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**A47 BLOFIELD TO NORTH BURLINGHAM DUALLING  
Representations on behalf of Burlingham Cottage Gardeners Association**

**APPLICATION BY HIGHWAYS ENGLAND FOR AN  
ORDER GRANTING DEVELOPMENT CONSENT FOR  
THE A47 BLOFIELD TO NORTH BURLINGHAM  
DUALLING**

**Reference TR010040**

**Representations on behalf of Burlingham  
Cottage Gardeners Association  
Burlingham, Norfolk  
Deadline 4 Submission**

**Client:** Burlingham Cottage Gardeners Association

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**Report By:**  BEng Hons MSc CEng MICE MCIHT

**Reference:** JPC/CS/E21-067/03

**Date:** September 2021

**A47 BLOFIELD TO NORTH BURLINGHAM DUALLING  
Representations on behalf of Burlingham Cottage Gardeners Association**

# **APPLICATION BY HIGHWAYS ENGLAND FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE A47 BLOFIELD TO NORTH BURLINGHAM DUALLING Reference TR010040**

## **Representations on behalf of Burlingham Cottage Gardens Association Deadline 4 Submission**

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### **Registration of Amendments**

Revision and Date	Amendment Details	Revision Prepared By	Revision Approved By

## 1.0 INTRODUCTION

- 1.1 This note has been produced to supplement the information already submitted by myself at Deadline 2 and to respond to and rebut various statements made by representative of SWECO on behalf of Highways England during the DCO hearing held on 20 July 2021 where footway/cycleway provision was discussed.
- 1.2 I have been instructed by Chris Gates of Burlingham Cottage Gardeners Association (BCGA) to act as an expert witness in relation to their concerns in relation to the impact that the proposed A47 Blofield to North Burlingham Dualling Scheme will have on the life choices, sustainability and general health and wellbeing of the residents of all ages of North Burlingham and the surrounding villages. These representations are also supported by Burlingham and Lingwood Parish Council and Hemblington Parish Council.
- 1.3 On the 20 July 2021, the Inspector specifically asked members of the SWECO team whether they had considered our alternative Underbridge proposal as shown on Drawing No E21-067-03-001 and did they have any comments. It was clear from the various responses made by the representative of SWECO that they had not looked at either the justification or the detail of the proposed Underbridge and effectively dismissed the proposal out of hand without giving it the due consideration that the scheme deserves. Issues raised without any evidence to back them up were as follows.
- a) Potential Drainage Issues associated with the drainage of the Underpass
  - b) The height and suitability of the underpass to facilitate access by horses and that horses using the underpass could cause pollution issues
  - c) The cost of the underbridge made it prohibitive
  - d) The likely users of the underbridge are likely to be leisure users only.
  - e) Access to the Burlingham Country Park would be adequate using the proposed new bridge over the A47.
- 1.4 The following representations clearly outline that there are no engineering or cost constraints which should prevent the inclusion of the proposed Underbridge into this current scheme. These will allow the villages to the north of the A47 including North Burlingham, Upton, South Walsham, Hemblington, Ranworth and Salhouse to easily link with villages to the south, such as Cantley, Lingwood, Hemblington, Reedham, Moulton St Mary and Freethorpe to the south. Many of the villages are cut off from services such as catchment schools, shops, leisure facilities, employment opportunities, local and regional travel such as bus and rail services.
- 1.5 The current and the future proposed A47 improvements basically create a barrier to safe cycling movements between the two areas which can easily be solved with the provision of the new Underbridge.

## 2.0 BARRIER TO SUSTAINABLE TRAVEL

### Pedestrian and Cycleway Links

- 2.1 During the hearing session on the 20 July 2021, the issue of severance was discussed and SWECO stated that, in their view, following a survey of existing pedestrian and cycling movements, they did not feel that there was sufficient demand for people wanting to cross the A47 in this location to justify the inclusion of an Underbridge or Overpass.
- 2.2 In our view we believe that this approach to assessing potential demand is fundamentally flawed. They have not at all assessed the potential crossing demand that could be unlocked from the residents living in the villages to the north and south of the A47. At the moment, modal shift for trips north and south of the A47 is heavily weighted towards the use of the private car as it is currently the only way of being able to travel between the two areas safely. Many activities such as schools, football and sports clubs, dog training groups, exercise classes, leisure walking etc are attended by residents living both sides of the A47. In addition, there are several rural employment sites either side of the A47 which currently can only be accessed by the car.
- 2.3 A detailed survey should have been undertaken of the residents of the villages listed in paragraph 1.4 looking at a potentially much wider catchment, asking residents whether or not they would use an Underbridge if one was provided at North Burlingham. We believe that the level of demand would have been considerably higher if this had been undertaken providing clear justification for the inclusion of a crossing facility in this location. We believe that this additional work on demand needs to be completed prior to any final decision on whether or not overbridge/underbridge is provided as part of this scheme.
- 2.4 For decades young people have grown up in the area not being able to cycle safely between the north and south of the A47 to see friends from school or attend sporting clubs, due to the barrier caused by the road, whereas if a safe crossing point was provided this would greatly open social mobility for both the young and older generations in the area.
- 2.5 The introduction of electric bikes has revolutionised how people now cycle in the UK and the distances that they are happy to travel to reach employment, shops, leisure, and onward journeys by other modes such as rail and buses. During the hearing on the 20 July 2021 it was inferred that the people are only likely to use the underpass for leisure use. Whilst we agree that this will be an essential part of its day-to-day function, we do believe that the provision of the underpass and the link to Acle will enable cyclists to travel to a wide range of facilities in Acle as well as allow residents in the villages to the north/south to access shops, employment opportunities and access to rail services to Norwich and Great Yarmouth.
- 2.6 Drawing Number E21-067-03-004 shows the cycling distances that will be achieved if the Underbridge is provided as well as clearly identifying the additional distance that is required

if cyclists use the proposed new B1145 overbridge. Savings in travel distance is approximately 2.7 km, which is a significant diversion.

- 2.7 During the hearing session on the 20 July 2021, both Norfolk County Council as Highway Authority and Broadland DC as local planning authority supported the provision of some form of enhanced crossing facility in this location.

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### **3.0 TECHNICAL DETAILS OF THE UNDERPASS**

- 3.1 At the hearing session held on the 20 July 2021, the representatives of SWECO gave the only reason why an Underbridge would not be acceptable in this location being a perceived surface water drainage problem. Looking at the details of the underlying soil strata in the area (see Appendix A) in particular the area where the Underbridge is proposed, shows the first 2 to 3m appears to be formed by granular material which should be suitable for drainage by soakage. This will significantly cut down the quantity of water draining towards the Underbridge.
- 3.2 Below this granular material the soil is more cohesive and will therefore be unsuitable for soakage. We therefore propose that the top part of the ramps down will be drained by soakage with the lower area of the ramps being drained to a small sump, from where it will be pumped up to the higher ground to discharge into the proposed soakaway/filter drain system. The water will be drained using trapped gullies which will prevent debris from being washed into the system.
- 3.3 None of this involves any difficult engineering solutions and can be easily incorporated into the scheme at nominal cost, as identified in the breakdown of anticipated costs.
- 3.4 No other technical issues or evidence has been submitted in relation to problems associated with the provision of the Underbridge. On this basis we believe that SWECO concerns in relation to drainage issues is a red herring and that there are no technical constraints that would prevent the scheme from being brought forward.

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## 4.0 BRIDLEWAY CROSSING/HORSE MOVEMENTS

- 4.1 The proposed Underbridge scheme could be used by horses as part of a bridleway system which could link equestrian facilities north and south of the A47. At the moment there are no safe crossing points for horses and even the new proposals do nothing to improve these arrangements. There are several equestrian facilities located to the north of the A47 and the provision of a new Underbridge would potentially open a wide network of quiet road and lanes which would provide excellent routes for horseriders.
- 4.2 At the hearing on the 20 July 2021 the proposed Underbridge scheme was criticised by SWECO for only having a height clearance of 2.7m which would require any horse riders to dismount before passing through the Underbridge. SWECO believed that this would deter horse riders from using the underpass and that it was generally safer for a horse rider to stay in the saddle when approaching features of this nature.
- 4.3 Following discussions with British Horse Society (BHS), they have a completely different view to the representatives of SWECO. Whilst BHS state that ideally a cover height of 3.4m would be better if it was intended for horse riders were to pass through mounted. However, many horse riders will regularly dismount when they approach a feature of this nature as it is always easier to control the horse when dismounted. This is in stark contrast to the views of SWECO. It is not clear what experience or expertise that SWECO have on this issue. We however recommend to the Inspector that the British Horse Society are better positioned to comment on these issues, (see letter dated enclosed in Appendix B) and therefore there are no major issues in relation to the proposed height of the Underbridge
- 4.4 In order to facilitate riders having to dismount, it is proposed that mounting blocks will be provided at either side of the Underbridge.
- 4.5 A comment was made by SWECO in relation to the potential of horse manure causing pollution events to the proposed surface water system. This would be no different to any other rural lane used by horses or a section of bridleway which was positively drained and in our view with careful specification of the type and nature of the gulley, this would not be an issue.
- 4.6 Whilst the current proposed scheme has been based on a 2.7m clearance height, this was mainly to keep the costs down and the amount of earthworks required. If, however it was considered that the need to provide a greater head clearance was essential then there are no physical constraints that would prevent a larger 3.4m high Underbridge from being provided.
- 4.7 In the hearing session again, it was clear that SWECO were attempting to discredit the proposed Underbridge proposal, without any real evidence to back up their statements.



## 5.0 ACCESS TO BURLINGHAM COUNTRY PARK

- 5.1 One of the main benefits that the provision of an Underbridge will provide is greatly enhanced access to the developing countryside leisure feature known as Burlingham Country Park. This is a key part of Norfolk County Council's Strategic Infrastructure Plan, see Page 53 enclosed in Appendix C. The interactive map of all the key components within the strategy states:

*This project will take an innovative approach to the way new community recreational spaces are conceived and green space must be multifunctional and deliver on many levels; access for all regardless of ability, the space must improve health and well being, mitigate for climate change and biodiversity loss, be easily accessible by public transport, benefit the economy of the local area as well as alleviating recreational pressure on nearby designated areas and finally provide a legacy that can also be valued by future generations.*

**Estimated start date:** 2021

**Estimated cost:** TBC

**Potential funding source:** Business Rates Pool, Community Infrastructure Levy, Norfolk County Council, Developer Contribution

**Scheme development:** Feasibility/development work underway on preferred option

- 5.2 The construction of the proposed A47 Dualling Scheme will effectively prevent walkers and cyclists from the south of the A47 from safely accessing this important community facility. The Underbridge proposal will effectively open access to this area for all providing a suitable link for walkers, cyclists and horse riders. If this crossing is not included within this scheme, then the increased cost of potentially retrofitting something in the future will effectively prevent the link from ever being provided, which will result in people still having to use their car to reach these facilities or even worse travelling further putting even more pressure on the Broads National Park.
- 5.3 The Burlingham Country Park proposal is also identified as a scheme of High Priority in the Greater Norwich Growth Board Greater Norwich Infrastructure Plan. See Page 63 as enclosed in Appendix D.
- 5.4 The proposed A47 Dualling Scheme provides an excellent opportunity to ensure that some of the key infrastructure is provided in terms of enabling accessibility by public transport, walking, cycling and by horse riders. The proposed Underbridge provides excellent opportunity for residents and visitors of all ages to be able to access the Burlingham Country Park safely. In our view it is essential that this key element of infrastructure is provided now as part of this scheme providing an excellent return on investment in terms of meeting regional and local green infrastructure policies.

## 6.0 COST BREAKDOWN OF UNDERBRIDGE

6.1 The following is a breakdown of the key costs associated with the provision of the Underbridge:

Underbridge Structure	£250,000
Earthwork/Ramps	£75,000
Footway/Carriageway Construction	£135,000
Surface Water Drainage	£30,000
Pumping Station	£20,000
Toucan Crossing A47	£50,000
Signage and White Lines	£20,000
Service Connections	£15,000
<b>Sub Total</b>	<b>£595,000</b>
Fees 10%	£59,500
Contingencies 15%	£89,250
<b>Total Budget Cost</b>	<b>£743,750</b>

6.2 We have been advised from Elveden Parish Council that the underpass constructed under the A11 at Elveden was provided for a contribution of £357,000 at 2013 prices which would be like the scheme that we are proposing at Burlingham. On this basis and allowing for inflation the above budget cost would seem to be robust. If this is not provided now the cost of attempting to provide a crossing facility at some time in the future when the road is opened is likely to be significantly higher in the region of £4m to £5m.

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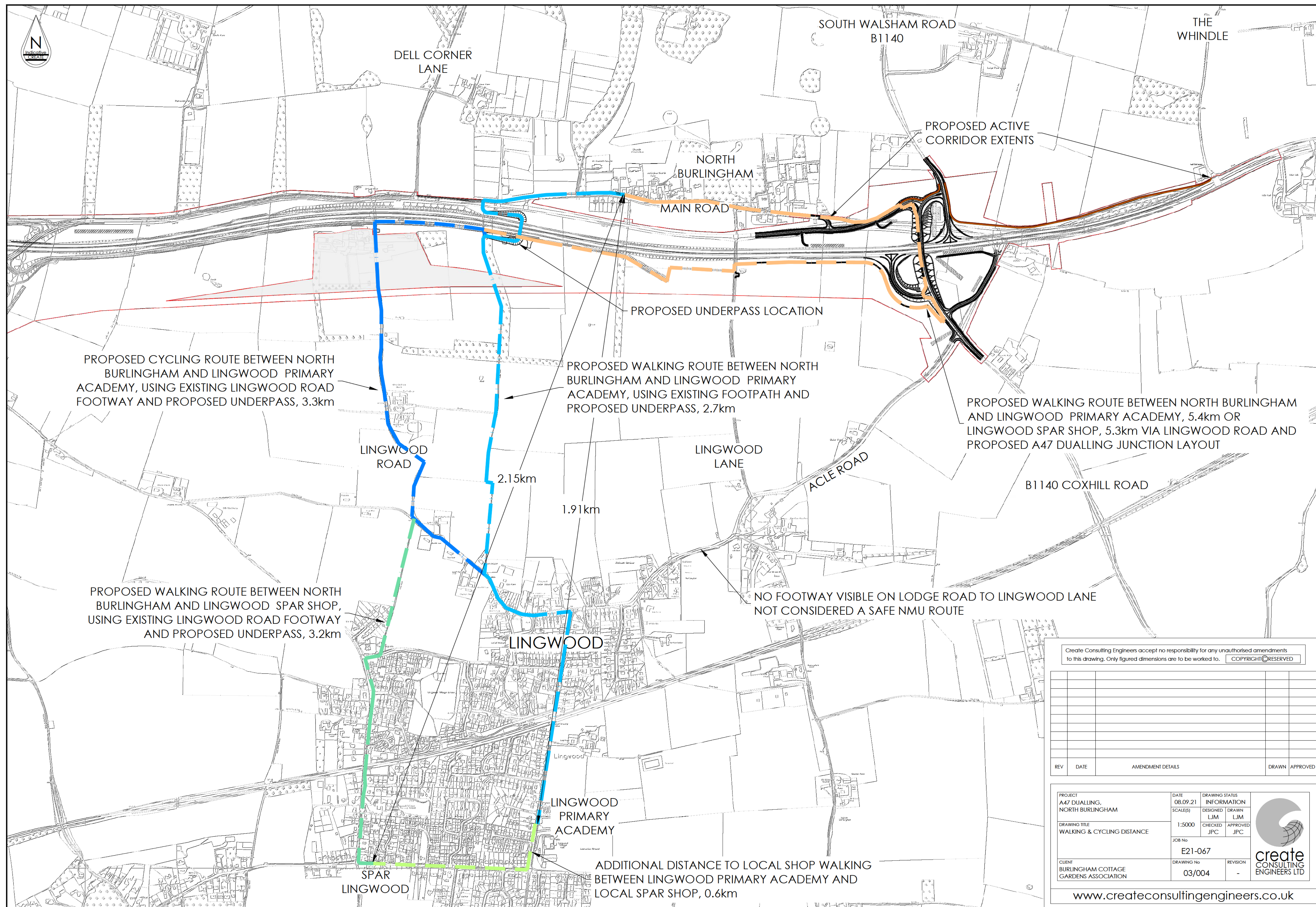
## 7.0 CONCLUSION

- 7.1 At the hearing session held on the 20 July 2021 focussing on Footpaths/Cycleways facilities and potential severance to the communities, SWECO on behalf of the Highways England made a number of derogatory statements about the potential benefits of a proposed Underbridge. It was clear however that they had not reviewed the proposals in detail, nor had they prepared any supporting evidence to support their statements.
- 7.2 SWECO/HE both stated that the proposed crossing facility at Burlingham was discounted and removed from the scheme due to lack of demand for such a feature and therefore general cost benefit. From reviewing the evidence presented in terms of potential demand this is fundamentally flawed and does not in any way consider the suppressed demand for crossing that exists in the wider catchment area including villages such as South Walsham, Upton, Ranworth, Salhouse and North Burlingham to the north of the A47 and Freethorpe, Lingwood, Beighton, Cantley and Reedham to the south. The A47 has significantly split these communities for decades, resulting in the only way of getting between the two areas safely being by the private car.
- 7.3 There is also no information provided by SWECO/HE in why the crossing facility was dropped from any of the Options 1 to 4 which were taken forward from the original 8 options. We request through the Inspector that any information on this aspect should be presented to the Inquiry so that it can be demonstrated that all the options outlined in the Environmental Statement had been considered appropriately.
- 7.4 Several technical points were raised by SWECO during the hearing, in particular drainage, however none of these have been shown to be an issue and a review of the underlying ground strata in the area of the Underbridge has been shown to be granular and suitable for drainage by soakage. The actual Underbridge and the lower parts of the ramp will be drained by a small pumping station, which will lift the water to the soakaways/filter drains at road level. All standard drainage techniques and regularly adopted engineering solutions.
- 7.5 We believe that it would be worthwhile, if possible, to design for the inclusion of horses into the crossing scheme and the introduction of mounting blocks will facilitate dismounting prior to entry into the underpass. The head clearance of 2.7m is suitable for horses which has been confirmed by British Horse Society.
- 7.6 The cost summary outlined in Section 6 shows the key elements of the scheme and in comparison, with earlier proposals constructed along the A11 in 2013 shows a fairly accurate estimate of costs being £743,750, which we believe is good value for money. The proposal opens opportunities to expand the regional cycleway network, it provides access to the Burlingham Country Park, as well as enabling communities both north and south of the A47 to integrate without having to rely on the private car.

- 7.7 We therefore respectfully request that the Inspector direct HE/SWECO to reconsider the inclusion of the proposed Underbridge proposal at Burlingham and include it in the Orders being considered as part of this scheme.

# PLANS





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REV	DATE	AMENDMENT DETAILS	DRAWN	APPROVED

PROJECT A47 DUALLING, NORTH BURLINGHAM	DATE 08.09.21	DRAWING STATUS INFORMATION	
	SCALE(S) 1:5000	DESIGNED LJM	DRAWN LJM
DRAWING TITLE WALKING & CYCLING DISTANCE	CHECKED JPC	APPROVED JPC	
	JOB No E21-067		
CLIENT BURLINGHAM COTTAGE GARDENS ASSOCIATION	DRAWING No 03/004	REVISION -	



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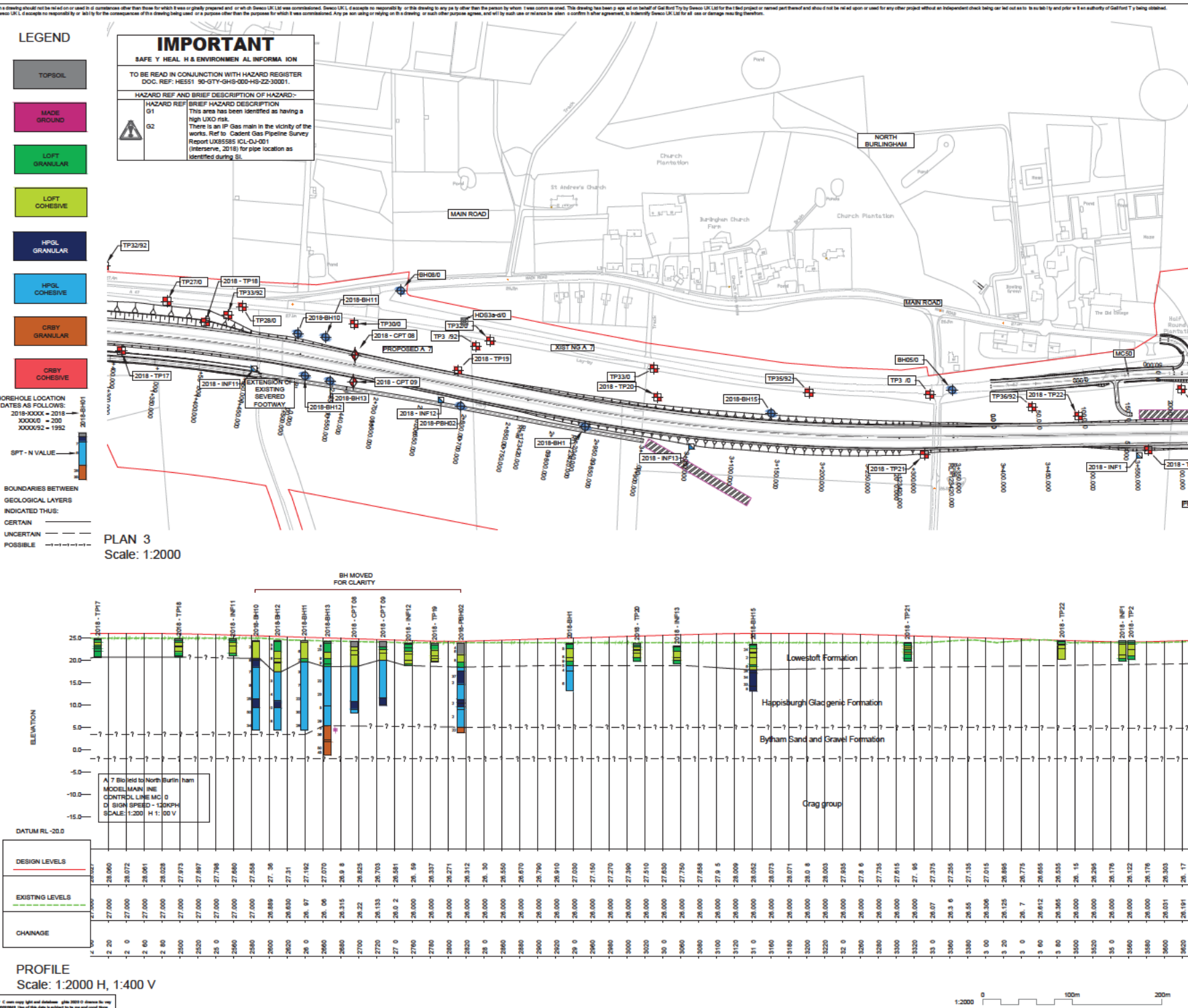
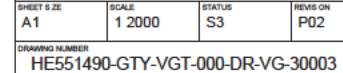
## **APPENDICES**

## **APPENDIX A**



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## **APPENDIX B**

**EMAIL from the British Horse Society  
regarding the use of underpasses and the safety of leading horses:**

From: Helen Chester [REDACTED]  
Date: 7 September 2021 at 12:31:02 BST  
To: Chris Gates [REDACTED]  
Subject: Re: Burlingham underpass

Dear Chris

Thanks for taking the time to contact me as the BHS Norfolk County Access Officer regarding the issues and proposals for the site and the concerns raised by Highways England regarding horses.

In response to the question regarding height and width of an underpass, please follow this link to The British Horse Society guidance on dimensions which clearly includes under passes:

[https://www.bhs.org.uk/~/\\_media/documents/access/access-leaflets/dimensions-0720.ashx?la=en](https://www.bhs.org.uk/~/_media/documents/access/access-leaflets/dimensions-0720.ashx?la=en)

As you will see the recommended height is 3.4m and 5m width, which allows equestrians to ride through whilst leaving sufficient room for others to pass safely alongside. However it is also evident in this guidance that if a lower height underpass is agreed locally that it is perfectly acceptable for this to be used by horses, although riders are encouraged to dismount and lead their horses through. Where this is required the BHS recommend that mounting blocks are provided at either end of the underpass to allow riders to safely remount. These dimensions provide ample headroom for even the largest of horses to safely pass without the need for a rider to dismount.

In the case of this underpass if the height is 2.7m this is lower than the recommended height of 3.4m so mounting blocks would be required to enable riders to dismount and lead their horses through the underpass.

I would also recommend mounting blocks regardless as some riders may prefer to safely lead their horse through anyway.

Regarding the assertion made by Highways England that dismounting and leading a horse is far more dangerous than riding it, this is not something I have heard before so I am unsure where this assertion has come from and it is incorrect.

As a horse rider, if a horse is frightened or unwilling to pass an obstacle, it would be normal practice to dismount and lead them past the 'danger' before remounting. Horses are flight animals and often the reassurance of having their owner walking at their head is all that is required to overcome their fear of an obstacle. It is also often much safer for the rider to be on the ground as it means that should the horse not be able to overcome their fear there is zero chance of the rider sustaining injury from a fall if they are already walking on the ground.

In the attached leaflet it refers to mounting blocks, the BHS recommend these as standard for many types of crossing, underpasses included, as they enable riders to easily dismount and remount either side of the obstacle. The leaflet also refers to the fact that with practice horses will adapt to the lower underpass height and will walk calmly through this with their handlers. I myself have walked my horse under very low bridges and underpasses quite successfully and if canal towpath bridges are anything to go by horses have proven themselves quite capable of going through low bridges and tunnels for centuries!

All horses begin work in-hand and are used to being led by their owners from the time they are born. Groundwork is the basis of all horse training. There is a very old fashioned school of thought that getting off your horse to pass an obstacle teaches the horse that they have 'won' and that they were right to be afraid. This outmoded way of thinking has been replaced with the knowledge that leading a horse past an obstacle creates confidence for both horse and rider, that it creates a safe means for horses to learn that they do not need to be afraid and enables the handler to remain calm and in control.

I guess that to sum this up it is often safer for a rider to dismount and lead their horse rather than stay on board - the complete opposite of the assertion made by Highways England.

Kind Regards

Helen

Helen Chester  
BHS Norfolk County Access Officer  
Norfolk Historic Research Lead  
BHS Nottinghamshire: Rushcliffe Access & Bridleways Officer.

## **APPENDIX C**

# **Norfolk Strategic Infrastructure Delivery Plan 2020**

**December 2020**

## Burlingham Country Park

NCC has owned land at Burlingham for 100 years and has been discussing the best use of this site for several years: the site is currently tenanted by two county farms and a small community woodland well-used by local dog walkers and families.

The Burlingham Estate is one of the largest areas of land owned by NCC at over 12.5 km<sup>2</sup>. The site was originally purchased 100 years ago as part of an NCC strategy to re-settle returning servicemen into agricultural businesses.

This project will take an innovative approach to the way new community recreational spaces are conceived and designed. It is no longer enough to just provide open space for people, green space must be multifunctional and deliver on many levels; access for all regardless of ability, the space must improve health and wellbeing, mitigate for climate change and biodiversity loss, be easily accessible by public transport, benefit the economy of the local area as well as alleviating recreational pressure on nearby designated areas and finally provide a legacy that can also be valued by future generations.

Burlingham		
Description of stage	Stage 1- Design Feasibility and Master-planning	Stage 2- Phased deliver of infrastructure identified through the master planning work
Estimated cost to deliver the stage	£60,000	TBC
Indicative timeframe to deliver stage and start date	July 20- April 21	April 21 TBC
Potential funding source	BRP	CIL, BRP, NCC, Developer Funding
Qualifications for BRP and or NALEP funding	Project delivers green infrastructure mitigation that alleviates the impact of growth in the Greater Norwich area.	
Scheme Development	✓✓	✓

## **APPENDIX D**



# Greater Norwich Growth Board

## Greater Norwich Infrastructure Plan

June 2021



Jobs, homes, prosperity for local people



## Green Infrastructure

District	Project/Scheme Description	GI Priority Area	Status	Total Est. Scheme Cost	Contributory funding	SOURCE	Funding need	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
				(£,000)	(£,000)		(£,000)	(£,000)	(£,000)	(£,000)	(£,000)	(£,000)	(£,000)	(£,000)	(£,000)
<b>Highest priority projects currently being progressed</b>															
Broadland	Pedestrian Crossing/Cyclepath - Access to Broadland Country Park	West Broadland GI Plan	Project Development. Recommended by Traffic Assessment Report NCC 2021	520000	TBC	CIL	TBC								
Broadland	Brundall shared Cycleways Project	East Broadland GI Plan	Project Development	TBC	TBC	CIL	TBC								
Norfolk County Council/ Broadland	Green Loop-connecting Broadland Way, Bure Valley Path and Marriott's Way	NE Norwich	Feasibility on-going	TBC	TBC	Other/CIL	TBC								
Norfolk County Council	Burlingham Country Park	NE Norwich - East Broadland GI Plan	Feasibility at stage 1	TBC	0	Other/CIL	TBC								
Norfolk County Council	Yare Valley Parkway	SW Norwich	Feasibility on-going	TBC	TBC	Other/CIL	TBC								
Norwich / Broadland	Lion Wood - SUDS project, to improve the drainage of water from Pilling estate through Lion Wood, enhancing and improving the biodiversity	Thorpe Ridge to The Broads via North Burlingham	Feasibility work about to commence.	260	10	Anglian Water @ NCC	250			10	100	150			
Norwich	Marriott's Way / Hellesdon Station Area	Marriott's Way and the Wensum	CIL offered. Awaiting confirmation of matched TCF funding.	453	£218k TCF, £2k Fringe / TCV	TCF / Fringe	0		-	55	311	87			