

Outline Business Case

| | | | |
|---------------------------|--|----------------|----------|
| Project Name | Beach Boulevard/Justice Street Roundabout Improvements Outline Business Case | | |
| Author | David Murtagh (SYSTRA Ltd) | Date | 18/04/23 |
| Sponsoring Cluster | | Version | 1 |

Contents

(Press F9 function key to update table of contents after completion of Business Case)

| | | |
|------|--|----|
| 1. | Introduction and Project Overview | 2 |
| 2. | Executive Summary | 3 |
| 3. | Strategic Fit | 7 |
| 4. | Business Aims, Needs & Constraints | 9 |
| 5. | Objectives | 11 |
| 6. | Scope | 12 |
| 6.1 | Out of Scope..... | 13 |
| 7. | Options Appraisal..... | 15 |
| 7.1 | Do Nothing..... | 15 |
| 7.2 | Option 1 – Improved Roundabout..... | 16 |
| 7.3 | Option 4 – Signalised Junction | 19 |
| 7.4 | Scoring of Options Against Objectives..... | 22 |
| 7.5 | Recommendation..... | 23 |
| 8. | Benefits | 25 |
| 8.1 | Customer Benefits | 25 |
| 8.2 | Staff Benefits | 26 |
| 8.3 | Resources Benefits (Financial)..... | 26 |
| 9. | Costs | 26 |
| 9.1 | Project Capital Expenditure & Income | 27 |
| 9.2 | Project Revenue Expenditure & Income | 28 |
| 9.3 | Post- Project Capital Expenditure & Income | 28 |
| 9.4 | Post- Project Revenue Expenditure & Income..... | 29 |
| 10. | Key Risks | 30 |
| 11. | Procurement Approach | 30 |
| 12. | Time | 31 |
| 12.1 | Time Constraints & Aspirations..... | 31 |
| 12.2 | Key Milestones | 31 |
| 13. | Governance..... | 32 |
| 14. | Resources | 32 |
| 15. | Environmental Management | 32 |
| 16. | Preserving Our Heritage | 33 |
| 17. | Stakeholders | 34 |
| 18. | Assumptions..... | 35 |
| 19. | Dependencies | 37 |
| 20. | Constraints | 37 |
| 21. | ICT Hardware, Software or Network infrastructure | 38 |
| 22. | Change Controls Issued by the Project - None | 38 |
| 23. | Support Services Consulted | 38 |
| 24. | Document Revision History..... | 40 |
| 25. | Decision by Capital Board..... | 41 |

1. Introduction and Project Overview

Briefly describe the basic project concept. Describe the current business situation as it relates to the problem or opportunity that gave rise to the idea, including any other drivers such as regulatory or legal compliance requirements

If taking no action may have a negative effect on the organisation, then also describe what will happen if the project is **not** undertaken.

This Outline Business Case (OBC) sets out the preferred option for junction improvements at the A956/Beach Boulevard/Justice Street roundabout to facilitate improved walking, wheeling, cycling and public transport connectivity between Aberdeen City Centre and the Beach Esplanade.

Summary of Aberdeen City Council Committee Instruction

On 12th November 2021, Aberdeen City Council's (ACC's) City Growth and Resources Committee considered a [report](#) on the outcomes of a review of the Aberdeen City Centre Masterplan (CCMP) and Beach Development Framework (BDF).

Relevant principles of the BDF for this OBC are:

- Improved Access and Connectivity between the Beachfront and City Centre;
- Infrastructure, including traffic management that reduces the impact of the existing road network to promote alternative forms of travel, including walking and cycling, whilst improving public realm

The Committee approved the Rope Works Masterplan concept which allows the route from Castlegate to flow down the Beach Boulevard and transition from a formal character to a more natural, softer and playful form. A central concept of the masterplan is the development of a largely car-free core to encourage active travel and provide a destination for people to enjoy safe leisure and recreational time.

On 28th February 2022, ACC considered a [report](#) on Beach Masterplan Progress. The Committee recommendations included the following:

- to instruct the Head of Commercial and Procurement and the Chief Officer - Strategic Place Planning - to develop an Outline Business Case to improve the connectivity between the city centre and the beach and report back progress to the June 2022 meeting of Full Council

In terms of connectivity between the City Centre and beach, the report identified the following aims:

- Increasing pedestrian and cycle connectivity between the City and the Beach
- Improving the appearance and experience of walking or cycling to the beach
- Improving legibility of the journey
- Providing a segregated cycle route
- Increasing soft landscape and biodiversity

In addition to the above, enhancing public transport connectivity between the City Centre and the Beach is also a key aspiration.

Further progress, including a [Draft Beach Development Framework](#), was [reported](#) to Council in June 2022. The Council agreements included the following:

- (i) *to instruct the Chief Officer - Commercial and Procurement to provide further updates on all longer-term interventions to OBC: **Beach Boulevard**, Surf Village, Beach Ballroom, New Stadium, New Leisure Facility, Boardwalk, New Slipway, Energy Centre, **Justice Street Roundabout**, and report progress to December 2022 Council*

In August 2022, ACC approved an overarching [City Centre and Beach Masterplan](#) document. This strategic document did not replace the CCMP or the BDF, but rather it sits above these site-specific plans as a strategic, place-led, project focused, overview.

Summary of Outline Business Case Development

Following the above Committee instruction, ACC engaged consultancy support (SYSTRA Ltd) to undertake a proportionate STAG (Scottish Transport Appraisal Guidance) appraisal of options for improving walking, wheeling, cycling and public transport connectivity between Aberdeen City Centre and the Beach Esplanade, and to progress the recommended improvements to Outline Business Case (OBC).

This builds upon and enhances work currently underway to develop and deliver the Aberdeen City Centre Masterplan (CCMP) and Beachfront Development Framework (BDF).

2. Executive Summary

Provide a clear, concise summary of the key features of the business case, briefly describing what the project will deliver, any key decisions associated with it, the expected costs and the funding position (showing any budgets already identified/ expected and the ask of Capital). Include an outline of the benefits, and any dis-benefits, what risks and assumptions are associated with the project, and summarise planned or agreed dates and time constraints. Indicate who is the project sponsor and how the project will be owned and governed and what form the project board will take.

Purpose

This OBC sets out the preferred option for junction improvements at the A956/Beach Boulevard/Justice Street roundabout to facilitate improved walking, wheeling, cycling and public transport connectivity between Aberdeen City Centre and the Beach Esplanade.

This builds upon and enhances work currently underway to develop and deliver the Aberdeen City Centre Masterplan (CCMP) and Beachfront Development Framework (BDF). The junction is a key connection point between Aberdeen's CCMP and BDF and its future operation is critical to facilitating better connections between the city centre and beachfront. Successful delivery of junction improvements will contribute the success of the wider masterplans.

Strategic Fit

The [Aberdeen City Centre and Beach Masterplan](#) (CCBMP) is a regeneration blueprint that is transforming the city while conserving its proud heritage. The goal is greater prosperity, a

better quality of life for all, and encouraging people to walk or cycle more. Successful delivery of junction improvements will positively contribute to several outcomes and objectives of adopted ACC policies and strategies, in particular:

- Local Outcome Improvement Plan
- Regional Economic Strategy
- Strategic and Local Development Plan
- National, Regional and Local Transport Strategies
- Sustainable Urban Mobility Plan
- Roads Hierarchy
- Net Zero Vision and Routemap for Aberdeen
- Net Zero Mobility Strategy

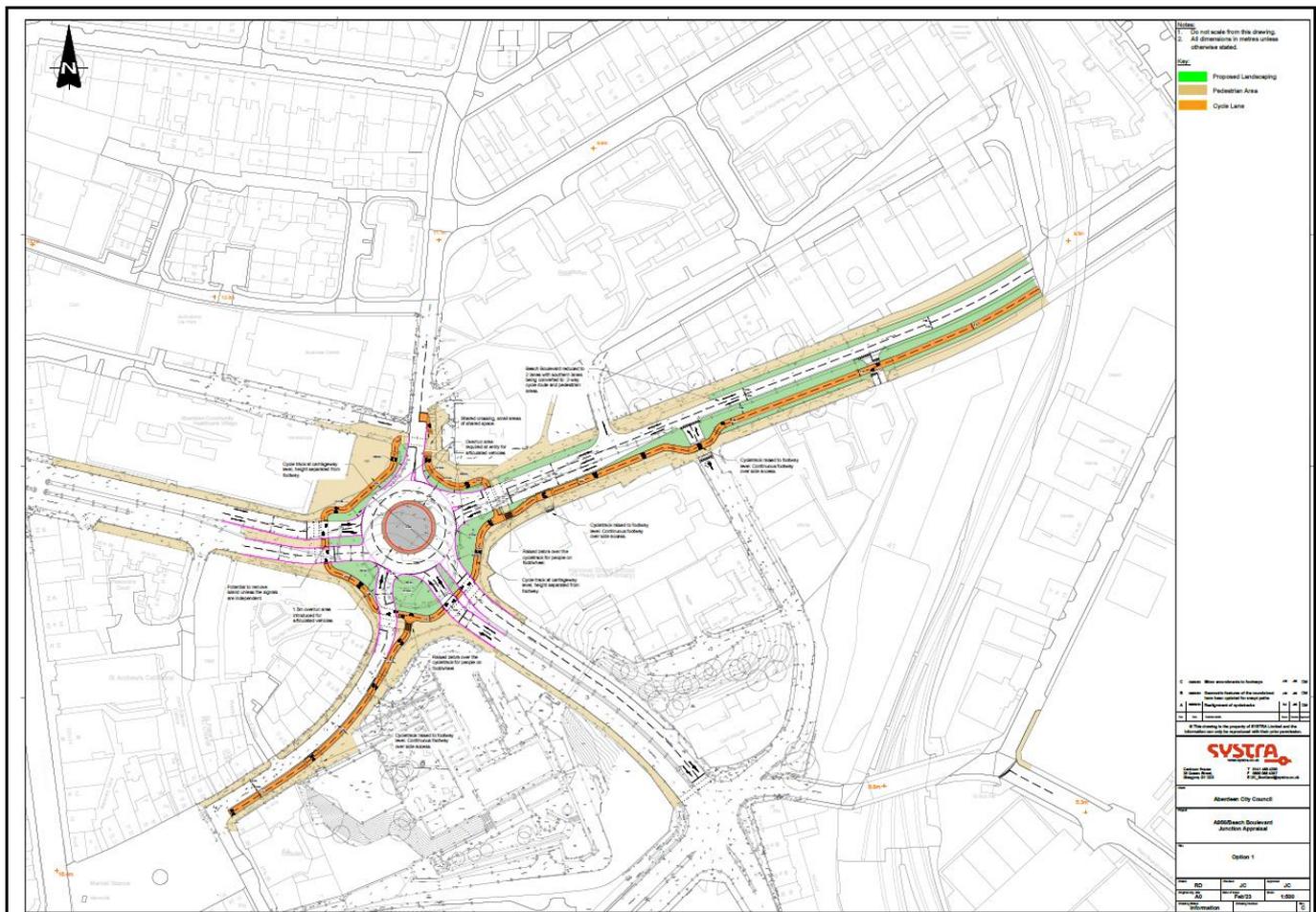
Project Objectives

The final OBC objectives were devised to align with wider CCMP and BDF objectives and are:

1. Improve pedestrian, wheeling and cycling connectivity
2. Improve access for all
3. Improve public transport connectivity
4. Optimise the traffic network performance
5. Optimise Network Resilience

Project Overview

The preferred option proposes to reduce the size of the existing roundabout and shift the footprint to the north-west. This change facilitates opportunities to provide improved pedestrian and segregated cycling connections between all arms of the existing junction, as shown below.



The benefits of this option are:

- Provision of improved walking and wheeling connections on all arms, with reduced walk distances and times
- Remote crossings (closer to desire lines than existing situation) that are activated by the user, giving short wait times and improving user experience
- Pedestrian crossing dwell areas larger than existing provision to provide safer, more comfortable space to wait (and cater for high volume pedestrian events)
- Crossing points on Commerce Street and East North Steet are traversed in one single movement - no need for pedestrians or cyclists to wait in a central reserve
- Reduced road space requirements allow for opportunities for public realm improvements (planting, seating, etc.)
- New segregated cycle connections provided between all arms
- New cycle infrastructure connects the proposed CCMP/Justice Street and BDF/Beach Boulevard segregated cycle lanes through the junction
- The design is likely to lower speeds of vehicular traffic and improve overall safety and experience for non-motorised users
- Performs well against the policy objectives to prioritise active travel over vehicular movements
- Bus journey times and journey time reliability maintained
- Accommodates future bus route improvements (e.g. through Justice Street/Castlegate)

- Little impact on general traffic queueing or journey times (retains optimum capacity of a roundabout)
- Maintains access to/from all arms for general traffic
- Maintains access to/from Aberdeen Harbour
- Capital and Revenue Costs contained to junction area i.e. no wider network implications expected

The possible disadvantages of this options are:

- It may be considered confusing for some users. For example, pedestrians crossing multiple cycle lanes
- There may be short to medium-term disruption to local access for residents and businesses

Project Costs

Total project construction costs are estimated to be £12,282,000.

The cost estimates were derived through a Design Manual for Roads and Bridges (DMRB) Stage 2 Engineering Assessment and are considered high-level at this stage with a range of estimates provided due to uncertainties at this early stage of design. Assumptions on these costs are provided in Section 18.

Project Risks

Risk:

Departure from design standards expected, particularly on entry/exit radii of Commerce Street, Justice Street and East North Street. There is a potential detailed design risk if required departures impact on the safety of users.

Mitigation:

Cognisance taken of design standards during detailed design and their impact on the use of the junction for all modes. For example, a departure from standards may enforce lower traffic speeds which could have positive benefits for other non-motorised users

Risk:

The reduces roundabout size may cause issues for current Abnormal Load route on East North Street and Commerce Street.

Mitigation:

Overrun areas expected for some larger vehicles. The use of the junction by abnormal loads to be carefully assessed and managed during detailed design.

Risk:

Access to and from Justice Street for some larger vehicles may be restricted. Access challenges for Heavy Goods Vehicles (HGVs) (uncommon) and buses to be confirmed at detailed design stages.

Mitigation:

Preliminary design checks suggest a viable solution is likely to be identified at detailed design stage. Checks also confirmed access for smaller vans and refuse vehicles (more common vehicle types) will be maintained.

Dates & Time Constraints

This project will be delivered as part of the Beachfront Masterplan. Assuming this OBC is approved in April 2023, a Full Business Case (FBC) will be prepared by April 2024 as part of the wider public realm delivery programme.

Project Sponsor

The project sponsor is Craig Innes, Chief Officer – Commercial & Procurement.

3. Strategic Fit

This section will consider how the project fits with the list of projects identified in the Local Outcome Improvement Plan). Firstly, state if the project is identified within the LOIP. If it is not, how does it work with the Council's strategic objectives such as:

- Prosperous Economy
- Prosperous People (Children & Young People)
- Prosperous People (Adults)
- Prosperous Place

The [Aberdeen City Centre and Beach Masterplan](#) (CCBMP) is a regeneration blueprint that is transforming the city while conserving its proud heritage. The goal is greater prosperity, a better quality of life for all, and encouraging people to walk or cycle more.

This project – the connection between the CCMP and BDF – while not directly referenced within the LOIP, will contribute to the delivery of the LOIP strategic objectives. By delivering a package of junction changes that improve connectivity for walking, wheeling and cycling between the city centre and the beachfront and allowing for optimal public transport and shared transport networks (as set out in the study objectives in Section 5), the project will contribute to:

- **Prosperous People (Children & Young People)** by becoming a more child friendly city with active travel connections to key leisure facilities and opportunities that open through the delivery of the CCBMP
Relevant Stretch Outcome:
 - *Child friendly city where all decisions which impact on children and young people are informed by them by 2026*
- **Prosperous People (Adults)** by supporting wellbeing, good health choices and adoption of healthier lifestyles through improved active travel connections between the city centre and the beachfront

Relevant Stretch Outcome:

- *Healthy life expectancy (time lived in good health) is five years longer by 2026*

- **Prosperous Place** by promoting mode changes and in turn, increasing sustainable travel, increasing green spaces and reducing carbon emissions

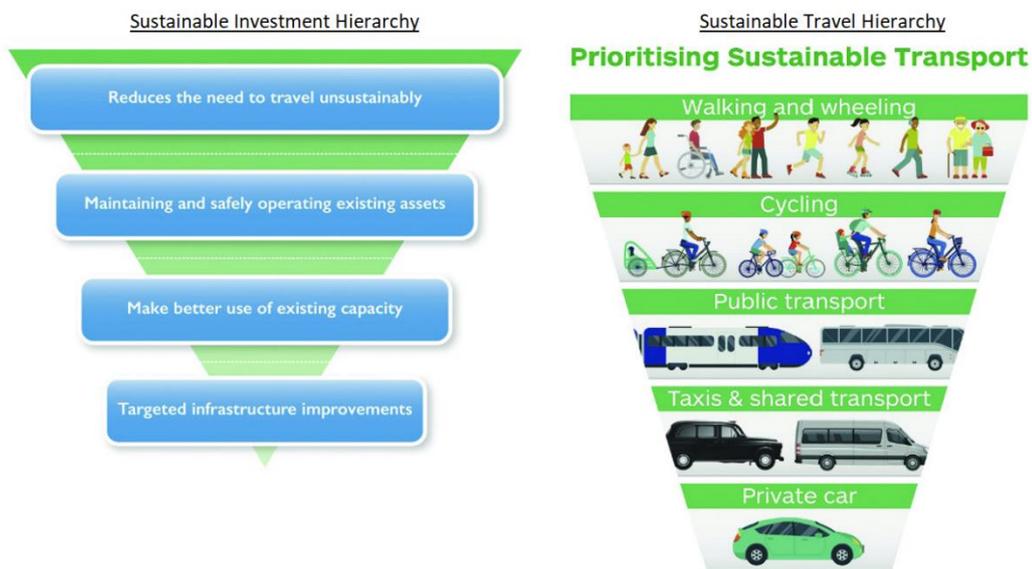
Relevant Stretch Outcome:

- *Addressing climate change by reducing Aberdeen's carbon emissions by at least 61% by 2026 and adapting to the impacts of our changing climate*
- *Increase sustainable travel: 38% of people walking and 5% of people cycling as main mode of travel by 2026*

As part of the options appraisal, an assessment on how the proposed option performed against current local and national policy objectives was undertaken and concluded the preferred option to positively contribute to several outcomes and objectives of adopted ACC policies and strategies. This includes:

- Local Outcome Improvement Plan
- Regional Economic Strategy
- Strategic and Local Development Plan
- National, Regional and Local Transport Strategies
- Sustainable Urban Mobility Plan
- Roads Hierarchy
- Net Zero Vision and Routemap for Aberdeen
- Net Zero Mobility Strategy

The option generation process was also informed by both the Sustainable Investment Hierarchy and the Sustainable Travel Hierarchy. In doing so, as noted in **National Transport Strategy 2**, transport options that focus on reducing inequalities and reducing the need to travel unsustainably will then be prioritised.



This OBC does not progress the preferred option to detailed design but importantly option development took cognisance of relevant design policy and guidance such as **Roads for All**, **Cycling by Design**, and **Designing Streets**.

4. Business Aims, Needs & Constraints

Provide an overview of the sponsoring organisation and explain how the project supports the existing policies and strategies, and how it will assist in achieving the business goals, aims and business plans of the organisation. Include any relevant information about the current business situation, such as the organisational structures, business model, buildings, processes, teams and technology currently in place.

Aberdeen City Council is the sponsoring organisation for this project. The project's contribution to the Council's aims and objectives are set out in the response to question 3, and details of the current business situation are set out in the responses below.

Describe the purpose of the project, why it is needed, establishing a compelling case for change based on business needs, e.g. demand for services, deficiencies in existing provision etc. Where are we now and where do we need to get to.

The focus of this OBC is a five-arm roundabout in Aberdeen city centre connecting the key routes of East North Street (A956), Commerce Street and Beach Boulevard while also incorporating Justice Street to the south-west (and links to Castlegate/city centre) and Park Street to the north.

The junction is a key connection point between Aberdeen's CCMP and BDF and its future operation is critical to facilitating better connections between the city centre and beachfront.

The CCMP aims to transform Aberdeen city centre while conserving its proud heritage. The goal is greater prosperity and a better quality of life for all. The BDF sets a vision and key design principles for a world class sport, leisure and tourism destination which would revitalise the Beachfront area and reconnect it to the city centre. The transport proposals in the BDF are designed to aid a city-wide move towards more sustainable travel. They aim to create a space which feels like more of a natural extension of the city centre with walking, cycling and public transport use at the heart of the design.

The BDF also identifies current constraints for pedestrian and active travel crossings at the A956/Beach Boulevard roundabout and shows how the road infrastructure dominates this part of the city, creating a sense that, for those walking, cycling and wheeling, the Beachfront is detached from the city centre. Initial concept options for the roundabout aimed to show that the junction could be transformed by:

- Improving pedestrian and cycle connectivity
- Extending the character of the city centre
- Creating a new entry into a new public space

Following the initial concept options, an objective-led appraisal of options for improving walking, wheeling, cycling and public transport connectivity between Aberdeen City Centre and the Beach Esplanade at the A956/Beach Boulevard roundabout has been undertaken. To begin the Appraisal process, the existing situation was examined to identify how all users currently utilise the junction. The existing problems and constraints for users can be summarised as follows:

- A motorised traffic focussed junction with a large footprint
- Walking, wheeling and cycling connectivity is indirect and unattractive
- Formal crossing points are dislocated from desire lines
- Pedestrian environment is constrained and may feel intimidating or unsafe to some users

- There are limited formal cycle facilities at the junction, with only mandatory on-road cycle lanes on Beach Boulevard
- The junction is a key freight route, it facilities access to the Harbour and is the designated Abnormal Load Route

Identify any constraints, e.g. timing issues, legal requirements, professional standards, planning constraints. What assumptions have been made, and any linkages and interdependencies with other programmes and projects should be explained, especially where the proposed project is intended to contribute to shared outcomes across multiple Clusters.

As noted above, the future operation of the junction is crucial to facilitating better connections between the City Centre and Beach Masterplans and therefore successful delivery of junction improvements will contribute to the success of the wider masterplans. Improvements at the roundabout however are also intrinsically linked to the programmed delivery and future success of both masterplans, in particular the BDF, and cognisance must be taken of the planned delivery programmes to ensure one does not impact on the delivery of the other.

The junction improvements are interdependent on the proposed Justice Street segregated cycle lane and the Beach Boulevard segregated cycle lane to provide an uninterrupted cycle link between the city centre and beachfront.

Physical constraints have been identified in the accompanying Design Manual for Roads and Bridges (DMRB) Stage 2 Engineering Assessment. This assessment concluded there to be no significant constraints to deliverability from:

- Engineering constraints
- Vertical & horizontal alignments
- Drainage & SUDS (Sustainable Urban Drainage System)
- Structures
- Ground Conditions & Earthworks
- Utilities
- Constructability

The design would be subject to further consideration of issues relating to construction, use, maintenance and demolition throughout its development. Within this study area, there are elements which pose constructability challenges as listed below. All of these are typical of an urban transport project and good practice traffic and construction management would minimise the impacts

- Intrusive construction activities within a built-up urban environment
- Intensive traffic management measures to keep vehicular movement flowing to a degree through the junction during the works
- Intrusive construction works around local businesses and residential properties
- Issues with respect to access for businesses and property owners
- Working in and around existing retaining structures

Further consideration of construction phasing and maintenance of existing access arrangements during the construction period would be undertaken during DMRB Stage 3 Engineering Assessment and a constructability audit would also be undertaken.

State what impact the project will have on business as usual, e.g. temporarily reduce capacity or divert resources.

The nature of the proposals are such that disruption to the area is to be expected during construction with most impacts felt on the surrounding properties, businesses and the existing road network. Disruption would be expected on the local traffic network as well as the wider Aberdeen area due to the traffic management measures required to maintain movement of traffic through the city centre during any construction works. Again, this is typical of an urban transport project and suitable traffic and construction management would minimise the impacts.

The initial constraints highlighted include:

- Business Access – This includes numerous businesses on the western side of Justice Street, businesses to the north and south of Beach Boulevard and businesses to the east and west of Park Street
- Property Access - Marischal Court accessed via Justice Street/Virginia Court and various surrounding property accesses
- Connection to surrounding amenities – Such as Hanover Street Primary School, Aberdeen Community Health and Care Village, Frederick Street Car Park, Aberdeen Mosque and Islamic Centre
- The broader local road network such as the existing roundabout, Commerce Street, Park Street, Justice Street, Beach Boulevard, East North Street and King Street

On completion of the junction improvements, the option will maintain existing access to all business, property, amenities.

5. Objectives

List the project's objectives. Make these tangible and clear as they will influence which option is recommended and will be used to monitor project progress and success.

To inform the objective setting, the aims and objectives of the CCMP and BDF were reviewed. The final OBC objectives are therefore informed by, and enablers for, the wider CCMP and BDF objectives.

The project objectives are:

1. Improve pedestrian, wheeling and cycling connectivity
2. Improve access for all
3. Improve public transport connectivity
4. Optimise the traffic network performance
5. Optimise Network Resilience

| Objective | | SMART Performance Measure | |
|-----------|---|--|--|
| | | Measure | Method of Analysis |
| 1 | Improve pedestrian, wheeling and cycling connectivity | Reduce walk distances through the junction | Total distance comparisons |
| | | Reduce walk time between City Centre and Beach through junction | Point to point journey time comparison |
| | | Optimise greentime/frequency of non-motorised movements through junction | Total cycle green time comparisons |
| | | Increase segregated cycle crossings | No. of arms connected by seg. cycle crossings |
| 2 | Improve access for all | Reduce walk distances through the junction | Total distance comparisons |
| | | Reduce required level changes | Comparison against existing provision |
| | | Reduce the number of remote pedestrian crossings | Comparison against existing provision |
| 3 | Improve public transport connectivity | Reduce bus journey times between Union Street (CCMP) and Beachfront | Existing vs Option (Paramics model analysis) |
| | | Improve journey time reliability between Union Street (CCMP) and Beachfront | |
| | | Accommodate future bus movement between Justice Street and Beach Boulevard | Suitability for potential bus routes through Justice Street |
| 4 | Optimise the traffic network performance | Assessment of journey times on key routes through the junction | Existing vs Option (Paramics model analysis) |
| | | Assessment of any localised congestion on approaches to the junction | |
| | | Assessment of general network wide journey times and delay | |
| 5 | Optimise Network Resilience | Public transport resilience (e.g. displacement of buses on to harbour route) | Informed by Paramics model analysis on network performance and wider considerations on Option Design |
| | | General traffic resilience (e.g. accommodate incident in traffic network) | |
| | | Provide emergency vehicle access in all directions | |

The performance of all assessed options against the SMART objectives can be found in *A956 Beach Boulevard Roundabout Option Appraisal Report (SYSTRA Ref: GB01T22C81/011222, March 2023)*, with the final appraisal score set out in Section 7.

6. Scope

What will the project produce? What are its outputs?

Consider what business services, processes, people and environments will be delivered, affected or changed by the project.

Also define the work the project will carry out to make the transition from the project to 'business as usual' – the handover period.

State the project success criteria.

The focus of this OBC is a five-arm roundabout in Aberdeen city centre connecting the key routes of East North Street (A956), Commerce Street and Beach Boulevard while also incorporating Justice Street to the south-west (and links to Castlegate/city centre) and Park Street to the north.

The OBC sets out the preferred option that delivers a range of junction improvements to provide better walking, wheeling, cycling and public transport connectivity between Aberdeen City Centre and the Beach. This in turn has the potential to deliver a shift to more sustainable modes of transport for journeys between the city centre and beachfront with associated air quality improvements and carbon reduction benefits.

Preliminary design has been undertaken as part of the OBC development. Further engineering assessments and detailed design will follow, subject to approval of the OBC, and will provide further information on benefits, risks and challenges of delivering the preferred option.

A successful preferred option will deliver against the 5 study objectives (listed in Box 5).

6.1 Out of Scope

List any notable exclusions, those areas that may be viewed as associated with the project or the affected business area, but which are excluded from the scope of the project.

The sole focus of this OBC is the A956/Beach Boulevard/Justice Street Roundabout. While cognisance was taken of ongoing CCMP and BDF proposal, any such proposals are not in the scope of this OBC.

In considering viable options to improve the roundabout, the DMRB Stage 2 Engineering Assessment examined four possible options:

- An at-grade solution
- A new pedestrian and cycle overbridge connecting Justice Street and Beach Boulevard
- A tunnel option to move general traffic to below ground-level
- Upgrading of existing footbridge (over Commerce Street)

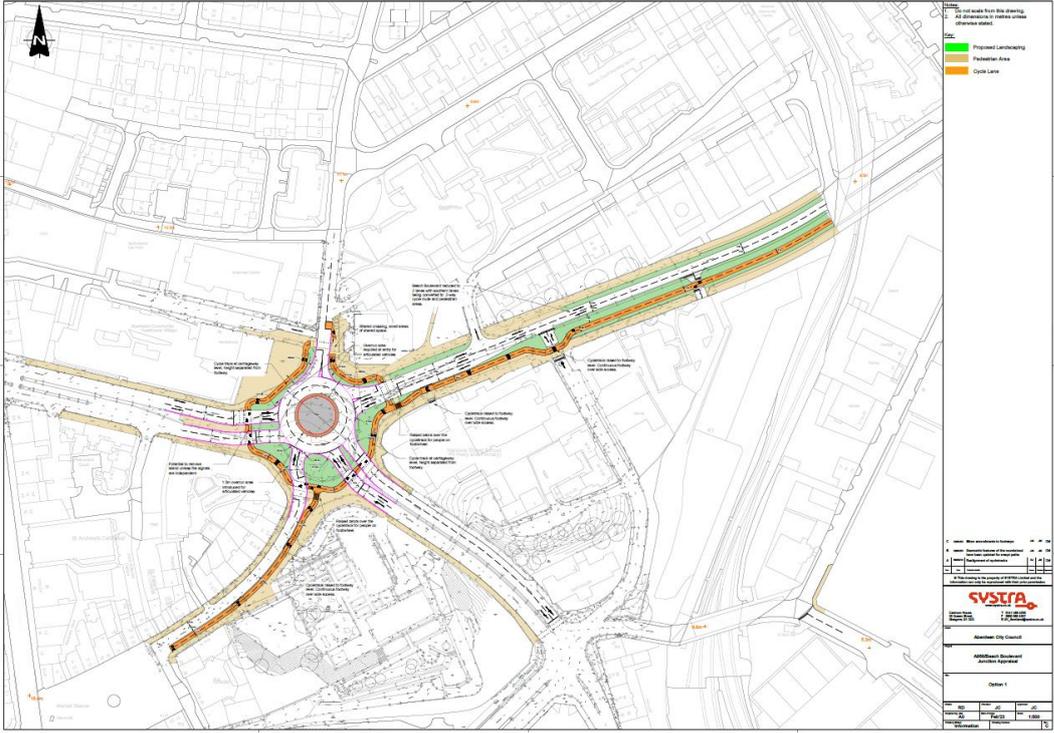
The assessment concluded an at-grade solution to be the most favourable solution to meet the needs and objectives for junction improvements.

The new overbridge and tunnel options would include significant constructability challenges presented through drainage, groundworks, pavement design and utilities and would incur significant costs.

While a lower cost option, enhancements to the existing overbridge present some similar constructability challenges and would deliver an option that fails to meet the majority of study objectives.

| 7. Options Appraisal | |
|---------------------------------------|---|
| 7.1 Do Nothing | |
| Description | Do nothing |
| Expected Costs | £0 additional capital cost. Road maintenance costs will continue to be covered through existing budget. |
| Expected Benefits | No cost option. Range of disbenefits including continued disconnect, particularly for walking, wheeling and cycling, between the City Centre and the Beachfront. |
| Risks Specific to this Option | As noted above, the future operation of the junction is crucial to facilitating better connections between the City Centre and Beach Masterplans and therefore without appropriate intervention the full benefits of the wider CCBMPs are unlikely to be realised. Reputational risk to the Council if this particular link (identified as a problem through consultation and engagement) is not addressed and, more widely, if the Council is seen not to be pursuing improvements to encourage more active and sustainable travel, enhance accessibility and support carbon reduction targets. |
| Advantages & Disadvantages | Advantage - There is significant cost avoidance and disruption. Disadvantage – Missed opportunity to support the achievement of the City Centre and Beach Masterplan objectives. Challenges around limited pedestrian/cycle connections and accessibility will not be addressed. |
| Viability | No new actions required and is therefore viable. |
| Other Points | Not only does this option not fit with CCBPM objectives, it also does not align to wider local, regional and national policies and strategies adopted by ACC. |

7.2 Option 1 – Improved Roundabout

| | |
|---------------------------------|---|
| <p>Description</p> | <p>Summary</p> <ul style="list-style-type: none"> • Reduce the size of the roundabout and shift footprint to the north-west • This change facilitates opportunities to provide improved pedestrian and segregated cycling connections between all arms of the existing junction <p>Concept Design</p>  |
| <p>Expected Costs</p> | <p>A total cost estimate is set at £12,282,000.</p> <p>The cost estimates were derived through a DMRB Stage 2 Engineering Assessment, and are still high-level at this stage with a range of estimates provided due to uncertainties at this stage. Assumptions on these costs are provided in Section 18.</p> |
| <p>Expected Benefits</p> | <p>Non-monetised benefits are set out in Section 8.</p> |

| | |
|--|--|
| <p>Risks Specific to this Option</p> | <ul style="list-style-type: none"> • Departure from design standards possible • Potential detailed design risk if required departures impact on the safety of users • Detailed design may also highlight issues for current Abnormal Load route • Quality risks - including insufficient ACC resource to deliver the project • Traffic management issues including short to medium-term disruption to businesses and displacement of traffic flows |
| <p>Advantages & Disadvantages</p> | <p>Advantages</p> <ul style="list-style-type: none"> • Provides improved walking and wheeling connections on all arms, with reduced walk distances and times • Remote crossings (closer to desire lines than existing situation) are activated by the user, giving short wait times and improving user experience • Pedestrian crossing dwell areas are larger than existing provision to provide safer, more comfortable space to wait (and cater for high volume pedestrian events) • Crossing points on Commerce St and East North St are traversed in one single movement - no need for pedestrians or cyclists to wait in a central reserve • New segregated cycle connections provided between all arms. • New cycle infrastructure connects CCMP and BDF segregated cycle lanes through the junction • Likely to lower speeds of vehicular traffic and improve overall safety and experience for non-motorised users • Performs well against the policy objectives to prioritise active travel over vehicular movements • Bus journey times and journey time reliability maintained • Accommodates future bus route improvements (e.g. through Justice Street/Castlegate) • Little impact on general traffic queueing or journey times (retains optimum capacity of a roundabout) • Maintains access to/from all arms for general traffic • Maintains access to/from Aberdeen Harbour • Capital and Revenue Costs contained to junction area i.e. no wider network implications expected <p>Disadvantages</p> <ul style="list-style-type: none"> • It may be considered confusing for some users. For example, pedestrians crossing multiple cycle lanes • Access to Justice Street for delivery vehicles or service vehicles may be limited and impact businesses/residents • Short to medium-term disruption to local access |

| | |
|----------------------------|---|
| <p>Viability</p> | <p>A DMRB Stage 2 Engineering Assessment has been undertaken and concluded a new at-grade solution at this location to be viable, subject to detailed design standards. The DMRB St2 Assessment included assessment of:</p> <ul style="list-style-type: none"> • Engineering constraints • Vertical & horizontal alignments • Drainage & SUDS • Structures • Ground Conditions & Earthworks • Utilities • Constructability |
| <p>Other Points</p> | <p>Delivery Timeline:</p> <ul style="list-style-type: none"> • Construction Q2 2024 – Q2-2026 <p>Assumptions:</p> <p>The traffic and economic modelling assumptions are detailed in supporting appendices and Section 18.</p> <p>Constraints include:</p> <ul style="list-style-type: none"> • Material availability • sufficient manpower in terms of deliverability • consideration of utilities • maintained service, emergency, and delivery vehicle access • Business continuity & resident access |

7.3 Option 4 – Signalised Junction

Description

Summary

- Signalised junction with banned right turn from Commerce St to Beach Blvd and Park St NB only (from East North St)
- Vehicles from the south of the city travelling to the beach area signed to route via Cotton St/Miller St
- No vehicular access from Justice Street to Beach Blvd (achieved via Cotton St/Miller St)
- Enhanced pedestrian and cycling connections through the junction with segregated cycle lanes connecting Justice St & Beach Blvd, with possible provision to other arms

Concept Design



Expected Costs

A total cost estimate is set at £12,282,000.

At this stage, the cost estimate is the same as Option 1 given the uncertainties as set out in Section 18. It should be borne in mind however, that this does not include costs for any wider network improvements that may be required as a result of this option, as these have not been fully identified at this stage of the assessment. **The costs of such works may considerably increase the overall costs to deliver this option.**

Expected Benefits

Non-monetised benefits are set out in Section 8.

| | |
|--|---|
| <p>Risks Specific to this Option</p> | <ul style="list-style-type: none"> • Wider deliverability risks and considerations: E.g. impacts on the Virginia St/Castle Terrace junction and Cotton St/Links Rd junction, likely to require additional junction upgrades at these locations; the use of wider network a requirement to deliver option • Capital and Revenue costs wider than junction itself: E.g. Cotton St/Links Rd if signalised, maintenance of road surfaces / lighting / parking enforcement if traffic volumes increase • Signing private cars from the south to arrive at the Beachfront at Cotton St/Links Rd may impact planned BDF proposals: E.g. increase in traffic arriving at Urban Park • Quality risks - including insufficient ACC resource to deliver the project • Traffic management issues including short to medium-term disruption to businesses and displacement of traffic flows. |
| <p>Advantages & Disadvantages</p> | <p>Advantages</p> <ul style="list-style-type: none"> • Provides improved walking and wheeling connections on all arms, with reduced walk distances and times • 4 stage signalised junction with all round pedestrian stage with a significant % of proposed cycle time attributed to pedestrian stage. • All crossing contained within junction • New segregated cycle connections provided between all arms • New cycle infrastructure connects CCMP and BDF segregated cycle lanes through the junction • Performs well against the policy objectives to prioritise active travel over vehicular movements • Bus journey times and journey time reliability maintained • Accommodates future bus route improvements for westbound bus movements on Justice Street/Castlegate • Little impact on general traffic queueing or journey times (minimal impact of signalising junction) • Maintains access to/from Aberdeen Harbour • Maintains Abnormal Load route <p>Disadvantages</p> <ul style="list-style-type: none"> • The option requires the use of wider transport network and therefore introduces several associated risks as listed above • Justice St to Beach Blvd movement also removed (low volume movement) with route also via Cotton St/Miller St • Access to Park St from the junction restricted. Only accessible via East North St. This restricts direct access from south to the Healthcare Village on Frederick St (other routing available) |

| | |
|----------------------------|--|
| <p>Viability</p> | <p>A DMRB Stage 2 Engineering Assessment has been undertaken and concluded a new at-grade solution at this location to be viable, subject to detailed design standards. The DMRB St2 Assessment included assessment of:</p> <ul style="list-style-type: none"> • Engineering constraints • Vertical & horizontal alignments • Drainage & SUDS • Structures • Ground Conditions & Earthworks • Utilities • Constructability |
| <p>Other Points</p> | <p>Delivery Timeline:</p> <ul style="list-style-type: none"> • Construction – Q2 2024 – Q2 2026 <p>Assumptions: The traffic and economic modelling assumptions are detailed in supporting appendices and Section 18.</p> <p>Constraints include:</p> <ul style="list-style-type: none"> • Material availability • sufficient manpower in terms of deliverability • consideration of utilities • maintained service, emergency, and delivery vehicle access • Business continuity & resident access |

7.4 Scoring of Options Against Objectives

Use the table below to score options against the objectives in order to create a shortlist of options to be considered.

| Objectives | Options Scoring Against Objectives | | | | | | | |
|--|------------------------------------|----|----|--|--|--|--|--|
| | Do Nothing | 1 | 4 | | | | | |
| Improve pedestrian, wheeling and cycling connectivity | 0 | 3 | 3 | | | | | |
| Improve access for all | 0 | 2 | 2 | | | | | |
| Improve public transport connectivity | 0 | 2 | 2 | | | | | |
| Optimise the traffic network performance | 0 | 1 | 1 | | | | | |
| Optimise Network Resilience | 0 | 2 | 2 | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Total | 0 | 10 | 10 | | | | | |
| (use F9 function key on each total to add the numbers in the column <highlight 0 in Total column before pressing to update>) | | | | | | | | |
| Ranking | 2 | 1= | 1= | | | | | |

Scoring

Fully Delivers = 3

Mostly Delivers = 2

Delivers to a Limited Extent = 1

Does not Deliver = 0

Will have a negative impact on objective = -1

7.5 Recommendation

Using evidence based on the options appraisal and the objectives scoring, clearly articulate the recommended option, showing the best fit against the project's stated objectives, and balancing cost, benefits and risk. Note, if an option fails to deliver any essential objective then it must be discounted as unsuitable. The recommendation should not be made on objectives scoring alone but the table can be used to eliminate those options that score poorly as a first stage, with the second stage being a more detailed analysis of the remaining options. Bear in mind:

- Investment Appraisal
- Assumptions
- Constraints
- Dependencies

Option 1 and Option 4 achieved comparable scores against all appraisal criteria with both expected to deliver significant positive benefits against the study objectives. The full option appraisal and testing process is detailed within the supporting STAG report.

Following a consideration of both options and their appraisal outcomes, the CCMP Board recommended Option 1 be progressed as the final preferred option to Outline Business Case (OBC).

On consideration of the benefits and potential risks of each option, as set out above, the risks associated with Option 4 are considered to be more significant than those seen in Option 1. In particular:

- **Longer-term deliverability risk associated with Option 4**

The successful delivery of Option 4 is dependent on the wider road network, particularly the area to the south and east of Beach Boulevard and Commerce Street. The option proposes the use of Cotton Street and/or Miller Street as alternative routes to the beachfront area for vehicles travelling from southern areas of the city (or wider). To deliver this, each new route would have to be improved (e.g. junction access, local access, carriageway standards, parking provision, signage etc.). The existing junction of Commerce Street/Virginia Street/Castle Terrace and the new requirements for a junction at Cotton Street/Links Road in particular are highlighted as key risks to deliverability.

Conversely, the footprint of Option 1 is solely contained within the existing junction area. Its delivery is not dependent on wider network use and the challenges this may bring.

- **Higher Capital and Revenue Costs of Option 4**

Through use of the wider network and above considerations, Option 4 is likely to have higher Capital costs than Option 1. Revenue costs would also be expected to be higher for Option 4 due to the ongoing maintenance requirements of the alternative routes and junctions. These additional costs have not been quantified at this stage of the assessment, hence why the options are assigned similar high-level costs in section 7 (based on DMRB assessment of a generic at-grade solution), but could be significant.

- **Potential impact on BDF redline boundary at Cotton Street/Links Road**

The use of Cotton Street as an alternative route to the beach in Option 4 would require the Cotton Street/Links Road junction to be upgraded. The appraisal and modelling to date has assumed a solution is likely to be feasible (e.g. new roundabout or signalised junction). However, in addition to a feasible solution, it is likely that any solution would encroach the red line boundary of the BDF at a location in the heart of the proposed urban park (i.e. Links Road).

8. Benefits

In the tables below, identify the key benefits the project will deliver.

All benefits need to be measurable, realistic and have a baseline or comparable starting point. These benefits will be monitored during and after the project close to gauge project success and value for money. If a benefit is more subjective, then that should be supported by, for example, staff or customer surveys taken **before and after** the project.

Give an idea of the total financial benefits, if these exist.

List any dis-benefits where appropriate, e.g. the loss of a disposal receipt where it is proposed to utilise a surplus building instead of selling it.

8.1 Customer Benefits

| Benefit | Measures | Source | Baseline | Expected Benefit | Expected Date | Measure Frequency |
|--|---|---|--|--|----------------------|-------------------|
| Improvement in conditions for walking, wheeling and cycling journeys through the A956/Beach Boulevard Junction | Number of people walking and wheeling through the junction. Number of people cycling through the junction. | Automatic pedestrian and cycle counters | To be benchmarked during detailed design stage | Increase in numbers walking and cycling through the junction | Upon Scheme Delivery | Annual |
| Improvements to accident rates at the A956/Beach Boulevard Junction | Accident Assessment: Reduction in volume of accidents in and around the junction rather | Department for Transport's Cost and Benefit to Accidents (COBALT), CrashMap | To be benchmarked during detailed design stage | Reduction in the number of accidents | Upon Scheme delivery | Annual |
| | | | | | | |

| | | | | | | |
|---|-------------------|--|--|--|--|--|
| Better place to live, work and invest. Improvements in physical health and wellbeing | Not quantifiable. | | | | | |
| | | | | | | |

| 8.2 Staff Benefits | | | | | | |
|---|--|---------------------|--|--|------------------------|-------------------|
| Benefit | Measures | Source | Baseline | Expected Benefit | Expected Date | Measure Frequency |
| Improvements to quality of active travel connections between the city centre and beachfront. Potential to improve commuting journey and increase health benefits for Council staff. | An increase in the proportion of staff walking to work. An increase in the proportion of staff cycling to work. | Staff travel survey | Walk to work – 11.4% Cycle to work – 4.1% | Increase in the proportion of staff walking and cycling to work. | Upon scheme completion | Biannually |

| 8.3 Resources Benefits (Financial) | | | | | | | |
|------------------------------------|----------|--------|---------------------|------------------|----------------|---------------|-------------------|
| Benefit | Measures | Source | Capital or Revenue? | Baseline (£'000) | Saving (£'000) | Expected Date | Measure Frequency |
| Not applicable | | | | | | | |
| | | | | | | | |
| | | | | | | | |

9. Costs

Use the tables below to provide cost information. Costs must include capital investment and where relevant any ongoing revenue costs incurred by the project or as a result of the project.

The source/basis of any estimates should be clearly identified.

Refer to the Government Green Book and the Supplementary Guidance on Optimism Bias for information on determining costs. Outline any assumptions in estimating costs in Section 17, **and** confirm in the Checklist that you have followed this guidance.

[Green Book Supplementary Guidance Optimism Bias](#)

[The Green Book 2022 \(HM Treasury Guidance\)](#)

To improve the design development process for capital projects there is a need to consider full life cycle costs, including maintenance. Therefore, costs should be considered at least over a 5-year period. It is an estimate of the resources and capabilities (people, physical resources, and funding) needed to deliver the project and sustain the benefits. The estimates need to cover both the direct project costs and the ongoing (business as usual) costs for the lifetime over which the benefits are to be considered.

Include information on where the budget will come from.

Full costs breakdown to be included.

Any impact on business as usual or service delivery.

9.1 Project Capital Expenditure & Income

| (£'000) | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Total |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|-------|
| Staffing Resources | | | | | | | | | | | |
| | | | | | | | | | | | |
| Land Acquisitions | | | | | | | | | | | |
| | | | | | | | | | | | |
| New Vehicles, Plant or Equipment | | | | | | | | | | | |
| | | | | | | | | | | | |
| Construction Costs | 12,282 | | | | | | | | | | |
| | | | | | | | | | | | |
| Capital Receipts and Grants | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | | | | | | | | |
|------------------|--------|--|--|--|--|--|--|--|--|--|--|
| Sub-Total | 12,282 | | | | | | | | | | |
|------------------|--------|--|--|--|--|--|--|--|--|--|--|

High-level cost estimates of Year 1 Project Capital Expenditure & Income. To be fully identified during detailed design. All costs subject to assumptions set out in Section 17.

| 9.2 Project Revenue Expenditure & Income | | | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|-------|
| (£'000) | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Total |
| Staffing Resources | | | | | | | | | | | |
| <Add cost items under each heading> | | | | | | | | | | | |
| Non-Staffing Resources | | | | | | | | | | | |
| | | | | | | | | | | | |
| Revenue Receipts and Grants | | | | | | | | | | | |
| | | | | | | | | | | | |
| Sub-Total | | | | | | | | | | | |

No costs associated with Project Revenue Expenditure & Income identified at this stage. To be identified during detailed design

| 9.3 Post- Project Capital Expenditure & Income | | | | | | | | | | | |
|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|-------|
| (£'000) | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Total |
| Staffing Resources | | | | | | | | | | | |
| <Add cost items under each heading> | | | | | | | | | | | |
| Land Acquisitions | | | | | | | | | | | |
| | | | | | | | | | | | |
| New Vehicles, Plant or Equipment | | | | | | | | | | | |
| | | | | | | | | | | | |

| | | | | | | | | | | | |
|------------------------------------|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | |
| Construction Costs | | | | | | | | | | | |
| | | | | | | | | | | | |
| Capital Receipts and Grants | | | | | | | | | | | |
| | | | | | | | | | | | |
| Sub-Total | | | | | | | | | | | |

No costs associated with Post- Project Capital Expenditure expected. To be confirmed during detailed design

| 9.4 Post- Project Revenue Expenditure & Income | | | | | | | | | | | |
|---|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|--------------|
| (£'000) | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7 | Year 8 | Year 9 | Year 10 | Total |
| Staffing Resources | | | | | | | | | | | |
| Add cost items under each heading | | | | | | | | | | | |
| Non-Staffing Resources | | | | | | | | | | | |
| | | | | | | | | | | | |
| Revenue Receipts and Grants | | | | | | | | | | | |
| | | | | | | | | | | | |
| Sub-Total | | | | | | | | | | | |

No additional costs associated with Post- Project Revenue Expenditure expected. To be confirmed during detailed design

| 10. Key Risks | |
|--|---|
| Description | Mitigation |
| <p>Fully explain any significant risks to the project that you are aware of, especially those which could affect the decision on whether and in what form the project goes ahead.</p> <p>Append your full Risk Log if available.</p> | <p>Details of any mitigating action already taken or suggested.</p> |
| <p>Departure from design standards expected, particularly on entry/exit radii of Commerce Street, Justice Street and East North Street.</p> <p>Departures expected due to reduced size of the roundabout and limited space for the three arms noted above.</p> <p>Potential detailed design risk if required departures impact on the safety of users.</p> | <p>Cognisance of design standards during detailed design and their impact on the use of the junction for all modes. For example, a departure from standards may enforce lower traffic speeds which could have positive benefits for other non-motorised users</p> |
| <p>Detailed design may highlight issues for current Abnormal Load route</p> | <p>Overrun areas expected for some larger vehicles. The use of the junction by abnormal loads to be carefully managed during detailed design.</p> |
| <p>Access to and from Justice Street for some larger vehicles may be restricted</p> | <p>Access challenges for HGVs (uncommon) and Buses to be confirmed at detailed design stage. Preliminary design checks suggest a viable solution can be found.</p> <p>Checks also confirmed access for smaller vans and refuse vehicles (more common vehicle types) will be maintained.</p> |
| <p>Project costs/inflation escalating over and above available funding. Consequences - Financial risk to ACC with the possibility of an undeliverable project</p> | <p>Have regular budget reviews at client and design team level, ensure clear briefs are issued to the project team and ensure a robust project management structure is in place. Include an appropriate inflation allowance</p> |
| <p>Unforeseen buried services and structures</p> | <p>Risk transfer through surveys to identify buried services and structures</p> |
| <p>Cost and time over-runs</p> | <p>Diligence and project management arrangements</p> |

11. Procurement Approach

If this project will involve the procurement of products or services, describe the approach that will be taken based upon the recommended option.

The Design Teams must conduct a check on the Health & Safety track record on tender documentation and submission prior to award and confirm this has been done.

The project will be delivered by hub North Scotland Ltd, ACC's strategic development partner for the planning, procurement and delivery of community-based infrastructure projects across the north of Scotland. Hub North Scotland comprises 16 public sector organisations, the Scottish Futures Trust and private sector partners in a joint venture company known as a hubCo with the purpose of working collaboratively to deliver inspiring projects for communities and best value for participants. Aberdeen City Council are one of these public sector organisations and have been part of the hub initiative since 2011.

The key purpose of the hub initiative is to establish a long-term partnering relationship between hubCo and Aberdeen City Council and to procure the provision of appropriate infrastructure and related services involved in providing Community Services with the aim of: a) improving the efficiency of delivery of community-based facilities; b) delivering economies of scale through shared facilities; c) making the best use of public resources; and d) providing continuous improvement in both cost and quality in public procurement.

Hub North Scotland's dedicated supply chain members are working collaboratively with Aberdeen City Council to develop, design and deliver all projects within the ACC City & Beach Vision programme. All procurement is carried out in strict compliance with Hub North Scotland's Project Delivery Method Statement with a completely open book approach to project costs which is continually benchmarked and reviewed to maximise efficiency, accountability and demonstrate continuously improving value for money. The Hub North Scotland supply chain is structured to include both local and national partners maximising economies of scale whilst providing opportunities to local companies. Project development plans have specific focus on community and stakeholder engagement to maximise outcomes for end users.

12. Time

12.1 Time Constraints & Aspirations

Detail any planned or agreed dates, any time constraints on the project or the affected business areas and any other known timescales.

This project is planned to achieve OBC in April 2023 following which it will follow the same delivery timelines as the Phase B elements of the Public Realm Beachfront Projects, an FBC is planned for April 2024 and construction from Q2 2024 to Q2 2026.

12.2 Key Milestones

| Description | Target Date |
|----------------|-------------|
| OBC | April 2023 |
| FBC | April 2024 |
| Contract Close | April 2024 |

13. Governance

Include any plans around the ownership and governance of the project and identify the people in the key project roles in the table below.

| Role | Name | Service |
|---------------------------|-------------------|--|
| Project Sponsor | Craig Innes | Chief Officer – Commercial & Procurement |
| Project Manager | Crawford Ferguson | Hub North / MML |
| Lead Designer | David Murtagh | Hub North/ SYSTRA |
| Landscape Designer | Pol MacDonald | Hub North/Open |

14. Resources

List the staff resources and expertise required to implement the project. Ensure support services are included, such as Project Management, Legal, Procurement and Communications.

| Task | Responsible Service/Team | Start Date | End Date |
|------|--------------------------|------------|----------|
| N/A | | | |

15. Environmental Management

Fully explain any impacts the project will have on the environment (this could include, eg, carbon dioxide emissions, waste, water, natural environment, air quality and adaptation). Include both positive and negative effects and how these will be managed. Include details on how this has been assessed, giving an idea of the cost implication if this exists.

The DMRB Stage 2 Assessment included an environmental assessment, in accordance with [DMRB LA 104](#), with a requirement to:

- Identify environmental factors which are likely to result in significant environmental effects
- Establish where sufficient uncertainty for significant environmental effects remains
- Provide recommendations for potential mitigation measures to minimise negative environmental effects, where required.

The following environmental factors were considered:

- Air quality
- Cultural heritage
- Landscape and visual effects
- Biodiversity

- Geology and soils
- Material assets and wastes
- Noise and vibration
- Population and human health
- Road drainage and the water environment
- Climate.

No significant environmental effect was identified for any criteria, but it was noted that a more detailed assessment is required as the option progresses through design and on to construction. Full details can be found in *Aberdeen Beach Boulevard Ecological Appraisal Desk Study (Mabbett for SYSTRA, Mabbett Ref: 3122221, March 23)*.

| | | |
|---|--------------------------|-------------------------------------|
| Is a Buildings Checklist being completed for this project? | Yes | No |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| If No, what is the reason for this? | | |
| Project does not involve the construction of a new building | | |

16. Preserving Our Heritage

Describe fully any impacts the project will have on the heritage of the city or more widely in the region or nationally. This could include but is not exclusive to the following examples:

- Specific historical items of interest;
- Features of significant local or regional importance/interest;
- Granite elements of existing structures.

Include both positive and negative effects and how these will be managed.

Include details on how this has been assessed, giving an idea of the cost implication if this exists.

The CCMP aims to transform Aberdeen city centre while conserving its proud heritage. The goal is greater prosperity and a better quality of life for all. The BDF sets a vision and key design principles for a world class sport, leisure and tourism destination which would revitalise the historic Beachfront area and reconnect it to the city centre.

The proposed junction measures will provide significant improvements to walking, wheeling and cycling connections between the city centre and the beachfront. Encouragement of sustainable modes of travel may reduce traffic and congestion in the city centre and elevate the future attractiveness of regionally significant sites such as Union Street and the Beach and help deliver transformational changes to Aberdeen.

As noted above the DMRB Stage 2 Assessment included an impact assessment on Cultural Heritage, with no significant impact anticipated. Full details are provided in *Aberdeen Beach Boulevard Ecological Appraisal Desk Study (Mabbett for SYSTRA, Mabbett Ref: 3122221, March 23)*. The junction is outside of the City Centre Conservation Area but bounds it to the west of the study area. Care will need to be taken during construction to ensure assets are protected.

17. Stakeholders

List the key interested individuals, teams, groups or parties that may be affected by the project or have an interest in it, including those external to the organisation. Show what their interest would be and their level of responsibility. Also note any plans for how they will be engaged including the use of any existing communication channels, forums or mechanisms already in place.

In the event the Business Case projects a total capital expenditure of more than £10 Million, stakeholders should include “ACC Bond Investors” who may require to be communicated with through the London Stock Exchange.

Throughout the appraisal process to identify the preferred options, the ACC study team (officers) have been closely involved in all steps and at key decision points. Regular bi-weekly liaison meetings have also been held with the CCMP and BDF teams and these have included outcome reviews from the extensive public and stakeholder engagement undertaken in 2022 for each masterplan. Given this extensive body of engagement for the CCMP and BDF, it was decided that no formal consultation on the junction options would take place prior to the submission of the OBC.

However, as part of options appraisal process, a review of key consultation outcomes from the CCMP and BDF engagement exercises was undertaken, and this confirmed that no conflicts occurred between these outcomes and the preferred option proposals.

As the Full Business Case for the junction is developed, opportunities will be available for all to be informed and take part in consultation on current proposals for junction improvements at A956/Beach Boulevard roundabout.

Key stakeholders are:

- ACC
- Nestrans
- North-East Sensory Services (NESS)
- Disability Equity Partnership (DEP)
- Aberdeen Inspired
- Aberdeen and Grampian Chamber of Commerce
- First Aberdeen
- Stagecoach
- Freight Transport Association
- Road Haulage Association
- Aberdeen Cycle Forum (ACF)
- Grampian Cycle Partnership (GCP)
- Aberdeen Harbour Board
- Aberdeen Taxi Trade
- Police Scotland

- Scottish Fire and Rescue
- Scottish Ambulance Service
- Appropriate Community Councils
- Appropriate MPs and MSPs

18. Assumptions

Document the high-level assumptions that have been made during the development of the Business Case and any other unanswered questions that may be significant. Refer to the Supplementary Guidance on Optimism Bias and detail the assumptions you have made in constructing the costs and business case.

[Green Book Supplementary Guidance Optimism Bias](#)

Cost Estimate Assumptions

The cost estimate provided in Section 7 comprises the following:

| Element | Costs (£) |
|-------------------------------|--------------------|
| Civil Works | £5,000,000 |
| Preliminaries | £1,500,000 |
| Contingency Factor | £2,860,000 |
| Fees (Design & Contractor) | £818,000 |
| Indicative Construction Costs | £10,178,000 |
| Other Development Costs | £1,054,000 |
| Inflation | £1,050,000 |
| Total Project Costs | £12,282,000 |

The indicative construction cost estimates were derived through a DMRB Stage 2 Engineering Assessment, are still high-level at this stage with a range of estimates provided due to uncertainties at this stage. The high-level construction costs are derived from the following:

Civil Works

The civil works sub-total contains the estimated cost for the construction works. Examples of the types of costs accounted for, but not limited to, are site clearance, fencing, road restraint systems, drainage, earthworks, pavements, kerbs footways and paved areas, traffic signs and road markings.

Preliminaries

Allowances for preliminaries have been estimated using a standard cost multiplier of 30% applied to the civil works sub-total for each option. This 30% is to account for a range of indeterminable factors relating to on site specific overhead costs such as traffic management and the erection of offices.

Contingency Factor

Optimism Bias is added to cover (to an extent) the costs for potential works which we cannot realistically estimate currently based on the stage at which the options are.

A figure of 44% has been attributed to the civil works and preliminaries in line with [Green Book Supplementary Guidance Optimism Bias](#) (Table 1, Capital Expenditure, Upper OB)

Caveats

The cost estimates outlined attempt to portray realistic estimates from all available information, with costs extracted from industry standard construction rates (SPONS Civil Engineering and Highway Works Price Book). It would be prudent to note that the figures quoted are based on limited information and high-level concept stage proposals. There are several unknowns related to the schemes, namely the exact location/depths of buried services with the potential requirement for diversion, ground conditions, drainage/flood risk, environmental impacts, land ownership, structures/retention, accommodation works and traffic management procedures.

Other Development Costs & Inflation

In line with parallel OBCs proposed for CCBMP, allowances for other development costs (statutory & survey fees, management fees) and inflation (2Q2025 mid-point of construction assumed) have been made.

Additional Assumptions

The technical work to identify the preferred option involved extensive traffic modelling, supported by additional Economic and Accident model assessments. The following modelling software was utilised, with each associated technical report providing full details on the assumptions made:

- Aberdeen Sub Area Model (ASAM19, Strategic Transport Model) and Aberdeen City Centre Paramics Model (ACCPM, Microsimulation Traffic Model): *Beach Boulevard and Junction Appraisal Phase 1 Testing Report (SYSTRA Ref: GB01T22C81/011222, January 2023)*
- TUBA (DfT's tool for assessing the user impacts and benefits of transport schemes) and COBALT (DfT's tool for assessing the accident impacts and benefits of transport schemes): *Beach Boulevard Stage 2 Traffic & Economics (SYSTRA Ref: GB01T22C81/280323, March 2023)*

19. Dependencies

Document any projects, initiatives, policies, key decisions or other activities outside the control of the project that need to be considered or which may present a risk to the project's success, or on which this project depends.

As noted above, the delivery of junction improvements at the A956/Beach Boulevard/Justice Street roundabout is dependent on the delivery programmes for:

- BDF, in particular the Beach Boulevard proposals
- CCMP, in particular the Justice Street proposal

20. Constraints

Document any known pressures, limits or restrictions associated with the project.

Over and above the project specific constraints identified in Section 4 above, the following issues could create constraints for the implementation of the project:

- **Traffic regulation orders and road consents:** all appropriate consents must be in place before construction work can commence
- **Material availability:** road surfacing materials and lighting materials must be obtained for use in the project construction phase. The Council should also ensure that these materials can continue to be sourced into the future as and when replacement work is required. The materials used should be consistent where possible with those used elsewhere in the city centre to limit future inventory costs
- **Workforce:** The Council and its contractor will need to ensure that sufficient workforce is available to deliver the project within the planned timescales
- **Service, emergency and delivery vehicle access:** Access for service vehicles (including refuse collection) and for emergency and delivery vehicles will need to be maintained at all times

- **Business continuity & resident access:** access will need to be maintained for local residents and for local businesses and their customers.

21. ICT Hardware, Software or Network infrastructure

List any new ICT systems or changes likely as a result of the project. If there are no ICT changes, then record as 'none'.

| Description of change to Hardware, Software or Network Infrastructure | Approval Required? | Date Approval Received |
|---|--------------------|------------------------|
| None | | |
| | | |

22. Change Controls Issued by the Project - None

| Date | Change Ref ID | Approval Route | Change Description |
|------|---------------|----------------|--------------------|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

23. Support Services Consulted

The minimum **consultation period for Outline/Full Business Cases is 10 working days** unless the Programme Board Chair agrees there are exceptional circumstances that require a shorter turnaround time.

Note:

- **It is mandatory for Capital projects to consult with the full list below.**
- If any services are not consulted, this should be indicated in the Comments section, along with the reason why. All comments received should also be noted, or reasons given for discounting them.
- It is a legal requirement for the Council to carry out an [Equality and Human Rights Impact Assessment \(EHRIA\)](#) to evaluate the impact our decisions have on our customers.

Note: There is a copy and paste version of the consultation list below which you can use for circulating your Business Case – [Support Services Consulted Circulation List](#)

| Service | Consultee | Comments | Date |
|--|--|--|----------|
| Resources | Chief Officer, Finance jbelford@aberdeencity.gov.uk | | |
| Resources | Chief Officer, Corporate Landlord stbooth@aberdeencity.gov.uk | | |
| Governance | Chief Officer, Governance VCuthbert@aberdeencity.gov.uk jelawson@aberdeencity.gov.uk | | |
| Place | Chief Officer, Strategic Place Planning DDunne@aberdeencity.gov.uk | | |
| Place | Chief Officer, City Growth rsweetnam@aberdeencity.gov.uk | No comments. | 04.04.23 |
| Operations | Chief Officer, Operations and Protective Services mareilly@aberdeencity.gov.uk | There seems to be inconsistencies of the options. There are three options (including the "Do Nothing". Suggest that this amended to make clearer. I currently favour the Option at 7.2 (Option 2 or Option 1?) but have some concerns about the ability for abnormal loads to travel this route. Supportive of progressing to FBC so that more information is available. | 03.04.23 |
| Operations (Facilities) | Andy Campbell, Facilities Manager AnCampbell@aberdeencity.gov.uk | No comments. | 30.03.23 |
| PMO | PMO Programme Manager RMacTaggart@aberdeencity.gov.uk | | |
| Finance | Scott Paterson, Finance Partner spaterson@aberdeencity.gov.uk | | |
| Asset Management | Alastair Reid, Team Manager alareid@aberdeencity.gov.uk | Supportive of progressing to FBC stage. | |
| Legal (Property/ Planning & Environment) | Ross Campbell/Alan Thomson roscampbell@aberdeencity.gov.uk alathomson@aberdeencity.gov.uk | No comments. Proposed route should be subject to the usual title checks to confirm Council ownership (and no 3rd party conflict). | 04.04.23 |
| Legal (Commercial & Procurement) | Michele Pittendreigh, Team Leader MPittendreigh@aberdeencity.gov.uk | | |
| Legal | Elena Plews/ Fiona Closs/Vicki Johnstone EPlews@aberdeencity.gov.uk FCloss@aberdeencity.gov.uk VJohnstone@aberdeencity.gov.uk | Tracked comments/suggested changes added to the document | 12.04.23 |
| Procurement | Gillian Ross giross@aberdeencity.gov.uk | No comments to make until further discussion on procurement route. | 30.03.23 |
| ICT – Digital & Technology | Steve Robertson, Digital & Transformation Manager sterobertson@aberdeencity.gov.uk | | |
| Design – Public Buildings | Neil Esslemont, Team Leader nesslemont@aberdeencity.gov.uk | | |
| Grounds Maintenance | Steven Shaw, Environmental Manager stevens@aberdeencity.gov.uk | Numbering of the options under consideration to be clearer, otherwise no further comments. | 29.03.23 |

| Service | Consultee | Comments | Date |
|--|--|----------|------|
| Communications | David Ewen, Communication & Marketing Manager DaEwen@aberdeencity.gov.uk | | |
| HR | Lindsay MacInnes, People & OD Manager Imacinnnes@aberdeencity.gov.uk | | |
| Transportation Strategy and Programmes | Joanna Murray, Team Leader joannamurray@aberdeencity.gov.uk | | |
| Place – TSAP | Nicola Laird, Senior Project Officer NLaird@aberdeencity.gov.uk | | |
| Roads Management | Stuart Allan, Team Leader Technical StuAllan@aberdeencity.gov.uk Vycki Ritson, Team Leader Engineering vritson@aberdeencity.gov.uk | | |
| Roads Projects | Alan McKay, Team Leader AlanMcKay@aberdeencity.gov.uk | | |
| Emergency Planning Officer | Fiona Mann FioMann@aberdeencity.gov.uk | | |

You can attach a link to your document to the list above but will need to attach **a copy of your document** to the consultees below as the link function doesn't work for generic addresses:

| Service | Consultee | Comments | Date |
|----------------------|---|--|----------|
| Estates | Property Estates Manager Estates@aberdeencity.gov.uk | | |
| Environmental Policy | EPConsultations@aberdeencity.gov.uk | I am content the environmental factors listed under section 15 Environmental Management have been addressed in line with DMRB LA 104. As you have stated more detailed assessments of environmental impacts/effects will be required as the option progresses through further design and onto construction. I would be pleased to comment further in due course. | 13.04.23 |
| Equalities | Baldeep McGarry/ Faiza Nacef equality_and_diversity@aberdeencity.gov.uk | | |
| Planning | Local Development Plan Team LDP@aberdeencity.gov.uk Development Management PI@aberdeencity.gov.uk | No comments at this time. | 04.04.23 |

24. Document Revision History

| Version | Reason | By | Date |
|---------|--------|----|------|
| 2 | | | |

| | | | |
|---|--|--|--|
| 3 | | | |
| 4 | | | |

| 25. Decision by Capital Board | Date |
|-------------------------------|------|
| * Approved/Not Approved to: | |

* Insert approval decision from Capital Board.