

Dunoon and Kilcreggan Ferry Terminals – Outline Business Case

Reference Group Meeting
Kilcreggan Options Appraisal



Agenda

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Kilcreggan – Baselining and Transport Planning Objectives

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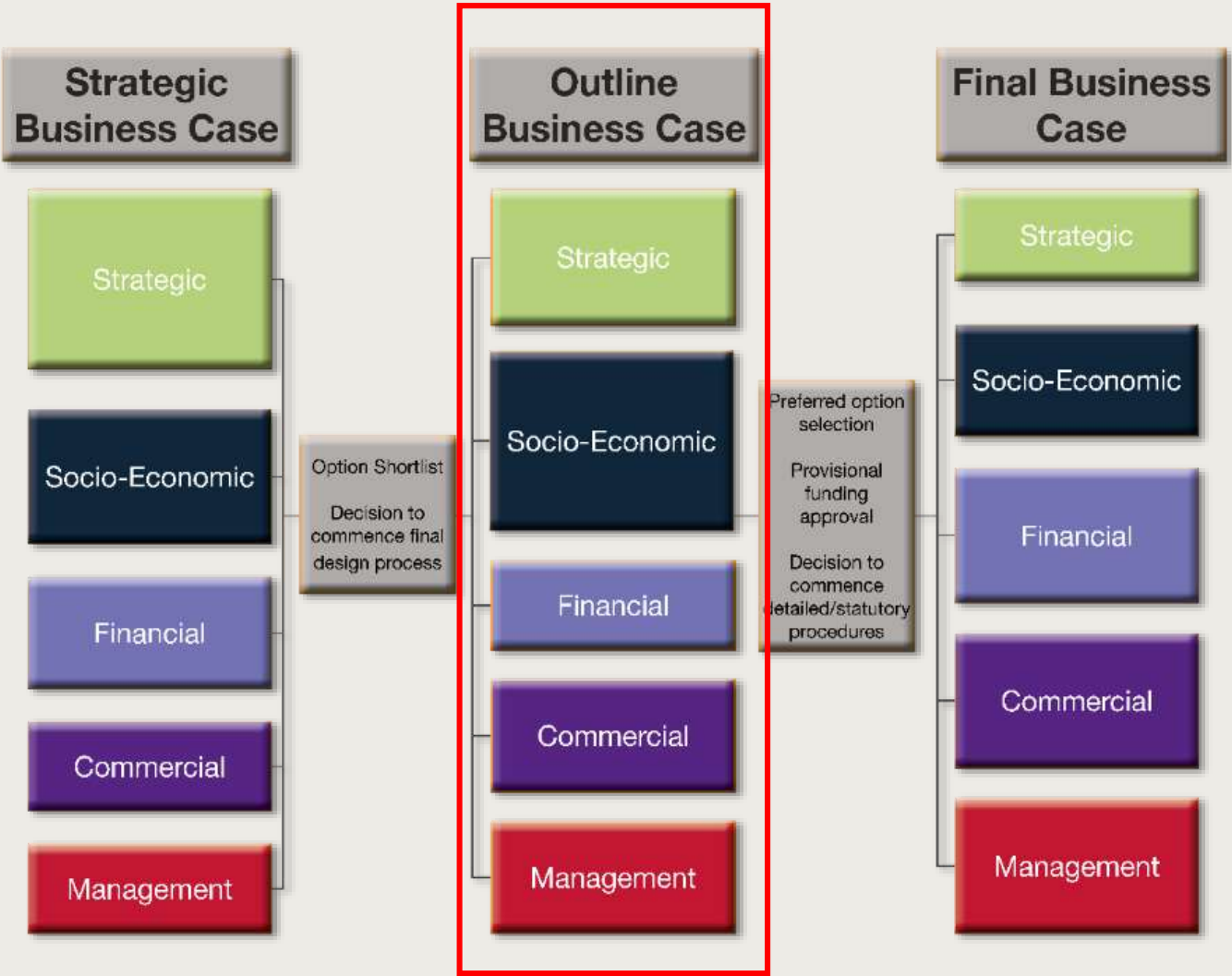
Kilcreggan – Proposed Preferred Option

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Next Stages & Inputs required from Reference Group

Dunoon and Kilcreggan – Outline Business Case Update

Dunoon & Kilcreggan – Outline Business Case Overview



- Mott MacDonald and Stantec Ltd appointed by Argyll & Bute Council to deliver the Dunoon and Kilcreggan OBC in Jan '21
- MML will be supported by Stantec to deliver all parts of the OBC as follows:
- **Strategic Case** i.e., confirm the case for change, infrastructure baselining and TPO setting
- **Socio-economic Case** i.e., Initial option development and appraisal, followed by selection and further development of preferred option for each terminal
- **Financial, Commercial and Management Cases** i.e., evidence commercial viability, procurement strategy, financial appraisal of preferred options and detail project management plans

Dunoon & Kilcreggan – Outline Business Case Programme

| Task | Anticipated Timeline |
|--|-------------------------------|
| MML and Stantec appointed to support the Dunoon and Kilcreggan OBC | January 2021 |
| Review of SBC, Baselineing and Setting TPOs | February – April 2021 |
| Working Group Inception | February 2021 |
| Working Group TPO Setting | April 2021 |
| Develop Infrastructure Options and Costings | April – November 2021 |
| Appraise Options against TPOs and STAG Criteria | November - December 2021 |
| Working Group, Reference Group and Public Engagement on Proposed Preferred Options | December 2021 – February 2022 |
| Confirmation of Preferred Options | February 2022 |
| Development of Preferred Options to Outline Design | February – April 2022 |
| Development of Commercial Financial and Management Cases | November 2021 – March 2022 |
| March Harbour Board Reporting | March 2022 |
| OBC Draft Reporting | April 2022 |
| Working Group Report Review and Further Reference Group Liaison | May 2022 |
| OBC Final Reporting | May – June 2022 |
| September Harbour Board Reporting | September 2022 |

Dunoon & Kilcreggan – OBC Stakeholder Engagement

Working Group

Argyll & Bute Council is MML's immediate client for the project. However, the study has been guided by inputs from a wider Working Group which comprises:

- Argyll & Bute Council
- Transport Scotland
- CalMac Ferries Ltd
- CMAL

Stakeholder Consultation

Reference Group are to receive an update on the option development (this meeting) and selection of the preferred options once worked up in detail.

Public Engagement

It is fundamental to the OBC process that there is public engagement and an appropriate level of support for the preferred options. This will be online engagement in the form of a pre-recorded presentation, online Q&A and collection of feedback in early 2022.

Kilcreggan Recap – Baselineing and TPOs

Kilcreggan – Baseline

Direct Problems

Life expiry of infrastructure (Timber Pier is over 120 years old, regular repairs to maintain structural capacity, question over residual life)

Berth facilities (Tidally constrained service, during high tides, vessel belting higher than top of fenders and vessel deck too high above pier deck)

Passenger access (Not suitable for use by all, steep gradients at high and low tides, boat steps require maintenance)

Landside facilities (Constrained parking)



Implications i.e. Indirect Problems

Reliability

- Tidal constraints, service does not operate at high tides
- Pier is exposed from south and south-west, which can cause problems including motion of the vessel against the pier
- Not accessible to all

Issues

i.e. Uncertainties that the study may not be in a position to resolve but must work within the context of

Comparable levels of access at both ends of the route

Compatibility of berthing / mooring facilities with new vessels and facilities at Gourrock

Programme uncertainty and timing of introduction of new vessels / facilities at Gourrock

Kilcreggan – Baselineing

Opportunities

i.e. Potential for improvements to the transport system and the way it is used

- Improved reliability of scheduled passenger service through provision of berth improvements
- Providing improved access to passenger only service to Gourock
- Provision of improved access to parking

Constraints

i.e. Physical, legal and institutional boundaries in which the study is being undertaken

- Timber Pier is Category B listed
- Continued use of timber pier by P.S. Waverley and other harbour users
- Swinging moorings in Kilcreggan Bay
- Ferry Terminal is not situated within A&BC's Statutory Harbour Authority (A&BC seeking to establish harbour limits at Kilcreggan)
- Land ownership

Kilcreggan – Transport Planning Objectives

Agreed with Working Group and used in options appraisal

- TPO 1** The provision of appropriate terminal infrastructure capable of accommodating the in-scope vessels for a minimum 60-year window.
- TPO 2** The future infrastructure including local approaches should improve the reliability and punctuality of scheduled services.
- TPO 3** The future terminal infrastructure should provide EA compliant access to ferry services, as far as reasonably practicable
- TPO 4** Minimise negative service impacts by managing the construction works and phased introduction of new vessels.
- TPO 5** Infrastructure designs should maximise flexibility in future use by passenger ferry services and other users.

Kilcreggan – Options Carried Forward to Appraisal

Kilcreggan – Option 3a



Kilcreggan Ferry Terminal

Option 3a - Concept Arrangement

Solid quay structure with fixed ramp for passenger access to east of berth

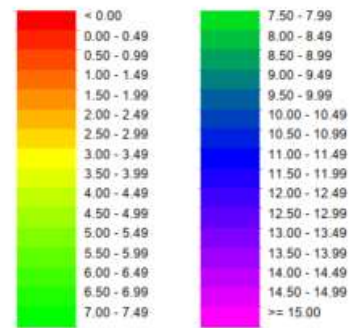
Notes:

1. Design vessel 40m x 9m x 1.8m
2. Solid quay structure is sheet piled, shown as 200m long and 11m wide
3. Solid quay would provide degree of shelter at the berth from westerly and south-westerly conditions
4. Pedestrian access to the vessel via quay wall and fixed ramp to achieve EA compliant access from shore to berth
5. Dredging at the berth may reduce the length of quay required
6. Land ownership to be confirmed
7. Swinging moorings may need to be relocated

Key:

— — — Proposed Harbour Limits

Coloured Depth Bands:



Kilcreggan – Option 4a



Kilcreggan Ferry Terminal

Option 4a - Concept Arrangement

Pontoon berth with pedestrian access from A&BC car park, including breakwater

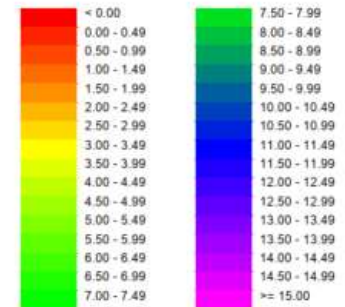
Notes:

1. Design vessel 40m x 9m x 1.8m
2. Pontoon shown is 60m long and 10m wide
3. Pontoon shown in same orientation as existing berth
4. Pedestrian access via fixed and articulating ramps to achieve EA compliant access from shore to pontoon berth
5. Pontoon shown from 4m below CD to accommodate 1.5m freeboard and notional 3m draught
6. Length and orientation of breakwater to be confirmed

Key:

- Proposed Harbour Limits
- 4m Below Chart Datum

Coloured Depth Bands:



Kilcreggan – Option 5a



Kilcreggan Ferry Terminal

Option 5a - Concept Arrangement

Pontoon berth with pedestrian access from existing terminal

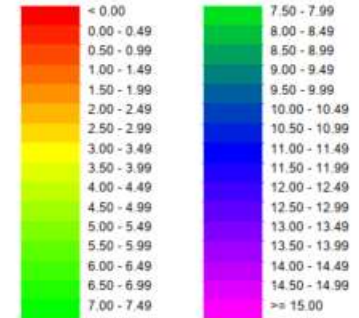
Notes:

1. Design vessel 40m x 9m x 1.8m
2. Pontoon shown is 60m long and 10m wide
3. Pontoon shown in same orientation as existing berth
4. Pedestrian access via fixed and articulating ramps to achieve EA compliant access from shore to pontoon berth
5. Pontoon shown from 4m below CD to accommodate 1.5m freeboard and notional 3m draught
6. New infrastructure to be independent of existing timber pier structure

Key:

- Proposed Harbour Limits
- 4m Below Chart Datum

Coloured Depth Bands:



Kilcreggan – Option 6a



Kilcreggan Ferry Terminal

Option 6a - Concept Arrangement

Solid quay structure with fixed ramp for passenger access to west of berth

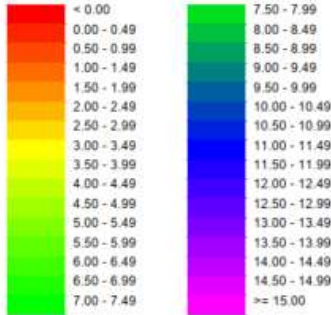
Notes:

1. Design vessel 40m x 9m x 1.8m
2. Solid quay structure is sheet piled, shown as 165m long and 11m wide
3. Solid quay would provide degree of shelter at the berth from westerly and south-westerly conditions
4. Pedestrian access to the vessel via quay wall and fixed ramp.
5. Length of ramp shown is 95m. Assumed 1 in 15 gradient
6. Access to berth via A&BC car park
7. Dredging at the berth may reduce the length of quay required
8. Land ownership to be confirmed

Key:

— — — Proposed Harbour Limits

Coloured Depth Bands:



Kilcreggan – Appraisal of Options

Kilcreggan – Appraisal of Options

Options have been appraised against the five TPOs and STAG criteria.

This involves the appraisal of all options on a seven-point scale, as follows:

✓✓✓ - Major Positive

✓✓ - Moderate Positive

✓ - Minor Positive

○ – Neutral

✗ - Minor Negative

✗✗ - Moderate Negative

✗✗✗ - Major Negative

Kilcreggan – Appraisal Against TPO 1

| | Option 3a | Option 4a | Option 5a | Option 6a |
|---|-----------|-----------|-----------|-----------|
| <i>TPO1: The provision of appropriate terminal infrastructure capable of accommodating the in-scope vessels for a minimum 60-year window</i> | | | | |
| <i>Adequacy of berth length to accommodate in-scope vessels</i> | ✓✓✓ | ✓✓✓ | ✓✓✓ | ✓✓✓ |
| <i>Suitability and spacing of fendering to accommodate in-scope vessels</i> | ✓✓✓ | ✓✓✓ | ✓✓✓ | ✓✓✓ |
| <i>Adequacy of moorings and access to moorings to accommodate in-scope vessels</i> | ✓ | ✓✓✓ | ✓✓✓ | ✓ |
| <i>Adequacy of car parking for staff and passengers</i> | 0 | 0 | 0 | 0 |
| <i>Adequacy of passenger waiting facilities</i> | ✓✓ | ✓ | ✓✓ | ✓ |
| <i>Proximity of connection to sustainable travel links</i> | × | ×× | × | ×× |

Summary

Overall, Option 5a scores the best as the pontoon provides improvements to moorings, and also provides access in a similar location as the existing and does not increase the distance needed to walk to the berth.

Kilcreggan – Appraisal Against TPO 2

| | Option 3a | Option 4a | Option 5a | Option 6a |
|---|-----------|-----------|-----------|-----------|
| <i>TPO2: The future infrastructure including local approaches should improve the reliability and punctuality of scheduled services</i> | | | | |
| <i>Appropriate wave climate in manoeuvring areas and at berth</i> | ✓✓✓ | ✓ | ○ | ✓✓ |
| <i>Appropriate approaches and manoeuvring area for in-scope vessels</i> | ×× | ✓✓ | ✓✓ | × |
| <i>Berth orientation</i> | ✓✓✓ | × | × | ✓✓✓ |

Summary

Overall, the options with solid piers provide more shelter but are more difficult to manoeuvre onto, and those options with pontoons provide better manoeuvring but are less sheltered.

Kilcreggan – Appraisal Against TPO 3

| | Option 3a | Option 4a | Option 5a | Option 6a |
|---|-----------|-----------|-----------|-----------|
| <i>TPO3: The future terminal infrastructure should provide EA compliant access to ferry services, as far as reasonably practicable</i> | | | | |
| <i>Provision of improved access to in-scope vessels, of similar standard to that being provided at Gourock</i> | ✓ | ✓✓✓ | ✓✓✓ | ✓ |

Summary

Overall, all options improve access; however, the options with fixed ramps (3a and 6a) score lower due to on-going maintenance requirements.

Kilcreggan – Appraisal Against TPO 4

| | Option 3a | Option 4a | Option 5a | Option 6a |
|---|-----------|-----------|-----------|-----------|
| <i>TPO4: Minimise any negative service impacts by managing the construction works and the phased introduction of new vessels</i> | | | | |
| <i>Minimise service disruption during construction of new facilities</i> | ✓ | ✓✓✓ | xxx | ✓✓ |
| <i>Compatibility between infrastructure and vessels throughout the introduction of new infrastructure and new vessels</i> | xx | ✓✓ | xx | x |

Summary

Overall, Option 4a scores the best for TPO 4 as it is separated from the existing and should have no impact on service or navigation during the construction works.

Kilcreggan – Appraisal Against TPO 5

| | Option 3a | Option 4a | Option 5a | Option 6a |
|--|-----------|-----------|-----------|-----------|
| <i>TPO5: Infrastructure designs should maximise flexibility in future use by passenger ferry services and other users</i> | | | | |
| <i>Flexibility of infrastructure to accommodate changes to vessels and/or services</i> | 0 | ✓✓ | ✓ | 0 |
| <i>Does not preclude redevelopment of existing timber pier facilities for use by others</i> | x | ✓✓ | xxx | 0 |
| <i>Ability to accommodate other harbour users now and in the future</i> | ✓ | ✓✓ | ✓ | ✓✓ |

Summary

Overall, the options with fixed berths score lower due to constraints on future vessels and options 3a and 5a limit or make redundant the use of the existing timber pier.

Kilcreggan – Summary of Appraisal Against TPOs

| | Option 3a | Option 4a | Option 5a | Option 6a |
|--|-----------|-----------|-----------|-----------|
| Summary | | | | |
| TPO1: The provision of appropriate terminal infrastructure capable of accommodating the in-scope vessels for a minimum 60-year window | ✓ | ✓ | ✓✓ | ✓ |
| TPO2: The future infrastructure including local approaches should improve the reliability and punctuality of scheduled services | ✓✓ | ✓ | 0 | ✓✓ |
| TPO3: The future terminal infrastructure should provide EA compliant access to ferry services, as far as reasonably practicable | ✓ | ✓✓✓ | ✓✓✓ | ✓ |
| TPO4: Minimise any negative service impacts by managing the construction works and the phased introduction of new vessels | x | ✓✓✓ | xxx | ✓ |
| TPO5: Infrastructure designs should maximise flexibility in future use by passenger ferry services and other users | 0 | ✓✓ | 0 | ✓ |
| Summary | | | | |
| | ✓ | ✓✓ | 0 | ✓ |

Kilcreggan – Summary of Appraisal Against STAG Criteria

| | Option 3a | Option 4a | Option 5a | Option 6a |
|------------------------------------|-----------|-----------|-----------|-----------|
| Summary | | | | |
| Environment | xx | x | x | xx |
| Safety | xx | ✓✓ | ✓✓✓ | xx |
| Economy | ✓ | ✓ | ✓ | ✓ |
| Integration | 0 | 0 | 0 | 0 |
| Accessibility and Social Inclusion | 0 | ✓✓✓ | ✓✓✓ | x |
| Summary | x | ✓ | ✓ | x |

Summary

Overall, the options that utilise pontoons (4a and 5a) score better due to reduced scale of works, better berth orientation and the shorter walk to access the vessel when compared to the fixed berth options (3a and 6a).

Kilcreggan - Proposed Preferred Option

Preferred Option from Assessment (TPOs and STAG Criteria)

| | Option 3a | Option 4a | Option 5a | Option 6a |
|-------------------------------------|--|--|---|--|
| Summary | | | | |
| TPO Summary | ✓ | ✓✓ | 0 | ✓ |
| STAG Summary | ✗ | ✓ | ✓ | ✗ |
| Cost Estimate (excluding OB) | £12.5M | £9.3M | £5.7M | £11.0M |
| | <p>Not considered further due to impact on swinging moorings, not ideal for conventional vessels, submerged ramp leads to maintenance obligations. Impact on approaches to existing structure. Significant environmental impact and unlikely to be consentable due to significant impact on setting of historic pier and wider village</p> | <p>To be considered further as shelter provided by breakwater (position to be finalised if breakwater required). Good approaches and manoeuvring for ferries. Can be designed to accommodate other harbour users, providing flexibility for future users. Minimal impact on timber pier, provides access for all. Subject to need for and position of breakwater, has impact on setting of historic pier and wider village, but could be softened through design</p> | <p>Not considered further as precludes use and limits future development of historic pier. Unlikely to be consentable due to proximity to listed structure and impact on wider setting. No improvement to shelter on berth.</p> | <p>Not considered further as not ideal for conventional vessels, submerged ramp leads to maintenance obligations. Significant environmental impact and unlikely to be consentable due to significant impact on setting of historic pier and wider village.</p> |

Preferred Option from Assessment (TPOs and STAG Criteria)

Based on discussions with A&BC, and subject to confirmation of wave modelling, the proposed preferred option for Kilcreggan is Option 4a.



Next Steps

Next Stages

- Dunoon Reference Group Meeting (January 2022)
- Conclusion of wave modelling to assess impact on proposed preferred options
- Confirmation of design vessel parameters to allow further development of options
- Public engagement – date to be confirmed, anticipate early 2022
- Confirmation of preferred options
- Refinement of preferred options and updated cost estimates
- Commercial, Financial and Management Cases anticipate Feb / March 2022
- Draft OBC report – anticipate April / May 2022

Inputs from Reference Group

- Provide feedback (if any) on the proposed preferred option presented



Thank you