SPOKES The Lothian Cycle Campaign

Postal address [we have no staff]: St. Martins Community Resource Centre, 232 Dalry Road, Edinburgh EH11 2JG
Website: www.spokes.org.uk *Email:* spokes@spokes.org.uk *Bluesky:* @spokes.org.uk *Answerphone:* 0131.313.2114

Tram, Granton to Bioquarter consultation

Spokes Planning Group response, November 2025

1. Introduction

Spokes has the objective of promoting cycling as part of an overall sustainable transport and access strategy. As such, we support a growing tram system for Edinburgh, provided cycling is well catered for in the project design and operation.

The aim of the tram is to reduce car traffic, and to head off potential traffic growth in development areas such as Granton and the Bioquarter. If successful, this is a huge benefit to walking and cycling, as well as its benefits in terms of congestion, public health and climate. However, the project should be accompanied by complementary measures to further encourage use of public transport and active travel, for example bus gates, traffic filters, and, notably, congestion charging. It is well established that traffic reduction is best achieved by a carrot/stick combination.

The tram project must support and promote active travel as a whole, and cycling in particular, and must not introduce additional dangers without effective mitigation. The Council has ambitious targets to increase cycle use, much of which must come from novice and inexperienced cyclists, as well as visitors and locals using an expanding bike hire scheme. As such it is essential that there is a safe, comprehensive and connected bike network of segregated bike lanes and low-traffic areas, easy and safe to use by anybody, and with any kind of cycles - including cargobikes, adapted bikes, hire bikes, etc.

Introducing the tram should be seen and planned from the outset as an integrated sustainable transport place making project, not a tram-only project into which cycling and walking have to be slotted in once all the tramline decisions are taken as happened with tramline 1 and to a considerable (though lesser) extent in the Newhaven extension.

In this submission, we comment on the current proposals (autumn 2025), noting problems, possible solutions, and opportunities.

Please note - Spokes has also reviewed the previous consented proposals for the Roseburn to Granton corridor available via the Planning Portal to provide additional context about the original intent of this route alignment. They provide supplementary information especially around the Granton redevelopment designed around the intended tram infrastructure.

2. Decision criteria

In all decisions on the tram project, Spokes considers that the following criteria are crucial.

- **Traffic reduction**. Traffic reduction is a major factor in positive cycling conditions throughout the city, and a major contributor to desirable outcomes on congestion, public health and climate. Thus decisions, such as in the Bridges corridor, must have traffic reduction as a top objective.
- **Improving cycling conditions**. Every opportunity should be taken to improve cycling conditions – for example, if the Council selects the Roseburn route the project should incorporate a new active travel bridge over the mainline railway linking to the superb new Roseburn to Union Canal path.

- **Not worsening cycling conditions**. Our biggest concern from the tram proposals is dangers from onroad tramlines, with literally hundreds of reported cyclist injuries, and one death, on the original tram route. This is a major concern in the Bridges corridor and the Orchard Brae section of the proposals. In view of the seriousness of the issue, we include below a separate section on bikes and tramlines. Furthermore, under no circumstances should the offroad-integrity of the North Edinburgh Path Network be broken - in other words, all road crossings should remain grade-separated.

3. General points relevant to the scheme as a whole, or all areas

- **Procurement, design and construction needs to incorporate** lessons from the previous tram projects, with cycling incorporated into the proposals from the outset. Spokes reiterates that an Active Travel Team member should be embedded into the tram team, and Active Travel fully involved throughout design and construction. Also any proposed alternative cycle provision must be completed and operational before construction commences on the chosen tram alignments.
- Edinburgh was (and, we think, still is) a pioneer in the UK in catering for **bike carriage on the trams**, albeit this is fairly common in many European and US tram systems. With the planned tram extensions, including eventually over long distances into the Lothians, it is vital that the policy continues and, in particular, that the design of further tram vehicles continues to enable this.
- The consultation materials do not **appraise the impact on cycling levels** of the proposed tram routes - although this is done for motor traffic. Given the Council's ambitions for increased cycle use, this is essential and should be included at the next consultation stage. Tramlines will deter some cyclists, whilst any reduction in the attractiveness of the offroad Roseburn section could have an impact. Conversely, if the tram succeeds in cutting car use, this will benefit cycling.

4. Tramlines and bikes

Tramline bike crashes are an extremely serious issue, given the ongoing history of injuries (and one death) on Edinburgh's first tramline, and the danger of repeating this in new onroad sections. The design of Edinburgh's initial tramline onroad sections paid minimal attention to cycling (or walking), despite the best efforts of Spokes, including bringing over a Netherlands expert, Hans van der Stok [his report]. That tramline was designed purely from the tram perspective rather than that of an integrated sustainable transport corridor as van der Stok said would be the norm in the Netherlands.

The result was many tramline crashes and injuries, with substantial compensation costs to the Council, pain and anguish for the individuals concerned, lost productivity for employers and a costly Council blackspot remediation programme occupying several years and much officer time. Whilst crashes have reduced significantly, they continue (particularly as many crashes are not at blackspots). However, the Council did learn from this, and the subsequent extension to Newhaven, whilst far from perfect, incorporated segregated bike paths on Leith Walk. To the best of our knowledge, there have been zero tramline crashes on Leith Walk (apart from one at the complex Foot of the Walk junction where cycle provision is poor).

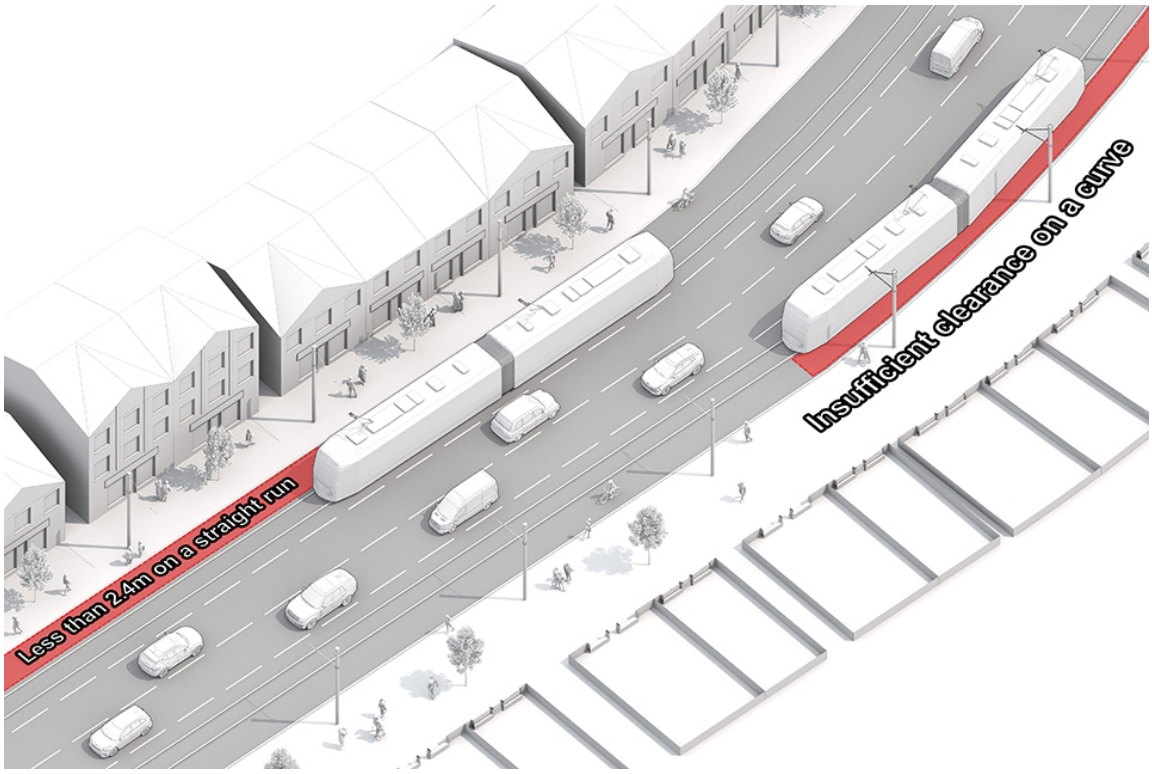
Spokes operates an online reporting page for tramline crashes, which currently has over 70 responses. Obviously, given that there have been literally hundreds of A&E tramline-crash visits, our survey is only capturing a small percentage of victims. Nonetheless, the 72 responses so far are sufficient to provide some myth-busting data which are relevant in thinking about tramline design. In particular...

- 64% of cyclists experiencing a tramline crash were intending to continue in the same direction as the tramlines, rather than (36%) to cross the tramlines to the other side or at a junction. [In many cases the crash was due to traffic pressures, in others due to layout]
- 36% happened when there was "very little or no traffic"
- However, 47% said that traffic pressures or worries about nearby traffic contributed to their crash
- 38% were caused by skidding, 21% by skidding followed by wheel-trapping, and only 31% by wheel-trapping alone
- 71% of crashes were in daylight, 29% in lighting-up time
- 85% of victims said they were "reasonably or very" confident cycling in traffic
- 56% said they regularly used the route in question, 35% occasionally, and for only 10% was it the first time they had encountered these tramlines

4a. What can be done to reduce cycle tramline crashes?

- **Physical separation of cycling from tramlines** is without question the best solution. For example, avoid wasting width e.g. where overhead cables can be attached to buildings or to road-edge poles rather than requiring a central reservation; or use of battery operation not requiring cables.
- **Both tramlines on one side of the road with a bidirectional cycleroute on the other side** provides full separation, and additionally means that most tramline crossings can be near 90 degrees. However this solution would need careful consideration where there are many side roads, meaning extra complexity for some bike journeys.
- **Single-track running** (whether central or on one side of the road) provides considerable extra width, which can be used for segregated cycling, or at least greater separation from tramlines, as well as for wider footways.
- **Bus gates** do not provide separation, but could greatly reduce traffic pressures, which our stats suggest contribute to around 50% of tramline crashes.
- **Alternative routes on parallel roads** will assist some cyclists, but where the tram route is significantly more convenient, due to directness, gradients, local shopping or other local destinations, many or most cyclists will continue to use it, as is clearly seen in Princes Street. Our data shows that a high proportion of tramline crash victims consider themselves to be confident cyclists (and presumably were not expecting to crash on a tramline) - such cyclists would continue to use the most direct route. As regards local access, one Spokes member who lives (and shops) in the Bridges corridor told us, "*Whilst I will use a nice segregated route if it takes me where I need to go, surely the future requires all roads to be suitable and attractive for cycling*" - including for "*local access*."
- It is **absolutely essential to avoid kerb-adjacent tram stops** (proposed at North Bridge and Newington area). These would compel onroad cycle users to cross tram tracks at an extremely dangerous angle. This would be ***intolerably dangerous*** and would undoubtedly result in a continuing tally of frequent tramline bike crashes, reminiscent of the early days of the Haymarket layout - although in that case, mitigation was possible, whereas it would be impossible with kerb-adjacent tram stops (except through **'floating' tram stops**, which are unlikely to be feasible here in most locations). See Sheffield Council's '*Tram / Cycle Infrastructure Review Study*' of retrofitting works for many kerb-adjacent tram platforms here.
- At the time of the early tramline crashes, TIE spent some time investigating **tramline fillers**, and concluded there were none which worked in the type of onroad tramline rails used in Edinburgh. We doubt that the position has changed, though fillers and/or rail types could be re-investigated. *If so, it is essential to note our above data suggesting that skidding is a bigger contributor to tramline crashes than is wheel-trapping*, so any fillers would need to be carefully investigated as to whether they worsened or ameliorated skidding.

- **Width between Kerb and tramlines - where trams may overtake cyclists**. Recent Active Travel England Guidance issued on 06.11.2025 '*Guidance Critical safety issues for walking, wheeling and cycling*' outlines the **effective width next to tram lines** needed for safe cycling beside tramlines. The guidance notes; "*This critical condition is considered present when the width between the nearside tram rail and the kerb edge is less than 2.4m on a straight section of the tram track. This is based on allowing 700mm for the swept envelope of the tram measured from the nearside rail, adding 200mm to the edge of the cycle lane as recommended by UK Tram, and allowing for a cycle lane of 1,500 minimum width… There needs to be additional clearance at curves to account for the tram's swept envelope. Typically, trams in England have a swept envelope, such that the 2.4m figure must be increased to 3m on a curve, but this should be checked in each situation.*"



Active Travel England - Effective width next to tram lines diagram

- **Width between Kerb and tramlines - where trams may not overtake cyclists** The above new guidance also references LRG 19.0 LRSSB, Cycle Tramway Interface Guidance, which additionally covers the situation in constrained locations where the tram may not pass the cyclist and so the danger is solely related to the tramlines. Para 4.4 states: *"In constrained environments where specific cycle provision cannot be accommodated (for example, city centres), the clearance between kerb and the nearest rail should be an absolute minimum of 1000 mm. Where practicable, any obstacles must be removed from that area, for example, using kerb drainage rather than in-carriageway drainage*." We note that tramline 1 in Edinburgh does not always meet this "absolute minimum" and we refer to a tramline crash at Haymarket Yards, with life-changing injuries, which resulted from a pedestrian stepping off the footway into the too-narrow width. We would also suggest that 1.5m should be a more appropriate minimum objective, especially where the cycleroute continues for some distance.

Commentary on individual route sections (from north to south)

5. Granton to Crewe Toll

- Between Granton and Ferry Road / Crewe Toll the tram would run off road alongside existing roads, rather than onroad, which would avoid most tramline problems for cycles, although careful consideration is needed at the crossing points that will be necessary. This will include a short section on West Harbour Road - a very popular leisure cycling route. This presents an opportunity to introduce cycle segregation here. In the 2007-8 proposals there was no upgraded route westward. Spokes would seek this provision to be linked westwards to West Shore Road and Waterfront Avenue.
- Along Waterfront Avenue the existing shared use paths to the north and south of the tram alignment should be improved as part of the tram works. Also Spokes would support the retention of the existing trees along the alignment. They should be protected during construction now they are well established.
- Where the tram crosses Waterfront Avenue close to the Saltire Square tram stop the angle of crossing the tram tracks for on road cycles is concerning. Spokes would like this to be designed to incorporate safer facilities for on road cycles rather than retrofitting subsequent to construction.
- We support the retention of the existing bidirectional cycleway on the east side of the West Granton Access Road. However there needs to be better links for cycles to the west side and West Pilton Way. The previously removed toucan crossing at the tram stop will need to be reinstated.
- The position at Crewe Toll is unclear, particularly if the Orchard Brae option is used. It is essential that the continuity of the segregated offroad path, including the Red Bridge, is maintained, whilst safety and route continuity must also be a priority for cyclists at road level, notably at Ferry Road roundabout. The detailed design stage must clarify all these points.
- If the Roseburn option is chosen a design option should consider if the red bridge cycleway can cross the tram stop at high level and drop to the south (as the tram tracks drop to road level at the north). This would mean cycle users of the NEPN from Roseburn to Leith may not need to cross the tram tracks at all.

6. Crewe Toll to City Centre, via Roseburn corridor

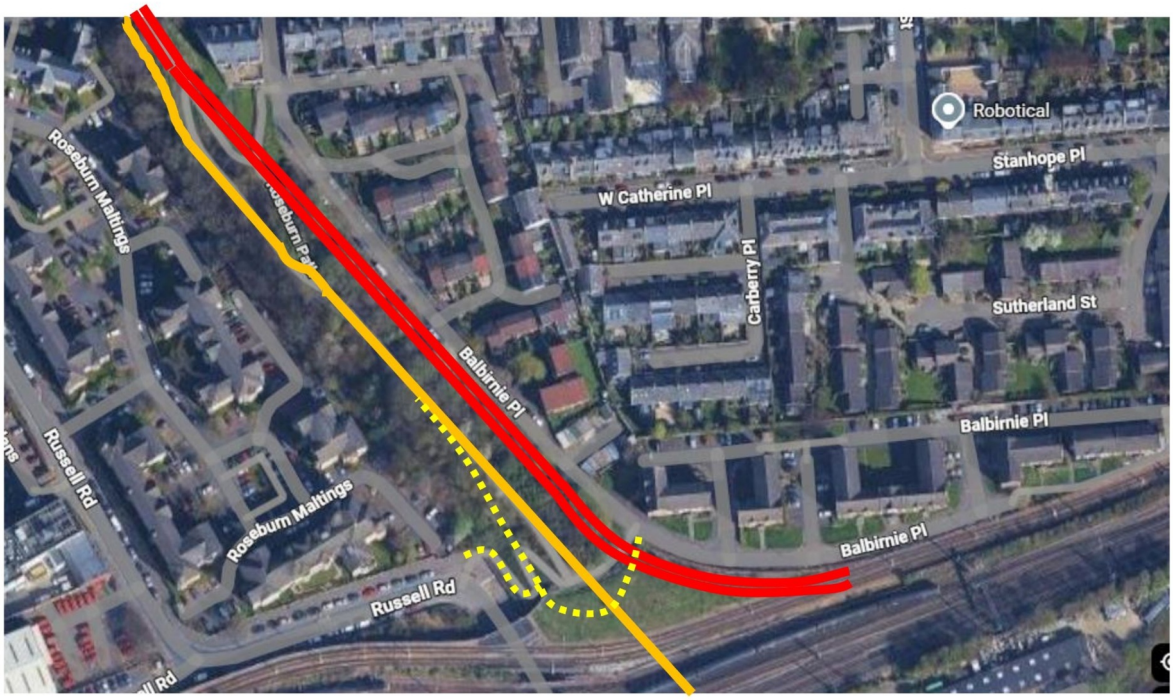
Top Issues

- ***North of Roseburn*** - the Council is to be congratulated on modifying the project north of Roseburn bridge to single track, and with battery running, enabling a 3m+ active travel path (with one identified pinch point at Telford Road – see below). This follows the instruction to the tram team by councillors at the 1.2.24 Transport Committee for which we again thank all members and others who contacted councillors at that time. If at the detailed design stage there are problems with achieving the full 3m at any point, measures such as moving the tramway slightly laterally, or modifying embankment or cutting heights should be employed to ensure the full 3m.

- ***South of Roseburn*** - the connection from Roseburn to the superb new path to the Canal lacks clarity, and indeed there are contradictions in the consultation materials – see these clarifications from the tram team, the Roseburn bridge cross section, the path cross section, the artist impression and the map view. Furthermore, some of these materials talk of 2m width, which is clearly substandard. We appreciate that there are engineering challenges here, but challenges are there to be met. Secondly, the consultation does not mention the massive opportunity to implement the Mobility Plan project [Mobility Plan, Active Travel Delivery , page 43] to connect the two paths with a **bridge over the existing tramway and mainline railway**, meaning no need to descend to road level and up again. Both these issues would raise costs but would be a minor element of total project costs, the benefits to active travel of the level connection would be transformative, and not to include the bridge if the tram uses Roseburn would render it unlikely for the foreseeable future. In summary, the Council must seek to include this connection between the two routes, with the requisite engineering studies and costings before the next consultation. Ideally the connection would be the 4m width of the new Canal link, but certainly no less than 3m, and with no pinch points. See bullet points below for detailed suggestions.
- ***Ambience and nature value*** - Strava heatmaps and cycle counts by Sustrans indicate that the Roseburn Path is one of the most used off-road cycle paths in Edinburgh. Paths like Roseburn are particularly helpful for those who value a quiet semi-natural environment or who fear the roads. Jacobs note: "*The Roseburn Path is a location that is expected to be particularly contentious and require policy trade-offs between active travel and tram*". If the tram uses Roseburn, every effort must be made in this "trade-off" to preserve these conditions as far as possible.

Other and more detailed issues

- **Connecting Roseburn to the new Canal link path** - The sketch below shows a possible layout for this crucial linkage. The yellow dotted line shows a ramp down to Russell Road, but this is possibly optional if it would cause engineering difficulties, given that most people will stay at high level, whilst those needing to descend or ascend could do so at Roseburn or at the nearby ramp to the new canal path. Finally, we understand that earlier discussions with Network Rail did not meet objections to a bridge provided that all necessary clearances are achieved.



Possible Roseburn active travel bridge in association with Roseburn tram alignment

Key: Red lines – suggested approx. tram alignment ramping up to A8 crossing . Orange line. Suggested active travel path . Yellow line. Potential access ramps to active travel path

- ***Immediately south of Roseburn bridge*** – the path here is shown at a width of 2m, presumably due to the embankment width. Widening to 3m or ideally 4m should not be an insoluble engineering problem. The embankment slopes may need reinforced earth - this was done next to the West Approach Road on the new Union Canal link path - and/or possibly a retaining wall. A further possibility for tackling the engineering problems immediately south of Roseburn bridge would be to extend Roseburn bridge southwards for an appropriate distance, as in the diagram below. We note that the distance required for this new bridge would be similar to the existing tram/active travel bridge over the Edinburgh-Glasgow railway at Carrick Knowe, and much shorter than the viaduct at Edinburgh Park.

- ***Integrity of the path south of the A8*** - As mentioned earlier there is lack of clarity here in the consultation documents. Indeed, in the aerial map view, the path leaves the embankment pushing cyclists onto a road before swinging round through a newly built tunnel into Russell Road. Clearly good connections will be needed, from the path, down to the A8, CCWEL and Russell Road, but *do not replace the necessity of a continuous offroad path - if at all possible at high-level, as above.*
- ***Impact on cycling levels*** - As mentioned in 'general points' above, no appraisal has been made of the impact of the tram on cycling numbers in any section, during or after construction. As regards the Roseburn path option, negative and positive factors to consider in an appraisal should include: i) the shift from the path as a quiet, attractive green space to a multi-modal corridor; ii) increased time to transit through the Roseburn Path due to wait times to cross tram tracks; iii) increased conflict associated with identified pinch points; iv) increased surveillance during dark evenings; v) the impact on numbers of a bridge over the mainline railway, should that be included.
- ***Telford Road pinch point*** - Cycling by Design guidance indicates that a path of at least 3m width is required here. We also note that 5m was considered in the 'do max' option of the Jacobs Steer ESST Phase 2 report, although this is only required for 300 peak-hour trips in each direction, and would have entailed replacing the structure. If the Cycling by Design guidance cannot be followed, then a Design Review is required, with answers to the 7 bullet points at the foot of page 43 of CbD (section 2.8) and this must be included at the next consultation stage. One option might be to construct a separate active travel underbridge through the existing structure - although potentially costly, this should be investigated as a solution to the pinch point.

- ***Segregation between tramlines and cycle route*** We strongly support the proposed buffer zone and fence separating cyclists and walkers from the tramlines for most of the route. We note a cyclist death in Cambridge where kerb-only separation was used on a guided busway parallel to a shared use path https://www.bbc.co.uk/news/uk-england-cambridgeshire-59119571). The barrier must be of sufficient height and width to meet HSE requirements. It is also an opportunity to design in lighting columns - to maximise the available path width and to reduce the possibility of lighting being obscured by lineside tree growth.
- ***Tramline crossings*** - Crossings are essential, notably at access points. Detailed design should encourage cyclist crossing at 90 degrees, to prevent wheel-trapping and to reduce skid risk. Particular design care is needed for pedestrians, given the September 2018 pedestrian death at Saughton and the findings of FAI Determination: https://www.copfs.gov.uk/about-copfs/news/fai-determination-published-following-pedestrian-s-tram-death/#:~:text=The%2053%2Dyear%2Dold%20pedestrian,his%20way%20home%20from%20work. Furthermore, measures to prevent children and dogs from straying onto the tramlines at crossings, where the fence will presumably have to end, must be included in the detailed design. In summary, crossings can be unacceptably dangerous if not well designed, and so it is essential to follow all relevant design guidance.
- ***Access points*** - All access points should be carefully designed for full accessibility and to maximise safety during hours of darkness.
- ***Loss of greenspace impacting on attractiveness for cycling*** - the documents make clear there will be a permanent reduction in green space and habitat, and this will reduce one of the attractions of the route to users, as well as being a biodiversity loss. Full details should be provided in the detailed plans of how lineside vegetation will be managed, to maximise the ecology and the ambience. We would like officers to be made aware of the Cinderhill stop on the Nottingham Tram network which has extensive mature vegetation along a former single track heavy rail corridor to evidence retention of vegetation is possible.

Cinderhill: https://maps.app.goo.gl/v1q7AQtenqXodZUA8 & https://maps.app.goo.gl/Gpiv7o6JCDQZssXk9

- ***Craigleith interchange*** - this is a key node / meeting point of the various connecting paths, which will now have a tramline passing through, risking losses in terms of people, place and onwards connection. However, it is also an opportunity to create a well considered 'place' for enhanced use and connections to and from the surrounding residential and retail area. Spokes would like to confirm there is room for tram-based shoppers as well as cycle users of the toucan crossing to the popular retail park to wait safely away from tram tracks without blocking the north / south route.

- ***Crewe Toll to Craigleith*** - There are several places where cycling provision would be on active travel paths separated from the tramway (for example cross sections 7, 9,10,11,7). In particular, between Telford Road and Easter Drylaw Park, according to cross-section 9, a new cycleway through the adjacent Easter Drylaw Park, separated from pedestrians and the tram. Given that there have been occasional attacks on users of the existing path, every effort should be made to ensure that the new layouts, lighting, etc reduce such opportunities.
- ***Roseburn Tram Stop*** - Given existing tram vehicles have a capacity of ±250 people, the detailed design must show that there is room for cyclists and pedestrians to continue to use the route before and especially after popular events at Murrayfield Stadium. There must be space for tram users to wait safely away from tram tracks without blocking the north / south cycle route. Event management such as at the existing Murrayfield Tram stop should be considered in the placemaking proposals.

7. Crewe Toll to City Centre, via Orchard Brae

Top issues

- The onroad tramlines, combined with traffic pressures, including at several junctions and narrow sections, present a major hazard to cyclists, given the absence of segregated provision. Indeed, the current proposals actually remove existing segregation on Queensferry Road and Crewe Road South, presenting a situation similar to the bike-crash-prone first tramline. The Council needs to provide detailed plans of how these dangers will be mitigated. Spokes also emphasises the need to link this existing temporary provision from Crewe Road South to West Granton Access Road across a redesigned Crewe Toll junction.
- That said, should the Orchard Brae alignment be chosen for the tram, the popular Roseburn Path would remain unchanged, avoiding any compromises (or improvements) which might result from a tram route on that alignment.
- Spokes understands that this route or parts of it may, if the Roseburn option gets the go ahead, be proposed as a cycle diversion during construction. The points/issues above and below need to be taken into account when designing such a diversion. “Parallel” routes to the east and west should also be considered.

Other and detailed issues

- ***Single-tracking*** - Spokes would welcome CEC investigating single-tracking on Dean Bridge in order to provide a safe cycling route, rather than stating “*cross-section prohibits segregated cycle provision*” given a longer section is being proposed (>1km vs 200m) on the Roseburn route alignment option.
- ***West End junction*** - This route joins the current tram network at the West End junction where there have been many injuries, and the tragic death of Zhi Min Soh. The opportunity must be taken to make the junction safe for cycling (particularly given the existing and the new tramlines) and to link up safely and effectively with the Lothian Road Boulevard Project, whichever project comes first.
- ***Crewe Road South*** - This is a very important route for cyclists, giving access to: the Western General Hospital, Fettes College, West Woods Leisure Centre; Residential areas; etc. The proposed central reservation will severely restrict opportunities for safely crossing the tram tracks and turning right into and out of these origins/destinations. Consideration needs to be given as to how these issues can be overcome - for example, would side-poles and no central reservation help.
- ***Carrington Road junction*** - Quiet Route 20 crosses Crewe Road South and is a very popular route used by many leisure cyclists as well as commuters etc. The design needs to provide safe crossing for cyclists and most importantly safe routes to join/leave QR20 from/to Crewe Road South.

- ***Orchard Brae roundabout*** - Spokes suggests that a "Cyclops"-style cycle facility is provided to a four arm junction here.
- ***Lynedoch Place/Queensferry Road*** - The carriageway is very narrow in the area where these streets join. The current cycle facilities are very disjointed. The opportunity must be taken to provide continuous safe cycling space through this area, with priority given to uphill cycling.

8. City Centre to Bioquarter

Top issues

- **The section through North and South Bridges** is of *extreme concern* to Spokes, with no cycle provision, new tramlines and continued through traffic on a road where width is at a premium. This is making cycling provision far worse than in the current bus lanes. The project should include a bus gate / modal filter (as was planned, though never implemented, as part of the Spaces for People proposals) potentially single track sections (like at Roseburn) and fully segregated cycle provision, or consideration to tram tracks on one side of the road and a bidirectional bike path on the other. For the reasons in the following two bullet points, many cyclists will continue to use this corridor - our above section on *Bikes and Tramlines* notes that Princes Street as a good example of this, with many choosing not to use the quieter George Street when it is less direct or lacks desired destinations. Thus cycling conditions *must* be safe.
- Whilst **alternative north-south routes for cycles** are proposed in the consultation, these would not suit all journeys, with many cyclists using the Bridges to travel between South Edinburgh and Leith given the more suitable gradient and directness than the Mound. And whilst there is a brief reference to the proposed Meadows to George Street route on the west side of the Bridges, there is no reference to the east side, where the Mobility Plan suggests a new active travel bridge connecting from the Old Town to Leith Walk. Such projects must be an integral part of the tram project provision including during the construction phase, also providing a permanent legacy of improved provision once finished.
- The Bridges corridor is **a major residential, shopping and destinations location**, and many cyclists use it for that reason; indeed many live along or just off the corridor. Routes via the Mound or Pleasance are *irrelevant as alternatives* for these categories of user.
- **The North Bridge tram stop** is inappropriate for a range of reasons, and should be replaced by two stops - one on Princes Street near the Waverley Steps and one near the High Street (Royal Mile) see details below.
- Viable **alternative north-south routes for trams** have been discounted without consideration for impacts on cycling of the proposed option. Indeed, in view of the many and serious problems with this section (see above and below) the **alternative route via Morrison Street and the Meadows** which has been identified as a possible future extension could now be reconsidered as the initial route. We note that Edinburgh World Heritage is also calling for this change in their response to the consultation. Other benefits include added resilience when Princes Street needs to close for events or other reasons, and fuller integration with Edinburgh University. Furthermore, a Meadows alignment means that the existing cycle provision in the Meadows would ensure less conflict with tramlines and with other users.

Other and detailed issues

- ***'High Street' tram stop* -** The residents and major institutions in the Old Town are key tram users, and key cycle trip generators and destinations. No tram stop provision in close proximity to the Royal Mile means the tram as proposed just runs through the Old Town rather than serving it. A tram stop should be included here, with full bus and cycle interchange designed in. If the stop was an island type at the North Bridge Arcade there could still be opportunity for lifts to/from Market Street for Waverley Train Station at the north end of the tram platform, in addition to the famous Scotsman steps and ramped access via Cockburn St.
- ***'Waverley Steps' tram stop*** - A stop here on Princes Street would be in close proximity to the existing Waverley stepped, lift and ramped access routes, and would serve local Princes Street users better than having to walk up along North Bridge or to St Andrew Sq to access the tram. Indeed, being on Princes Street and close to George Street it provides a much better opportunity than North Bridge for an integrated tram/rail/bus/bike interchange.
- ***North Bridge tram stop*** - Spokes believes this proposed stop should be dropped and replaced by the two above, for a whole range of reasons, including those above. Primarily a tram stop on North Bridge with platforms on either side rather than a central platform, would compel cyclists to cross tramlines at an *extremely dangerous* angle to pass the platforms – see Bikes and Tramline above.

  Whilst the proposed stop would serve Waverley 'from above', so would the two alternatives - both of which already include nearby stepped and ramped access to the station, plus the existing Waverley Steps lifts. This is a far more flexible – and resilient – solution than a lift-only North Bridge stop. Secondly, many of the tram users would be accessing the Old Town or Princes Street, rather than Waverley. There is no indication of the size and numbers of lifts that would be provided. A stop on North Bridge would at worst mean all these people (±250 per tram x 2 = ±500 every ±6 minutes at peak) having to negotiate lifts or the crowded and convoluted pavements to reach their destination below. There is no information on lift provision for these numbers. Given this is noted as the busiest tram stop on the entire tram network it seems misguided to plan for this without considering the critical vertical movement of people alongside the safety and convenience of cycle users and pedestrians using North Bridge.
- **East End junction**

  Only preliminary details of this layout are given, but we are extremely concerned about the implications for segregated cycling provision here and in the adjacent section of Princes Street, as well as the interaction with tram rails. The Mobility Plan and the Princes Street consultation proposals all indicate the need for high quality bike links at the East End (and West End) of Princes Street, and the detailed design must ensure that these requirements are met.
- **Bridges to Nicolson Square**

  Spokes is concerned that the section at the Tron Kirk would be especially hazardous to cycles given the lack of safe cycle provision and bus / loading bays adjacent to the kerb. We suggest single track operation from here to Nicholson Square would be safer for cycle users. This is not uncommon as there are several examples of single track urban tram examples from the UK & Europe:

  Amsterdam T4 - Utrechtsestraat https://maps.app.goo.gl/65ayH1iYJvyiVYv68

  Valenciennes T2 - https://maps.app.goo.gl/MBVtxpB9BEB9Lfnc9

  Given the Roseburn route option has been reduced to single track for a portion to suit space constraints then this should be investigated for South Bridge too.

  The Valenciennes T2 tramway has several single track bidirectional sections that provide a high frequency service. There are other examples that provide for separate tram pathways for a bidirectional operation much like one way streets already used in many parts of the city.

  Nottingham NET - Noel Street: https://maps.app.goo.gl/3iE1x4ZPhePoff9j7 & Radford Road https://maps.app.goo.gl/8XXi3vkm3sAyhvms6

  Dublin - O'Connell https://maps.app.goo.gl/DzoCXHS1tGQiFTRRA & Marlborough Street https://maps.app.goo.gl/sZ2as5MLd3xkVas86

- There is an alternative routing in Edinburgh which Spokes suggests for investigation for northbound trams, if not already considered; this is via Market St / Jeffrey St / Pleasance. The gradient of Pleasance has been flagged as too steep however Orchard Brae is steep and is being proposed. Also trams in Sheffield already run at a 10% gradient so this option should be reassessed.

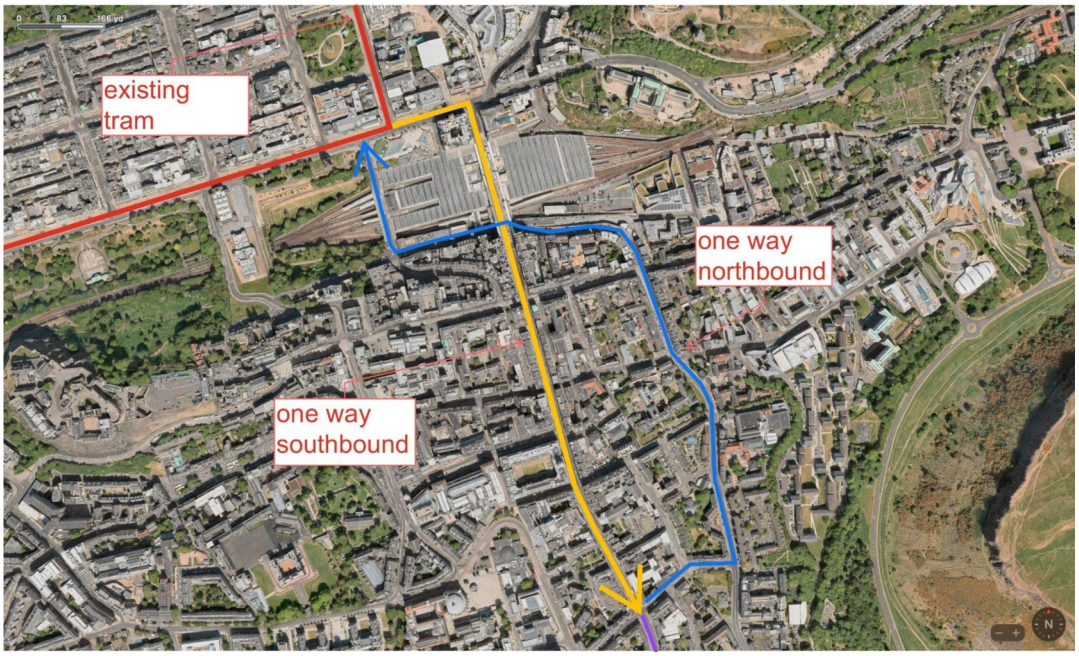


Illustration of conceptual one-way tram routes for consideration - Spokes

This option would come with pros and cons relative to a short single track section of bidirectional operation so would need to be carefully considered. However, it would better serve Waverley (nearer platform level) as well as the Cowgate and Dumbiedykes of which the former has no improvement in connectivity in the current proposals. Very importantly, from Spokes perspective, it would free up street space for high quality active travel provision.

Image of single track urban bidirectional tram on Utrectsestraat in Amsterdam, Google Streetview

- Loading bays could be provided at the end of side roads adjacent to the tram line e.g. Chambers St or Drummond St could serve as loading / unloading points.

- Spokes is also very concerned about the complete removal of the uphill (southbound) advisory cycle lane provision in the proposals between Infirmary St and Nicholson Sq. This is being removed for loading bay / bus stop provision. Again this will force cycles to travel in parallel to the tram tracks which is known to cause serious danger to cyclists in the existing tram network (see earlier section on Bikes and Tramlines). This is intolerable and cannot be supported as shown.

Nicholson Square to St Patrick Square:

- Through Newington, again, cycling provision is non-existent with clearly no lesson learned from Tram phase 1 from Haymarket to York Place. Space for cycle provision is instead replaced by SUDS planters and lanes for continued motor vehicle traffic. Spokes suggests changing the location and type of the 'Nicholson St' stop to an island style at Nicholson Square. We believe this would be more appropriate at this location closer to the University at George and Bristo Squares and the key visitor attraction of the National Museum of Scotland (+2 million annual visitors) and would also allow cycle users to remain to the left of the tram tracks. Spokes requests the existing east/west toucan crossing be retained at Crosscauseway as it is an important safe crossing at right angles to tram tracks.

Nicholson Street, Clerk Street, South Clerk Street & Newington Road:

- The 'Newington' stop platforms are again proposed as kerb adjacent stops which will force on road cycle users to cross tram tracks at an *extremely dangerous* angle. See Bikes and Tramlines above. Spokes suggests redesigning 'Newington' as an island style tram stop to the south of the Preston Street junction. This would be in closer proximity to Commonwealth Pool, Pollock Halls and the NLS Map Library and would allow cycle users to remain to the left of the tram tracks. Also we believe the the length of Clerk Street could accommodate on road cycling provision.

Minto Street & Craigmillar Park:

- The existing 'Travelling Safely' unidirectional cycle lanes are lost and instead no cycle provision is proposed along Craigmillar Park and Minto Street. Spokes strongly objects to this loss of provision and urges the council to reconsider this design. Motor vehicles should have to travel on an alternative route as per the Transport Hierarchy.
  Spokes notes the proposed 'Mayfield Gardens' tram stop position at the bridge over the South Suburban rail line meaning there could be potential for easy interchange if ever reopened for passenger use. Spokes would encourage integration of secure cycle parking and cycle hire provision into the design of this stop from the start.
  Given there are currently developing plans for reopening the station for 'TramTrains' this station could become a multimodal hub with safe cycle connectivity an essential part of these plans meaning parallel cycle routes aren't an appropriate approach.

Cameron Toll

- At Lady Road there is no active travel provision in the proposals linking the existing "Travelling Safely Scheme" to the proposed Cameron Toll - Bioquarter cycle route. This is a seriously retrograde step for cycling and CEC have missed the opportunity to improve rather than remove cycle provision along this key route. Spokes urges CEC to fundamentally reconsider active travel along this section of the tram route proposals.
- Spokes is concerned that there is seemingly no consideration as to what is replacing the existing zebra crossing at the roundabout into the Shopping Centre car park. This is a busy crossing for pedestrians and we would assume that signalisation would be required if the roundabout is removed: however, none is indicated in the proposals.
- At Cameron Toll the tram route has been adjusted for the drive thru McDonalds but hasn't been adjusted to allow for safe cycling. This is yet another example of inadequate consideration to cycling in the onroad proposals.

Cameron Toll to Bioquarter

- The proposal from Cameron Toll to BioQuarter follows roughly the same route for most of the way as the existing active travel route proposal consulted on in 2019. However at The Inch park entrance the route is inferior to the existing proposal. Spokes urges that the existing alignment proposal along the primary route be retained. See comparison of the proposals below;

2019 (left) vs 2025 (right) active travel route proposal at Inch Park / Bridge End Farm

Old Dalkeith Road:

Spokes agrees with the principle of a bidirectional cycle route on the west side of the route giving easier access to residents of The Inch to / from the cycle route in either direction. However the location of the 'The Inch' tram stop seems too far south and very close to the proposed 'Royal Infirmary' tram stop. A stop further north could provide easier access for residents of Craigmillar if using the existing active travel paths through Craigmillar Castle Park.
Spokes is concerned there is no indication that the junction of Craigmillar Castle Road will be signalised as part of the project. The junction was noted as the 12th most dangerous for cycle users in 2016 by Sustrans.

Royal Infirmary:

Spokes is pleased to see a link to the existing active travel routes around the Royal Infirmary and Sick Kids hospitals. However, how staff and patients get to and from the tram stop needs careful consideration given that the existing 'bus hub' is on the opposite side of the site.
It is worth noting that Nottingham's QMC hospital is served by a tram that runs through the site with dedicated covered walkways to enable easy access to the hospital for patients and staff.
It is also concerning that the existing traffic signal controlled junctions aren't shown here; will these retain signals to allow ambulance, tram, bus and active travel priority over private motor vehicles?

BioQuarter:

Spokes is concerned that the tram route is shown where the QuietRoute 61 route was built south of Little France Drive. There is currently no active travel replacement provided in the proposals. This is very concerning to Spokes and we suggest the tram route is repositioned onto the carriageway of Little France Drive instead.

QuietRoute 61 south of Little France Drive 2022 (Edinburgh Reporter)

9. Bioquarter to Midlothian and East Lothian

Issues

- QMU via Newcraighall or Shawfair are indicated as potential destinations beyond the BioQuarter. Active travel should be provided parallel to any route alignment proposed. This will also act as a service vehicle route if needed for tram access and maintenance.
- The Wisp and Fort Kinnaird currently provide considerable barriers to anyone other than the most confident of road cyclists, so Spokes would welcome segregated cycle provision along any tram route proposal to QMU via Newcraighall.
- The hostile nature of Sheriffhall Junction forms a considerable barrier for active travel and therefore Spokes would welcome segregated cycle provision along any alignment to Shawfair and onwards to Dalkeith.

10. Conclusion

- Spokes acknowledges the improvements made by the Council in the Roseburn alignment through single track with no overhead cables. But we remain concerned that a high-quality offroad connection to the new Canal link is absolutely essential for the integrity of the city's cycle network. Furthermore, the Mobility Plan's proposed bridge over the mainline railway is the ideal way to achieve this: it is a one-off opportunity for a transformative step change in the offroad network.
- Spokes is seriously concerned about the Bridges Corridor twin track on-street tram proposals, given this is a significant active travel route. Most concerning of all, kerb adjacent platforms are intolerable where no safe cycle provision is provided. Alternative routing of the tram as suggested in this submission should be considered. Similar serious concerns apply to the Orchard Brae route alignment, in particular at Dean Bridge.
- Sokes is concerned about specific points along the route where existing soft and hard cycle segregation is proposed for removal or downgrading rather than improvement.
- Spokes is concerned that placemaking opportunities are not being seized along the whole of the routes, especially within the Old Town, given the significant once in a generation opportunity that the project provides. We have highlighted several successful examples across Europe that show it is possible and urge the council to consider these seriously.
- Spokes supports the proposals to consider battery electric tram vehicles, which would mean that finite street space can be used for active travel provision instead of OHLE poles and equipment.
- Finally, Spokes reiterates our support for the trams project overall as long as cycling is designed in from the outset rather than being an afterthought. In the introduction, we detailed the very real tramline/bike dangers which have been, and still are, widely experienced in Edinburgh's first tramline. This must never be repeated.

If there are any queries or points that require further explanation or exploration Spokes would be happy to liaise with the Council in regards to these.

Sections in this submission
