

11.3 Coastal Walkway Gullies Report for Construction

Report Reference	GC220524F11.3
Originating Officer	Coordinator Coastal Walkway – Alex Cortes
Corporate Manager	Manager City Activation - Charmaine Hughes
General Manager	General Manager City Development - Tony Lines

CONFIDENTIAL MOTION

That pursuant to Section 90(2) and (3)(k) of the Local Government Act 1999, the Council orders that all persons present, with the exception of the following persons: Chief Executive Officer, General Manager City Development, Acting General Manager City Services, General Manager Corporate Services, Manager of the Office of the Chief Executive, Chief Financial Officer, Manager City Activation, Coordinator Coastal Walkway and Unit Manager Governance and Council Support, be excluded from the meeting as the Council receives and considers information relating to Coastal Walkway Gullies Report for Construction, upon the basis that the Council is satisfied that the requirement for the meeting to be conducted in a place open to the public has been outweighed by the need to keep consideration of the matter confidential given the information relates to yet to be finalised tender outcomes and commercial expenditure.

REPORT HISTORY

Report Reference	Report Title
SFRAC220426F8.1	Coastal Walkway – Prudential Report
GC220308F18.4	Coastal Walkway Update
GC220222F11.3	Coastal Walkway Update
GC211214F18.3	Coastal Walkway Update
GC211026R10.5	Coastal Walkway Concept Design Update
GC210622F03	Coastal Walkway Update – Field River
GC201124R10	Coastal Walkway Concept Design & Outcomes of Community Engagement
GC191126R07	Coastal Walkway Project

REPORT OBJECTIVE

To provide the Section 48 Prudential Report for the Coastal Walkway Project Segment 5 (Grey Road Gully) and Segment 6 (Kurnabinna Gully), and to seek Council approval to proceed with construction of both Segments 5 and 6.

EXECUTIVE SUMMARY

This project was prioritised in Council's 2019-2023 Business Plan as a major project, aligning to Council's recently adopted Coastal Walkway Asset Management Plan. The project creates an exciting opportunity with many benefits that include:

- Constructing an iconic project for Adelaide and attracting visitors to the City of Marion while supporting and strengthening the local economy.
- Improved accessibility for residents and visitors, allowing more people to safely access and enjoy the coastal walkway, and improving fitness and health.
- Minimising the environmental impacts to the local area.
- Enhance flora and fauna enabling the gullies to flourish.
- Cost-effective capital solution with reduced whole of life maintenance costs across the asset life cycle.

A comprehensive Early Contractor Involvement (ECI) process has identified a preferred walkway solution and preferred contractor. The proposed design will comprise suspension bridges consisting of galvanized steel structures, supported by pillars at each end, connected by steel wire rope, with a fibre reinforced plastic (FRP) enviro walk mini-mesh decking.

The bridge solution is a more favourable option for Council than a step / boardwalk option due to improved accessibility, minimised environmental impact and reduced construction cost and risk.

The Section 48 Prudential Report concludes that all requirements of Section 48 have been met and that an appropriate level of due diligence has been applied to the project.

The preferred contractor has submitted a project contract price of \$6.855 million for Segments 5 and 6. The total construction cost for Segments 5, 6 and 10 including professional fees and contingencies is estimated at \$9.450 million.

The original budget for the project was \$4.880 million, leaving a funding gap of \$4.570 million. The significant increase in project cost has resulted from extensive site investigations and construction costs increases resulting from Covid-19 and current global trends.

An additional budget of \$4.100 million has been incorporated into the draft 2022/23 Annual Business Plan for public consultation endorsed by Council on 12 April 2022. A further additional budget of \$0.470 million is required to be included in the 2022/23 Annual Business Plan.

Should Council endorse the report recommendations then Administration will prepare a project update flyer advising of the design solution, the rationale behind the solution, the incorporation of stakeholder feedback, and the next steps for the project. The flyer will be letterbox delivered to neighbouring residents and stakeholders and made available (together with other design documentation and related information) via Council's Making Marion Website.

The procurement team will finalise the construction agreement with the preferred contractor for the nominated value and will arrange for the execution of the agreement by the Chief Executive Officer. The program will then be project managed closely to mitigate any project delays in view of Covid-19, global economic conditions, and general construction delays. The project is scheduled to be completed in June 2023.

RECOMMENDATION

That Council:

- 1. Endorses the Section 48 Prudential Report for the Coastal Walkway Gullies (Segments 5 and 6).**
- 2. Endorses the final design and tendered construction costs for Coastal Walkway Gullies Segment 5 (Grey Road Gully) and Segment 6 (Kurnabinna Gully).**
- 3. Allocates additional funding of \$4.57 million for Coastal Walkway Gullies Segment 5 (Grey Road Gully) and Segment 6 (Kurnabinna Gully) in the 2022/23 Annual Business Plan, comprising \$4.10 million already included in the draft 2022/23 Annual Business**

Plan and an additional \$0.47 million.

4. Authorises the Chief Executive Officer to award the construction contract for Coastal Walkway Gullies Segment 5 (Grey Road Gully) and Segment 6 (Kurnabinna Gully) to the preferred contractor.
5. Endorses that a project update flyer be sent to stakeholders advising of the design solution, rationale behind the solution, the incorporation of stakeholder feedback, and the next steps for the project.
6. In accordance with Section 91(7) and (9) of the *Local Government Act 1999*, orders that this report, Coastal Walkway Gullies Report for Construction, any attachments and the minutes arising from this report having been considered in confidence under Section 90(2) and (3)(k) of the Act, except when required to effect or comply with Council's resolution(s) regarding this matter, be kept confidential and not available for public inspection until a construction contract has been executed. At this time the information will be released in its entirety. This confidentiality order will be reviewed at the General Council Meeting in December 2022.

BACKGROUND

The City of Marion Coastal Walkway from Marino to Hallett Cove is a highly valued and important community asset that attracts visitors and contributes to the livability of the city.

The original boardwalks were designed and delivered in the mid 1990's by the State Government. Due to the age of the existing boardwalks, few records are available for review. The boardwalks were constructed utilising materials and technology which are now superseded.

In early 2019 Council engaged an engineering consultancy firm to undertake a structural audit of all the structures associated with the Coastal Walkway. The audit created a database classifying condition and defects for this group of assets. This information then informed the development of Council's Coastal Walkway Asset Management Plan.

At the conclusion of the structural audit, it was identified that certain segments of the Coastal Walkway were deemed high risk of failure due to the inadequacy of the footings and concerns with safety to users. Subsequently, Segment 5 (Grey Road Gully) and Segment 6 (Kurnabinna Gully) were closed off to the public.

In November 2019, Council committed \$2.44 million for the re-construction of these segments including a new connection of Segment 10 (Field River). The State Government provided matched funding through the 2020 Department for Infrastructure & Transport (DIT) open space funding stimulus bringing the total budget to \$4.88 million.

Segment 10 (Field River) has been fully constructed. A well-attended opening ceremony was held Saturday 9 April 2022. The total cost of construction was \$1.126 million.

Council's procurement team initially engaged with five contractors for the delivery of Segments 5 and 6. An Early Contractor Involvement (ECI) model was then initiated, with the preferred contractor working collaboratively with the design team to finalise all aspects of final construction design, construction methodology and value management opportunities.

COUNCIL DECISIONS TO DATE

At the General Council meeting on 26 October 2021 (GC211026R10.5) Council endorsed the cable bridge concept designs for Grey and Kurnabinna Gullies, following consideration of community feedback.

At the General Council meeting on 14 December 2021 (GC211214F18.3) Council noted the ECI model with the preferred contractor working collaboratively with the design team to finalise all aspects of final construction design, construction methodology and value management opportunities.

At the General Council meeting on 8 March 2022 (GC220308F18.4) Council noted the project's status and an evaluation report on the bridge versus boardwalk approach. This assessment confirmed the bridge alternative as the more favourable option for Council due to various factors including cost, improved accessibility, minimised environmental impact and reduced construction cost and risk.

DESIGN SOLUTION FOR GULLIES

The design of the Gullies (Segments 5 & 6) used the ECI procurement model. This approach has allowed early involvement with contractors participating through the design development phase. The preferred contractor has now submitted full pricing to undertake the works including a comprehensive construction program for endorsement by Council.

The proposed design will comprise suspension bridges consisting of galvanized steel structures, supported by pillars at each end, connected by steel wire rope, with a fibre reinforced plastic (FRP) enviro walk mini-mesh decking.

A series of exploratory investigative (geotechnical) works were undertaken from 70% to 100% design by the team of specialists informing the final bridge design with consideration to practical and visual sensitivities.

The geotechnical investigations included:

- Detailed survey works for accuracy of proposed bridge footing locations.
- Engagement of a specialist contractor to drill into bedrock with exploratory boreholes at each bridge abutment.
- Engagement of specialist geotechnical engineer providing direction and supervision for borehole testing.
- Creating temporary access tracks to allow drilling rigs and equipment to the proposed bridge abutment areas.
- Installation of trial anchors located adjacent to proposed bridge alignment.
- Load and pull testing for each anchor location in accordance with design and anticipated bridge loadings.

Following improvements from the design investigative process, and in line with feedback from residents through the community consultation process, Segment 5 (Grey Road Gully) bridge span has been reduced to 39 metres and Segment 6 (Kurnabinna Gully) bridge span reduced to 41 metres. The pillar heights have also been reduced from the original concept designs. This will assist in minimising the visual impact to neighbouring properties.

Design Drawings and Bridge Renders are included in **Attachments 3, 4 & 5**.

BENEFITS OF BRIDGE SOLUTION

On 8 March 2022 (GC220308F18.4) Council noted an evaluation report undertaken by North Projects on the bridge versus boardwalk proposal. This assessment confirmed the bridge alternative as the more favourable option for Council due to several factors including improved accessibility, minimised environmental impact and reduced construction cost and risk.

Extracts relating to the Environmental and Accessibility Assessment from the report concluded:

Environmental

EBS Ecology completed an Environmental report which informed the design and recommendations for construction. Recommendations included weed and vegetation management and advice from Birdlife Australia to minimise the impact to local bird species.

Due to the significant impact on the environment due to the complex terrain and susceptibility to inclement weather, it was a key discussion point when detailing the design and methodology for construction. To ensure safety in construction and endeavour to minimise the impact, it was noted that designing the footings without large machinery for installation would minimise the need for temporary access tracks and significant temporary works.

Further to this, minimising the number of footings and associated disruptions to the ground would decrease the disturbance to local flora and fauna.

A bridge has significantly less impact on the environment with only eight footings instead of the hundreds of footings required to install the boardwalk as well as substantial reductions in the temporary access tracks down the embankments. In decreasing the overall footprint within the gullies, it significantly minimises the potential impact to the environment and eases the environmental management obligations of Council and the contractor.

Accessibility

The current boardwalk is only accessible to the physically able and is classed as Grade 3 walking trail, alluding to the difficulty of its terrain. Whilst it promotes fitness aspects, it may discourage the general community to use it.

The inclusion of a bridge in lieu of the boardwalk to the gullies reduces the difficulty of the entire boardwalk stretch by eliminating the need to traverse the gullies and creates a more appealing and inclusive asset for Council to attract the broader community. It would also provide further access to portions of the coastal walkway for people of all fitness abilities to enjoy the coastline views safely.

The May 2022 Final Cost Critical Evaluation Report (**Attachment 2**) undertaken by North Projects concludes that while the financial benefits of constructing the bridges have now been reduced, the bridge option remains the preferred option due to the lower maintenance implications and the significant non-financial benefits of much less environmental impact and significantly improved accessibility for users.

It should be noted that, while the overall construction costs of the bridges have increased, it is estimated that the cost of the boardwalks would have increased by a corresponding 17% and still be more expensive than the bridge option.

NUNGAMOORA STREET WORKS

During the finalisation of design and through the geotechnical investigations, it was identified that large volumes of uncontrolled fill material has been disposed opposite 8/10 The Esplanade (adjacent to Nungamoora Street).

Careful design consideration pending slope stability and structural assessments will determine the design criteria applicable to this area to ensure a compliant structure. It should be noted that this action would have been required should the boardwalks have been the preferred option.

Budget allocation for these works has been included within the construction cost as well as an additional contingency of \$100k to address this problematic area. Refer to **Attachment 2**.

SECTION 48 PRUDENTIAL REPORT

A Prudential Report has been prepared in accordance with Section 48 of the Local Government Act (1999). As required, the Section 48 report examines the project against several key issues including its relationship with strategic management plans, economic development, community consultation, financial assessment and project risk and mitigation strategies.

The Prudential Report prepared by BRM Advisory and the Final Cost Critical Evaluation Report prepared by North Projects were considered at the Finance Risk and Audit Committee (FRAC) on 26 April 2022. Refer to **Attachments 1 & 2**.

The Section 48 report concludes that significant due diligence work has been undertaken across the various iterations and forms of the project and that in BRM Advisory's opinion all requirements of Section 48 have been met and that an appropriate level of due diligence has been applied to the project.

FUNDING

The preferred contractor has submitted a project contract price of \$6.855 million for Segments 5 and 6. The total construction cost for Segments 5, 6 and 10 including professional fees and contingencies is estimated at \$9.450 million.

The original budget for the project was \$4.880 million, leaving a funding gap of \$4.570 million. The significant increase in project cost has resulted from extensive site investigations and construction costs increases resulting from Covid-19 and current global trends.

An additional budget of \$4.100 million has been incorporated into the draft 2022/23 Annual Business Plan for public consultation endorsed by Council on 12 April 2022. A further additional budget of \$0.470 million is required to be included in the 2022/23 Annual Business Plan.

The ECI process shortlisted two contractors to complete the 70% design and submit a Gross Maximum Price (GMP). The GMP submitted by the non-preferred contractor was still higher than the final price of the preferred contractor (which was increased from its GMP to include requirements determined through the final geotechnical design). North Projects has concluded that the non-preferred contractor would have incurred the same cost increases as the preferred contractor.

Administration has liaised with State Government Office regarding the grant funding agreement and the impact of the final Segments not being completed by the agreed completion date of December 2022. The State Government Office has advised Administration to formally write and provide a revised completion date to extend the current grant agreement a minimum of six week prior to the exiting completion date.

Construction Costs

Construction costs for Segments 5 and 6 are tabled below:

Item	Description	
1.	Preliminaries	\$748,515
2.	Segment 5	\$3,076,907
3.	Segment 6	\$2,910,200
4.	Provisional Sums	\$120,000
	Total Construction Cost	\$6,855,622

Total Project Costs

Total Project costs for Segments 5, 6 and 10 are tabled below:

Item	Description	
1.	Professional Services (Segments 5, 6 and 10)	\$909,387
2.	Segment 10 – Field River Construction (Completed)	\$1,125,910
3.	Segments 5 and 6 – Gullies Construction (tender price)	\$6,855,623
4.	Contingencies for Segments 5 and 6	\$560,000
	Total Construction Cost	\$9,450,920

Funding Summary

Additional funding requirement for Segments 5, 6 and 10 is tabled below:

Item	Description	
1.	Total Costs for Segments 5, 6 and 10	\$9,450,920
2.	Original Budget Allocation for Cells 5, 6 and 10	\$4,881,208
	Additional Funding Required	\$4,569,712

Funding Sources

In December 2021 Council resolved (GC211214F18.3) that Administration can seek opportunities to source more funding from State and / or Federal Government. Given the ongoing design and only recent determination of the final project cost, the seeking of additional funds has not yet been undertaken.

Council could resolve that Council:

Writes to the State Government and the Federal Government for additional funding for the Coastal Walkway Project.

Maintenance Costs

An average annual maintenance allocation of \$20k was suggested for the bridges in the North report. However, further to feedback from BRM's Prudential Report and comments received from the Finance Risk and Audit Committee (FRAC) on 26 April 2022, Administration has increased this allocation by 50% to \$30k to ensure that sufficient budget provision is available for the maintenance regime throughout the asset life cycle.

A similar increase to the annual maintenance of the steps/boardwalk alternative has been made in the Whole of Life (WOL) and Net Present Costs (NPC) comparisons.

DELIVERY OPTIONS

Given the significant increase in estimated construction cost compared to the original project budget, the following alternative methods of delivering the best outcome for the two Gullies have been considered:

1. Do nothing (i.e. do not proceed with the boardwalk upgrade). This would result in the Grey Road and Kurnabinna Gully gullies being closed permanently to the public, which is unlikely to be acceptable to Council or the residents.

2. Revert to boardwalk option. Council has invested considerable time and budget in determining the best project solution – the bridges. Significant environmental risk, project delays and additional budget would be incurred in addition to potential reputational damage should Council resolve to change to a boardwalk option.
3. Do one bridge at a time. This would not be a cost-effective option. It would result in additional budget requirements due to a lack of economies of scale including impacts of market conditions as well as extending the duration of gully closure, therefore impacting on public access.
4. Proceed with both bridges. This is the preferred and recommended option.

Council's procurement team has considered the benefit of re-tendering at this stage (i.e. seeking prices again). Such action would be likely to add a minimum 4–6 month timeframe before any works are likely to begin (including tender open period, evaluation, negotiation and contract award, contractor mobilization and works commence).

The current tendered pricing can be contractually accepted until mid-June 2022 and is not subject to change. Re-tendering offers no guarantee of lower pricing, and given the current market volatility of resources prices (e.g. fuel, wood, steel, labour) and recent CPI (Consumer Price Index) movements, its likely pricing increases could be experienced.

Current market conditions are extreme, with many contractors fully committed and unable to tender for new projects in the short term or are placing extremely high price premiums on projects they are tendering for. This project would also be considered complex and high risk for most contractors, and re-tendering may result in a lack of responses from contractors (even those who have been involved in the process to date), increasing the risk of being able to engage a contractor who has existing capacity and capability to undertake the works within our expected timeframes.

Administration has worked in good faith with the preferred contractor through an agreed and structured procurement process:

- Expression of interest
- Engaging shortlisted contractors to participate in an 'early contractor involvement' design process to develop 70% designs to influence the constructability of a complex scope of work
- Working with a preferred contractor and a nominated bridge design company to develop 100% designs);

and terminating the existing tender process without awarding a contract may have a negative impact on our perception in the market, further reducing our attractiveness to contractors in these current market conditions.

It is advised that re-tendering would not provide any material benefits to Council or provide any additional assurance of the success of the project (measured in terms of cost, speed of delivery, quality of works, or reduced risk).

COMMUNITY ENGAGEMENT

Should Council endorse the report recommendations then the following will occur.

Administration will prepare a project update flyer advising of the design solution, the rationale behind the solution, the incorporation of stakeholder feedback, and the next steps for the project. The flyer will be letterbox delivered to neighbouring residents and stakeholders and made available (together with other design documentation and related information) via Council's Making Marion Website.

(It should be noted that the FRAC committee meeting on 26 April 2022 recommended a full re-consultation with the community. Administration believes that the existing engagement has appropriately covered the project needs, and this has been acknowledged in the Prudential Report.

Further, a number of improvements identified in the stakeholder feedback – including bridge length and height – have been incorporated into the final design. It is suggested that a closing information flyer summarising the process and outcomes is appropriate. Council could however resolve that further communication is not necessary or that formal community engagement should re-occur.)

The procurement team will finalise the construction agreement with the preferred contractor for the nominated value and will arrange for the execution of the agreement by the Chief Executive Officer.

The program will be project managed closely to mitigate any project delays in view of Covid-19, global economic conditions, and general construction delays.

A robust risk register is in place and this register will continue to be maintained as a living document throughout the lifecycle of the project. Many of the construction risks will remain with the contractor throughout the construction period.

Over the coming months, Administration will review the remaining Segments of the Coastal Walkway as per Council's Coastal Walkway Asset Management Plan to ensure prioritisation and costs are reflective of current market conditions.

DELIVERY PROGRAM

Should Council endorse the final design and construction cost, works will commence in June 2022 with completion in June 2023.

The following construction program has been submitted by the preferred contractor.

1 SITE ESTABLISHMENT	June 2022
2 GREY GULLY	
2.1 Demolition	July 2022
2.2 Bridge Construction	August 2022
2.3 Boardwalk Construction	October 2022
2.4 General Landscaping	March 2022
3 KURNABINNA GULLY	
3.1 Demolition	July 2022
3.2 Bridge Construction	September 2022
3.4 Boardwalk Construction	December 2022
3.5 At-Grade Paths	March 2023
3.6 General Landscaping	May 2023
4 PRACTICAL COMPLETION	June 2023

ATTACHMENTS

- Attachment 1 - BRM Prudential Report Coastal Walkway (Final) [**11.3.1** - 33 pages]
- Attachment 2 - NORTH Final Cost Critical Evaluation Report (Final) [**11.3.2** - 32 pages]
- Attachment 3 - Bridge [**11.3.3** - 1 page]
- Attachment 4 - Civil [**11.3.4** - 4 pages]
- Attachment 5 - Bridge Renders [**11.3.5** - 4 pages]