

Agenda item:

Regulatory Committee

8

Dorset County Council



Date of meeting	7 December 2017
<u>Local Member(s):</u> Cllr Cherry Brooks - Member for South Purbeck <u>Lead Officer</u> Carol McKay, Definitive Map Technical Officer (Public Path Orders)	
Subject of report	Application to extinguish Footpath 18, Wool at Hyford
Executive summary	This report considers an application to extinguish Footpath 18, Wool at Hyford as shown on Drawing 17/11 (Appendix 1).
Applicant	Network Rail
Impact Assessment:	Equalities Impact Assessment: n/a
	Use of Evidence: The applicant consulted the local Parish Council and key user groups before submitting the application in order to establish whether the proposals would have support. A full consultation exercise was carried out in September / October 2017, which involved user groups, local councils, those affected and anyone who had already contacted Dorset County Council regarding this application. The County Councillor for South Purbeck, Councillor Cherry Brooks, was also consulted. In addition notices explaining the application were erected on site. Comments received have been discussed in this report.

	<p>Budget :</p> <p>The applicant has agreed to pay in accordance with the County Council's usual scale of charges and also for the cost of advertising the Order and subsequent Notice of Confirmation. The law does not permit the County Council to charge the applicant for the cost of obtaining confirmation by the Secretary of State if an Order is the subject of an objection.</p> <p>Risk Assessment:</p> <p>Having considered the risks associated with this decision using the County Council's approved risk management methodology, the level of risk has been identified as: Current Risk: LOW Residual Risk: LOW</p> <p>Other implications:</p> <p>Sustainability – n/a</p> <p>Property and Assets – n/a</p> <p>Voluntary Organisations – n/a</p> <p>Community Safety – The extinguishment of Footpath 18, Wool would remove the risk of accident to pedestrians using the level crossing known as `Hyford`.</p> <p>Physical Activity – n/a</p>
<p>Recommendations</p>	<p>That:</p> <p>(a) The application to extinguish Footpath 18, Wool from A – B – C as shown on Drawing 17/11 (Appendix 1) be accepted and an order made;</p> <p>(b) The Order include provisions to modify the definitive map and statement to record the changes made as a consequence of the extinguishment; and</p> <p>(c) If the Order is unopposed, or if any objections are withdrawn, it be confirmed by the County Council without further reference to the Committee.</p>

<p>Reasons for Recommendations</p>	<p>(a) The proposed extinguishment meets the legal criteria set out in the Highways Act 1980.</p> <p>(b) The inclusion of these provisions in a public path order means that there is no need for a separate legal event order to modify the definitive map and statement as a result of the extinguishment.</p> <p>(c) The proposed extinguishment also meets the criteria for confirmation as required by the Highways Act 1980.</p> <p>Decisions on applications for public path orders ensure that changes to the network of public rights of way comply with the legal requirements and supports the Corporate Plan 2017-18 Outcomes Framework:</p> <p>People in Dorset are Healthy:</p> <ul style="list-style-type: none"> • To help and encourage people to adopt healthy lifestyles and lead active lives • We will work hard to ensure our natural assets are well managed, accessible and promoted. <p>Dorset's economy is Prosperous:</p> <ul style="list-style-type: none"> • To support productivity we want to plan communities well, reducing the need to travel while 'keeping Dorset moving', enabling people and goods to move about the county safely and efficiently <p>Before confirming a public path creation, diversion or extinguishment order a council or the Secretary of State must have regard to any material provision of a rights of way improvement plan prepared by the local highway authority. Dorset's Rights of Way Improvement Plan sets out a strategy for improving its network of Public Rights of Way, wider access and outdoor public space.</p>
<p>Appendices</p>	<p>1 - Drawing 17/11 2 - Drawing 17/12 3 - Summary of consultation responses 4 - Risk Assessment March 2015 (Network Rail)</p>
<p>Background Papers</p>	<p>The file of the Service Director, Highways and Emergency Planning (ref. RW/P193)</p>
<p>Report Originator and Contact</p>	<p>Carol McKay Definitive Map Technical Officer (Public Path Orders) Regulation Team, Dorset Highways Tel: (01305) 225136 email: c.a.mckay@dorsetcc.gov.uk</p>

1 Background

- 1.1 The County Council has received an application from Network Rail to extinguish Footpath 18, Wool as shown on Drawing 17/11 attached as Appendix 1.
- 1.2 The extinguishment of Footpath 18, Wool would enable Network Rail to close the level crossing known as 'Hyford'.
- 1.3 With the support of the Office of Rail Regulation, Network Rail is running an investment programme to improve safety and reduce risk where public highways or public rights of way cross the railway.
- 1.4 The Ramblers, Wool Parish Council and Winfrith Newburgh & East Knighton Parish Council were consulted about the proposed extinguishment before the application was submitted and no objections were raised.
- 1.5 The owner of 'Fantasia' who owns the land as shown between points A and B on Drawing 17/11, has agreed to the proposed extinguishment.
- 1.6 The current definitive route of Footpath 18, Wool runs from point A on the C33 road alongside the property 'Fantasia', south south west to point B then continuing south south west across the railway line to meet Bridleway 24, Wool and Bridleway 3, Winfrith Newburgh at point C north of the Dorset Green Technology Park (formerly Winfrith Technology Centre) to the west of Wool.
- 1.7 From point A, the footpath runs along a surfaced driveway and short section of grass to a kissing gate at point B. There is a step up to the kissing gate. Between points B and C the railway lines are crossed at track level using a flat wooden deck between the rails. Footpath users must step up onto the railway crossing, increasing the risk for walkers using this crossing. The footpath continues through a second kissing gate and onto a wide grass path where it joins Bridleway 24, Wool and Bridleway 3, Winfrith Newburgh at point C.
- 1.8 The existing footpath has limited accessibility and is unsuitable for mobility impaired users due to the steps either side of the railway crossing and up to the kissing gate at point B.
- 1.9 The length of Footpath 18, Wool to be extinguished is approximately 59 metres.
- 1.10 Network Rail assigns a relative risk to each level crossing using an All Level Crossing Risk Model (ALCRM). The process considers the type of crossing, number of people using it and whether users are vulnerable and or infrequent, the sighting for users and speed of trains. Level crossings are rated A – M for Individual risk (which applies to crossing users only), with A being the highest risk and M the lowest, and 1 – 13 for Collective Risk (which applies to all people using the crossing including pedestrians, vehicles, staff and passengers) with 1 being the highest risk and 13 the lowest.

- 1.11 Network Rail carried out a risk assessment in March 2015 (attached as Appendix 4) and the level crossing at Hyford scored a rating of C8 which indicates a high individual risk. The speed and frequency of trains and sun glare are key risk drivers at this crossing.
- 1.12 The highest risk at this level crossing is a fatality occurring. The crossing is on a double track section of line with a maximum speed of 85 mph in both directions.
- 1.13 There are no whistle boards associated with the Hyford crossing. However, trains are required to sound their horns if they see someone on the crossing.
- 1.14 Should the extinguishment be successful, trains will no longer be required to sound their horns, which will be a direct benefit to residents in the area.
- 1.15 Network Rail is unable to provide a bridge or tunnel as an alternative due to the topography of the area. There is insufficient land to provide a stepped footbridge at the site of the level crossing. Land purchase would also be required to facilitate footings. A subway cannot be provided, due to the lay of the land and the risk of flooding.
- 1.16 There is no viable diversion route available. However there is an alternative crossing via an underpass within 500 metres of Hyford.
- 1.17 Network Rail has applied for both the crossing and the approach on the northern side of the railway to be stopped up. This will ensure that the extinguishment does not leave a dead-end route between A and B, which would be undesirable as the rights of way network would be disconnected.
- 1.18 If Footpath 18, Wool is successfully extinguished, walkers can use an alternative route to travel from point A to point C. From point A, pedestrians can walk approximately 425 metres south east along the C33 road to the junction with Bridleway 24, Wool. Bridleway 24, Wool runs along a track and under the railway at Soldiers Bridge and continues north west, parallel with the railway to the parish boundary then continues as Bridleway 3, Winfrith to point C as shown on Drawing 17/12 (attached as Appendix 2). There is a grass verge alongside part of the C33.
- 1.19 If the extinguishment order is successful, the existing level crossing furniture, signs and kissing gates will be removed and Network Rail's boundary will be securely fenced off in order to prevent unauthorised access and trespass onto the railway. In addition, signs will be erected to notify walkers of the footpath closure and the alternative route via Bridleway 24, Wool.
- 1.20 Network Rail will be responsible for the works required to erect and maintain the necessary barriers and signs.
- 1.21 The relevant legal tests are set out below.

2 Law

Highways Act 1980

- 2.1 Section 118A of the Highways Act 1980 says that the County Council may, by order, extinguish a footpath crossing a railway, other than by a tunnel or bridge, where it considers the stopping-up expedient in the interest of the safety of members of the public, who use, or are likely to use, the path in question.
- 2.2 The extinguishment order may stop up not only the crossing itself but also any adjacent lengths of path up to an intersection with another highway to avoid leaving a cul-de-sac path.
- 2.3 A rail crossing extinguishment order cannot be confirmed as an unopposed order unless the County Council are satisfied that it is expedient to do so having regard to all the circumstances, and in particular to:
- (a) whether it is reasonably practicable to make the crossing safe for use by the public, and
 - (b) what arrangements have been made for ensuring that, if the order is confirmed, any appropriate barriers and signs are erected and maintained.
- 2.4 The Secretary of State has issued Circular 1/2009, which contains guidance about the factors that should be taken into account when considering expediency. These include the use of the path, the risk to the public, the effect on the network as a whole, the opportunity for alternative measures and the cost of any alternatives. The Circular guidance is not law but provides a useful guide to the Section 118A tests.
- 2.5 The County Council may itself confirm the order if it is unopposed. If it is opposed it may be sent to the Secretary of State for confirmation.
- 2.6 Section 29 of the Highways Act 1980, as amended by Section 57 of the Countryside and Rights of Way Act 2000, says that when making extinguishment orders the County Council must have regard to the needs of agriculture, forestry and nature conservation and the desirability of conserving flora, fauna and geological and physiographical features. "Agriculture" includes the breeding and keeping of horses (for Section 29).

Wildlife and Countryside Act 1981

- 2.7 Section 53A of the Wildlife and Countryside Act 1981 enables provisions to amend the definitive map and statement required by virtue of an extinguishment order to be included in the extinguishment order instead of being the subject of a separate legal event order.

Human Rights Act 1998 – Human rights implications

- 2.8 The provisions of the Human Rights Act and principles contained in the Convention of Human Rights have been taken into account in reaching the recommendation contained in this report. The articles/protocols of particular relevance are:

Article 8 - Right to respect for private and family life

The First Protocol, Article 1 - Protection of Property

- 2.9 When considering whether it is expedient to make the order a council must have due regard of any argument put forward by an adjoining landowner that their rights under Article 8 and Article 1 of the First Protocol would be infringed.
- 2.10 Section 28 of the Highways Act 1980 provides that a person with an interest in land affected by the consequence of the coming into operation of a public path order can make a claim for compensation for the depreciation of land value or damage suffered by being disturbed in his enjoyment of land.

Rights of Way Improvement Plan

- 2.11 Dorset County Council's Rights of Way Improvement Plan (ROWIP) is a statutory document setting out a strategy for improving its network of Public Rights of Way, wider access and outdoor public space.
- 2.12 Before confirming a public path creation, diversion or extinguishment order a council or the Secretary of State must have regard to any material provision of a rights of way improvement plan prepared by the local highway authority.
- 2.13 Five themes have been identified for improving access in Dorset of which the following is particularly relevant to the present case and should be considered in relation to this application:
- Theme 1.6 Improve accessibility of the network

3 Compliance with the law

- 3.1 It is considered that the proposed extinguishment of Footpath 18, Wool is expedient in the interest of the safety of members of the public who use, or are likely to use the footpath.
- 3.2 Network Rail has indicated that there is a high individual risk to pedestrians using the crossing.
- 3.3 Under the proposal the full length of Footpath 18 would be extinguished. It is considered expedient to extinguish Footpath 18, Wool from its junction with the C33 Road at point A to its junction with Bridleway 24, Wool and Bridleway 3, Winfrith Newburgh at point C since alternative routes are available via public highway and it is not desirable to leave a cul-de-sac footpath. Additionally, walkers may be tempted to trespass onto the closed section of railway if the footpath is retained between points A and B.
- 3.4 The extinguishment will have no adverse effect on agriculture, forestry, flora, fauna and geological and physiographical features.
- 3.5 Land served by the footpath is not adversely affected by the removal of the public right of way.

- 3.6 Network Rail carried out a nine day camera survey in March 2015 to establish public use of the crossing before submitting the application to extinguish Footpath 18, Wool. The survey results indicated that the path is used on average up to once a day.
- 3.7 As the footpath has a low level of use, the impact of closing it is minimal. The alternative route via Bridleway 24, Wool is fundamentally safer as it crosses the railway via an underpass.
- 3.8 The primary benefit of the extinguishment is that it removes all risk of an incident at the level crossing by closing it.
- 3.9 If the extinguishment were successful, trains will no longer be required to sound their horns on seeing someone at the crossing, which would improve the amenity of the area and reduce noise for local residents.
- 3.10 The proposed extinguishment affects the land of the applicant (Network Rail) and one additional landowner, Mr Whitmarsh, who has agreed to the proposal. It is therefore anticipated that no compensation would be payable under Section 28 of the Highways Act 1980.
- 3.11 The proposed extinguishment has been examined in the context of the Rights of Way Improvement Plan (ROWIP). Whilst the proposal removes a footpath from the local network of paths, it also improves accessibility of the network by removing a route with narrow kissing gates, steps and a rail crossing. The existing path has limited accessibility and is unsuitable for mobility impaired users.
- 3.12 A rail crossing extinguishment order cannot be confirmed as an unopposed order unless the County Council are satisfied that it is expedient to do so having regard to all the circumstances, and in particular to:
- Whether it is reasonably practicable to make the crossing safe for use by the public, and
 - What arrangements have been made for ensuring that, if the order is confirmed, any appropriate barriers and signs are erected and maintained.
- 3.13 Network Rail has indicated that it is not viable to provide a bridge or tunnel at the Hyford level crossing. The low level of use at this crossing does not justify the high cost of providing a bridge or tunnel.
- 3.14 Upon any confirmation of a rail crossing extinguishment order, the existing level crossing furniture, signs and the kissing gates will be removed.
- 3.15 Network Rail's boundary will be securely fenced off in order to prevent unauthorised access and trespass onto the railway. Signs will be provided to notify users of the extinguishment and the alternative crossing via Bridleway 24, Wool. These arrangements will be specified in the Rail Crossing Extinguishment Order.
- 3.16 If there are no objections to a rail crossing extinguishment order, as the criteria for confirmation have been met the order should be confirmed.

4 Consultation

- 4.1 The County Council has carried out a wide consultation and one objection to the proposal has been received, from the Open Spaces Society (OSS).
- 4.2 The OSS considers that the sightlines at the level crossing are good and that few trains would be travelling at 80mph due to the proximity of Wool station.
- 4.3 Network Rail has assessed the crossing as high risk due to the sightlines and speed and frequency of trains. Trains pass the crossing at a speed of up to 85mph. It should be noted that not all trains stop at Wool station.
- 4.4 The OSS believes that Network Rail has underestimated use of the crossing and that if use is low the risk of an accident must also be low. They suggest that stop lights could be installed if use increases in the future.
- 4.5 Network Rail has carried out a camera survey to establish usage of the crossing and therefore the average use of the crossing is based on a nine day survey.
- Miniature Stop Lights are not considered a viable option at Hyford crossing as they do not fully control the risk and high cost of installation would be disproportionate to the level of risk reduction achieved, thus presenting a negative cost benefit analysis for this option.
- 4.6 The OSS also feels that Footpath 18, Wool provides a useful link to Bridleway 3, Winfrith Newburgh and Bridleway 24, Wool allowing walkers to do a circular walk.
- Whilst it is recognised that the closure of the footpath will result in a loss of amenity for a small number of walkers, the crossing is identified as high risk and therefore it is expedient to extinguish it in the interest of the safety of members of the public who use, or are likely to use the footpath.
- 4.7 The Ramblers have indicated that, whilst they normally object to extinguishments, in line with their policy, they are unlikely to object to the proposed extinguishment of Footpath 18, Wool. They raise several points, which are summarised in Appendix 3.
- With regards to The Ramblers' comment regarding sightlines at the junction of Bridleway 24, Wool and the C33, a request for the County Council to cut back vegetation can be made as this is within Dorset County Council's remit. It is not viable to widen the highway verge and increasing the road signage would be against County Council policy.
- 4.8 The Ramblers also query the status of a track from Bridleway 24 through Burton Heath to the road opposite Footpath 22 and ask for more information regarding the underpass at Soldiers Bridge.
- The track is not recorded as a public right of way and the land does not belong to Network Rail.

- The underpass is wide and high enough for horseriders to pass through easily and therefore more than adequate for walkers.
 - This information has been passed on to The Ramblers.
- 4.9 Winfrith Newburgh & East Knighton Parish Council and Wool Parish Council were consulted prior to the public consultation and neither objected to the proposed extinguishment.
- 4.10 The County Councillor for South Purbeck, Councillor Brooks, was consulted on the proposals and made no comment.
- 4.11 Consultation responses are summarised in Appendix 3.

5 Conclusions

- 5.1 Under Section 118A of the Highways Act 1980 the County Council may, by order, extinguish a footpath crossing a railway, other than by a tunnel or bridge, where it considers the stopping-up expedient in the interest of the safety of members of the public, who use, or are likely to use, the path in question.
- 5.2 The application to extinguish Footpath 18, Wool meets the tests set out under the Highways Act 1980 as the crossing has been assessed by Network Rail as high risk for pedestrians and therefore should be accepted and an order made.
- 5.3 The Order should include provisions to modify the definitive map and statement to record the changes made as a consequence of the extinguishment.
- 5.4 If there are no objections to a rail crossing extinguishment order, as the criteria for confirmation have been met the order should be confirmed.

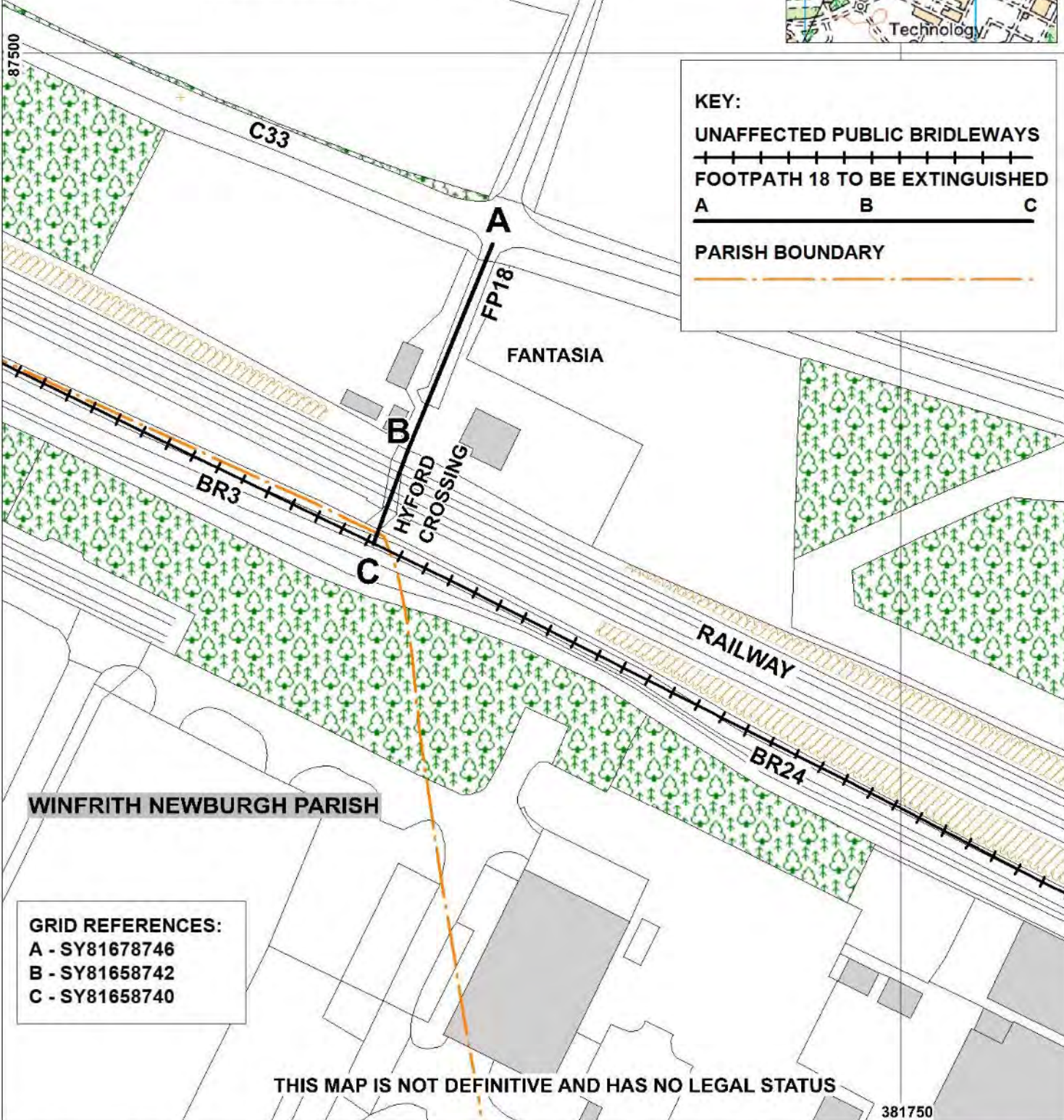
Andrew Martin

Service Director, Highways and Emergency Planning

November 2017



WOOL PARISH



KEY:

UNAFFECTED PUBLIC BRIDLEWAYS

FOOTPATH 18 TO BE EXTINGUISHED

A B C

PARISH BOUNDARY

WINFRITH NEWBURGH PARISH

GRID REFERENCES:

A - SY81678746

B - SY81658742

C - SY81658740

THIS MAP IS NOT DEFINITIVE AND HAS NO LEGAL STATUS

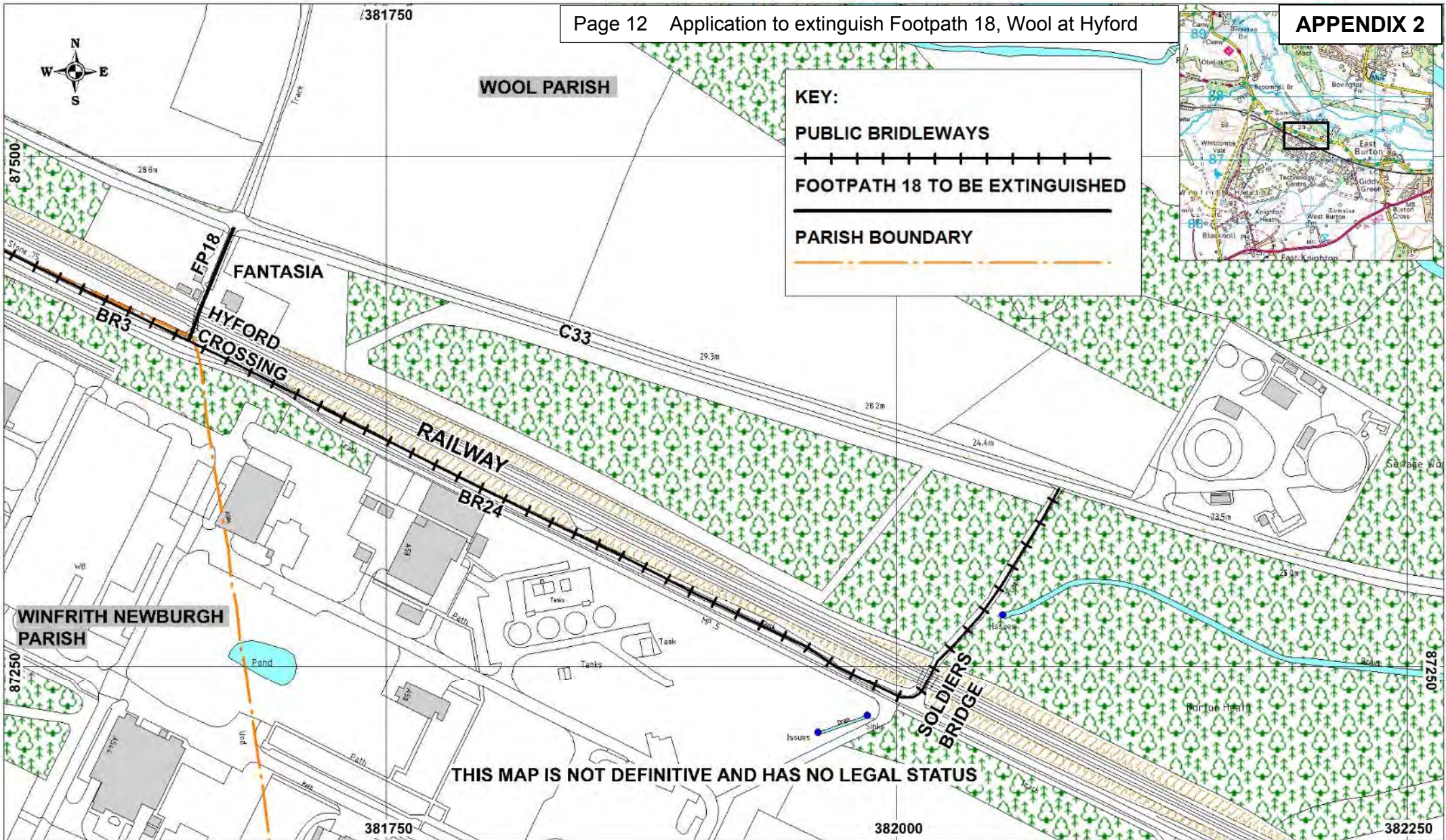
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SECTION 118A HIGHWAYS ACT 1980
APPLICATION FOR A PUBLIC PATH RAIL
CROSSING ORDER
PROPOSED EXTINGUISHMENT OF FOOTPATH 18, WOOL
AT HYFORD

Ref:17/11
Date: 12/07/2017
Scale 1:1000
Drawn By: CAM
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Cent Y: 87428

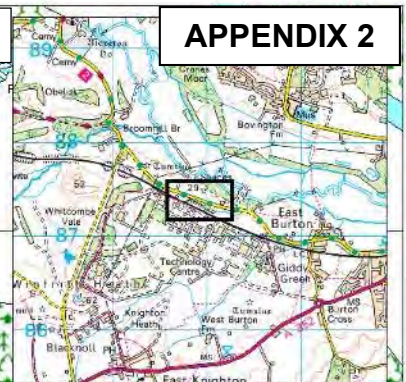
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KEY:

- PUBLIC BRIDLEWAYS
- FOOTPATH 18 TO BE EXTINGUISHED
- PARISH BOUNDARY



THIS MAP IS NOT DEFINITIVE AND HAS NO LEGAL STATUS

**OVERVIEW OF PUBLIC RIGHTS OF WAY
HYFORD CROSSING & SOLDIER'S BRIDGE**

Ref: 17/12
Date: 13/07/2017
Scale 1:2500
Drawn By: CAM
Cent X: 381916
Cent Y: 87370

GEOGRAPHICAL INFORMATION SYSTEMS

Dorset County Council

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Summary of consultation responses

Name	Comments
Southern Gas Networks	No apparatus indicated on plan
Wessex Water	No comments.
The Ramblers	<p>Indicate that whilst the Ramblers' normal policy is to object to extinguishments, they are unlikely to object to the Order. Wish to raise the following points:</p> <ul style="list-style-type: none"> • Sightlines at junction of FP18 and C33 are better than at the junction of BR24 and the C33 (with blind summits along road) • Registered Common Land north of C33 is only accessible further east of BR24 • Suggest mitigating loss of footpath with improvements to highway verge and road signage • Query re status of track from BR24 through heath to join opposite FP 22. • Request for information on Soldiers Bridge underpass (height and width), and also most recent National Rail assessment of Hyford crossing
Senior Archaeologist, Dorset County Council	There are at present no recorded archaeological finds or features or historic buildings on or in the vicinity of the routes affected by this application. Number of features recorded in the wider vicinity but they not constitute a constraint in the context of this proposal.
The Open Spaces Society	Unhappy about application – would object if order made. Sightlines at crossing are good, few trains travel at 80mph due to proximity of Wool station. Believes that more than one person a day use crossing. If usage is low, risk of accident must also be low. Installation of stop lights would be worthwhile if usage increases. Footpath 18 links to Bridleway 3, Winfrith Newburgh and Bridleway 24, Wool allowing circular walks using road.

Risk Assessment March 2015 (Network Rail)



NARRATIVE RISK ASSESSMENT – PASSIVE TEMPLATE FINAL v2.0

PASSIVE LEVEL CROSSING RISK ASSESSMENT

1. LEVEL CROSSING OVERVIEW AND ENVIRONMENT

1.1 LEVEL CROSSING OVERVIEW

This is a risk assessment for Hyford level crossing.

Crossing details	
Name	Hyford
Type	FPW
Crossing status	Public Footpath
Overall crossing status	Open
Route name	Wessex
Engineers Line Reference	BML2, 127m, 54ch
OS grid reference	SY817874
Number of lines crossed	2
Line speed (mph)	80
Electrification	3 rd Rail
Signal box	Basingstoke (Dorset Coast)

Risk assessment details	
Name of assessor	Steve Barker
Post	Level Crossing Manager
Date completed	26/03/2015
Next due date	26/06/2017
Email address	stephen.barker@networkrail.co.uk
Phone number	07808245689

ALCRM risk score	
Individual risk	C
Collective risk	8
FWI	0.000030903

1.2 INFORMATION SOURCES

The table below shows the stakeholder consultation that was undertaken as part of the risk assessment.

Consulted	Attended site
Local resident	Yes

Stakeholder consultation and attendance notes:

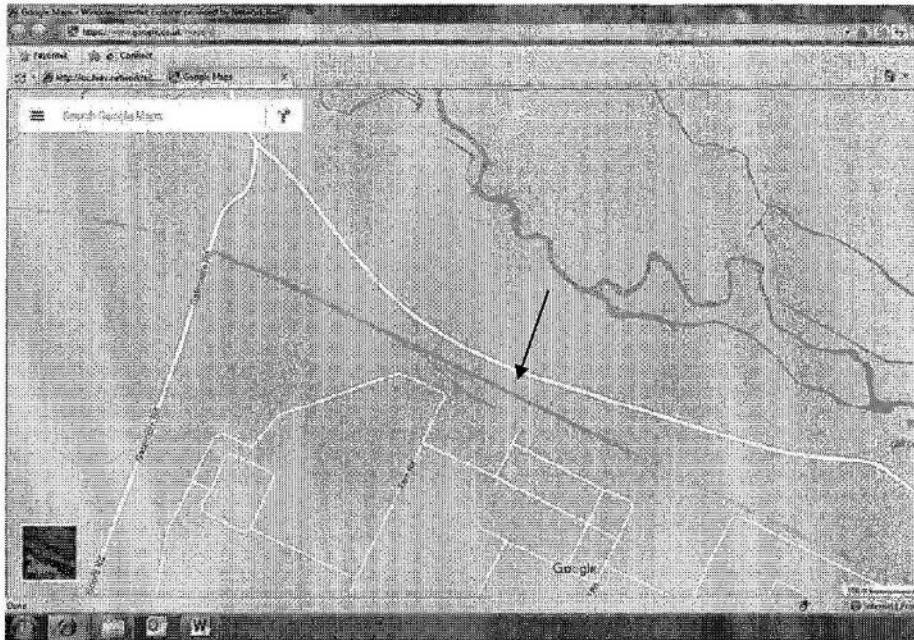
Regularly speak to the owner of the house adjacent to crossing

The reference sources used during the risk assessment included:

- Census, Other (Google maps), CCIL, OMNI.

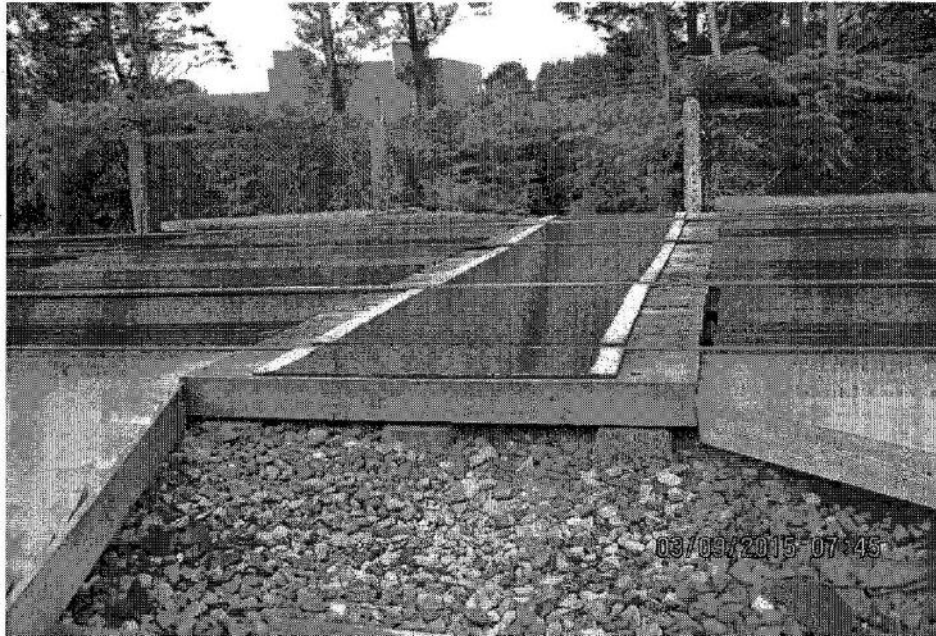


1.3 ENVIRONMENT

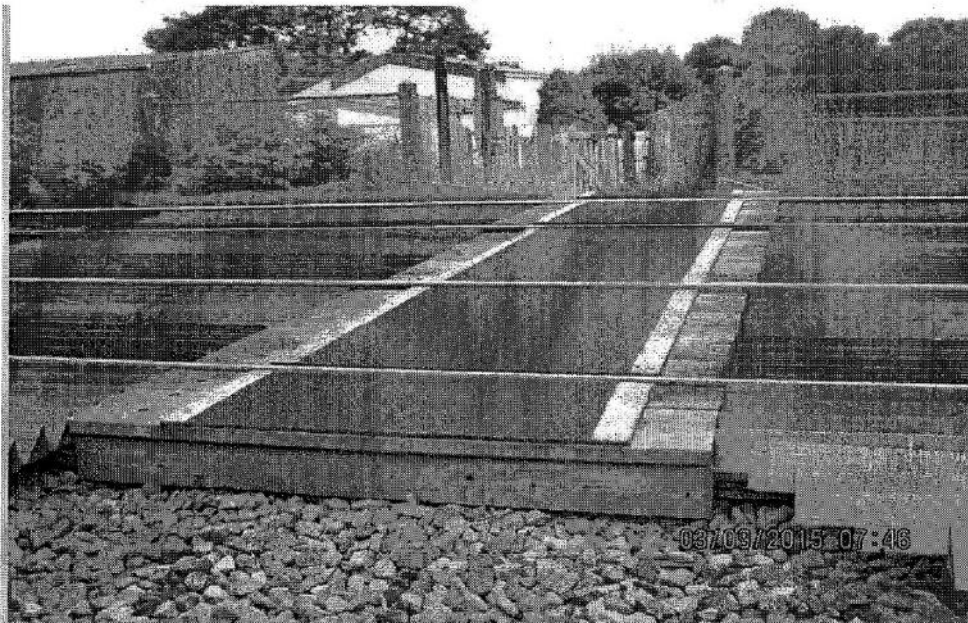




Up side crossing approach



Down side crossing approach





The environment surrounding Hyford level crossing consists of rural area with fields or other open land in the vicinity.

It is a public footpath level crossing which is located on East Burton Road. There are no stations visible at the level crossing.

At Hyford level crossing the orientation of the road/path from the north is 20°; the orientation of the railway from the north to the up line in the up direction is 120°. Low horizon can result in sun glare; sun glare is a known issue.

There are no planned or apparent developments near the crossing which may lead to a change or increase in use or risk.

Site visit general observations:

The nearby ex Winfrith AEE establishment has a bridleway round its fence line and at Hyford the footpath comes from the bridleway to Burton Road only. The FP is used to access the bridleway from the public road

2. LEVEL CROSSING USAGE

2.1 RAIL

The train service over Hyford level crossing consists of passenger trains. There are 68 trains per day. The highest permissible line speed of trains is 80mph. Trains are timetabled to run for 18 hours per day.

Assessor's notes:

2.2 USER CENSUS DATA

A 24 hour census was carried out on 26/03/2015 by Steve Barker. The census applies to 100% of the year.

The census taken on the day is as follows:

Pedestrians	1
Pedal cyclists	0
Horses / riders	0
Animals on the hoof	0

Available information indicates that the crossing does not have a high proportion of vulnerable users.

Vulnerable user observations:

Nil

Available information indicates that the crossing does not have a high number of irregular users.

Irregular user observations:

Nil



Information gathered indicates that Hyford level crossing does not have a high number of users during the night or at dusk.

Site visit night / dusk user observations:

Info not available but there is a high probability due to location that there is no users during the hours of darkness

Assessor's general census notes:

Cameras were installed for 7 days and an average was taken. Over the 7 days the max in one day was 1 crossing.

2.3 USER CENSUS RESULTS

ALCRM calculates usage of the crossing to be 0 road vehicles and 1 pedestrians and cyclists per day.

3. RISK OF USE

3.1 SIGHTING AND TRAVERSE

At Hyford level crossing, the decision point and traverse lengths are calculated as:

	Decision point (m)	Traverse length (m)	Measured from
Up side	2	9	Centre of FP
Down side	2	9	Centre of FP

Timber decking is provided over the level crossing. The decking is considered to be wide enough for all users of the crossing. It is fitted with a non slip surface.

The traverse times are calculated as:

	Traverse time (s)
Pedestrians	8.57

The current census has not identified a high proportion of vulnerable users. Therefore, the pedestrian traverse time has not been increased.

Assessor's traverse time notes:

Due to users having to step up onto the crossing the traverse time has been increased by 1 second

Sighting was measured by the following means:

- Using known references



Sighting, measured in metres, at Hyford level crossing is recorded as:

All distances are recorded in metres	Minimum sighting distance required	Measured sighting distance	Sighting distance measured to	Is sighting compliant?	If deficient, is sighting distance mitigated?	Notes on deficient sighting time mitigations
Up side looking toward up direction train approach	271	656	Broom Hill Bridge No.105	Yes		
Up side looking toward down direction train approach	271	628	127.25MP	Yes		
Down side looking toward up direction train approach	271	472	128MP	Yes		
Down side looking toward down direction train approach	271	628	127.25MP	Yes		

Sighting restrictions are recorded as follows:

	Up Direction	Down Direction
Nothing; vanishing point	NO	NO
Track curvature	YES	YES
Permanent structure (building/wall etc)	NO	NO
Signage or crossing equipment	NO	NO
Vegetation	NO	NO
Bad weather on the day of visit	NO	NO
Other	NO	NO

There are no known obstructions that could make it difficult for users to see approaching trains. There are no known issues with foliage, fog or other issues that might impair visibility of the crossing, crossing equipment or approaching trains.

Actions to improve sighting have not been identified.

Assessor's improving sighting and decision point notes

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Assessor's general sighting and traverse notes:

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3.2 EVALUATION OF MITIGATIONS

3.3 CROSSING APPROACHES

The signs at Hyford level crossing are located on the direct route a user would take over the level crossing, they are positioned so that they are clearly visible to users taking a direct route over the level crossing. The visibility of the signs is reduced at night or at dusk.

The approaches to the crossing within the boundary fence are considered to be steep, slippery or present a tripping hazard to users.



Assessor's notes:

There are no adjacent sources of light or noise that could affect a users' ability to see or hear approaching trains.

Assessor's general crossing approach notes:

No crossing illumination

3.4 AT THE CROSSING – ANOTHER TRAIN COMING RISK

Trains are occasionally known to pass each other at this crossing.

Assessor's another train coming notes:

Whilst it is not usual for 2 trains to pass at Hyford there is always a chance it may happen

3.5 INCIDENT HISTORY

A level crossing safety event has not been known to occur at Hyford level crossing in the last twelve months.

Assessor's incident history notes:

4. ALCRM CALCULATED RISK

Hyford level crossing ALCRM results

Key risk drivers: ALCRM calculates that the following key risk drivers influence the risk at this crossing:

- Frequent trains
- Sun glare

Assessor's key risk drivers notes

Safety risk			
Compared to other crossings the safety risk for this crossing is	Individual risk		Collective risk
	C		8
	Individual risk (fraction)	Individual risk (numeric)	
Car	0	0	0
Van / small lorries	0	0	0
HGV	0	0	0
Bus	0	0	0
Tractor / farm vehicle	0	0	0
Cyclist / Motor cyclist	0	0	0
Pedestrian	1 in 23764	0.000042079	0.000030718
			Derailment contribution
Passengers			0
Staff			0.000000185
Total			0.000030903
Collision frequencies	Train / user	User equipment	Other



Vehicle	0	0	0	
Pedestrian	0.000037006	0.000008768	0.000024017	
Collision risk	Train / user	User equipment	Other	
Vehicle	0	0	0	
Pedestrian	0.000030049	0.00000014	0.000000528	



5. OPTION ASSESSMENT AND CONCLUSIONS

5.1 OPTIONS EVALUATED

The options evaluated to mitigate the risks at Hyford crossing include:

Option	Term ¹	ALCRM risk score	ALCRM FWI	Safety Benefit	Cost	Benefit Cost Ratio	Status	Comments
Closure with a diversion of 400m via Soldiers Bridge No.104	Full	M13	OEO	3.0903E-5	£7,500	3.99	Open	Recommend

NOTES

Network Rail always evaluates the need for short¹ and long term risk control solutions. An example of level crossing risk management might be; a short term risk control of a temporary speed restriction with the long term solution being closure of the level crossing and its replacement with a bridge.

¹ Includes interim

CBA gives an indication of overall business benefit. It is used to support, not override, structured expert judgement when deciding which option(s) to progress. CBA might not be needed in all cases, e.g. standard maintenance tasks or low cost solutions (less than £5k).

The following CBA criteria are used as a support to decision making:

- a. benefit to cost ratio is ≥ 1 : positive safety and business benefit established;
- b. benefit to cost ratio is between 0.99 and 0.5: reasonable safety and business benefit established where costs are not grossly disproportionate against the safety benefit; and
- c. benefit to cost ratio is between 0.49 and 0.0: weak safety and business benefit established.



5.2 CONCLUSIONS

Assessor's notes:

Due to the extremely low usage, the high cost of bridge installation and the close proximity of a suitable diversion (Soldiers Bridge No104 400m from crossing) it is concluded that the only logical way of reducing risk is to close the footpath and divert the footpath via Soldiers Bridge.

The footpath across the railway only leads to the public road and does not take continue elsewhere. During the time of the census there was a maximum of one crossing per day.

6 APPROVALS

Prepared By: Steve Barker	Signature:
	Job Title: Level Crossing Manager
Date:	
Approved By: (RLCM)	Signature:
	Job Title:
Date:	
Approved By:	Signature:
	Job Title:
Date:	



ANNEX A – ADDITIONAL PHOTOGRAPHS

Description:

Description:

Description:

Description:

Description:

Description:



ANNEX B – HAZARD IDENTIFICATION AND RISK CONTROLS

The table below is intended for use by risk assessors when identifying hazards and risk control solutions. It is not an exhaustive list or presented in a hierarchical order.

	Hazard	Control
Road vehicle and train collision risk	<p>Examples at the crossing include:</p> <ul style="list-style-type: none"> insufficient sighting and / or train warning for all vehicle types; known to be exacerbated by the driving position, e.g. tractor. level crossing equipment and signage is not conspicuous or optimally positioned instructions for safe use might be misunderstood e.g. signage clutter detracts from key messages, conflicting information given high volume of unfamiliar users, e.g. irregular visitors, migrant workers known user complacency leading to high levels of indiscipline, e.g. failure to use telephone, gates left open type of vehicle unsuitable for crossing; <ul style="list-style-type: none"> large, low, slow making access or egress difficult and / or vehicle is too heavy for crossing surface risk of grounding and / or the severity of the gradient adversely affects ability to traverse poor decking panel alignment / position on skewed crossing where telephones are provided, users experience a long waiting time due to: <ul style="list-style-type: none"> long signal section (Signaller unaware of exact train location) high train frequency insufficient or excessive strike in times at MSL crossings high chance of a second train coming high line speed and / or high frequency of trains unsuitable crossing type for location, train service, line speed and vehicle types 	<p>Controls can include:</p> <ul style="list-style-type: none"> optimising the position of equipment and / or signs removing redundant and / conflicting signs engaging with signalling engineers to optimise strike in times upgrading of asset to a higher form of protection downgrading of crossing by removing vehicle access rights optimising sighting lines and / or providing enhanced user based warning system, e.g. MSL re-profiling of crossing surface engaging with stakeholders / authorised users to reinforce safe crossing protocol, legal responsibilities and promote collaborative working widening access gates and / or improving the crossing surface construction material realigning or installing additional decking panels to accommodate all vehicle types implementing train speed restriction or providing crossing attendant
Pedestrian and train collision risk	<p>Examples include:</p> <ul style="list-style-type: none"> insufficient sighting and / or train warning ineffective whistle boards; warning inaudible, insufficient warning 	<p>Controls can include:</p> <ul style="list-style-type: none"> optimising the position of equipment and / or signs removing redundant and / conflicting signs



Hazard	Control
<p>time provided, known high usage between 23:00 and 07:00</p> <ul style="list-style-type: none"> • high chance of a second train coming • high line speed and / or high frequency of trains • level crossing equipment and signage is not conspicuous or optimally positioned • location and position of level crossing gates mean that users have their backs to approaching trains when they access the level crossing, i.e. users are initially unsighted to trains approaching from their side of the crossing • instructions for safe use might be misunderstood e.g. signage clutter detracts from key messages, conflicting information given • surface condition or lack of decking contribute to slip trip risk • known high level of use during darkness • increased likelihood of user error, e.g. crossing is at station • free wicket gates might result in user error • high volume of unfamiliar users, e.g. irregular visitors / ramblers, equestrians • complacency leading to high levels of indiscipline, e.g. users are known to rely on knowledge of timetable. • high level of use by vulnerable people • where telephones are provided i.e. bridleways, users experience a long waiting time due to: <ul style="list-style-type: none"> - long signal section (Signaller unaware of exact train location) - high train frequency • insufficient or excessive strike in times at MSL crossings • unsuitable crossing type for location, train service, line speed and user groups • high usage by cyclists • degree of skew over crossing increases traverse time and users' exposure to trains • crossing layout encourages users not to cross at the designed decision point; egress route unclear especially during darkness 	<ul style="list-style-type: none"> • upgrading of asset to a higher form of protection • optimising sighting lines, e.g. de-vegetation programme, repositioning of equipment or removal of redundant railway assets • implementing train speed restriction or providing crossing attendant • providing enhanced user based warning system, e.g. MSL • engaging with stakeholders / authorised users to reinforce safe crossing protocol, legal responsibilities and promote collaborative working • installing guide fencing and / or handrails to encourage users to look for approaching trains, read signage or cross at the designed decision point • re-design of crossing approach so that users arrive at the crossing as close to a 90° angle as possible • installing lighting sources • engaging with signalling engineers to optimise strike in times • providing decking or improving crossing surface, e.g. holdfast, strail, non-slip surface • providing cyclist dismount signs and / or chicanes • straightening of crossing deck



	Hazard	Control
	schools, local amenities or other attractions are known to contribute towards user error	
Pedestrian and road vehicle collision risk	<p>Examples include:</p> <ul style="list-style-type: none"> • a single gate is provided for pedestrian and vehicle users where there is a high likelihood that both user groups will traverse at the same time • the position of pedestrian gate forces / encourages pedestrian users to traverse diagonally across the roadway • road / footpath inadequately separated; footpath not clearly defined • condition of footpath surface increases the likelihood of users slipping / tripping into the path of vehicles 	<p>Controls can include:</p> <ul style="list-style-type: none"> • providing separate pedestrian gates • clearly defining the footpath; renew markings • positioning pedestrian gates on the same side of the crossing • improving footpath crossing surface so it is devoid of potholes, excessive flangeway gaps and is evenly laid • improving crossing surface, e.g. holdfast, strail, non-slip surface
Personal injury	<p>Examples include:</p> <ul style="list-style-type: none"> • skewed crossing with large flangeway gaps results in cyclist, mobility scooter, pushchair or wheelchair user being unseated • condition of footpath surface increases the likelihood of users slipping / tripping • degraded gate mechanism or level crossing equipment • barrier mechanism unguarded / inadequately protected 	<p>Controls can include:</p> <ul style="list-style-type: none"> • improving fence lines • reducing flangeway gaps and straightening where possible • providing decking or improving crossing surface, e.g. holdfast, strail, non-slip surface • straighten / realign gate posts • fully guarding barrier mechanisms

ANNEX C – ALCRM RISK SCORE EXPLANATION

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** = 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, 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, 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