

Members' Library Service Request Form

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Document Title	Markle Level Crossing closure and provision of alternative road alignment

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Additional information:

Report necessary to formally add development roads to the list of public roads for maintenance purposes

Authorised By	Tom Reid
Designation	Head of Infrastructure
Date	08/09/21

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REPORT TO: Members' Library Service

MEETING DATE: September 2021

BY: Executive Director - Place

SUBJECT: Markle Level Crossing Closure and Provision of Alternative Road Alignment

1 PURPOSE

- 1.1 The purpose of this report is to advise Members of the proposed closure of Markle Level crossing and the provision of an alternative bridge and road alignment to the south of Markle. This infrastructure will be designed to preserve local vehicle and pedestrian access, improving safety and maximising journey times.

2 RECOMMENDATIONS

- 2.1 To note the proposal is being entirely funded by Transport Scotland, in collaboration with partner Network Rail, with East Lothian Council procuring services to expedite a design and build contract to replace the crossing in an 18 month timeframe.
- 2.2 To note the relationship of this proposal with East Lothian Council Capital Plan investment to facilitate the construction of a new rail halt in East Linton and reinstate a rail service by March 2024.

3 BACKGROUND

- 3.1 East Lothian Council and Transport Scotland are jointly funding a new station in East Linton to be built by Network Rail, which is expected to open in December 2022, subject to local authority planning processes/approvals.
- 3.2 At an East Lothian Council meeting on 23 August 2016, Members' endorsed an enhanced offer of £3.44m to contribute towards the development and construct a new rail halt at East Linton.
- 3.3 On 23rd March 2017 the then Transport Minister, Humza Yousaf, accepted the offer committing to the delivery of a station by the end of control period 6 (CP6) 31st March 2024.

- 3.4 In the intervening period East Lothian Council have been working with Transport Scotland and Network Rail to conclude the design process, finalise the land assembly necessary to facilitate the provision of the new station and close other associated matters.
- 3.5 One mile to the north-west lies Markle Level Crossing. This crossing operates as an automatic half barrier crossing, comprising road traffic light signals, audible alarm, signage including track side reduced train speed, and a minimum 27 sec call on barrier closure. Albeit, vehicle movement is low, the historical road characteristics and built environment provide poor visibility for approaching road vehicles, the curvature of rail track with heightened cant (superelevation) causes long vehicle grounding concerns and longer term potential growth in train services, the crossing has been identified as a priority for upgrade.
- 3.6 The close proximity of Markle Level Crossing to the proposed new station means that the level crossing must be upgraded or removed. Trains calling at East Linton will cross the strike points lowering barriers at Markle. This will significantly increase the risk to road/ rail safety because of the longer vehicle dwell times, the variation in dwell times as not all trains stop, and the combination of stopping and non-stopping trains. This is likely to increase road user's frustration, with drivers becoming impatient weaving round the open gap on the opposite carriageway and taking the risk of being struck by a train.
- 3.7 There are two options for mitigating this risk; either by upgrading the existing Half-Barrier Level Crossing to one with Full Barrier or by closing the level crossing and replacing it with a bridge.
- 3.8 Upgrading the level crossing to a Full Barrier Type is a requirement of Network Rail. This is a complex technical change requiring significant investment including additional train signalling, CCTV, changes to the road layout, barriers and signs, back office systems, and operational support.
- 3.9 Following installation, the operation of the barriers and train signalling system would be controlled remotely. As a result, the barrier closure times at Markle would increase by an approximate factor of four every time a train passed. Given the frequency of trains on the East Coast Main Line through Markle, the cumulative time the barriers would be closed to road users in each hour could be up to 40 minutes in the hour, which is considered unacceptably long for farming activities and local community road users.
- 3.10 As an alternative to a full barrier level crossing and so avoid longer barrier closure times is to replace the crossing with a bridge. The most effective way of reducing level crossing safety risk is to eliminate it completely, by closing the crossing, which is consistent with the Railway Safety Regulator's and Network Rail's policy.
- 3.11 In 2010 Network Rail embarked on a level crossing risk reduction programme. The objective of the programme is to either close or upgrade level crossings across the network, which will improve safety for everyone and reduce the risk that level crossings present to pedestrians, drivers and the national rail network.

- 3.12 For the moment Transport Scotland have paused the level crossing upgrade at GRIP4 (Governance for Rail investment Projects – Single option development) prior to detailed design, however there remains a recognition that both projects must exist concurrently until such time confirmation the road realignment land assembly can be verified. Early considerations of land requirements and dialogue with landowners has identified a potential corridor within which a new road and bridge crossing of the East Coast Main Line could be provided. This is further detailed in Appendix A – Land corridor. Work is now progressing with the landowner to confirm purchase. Agreement in principle has been reached but detailed negotiations must be confirmed timeously to avoid breaching a back stop date March 2023. Funding to support the purchase of the land is being made available by Transport Scotland with ownership transferring to East Lothian Council upon completion of missives. Should negotiations with the landowners not prove practicable, the alternative arrangements in place by Network Rail to upgrade the level crossing will become the fall-back position.
- 3.13 The road will be formally adopted by the Council on completion with the road bridge over the East coast main line, adopted by Network Rail for maintenance purposes. At this time the estimate additional length to the network will be 1km.
- 3.14 Due to the level of road/rail interface, rail electrification and property set back at Markle steading, a replacement bridge cannot be built on the existing road alignment.
- 3.15 The proposed new road alignment corridor is approximately 130-140 metres wide to the south of the settlement of Markle between the horse paddock adjacent to Cherrytree Cottage and Markle Fisheries.
- 3.16 The preliminary proposals for the replacement crossing include:
- a new 6 metre wide road bypassing Markle to the south
 - a new bridge located above the railway cutting which would reduce the height of the structure above ground level
 - vehicular access to Markle Steading maintained via the existing road network
 - existing road stopped up at the level crossing entry gates and road over level crossing removed
 - an upgraded access road to Markle fisheries
 - the existing right of way from Dunsper Drive to Markle Steading maintained
 - tree planting to the west of the new bridge to reduce the visual impact
 - sustainable drainage systems to the west of the new bridge
- 3.17 To expedite matters the Council has engaged Balfour Beatty through the SCAPE Civil Engineering and Infrastructure framework to progress delivery through a design and build contract arrangement. A high level construction feasibility report carried out by the contractor has defined a cost estimate and projected project spend, value for money assessment, a tender programme

providing clarity and confidence of construction methodology and delivery timescales.

- 3.18 A detailed programme of works has provided an estimated construction duration of 311 days, and indicative project cost of £7.4m. This feasibility report is a non-contractual assessment of the project, which does not include: a biodiversity net gain assessment, social impact action plan, supply chain analysis, project risk assessment, and detailed construct commentary. The feasibility report has made certain assumptions which will be designed out as the project moves to outline design and detailed design accordingly.
- 3.19 Following East Lothian Council's climate change declaration, the project will look to lock in through the design process and construction methodology appropriate carbon emission mitigation to use local materials, plant and services (SME), borrow pits, diverting waste from landfill, as part of a social value action plan and provide ecological diversity through tree planting, hedges, and SuDS. This will also include social and economic benefits with journey time savings, reduced private and agricultural vehicle emissions, and improved line speed over the longer term, to mitigate the impact of construction activity.
- 3.20 Recommended advance works and activities involve no risk designer appointment, ground investigation, topographical surveys, archaeological investigation and Network Rail workshops that will progress over the next few weeks.
- 3.21 Key interactions with stakeholders and the community are fundamental to prompt delivery in particular community engagement to understand the level of public acceptability. To understand the level of public acceptability, Road Services ran a public consultation via East Lothian Council consultation hub on line between 7 July - 31 July 2021. In general, 80% of 92 responses received were in favour of the proposal to replace Markle level with a new road and bridge. 15% of those surveys either disagreed or strongly disagreed. A summary of the Markle Level Crossing Replacement Consultation is contained in Appendix B.
- 3.22 Considering the level of support and balance the views from the community and cooperation with the landowner, agreement has been reached with Transport Scotland and Network Rail to accelerate further technical evaluation, land purchase, design and programme enhancement to enable construction to commence early 2022.
- 3.23 East Lothian Council will lead the procurement of design and construction services, with full funding for all internal project management costs, external design and construction cost, including all ancillary technical impact assessments, planning permission and associated Network Rail costs borne by Transport Scotland who is the project funder.
- 3.24 East Lothian will oversee and compliment the interaction between designer

and Network Rail implementing all necessary statutory agreements, asset protection and direct service agreements.

- 3.25 To manage risk, a monthly progress and spend reporting mechanism will be agreed between parties and an internal governance arrangement to forecast spend and cost recovery.
- 3.26 Head of Terms are currently being finalised and a Minute of Agreement will be prepared between parties to formalise the arrangement, responsibilities and legally binding provisions to safeguard the Council from non-delivery risk.

4 POLICY IMPLICATIONS

- 4.1 The consultation response is in line with the core objectives set out in the approved East Lothian Council Plan 2017-2022 and the intent, themes and outcomes as set out in the East Lothian Plan 2017 – 2027.

5 INTEGRATED IMPACT ASSESSMENT

- 5.2 The subject of this report does affect the wellbeing of the community or have a significant impact on equality, the environment or economy. An integrated impact assessment will be undertaken in due course.

6 RESOURCE IMPLICATIONS

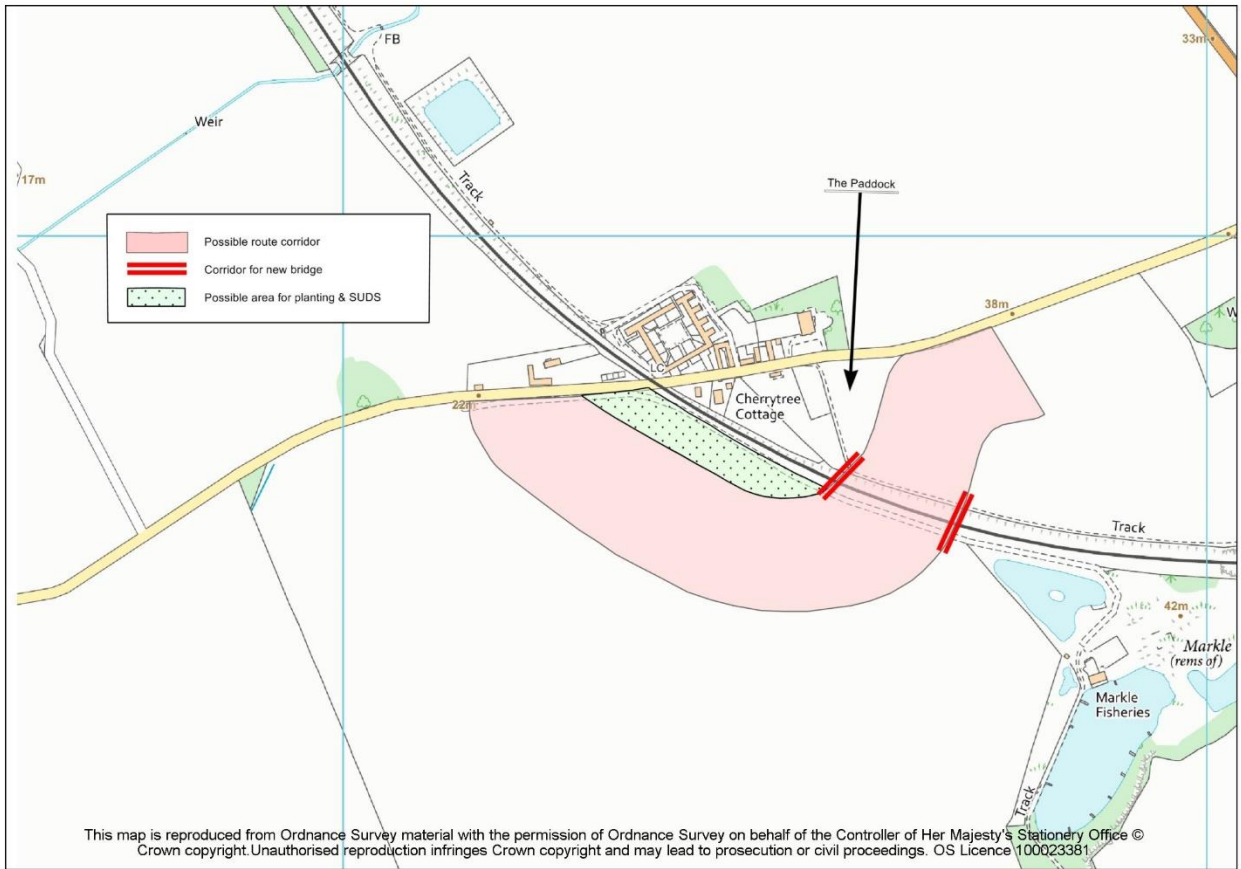
- 6.1 Financial – The project will be fully funded by Transport Scotland rail directorate, which includes all associated internal and external project management costs, land assembly costs, legal costs, design and construction costs, planning and technical assessments costs, and 12 month maintenance cost associated with the delivery the project.
- 6.2 Personnel – Development service and Roads Project management personnel will lead and co-ordinate project deliver which can be accommodated with the corresponding service areas.
- 6.3 Other - None

7 BACKGROUND PAPERS

- 7.1 None.

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DESIGNATION	Asset and Regulatory Manager
CONTACT INFO	
DATE	8/9/21

Appendix A - Markle level crossing replacement



Appendix B - Markle Level Crossing Replacement Project – Consultation Summary

General

The consultation ran online from 07/07/2021 to 31/07/2021.

A project website provided information about the project which linked to a survey. People were also able to submit responses via email:

https://www.eastlothian.gov.uk/info/210566/roads_and_transport/12641/markle_level_crossing_replacement_project

The survey sought to identify:

- Whether the respondent regularly crossed Markle level crossing, lived in East Lothian, worked in East Lothian or other.
- To what degree the respondent supported the intention to close Markle level crossing.
- To what degree the respondent supported proposals to replace Markle level crossing with a new crossing to the south of the settlement.
- To what degree the respondent supported proposals to replace Markle level crossing with a new road and bridge over the railway line.
- Any other comments.

The consultation was advertised through the Council's social media channels and links were also provided directly to the Dunsper Community Council, Markle Residents Association and key stakeholders.

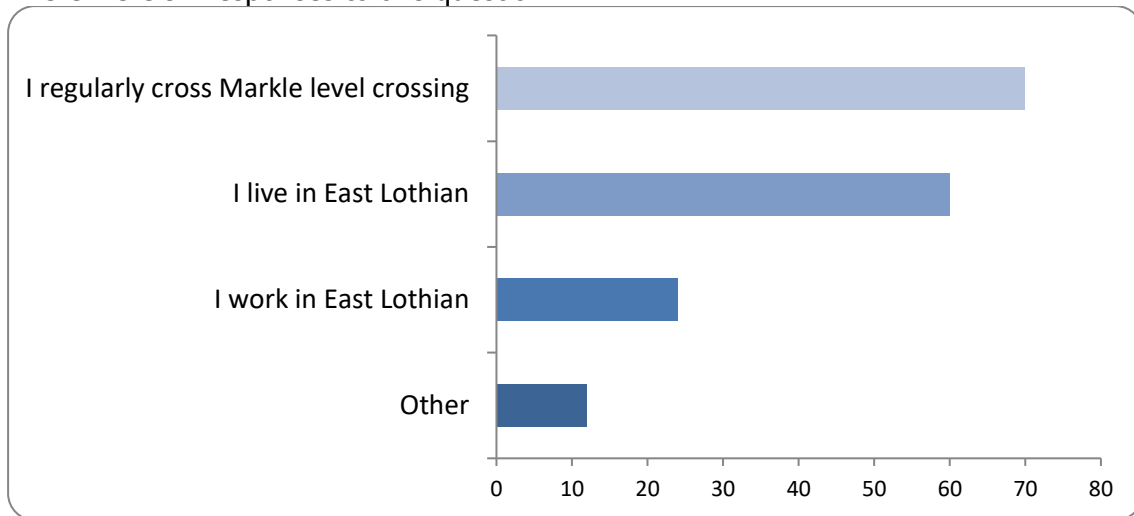
Responses to the survey: **92**

Emailed consultation responses: **4**

Summary of Survey Responses

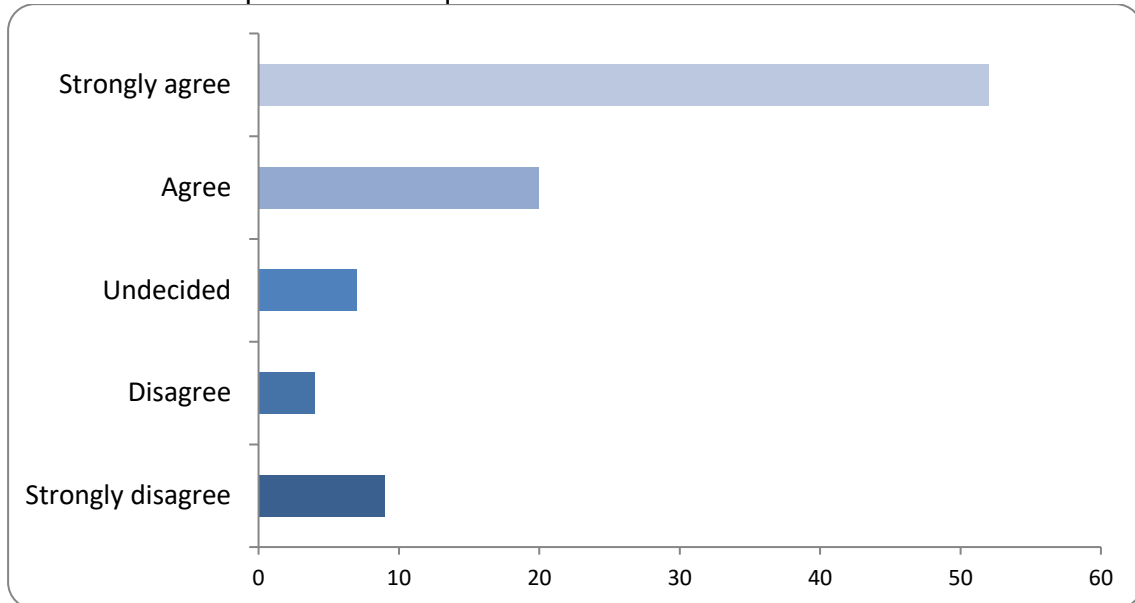
Question 1: Tell us about yourself:

There were 92 responses to this question.



Option	Total	Percent
I regularly cross Markle level crossing	70	76.09%
I live in East Lothian	60	65.22%
I work in East Lothian	24	26.09%
Other	12	13.04%
Not Answered	0	0.00%

Question 2: In general, I support the intention to close Markle level crossing
 There were 92 responses to this question.



Option	Total	Percent	Percent
Strongly agree	52	56.52%	} 78%
Agree	20	21.74%	
Undecided	7	7.61%	} 8%
Disagree	4	4.35%	} 14%
Strongly disagree	9	9.78%	

Please explain why

There were 75 responses to this part of the question, some of which cited more than one reason for their response.

Key reasons cited for agreeing with closure:

Reason	No of Mentions
Safety (pedestrian, driver and train)	46
Delays due to increased train frequency	7
Noise nuisance from alarms / train horns	7
Speed of trains	2
Regular equipment failures	2
Unsuitable solution for increased rail / road traffic	2
To ensure train efficiency	2
As long as it is replaced by a bridge	2

Key reasons cited for being undecided about closure:

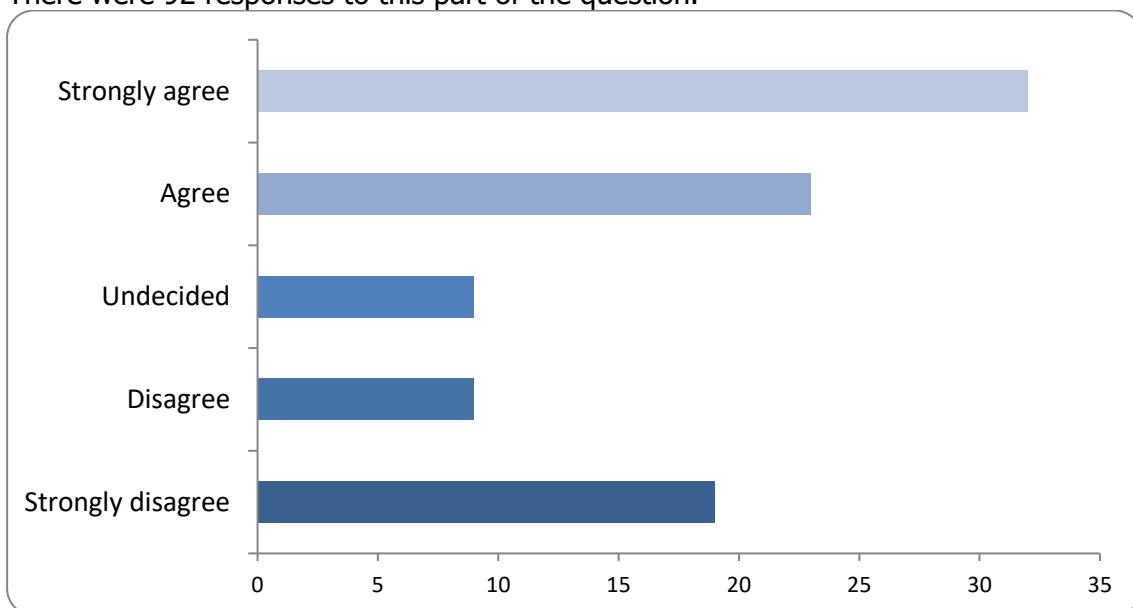
Reason	No of Mentions
Lack of crossing facility for pedestrians in village	2
Depends on replacement option	2
Crossing at this location not needed	1

Key reasons for disagreeing with closure:

Reason	No of Mentions
Longer wait times are marginal / acceptable	6
Disagree (unless there is a replacement)	3
Low traffic volumes	3
Should have been incorporated into East Linton Station Planning application	1
Existing crossing safe	1
Insufficient information	1
Assured as part East Linton station planning the crossing would remain open	1
LNER timetable indicates there will be fewer trains not more	1
Circuitous detour (unless there is a replacement)	1
Removes a train spotting vantage point	1
Waste of resources / money	1

Question 3: In general, I support the proposals to replace Markle level crossing with a new crossing to the south of the settlement

There were 92 responses to this part of the question.



Option	Total	Percent	Percent
Strongly agree	32	34.78%	} 60%
Agree	23	25.00%	
Undecided	9	9.78%	} 10%
Disagree	9	9.78%	} 30%
Strongly disagree	19	20.65%	

This question was intended to determine whether people supported the **location** of a new crossing point. It is clear from the written responses that some respondents understood the question to be asking whether they supported a **new level crossing** to the south of Markle.

Please explain why

There were 68 responses to this part of the question, some of which cited more than one reason for their response.

Key reasons cited for supporting new crossing to south of Markle:

Reason	No of Mentions
Safety	9
Geologically / geographically / logically best location	5
Adds only short diversion distance	5
Minimises visual impact / impact on environment	4
Enhances safety / maintains amenity of rural community	3
Bridge at current location would be unacceptable to residents	2
But concern over lost habitat and greenspace and potential for development	2
Removes traffic from Markle	2
Keeps busy rural route open so community is not fragmented	1
Enables improved access to Markle Fishery	1
Bridge not level crossing	1
Disruption were the existing crossing replaced by full barriers	1

Key reasons cited for being undecided about a new crossing to south of Markle:

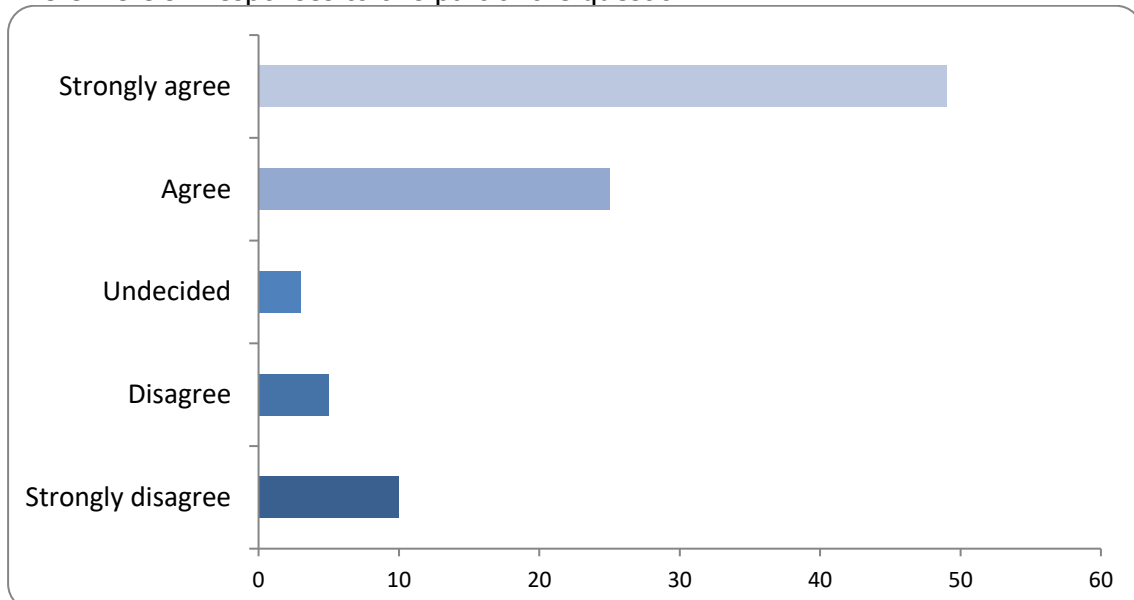
Reason	No of Mentions
Road and bridge safer than new level crossing	2
Lack of crossing facility for pedestrians in village	1
Potential to enable unwanted development	1
Loss of agricultural land	1

Key reasons for not supporting new crossing to south of Markle:

Reason	No of Mentions
New level crossing unacceptable	10
Unnecessary	4
Impact on right of way	3
Too expensive	2
Destroys agricultural land	1
Potential to enable unwanted development	1
Loss of amenity	1
Prefer it to north of settlement	1
Lack of pedestrian crossing provision in Markle	1
Decreased safety for pedestrians – Markle has 20mph speed limit. Unlikely road and bridge will	1
Loss of train spotting location	1

Question 4: In general I support the preliminary proposals to replace Markle level crossing with a new road and bridge

There were 92 responses to this part of the question.



Option	Total	Percent	Percent
Strongly agree	49	53.26%	} 80%
Agree	25	27.17%	
Undecided	3	3.26%	} 4%
Disagree	5	5.43%	} 16%
Strongly disagree	10	10.87%	

Please explain why

There were 58 responses to this part of the question, some of which cited more than one reason for their response.

Key reasons cited for supporting new road and bridge crossing:

Reason	No of Mentions
Safety	22
Removes delays associated with barrier closures	7
Best Option	7
Retains access with short detour	4
Reduced traffic through Markle	4
Minimal environmental impact	3
Overcomes regular level crossing failures	2
Removes noise nuisance from warning signals	2
Location minimises visual impact	2
Agree with concept but road and bridge design details of concern	2
Supports aims of level crossing removal	1
Cost effective	1
Improved traffic flow	1
Bridge better than no crossing but no good case made for removing crossing	1
Agree with concept but cost of concern	1
Agree subject to road not enabling development	1

Key reasons cited for being undecided about a new road and bridge crossing:

Reason	No of Mentions
Cannot support without footbridge for pedestrians	1
Depends on exact location	1

Key reasons for not supporting new road and bridge crossing:

Reason	No of Mentions
Not required, full barrier wait times acceptable	3
Visually damaging	3
Cost	2
Not required, close crossing diversion acceptable	2
Loss of amenity	2
Increased traffic	1
Increased noise	1
Environmental damage	1
Decreased safety for pedestrians – Markle has 20mph speed limit. Unlikely road and bridge will	1
No assurance there will be a safe cycle route to Dunpender	1
Loss of train spotting location	1

Question 5: Do you have any comments about the closure, replacement and /or potential new road and bridge proposals we should consider?

There were 53 responses to this part of the question.

Summary of Comments	No of Mentions
Safe active travel provision required over bridge	9
Rights of way to East Linton and through Markle Fisheries must be maintained and how connections will be maintained clarified	8
Closed crossing needs sympathetic treatment	6
Concern over bridge and road design and setting in landscape	5
Insufficient information on various aspects including exact alignment, visual impact, future use of field, whether there will be more housing	3
Bridge should be as low as possible to maintain views	3
Close the road or change to full barrier crossing	3
Landscaping important - replacement of lost green space and trees / tree and hedge planting on Markle Steading side	3
Footbridge at location of existing crossing	3
Locate bridge as far east as possible to minimize visual impact and cost	3
Long standing drainage fault at Markle should be addressed at the same time	3
Enormous cost	2
Concern the new road will facilitate development	2
Needs to be space for steam enthusiasts to have a good sight line for photos	1
Survey is biased towards acceptance	1
Project will result in despoiling of village centre	1
No footbridge at location of existing crossing	1
Fourfold increase in delay not significant as traffic flows are so low	1
East Linton wrong location for station	1
Loss of arable land	1
Visually disruptive	1
Don't build it	1
A road connection must be maintained	1

Summary of Email Responses

There were 4 email responses.

Email 1 (East Linton Resident)

- The option of just closing the road is the most cost effective one.
- There is underpass access for farm vehicles which are necessary to work the fields and whilst residents on either side of the railway track would have some additional journey time, depending on their journey, this is minimal in the scheme of things.

Email 2

- The proposal for a diverting 6m wide road and having a bridge is the most sensible and cost effective of the options.
- It will remove the need for the level crossing which continue to be a major concern and hazard these days.
- Concern scheme will enable the selling of land to house builders etc.

Email 3 (Resident)

- The level Crossing is a nuisance to the local community due to noise and visual pollution. It is disruptive to our lives and interrupts sleeping patterns of my young family, due to the ongoing noise of the level crossing.
- Maintaining the crossing in any way would be inconsiderate and detrimental to the inhabitants of Markle, especially if there is an alternative solution available.
- We are strongly in favour of the closure Markle level crossing and the plan to replace it with a new road and bridge over the rail line. It is the kindest and safest option for the railway line and for Markle Steading.

Email 4 (Resident)

- All level rail crossings should be replaced by a bridge for safety reasons.
- The replacement minimises the potential for people to use a crossing for end of life purposes.
- Removing this crossing removes the barrier alarm. It is a disturbance to local residents.
- There are regular incidents of road users speeding up as they approach the current crossing in order to cross before the gates come down. Speed is a danger.
- In wet weather especially the surface of the crossing can prove a hazard to both pedestrian users and cyclists.
- Favour the proposal to remove the crossing and replace it with a bridge. A closed gate crossing would not remove any of the above safety issues.