

ADDITIONAL COST AND TIME FACTORS

1.0 VARIATIONS IN GROUND CONDITIONS

- 1.1 Prior to the development of the detailed design work for the piled foundation three separate ground investigation surveys took place. These surveys involve the taking of boreholes at regular intervals and analysis of the strength of ground at various depths to determine an appropriate foundation design. The relevant design code for ground investigation survey work is Eurocode 7, Geotechnical. The total survey work undertaken exceeded the requirements of this design code.
- 1.2 Despite the thorough understanding of ground conditions, once piling work started local unforeseen variations were encountered over those expected from the ground investigations. Furthermore, variations in ground conditions also impacted on acceptance of pile capacity test results due to delayed and variable ground consolidation taking longer than anticipated. This delay had an impact on activities on the critical path of the contract programme and thus became a legitimate Compensation Event (CE) relating to time and cost.
- 1.3 At one location within the site, obstructions were encountered which required tidally influenced additional plate load testing over a significant period of time. As the obstructions were unknown the additional testing had not been costed or considered within the programme and this caused consequential delay. Similarly, obstructions encountered within the Old Baths Site area required further investigation through sacrificial piling and ultimately redesign of the foundation within that area. This process caused delay became a legitimate CE relating to time and cost.

Approximate total cost effect: £2.0m

Approximate total time effect: 10 weeks*

2.0 RELOCATION OF THE ROYAL NATIONAL LIFEBOAT INSTITUTE (RNLI) INSHORE LIFEBOAT AND ACCOMMODATION OF RNLI OPERATIONS

- 2.1 Discussions and conversations have taken place between council officers and the local (West Kirby) RNLI since 2019. The local RNLI have also been formally consulted on the flood alleviation proposals during the planning approval process.
- 2.2 Despite these ongoing communications, temporary relocation of RNLI at a substantial facility on the council's car park adjacent to the Sail Loft was required to allow for continuation of their lifesaving operations, due to factors that were only fully shared and worked through after the award of contract to VolkerStevin Ltd. The relocation had to be included within a revised lengthened programme. This became a legitimate CE relating to time and cost.
- 2.3 Accommodation works, including the demolition of the old lifeboat shed in order to facilitate future access and help RNLI manage their future operations was also unforeseen and additional scope to the contract works.

Approximate total cost effect: £0.5m

Approximate total time effect: 8 weeks*

3.0 GLOBAL INCREASES IN COST OF CONSTRUCTION MATERIALS

3.1 Contract award in April 2022 was coincidental with market uncertainty due to the impacts of the war in Ukraine and other global macro-economic factors. A contractual arrangement was included to address this uncertainty with a schedule of materials included that could be reviewed and indexed to determine the difference in price between tender period and actual purchase prices. This difference, due to inflationary pressures has been assessed using as a CE and results in a change the contract Target Cost.

Approximate total cost effect: £1m

Approximate total time effect: 4 weeks*

4.0 DESIGN VARIATIONS

4.1 Detailed design work for the Flood Alleviation scheme started prior to the award of planning consent in November 2021. However, planning conditions requiring completion of the most disruptive works within the period April to September meant that a “design freeze” was required to develop the detailed design and remaining conceptual design into a priceable form if construction was to start in April 2022.

4.2 The design freeze in December 2021 was at a stage where 100% of the conceptual design was complete but only 80% of the detailed design was complete. Detailed design was outstanding on the following elements:

- Old Baths Site
- Highway infrastructure
- Flood Gates

4.3 Delivery of the final detailed design for some of the above elements has impacted on programme and caused a consequential impact on cost because of the delay. Furthermore, some of the detailed design work has changed significantly from the conceptual design and the resulting change in scope of the contract works has become a legitimate CE relating to time and cost. For example, retractable flood gates with a long lead delivery time, and significant increase in cost, were required to be designed and procured when it became clear that the RNLI would not operate any gates as part of their normal operational procedures.

4.4 During construction some re-design of certain other minor elements of the scheme as a result of unforeseen site conditions (e.g replacement kerbing) have also been necessary which has impacted on programme and therefore also incurred additional cost.

Approximate total cost effect: £1.1m

Approximate total time effect: 8 weeks*

*Some delays have been concurrent but the overall cumulative delay attributable to legitimate CEs and awarded as an extension of time as part of the CE assessment is 20 weeks