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21 \text { July } 2016
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Report of $\begin{aligned} & \text { Head of City Development Services and Executive Director } \\ & \text { of Community and Environmental Services }\end{aligned}$
Subject Transport For Norwich - Project 17 - Lakenham Way

## Purpose

To seek approval to consult on the proposals for the Lakenham Way cycle improvement scheme. Members are also asked to approve the advertisement of any Traffic Regulation Orders and Notices that would be required to enforce the scheme.

## Recommendations

That the committee:

1. approves for consultation the proposals for the Lakenham Way project, including:
(a) widening of the existing path between Brazengate and the Hall Road Bridge from a nominal 3.0 m to provide a 4.0 m shared use pedestrian/cycle path
(b) TRO for conversion of pedestrian path to allow shared use by cyclists and any other TROs required (please note that the requirement for TROs will depend on the legal status of the land - see item 14 for more information)
(c) removal and thinning of low value trees/scrub to facilitate the above
(d) upgrade of existing street lighting to provide LED motion sensitive lanterns (Brazengate to Sandy Lane). Provision of additional lighting underneath Hall Road Bridge and Barrett Road Bridge
(e) repair of steps leading to the route from Barrett Road and Hall Road and marking the cycle path alongside St John's Close more clearly
(f) repairing the shared use path between Lakenham Way and Duckett Close, including the removal of two trees currently causing root damage
(g) a biodiversity sub-project to include removal of scrub/low value trees, selective pollarding/tree thinning, provision of bird and bat boxes and hibernacula for hibernating reptiles and the installation of signs showing artwork designed by local school children about the history and wildlife of Lakenham Way.
2. asks the transportation manager at Norwich City Council to carry out the necessary statutory procedures associated with advertising any Traffic Regulation Orders and Notices that may be required for the implementation of the scheme as described in this report - this is to be carried out after land issues have been resolved (see 'Scheme Timescales' below)
3. agrees that the outcome of the proposed consultation will be reported to a future meeting of the committee.

## Corporate objective and service priorities

The scheme helps to meet the corporate priority 'A safe and clean city' and the service plan priority to implement the Transport for Norwich Plan.

## Wards

Lakenham and Town Close

## Cabinet member for Environment and sustainable development

Bert Bremner

## Scheme Timescales

Lakenham Way is currently owned by Railway Paths Limited (RPL). Norwich City Council and NpLaw are in negotiations with RPL to secure the status of the land to allow the scheme to progress. Norwich City Council have historically been carrying out maintenance work along Lakenham Way and the necessary approvals will be sought to continue this work in the event that any land remains privately owned.

A four week public consultation of scheme proposals is planned to go ahead once the legal status of the land has been resolved.

Pending resolution of the above the scheme is planned for construction in quarter 4 of 2016-17.

## Financial implications

The main scheme will be funded by $£ 385,000$ from the Department for Transport (DfT) and approx. £60,000 of Section 106 funds from the Brazengate and livestock market developments. The biodiversity sub-project will be funded by £25,000 from the DfT, $£ 7,000$ Community Infrastructure Levy (CIL) and £12,000 from Brazengate S106 funds.

## Contact Officers

Joanne Deverick, Transportation Manager - Norwich City Council

## REPORT

## Strategic Objectives

1. Norwich and its' surrounding area is becoming an increasingly popular area to live, work and visit. It is the number one shopping destination in the eastern region and becoming one of the nation's premier cultural centres. To ensure the Greater Norwich Area continues to be popular and grow, the transport systems need to be able to cope with the increased demand.
2. The Norwich Area Transportation Strategy (NATS), now more widely known as Transport for Norwich (TfN), is the adopted strategy which will deliver the transport improvements needed over the next 15 plus years. The strategy recognises everybody's journeys are different and does not look to force people to use one particular mode. It does look to give people viable options on how they choose to travel and actively promote sustainable transport.
3. The Strategy details the plan for future delivery of improvements in order to develop sustainable transport, reduce congestion and improve air quality within the Greater Norwich area. The strategy has already delivered key improvements such as the award winning Norwich Bus Station, St Augustine’s Gyratory, a network of Park and Ride facilities, St Stephens \& Chapel Field North and various Bus Rapid Transit (BRT) improvements. It also includes the recently completed Postwick hub and the Northern Distributor Road which is due for completion late 2017.
4. The implementation plan for the Norwich Area Transportation Strategy (NATSIP) was agreed by Norfolk County Council in April 2010 and updated in November 2013: https://www.norfolk.gov.uk/-/media/norfolk/downloads/roads-and-transport/ffn/nats-ip-update.pdf?la=en
The plan sets out the range of transport measures, together with their general intended phasing, for delivery over the short to medium term.
5. The plan has now been updated to take account of what has been delivered since 2010, and to reflect the latest position on future scheme delivery, given progress with implementation, and now that the growth plans for the area are more clear (see joint core strategy document: http://www.greaternorwichgrowth.org.uk/dmsdocument/1953).
6. Cycling is on the increase for both recreation and commuting nationally and the area has a thriving cycling community. The implementation of a city wide cycling network (see link to cycle map) https://www.norwich.gov.uk/downloads/file/3107/map illustrating our proposed cycling ambition programme is a key part of the Transport for Norwich Strategy as by delivering a comprehensive city network this reduces a number of short distance car journeys removing pressure on the network, as well as offering improved quality of life with well documented health benefits.

The Greater Norwich area is one of 8 urban areas across the country that has been successful in bidding for Cycle Ambition funding from the Department for Transport to comprehensively improve the quality of cycling infrastructure across
the Norwich cycle network. A copy of the application documents can be found here:
https://www.norwich.gov.uk/downloads/download/2096/cycle city ambition phase two
7. This scheme is a key part of the Yellow pedalway. Please see Appendix 1 showing this route.

## Scheme Objectives and Benefits

8. The 2015 cycle map shows the yellow pedalway being extended from the junction of Lakenham Way and Sandy Lane out to the University Technical College on Old Hall Road via Bessemer Road and Hall Road. This work is programmed to take place in September 2016.
9. Currently Lakenham Way usage data shows around 45 cyclist movements per hour and 81 pedestrians an hour. With the overall objective to double cycling on the network, this is seen to be achievable in this area due to increased development in the retail and education sector.
10. The brief for the Lakenham Way project requires the scheme to contribute to the objectives of the Push the Pedalways programme which are to:

- Boost economic growth by enabling local people to reach job opportunities, city centre facilities and link major development sites to the cycle network
- Tackle health problems in parts of the city with high levels of obesity by providing good cycling infrastructure
- Double the level of cycling within ten years of the start of the cycling ambition programme in 2013
- Broaden the demographic appeal of cycling
- Reduce the rate of accidents involving cyclists and pedestrians
- Cut carbon emissions from journeys within the city

11. The brief for this project has principal objectives that seek to:

- Increase pedestrian comfort and reduce delays to cyclists by providing more path space on the busy section between Brazengate and Hall Road
- Increase the sense of personal safety by reviewing the level of lighting and increasing it where necessary
- Improve access to Lakenham Way by repairing steps at Hall Road and Barrett Road, marking the cycle path at St John's Close more clearly and repairing the shared use path between Lakenham Way and Duckett Close.

12. All works proposed are currently within privately owned land (with the exception of St John's Close and the access path between Lakenham Way and Duckett Close). Discussions are underway to try and reach agreement with the
landowner and the scheme will be unable to go ahead until the legal status of the path has been resolved.

## Design Proposals

## Options Considered

13. A 5-page feasibility document can be found in Appendix 2, including design guidance and an options assessment. A summary of this is provided below:

At the feasibility stage of this scheme various options were considered, including:
(a) Segregation of cyclists and pedestrians. For the northern approx. 100m (at Brazengate) by means of a new physically separated footpath ( 2.5 m width) routed through another bridge arch and for the remaining 340m widen the path to 4.5 m to provide segregation of cyclists ( 2.5 m width) and pedestrians (2.0m width).
(b) As option (a) but without a new separate footpath to the north. 440 m length (approx.) from Brazengate to Hall Road Bridge to be widened to 4.5 m to provide segregation of cyclists ( 2.5 m ) and pedestrians (2.0m)
(c) Retain length of path between Brazengate and Hall Road Bridge as shared use, widening to 4.0 m
(d) Retain length of path between Brazengate and Hall Road Bridge as shared use, widening to 4.5 m

## Preferred Option

14. It is recommended that option (c) is taken forward for consultation. A site location plan along with plans showing the proposals can be found in Appendix 3 (PE4124-MP-011, PE4124-MP-007, PE4124-MP-008, PE4124-MP-009). In reaching a preferred option a cyclist and pedestrian survey was carried out on 24 March 2016 between Barrett Road and Mansfield Lane. Data recording on one day in September 2015 at the Brazengate end of the scheme was reviewed. In addition an Automatic Cycle Count (ACC) at the Brazengate end of the route has been gathering data on a continuous basis which has been monitored weekly since April 2016.
15. Assuming an increase of $50 \%$ in peak hour cyclists the flow would be considered 'low' according to London Cycling Design Standards (LCDS), requiring a shared use width of 2.2 m . A 'medium' flow is considered to be between 150-300 cyclists per hour, requiring a width of 3.0 m .
16. Sustrans design guidance indicates a suitable width of 3.0 m in urban fringe environments and a preferred with of 4.0 m on urban routes.
17. The design guidance for shared use therefore suggests that a 4.0 m path can accommodate a significant increase in demand, taking into account a 50\%
increase in cyclists. For this reason widening to 4.5 m was considered excessive, resulting in an unnecessary loss of green space/trees to accommodate it.
18. Option (c) as 4.0 m wide shared use minimises the impact on the surrounding green space including tree loss and maximises the space available to all users. A shared use design encourages considerate behaviour between cyclists and pedestrians and is line with other schemes in the area (e.g. Hall Road). A shared use design will also minimise the requirement for lining and signing, thus minimising clutter and retaining the semi-rural feel of the route. The scheme also provides better value for money in terms of balancing cost/benefit, as well as keeping future maintenance costs to a minimum and the period of construction (for which a temporary closure of the route will be needed) to a minimum.

## Traffic Regulation Orders and notices

19. The route will need to be closed during the construction period; if the land is highway a temporary TRO will be required. The extent of other TROs required will depend on the status of the land, for example whether there is a dedication or a lease in place. Conversion of the path to shared use will be required if the path is dedicated highway.

## Traffic impacts

20. There will no impact to vehicular traffic as Lakenham way is not open to motorised vehicles. A cycle and pedestrian diversion route will be in place for the duration of the closure. It is intended to issue a press release for information closer to the start of the work.

## Environment

21. Lakenham Way is a green corridor and a biodiversity sub-project will specifically look to enhance this. An ecological report and arboricultural report have been commissioned. Advice received to date has been taken into account when presenting option (c) for delivery, including the removal of 2 trees adjacent to the Lakenham Way to Duckett Close path.

## Accident reduction

22. One of the objectives of the project is to reduce the rate of accidents involving cyclists and pedestrians. Increasing the space available to all, ensuring the edges of the route are clear of trees/vegetation and improving lighting will help meet this objective.

## Public Consultation

23. A four week public consultation of scheme proposals is planned to go ahead when the legal status of the land has been resolved. Consultation will also be carried out for any TROs or Notices required. The consultation feedback and any objections will be reported to a future NHAC meeting for consideration on how to proceed with the scheme.

## Timescales

24. The scheme cannot go ahead until land issues have been resolved and consultation, including statutory consultation(s) have been carried out.
25. In the event that any land remains under private ownership the necessary approvals will be sought to continue maintenance work prior to the scheme's start.
26. Arboricultural and ecological reports have been commissioned. Due to the local environment the scheme timing may be constrained by factors relating to the presence of bats, reptiles and by the bird nesting season.

## Stakeholder views

27. Stakeholders, including the businesses in the area, local residents and local interest groups, will be fully engaged during the consultation to ensure their views are considered.

## Conclusion

28. The project is rooted in strategy documents that have been adopted by Norwich City and Norfolk County Councils and the proposals will meet the requirements of the brief by providing benefits to cyclists and pedestrians. The proposals as presented would provide the next phase of improvement on the yellow pedalway and will improve connectivity to the city centre from the city technical college.

## Resource Implications

29. Finance: The TfN programme forms an integral part of strategic infrastructure as set out in the Joint Core Strategy. The delivery of this work is funded by government grants by way of the City Cycle Ambition programme, CIL and Section 106 funding.
30. Staff: The project will be delivered through joint team working involving both County Council and City Council officers.
31. Property: The proposals cannot be provided within the existing highway boundary. Land is privately owned and negotiations are ongoing.
32. IT: None.

## Other implications

33. Legal Implications: There are legal implications relating to the status of the land which is subject to current negotiations.
34. Human Rights: None.
35. Communications: None.

## Section 17 - Crime and Disorder Act

36. The scheme will be designed to ensure it has a positive effect on crime and disorder where possible, most notably by an upgrade to street lighting. Care will be taken during construction to minimise opportunities for crime and disorder, for instance the secure storage of construction equipment and materials.

## Risk Implications/Assessment

37. A risk assessment has been undertaken for development of the NATS Implementation Plan (TfN). The key risks for delivering this are around funding, timescales and planning. These risks are being managed through active project management and ongoing engagement with stakeholders.
38. A risk register is being maintained as part of the technical design and construction delivery processes.

## Appendix 1 - Plan showing route of yellow pedalway



## Pedalways

Cross City
Cringleford $\leftrightarrow$ Sprowston
\| \| = - \| Superceeded section of pedalway
Lakenham $\leftrightarrow$ Airport
Superceeded section of pedalway
$\longrightarrow$ Drayton $\leftrightarrow$ Whitlingham (National Cycle Route 1)
Bowthorpe $\leftrightarrow$ Broadland Business Park
N NN Hospital $\leftrightarrow$ Heartsease
Circular
Outer circuit
$\longrightarrow$ Inner circuit
Local

- Neighbourhood routes


Source: Norwich City Council (2015)

## PE4124

## LAKENHAM WAY CYCLING IMPROVEMENTS - PROJECT 17

## - BACKGROUND

Lakenham Way runs along the former track bed of the Great Eastern Railway and was created in the 1990s by the City Council and Sustrans as a traffic free cycling and walking route. It stretches from Sandy Lane at the southern end to Brazengate at the north.

Project 17 relates to the yellow pedalway and includes improvements to street lighting, localised repairs to the path and steps and a biodiversity \& childrens' artwork sub-project. The main element of the brief is to provide more path space on the busy section between Brazengate and Hall Road. It is suggested that this could be achieved by providing a physically segregated path for the most northerly 100 m , with the remaining section of existing path southwards to the Hall Road Bridge being widened to enable segregation.

- SITE DATA


## Current path widths as surveyed (main path):

Brazengate - Hall Road is between $3.0 \mathrm{~m}-3.25 \mathrm{~m}$ wide
Hall Road - Barrett Road is between 2.65m - 2.95m
Barrett Road - Sandy Lane is between 2.65-3.0m
Site surveys have shown the Brazengate-Hall Road section to be more heavily used than the Hall Road - Sandy Lane section.

## Brazengate 2015/16 survey figures:

Peak cyclist flow is $45 / \mathrm{hr} \quad$ (if doubled for future growth $=90 / \mathrm{hr}$ )
Peak pedestrian flow is $81 / \mathrm{hr}$

- OPTIONS FOR CONSIDERATION

Option 1 - Segregate cyclists and pedestrians. For the northern approx. 100m section by means of a new physically separated footpath ( 2.5 m ) through another bridge arch and for the remaining 340 m widen the path to 4.5 m to provide segregation of cyclists ( 2.5 m ) and pedestrians ( 2.0 m ).

Option 2 - As option 1, but without a new separate footpath. 440m length to be widened to 4.5 m to provide segregation of cyclists $(2.5 \mathrm{~m})$ and pedestrians $(2.0 \mathrm{~m})$.

Option 3 - Retain full length of path as shared use, widening to 4.0 m .
Option 4 - Retain full length of path as shared use, widening to 4.5 m .

## - DESIGN GUIDANCE

## SUSTRANS

Recommended minimum widths, unsegregated shared use

| Urban traffic free | 3.0 m on main \& secondary cycle routes. 4.0m preferred \& consider <br> segregation where high usage is expected $(>150 / \mathrm{hr}) /$ demand to ride 2 <br> abreast |
| :--- | :--- |
| Urban fringe/semi- <br> rural traffic free | 3.0 m on all main cycle routes, major access paths \& school links <br> 2.5 m possible on lesser secondary cycle routes \& access links |
| Rural traffic free | 2.5 m on all main routes, major access paths \& school links <br> 2.0 m possible on lesser routes and links |

Min acceptable verge 0.5 m ; 1.0 m preferred
Recommended minimum widths where segregation is provided

|  | Cyclists | Pedestrians | Total |
| :--- | :--- | :--- | :--- |
| Preferred minimum | $3.5 \mathrm{~m}(4.0 \mathrm{~m}$ preferred <br> if flows $>150 / \mathrm{hr})$ | 3.5 m | 7.0 m |
| Acceptable minimum | 2.5 m | 2.0 m | 4.5 m |
| Absolute min short <br> lengths | 2.0 m | 1.5 m | 3.5 m |

## LONDON CYCLING DESIGN STANDARDS

LCDS Flow categories for partially separated and shared routes (off-road)

| Peak flow <br> categories | Pedestrians <br> per hour | Cyclists per <br> hour | Recommended effective width |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  | Shared | Partially <br> separated |
| Very low | $0-120$ | $0-60$ | 2.2 m | 3.0 m (cycle track <br> $1.2 \mathrm{~m}-1.5 \mathrm{~m}$ ) |
| Low | $120-200$ | $60-150$ |  | 4.5 m (cycle track <br> 2.5 m - 2.8 m ) |
| Medium | $200-450$ | $150-300$ | 3.0 m | 5.9 m (cycle track <br> 2.5 m to 3.5 m ) |
| High | $450-900$ | $300-450$ |  | 4.5 m |
| Very high | $900+$ | $450+$ |  |  |

- OPTIONS ASSESSMENT

| Option | Pros | Cons |
| :---: | :---: | :---: |
| Option 1 | Cyclists \& pedestrians can make unimpeded progress on the busiest section of the route | More land adoption required <br> Greater maintenance costs |
|  | Lower risk option for vulnerable users where cycle speeds could be higher | Greater installation costs, including additional street lighting |
|  | For the most northerly 100 m sections of paths it would be possible to carry out maintenance on one path at a time without needing to close the route to pedestrians | Will a significant number of cyclists take the shortest available route (i.e. ignore the segregation and use the footpath?) <br> Additional loss of green space / tree \& vegetation loss /greater urbanisation |
|  | A level difference could be used to enforce segregation effectively | Provision considerably exceeds demand even if demand is doubled - public may not perceive as value for money - risk of new section of path not being used |
|  | The option provides the greatest space to accommodate future increases in demand | Perception that a 4.5 m track is 'almost a road' may occur (urbanisation) |
|  |  | Segregation may require greater 'clutter', be it signing/lining which may be out of keeping with the local environment |
|  |  | Current users are used to sharing the path and may continue this behaviour post-segregation |
|  |  | Segregation may encourage higher cycle speeds which could increase conflict |
|  |  | Segregation may increase conflict as a result of territorial behaviour |
|  |  | Segregation using a level difference would mean greater installation/maintenance costs \& scheme duration and also reduce effective widths for both user groups |
|  |  | Less space available to both user groups |
|  |  | Low cycle flows may encourage non-compliance with segregation by pedestrians |
| Option 2 (similar to option | Land adoption is minimised \& reduced installation \& maintenance costs compared to | Less space available to users for the most northerly 100 m section (most heavily used) |


| Option | Pros | Cons |
| :---: | :---: | :---: |
| 1) | Option 1 <br> Reduced urbanisation compared to Option 1 <br> May be perceived as better value for money than Option 1 <br> Provides significant space to allow for future growth in demand | May be higher risk to vulnerable users due to less physical segregation to the north <br> Less flexible maintenance options <br> This option provides greater width than suggested in the design standards even if flows are doubled perception of value for money and greater vegetation loss / urbanisation <br> Conflict and territorial behaviour resulting from changing from shared use to segregated use may occur |
| Option 3 | Shared use provides more space for everyone \& maximises effective width <br> Less space in total is required compared to a segregated route - better use of space, reduced urbanisation <br> Signing/lining clutter is minimised <br> Width provides ample space in relation to design standards whilst still allowing for future growth in demand <br> Reduced installation cost/time \& maintenance liability <br> Good forward visibility increases appropriateness of shared use <br> Promotion of considerate behaviour <br> Cycle speeds may be lower <br> Design more sympathetic to the local environment in terms of the amount of hardstanding, tree/vegetation loss and requirement for signing/lining <br> No disbenefits for either user group compared to the current situation | Width is not sufficient to allow for future segregation through the use of lining and signing <br> Potential higher risk to vulnerable users <br> Lack of segregation may impede cyclists progress |


| Option | Pros | Cons |
| :--- | :--- | :--- |
|  |  |  |
| Option 4 <br> (as <br> option 3 <br> but <br> wider) | Provision of a 4.5m wide route <br> now would allow segregation to <br> be installed quickly and cheaply <br> (using lining \& signing) in the <br> future if desired | 4.5m Is considerable wider than the design standards <br> and data suggest is required. The disbenefits <br> associated with this are increased urbanisation, <br> tree/vegetation loss and perceptions about value for <br> money. |



## Norfolk County Council at your service

DRAWING TITLE

## Transport for Norwich: Lakenham Way Site Location Plan

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Tom McCabe
Cxecutive Director of
Norfolk County Council
County Hall
Martineau Lane
Norwich NR1 2SG
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| DESIGNED BY | AJC | 06/16 |  |  |
| DRAWN BY | AJC | 06/16 |  |  |
| CHECKED BY | MA | 06/16 | SCALE | FILE No. PE4124 |





