



CABINET – APRIL 5TH 2023

SUBJECT: A469 TROEDRHIWFUWCH FUNDING REQUIREMENT

REPORT BY: CORPORATE DIRECTOR FOR ECONOMY AND ENVIRONMENT

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1. PURPOSE OF REPORT

- 1.1 To seek Cabinet approval for Capital funding of £935k to allow progression and development of the detailed design and budget estimates for the next phase of the A469 Troedrhifwch highway improvement.

2. SUMMARY

- 2.1 Following the closure of the A469 in 2014 option analysis for alternative routes suggested a funding requirement of some £80m was required to construct a new section of highway. A feasibility report was presented to Welsh Government and it was requested that an extensive review of the existing carriageway condition was undertaken before any commitment to road diversions would be considered.
- 2.2 An initial study undertaken in 2016 indicated the likelihood that the failure mechanism of the road appeared to be a deep seated slip failure. Following further movement during Storm Dennis in early 2020, a resilient roads grant bid allowed for a more extensive site investigation. This investigation indicated that the depth and extent of the disturbed area within the landslip was not as great as that initially indicated, although the road cannot be fully opened without remediation works. Progress in 2020/21 identified potential solutions and outline proposals were developed in 2021/22. Early in 2022 Welsh Government decided to review any future development as part of a wide ranging national Roads Review. To mitigate delays CCBC funding of £300k was utilised in 2022/23 to commission a consultant to review the preferred designs and undertake WeLTAG Stage 1&2 reports, ecological surveys and commence land negotiations. Given further stability issues, it is suggested that securing funding to allow the development of the outline design of the preferred solution is a priority for 2023/24 to enable a final design to be completed and a works contract procured.
- 2.3 There is no current funding in place to take forward the project in 2023/24. A bid to the WG Resilient Roads Fund (RRF) was submitted in early February 2023 for £835k (CCBC have offered a circa 10% in principle matchfund i.e. £100k). On 14th February 2023 WG announced the outcome of its roads review and has agreed to support the

works to the A469 although no sum has been confirmed (this may be confirmed when the resilient roads fund grant awards are announced in the next 2-3 months).

- 2.4 Given the fact that the WG resilient roads fund (RRF) grant awards have not yet been announced, to support the further works necessary, it is recommended that Cabinet approves that total funding of £935k be set aside from Capital Earmarked Reserves. This funding will allow the project to continue to move forward in the short term (2023/24) and will permit monitoring and design works to continue.

3. RECOMMENDATIONS

- 3.1 That Cabinet approves funding of £935k from Capital Earmarked Reserves to allow the project to continue to progress at pace in 2023/24 to ensure that additional monitoring is undertaken and design works are completed.
- 3.2 Should the RRG grant bid for £835k be approved in the coming weeks/months, it is recommended that Cabinet approve that the £835k is earmarked as match funding for the next RRF bid (in late 2023/24) for construction.
- 3.3 That officers bring forward further reports for Cabinet consideration once the design has progressed sufficiently to inform the works programme and to update Cabinet on any implications associated with that works programme.
- 3.4 That officers develop a detailed communication plan to ensure local residents and key stakeholders are fully engaged and informed throughout the development and implementation of this project.

4. REASONS FOR THE RECOMMENDATIONS

- 4.1 To enable the development and implementation of the highway repairs required along the A469 Troedrhifwuch.

5. THE REPORT

- 5.1 The A469 road between New Tredegar and Pontllytyn is a major link to the A465 Heads of the valley Trunk Road and a vital link for communities to the A4049 strategic highway to the south. In February 2014 accelerated movement resulted in the A469 between New Tredegar and Pontllytyn being closed for three months causing significant disruption to utility services, businesses, schools and residents in the area.

Funding was secured from the Welsh Government to undertake a highway resilience feasibility options appraisal study which was completed in July 2016.

The study concluded that the geotechnical risk for the site was likely to remain high and that it would be difficult, due to the size and scale of the stabilisation works required, to protect the highway from future movement. The study also looked at alternative route options to divert the A469 away from the slip area with overall costs estimates ranging from £60 million to £80 million. The study recommended further investigations to fully understand the nature and magnitude of the geotechnical risk posed by the landslip and that further investigations would be required.

5.2 Following storm Dennis in February 2020 further accelerated movement resulted in raised concerns about the overall stability of the highway corridor. As a precautionary measure the carriageway was reduced to a single lane under temporary traffic light control to reduce live and dynamic loading on the slip area. Funding was immediately secured under the resilient roads fund grant to allow further detailed investigation of the slip area. External geotechnical consultants were engaged to undertake an extensive and detailed site investigation to understand the nature and full extent of the slip, determine the current stability of the site and consider any options available to stabilise the area in both the long and short term.

5.3 From the site investigation, the consultants have been able to determine the current state of the slip in terms of stability. The minimum factor of safety that would be considered acceptable in situations like this is 1.3 and preferably 1.5 to ensure continued stability. The factors of safety calculated for the current situation range from 0.36 to 1.26, where anything below 1 indicates an active slip.

The analysis indicates that the general slip area is fluctuating above and below the equilibrium factor of safety of 1. It further indicates that external factors such as excessive rainfall and ground water can cause a reduction in the slip factor of safety and trigger movement. This is also further compounded by heavy dynamic and static loading from vehicle traffic.

Contrary to the 2016 study the findings from this most recent and more extensive investigation suggests that there are options available that can be implemented, which would ensure the integrity/stability of the highway corridor in both the short and long term.

5.4 The site investigation results and analysis have demonstrated that the slip area is currently in a cyclic state of periods of stability and instability. The periods of instability are typically triggered by some external factor such as extremes of weather (heavy rainfall) and to a lesser extent dynamic and static load changes. It is for this reason that maintenance works have been undertaken on several occasions to seal the surface cracking in the carriageway and footway to reduce the ingress of water through the surface, although this does not address the ground water issue. It is also the reason why temporary traffic management has been installed to limit traffic to the north bound lane which both reduces the dynamic and static loading by slowing vehicles down and reducing their number in the area at any one time.

While the foregoing actions go some way towards reducing the extremes of the triggered movement they in no way prevent it and as such the current restrictions in terms of single lane running and reactive repair will need to remain in place for the foreseeable future.

5.5 The recent site investigation study has demonstrated that there are economic solutions for stabilising the existing highway corridor, as opposed to the 2016 study which suggests otherwise. The next stage is to develop the design further to arrive at a final solution which can then be taken forward to procurement and construction phases.

5.6 Although the Roads review has agreed to support the works to the A469 there is no current funding confirmed by Welsh Government. To progress with the project further funding needs to be secured that will finance ongoing commitments and support future resilient roads bids.

5.7 An external consultant is already engaged to resource the project with project management support from the Engineering Projects Group. The current expenditure programme planned for 2023/24 is estimated at £935k as follows:

- Surveys £150k
- Design £600k
- Land Purchase £50k
- Accommodation Works £10K
- Project Management £100k
- Monitoring and Evaluation £15k
- Promotion £10k

5.8 The key milestones for the project delivery include:-

- Geotechnical Due Diligence Report Completed May 2020
- Highway Stabilisation Estimate Report Completed June 2021
- Extended Phase one habit surveys Completed Nov 21.
- Options Assessment Report Completed May 22
- Traffic Modelling to feed into WelTAG completed Jan 22.
- Landslip ecological appraisal v3 completed May 2022
- Landslip reptile survey report v1 Completed August 2022
- Landslip Peregrine Survey Report v1 Completed September 2022
- Ground Investigation Report – WYG (Final Version) issued Nov 2022
- WelTAG stage 1 & 2 completed December 2022
- Land Acquisition negotiations with Land Agent started November 2022.
- Detailed Design (external consultant appointed) November 22 to Spring 2024
- Procurement of Construction Contractor Summer 2024
- Construction Autumn 2024 currently estimated at 1 to 2 years

5.9 The current Resilient Roads funding bid submitted in February 2023 projects expenditure outcomes for the whole project. Should the bid be successful it is expected that funding for subsequent years will be forthcoming. The costs to date together with predicted costs within the funding bid are detailed below:-

PRE 2022/23	-	£723k (Actual costs)
2022/2023	-	£294k (Actual costs)
2023/2024	-	£935k (Current bid)
2024/2025	-	£9620k (Estimated costs based on current information)
2025/2026	-	£4220k (Estimated costs based on current information)
2026 onwards	-	£45k (Estimated costs based on current information)

Conclusion

Given the specialist nature of the proposed engineering solutions a phased approach to procurement is suggested which is dependant on the outcomes of the survey work and further investigations.

The draft programme of works for 2023/24 includes:

- Ground investigation and reporting

- Borehole monitoring
- Drone survey
- Road repairs and CCTV survey
- Installation of an advanced warning system to include additional inclinometers and an automatic movement warning system to send alerts which turn traffic lights red to ensure the safety of road users,
- Ecology surveys
- Design prepared ready for procurement.
- Contractor procurement (2024/25)

An experienced consultant is already involved in the above activities although we may have to re-tender the design depending on any changes required following the most recent investigation results.

6. ASSUMPTIONS

- 6.1 No assumptions have been made or were thought necessary.

7. SUMMARY OF INTEGRATED IMPACT ASSESSMENT

- 7.1 The IIA review has supported the need to reopen the road identifying wide ranging positive effects for all road users in doing so. Not progressing with the proposal could have negative impacts as the road could eventually fail and could close off or isolate communities.

[Link to Integrated Impact Assessment](#)

8. FINANCIAL IMPLICATIONS

- 8.1 The cost breakdown for the period 2022 to 2026 is outlined in 5.9 above.
- 8.2 There is no current funding in place to take forward the project in 2023/24. A bid to the WG Resilient Roads Fund (RRF) was submitted in early February 2023 for £835k (CCBC have offered a circa 10% in principle match fund i.e. £100k). On 14th February 2023 WG announced the outcome of its roads review and has agreed to support the works to the A469 although no sum has been confirmed (this will be confirmed when the resilient roads fund grant awards are announced in the next 2-3 months). If the £835K Welsh Government funding is granted, the surplus Capital approved by Cabinet could be utilised to match fund the next Resilient Roads Fund grant bid (for 2024/25).

9. PERSONNEL IMPLICATIONS

- 9.1 There are no personnel implications associated with this report.

10. CONSULTATIONS

10.1 The views of consultees have been incorporated and addressed within the report. There were no views which differ from the recommendations.

11. STATUTORY POWER

11.1 The recommendation to fund the design options addresses the authority's statutory duty to maintain the highway in a safe condition and promotes the well-being of our future generations.

Author: Chris Adams, Highway Engineering Group Manager

Consultees: Christina Harray, Chief Executive
Mark S. Williams, Corporate Director for Economy and Environment
Councillor Julian Simmonds, Cabinet Member for Highways and Transportation
Councillor Tudor Davies, Chair of Environment and Sustainability Scrutiny Committee
Councillor Adrian Hussey, Vice Chair of Environment and Sustainability Scrutiny Committee
Local Members: Councillor Eluned Stenner, Cllr. Mark Evans, Cllr David Harse, Cllr Mansel Powell, Cllr Carl Cuss, Cllr R. Chapman
Stephen Harris, Head of Financial Services and S151 Officer
Rob Tranter, Head of Legal Services and Monitoring Officer
Marcus Lloyd, Head of Infrastructure
Lynne Donovan, Head of People Services