Risk Components – based on 30% Starting (upper bound) Optimism Bias scheme costs (detailed design stage)		Average % for FCD projects (summing to 30%)	Applied adjusted % for North Bay project
Procurement	Late contractor involvement in design	0.3	0.1
	Dispute and claims occurred	3.3	3.3
	Other	0.3	0
Project specific	Design complexity	1.2	0.6
	Degree of innovation	1.2	0
	Environmental impact	3.9	1.3
	Other	2.7	2.7
Client specific	Inadequacy of the business case	6.9	6.9
	Funding availability	0.6	0
	Project management team	0.3	0.1
	Poor project intelligence	2.4	0.8
Environment	Public relations	1.5	1.5
	Site characteristics	1.2	1.2
External influences	Economic	1.5	1.5
	Legislation/regulations	1.2	0
	Technology	1.2	0
	Other	0.3	0
	Totals	**30.0**	**20.0**

Description of Risk Adjustments

Procurement

- *Late contractor involvement in design:* Contractor has been involved in the development and costing of the preferred option and also in carrying out the trial holes – therefore reduced risk level by -0.2%.
- *Dispute and claims occurred:* Risks of disputes and claims remains typical, therefore no adjustment.
- *Other:* No other procurement risks identified. Contractor will be appointed from existing framework. Value of the works is within SBC framework procurement limits.

Project Specific

- *Design complexity:* The design concept is simple and flexible – therefore reduced risk level by -0.6%.
- *Degree of innovation:* Project contains no unusual innovations or unfamiliar design/construction activities – therefore risk reduced by -1.2%.
- *Environmental input:* Initial consultation with NE, EA & MMO has been carried out. The footprint of the works is very small and therefore the environmental input is limited – risk has been reduced by -2.6%.
- *Other:* Unforeseen ground conditions and unknown condition of buried elements of the assets is a key risk – risk % has not been reduced and is reflective of early SI carried out to mitigate the risk, but remaining residual risk.

Client Specific

- *Inadequacy of business case:* There are no unusual project issues that impact upon the development of the business case – therefore the risk % for this item has not been adjusted.
- *Funding availability:* SBC have confirmed the commitment to provide the identified contribution, apart from the GIA funding request, there are no other funding contributors - therefore risk value has been reduced to 0%.
- *Project management team* – SBC project management team will carry out the supervision of the works and the contractor's procurement/contract management processes. The SBC team are very experienced in delivering this type of work, with this contractor, through the existing SBC framework. Resources have been identified to carry out these roles within SBC – therefore risk has been reduced by -0.2%.
- *Poor project intelligence*. The need for the works has been identified in asset inspection reports undertaken by framework consultants. The scope of the works has been reviewed and agreed by SBC team. Initial trial holes and assessments of bed rock levels and the extent of scour have been carried out by the SBC team – therefore the risk associated with the project intelligence has been reduced by -1.6%.

Environment

- *Public relations:* The works are limited in scope and have little or no impact on the appearance of the sea front. A public consultation event is planned for April 2012. There will be an impact on tourism due to the need to prevent access to the working area on the promenade and beach – the risk associated with PR for this project is not deemed to be any greater than normal and therefore the % value has not been adjusted.
- *Site characteristics:* The extended footprint of the works is very small and therefore has limited environmental impact – the risk therefore is low and no % change has been applied.

External Influences

- *Economic:* The project scope is limited and the rates for the contractor carrying out the works are set within their framework with SBC. Therefore there are no unusual economic factors and the % value has not been adjusted.
- *Legislation/regulations:* SBC Planners have confirmed that no Planning Permission is required. A Marine Licence will be obtained from MMO prior to commencing the works, therefore all legislative and regulative requirements will be addressed as part of the project – the risk value has therefore been reduced to 0%.
- *Technology:* There are no technological risks associated with this project - therefore the risk value has been reduced to 0%.
- *Other:* No other external influences have been identified – therefore this risk value has been reduced to 0%.

The final Optimum Bias for the scheme is therefore proposed as 20%.

The Top 4 Residual Project Risks and proposed Mitigation Measures are detailed below;

Number	Description	Mitigation Measures Taken	Further Mitigation Measures Proposed
1	Unforeseen ground conditions.	Trial holes and assessment of extent of scour carried out. Design of works is flexible and can be modified to account for lower bed rock levels or soft ground conditions.	Further review and evaluation on site as works progress.
2	Unknown condition of buried elements of the assets.	Trial holes carried out at foot of wall to expose the base and scour locations and assess the conditions.	Further review and evaluation on site as works progress.
3	Weather and Tide Delay.	Contractor's contract agreement with SBC does not allow claims for delays as a result of weather and tidal issues.	Ensure that works are programmed to avoid worst weather and tidal conditions.
4	Unexpected Services Encountered.	The works are primarily on the foreshore and as such the risk of services is very low.	Service enquires will be carried out and information provided to the Contractor. Contractor to take account of identified services and provide Method Statement detailing how any excavation or other activities that may impact on the services (such as outrigger arms) shall be carried out.