

WEST DUNBARTONSHIRE COUNCIL

Report by the Executive Director of Housing, Environmental and Economic Development

Tendering Committee: 7 August 2013

Subject: Knowle Burn Flood Prevention Scheme

1. Purpose

- 1.1** To advise Committee of tender returns received for the Knowle Burn Flood prevention Scheme and to seek approval to accept the most advantageous tender.

2. Recommendations

- 2.1** The Committee is invited to approve the awarding of the contract to George Leslie Ltd. in the amount of £2,474,906.57

3. Background

- 3.1** Knowle Burn located in the centre of Dumbarton has been prone to flooding for many years and a significant number of properties located in this area of Dumbarton are adversely affected by water ingress.
- 3.2** The Scottish Government approved the proposed flood prevention scheme in 2008 and has provided an 80% grant towards the design, procurement and provision of the works estimated at that time to be in the region of £3 million.
- 3.3** West Dunbartonshire Council had the requirement to engage the services of a suitable experienced Contractor to carry out various flood prevention works to approximately 1km of the Knowle burn channel in Dumbarton.
- 3.4** The Knowle Burn Flood Prevention scheme will include river bank reinforcement, channel realignment, replacing existing culvert, flood bypass culvert, diversion of existing utility services, offline flood storage basin, trash screens, traffic management and provision of other hydraulic controls.
- 3.5** The scheme is located in central Dumbarton on a stretch of the Knowle Burn that runs through a predominantly urbanised and residential catchment area commencing at Garshake Road and ending near Crosslet Road. Typically the Knowle Burn is less than 3m wide and 2m deep.
- 3.6** The Flood Prevention Scheme can be split into 3 distinct reaches, these are;
- Upstream of Stirling Road.
 - Stirling Road to Boghead Farm (i.e. Round Riding Road)
 - Boghead Farm to Crosslet Road / Railway Culvert.

The channel reach upstream of Stirling Road can be sub-divided into two i.e. channel works and the storage basin.

- 3.7** A short reach of channel upstream of Garshake Road will be widened and flood walls raised by replacing the existing channel with a concrete U shape channel. A new trash screen will be provided at the entrance to Garshake Road Culvert. The existing Garshake Road Culvert will be replaced. Between Garshake Road and Stirling Road the existing channel will be widened and the channel invert and right hand bank will be reinforced with gabion mattresses. An earth embankment will form the left hand bank between Garshake Road and Stirling Road and the embankment will separate the channel with an offline flood storage basin. The embankment is a water retaining feature and its exposed surface will be reinforced with grass-crete. The crest level of the embankment will be set to allow moderate to high flows to spill from the channel into the basin. A drainage pipe will also be provided through the embankment with associated concrete headwalls to allow the basin to drain following a flood event and operation of the basin.
- 3.8** The offline storage basin will be cut into existing open ground adjacent to the Council Buildings and A82 trunk road. A concrete flood wall supported over a section on concrete piles will be provided to the southern boundary (running parallel to the A82), whereas the remaining basin boundary will be cut into the existing sloping topography.
- 3.9** Stirling Road culvert will be retained; however the existing trash screen at its entrance will be replaced with an inclined trash screen. The trash screen will be accommodated within a new concrete headwall, wing wall and apron arrangement. A manually operated penstock will also be provided at the entrance to Stirling Road culvert to control the flow of water past this point.
- 3.10** A new flood bypass culvert is to be provided along a 300m length of Round Riding Road. This will require the diversion of existing utility services in particular Scottish Gas apparatus. The existing Stirling Road culvert will be extended at its exit to form a covered diversion chamber to allow flood water to be diverted into the bypass culvert.
- 3.11** The burn reach between Boghead Farm and Boghead Road footbridge will be widened and regraded. To maintain existing property fence lines/garden boundaries, gabion baskets or concrete flood walls will be provided at the toe of the channel banks to provide a near vertical burn bank. Where land boundaries permit new natural burn banks will be formed. Some remedial works to existing ad-hoc timber, masonry and concrete walls will be required.
- 3.12** The burn reach between Boghead Road Footbridge and Crosslet Road will be widened, realigned and regraded. The burn banks will be extended with a low level embankment. A new trash screen with associated concrete structure will be provided at the entrance to Crosslet Road culvert.
- 3.13** The burn reach between Crosslet Road and the Railway culvert is to be realigned and widened. The existing 2m high dilapidated drop structure is to

be removed. The newly aligned channel will be formed with a series of small step features formed with large cobbles and boulders creating a step / pool sequence. A trash screen and associated concrete headwall is to be provided at the entrance to the railway culvert.

- 3.14** Downstream of the Railway culvert the Knowle Burn watercourse is currently culverted beneath the St. James Retail Park. A flap valve will be provided at the culvert outfall to prevent the ingress of tidal flow from the River Leven.

4. Main Issues

- 4.1** A notice advising interested parties to complete the pre qualification questionnaire for the Knowle Burn Flood prevention Scheme was posted on the Contract Scotland portal to be returned by the 26 April 2012. 15 contractors returned the pre qualification questionnaire.
- 4.2** Following examination against the pre-determined and pre –advertised evaluation criteria, the following 6 highest scoring applicants were invited to tender for the works.
- Mackenzie Construction
 - George Leslie Ltd.
 - R.J.McLeod
 - McLaughlin and Harvey Ltd.
 - VolkerStevin Ltd.
 - Wills bros Ltd.
- 4.3** Tenders were invited for the scheme on the 16 April 2013 and during the tender period one tenderer, McLaughlin and Harvey Ltd withdrew from tendering. The returned tender from Mackenzie Construction Ltd was considered non-compliant as it was qualified in respect to excluding the cost of service diversion works.
- 4.4** The remaining 4 returned tenders were assessed on 70 % price/ 30% quality. The 4 compliant returned tenders were assessed as detailed.

| Tenderer | Price ratio (70%) | Quality Ratio (30%) | Total Final Score (100%) | Ranking |
|---------------------------------|----------------------|---------------------------|--------------------------------|---------|
| George Leslie Ltd. | 70 | 25 | 95 | 1 |
| Wills Bros Ltd. | 68.3 | 18 | 86.3 | 2 |
| VolkerStevin Ltd | 51.8 | 30 | 81.8 | 3 |
| RJ McLeod (Contractors) Ltd. | 39 | - * | - | - |

* RJ McLeod (Contractors) Ltd price ratio of 39 is over 30 marks below the highest price ratio score of 70 hence with only 30 quality marks available, it is not possible for this tender to be successful.

5. People Implications

- 5.1** The supervision of the construction works will be undertaken in house by Road Services.
- 5.2** CDM Regulation compliance is being undertaken by Jacobs Consultancy who were the designers of the flood prevention scheme. This will be funded directly from the capital fund allocation.

6. Financial Implications

- 6.1** Four tenders were checked arithmetically as detailed in the Appendix 1 – Statement of Tenders received. The works will be funded from the Flood Study Funding – Knowle, Gruggies and Leven project. The capital allocation which was slipped from 2012/13 amounts to £2,721,000 for this financial year. In addition to the tendered value of works of £2,474,906.57 an additional allowance of £150,000 for payment directly to Utility companies for diverting underground services affected by the works will be borne by West Dunbartonshire Council. The remaining funding allocation of £96093.43 will be set aside for contingencies, however our advisers have suggested that often projects of this nature have a contingency of around 20% available to cover the risks identified in the risk analysis section below. The spend on this project will be monitored in the normal manner and regular updates provided to relevant Committee and Council and should any such issues be identified which have financial implications these will be reported as appropriate.

7. Risk Analysis

- 7.1** A detailed risk assessment has been undertaken and will continue to be assessed through the course of the works. Two significant risks will need to be closely monitored, namely the impact of unsuitable ground conditions whilst excavating the storage pond and the impact of uncharted public utility services mainly on the installation of the bypass culvert in Round Riding Road.
- 7.2** There could be a reputational risk to the Council if there was to be a delay in approving the tender as affected householders would continue to be at a high risk of flooding until such times as the flood prevention scheme is constructed.

8 Equalities Impact Assessment (EIA)

- 8.1** No significant issues were identified in a screening for potential equality impact of these works at this stage.

9. Consultation

- 9.1** All affected residents, SEPA and Public Utility Companies have been consulted during the process of design and procurement. This will continue through the construction phase of the works.

10. Strategic Assessment

- 10.1** This project is in compliance with the Council's strategic priority of improving the well being of communities and protecting the welfare of vulnerable people.

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Date: 11 July 2013

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Appendix 1: Knowle Burn Flood Prevention Scheme - Tender Record Sheet

Background Papers: Equalities Impact Assessment
Report titled Flood Risk Management Update to the Housing, Environmental and Economic Development Committee 6 June 2012

Wards Affected: 2 and 3