

**Argyll and Bute Council**  
**CHORD Programme**  
**Assessment of Proposals for Short Stay Yacht Berthing Facility in Oban Bay**

**1. Introduction**

**1.1 Purpose of Report**

This report provides an assessment of the technical, operational and commercial feasibility of proposals for a 50 berth short-stay yacht berthing facility located in Oban Bay, adjacent to the town centre. The proposal is being promoted by Oban Bay Marine (OBM), a not-for-profit community group, with membership drawn from local business and yachting interests.

**1.2 Commission and Approach**

AECOM prepared a Full Business Case (FBC) and undertook an assessment of the OBM project proposal in December 2010 (presented to Oban CHORD Project Board on 17/12/09). The outcome of this assessment was that Argyll and Bute Council (A&BC) should not support the provision of £900,000 capital for the scheme due to a number of risks and uncertainties within the proposals. In light of the outcome of the assessment, the opportunity was provided to OBM to re-submit revised proposals which would address the risks and uncertainties that had been identified.

AECOM have since been retained by A&BC to review and assess the re-submitted proposals.

The assessment has involved face to face consultation with stakeholders including CalMac, and A&BC's Harbour Master, as well as OBM and their technical advisors, Wallace Stone. Consultation has also been undertaken with Marine Scotland (FEPA), and Crown Estates.

**2 Project Background**

**2.1 Project Concept**

The project seeks to provide a pontoon facility for short stay yacht berthing, adjacent to the heart of Oban town centre. Due to the wave climate in the area, protection for the pontoons is to be provided by floating breakwaters (attenuators). Within the area protected by the attenuators, pontoons would provide short-stay (maximum 3 night) berths for up to 50 yachts. The facility would also provide "touch and go" berthing for charter boats, and provide facilities for the landing of cruise ship passengers, through access onto the attenuators. The facility would provide improved yachting facilities, with the intention of providing economic benefits to the town centre through uplift in spending and economic activity.

To date, planning and construction consents have been obtained. OBM have also reached agreement with the Crown Estates in relation to financing/loan for £800,000. Capital grant funding is also being sought from A&BC's CHORD programme.

**2.2 Project Objectives**

At the commencement of the original commission in August 2009, the following objectives were established through discussion with the Oban CHORD Project Board:

- a. The project should deliver direct economic benefits to the town centre, with the potential for wider economic benefits for Oban and its hinterland;
- b. The project should safely integrate with the current operation of Oban Harbour;
- c. The project should be delivered in a short timescale – ideally prior to 2011;
- d. The project should be viable without any ongoing revenue support from A&BC;
- e. The project should be viable without any additional capital investment from A&BC, beyond the £900,000 already provisionally committed;
- f. The project should be technically feasible; and
- g. The project should be operationally safe.

It is considered that the above project objectives remain valid, and should continue to form the basis of the evaluation of the project.

### **2.3 Location Appraisal**

A location appraisal was undertaken of alternative sites for the development of a facility that would meet the above objectives. This found that the only location in Oban Bay/Harbour that had the capability of achieving the above objectives, particularly in respect of delivering direct benefits to the town centre, not requiring additional capital funding, and timescales would be a site between North Pier and Railway Steps.

One alternative was identified, to the North of North Pier, but this location would require construction of a more extensive and effective breakwater, so would be more expensive to construct.

Another alternative site considered was the existing marina at Kerrera, which is linked to the town centre by a free to use passenger ferry service. However, this option was considered to lack the direct relationship with the town centre. It is noted that this facility is now currently being developed with the provision of additional berths.

### **2.4 Recent Developments**

Since the completion of the assessment in December 2010, it is relevant to note the outcome of recent work commissioned by Hitrans (the Regional Transport Partnership) relating to future development of Oban as a potential maintenance hub for the offshore renewables energy industry (Renewable Energy Industry Transport Study, SWK, May 2010). This particularly relates to potential increased use of North Pier to service the Scottish Power Renewables Argyll Array, which is located offshore from Tiree.

Initial design work undertaken on the Oban Development Road has indicated a design requirement to infill the corner of the bay between North Pier and the Esplanade. It has also highlighted that there is likely to be significant quantities of rock available from road construction, which could be used for infill. If the current design proposals were realised in the future, this could potentially impact on the pontoon development.

As well as expansion at Oban Bay Marina (Kerrera), the local marina at Dunstaffnage has also invested in additional yacht berthing facilities.

## **3 Summary of December 2009 Assessment**

A range of issues were identified in the December 2009 assessment, four of which were identified of particular significance, due to the impact that they had on the viability of the project:

- a. Design – the FBC was based around the development of a “transit marina”, seeking to provide comparable weather protection and range of facilities as might be found at other local marinas. The assessment of the OBM proposal concluded that the proposed design approach, which was based on a chain and anchor system for securing the attenuators to the sea bed, was unsuitable, principally as it would extend beyond the 3m depth contour, and could pose unacceptable impacts on existing harbour operation (particularly vessel and anchor snagging). There were also concerns regarding wave impacts within the facility.
- b. Risk provision within capital costs – HM Treasury Advice on the provision of public sector funding appraisals requires the inclusion of an optimism bias adjustment. Furthermore, it is considered essential that a robust sensitivity analysis was undertaken around the forecast income assumptions.

- c. Financing of the project – the assessment concluded that the capital cost of the project would be above the £1.7m cost estimate prepared by OBM. A range of alternative and sensitivity scenarios all concluded that the project did not break even during its period of operation, due to debt financing burdens.
- d. OBM / A&BC interface – good practice advice on joint public sector and community sector projects stress the advantages of close and trusting working relationships between organisations.

A second tier of issues were identified which were considered to be essential to the development of the project, and depending on their outcome, could still threaten the project's viability.

- e. Legislation – there was a necessity to ensure that there was legislative clarity with respect to the interface between A&BC's operations at North Pier, and the operations of the short stay berthing facility;
- f. Business Plan – a robust business plan would be required as a basis for any grant award;
- g. Port User interface – agreements would require to be secured regarding the operation of the proposed marine traffic light system, and interface between A&BC's operations at North Pier and North Pier Slip, and Caledonian Maritime Assets Limited's (CMAL) operations at Railway Steps.
- h. Operational Plan – A robust operational plan was necessary in order to provide necessary assurances regarding the safe and effective management of the facility, particularly as it would not be a full time marina.
- i. Conditions of Grant - An award of funding would have to be subject to a set of funding conditions that protected the Council's interests, was compliant with rules governing grant award to third parties, and take due consideration of other existing lease areas within and in close proximity to the project's boundary.

A final group of issues were identified which required to be addressed to the satisfaction of all parties, but did not necessarily threaten the project's viability.

- j. Construction issues;
- k. Provision of bins, parking etc;
- l. Provision of utilities, including metering and switch equipment;
- m. Purification of planning Conditions; and
- n. Monitoring / management details

The above issues were highlighted as the particular issues that OBM were required to address prior to re-submission of their proposals in March 2010.

## **4 OBM Re-Submission March 2010**

### **4.1 Introduction**

OBM provided a revised submission at the end of March 2010, consisting of

- a. Technical Report, prepared by Wallace Stone;
- b. Review of Business Case, prepared by Tourism Resources Company (TRC);
- c. Updated financial spreadsheet and information, prepared by OBM; and
- d. Letters of support

## **4.2 Technical Report**

### *4.2.1 Philosophy*

The technical report confirmed that the approach to the facility was centred around “a *short-stay pontoon facility*”, *not a marina, a harbour, or safe haven.*” The report went on to suggest that vessels berthed at the pontoons could be evacuated during periods of inclement weather.

The technical report recognised that the wave climate inside the facility will be out with criteria typically accepted for safe havens, although comparable (if not more favourable) to a range of other pontoon sites located elsewhere on the West coast of Scotland. This comparison was based on the attenuated waves that will be transmitted through the attenuator, and not any waves that will pass directly through the entrance to the facility, or any wave disturbance effects that are anticipated within the facility itself due to wave reflections.

### *4.2.2 Anchoring System*

The technical report continued to endorse the deployment of a chain and anchor system, arguing that for the pontoon facility proposed, chains and anchors would be more appropriate than a solution based on piles. The technical report did not provide detailed design calculations for the anchoring system, which would require to be submitted by the successful provider of the anchoring and attenuator/pontoon system.

### *4.2.3 Other Modifications*

A range of design modifications, suggested within AECOM's December 2009 report were recognised within the re-submission, including a revised entrance arrangement onto the Esplanade, incorporation of an attenuator along the Southern edge of the facility, increased draught for 10m yachts, mobility hoist, and a number of 64Amp power sockets for the largest yachts.

### *4.2.4 Capital Costs*

A capital cost of £2.104m<sup>1</sup> was presented within the technical report, which was inclusive of a 10% contingency allowance.

## **4.3 Business Case**

OBM commissioned TRC to review the demand and commercial elements of the proposed facility. The findings of the review broadly concurred with work undertaken by AECOM, that achieving 50% annual occupancy would be “*an ambitious but achievable*” target. Whilst it considered that annual growth would be possible, it also stated that the spatial limits of the facility “*will limit the marina's demand growing significantly*” and “*only an extension of the season will have a substantial affect on annual occupancy*”. This is because of the concentration of demand during the peak months, combined with the limited capacity of the facility, makes occupancies beyond 50% very difficult to achieve.

## **4.4 Financial Submission**

Within their separate financial submission, OBM themselves provided revised details of annual expenditure, and a cash flow analysis, based on capital costs of £1.7m. Key elements of this submission were:

- Occupancy rising from 50% in year 1, to 60% in year 15, yielding between £130,000 to £146,536 income per annum;
- Secondary income of £38,000 pa, inclusive of £8,000 from fuel;
- Operating costs of £98,000 pa;

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<sup>1</sup> Wallace Stone's Technical Report of March 2010 presented a capital plan of £1.913m, with a 10% contingency allowance, giving a total capital cost of £2.104m. OBM's financial submission of March 2010 was based on lower capital costs of £1.70m. At the presentation of 09 June 2010, a total capital cost of £1.913m was presented, which claimed to be inclusive of 20% optimism bias adjustment. The details provided on 09 June included arithmetic inconsistency.

- Loan repayment and sea bed lease costs of £42,000 rising to £73,690 per annum;

This provided a positive cash flow of between £12,000 and £36,000 per annum. It was noted that the capital cost of fuelling infrastructure was not included within the costs provided in the technical report.<sup>2</sup>

#### **4.5 Letters of Support**

At the time of submission, a number of letters of support for OBM's proposals were received by Members of the CHORD project board.

#### **4.6 Further Development of OBM Submission**

AECOM's initial review of OBM's revised submission, which was informed by a series of detailed stakeholder discussions, identified a number of issues associated with the re-submission.

- Potential impact of vessels overhanging the face of the North Pier, blocking part of the proposed facility's entrance, and potentially coming into conflict with proposed anchoring locations;
- Issues related to dredging methodology, specifically in relation to its legality, impact on navigation channel, and potential adverse impact on CalMac vessels;
- Requirement to install anchors within recently dredged material;
- Risk of foundations of North Pier Slip being undermined by the dredge;
- Additional planning consents in relation to revised landside access, and also amendments to proposed use of the facility (long stay storage of boats of limited draft, Sea Plane, revised entrance, potential fuel bunkering);
- Cruise Ships – proposal to market the facility for use of cruise ships, which would effectively reduce A&BC's income, and would also require TRANSEC approval;
- Sea Plane – included in OBM's revised forecast income proposal, but no technical details provided and would require agreements in place;
- Crown Estate – existing A&BC foreshore leases would need to be incorporated into combined lease agreement; and
- Scottish Water outfall pipe – anchoring chains would pass on top of the pipe, leading to potential damage of the pipe, but also potentially restricting Scottish Water access.

Discussions related to these issues formed the basis for two meetings between AECOM and OBM and their representatives. Supplementary meetings were also held with CalMac and A&BC's Harbour Master.

#### **4.7 Confirmation of Current Proposal**

Final clarification of the points raised, and the detail of submission were provided by OBM at the presentation to the Oban CHORD Board on 9 June 2010. OBM used this opportunity to provide further revisions to elements of their submission, as well as more detail on proposals for management and delivery.

### **5 Assessment of Re-Submission**

#### **5.1 Anchoring Proposals**

Through discussions with CalMac and A&BC's Harbourmaster, and through incorporation of design revisions suggested in AECOM's December 2009 report, OBM have demonstrated

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<sup>2</sup> Two further cash flow analyses have been provided by OBM since the March 2010 submission, a second version in late May 2010, and a third version was provided at OBM's presentation on 09 June 2010. These have shown increased occupancy assumptions, and also increased repayments in respect of the Crown Estate. The final assessment has been based on the analysis presented by OBM on 09 June.

that the proposed chain and anchor system as drawn would not materially affect operations within the harbour. Accordingly, this overcomes the previous constraint which limited the placing of any chains or anchors beyond the 3m depth contour. This has effectively removed a significant hurdle for implementation of this form of anchoring for the attenuators and pontoons, provided that the final design is also satisfactory. This technique has lower capital costs associated with it than a piled approach, but higher maintenance costs.

The approach is associated with a number of issues. To ensure no interference with vessels berthing at North Pier, a "clearance zone" was agreed with CalMac / Harbour Master, to ensure that in the event of any vessel having to deploy anchor at this location, there would be no chance of accidental snagging. A consequence of this clearance zone is that the positional restraint provided by the revised anchor layout could be compromised. It would be normal for the corner anchors to be set at 45 degrees to the line of the attenuator (or two anchors at 30 degrees and 60 degrees). The risk is that at a future date, to enable secure anchoring of the attenuator at the entrance of the facility, it may be necessary to place anchors in the "exclusion zone", thus potentially impacting future operations at North Pier.

Displacement of attenuators and chains with properly designed clump weights under typical conditions will be circa (+/- 1m) due to tidal range effects. In these conditions, the weighted chain arrangement as drawn would not interfere with harbour operations. In adverse conditions, there will be a need for safety clearances, particularly to the outside of the attenuators where a clearance zone of circa 8 to 10m for vessels with 3m draught is envisaged.

It remains a concern that the most critical anchors required for positional restraint would be located in recently deposited dredge material. It is noted that OBM propose to test the loading capacity of their proposed anchors prior to installation. However, in the event of the outcome of these tests not being favourable, or subsequent settlement or disturbance movement of the fill material, the risk remains of additional costs, or an alternative anchoring design which is different to that currently proposed.

Overall, whilst it is accepted that a chain and anchor system can be implemented, specific risks relate to ensuring adequate positional restraint. If a revised anchoring layout is required following construction, this has the risk of compromising the ability of vessels at the North Pier, and incurring capital costs. For this reason, it is essential that A&BC continue to provide continued oversight of the design and installation process, and ensure that any release of funding is subject to approval of works.

## **5.2 Dredge Method**

Discussions have been undertaken to ascertain the legality of the proposed dredge method. Consultation with FEPA confirms that the method is in the strictest sense legal. Neither CalMac nor FEPA consider the dredge proposal to correspond to good practice, and the possibility of CalMac taking the issue further with the Scottish Government (which issues Coastal Protection Act (CPA) licences) or Maritime and Coastguard Agency (MCA) cannot be ruled out.

OBM have proposed an approach which bar sweeps the dredge area prior to ferry movements, and which would allow a period of time for dredge sedimentation to settle. This would limit "cooling water inlet filter clogging" impacts on CalMac's vessels. The mitigation of impacts proposed by OBM are considered to practically address the key concerns of CalMac, but would have an impact on presumed working time and thereby project cost, due to the frequency of ferry movements affected by the proposed method statement.

The risk of sediment movement following the dredge exercise (for example moving back to the foreshore area) cannot be ruled out.

### **5.3 Foundations of North Pier**

A&BC's Harbourmaster has raised the concern that the proposed dredge may have the potential of undermining the foundations of the North Pier. OBM propose to mitigate this by way of dive survey of the area prior to dredging, and thereafter use scour mats to prevent undermining following the dredge.

Both elements of mitigation are considered appropriate, and can be accommodated within the capital plan developed for the project. To protect A&BC's interests, it would be advisable for an independent structural survey of the North Pier to be commissioned, prior to works being undertaken. It would also be recommended that diving is undertaken during the dredge works to ensure any adverse effects are identified as soon as practically possible. Anticipated additional costs for this would be circa £15,000.

### **5.4 Layout of Facility**

Currently, A&BC Harbourmaster has the option of berthing two vessels on the face of North Pier. Occasionally, this results in an overhang of 10 to 12 m, which would effectively reduce the entrance to the pontoon facility to 12m. Whilst the frequency of this berthing arrangement has reduced in recent years, the A&BC Harbourmaster wishes to maintain the operational flexibility provided by this arrangement. It is estimated that the overhang may occur once or twice a year, for a period of up to a couple of days. Future frequencies, and durations, of any vessel overhang at North Pier cannot be predicted with any certainty. It is considered that any increased use of Oban as a maintenance base for the offshore renewables industry could increase the need for, and frequencies of, any overhanging at North Pier.

OBM have acknowledged the impact of the vessel overhang, and prepared management proposals to enable continued vessel access during periods of overhang at North Pier. Whilst the proposals, if followed, would enable continued operation of the facility, it would increase the operational management burden during these periods, and may reduce the attractiveness of the facility. Specific issues remain, such as the communication of the specific management measures to incoming vessels, and the effective fendering and illumination of any overhanging vessel.

The proposed layout of the facility shows fairway widths at 1.5 x the length of the longest vessel (L). This dimension does not accord with guidance provided in The Yacht Harbour Association (TYHA) code of practice, which recommends fairway widths of 2.0L where a chain and anchor mooring system is used for pontoons. OBM dispute this guidance, citing examples of layouts in Scotland which successfully operate with fairway widths of 1.5L with chain and anchor mooring systems. Whilst a departure to the standard can be considered, the risk is that any differential movement of the pontoon legs will reduce fairway widths to less than 1.5L, reducing operational efficiency.

The use of the so called "touch and go" berths on the inside face of the outer attenuator further reduces fairway to 1.0L or less dependent on the state of tide and weather conditions. Use of the outside leg of the attenuator for such berthing may be more appropriate.

### **5.5 Operational Feasibility**

Since the original assessment, OBM have been in close liaison with operators of the berthing facility in Tobermory, and developed a draft management plan which would be applied to the facility in Oban. Whilst it cannot be anticipated that the operational plan would be finalised, the draft presented to the Oban CHORD project board included the key elements that would be anticipated in the final version. The necessity of a robust management plan is particularly important for this project, given that parts of the facility may have to be closed to public

access during certain weather conditions, and that in certain storm events, parts (or all) of the facility may require evacuation.

It is proposed that access to the facility is via a security gate restricted access onto the pontoon bridge. Furthermore, access to the outer attenuator would be managed through access gate, and only permitted when sea conditions are suitable for pedestrian access on this part of the facility. During the 7 months of operation, the facility would be manned for at least 12 hours a day, rising to 16 hours a day during the peaks of June, July and August. It is necessary that full contingency is in place for incidents requiring management intervention (e.g. severe weather events) that may occur out with the hours of manning.

The installation of a maritime traffic light system is a requirement of the facility, which would be used to control access from the facility into the harbour. Access into the facility, where necessary, would be controlled with the current VHF radio broadcast system, which warns all users of the operations of large vessels and ferries.

Operation of the facility must also be co-ordinated with the operation of the North Pier, which is under the control of the A&BC Harbour Master. OBM have indicated a willingness to develop a close working relationship with the Harbour Master.

Revised access arrangements bring A&BC's toilet and showering facilities, located on North Pier, within the recommended 300m distance of the facility. Increased use of the toilets and showers by visitors to the short stay berthing facility will result in an increased maintenance burden at this location.

It is considered that with continued development of the management plan, and discussions with other harbour users, that the facility has the potential to be operated safely and effectively.

## **5.6 Consents**

FEPA and CPA consents have been secured for the proposed facility, along with planning consent. These consents need to be renewed or revised in line with the latest or final proposals.

A&BC's existing harbour order for the North Pier includes the full extent of the facility's entrance, and the area of shared usage alongside the North Pier Slip, and the current "Drying Out" area.

Discussions with Crown Estates reveal that OBM's proposed lease area overlaps with a lease area currently maintained by A&BC along the foreshore. One means of overcoming this potential hurdle is for A&BC's current lease area to be combined with that required by OBM, with both parties jointly agreeing the lease with Crown Estates. In principle, officers of A&BC and OBM have indicated an agreement to proceed on this basis. Conclusion of the lease agreement would incur legal expenses, which may total £20,000.

## **5.7 Delivery Arrangements**

OBM have requested that a project manager for the project is retained by A&BC, to enable (for example) progression in terms of conclusion of agreements with Crown Estates, other users of the Harbour, consents, and preparation for tendering. This would have a cost implication to the project for the Council, potentially in the order of £50,000.

## **5.8 Capital Costs**

Capital costs were presented by OBM as totalling £1.913m at the presentation on 09 June 2010. The incorporation of additional cost items identified during the assessment and detailed above would bring the total capital cost to £1.998m.

HM Treasury requires, at business case stage, for public sector investment, the incorporation of optimism bias. This provides an adjustment for observations of systematic under-estimation of projects costs and timescales at business case stage.

This project is considered to be a Standard Civil Engineering project. Despite the fact that it is being undertaken in a marine environment, construction risk is minimised by the modular assembly of the majority of the components, and the relatively standard nature of installation. However, uncertainties do remain, including dredging, suitability of ground conditions for anchoring, and the outcome of tender returns. In addition to these uncertainties, optimism bias adjustments take account of additional elements (identified during research as reasons for cost over-runs) such as claims and disputes, late contractor involvement in design, site characteristics, and economic factors.

Following guidance supplied by HM Treasury, an assessment has been undertaken of the appropriate optimism bias adjustment which is suitable for this project. The standard, unadjusted figure for Standard Civil Engineering Works is 44%. It is appropriate to consider whether any adjustment to this figure are appropriate, taking into account mitigating impacts such as:

- Improved project intelligence following liaison with Tobermory, and demand forecasting work.
- No significant environmental concerns have been identified, and the project has been subject to consultation with statutory consultees during planning process.

Taking into account the adjustments provides a revised Optimism Bias adjustment of 30%.

Applying this adjustment to OBM's capital cost provides an adjusted capital sum of £2.598m. This provides a capital budgetary provision which should be allowed for within the financial provision for this project. During project development, both the capital cost plan, and the optimism bias adjustment provision should be regularly reviewed.

At present OBM have secured financing for £800,000. A&BC have made provision for a capital of grant of up to £900,000. Taking into account optimism bias, this leaves a capital funding shortfall of £898,000.

## **5.9 Business Case**

Four main factors influence the commercial viability of the proposal

- Primary Income from vessel berthing dues;
- Secondary incomes, such as income from day berthing;
- Operating costs; and
- Debt financing costs.

The biggest factor for the proposal is the assessment of financial viability is income from berthing dues. OBM have assumed a charging structure of £2.50 per m per night, which is above the regional average, but reflects the prime location in the heart of the town centre. The amount of berth nights is influenced by the number of berths available, the overall local demand, and the seasonality of demand.

In their submission of 09 June, OBM have assumed that the facility will be able to initially match the total berth nights achieved by Tobermory (6,510 berth nights per annum) representing 62% annual occupancy in the Oban facility, rising to 70% annual occupancy after 15 years (7,350 berth nights per annum). No allowance has been made for disruption due to inclement weather, nor impacts of reduced accessibility due to vessels overhanging at North Pier.

The total demand at Tobermory was 6,510 berth nights during 2008<sup>3</sup>. It is noted that this figure includes all types of berthing – berthing at pontoons, berthing at moorings, and berthing on anchors. There are 40 transit berths, 24 visitor moorings, and capacity for circa 15 yachts at anchor.

Translating this total demand directly to the short stay berthing facility at Oban must be undertaken with care, as at Oban, this demand would be spread between the different types of mooring already in the Bay (berthing on anchors and moorings are not associated with the proposal), and the demand for pontoon berthing may well be split between OBM's proposed facility, and existing nearby facilities located at Kerrera and Dunstaffnage. These points are recognised in TRC's report, which formed part of OBM's submission in March 2010.

Secondly, total demand is constrained by the pattern of demand over the seven months which the facility will be open. Experience from Tobermory indicates that over half of the total demand is experienced in the peak months of July and August. Unless OBM are able to significantly alter the regionally experienced pattern of seasonal demand, total occupancy will always be limited by the size of the facility during the peak months, and a lack of demand in the shoulder months.

The pattern of monthly demand has been determined by examination of figures available regionally, which suggests that an average seven month occupancy of 37% is achieved for transit berths. As highlighted above, this number is determined by the fact that there is relatively little demand in the shoulder months, with demand peaking during July and August. TRC suggest that 50% average occupancy for the facility will be an ambitious but achievable target, which takes account of both the total demand, but also the pattern of that demand. Due to the space constraints of the facility (unlike Kerrera, Tobermory or Dunstaffnage, it is not possible to "squeeze in" additional yachts by rafting etc) growth beyond the 50% occupancy could only realistically be achieved by an extension of the season.

OBM's revenue demand projections of an initial occupancy rate of 62% rising to 70% are considered to be unrealistic based on the regional patterns of demand, and AECOM would suggest a forecast of 35% ramping up to 50% in year 4 is a challenging yet achievable demand profile for the facility. An alternative, more conservative demand profile of 35%, ramping up to 40% has been considered as an appropriate down-side sensitivity, which matches the regionally experienced demand profile.

Additional secondary revenues of £20,000 per annum have been identified by OBM. It is noted that this includes £6,000 pa of income which would effectively be transferred from A&BC to OBM due to OBM attracting cruise ship berthing to the facility. It also includes £5,000 pa of income from the sea-plane, although agreement on this has not been secured. £5,000 pa is assumed from day-only craft, and £4,000 from fishing and charter vessels.

OBM have identified (but not included) additional revenues of £5,000 from advertising, £5,000 from boats of limited draft (planning amendment required) and £20,000 for fuelling. Whilst fuelling is typically provided at most marinas, no design details, nor capital provision has been identified, and would be subject to planning amendment and SEPA approvals. TRC's assessment of fuelling revenues was more modest than OBM's most recent assessment, at £8,000 pa, which is based on an average daily vessel fuel consumption.

Operating costs of £88,000 per annum have been identified, and these appear to be reasonable.

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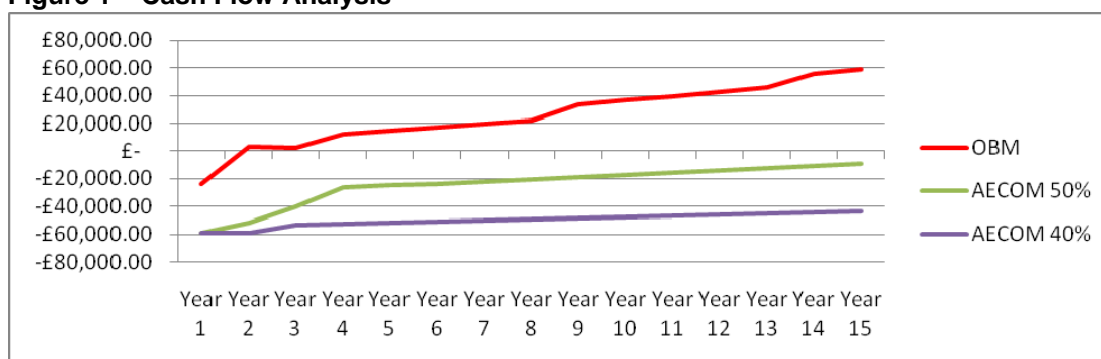
<sup>3</sup> This is equivalent to an annual occupancy level of 34% in Tobermory (operating season from April – October)

Financing of the facility is assumed to be grant funding by A&BC at £900,000, and a 15 year, 7% financing arrangement with The Crown Estates. The most recent analysis provided by OBM, and confirmed by AECOM's assessment, results in an annual repayment and seabed rental of between £80,500 and £83,272 over the 15 years.

OBM have declared that the facility cannot afford to borrow any money above the £800,000 agreed with The Crown Estates, and this has been confirmed by our analysis.

A cash flow analysis for a) OBM forecast, b) AECOM 50% and c) AECOM 40% have been prepared, and are presented in chart form in Figure 1, below. All the scenarios presented below assume that capital funding gap is provided as a grant, free of charge to the project.

**Figure 1 – Cash Flow Analysis**



Whilst OBM's forecast demonstrates a positive cash-flow projection, the forecasts developed by AECOM, and confirmed by TRC's analysis, demonstrate yearly losses. The more conservative assumption of 40% occupancy implies worsened performance, and increased annual losses.

The potential addition of up to £18,000 additional income which was indicated by OBM, but not included within their cash flow (advertising, RIBS, fuel) does not materially affect the 40% scenario, but implies a break even at around year 9 for the 50% occupancy scenario.

The above cash flows assume that the identified funding gap is wholly grant funded. Any requirement for interest free loans, or low interest loans implies annual trading losses for the facility. As a further sensitivity test, we have assumed that the capital funding gap of £898,000 is provided by way of a very competitive 2.5% loan. Even for the OBM revenue projection, this demonstrates annual operating losses throughout the 15 years of the project, due to the additional repayments of £72,000 per annum which would be required.

## 6 Economic Benefits

Previous analysis by AECOM demonstrated a positive economic impact arising from the project of 1.9. This is a cost benefit ratio for the project that considers the wider positive value associated with the realisation of the scheme, set against the capital and operating costs of the facility.

This magnitude of benefit can still be achieved, although it remains important to benchmark this return on investment with other projects which have the potential to aid regeneration in the Town Centre.

## 7 Conditions of Grant

In order to be eligible for any capital grant, the following conditions would have to apply.

- a) OBM would have to demonstrate that the shortfall in capital funding allocation (an additional £898,000) had been secured;
- b) OBM would have to demonstrate that the venture would have no ongoing revenue burden on the Council, based on a business model that assumed realistic occupancy assumptions;
- c) Demonstrate that the tenders let for the work offered value for money and were compliant with relevant procurement guidance;
- d) It would be necessary for OBM to allow A&BC to scrutinise ongoing design development, tender documents and tender returns,
- e) The grant would likely be provided as revenue grant to third party, and OBM would be required to spend and incur costs prior to grant being disbursed. A&BC would require evidence of spend / invoices, and would have works inspected prior to payment.
- f) A&BC would have to confirm that grant award can be accommodated with rules governing State Aids.

## **8 Conclusion**

The review of the re-submission has found that:

1. Although the scheme is considered technically feasible, the outline design of the facility increases the requirement for effective management of the facility, and does not exclude the risk of future adverse impact on the operations at North Pier.
2. The scheme is considered to be operationally feasible, subject to continued development of the management plan. The key to safe integration with other harbour users is the development of effective working relationships, as well as development of effective contingencies for management of the facility in inclement weather, which includes evacuation procedures.
3. The capital costs of the scheme total £1.913m. An additional £85,000 has been identified to allow for structural assessment of the North Pier, Legal Costs, and A&BC project management costs. An optimism bias adjustment of 30% brings total budgetary allocation to £2.598m. This implies a funding gap of £898,000.
4. OBM's revenue forecast projections are considered to be unrealistic, with respect to the currently observed seasonal demand in the region, and the potential impact of competition from neighbouring facilities.
5. Cash flow analysis demonstrates that at neither 40% nor 50% annual occupancy does the scheme provide a positive cashflow, which assumes that the additional £898,000 is provided by way of grant. If the additional £898,000 is provided by way of an assumed 2.5% loan, even at OBM's occupancy assumptions, the scheme does not break even.
6. Overall, it is confirmed that despite progress made by OBM with respect to the technical and operational aspects of the scheme, the capital funding gap, and annual projected revenue losses mean that grant support for the project cannot be supported.