dormant or crossings on mothballed lines)
  - ➢ Can easily compare collective risk between any two crossings on the network

Collective Risk Ranking	Upper Value (FWI)	Lower Value (FW)
1	Theoretically infinite	Greater than 5.00E-02
2	0.050000000	0.010000000
3	0.010000000	0.005000000
4	0.005000000	0.001000000
5	0.001000000	0.000500000
6	0.000500000	0.000100000
7	0.000100000	0.000050000
8	0.000050000	0.000010000
9	0.000010000	0.000005000
10	0.000005000	0.000001000
11	0.000001000	0.000000500
12	0.0000005	0
13	0.00E+00	0.00E+00