DUN LAOGHAIRE HARBOUR COMPANY

Dun Laoghaire Harbour

Inventory of Structures, Buildings and Elements

Prepared By: Shaffrey Associates Architects for Dun Laoghaire Harbour Company

July 2007

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- John Montague M.A., Architectural Historian

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FOREWORD

Michael Hanahoe
Chief Executive

Foreword by Michael Hanahoe, Chief Executive of Dun Laoghaire Harbour Company

Dun Laoghaire Harbour is widely recognised as one of the finest artificial harbours in the world. It is also a unique architectural heritage site of national and international importance. This inventory of its many outstanding features will form a historic baseline for all future developments and improvements in the Harbour for many years to come.
The number of structures, buildings and elements described in this document demonstrates the range and scale of the heritage features located within the Harbour. It describes the state of those features at the time they were surveyed and sets out detailed recommendations for their future conservation. These recommendations will be used to inform and guide the Directors of the Harbour Company as they formulate their plans for the Harbour.

Significant progress has been made in recent years in the restoration of some of the Harbour's most important features. Major projects include the restoration of the Victoria Fountain and lamp standards and the resurfacing of the lower level of the East Pier. Dun Laoghaire Rathdown County Council will shortly undertake the repair and restoration of the bandstand and shelter on the East Pier before handing them over to the future care of the Harbour Company. Resurfacing of the upper level of the East Pier is also to begin later in 2007.

An essential adjunct to the future conservation of the harbour is the efficient management of its commercial potential to generate the finance necessary to carry out this work. In exercising its commercial mandate the Directors of the Harbour Company are very conscious of the need to maintain the recreational and amenity value of the Harbour. It must continue to be a resource enjoyed by all of the people of Dun Laoghaire and the nation.

In this context, while it is of paramount importance that we conserve the historic character of the Harbour, it should not be treated as a static museum but should be open to sensitive development and adaptation to meet the changing demands of succeeding generations of Harbour users.

Grainne Shaffrey has for many years been a key advisor to the Harbour Company on architectural and conservation matters. I would like to congratulate her and the team at Shaffrey Associates Architects for their painstaking work in compiling this document.

Michael Hanahoe
Chief Executive
July 2007

EXECUTIVE SUMMARY

• Constructed between 1817 and 1842 to the design of the noted engineer, Sir John Rennie, Dun Laoghaire Harbour is a site of international importance in terms of its architecture, engineering achievements, technical quality, workmanship and for its social, economic and cultural contribution to the town of Dun Laoghaire and the surrounding region throughout its history. The Harbour contains many fine buildings, structures, monuments, 'streetscape' elements such as mooring bollards, ironworks, seats, etc., and a limited collection of redundant machinery of marine heritage value.

• The Harbour is a Protected Structure as defined in the Planning and Development Act 2000. This places a statutory responsibility on Dun Laoghaire Harbour Company, as landowner, to maintain the structure and fabric of the harbour to appropriate conservation standards.

• This inventory was commissioned by Dun Laoghaire Harbour Company in consideration of the harbour's great architectural heritage value and with regard to the provisions of the Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 1999. It has been grant aided by the Heritage Council.

• This Inventory is the first time ever in the history of the harbour that a comprehensive inventory has been carried out and it will provide a historic baseline for future developments/ improvements in the harbour.

• The original survey work for the Inventory was carried out between January 2000 and September 2002 with an update survey carried out in October/November 2006. The inventory includes a photographic and descriptive record of the Harbour and all structures, buildings, monuments, etc., existing within the harbour at this time. The Inventory follows the guidelines of the National Inventory of Architectural Heritage (NIAH), including rating and importance values. In addition the Inventory gives a brief description of condition, where appropriate, and recommendations for repair and/or improvement works. For buildings not in Dun Laoghaire Harbour Company's ownership, an external assessment only is given.

• A number of separate surveys, carried out while the Inventory was being prepared, have contributed to the content of the Inventory. In particular, the Underwater surveys of the East and West Pier Structures.

• The Inventory illustrates the extent of architectural and engineering quality contained within the Harbour. It also conveys the layers of change and development which have been a continuous process throughout the history of the harbour. The integrity and coherence of the harbour's architectural character is robust and these changes have not weakened this to any great extent. The Inventory does, however, indicate areas where poor and/or inappropriate works, be they part of repair and maintenance or in sensitive new additions, can contribute to a gradual erosion of character, particularly when examined in detail as the Inventory does.

• The Inventory has focused on above water level structures and, in general, the condition is sound. There are some noteworthy exceptions and it is recommended that a Programme of Maintenance and Repair be developed following on from the findings of the Inventory. This can prioritise works taking into account condition and resources available.

• In addition to recommendations for repair and maintenance, the Inventory also makes recommendations for general improvements which, if implemented, could contribute to a better visual environment in the harbour, greater access to buildings and areas currently underused and introduce further ways in which the harbour can be used and enjoyed. Dun Laoghaire Harbour Company has already completed a number of significant projects which has started this process, including the restoration of the Victoria Drinking Fountain and associated landscaping works, new public lighting, the restoration of the anemometer to working order and the new marina and boardwalks. Resurfacing of the East Pier commenced in 2004 with the lower level completed in 2005.

EXECUTIVE SUMMARY

- The underwater survey of East and West Piers has indicated that these are in poor structural condition and require considerable repair. There has been significant loss of core fabric over the years when funding was not available to carry out appropriate and necessary maintenance. The challenge which now faces Dun Laoghaire Harbour Company is to develop sensitive and effective repair techniques within the limited resources available.

- Other initiatives which might evolve from the Inventory include the development of a database of historic mortars analysis which would add to the recent survey of below water level mortars on the East Pier. This would assist in our understanding of how the piers were constructed and would be useful in developing compatible mortars for repair. In tandem with this, training in the use of lime mortars and appropriate pointing techniques could be introduced for the Harbour Company masons and maintenance staff.

INTRODUCTION

BACKGROUND

Shaffrey Associates Architects were commissioned by Dun Laoghaire Harbour Company to carry out an Inventory of Dun Laoghaire Harbour, including piers, buildings and associated structures and elements. The Inventory was carried out between May 2001 and December 2002 and issued in draft in October 2003 to Dun Laoghaire Harbour Company and other interested bodies for their comment. Update surveys were carried out in October/November 2006 and the Inventory is now published in final form. This is the first inventory of its kind for Dun Laoghaire Harbour and it is intended that it will form a historic baseline for future developments/improvements in the harbour. The Inventory has been grant aided by the Heritage Council.

STATUTORY CONTEXT

Under the current Dun Laoghaire Rathdown County Development Plan, Dun Laoghaire Harbour contains several Protected Structures, as defined in the Planning and Development Act, 2000. These structures include: East and West Piers, Trader's Wharf, the Coal Harbour and Coal Quay, and several of the buildings within the harbour, including: the Royal Irish, Royal St. George and National Yacht Clubs; the lighthouses at the ends of both East and West Piers; the Battery at the end of the East Pier; the Lighthouse Keepers Cottage at the end of the West Pier; the Coastguard Building; the Boathouses on Traders Wharf and at the beginning of the East Pier; the 'Rocket' Building adjacent to the Coastguard building; the cast iron Bandstand and Pavilion on the East Pier; the Anemometer on the East Pier and, the Jonathon Skipton Mulvaney designed wall at the northern boundary of the railway station (the railway building and adjacent restaurant building are also Protected Structures).

Under the Planning and Development Act 2000, protection extends to the exterior and interior of the structure, outbuildings and structures within the curtilage of the Protected Structure and any specified structures on attendant grounds. Any works which would materially alter the character of the Protected Structure require planning permission. There is provision within the Act for Local Authorities to issue a Declaration for a Protected Structure. This involves an examination and assessment of the Protected Structure and will set out which works can be carried out without planning permission, such that they would not materially affect the Protected Structure and, which works, if carried out, would materially affect the character and thus, would require planning permission. Dun Laoghaire Harbour Company has obtained a Declaration from Dun Laoghaire Rathdown County Council and this is included in Appendix B of the Inventory.

SIGNIFICANCE

The guidelines of the National Inventory of Architectural Heritage (NIAH) which were operational during the original fieldwork period (i.e. May 2001 to December 2002), have been implemented in carrying out this inventory. These set out the criteria for identification, classification and evaluation of the architectural heritage and include rating values and importance values. Rating values range from international importance value to record only value, with national, regional, and local importance values in between. Importance value can include one or several of the following special interest categories:
Architectural, Historical, Technical, Interior, Unique or Rarity, Detail or Design, Streetscape and Setting, Group, Personal Association, Vernacular, Archaeological Feature, Material and Other .

Applying these guidelines Dun Laoghaire Harbour is undoubtedly of International importance in terms of Architectural Heritage. Further, the harbour's significance relates to its socio-economic, cultural and amenity contribution to Dun Laoghaire and the surrounding region. It forms a central part of the 19th Century town of Dun Laoghaire, which developed around the great infrastructure projects of the harbour and the railway and contains some of the finest residential areas and maritime townscape in the country. The significance of the harbour is not only an historic importance, it is a living and dynamic place, which continues to play a role in the cultural, economic and recreational life of the town and region.

METHODOLOGY AND LAYOUT

As described above, the inventory has applied the guidelines of the NIAH to its methodology. This included field survey using photography (digital and slide) and written observations. This was followed by writing up. Added to this, the inventory addresses condition and makes

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general recommendations for improvements, alterations, further explorations, etc. This is intended to be a working document as well as a record and the information and knowledge gathered during the process can contribute to the formulation of a maintenance programme with prioritised repair and improvement projects and which will contain a range of suitable specifications for typical repair works.

The Inventory is laid out in six sections

Area A: West Pier
Area B: West Pier to Trader's Wharf
Area C: Coastguard Building to Ferry Terminal
Area D: Royal St. George Yacht Club to East Pier
Area E: East Pier
Area F: Harbour Master's Lodge Complex

The Inventory covers structures, such as pier walls, buildings and elements, such as bollards, railings, seats, etc. For the West and East Piers (Areas A and E respectively) the pier structures are described first, including a general description of surface finishes and elements such as bollards, seating and railings. The piers are further separated into sections following the kants of each pier. This is followed by a description and record of the buildings. Each section is firstly described, then rating and importance values are applied and this is followed by a brief condition assessment (note only visual inspections were carried out) and general recommendations are finally set out.

This Inventory covers structures above water level only.

RELATED DOCUMENTS AND SURVEYS

As part of the Inventory, a report on Associated Documentary Resources was commissioned and this has been carried out by John Montague M.A., Architectural Historian. This includes an overview of the history of the harbour (included in the introduction to the Inventory) and a report on the existing documentary resources which relate to the building of Dun Laoghaire Harbour and an outline of where they are located.

In tandem with the Inventory, an underwater survey of the pier structures has been carried out, under the supervision of John Moylan & Partners, Consulting Engineers. Together, the Inventory and the underwater surveys form a comprehensive record of what exists within the Dun Laoghaire Harbour at this time and its general condition. The underwater survey has indicated the need for extensive repairs to the historic piers. Initial trials have been carried out, testing methods appropriate to the sensitive nature of this architecturally important structure. Further exploration of suitable methods will be carried out with due consideration paid to the resources available.

Other documents which were referred to include a survey of the Coastguard Building, earlier reports carried out by the Office of Public Works on the Battery and the Harbour Master's Lodge and, the Declaration issued under Section 57 of the Planning and Development Act, 2000, by Dun Laoghaire Rathdown County Council.

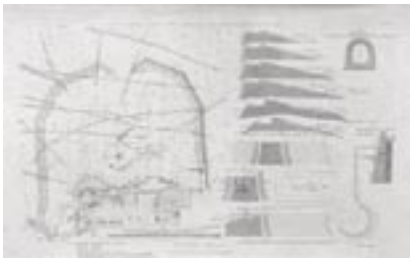
HISTORY

Dun Laoghaire Harbour was built between the years 1817 and 1842. The Harbour, and the railway that was built to service it, transformed the character of the small fishing village then known as Dunleary. In a very short period a suburban town of considerable scale sprung into existence. It became known as Kingstown after the visit to the Harbour by George IV in 1821. The mail service that was transferred from Howth in 1826 gave added significance and importance to the town, while the railway built by James Pim, which serviced the mail, also made it possible for great numbers of civil servants, bank officials, merchants and tradesmen to commute daily into Dublin while retiring in the evening to the pleasant environs of the sea.

Dun Laoghaire Harbour was built as an asylum harbour to give safe refuge to ships on their way to Dublin stranded at sea during bad weather or poor tide conditions. The disastrous loss of up to four hundred lives during a storm in 1807 resulted in a public outcry. Persistent campaigning by means of petitions to the government and to local landowners, letters to newspapers and public meetings, orchestrated in large part by a local seaman named Captain Toutcher, resulted finally in an agreement that an asylum harbour would be built. Nonetheless it was the very poor nature of Dublin Port itself, with its sandbars and difficult tides, that raised the possibility that Dun Laoghaire Harbour's function might be considerably expanded. From the very beginning, during the time when ideas for the Harbour were first raised (c. 1800), the idea of a ships canal to connect it to Dublin was considered as a realistic possibility. While the debate raged on, about whether an asylum harbour should be built at Sutton, or on the north side of Howth or at Dunleary or indeed Sandycove, designs and costings were often included for a ships canal to link each of these to the capital. However it was finally decided, by an Act of Parliament in 1815, that five Commissioners should be appointed to oversee the erection of 'an harbour for ships to the eastward of Dunleary, within the port and harbour of Dublin' [55 Geo. III Cap. 191]. The following year it was enacted that the Harbour should be built and a considerable sum of money was set aside for this purpose.

One of the first decisions made by the Kingstown Harbour Commissioners was the appointment of John Rennie as Directing Engineer for the Harbour. Renowned for his considerable experience in the building of bridges, canals and harbours throughout Britain and Ireland, his work was marked by a thoroughness of planning and a solidity and firmness of execution. John Aird who had been the engineer on site at Howth Harbour, to which Rennie was also connected, acted in the same role at Dun Laoghaire. Toutcher, as well as being the most ardent agitator for the Harbour's construction, also made the singular contribution of securing the rights to the stone at Dalkey, and elsewhere, free of charge. It was estimated at the time that a saving of £80,000 was made as a result.

Granite was excavated on Dalkey Hill and delivered to the Harbour by a funicular railway - connected by a continuous chain the weight of the granite-filled trolleys going down was sufficient to pull the empty trolleys up and no horses or steam-engine were needed. Granite was also quarried at what is now known as the People's Park in Glasthule at the site of the now disappeared Martello tower, and in Churlfield, or Churl Rocks, now known as Moran's Park.



Extract from Sir John Rennie's original drawings and specifications for Dun Laoghaire Harbour. (source: National Archives)

The first stone of the Harbour was ceremonially laid by Lord Lieutenant Whitworth on 31st of May 1817. A handful of coins and newspapers from the previous ten days were placed in a hole under the stone and this was sealed in turn by a plate with a memorial inscription. Rennnie's original scheme provided for a two-piered harbour, but the one first agreed to by Parliament was a single pier to the east of what was later known as the Old Pier. This pier had been built in 1767, but had quickly dried up and was sometimes known as the Dry Pier [now the Coal Harbour]. However during the course of construction it was decided that a second pier to the west should be built and this was constructed according to Rennie's initial scheme. Decisions by Parliament to proceed, and the arrival of money to do so, came in stages and both piers were brought to a penultimate state of construction around the year 1831. There was considerable disquiet after this about how the Harbour mouth should be finished. Rennie's son, Sir John Rennie, who took over the responsibility for the construction of the Harbour after the death in 1821 of his father, believed that the original design, with an opening of 450 ft, should be adhered to. Others, such as William Cubitt suggested an opening considerably larger. Cubitt also proposed that a breakwater of 1200 ft be placed east

HISTORY

of the Harbour in the open sea. The solution, that finally came to pass in the early 1840s, was for an opening of 750 ft with rounded pier-heads. This larger opening left entering ships vulnerable to north-easterly winds; a danger that Rennie's original plan had sought to overcome. Although there had been a moveable floating lighthouse at the end of the East Pier throughout the progress of the works, the permanent lighthouse with its battery was built in 1842. This brought to completion the construction of the great asylum harbour, which had been begun in 1817. At the time Dun Laoghaire Harbour was one of the most magnificent in what was then the British Empire. The East Pier reached a length of 4231ft and the West Pier was 5077 ft. They enclosed an area which comprises 251 acres of water.

In 1834 a railway was extended from the city of Dublin out to Dun Laoghaire. Despite the government report one year earlier that decided in its favour, the idea of a ships canal was finally laid to rest as a result. However the railway was never used for the transport of heavy goods and no significant docks were ever built in the Harbour. The need for a canal became less logical in fact after the real improvement to Dublin Port by the building of the North Bull Wall in 1824.

The Mail Packet was transferred to Dun Laoghaire in 1826. It was first accommodated by a wharf near the present band stand on the East Pier, then on the so-called Traders wharf, immediately to the east of the Old Pier, which was built in 1855, and finally by Carlisle Pier which accommodated the mailboats until recent times. Carlisle Pier, which was begun in 1853, was built to accommodate the largest types of steamboat then being built. When the railway was extended from Dun Laoghaire to Wexford a connecting spur to the new pier was added. This was a considerable addition to the mail service itself while it provided added comfort and ease to passengers.

In more recent times the increasing transportation of cars to and from Holyhead necessitated a reappraisal of facilities in the Harbour. In the middle of the 20th century cars were being lifted into the for'd holds of the Mail Boat by fixed, shore cranes. Each car was individually loaded on spreaders, with a max capacity of about twenty five cars on board. From the 1960's the need for a ro.ro ferry became increasingly apparent and a temporary ferry berth came into use at the East Pier in 1965 whilst a permanent, purpose built ferry St. Michael's Pier 2 was being built to the west of the Carlisle Pier, coming into use in 1969. Construction, which began in 1969, involved the loss of the granite neo-classical Sailor's Reading Room at that time the home of the Museum and Headquarters of the Maritime Institute of Ireland. This new car ferry pier, which was built out at right angles from, absorbed St Michael's wharf and involved the filling in of the old Depot Harbour, was built, a customs hall, departure point and car parking facilities. However the Mailboat continued to operate from Carlisle Pier until 1976. A new generation of wider, freight carrying ferries known as "Multipurpose Ferries" (as they carried both cars and freight, the scantlings of the earlier ferries not being designed to accommodate either the deadweight or size of freight vehicles) were introduced in 1978 and were catered for by buildng a further offset shore ramp at the Carlisle Pier and connecting, by a causeway, with the already built shore facilities of St. Michaels's Pier.

Extract from Sir John Rennie's original drawings and specifications for Dun Laoghaire Harbour . (source: National Archives)

AREA A: WEST PIER

WEST PIER

General Description:

The West Pier is 5077 feet (1547.5 metres) long and is made up of six kants. It was constructed between 1820 and c.1830, to the designs of John Rennie. Following his death in 1821, the work was continued by his son Sir John Rennie. The resident engineer was John Aird, who had previously supervised the conctruction of Howth Harbour for John Rennie, the contractors were named Smith. The pier is constructed of granite, extracted from the local quarries at Dalkey and Glasthule, on a 310 foot (94.5 metre) wide base of Runcorn sandstone blocks, to a depth of 24 feet (7.3 metres) below low tide mark rising to 6 feet (1.8 metres) above low tide mark. The granite is a mixture of coursed and uncoursed construction, with some very large dressed blocks, in particular at the rounded pier end. The pier is approximately 53 feet (16 metres) wide, comprising an upper and lower section, the lower being wider than the upper. The upper section is protected by a granite parapet wall outside which there is a sloping granite breakwater. Rennie's detail specification for the construction of the harbour survives and indicates the use of hydraulic lime mortars. Analysis of the historic mortars is being carried out at present and will determine the variety and make up of mortars used.

The following is a more detailed description of the West Pier structure, working from the outer, 6th, kant, at the pier end, to the beginning of the Pier at the Motor Yacht Club:

6th Kant

Description: Length: 295 feet (90 metres); general direction SSE.

6th Kant, note fine granite paving.

The shortest kant of the West Pier, this terminates in a circular form at the mouth of the harbour. An outer stepped wall, constructed of extremely finely dressed large granite blocks with tight joints, partially wraps around the circular pier end. These blocks contain circular bored holes, most likely to facilitate lifting into position. There are 2 no. mortar types identifiable within joints, reddish and grey coloured, the former may be the original, hydraulic, and analysis can confirm if this is the case. There are U-shaped iron fixings sporadically placed on the exterior face of this wall. Granite steps are formed within the inner face of the wall, giving access to intermediate and upper levels, which act as wall walks. A concrete filler has been used to level the wall walk surface of the intermediate level, which is two stone courses high and one stone deep, and to cover services located here. The upper level is two courses above intermediate level, one block wide and terminates in a bullnose block. Timber beams are fixed to the outer face of the wall, terminating at the line of high tide on the wall face. Crude repairs have been carried out to the capping stones using concrete. The outer face is plumb for the top 4 no. courses and batters outward gently below this level. Beneath water level the joints are open and water is entering the structure freely.

6th Kant, granite steps.

The rounded pier end extends out from the lower level of the main pier structure and is paved with granite blocks in a radial pattern with the red flash lighthouse building at its centre (see below under buildings). There has been some concrete infill in the paving. Other building structures here include a fisherman's shelter and the now derelict former lighthouse keeper's cottage (both described below under buildings). A flight of granite steps gives access from the pier to low tide water level.

Borehole to granite pier edging.

Services in evidence in this section include 2 no. ducts recessed into the concrete surface along the intermediate level wall walk. Ducts run from the lighthouse to the base of the intermediate wall, and rise up the face of this wall to the upper level. Rust is evident along the conduit. There are 2 no. gulley traps which are both blocked.

Rating Value and Importance Value:
Rating: International
Importance: T (Technical) ; U (Unique or Rarity); D (Detail or Design); O (Other – Craftsmanship of masonry work)

AREA A: West Pier

Curved wall of pier end.

Inner rubble grantie wall face.

Cement joints causing stone decay.

Finely cut granite steps into harbour.

Curved granite paving surface.

Outer granite wall to rounded pier end.

Condition:
There is serious erosion on the seaward side of the granite wall to the rounded pier end. Rough seas have undermined the concrete slabs that make up the sloping breakwater. Elsewhere the stone work is generally in fair condition. Erosion is mostly apparent on the top/coping stones and prevalent at stone arrises at joints, in particular where cement pointing repairs have been carried out. There is some graffiti evident on some stones. Remedial repairs have been carried out in inappropriate cement based ribbon pointing. Ferric oxides are visible on faces of stone blocks, possibly from embedded iron and/or the matrix composition of the stone. The joints of the ground surface granite paving are generally open with some cement infill in areas. Vegetation is evident in sheltered areas, but not excessive. Sections of the ground surface have been overlaid crudely with concrete and the junction between concrete and the granite coping stones of the inner wall edge are notably ragged The stone work at the pier end is of particularly fine quality design and craftsmanship. The iron handrail serving the steps to water level has corroded badly and there is further corrosion of services conduits.

Recommendations:

- Stone: replace concrete repairs/replacements with matching stone above water level; remove graffiti; remove corroded iron fixings where these are causing decay of the stone and replace with non-corrosive material, e.g. stainless steel; monitor and treat organic growth with approved biocide as necessary, taking care not to destroy any significant plant and or wildlife species.
- Pointing: retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars. Point all open joints following similar approach.

AREA A: West Pier

View of two levels of 5th kant – note concrete to upper wall section.

Outer section of 5th kant with concrete platform and granite breakwater.

Steps into harbour.

Fine stonework with inappropriate strap pointing.

5th kant, granite pier edging.

5th kant, rusted iron fixings.

5th Kant

Description: Length: 720 Feet (220 metres); making angle of 145° with 4th kant and bearing E by S1/2S

The pier structure is stepped with the level dropping towards the harbour enclosure. There are two main levels. The upper, narrower level has a slightly battered granite wall on its outer, north facing, side. This wall, rising to approximately 5 feet above ground level is rubble granite with a roughly dressed granite block capping. There is one opening onto the outer breakwater of the pier and this has large roughly dressed jamb stones. A very finely dressed granite building terminates this level at the pier end. The ground surface is quite uneven with rough stone coming to the surface due to weathering. It has been surfaced recently with loose aggregate. The lower level is just over 23 feet wide, suitable for vehicle access for maintenance. There is one set of stone steps leading to the upper level. An inner path runs along the retaining wall and is demarcated from the rest of the surface with a granite kerb. The ground surface is earthen with a grassed section. Loose aggregate has been laid on the earthen areas recently.

The retaining wall between the two levels is rubble granite with a granite coping, approximately 6 feet in height. The inner face of the pier wall is similar construction. There is a set of steps (approximately 32 no. risers) leading to the water and recessed into the wall with an iron handrail. On the outer breakwater side there is a narrow level platform, covered with concrete, running alongside the battered edge wall. The ground level slopes away from this platform down to water level with the granite surface laid to provide a breakwater. Below water level is rock armour. A pathway with granite edging runs alongside the inner wall on the lower level. There are a number of bollards and timber benches/seats located along the length of the 5th kant..

Rating Value and Importance Value:
Rating: International
Importance: T (Technical) ; U (Unique or Rarity); D (Detail or Design); O (Other – Craftsmanship in stone work)

Condition:
The walls are generally in good condition. Joints have been repointed over the years using cement mortars which is accelerating decay of granite, in particular at the arrises. A large section of the coping of the upper wall has been covered in concrete as an earlier repair and there is particularly inappropriate ribbon pointing on this section of wall. The area to the rear breakwater is in poor condition and in need of urgent attention. There is some graffiti on the granite of the retaining wall between the two levels. The iron handrail to the water access steps is significantly rusted and in poor condition. Cracks are evident in the stone due to expansion of corroding metal embedded in stone. There is some vegetation on the walls, with a variety of plant species.

Recommendations:

- Stone: replace concrete repairs/replacements with matching stone above water level; remove graffiti; remove corroded iron fixings where these are causing decay of the stone and replace with non-corrosive material, e.g. stainless steel; monitor and treat organic growth with approved biocide as necessary, taking care not to destroy any significant plant species.
- Pointing: retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars. Point all open joints following similar approach.
- Plant growth on walls should be examined to ascertain species and significance.

  No growth to be removed until this is carried out.
- The pathway on the lower level should be restored to its original condition.

AREA A: West Pier

4th Kant

Description: Length: 1080 Feet (330 metres): making obtuse angle of 156° 3rd kant and has ENE direction.

Structure and ground surfaces as per 5th kant. One opening in upper wall giving access to outer breakwater . Granite rock armour slopes steeply from narrow level walkway with timber seats on outer side of upper wall. Grasses growing wild at top of slope. Granite steps, 27 no. risers, leading to water recessed in inner harbour wall at junction with 3rd kant. Edge of coping stone is marked with whitewash line along length of steps below. Wall curves for length of steps at junction with 3rd kant.

Adjacent to steps is a metal post with iron brackets in inner wall at foot of post, for access ladder, now removed, to water. Inner wall has algae growth along line of water mark. There is one set of steps, at 3rd kant end, giving access to upper walkway level. Along lower walkway level are a number of iron mooring loops fixed to ground and iron mooring chains fixed to bollards and resting on sea bed. A pathway with granite edging runs alongside the inner wall on the lower level. The surface is uneven and overgrown.

Rating Value and Importance Value:
Rating: International
Importance: T (Technical) ; U (Unique or Rarity); D (Detail or Design);
O (Other – Craftsmanship in stone work)

Condition:
The walls are generally in good condition. Joints have been repointed over the years using cement mortars which is accelerating decay of granite, in particular at the arrises. There are considerable amounts of ribbon pointing. There is some graffiti on concrete bollard at steps to water. Concrete repair has been carried out to upper jamb stone of access ope in upper wall to outer breakwater side.

The short surviving section of iron handrail to the water access steps is severely rusted and in poor condition. There is much staining on stone from iron oxides. Metal brackets in inner wall has corroded badly. Mooring chains and rings are rusting and causing staining to surrounding stone and concrete surfaces. Cracks are evident in the stone due to expansion of corroding metal embedded in stone. There is some vegetation on the walls, with a variety of plant species.

Recommendations:

- Stone: replace concrete repairs/replacements with matching stone above water level; remove graffiti; remove corroded iron fixings where these are causing decay of the stone and replace with non-corrosive material and/or carrying out appropriate priming and surface treatment of ironworks to be retained; monitor and treat organic growth with approved biocide as necessary, taking care not to destroy any significant plant species.
- Pointing: retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars. Point all open joints following similar approach.
- Plant growth on walls should be examined to ascertain species and significance. No growth to be removed until this is carried out.
- The pathway on the lower level should be restored to its original condition.

View of 5th kant showing corner with 4th kant. The ground surface of upper and lower walkways is patchy and uneven with extensive vegetation growth.

Ground surface, 5th kant. Note granite edge pathway.

Ground surface in front of Lighthouse Keeper's Cottage.

Slightly ramped pier wall composed of random rubble.

Inner and upper pier walls composed of random rubble.

Granite mooring post.

Break in upper wall giving access to rear breakwater. Note inappropriate cement strap pointing.

AREA A: West Pier

4th and 5th kants.

Ground surface, 4th kant.

Coursed rubble walls.

Cut granite mooring post.

Roughly hewn granite mooring post.

Cast iron mooring post.

Iron mooring hoop to lower walkway.

3rd kant, note junction with breakwater.

Breakwater, 3rd kant.

3rd Kant

Description: Length: 2130 Feet (650 metres):

Structure and ground surfaces as per 4th kant. Longest kant of West Pier. A breakwater for the new marina runs from this kant in an easterly direction. The breakwater is composed of massive blocks of rough granite rock armour, with a concrete walkway bounded by steel railings and granite cladding to both edges. This walkway is accessible to the public. One set of steps leading to water, with 26/27 no. steps, located approximately half way along kant. Metal fixings in inner wall for mooring. Adjacent to steps to water level is a pair of parallel iron rail tracks set in concrete in ground surface of lower walk level. These would have facilitated crane for lifting boats, goods, etc. The crane is now removed.

There is a single access steps, 9 no. risers, between upper and lower walk levels adjacent to end of rails tracks. There are large granite stones in the retaining wall between levels. Two ramps, located close to junction with 2nd kant and with earthen and grass surfacing, give access between upper and lower walk levels. The two ramps run in opposite directions. A concrete block maintenance hut has been removed from the lower walk level, close to the 4th kant. The markings of where the shed was built against the retaining wall remain, with the formerly covered stone showing less evidence of weathering than other wall surfaces. The top surface of the upper wall has been given a weathering coat of cement mortar between the edge coping stones. The outer breakwater is similar to that of the 4th kant with a number of timber seats. There is a considerable amount of plant growth on either side of the outer wall, which runs at approximately 4 1/2 feet high. A single ope in this wall leads down to outer breakwater area via 3 no. steps onto a platform and further steps towards the bay The steps are set into the sloping ,smooth faced granite armour which slopes up to outer wall with no access platform along this section of the pier. Considerable lengths of the outer face of the upper wall have been faced with a cement mortar /plaster coat.

AREA A: West Pier

Rating Value and Importance Value:
Rating: International
Importance: T (Technical) ; U (Unique or Rarity); D (Detail or Design);
O (Other – Craftsmanship in stone work)

Condition:
The walls are generally in good condition. Joints have been repointed over the years using cement mortars which is accelerating decay of granite, in particular at the arrises. There are considerable amounts of ribbon pointing. Concrete repairs and stone replacements have been carried out in several locations.

The iron handrail and mooring brackets at the water access steps are severely rusted and in poor condition. There is much staining on stone from iron oxides and stone has broken away due to expansion of iron in some instances. Rail tracks in lower level are rusted. There is some vegetation on the walls, with a variety of plant species. There is active grass growth along upper slope of outer breakwater.

Recommendations:

- **Stone:** replace concrete repairs/replacements with matching stone above water level; remove corroded iron fixings where these are causing decay of the stone and replace with non-corrosive material and carrying out suitable priming and surface treatment to rusting track rails; monitor and treat organic growth with approved biocide as necessary, taking care not to destroy any significant plant species.

- **Pointing:** retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars. Point all open joints following similar approach.

- Plant growth on walls should be examined to ascertain species and significance. No growth to be removed until this is carried out.

- The pathway on the lower level should be restored to its original condition.

Opening in upper pier wall, 3rd kant.

Steps into harbour, 3rd kant.

Corner of 4th and 3rd kants.

Ramp between lower and upper levels.

Simple timber bench.

Iron tracks to lower walkway prior to construction of marina breakwater.

Timber bench with granite legs, an important early element.

Overgrown breakwater to rear of 3rd and 2nd kants.

AREA A: West Pier

2nd Kant

Description: Length: 490Feet (150 metres):

Structure and ground surfaces as per 3rd kant.
A section of the lower walk level has been railed off as a boat store for the Motor Yacht Club. A low concrete rising wall supports a galvanised metal boundary fence. The ground surface within the boat store compound has been covered with black tarmacadam to the granite coping stone edge which is uncovered. Greenish/blue angular chippings have been laid on the walkway surface outside the railings. 2 no. metal bollards with a metal chain between them are located beside the entrance to the boat compound and restrict vehicle access further out along the pier. The lower level of the pier is finished with concrete brick paving in a herringbone pattern from the entrance to the boat compound, adjacent to the 1st kant, to the beginning of the pier.

The upper wall is higher with a rounded granite capping for approximately half the length of the 2nd kant before it drops to the standard height of approx. 4.5 feet which continues to the end of the 5th kant. There is one access ope leading via steps down to the outer breakwater area and beyond to a small outer harbour area formed by a stepped concrete wall running around the area West of the 1st and 2nd kants of the West Pier and known as the 'gut' area. There are 2 no. sets of steps leading down to the water from the lower walk level , at either end of the 2nd kant. These are highlighted with white paint and are set into the pier wall. There is one set of steps, 7 no. only as the level difference decreases along this kant, between the upper and lower walk levels. The bottom step has been finished with concrete bricks identical to those on the lower walk level, the latter which are lined with road markings – yellow box and yellow lines – as cars are allowed in this area.

Detail, junction of upper walls, 2nd kant. Note poor concrete strap pointing.

Steps between levels, 3rd kant.

Lower walkway. Any improvements should include the retention of the granite edging to inner pathway.

Detail of poor cement strap pointing to coursed rubble, upper wall, 2nd kant. This is accelerating decay of the stone.

Rating Value and Importance Value:
Rating: International
Importance: T (Technical) ; U (Unique or Rarity); D (Detail or Design);
O (Other – Craftsmanship in stone work)

Condition:
The granite walls are generally in good condition. Joints have been repointed over the years using cement mortars which is accelerating decay of granite, in particular at the arrises. There is extensive ribbon pointing which has been continued recently with fresh pointing. Concrete repairs and stone replacements have been carried out in several locations. Iron handrails to water access steps are rusted and in poor condition with staining on stone from iron oxides and stone broken away due to expansion of iron in some instances. The concrete plinth wall to the boat compound is cracked where metal posts are fixed, possibly due to failure of galvanise and subsequent rusting. Galvanised railing needs painting. The stepped concrete wall running around the 'gut' area is in poor condition with much surface decay. Generally the appearance of this area is poor.

There is vegetation on and adjacent to the upper walls, with a variety of plant species. There is active grass growth along upper slope of outer breakwater.

Recommendations:

- **Stone:** replace concrete repairs/replacements with matching stone above water level; remove corroded iron fixings where these are causing decay of the stone and replace with non-corrosive material and carrying out suitable priming and surface treatment to rusting track rails; monitor and treat organic growth with approved biocide as necessary, taking care not to destroy any significant plant species.

- **Pointing:** retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars. Point all open joints following similar approach.

- Plant growth on walls should be examined to ascertain species and significance. No growth to be removed until this is carried out.

- Boat Storage compound is crudely formed and poorly located. If possible relocate away

AREA A: West Pier

from pier. While awaiting suitable location, paint railings and repair cracks in concrete.

- Brick paving to lower level surface is generally in good condition, however is not an appropriate finish for this location. Consideration should be given to resurfacing in the future.
- Replace metal post and chain at lower level with 3 no. semi-automatic removable bollards – as per samples for East Pier.
- The pathway on the lower level should be restored to its original condition.

1st Kant

Description: Length: 260 Feet (80metres):

The pier structure of the 1st kant is in three levels. The upper level continues at the level and width of the upper walk level of the outer kants. The lower level, however, splits into two levels, approximately equal in width. The inner section runs at the same level as the lower walk level of the outer kants and a concrete slip gives access down to the lower outer level from the junction with the 2nd kant. This is the oldest section of the pier wall and forms part of the original harbour with the coal quay opposite to the east. The lowest level is cordoned off by a railing similar, but older to that surrounding the boat compound on the 2nd kant and is also occupied by the Motor Yacht Club. The flat roofed two storey building of the Motor Yacht Club (described below) sits on this lower level which is also used for storing, launching and lifting boats. The concrete slip which gives access to the lower level continues down to below water level and fixed to the outside of this slip is a floating pontoon with timber deck. Metal gates close off public access to the water from this slip.

The intermediate level is surfaced with concrete brick paving as per the 2nd kant. The level difference between this and the upper level reduces from 7 no. steps at the 2nd kant to 4 no. approximately half along its length to grade at the beginning of the pier.

Working out from the beginning of the pier, along the upper level, are a series of buildings - the Irish Youth Sailing Club, the Marine Activity Centre and Seaview Storage which is set back behind the rounded granite capped upper stone wall. This wall is pierced with an open metal gate giving access to the yard of the Marine Activity Centre and ends at the single storey shop/kiosk which forms part of the Marine Activity Centre. There is a bird information signboard adjacent to shop/kiosk which gives useful information on local bird species.

The ground surface is tarmacadamed from here back to the beginning of the pier. 2 no. granite bollards with chains restrict vehicular traffic from entering the upper level of the pier at this point.

The West pier extends from the access road running parallel to the railway. A concrete and metal footbridge crossing the railway tracks is located at the beginning of the pier.

An area of the lower level at the beginning of the pier is accessed via metal steps alongside the entrance elevation (gable end) of the Motor Yacht Club. This ramps down to a lower level again which is also accessed via 5 no. granite steps from the access road running parallel to the railway tracks. A granite retaining wall separates this area from the slightly higher level above. There is a metal guard rail along the open waterside edge of this area. A similar railing extends along the water edge for the length of the Motor Yacht Club area. The surface of this lower area is granite blocks although two sections have been covered over with concrete and tarmac respectively. There are 2 no. access steps to water from this level. There is a metal post supporting a life buoy fixed against the retaining wall.

Rating Value and Importance Value:
Rating: International
Importance: T (Technical) ; U (Unique or Rarity); D (Detail or Design); O (Other – Craftsmanship in stone work)

Steel railed boatyard enclosure with concrete plinth.

Stepped concrete to south west of West Pier

Corner of 2nd and 3rd kants.

Boatyard and clubhouse D.M.Y.C.

AREA A: West Pier

Condition:
The granite walls are generally in good condition. Joints have been repointed over the years using cement mortars which is accelerating decay of granite, in particular at the arrises. There is extensive ribbon pointing which has been continued recently with fresh pointing. There is also an extensive amount of open joints requiring pointing. Concrete repairs and stone replacements have been carried out in several locations. Much of the iron and metal handrails, steps, posts, ladder fixing brackets, etc, are rusting and in poor condition with staining on stone from iron oxides and stone broken away due to expansion of iron in some instances. In general ironworks are in poor condition or inappropriately designed. The railing around the Motor Yacht Club yard is quite crude and in relatively poor condition requiring painting or replacement. Ground surfaces are inappropriate in places, in particular where concrete and tarmac cover historic granite paving. Concrete surfaces are fractured. Despite an assortment of bins, litter is a problem in this area, particularly in summer months when activity is increased. There is extensive graffiti to the concrete walls at railway bridge. Barbed wire along roof of Irish Youth Sailing Club is unsightly.

Cast iron bollard, 1st kant.

Fine masonry to 1st kant.

Footbridge and Marine Activity Centre.

Unsympathetic ground surface to foreground.

Recommendations:

- **Stone:** replace concrete repairs/replacements with matching stone above water level; remove graffiti; remove corroded iron fixings where these are causing decay of the stone and replace with non-corrosive material and carrying out suitable priming and surface treatment to rusting track rails; monitor and treat organic growth with approved biocide as necessary, taking care not to destroy any significant plant species.
- **Pointing:** retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars. Point all open joints following similar approach.
- Plant growth on walls should be examined to ascertain species and significance. No growth to be removed until this is carried out.
- Railings around Motor Yacht Club are inappropriate and should be replaced.
- Brick paving to intermediate level surface is generally in good condition, however is not an appropriate finish for this location. Consideration should be given to resurfacing in the future. Concrete and tarmacadam surfaces should be removed – where possible original granite retained as finish, otherwise new concrete surface to specification.
- Remove metal chain between upper level granite bollard and replace with 1 no. semi automatic bollard as at East Pier.
- Road markings to be kept to a minimum and avoided where possible. Reduce line widths and use subdued colours.
- Simplify signage and rationalise signs where possible.
- Railway footbridge is crude and should be upgraded/replaced.

AREA A: West Pier

Clockwise from top left:

View of slipway area of D.M.Y.C. from boatyard.

Fine masonry steps contrasting with inconsistent and unsympathetic tarmac and concrete pavier surfaces.

Simple cast iron railings in keeping with the harbour area. Poor concrete ground surface.

Front site to small single storey building, 2nd kant. Public information signs such as the bird watching sign shown are to be encouraged. Shop use brings litter problems which require greater maintenance.

Pleasant seating area, 1st kant, could be improved by resurfacing, removal of graffiti and maintenance of seating.

Granite steps, 2nd kant.

Working from the pier end towards the 1st kant there are a number of building structures as follows:

Red Flash Lighthouse; Fisherman's shelter; Former Lighthouse keeper's cottage; Weather Station Anemometer; Motor Yacht Club; Irish Sailing Club; Marine Seaview Storage;

In addition there is a group of buildings around the 'gut' area to the west of the West Pier, which are not described in detail within this inventory.

Red Flash Lighthouse

General: The lighthouse is located at the centre of the pier end. It forms the focal point of the pier end set as it is at the centre of the radial granite paving.

Structure: Granite ashlar block main structure with metal and glass top section.

Walls: The lighthouse walls extend from a base of three circular steps in shaped granite blocks. The lighthouse is circular in form, composed of radial shaped granite block units, laid with very fine joints, consisting of seventeen courses to top cornice. High quality stonework. The granite shaft wall terminates in a convex profiled cornice of moulded granite blocks. The masonry shaft is topped with a metal structure which forms the lantern light. The granite cornice a protective railing to the exterior walkway around the high level lantern. The lantern is formed with trapezoidal shaped metal and glass panels fitted together. The glass extends approximately 3/4 of the perimeter of the lantern.

Openings: There is a single solid metal door which is seven block courses high to door head level.

Roof: The roof is conical formed in metal with a finial at the apex, which acts as a lightening conductor. Copper earthing cable runs down the side of the lighthouse and terminates in the ground.

Red Flash Lighthouse.

AREA A: West Pier

Lantern and walkway, red flash lighthouse.

Fine radial granite paving surrounding lighthouse.

Note poor concrete patch repairs to paving.

Fishermen's shelter.

Railings: A wrought iron vertical bar railing with a lockable gate surrounds the base steps of the lighthouse. The railings are leaded into a low granite plinth wall. The high level protective railing to the lantern walkway consists of 6 no. vertical bars fixed to the granite cornice with 3 no. horizontal curving rails.

External Services: Rectangular metal box fixed to the exterior of lighthouse at ground level to approximately 2 metres high. Cable from top of this box runs externally to the top of the lighthouse. There are 4 no. solar panels fixed to the lantern walkway railing.

Condition:
Some crude ribbon pointing has been carried out to fine joints using cement mortar. This may suggest water ingress problems. A metal section embedded in 1 no. granite base step is rusting, causing cracking in one of the major stones of the door threshold. Cables have been repositioned in the past and redundant drill holes in external stone blocks have been crudely filled with cement mortar. Base railings have recently been repainted.

Signs of rust at fixing points to base plinth. Bitumen coating evident around base of steps to lighthouse. There is significant rust on granite blocks beneath railings.

Rating Value and Importance Value:
Rating: International
Importance: A (Architectural) ; T (Technical); H (Historic)
O (Other – Craftsmanship in stone work)

Recommendations:
- Rake out cement pointing and repoint using lime based mortars derived from analysis of historic mortars.
- Remove any corroding iron cabling and fixings, etc., and replace with non-corrosive metals. Ensure all cast or wrought iron railings are adequately coated with protective primers before painting.
- If possible run service cables internally to reduce negative visual impact.

Fishermen's shelter

General: The fishermen's shelter is an unsightly blockwork structure with an adjoining rendered structure and is located on the 6th Kant against the back, upper, pier wall.

Structure: Concrete block structure

Walls: The open shelter structure is built up against the pier wall with raised concrete floor.

Openings: The shelter has openings on two sides.

Roof: Concrete roof slab supported by concrete rib beams.

Rating: Record only. **Importance:** None

Recommendation:
- This structure is unsightly and poorly maintained. It should ultimately be removed or replaced with a structure that is more sympathetic in design. In the interim period an effort should be made to maintain it on a regular basis.

Condition:
The rib beams are in a serious state of deterioration. Reinforcement has oxidised and the subsequent expansion has caused cracking of the concrete, giving greater exposure of the reinforcement and further accelerating deterioration. Cracking is also evident on the slab soffit. Rust staining has occurred on the face of the stone wall. Rendered wall is covered in graffiti.

AREA A: West Pier

Structure adjoining shelter

General: Adjoins open shelter structure.

Structure: Masonry construction.

Walls: Walls are rendered in a cement render with a rough textured finish.

Openings: Single door and window face into harbour. Granite cill to window. Both are blocked up with concrete blocks.

Roof: Flat concrete roof, asphalt with rendered parapet. Rear parapet is built off existing stone wall. Roof contains blocked rooflight ope.

Services: Ground surface duct runs from structure and terminates at inner face of lower wall. Duct discharges into hopper head to 225mm-diameter pipe fixed to wall face. Pipe is in a serious state of decay with extensive rusting. Degraded white paint from pipe surface has stained wall face. Hopper contains organic growth.

Rating: Record only. **Importance:** None.

Recommendation:
- Establish original and current use of structure. Consider removing structure or finding an appropriate use in conjunction with other structures.

Lighthouse Keeper's Cottage

General: T-Plan, Five bay, single storey cottage, built 1863, running flush with upper wall of west pier, having granite walls, architrave surrounds to windows and door and prominent cornice and parapet. A flight of steps run up either side of the structure, leading to upper level of pier. The cottage was built for the lighthouse keeper by a contractor called Stapleton.

Structure: Masonry construction faced in granite ashlar.

Walls: Ten courses of granite ashlar to walls. Original pointing. Carved granite plinth, cornice, frieze and parapet terminating on side elevations.

Openings: Symmetrically placed openings with granite architraves. Central door with granite threshold paved with quarry tiles. Evidence that railings once existed to front of step. All openings have been blocked up with concrete blocks. Small opes to rear wall with cast iron ventilation grilles. Blocked window ope to return with granite cill.

Roof: Brick vaulted structure having a rendered finish with a bitumen based binder. Erosion in places. 1 no. chimney stack composed of cut granite blocks capped with cement mortar, flanged to throw off water.

Services: Corroded metal water tank to rear, raised on concrete plinth and having cast iron downpipe with hopper feeding into it.

Rating: International
Importance: A (architectural), H (historical), U (Unique), O (craftsmanship of stonework), S (setting), M (materials).

Recommendations:
- Carry out maintenance works on a regular basis according to Department of the Environment Conservation Guidelines.
- Unblock openings on façade and reinstate sash windows and panelled timber door.
- Consideration should be given to an appropriate new use for this building, for example a small exhibition space which might house a permanent exhibition on the ecology

Corroded concrete rib beam to interior.

Service duct.

Structure adjoining shelter.

Rear of shelter, abutting pier wall. Note fine flight of granite steps.

Lighthouse keeper's cottage, front elevation.

AREA A: West Pier

Rear elevation, note corroded tank.

North elevation.

Detail of patchy ground surface in front of structure.

Detail of roof.

Detail of carved granite door architrave.

Detail of corroded tank. This corrosion inevitably leads to stone decay. The use of concrete such as for the plinth is inappropriate for an historic structure such as this.

of the area and/or a temporary exhibition space. Consideration of appropriate security provisions would be required.

- Remove tank to rear and repair cast iron rainwater goods.

Condition:
Walls are generally in good condition. The rear walls are stained by rust from the blocked window. Architrave surrounds are in an advanced state of decay. Plaster repairs to door architrave have failed. Access to interior is required to assess condition.

Weather Station Anemometer

General: Weather station located to rear of upper wall of west pier.

Structure: Prefabricated metal cabin on masonry supporting structure.

Walls: The structure sits on a concrete slab on top of a concrete block base.

Openings: Fixed glazing to front and sides. Entrance door faces upper pier wall.

Roof: Flat metal roof.

Rating: Record only. **Importance:** None

Condition: There has been some movement in the support structure. Movement gap evident in block wall, two courses below concrete slab. Slab has degraded at surface edge. Metal railings at side steps to structure are extensively rusted.

Recommendation: This building makes a poor contribution to the area and consideration should be given in the future to its removal.

Dun Laoghaire Motor Yacht Club

Composition: Freestanding, two storey yacht clubhouse, built c. 1975, with roughcast rendered walls, flat roof and uPVC windows, located at beginning of West Pier.

Roof: Flat roof, concealed by parapet. Concrete coping to parapet. Variety of projecting rooflights and services. Steel guard rail to parapet to front section of structure.

Walls: Roughcast rendered and painted walls, with smooth rendered plinth course. Smooth rendered band to base of first floor, front elevation.

Openings: Square headed windows with concrete cills and uPVC frames. Main entrance contained in square headed recess with steel railings to front. uPVC glazed doors to rear.

Site: Site is enclosed to rear by tall steel railings on a concrete plinth wall. Tarmac surface to boatyard contained within. Concrete slipway abuts fine granite pier wall. Tiled steps to entrance door.

Condition: Well maintained.
Rating Value and Importance Value:
Rating: Record Only. **Importance:** None

Recommendation:
- The MYC building makes a poor contribution to the area and consideration should be given in the future to remodelling this structure or relocating it to a more appropriate site.

AREA A: West Pier

Marine Activity Centre

Composition: Commercial building, c.1940, comprising three bay, two storey section, with entrance, to north, and two bay, single storey section to south, and having smooth rendered walls, flat roof with parapet and tall concrete entrance porch.

Roof: Flat roof, concealed by parapet. Concrete coping to parapet. Original cast iron downpipes with octagonal hoppers.

Walls: Smooth, concrete rendered walls with indented plinth course.

Openings: Square headed door and window opes. Flat roofed, concrete porch, tiled to interior, with replacement, glazed, aluminium, double doors. Two original, four-over-four pane timber sash windows to ground floor north, having painted stone cills. Early steel casement windows elsewhere on north section, with concrete cills. Timber casement windows to south section.

Site: Front site has tarmac surface with original granite edging. Two granite bollards with canted corners to south of front site. Random granite rubble wall with curved cap stones abuts building to south. Single storey pitched roof building abuts building to south.

Condition: Poorly maintained. Steel window frames are extensively rusted. Rainwater goods require painting.

Rating Value and Importance Value:
Rating: Record Only. **Importance:** None

Recommendation:
- Short term repairs to include steel windows and flat roof. Long term consideration should be given to replacing this building with a structure of greater architectural quality.

Weather Station Anemometer

D.M.Y.C. , front and side elevations.

D.M.Y.C., boatyard to rear.

Single storey structure adjoining Marine Activity Centre

Composition: Single storey, four bay building, c. 1900, with gabled projecting bay and having single bay annex to north and small return.

Roof: Pitched roof with copper flashing and later concrete tiled covering. Chimney to return with clay chimney pots. Cast iron rainwater goods. Flat roof with parapet to annex.

Walls: Smooth rendered walls.

Openings: Square headed window and door opes. Thickly painted stone cills. uPVC casement frames.

Site: Abuts Marine Activity Centre to south. Tarmac and loose aggregate to front site.

Condition: Fair.

Rating Value and Importance Value:
Rating: Record Only. **Importance:** None

Recommendation:
- Regular maintenance required including painting and rendering of concrete blockwork base.

Marine Activity Centre, front elevation.

Structure adjoining Marine Activity Centre.

Later annex to side.

AREA A: West Pier

Gut Area to southwest of West Pier

This contains a collection of poor quality buildings and uses which make little contribution to the harbour. It also contains a small 20th Century harbour of concrete construction which is unused. There are two parking areas which are often underused, these and the pumping station and adjacent grassed areas are owned and maintained by Dun Laoghaire Rathdown County Council. The area has significant potential for appropriate redevelopment and environmental improvement of the general area. Initiatives to encourage greater use of the carparks, thus reducing the parking on the West Pier, should be encouraged.

AREA B: West Pier to Trader's Wharf

General Description:
This area includes the Coal Harbour, formed by the Coal Quay and the battered wall supporting the single lane accommodation road running from the beginning of the West Pier and the Coal Quay, parallel to the railway line; Trader's Wharf and the Boatyard.

The Coal Harbour is the oldest part of Dun Laoghaire Harbour, having been built in the eighteenth century. The Coal Pier juts out in a NW direction, enclosing the Coal Harbour. Trader's Wharf runs parallel to the Coal Pier further north. These small harbours are used to moor small yachts and dinghies and the outward harbour also accommodates fishing trawlers. Improvement works were carried out, c.2000, around the Coal Pier. This included resurfacing with tarmacadam, the introduction of some kerbing and footpaths and the reclamation of land to either side of the Coal Pier. A single lane road runs parallel to the railway line, forming the southern boundary of the Coal Harbour.

Trader's Wharf, south side.

Trader's Wharf, north side.

Trader's Wharf, west end.

AREA B: West Pier to Trader's Wharf

The following is a more detailed description of the individual elements that make up Area B.

Trader's Wharf

General: Trader's Wharf was built in 1855 at a cost of £30, 000.

Description:
This quay structure is constructed from massive blocks of dressed granite. To the south the edge of the quay, on the ground surface, the granite blocks are exposed. These blocks form a walkway of approximately 1.5 metres. New steel mooring hoops are located at regular intervals along the walkway. Following this the quay steps up and the transition is marked by granite edging. The roadway along the pier is a combination of concrete and tarmacadam. The wall running down the centre of the quay is constructed from large blocks of dressed granite. The wall has suffered damage from the various cast iron fixings attached to it. Crude repair works have been carried out in parts, including the replacement of a granite block with concrete. The wall has been inappropriately pointed with cement ribbon pointing in parts. Two granite steps lead down to quay end where surface is exposed granite blocks. A metal railing runs along the pier end. The railing is severely corroded and the resulting rusting has caused extensive staining to the granite quay structure. A flight of steps run from the quay into the sea. The surface of the steps have been tooled to prevent slippage. Three timber posts with metal fixings line the end of the pier. The timber appears to be disintegrating around the water level and the fixings are extensively rusted. A two storey concrete block building, c.1970, known as the Ice Plant, is located at the pier end. This unsightly structure is used by traders to sell fish. On the north side of the pier large stretches of stone setts have been retained. To the east the setts are primarily limestone and to the west they are granite.

Extensive vegetation growth is apparent between the setts. A seam of concrete runs between the wall and the setts. Tarmac has also been used to patch sections of the setts. Galvanised stainless steel railings have been crudely fixed into the setts and granite blocks. The mooring posts along the pier are mostly granite and are still in active use. Cast iron mooring posts are located to either ends of the quay and are severely rusted. Two tall, steel lamp standards are located on the wharf. The wharf has been lined out for car parking to satisfy the planning requirements for parking associated with the marina development.

Rating Value and Importance Value:
Rating: International
Importance: T (Technical); U (Unique or Rarity); D (Detail or Design); O (Other– Craftsmanship in stonework)

Condition:
The stone work is generally in good condition. Erosion is mostly apparent on the top/coping stones and prevalent at stone arrises at joints, in particular where cement pointing repairs have been carried out. Ferric oxides are visible on the faces of many of the granite blocks, possibly from embedded iron and/or the matrix composition of the stone. Vegetation is evident particularly on the north side of the pier. The cast iron mooring posts, railings and other fittings are badly corroded and this is damaging the stone work.

Recommendations:

- **Stone:** replace concrete repairs/replacements with matching stone above water level. Remove corroded iron fixings where they are causing stone decay and replace with noncorrosive material, e.g. stainless steel. Monitor and treat organic growth with approved biocide as necessary, taking care not to destroy any significant plant species.

- **Pointing:** retain any original sound mortars. Rake out replacement mortars and repoint using hydraulic lime mortars based on the analysis of historic mortars. Point any open joints using same approach. Refer to more detailed specification regarding mortar mixes and application methods in Maintenance Schedule.

- **Ironwork:** Ensure that all iron and metalwork is adequately coated with protective primers before painting.


Inner pier wall, Trader's Wharf.


Trader's Wharf.


Trader's Wharf, rusted iron fixings, inner wall.


Trader's Wharf, northwest end.


Trader's Wharf, viewed from West Pier.

AREA B: West Pier to Trader's Wharf

- The Ice Plant could be significantly improved by the addition of attractive cladding and by other well considered improvements, which may also expand the use of this structure.
- The use of Trader's Wharf for car parking should be reviewed as part of an overall review of the uses of the harbour.

Boathouse, east elevation,

Boathouse, fuel depot to north elevation.

Stonework to quay walls, adjoining boathouse.

Boathouse

Composition: Gable fronted boathouse, mid nineteenth century, with snecked granite walls and pitched slate roof, located east of Traders Wharf at the entrance to the F.C.A. grounds.

Roof: Pitched natural slate roof. Clay ridge tiles. Timber fascia boards to gables supported by timber brackets.

Walls: Fine snecked granite walls. Cement ribbon pointing in parts.

Openings: Segmental headed openings to gable end with cut stone voussoirs. Replacement timber double doors.

Site: Abutting the structure along the northwest side are steel railings. A Maxol fuel depot, serving the marina, enclosed by galvanised stainless steel railings, runs along the north face of the building. To the east side there is slipway and jetty. The granite surface to the slip has been patched with concrete. The railings to the quay include a section of original cast iron railings, which is severely corroded. A simple modern railing stands at the end of the jetty, this too is in a poor state of repair and is damaging the surrounding stonework.

Rating Value and Importance Value:
Rating: Regional
Importance: S (Setting); D (Detail or Design); O (Other– Craftsmanship in stonework)

Condition:
The stonework is in good condition but has inappropriate ribbon pointing. Repair work is required on the roof.

Recommendations:
- This boathouse is a significant structure within the harbour area and as such merits restoration work in order to fulfil its potential. A similar project was carried out on the R.N.L.I boathouse at the East Pier.
- **Pointing:** retain any original sound mortars. Rake out replacement mortars and repoint using hydraulic lime mortars based on the analysis of historic mortars. Point any open joints using same approach.
- Repair roof using matching natural slate.

Boathouse, viewed from east.

Boathouse, roof detail.

Boathouse, viewed from Trader's Wharf.

AREA B: West Pier to Trader's Wharf

Boatyard

Description:
Small boats are stored in this area between the two quays. The quay walls on the section are formed by coursed granite rubble. Dressed granite is used to the top of the wall. The ground surface is very uneven with rough granite coming to the surface due to weathering. The entrance from Trader's Wharf is screened by metal gates, c.1980. A single storey, concrete brick structure, housing a store and toilets, stands beside the gates. The structure is in need of maintenance and is of no architectural value. A small fixed crane is located on the quay side. Rusted cast iron mooring rings and two granite mooring posts line the quay wall edge. A fine, curved, snecked granite boundary wall encloses the site to the east. The wall has curved granite coping and a flight of granite steps runs from the site to the road, which is at a higher level. The stone work is generally in good condition but has some graffiti and vegetation growth. A single storey concrete block structure is built up against the wall. The structure has a flat felt roof, flush timber door and timber casement windows. This structure is of no architectural value. A granite slipway runs parallel to the quay wall. The surface is made up of mostly irregular granite blocks, with two regular courses intended for use as a track way for launching trolleys. Repointing has been crudely executed with cement mortar. A launching mechanism with turntable is located alongside the slipway. It comprises two parallel cut granite walls bearing rusted iron tracks. The cast iron turntable has a concrete base. The ironwork is rusted but is in reasonably good condition.

St. Michael's Rowing Club have utilised space underneath bridge to south east for storage. The archway is segmental headed with tooled granite voussoirs and brick vaulted soffit. The brick requires repointing. The area is extensively overgrown with cables running along the wall. There is also extensive dumping.

Further along the southern boundary wall is another concrete block structure with timber fascia and a flat, felted roof. This houses the winch which operated the now redundant boat launching turntable. There are a number of temporary containers/structures accommodating seasonal sailing schools and other marine activities which are located haphazardly around the boatyard. The ground surface to the boatyard improves towards the Coal Quay, where there is a more even concrete surface. A small pedestrian gate leads into car park beside Coal Harbour.

Rating Value and Importance Value:
Rating: International
Importance: T (Technical); U (Unique or Rarity); D (Detail or Design); O (Other– Craftsmanship in stonework)

Condition:
The stone work is generally in good condition. However there is extensive graffiti, in particular on the curved granite wall. Erosion is mostly apparent on the top/coping stones and prevalent at stone arrises at joints, in particular where cement pointing repairs have been carried out. Ferric oxides are visible on the faces of many of the granite blocks, possibly from embedded iron and/or the matrix composition of the stone. Vegetation is evident in some of the joints that require repointing. The cast iron mooring rings and other metal fittings are badly corroded and this is damaging the stone work.

Recommendations:
- A masterplan for the Boatyard is required which would address the orderly use of the boatyard for storage and marine related activities and would acknowledge immediate and future requirements taking into account available resources. Access, security and Health and Safety issues would also required to be addressed.

- **Stone:** replace concrete repairs/replacements with matching stone above water level. Remove corroded iron fixings where they are causing stone decay and replace with noncorrosive material, e.g. stainless steel. Monitor and treat organic growth with approved biocide as necessary, taking care not to destroy any significant plant species. Remove graffiti.


Uneven surface, boatyard.


Fine stonework wall, with extensive graffiti.


Boat turntable.


Temporary structures to south boatyard.


Archway to Rowing Club.


Boatyard, temporary structures to southeast corner.

AREA B: West Pier to Trader's Wharf

View of boatyard.

- Pointing: retain any original sound mortars. Rake out replacement mortars and repoint using hydraulic lime mortars based on the analysis of historic mortars. Point any open joints using same approach.
- Ironwork: Ensure that all iron and metalwork is adequately coated with protective primers before painting.
- Ground surface: resurface using materials as specified by architect.
- Repair iron boat launching mechanism as a marine heritage artefact.
- Removal and/or replacement of the two poor quality single storey structures—to be addressed as part of the masterplan.

STRUCTURES WITHIN BOATYARD

Public Toilets

Public toilets.

Composition: Freestanding, single storey toilet block, c.1970, with concrete block walls and pitched roof.

Roof: Pitched, tiled roof. Timber fascia boards.

Walls: Fairfaced concrete blocks.

Openings: Squareheaded door openings. Clerestory windows.

Site: Structure is located on Traders Wharf, alongside entrance gates to boatyard.

Rating Value and Importance Value:
Rating: Record only. **Importance:** None

Condition:
The structure is poorly maintained.

Recommendations:
- Remove or upgrade structure—address within masterplan for boatyard.

First structure abutting wall.

Structure abutting eastern boundary wall

Second structure abutting wall.

Composition: Freestanding, single storey structure, with concrete block walls and flat roof.

Roof: Flat, felted roof with timber fascia boards.

Walls: Fairfaced concrete blocks.

Openings: Squareheaded flush timber door. Timber casement windows.

Site: Structure is located inside boatyard, abutting fine snecked granite boundary wall.

Use: Store/Canteen for Dun Laoghaire Harbour maintenance staff.

Rating Value and Importance Value:
Rating: Record only. **Importance:** None

Condition:
The structure is poorly maintained.

Recommendations:
- Remove or upgrade structure - address within masterplan for boatyard.

AREA B: West Pier to Trader's Wharf

Structure abutting southern boundary wall

Composition: Freestanding, single storey structure with concrete block walls and flat roof.

Roof: Flat felted roof.

Walls: Fairfaced concrete blocks.

Openings: Squareheaded door opening with timber door leaf.

Site: Structure is located in boatyard, abutting southern boundary wall.

Use: Housing for winch to redundant boat launching turntable.

Rating Value and Importance Value:
Rating: Record only. **Importance:** None
Condition:
The structure is poorly maintained.

Recommendations:
- Remove or upgrade structure - address within masterplan for boatyard.

Old Pier, detail of drainage grille. Note fine original granite surround. Details such as this should be preserved.

Boatyard, start of slipway, note fine granite paving.

OLD QUAY

Old Pier

Description:
This area was renovated c.2000. This included resurfacing with tarmacadam, the introduction of concrete kerbing and footpaths and the allocation of parking over the entire area. Reproduction lamp standards were installed along the Old Pier. The slightly battered quay walls are constructed from massive dressed granite blocks. The stonework requires repointing and there is extensive vegetation growth. Cut granite kerbstone have survived along most of the quay. A section of granite setts is retained to the north side. A flight of granite steps run from southeast side of the quay into the water. The cast iron railings on the quay, by the steps, have corroded, causing cracking of the stone. The railing running along the steps is rusted below water line, but is in reasonable condition above. A series of massive timber piles line the quay walls. The piles have been removed from the north quay walls and the resulting recesses have been crudely filled with concrete in parts. There are new steel mooring rings along both edges of the quay. Along the south side there are four painted cast iron mooring posts. To the north side and quay end there are cut granite mooring posts. To either side of the quay are crudely finished infill areas with exposed rock armour. The area to the south has a surface of concrete brick paviours and the area to the north is finished with tarmacadam. Enclosing the area to the south is a new stone wall with prominent ribbon pointing. There is a fine snecked granite boundary wall further north.

Old Pier, viewed from north.

Detail of Quay Wall, Old Pier.

Rating Value and Importance Value:
Rating: International
Importance: T (Technical); U (Unique or Rarity); D (Detail or Design); O (Other– Craftsmanship in stonework.)

Condition:
The stone work is generally in good condition. Erosion is mostly apparent on the top/coping stones and prevalent at stone arrises at joints, in particular where cement pointing repairs have been carried out. Ferric oxides are visible on the faces of many of the granite blocks, possibly from embedded iron and/or the matrix composition of the stone. Vegetation is evident in some of the joints that require repointing. The cast iron railing around the granite steps is badly corroded and this is damaging the stone work. The cast iron bollards are in reasonably good condition but are rusted in parts.

AREA B: West Pier to Trader's Wharf

East entry point to Accommodation Walk.

Section west of bridge, looking west.

Section west of bridge, looking east.

Crofton Road Bridge.

West entry point.

Recommendations:

- **Stone:** replace concrete repairs/replacements with matching stone above water level. Remove corroded iron fixings where they are causing stone decay and replace with noncorrosive material, e.g. stainless steel. Monitor and treat organic growth with approved biocide as necessary, taking care not to destroy any significant plant species.
- **Pointing:** retain any original sound mortars. Rake out replacement mortars and repoint using hydraulic lime mortars based on the analysis of historic mortars. Point any open joints using same approach.
- **Ironwork:** Ensure that all iron and metalwork is adequately coated with protective primers before painting.
- The timber piles lining the quay require maintenance, and in some cases removal and replacement. Replacement should involve the use of piles of matching material and form.
- The use of the Old Pier for car parking should be reviewed as part of an overall review of the uses of the harbour.

Accommodation Walk

Description:
The Accommodation Walk comprises of a road, parallel to the railway line, running from the West Pier, beneath Crofton Road Bridge and terminating opposite the Commissioners of Irish Lights depot. The first section consists of a single lane road running parallel to railway line, having pavement with granite edging along north side. Originally this road led directly onto the "Accommodation Walk Slipway", then branching off northwards to the Old Pier. Heavy vehicular traffic was not permitted onto the walkway due to the presence of the main Dublin to Bray gas pipeline beneath the surface. Following the introduction of the Dart, the railway crossing providing access to the West Pier was closed and this section of the road was reinforced and access was provided just west of the Crofton Road Bridge. The road is enclosed by a granite boundary wall to the south and by a cast iron railing to the south. The railing consists of vertical uprights with three horizontal rails between uprights. The two lower consist of circular bars, the upper is a flat plate with decorative wedge shaped decoration on top.

The wedge is set into concrete on top of existing stone edge. The retaining wall to the harbour side is composed from random rubble granite blocks. The wall, which suffers from widespread vegetation growth, requires repointing. At the east end of the road is a flight of concrete steps leading to a granite slipway. The railings to the steps are rusting. Barriers to either end of the remainder of the Accommodation Walk prevent vehicular access. The walkway is bounded on both sides by fine, coursed granite walls, with heavy curved profile capstones. The wall retains the sloping road to the north side, while the walkway maintains a fairly even gradient. The ground surface is patchy, with some concrete sections and mostly overgrown with vegetation. The bridge is of reinforced concrete construction, with granite parapet walls.

Rating Value and Importance Value:
Rating: National **Importance:** T (Technical); D (Detail or Design);
O (Other– Craftsmanship in stonework)

Condition:
Railing, to roadway section, is beginning to rust but generally in good condition, just requires continual maintenance. Decorative piece to railings has fallen, possibly due to rusting, in sections along railing. Railings to concrete steps are also rusted. There is extensive vegetation growth to the retaining wall. The non roadway section of the Accommodation Walk has been poorly maintained, with the fine masonry wall suffering from extensive vegetation growth. Due to its isolated nature, this section has attracted various anti-social activities including open-air drinking, dumping and graffiti.

AREA B: West Pier to Trader's Wharf

Recommendations:
- The extensive vegetation growth should be removed as it is undermining the stonework.
- The railings along this road are particular in design to the harbour area and every effort should be made to retain and repair them. In cases where damage is irreparable, they should be replaced with replicas.
- The width of the pavement is inadequate for pedestrian use and a creative and sympathetic way of extending this space should be considered.

Ramparted wall to road. Extensive vegetation growth is damaging the fine stonework.

Curved road to Traders Wharf

A curved road running in a north-south direction links Trader's Wharf to the main harbour service road. The road has a new tarmac surface and a concrete flagged pavement with deep granite kerbstones. Parking is allocated along the east side of the road. The finest features on the road are the exceptional snecked granite walls. Five steel lamp standards, c.1980, line the west side of the road.

Rating Value and Importance Value:
Rating: National
Importance: D (Detail or Design); O (Other– Craftsmanship in stonework)

Condition:
The Walls are in good condition with original pointing in places.

Recommendations:
- **Pointing:** retain any original sound mortars. Rake out replacement mortars and repoint using hydraulic lime mortars based on the analysis of historic mortars. Point any open joints using same approach.

Graffiti to Accommodation Walk walls.

Concrete steps from Coal Harbour to road. Note original granite paving and also extensive rust staining from iron railings.

Curved road from south.

AREA B: November 2006 Update

Boatyard

General: A programme of works as part of an overall masterplan on the Boatyard commenced in 2006. Works completed to date include the construction of a new concrete surface road linking the boatyard to Trader's Wharf. Areas of existing granite paving were left undisturbed by the works. Improved access for members of the public using the slipway has been enabled by the opening up of a section of the boatyard wall beside the slipway and bounding the car park. Restoration works to the boat turntable have commenced and include the replacement of the timber deck and the reconstruction of a new wooden cradle for the turntable, re-using the original iron fittings of the cradle and its holding arms.

Boat turntable with iron and timber bogey.

View of boatyard from curved road.

New opening giving access from public slipway to carpark.

New concrete surface roadway linking the boatyard to Trader's Wharf.

Boat turntable.

Original granite paving.

The Rocket House

General view of Rocket House, note vegetation growth to base.

Detail of spalling brickwork to corner.

Shored-up window opening to side wall with inappropriate cement based repairs to brick reveals.

Detail of brick quoins and surround to door opening.

AREA C: Coastguard Building to Ferry Terminal

Area C extends from the Coastguard Building and Irish Lights depot to the west, to the ferry terminal to the east. The marina, Royal Irish Yacht Club and Dun Laoghaire Railway Station also form part of the area.

Coastguard Building

The coastguard building was built in the 1840's. It incorporates the former Coastguard Station and Coastguard Cottages. There are eight residential units in total and the larger end building, the Coastguard Station, is occupied by the FCA. Three of the houses are inhabited at present.

Composition: Coastguard building of linear plan, comprising a two storey, terrace of eight residential units, terminated at north end by a three bay, two storey over basement building, the Coastguard Station, with a square, three storey viewing tower to east side.

Coastguard Station

Composition: Three bay, two storey over basement, granite faced, coastguard station, c.1845, with square Italianate tower to east, red brick dressings, segmental headed opes and having canted bay to west elevation.

Structure: Walls are of masonry construction with cut granite facing.

Walls: Front wall is faced with snecked granite, having cut granite plinth course, red brick string course and yellow brick detailing at eaves level. Red brick quoins above string course. Tower has a slightly battered, rusticated granite plinth base, a recessed panel to each elevation and corbelled, polychromatic, brick detailing to eaves. There is inappropriate cement strap pointing in places.

Openings: All windows have red brick dressings and granite cills. Round headed window openings on first floor, segmental headed window openings on ground floor and square headed openings to basement. The west elevation has a canted bay containing tri-partite windows. Original timber sash windows throughout. Centrally placed entrance door with segmental headed brick surround and rusticated granite keystone. Door leaf is sheet metal replacement.

Roof: Hipped, natural slate roof with clay ridge tiles. Brick chimneys with profiled cappings and interim string course. Clay chimney pots. Cast iron rainwater goods. Early glazed lantern to apex of rear span.

Railings: Original cast iron railings with painted granite plinth enclose basement area and front steps. Break in railings to east of steps. Concrete covered steps to entrance are supported by a painted brick arch. Pavement with brick paviours and concrete kerbing runs across front site.

Interior: Fine interior with many original features. Central hall lit by glazed lantern and having open-well, open-string staircase with turned balusters and mahogany handrail terminating in volute. Carved timber door architraves, window surrounds and aprons. Panelled shutters and doors. Simple running mould cornices. Original skirting. Extensive damp penetration due to leaking roof.

Coastguard Houses

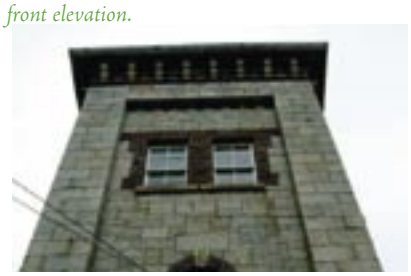
Composition: Terrace of eight two storey, two bay houses, built c. 1845, with granite walls, pitched slate roofs and red brick dressings, the complex is terminated at north end by F.C.A. Building. The two houses to the south end project by approximately two metres on the eastern elevation. Running parallel to the west elevation of the houses a range of single storey outbuildings, now in a derelict condition.

Coastguard Station, view from harbour.

Coastguard cottages, south elevation.

Coastguard Station, front elevation.

Coastguard Station, F.C.A. building, detail of front elevation.



F.C.A. building, tower.

F.C.A. building, brick cornice.

AREA C: Coastguard Building to Ferry Terminal

F.C.A. building, staircase.

F.C.A building, entrance.

Detail of front site of F.C.A. building showing railings and modern brick paviers.

Detail, F.C.A. building, fine granite masonry. Note extensive vegetation growth.

Interior F.C.A. building, window surround and shutters.

Detail of staircase, F.C.A. building.

Structure: Masonry structure with granite facing.

Walls: Walls are faced in snecked granite with red brick dressings to window openings. Yellow brick, dog tooth, eaves course. Cut granite quoins.

Openings: Round headed windows openings to ground floor with granite cills. Bi-partite, square headed window openings to first floor with continuous granite cills. Late nineteenth century split pane sash windows. Original hubbed, six-over-three pane sash window to southern most ground floor east elevation.

Roof: Pitched, natural slate roof with clay ridge tiles. Brick chimneys with concrete flanging and interim brick string courses. Clay chimney pots. Cast iron rainwater goods.

Interior: Modest interiors. Level of original detail varies from unit to unit.

Unit No. 1: Plan comprises two rooms and entrance hall to ground floor. First floor consists of two narrow rooms to both front and rear and bathroom to centre. The back rooms in this house and the adjoining house project out by approximately two metres. The ceilings have been lowered, except in the entrance hall, with the installation of false ceilings. The partitions to the first floor are stud partitions. Original quarry tiles to ground floor. Several panelled doors. Original entrance door– sheeted and framed with glazed fanlight.

Unit No. 2: This house survives in a more original state than the others. Three rooms to first floor. The kitchen retains its original fireplace. The finely detailed original doors survive to first floor. Coved ceilings to first floor.

Unit No. 3: This house has the same plan as No. 1 but is more narrow. Fireplaces have been removed but hearths retained. Flush doors throughout. Coved ceilings to first floor.

Site: Terrace of outbuildings to west of houses, with random rubble walls and brick dressings. Granite quoins to corners. A yard and shed, for each unit, are contained within the outbuilding structure. These structures are generally in poor condition. To the east of the houses is communal land, which is part grass and part hard surface. A fine granite boundary wall with curved granite capping encloses the site to the east and south. A crude boundary fence separates the site from that of the Irish Lights. Access to the houses is via a ramped road to the south, with granite steps and a brick and granite parapet wall with granite copings up to the higher level.

Rating Value and Importance Value:
Rating: Regional
Importance: A (Architectural) ; S (Setting); D (Detail or Design); U (Unique)

Condition: Generally the condition of the façade is good. However inappropriate cement strap pointing has been used in certain areas and this is causing disintegration of the stonework. The stone and brick are in good repair, most joints appear to be well sealed. The roof requires attention as slates have slipped and there is rust damage to the ridge tiles. Cables have been crudely fixed to the façade. The first floor cills are formed from three sections and require repointing. The dressing of the granite cill is quite weathered but the outer tooled edge with punched inner panel is still in evidence. A more detailed condition survey has been carried out by John Moylan & Partners, Consulting Engineers, in conjunction with Shaffrey Associates Architects.

Recommendations:

- **Pointing:** retain any original sound mortars. Rake out replacement mortars and repoint using hydraulic lime mortars based on the analysis of historic mortars. Point any open joints using same approach.
- **Ironwork:** Ensure that all iron and metalwork is adequately coated with protective primers before painting.
- Remove overgrown vegetation to outbuildings.

AREA C: Coastguard Building to Ferry Terminal

- Repair sash windows, replacing rotten timbers with spliced sections.
- Repair roofs using matching slate, clay ridge tiles and cast iron rainwater goods.
- Refer to more detailed report prepared by John Moylan & Partners, Consulting Engineers, in conjunction with Shaffrey Associates Architects.

Irish Lights Depot

Note: The Irish Lights Depot, though not under the ownership of the Harbour Company, occupies a large site within Dun Laoghaire Harbour area and as such merits a brief examination.
General Description:
The depot functions among other things as an area to carry out maintenance work on the Irish Lights vessels and equipment. A concrete wharf projects into the harbour, having a recess to centre with flight of steps into sea. Standing back from the wharf are several buildings providing both office and warehouse accommodation. None of these structures are of architectural importance or make a positive contribution to the setting.

Rating Value and Importance Value:
Rating: Record Only
Importance: None. **Condition:** Area appears to be fairly well maintained

Grassed area between Irish Lights Depot and Royal Irish Yacht Club

General Description:
The green area is bounded by the Irish Lights Depot to the west and by the Royal Irish Yacht Club to the east. The Harbour Road borders the area to the south. Galvanised metal railings form a barrier to the north. This area is a local amenity, having ten timber benches and three litter bins. Concrete kerbstones run along the roadside. Exposed rock armour retains the land to the sea edge. Steps adjoining the yacht club lead into the water. The area leads down into harbour with steps beside Yacht Club. Life-buoy positioned on top. Walkway down is covered in concrete. End terminates with granite blocks, having galvanised metal railings to side – rusting and in poor condition. Some cast-iron original railings remain. A road cuts down the side of the area, providing access to the boatyard of the yacht club. This road terminates in concrete upstand kerb with galvanised metal railing. There is a granite wall, with granite coping, topped with cast iron decorative railing.

Rating Value and Importance Value:
Rating: Record Only. **Importance:** None

Condition: Area appears to be fairly well maintained.

Recommendations:
- The area should be landscaped in a more cohesive manner in order to fully exploit i potential as a local amenity.

Basement door, F.C.A. building.

Coastguard cottages, outbuildings.

Coastguard station, taken from southeast.

View of Irish Lights Depot from harbour.

Irish Lights Depot from west.

Grassed area.

Irish Lights Depot viewed from grassed area.

AREA C: Coastguard Building to Ferry Terminal

Royal Irish Yacht Club.

Articulated bridge, Dun Laoghaire Marina.

Pathway to breakwater.

Marina Clubhouse.

Railway Station.

Brasserie na Mara, originally entrance pavilion.

Royal Irish Yacht Club

Note: The Royal Irish Yacht Club, though not under the ownership of the Harbour Company, forms an integral part of the Dun Laoghaire Harbour area and as such merits a brief examination.

General: The Royal Irish Yacht Club is located beside the Railway station. Built in 1850 to the designs of Jonathan S. Mulvany, it was one of the world's first purpose-built yacht clubs.

Composition: Freestanding, five bay, single storey over basement, clubhouse, built 1850, with rusticated granite basement and bowed end bays to seaward elevation. The building is neo-classical in style, having an Ionic colonnade to the recessed section of the front elevation.
Roof: Roof is concealed by parapet. Part hipped slate roof, part flat asphalt roof. Rendered chimneys with profiled cappings and string courses.

Walls: Smooth rendered walls to first floor. Rusticated granite basement. Painted dressings include a deep parapet, bracketed cornice, string course and flat pilasters. Ionic colonnade to front elevation.

Openings: Early twentieth century timber casement windows. The side elevations have alternating pilasters and windows

Site: Members' car park to front site.

Rating Value and Importance Value:
Rating: Regional
Importance: A (Architectural) ; S (Setting); D (Detail or Design)

Condition: Good, well maintained.

Dun Laoghaire Marina

Note: The marina, though not under the direct management of the Harbour Company, forms an integral part of the Dun Laoghaire Harbour area and as such merits a brief examination

General Description:
The marina, the first phase of which was finished in 2001, consists of 375 berths, a marina amenity building and the sewage and pump out facility is located at Trader's Wharf. A breakwater arm extends eastwards from the H.S.S. Terminal. The marina structure comprises steel piles, to which pontoons are attached. The pontoons are bolted together to form walkways. Services to the berths were laid in prepared ducts that form part of the pontoon component. An articulated bridge connects the pontoons to land. The amenity building is located on an area of reclaimed land with pre-cast concrete walls. The building, designed by Murray O'Laoire architects, is formed from stainless steel, teak and glass.

Rating Value and Importance Value:
Rating: Local
Importance: A (Architectural) ; S (Setting)

Condition: Excellent.

Dun Laoghaire Railway Station

Note: The station complex, though not under the ownership of the Harbour Company, forms an integral part of the Dun Laoghaire Harbour area and as such merits a brief examination.

General Description:
Railway station complex, c.1840, renovated and extended c.1996, with Neo-classical former entrance pavilion, coarsed rubble boundary walls, concrete brick paved platforms, ticket office with gabled bays and overhanging slate roof and elaborate cut granite wall to rear.

AREA C: Coastguard Building to Ferry Terminal

Brasserie na Mara: Three bay, single storey over basement former station building, c.1840, designed by Jonathan S. Mulvany, having cut granite walls, prominent entablature (Restaurant) and parapet and rusticated plinth enclosed by cast iron balustrade. Flight of granite steps run from rear of building to station platform. Masonry construction. Granite ashlar walls. Rusticated granite basement plinth. Centrally placed entrance located in recessed porch screened by ionic columns.

Three segmental headed openings with Gandonian detailing to tympanum. Timber casement windows and glazed timber doors. Sash windows to side elevations. Replacement casement windows, c.1980, to basement. Roof concealed by parapet. Ground surface to forecourt is covered in asphalt. Evidence of granite flags beneath. Cast iron balustrade shows signs of corrosion. Flat roof extension to rear, c.1970. Original cast iron railings to interior of forecourt. Flight of granite steps run from rear of building to platform.

Station Buildings: Two storey ticket office, c. 1860, with rendered ground floor and having overhanging hipped slate roof with timber brackets and eaves detailing. 2 no. gabled, snecked granite bays to first floor. Rendered chimney stacks with stone detailing. Original sash windows. Coursed rubble retaining wall, to street, with curved capstones. Coursed rubble wall running between platforms, c.1840, with variety of openings. North side of wall has remnants of plaster indicating that this originally functioned as a structural wall to a warehouse. Slate coping. Wall facing ferry terminal: Elaborate snecked granite wall, c. 1850, with tooled plinth course, carved granite brackets support cornice and tall parapet. Wall is divided into twenty one bays by pilasters. Rear of wall comprises coursed rubble with slate copings. Extensive vegetation growth towards top of wall to rear. This wall originally formed part of the large terminal shed, completed in 1853.

Rating Value and Importance Value:
Rating: Regional
Importance: A (Architectural) ; S (Setting); D (Detail or Design)
Condition: Good, well maintained.

Ferry Terminal– St. Michael's Pier and Wharf

General: St. Michael's Wharf (originally named Victoria Wharf), was constructed in 1837 to accommodate Mail Packet Ships.

General Description:
The ferry terminal was completed in 1996 to the designs of architects Burke-Kennedy Doyle. The development involved the reclamation of 1.5 hectares. A landscaped plaza surrounds the building, providing seating, a fountain, sculpture and some planting. Materials used on the building include granite, powder coated aluminium, glass and steel. A circular glazed tower to the rear of the terminal provides a vertical emphasis to the mainly horizontal lines of this two storey structure. A polychromatic stone wall projects out at right angles to the entrance front, creating a dialogue with the station buildings opposite. The terminal contains a restaurant, shops, bureau de change, baggage handling, ticket sales and office accommodation. The reclaimed land to the west of the terminal is protected by exposed rock armour.

Rating Value and Importance Value:
Rating: Record Only
Importance: None. **Condition:** Good, Well maintained.

Wall facing ferry terminal.

View of station from Brasserie na Mara.

View of station from Brasserie na Mara.

Road running parallel to railway line.

Detail, wall facing ferry terminal.

Ferry terminal.

H.S.S. ferry at terminal.

Ferry terminal.

AREA C: Coastguard Building to Ferry Terminal

NOVEMBER 2006 UPDATE: COMMISSIONER OF IRISH LIGHTS HEADQUARTERS

Commissioner of Irish Lights Site

General:
A large complex is now being constructed on the Commissioner of Irish Lights site comprising new offices and engineering maintenance and stores. The complex will include an external storage area, waste facility, buoy washing area, and buoy pits on western side of quayside working area. The architects for the scheme are Scott Tallon Walker.

C.I.L. development, viewed from northeast .

C.I.L. development, viewed from east.

C.I.L. development, viewed from Marina.

C.I.L. development, viewed from Harbour Road.

Aerial view of marina.

C.I.L. offices under construction November 2006.

C.I.L. offices under construction November 2006.

Map of Existing Marina
1. Marina Office
2. North Fairway
3. South Fairway
4. Fuel Dock
5. AS Berths

NOVEMBER 2006 UPDATE: THE MARINA
Dun Laoghaire Marina

General:
The marina, currently provides over 500 berths. Planning permission has been granted to expand the marina by the addition of approximately 240 berths. The marina, opened in 2001, has surpassed its 2007 occupancy target of 500 berth holders and currently has a waiting list of over 160. The marina also accommodates more than 1,200 visiting boats annually that bring over 5,000 visitors to Dun Laoghaire. Boats up to 25 metres in length and weighing up to 40 tonnes can be accommodated on the marina. All berths have access to shore power and potable water.

Within the marina there are two fairways– north and south. The south fairway serves piers A to G and the north fairway serves piers A to Q. The revised layout of Phase 2 will see approximately 120 berths built on to the existing marina pontoons and a further 120 berths laid out adjacent to the West Pier Breakwater. The revised layout eliminates any berths alongside Traders Wharf in the Harbour.

AREA D: Royal St. George Yacht Club to East Pier

Royal St. George Yacht Club

Note: The Royal St. George Yacht Club, though not under the ownership of the Harbour Company, forms an integral part of the Dun Laoghaire Harbour area and as such merits a brief examination.

Composition: Freestanding, single storey over basement, fifteen bay yacht clubhouse, built 1840 to the designs of Jonathan S. Mulvany, extended 1844 by George Papworth, with central Ionic colonnade flanked by pedimented porticos. It is one of the earliest purpose built yacht clubs in the world.

Roof: Pitched slate roof concealed by parapet. Rendered chimneys with profiled cappings and string courses.

Walls: Smooth rendered walls to first floor and rusticated granite basement. Painted cornice, frieze and string course.

Openings: Square headed window and door openings with moulded surrounds. Early twentieth century casement windows.

Site: Fine cast iron railings to front site with carved granite plinth wall. Snecked granite boundary wall to east.

Rating Value and Importance Value:
Rating: Regional
Importance: A (Architectural) ; S (Setting); D (Detail or Design)

Condition: Well maintained.

Royal St. George Yacht Club.

South elevation, ferry terminal, Carlisle Pier.

View southwards from interior of warehouse.

Carlisle Pier

Carlisle Pier, designed as a new Mail Packet terminal, was completed in 1859. The Dublin-Kingstown railway line was continued from the neighbouring station to a terminal on Carlisle Pier. The only structure surviving from this period are the granite pier structure elements of the large, gable ended warehouse that remains at the core of the existing complex. The pier was transformed in 1969 with the building of the new ferry terminal. The new terminal involved the extension of the pier to include a large terminal building, offices, customs shed and a tarmac forecourt. Carlisle Pier fell into disuse following the construction of the new ferry terminal.

Early warehouse structure.

Composition: Wharf, built 1859 of granite outer structure and sandstone core, and modified 1969, supported by circular, reinforced concrete piers, with ferry terminal of same date wrapped around original 1859 warehouse structure and having single storey, concrete block entrance front.

Roof: Flat, felted roof structure to ferry terminal. Warehouse is a single span structure, with exposed cast-iron roof trusses and tie rods. Roof covering is modern replacement metal decking with some Perspex roof lighting. The roof structure is supported by simple cast-iron columns with minor decorative detailing to capitals. The front gable is timber clad with an elliptical oculus. Decorative timber finial crowns gable end.

First floor west corridor of ferry terminal.

Walls: Two-storey passageways wrap around the east, west and north sides of the warehouse structure, composed of concrete block walls at ground level with upper levels encased by corrugated asbestos sheeting.

Openings: Timber clerestory windows to east elevation at ground floor level. Timber picture windows, in poor condition, to west elevation. Ribbon windows run along the west and north elevations at first floor level. Three entrances to west elevation, ground floor level, two which have been boarded up. The third entrance has timber double doors. At first floor level there are four openings, two open out onto the steel structures and two sliding double doors, timber clad, for loading goods.

Waiting area of ferry terminal, first floor east.

AREA D: Royal St. George Yacht Club to East Pier

Front elevation of warehouse, Carlisle Pier.

Front elevation, ferry terminal.

West elevation, ferry terminal.

Interior of warehouse, Carlisle Pier.

Mooring post, Carlisle Pier.

First floor east corridor, ferry terminal.

Interior: No features of any note. A passageway for departures and arrivals runs around the central warehouse space on two levels. Ground surface is covered in rubber and lino sheeting. Walls are timber clad. Signage for ferry still remains. The ticket office and arrivals and departures foyer are located to the south-east. There is a flat roof concrete block structure to the west side of ground floor central space which appears to contain services. The ground surface is concrete to the south end with a seam of tarmac to the north end. Suspended strip lighting along the apex of the roof. To the centre of the structure a metal clad walkway runs in an east-west direction at first floor level. The services run along the roof structure. North of the walkway at first floor level, a ramp runs from ground floor up to first floor. This was the departures route for the ferry. Steel sheeting encases the ramp which is built of concrete blocks. There are several ranges of stairs. The steel stairs to the north end are an emergency exit. To the north end of the warehouse structure are two storeys of offices. The ground floor offices have been faced in decorative concrete blocks. The first floors are clad with timber tongue and groove panelling. These offices are round ended facing out towards the harbour mouth with ribbon windows at first floor level corresponding to the departure waiting lounge, providing a view of the entire harbour area. The first floor projects approximately 1.5 metres past the ground floor.

Site: The wharf is formed from granite outer walls with sandstone rubble core, with a cantilevered reinforced concrete extended edge, supported by massive circular reinforced concrete piers. A range of timber piles run around the exterior of the structure. The north end of the wharf is bow-ended. A walkway encircles the ferry terminal building and terminates towards the end of the east elevation. Cast iron mooring posts line the walkway. They are anchor shaped and are bolted to the ground surface. Two loading bays, comprising steel platforms at first floor level, are located on the east and west elevations. To the west side of the former passenger entrance to the terminal is a concrete surface car park with temporary steel railings. Further car spaces are located in front of the terminal, including several sheltered by concrete canopies running flush with the upper road level. Back wall of open shelter has green mosaic tile. Ground surface is concrete with sloping plinth to wall. Wall base is reinforced concrete. Ceiling of area is concrete. The viewing platform above the shelter is paved with concrete flags and is bounded by modern painted steel railings.

Rating Value and Importance Value:
Rating: Original Pier Structure: Regional. Remaining structure and fabric: Record Only
Importance: None

Condition: The 1969 ferry terminal structure is in poor condition, not having been maintained since the opening of the new ferry terminal. The cast-iron columns of the ware house structure are generally in good condition but require stripping, priming and repainting. The roof structure appears to be corroded in places but this appears to be only superficial. Several openings have been knocked through the concrete block section. The glazing of the clerestory windows has also been broken. The asbestos sheeting is failing throughout. The entire structure is pigeon infested.

Recommendations: The Pier is not included as a Protected Structure in the current Dun Laoghaire Rathdown County Development Plan (1989—2004). However there is a special objective zoning for the Carlisle Pier for a building of international architectural significance and which will incorporate a use of national cultural significance (in addition to other stated permitted uses). Any replacement structure and redevelopment of this area should achieve the objectives enshrined in the Development Plan special objective zoning.

National Yacht Club

Note: The National Yacht Club, though not under the ownership of the Harbour Company, forms an integral part of the Dun Laoghaire Harbour area and as such merits a brief examination.

Composition: Freestanding, five bay, single storey over basement, yacht clubhouse, built 1870 to the designs of William Stirling, with rendered walls, rusticated basement and three gabled breakfronts to front elevation.

Roof: M-profile pitched slate roof. Rendered chimneys with profiled cappings and string courses. Lead flashing and clay tiles to ridges.

AREA D: Royal St. George Yacht Club to East Pier

Walls: Smooth rendered walls to ground floor. Rusticated granite basement. Painted quoins, cornice, frieze and cill course. Simple roundels to end gables.

Openings: Roundheaded openings to breakfronts, square headed openings elsewhere. Original single pane sash windows. Replacement hardwood double doors to main entrance.

Site: Front site is enclosed by elaborate cast iron railings on carved granite plinth wall. Fine cast iron lamp standards flank the entrance gates. Concrete flags to ground surface. Large terrace, supported by steel columns, added to rear c.1980.

Rating Value and Importance Value:
Rating: Regional. **Importance:** A (Architectural) ; S (Setting); D (Detail or Design)

Condition: Well maintained.

National Yacht Club.

National Yacht Club.

R.N.L.I. Boathouse

Composition: Four bay, single storey lifeboat house, built 1861, with rusticated granite walls and pitched natural slate roof.

Roof: Pitched natural slate roof with clay ridge tiles, lead flashing and timber soffit. Broken pediment to gable end facing sea.

Walls: Fine cut granite walls. Rusticated granite piers to east elevation.

Openings: Square headed window openings between piers to west elevation, with hardwood window frames, c.1985. Archway entrance to north, seaward elevation, with rockfaced keystone and hardwood double doors, c.1980.

Site: Located on slipway adjoining National Yacht Club. Timber flagpole to south side.

Rating Value and Importance Value:
Rating: International **Importance:** A (Architectural) ; S (Setting); D (Detail or Design)

Condition: Inappropriate cement strap pointing throughout.

Recommendations:
- **Pointing:** retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars.

R.N.L.I. Boathouse.

R.N.L.I. Boathouse.

Road from Royal St. George Yacht Club to East Pier

General Description:
Note: Description begins at the western boundary of Area D and continues in an easterly direction up to the junction with the East Pier.

The area in front of the Royal St. George Yacht Club has a tarmac surface and is marked for car parking. Several Pay and Display machines line the pavement. A pavement runs in front of the yacht club, with concrete flagstones and wide granite kerbing. A planted embankment with concrete plinth wall encloses the car park to the south. The road is at a higher level from the car park. Trees line the wide concrete pavement with granite kerbing. The original octagonal granite bollards with cast iron chains extend from the former site of the Victoria Monument to the termination of the pavement. A break in the bollards occurs to provide access to two flights of concrete steps flanking the railway tunnel that runs beneath the road. This tunnel was originally used by trains making the connection between Dun Laoghaire Station and Carlisle Pier. There are modern steel railings to the steps. The original cast iron railings survive to the side. The railings to the west are damaged towards the end with several of the horizontal sections missing. They stand on the original coursed rubble walls with granite coping. Temporary galvanised steel railings stand at the entrance to the tunnel. The area is quite dilapidated.

Viewing platform located over parking area.

R.N.L.I Offices.

AREA D: Royal St. George Yacht Club to East Pier

Detail of granite obelisk.

View of street showing octagonal granite bollards particular to the Dun Laoghaire Harbour Area.

Tunnel entrance near Royal St. George Yacht Club. This area requires maintenance having suffered neglect over the years.

Steps adjoining tunnel. Note range of original railings running parallel to the modern range. The reinstatement of the former is recommended.

Granite block memorial.

Opposite the tunnel entrance, the yacht club boundary wall terminates and the bend is continued with a galvanised metal railing. The railing, fixed to a concrete plinth, is rusting excessively at all joints. The entrance gate to Carlisle Pier is rather unsightly. The railings and gates are rusting, particularly at joints. The road splits into two levels in front of the passenger entrance to the former ferry terminal. A concrete block wall with a simple steel railings separate the two. The R.N.L.I building is accessed via the lower roadway. This is a single storey above basement, rendered building with a hipped, tiled roof. An open shelter with a cantilevered, concrete canopy is located to the south, with the roof lying roughly flush with the public road above. (Described more fully in 'Site' section of Carlisle Pier).

Three memorials are located on the first section of pavement. The first is a granite obelisk dating to 1821, commemorating the visit of King George IV to Dun Laoghaire. The obelisk rests on four granite orbs, (1no has been recently replaced), and is topped by a carved granite crown. The monument sits on a granite outcrop and is encircled by original and unusual, square profile, wrought iron railings. The second memorial is dedicated to a lifeboat crew who lost their lives in 1895 and comprises a roughly hewn block of granite with a carved inscription. A series of holes run vertically along the face of the monument. These holes have been filled in with granite and mortar. The monument is set in a bed of cobbles with concrete edging. The third monument consists of vertical granite blocks with supporting a large painted anchor. There is a stainless steel memorial plaque fixed to one of the granite uprights, dedicated to '501 passengers, crew and postal workers who lost their lives following the sinking of the RMS Leinster on 1st October 1918.' Some minor rusting is evident on the anchor, particularly at joints – it requires cleaning and repainting.

The pavement to the public road above the National Yacht Club is bordered by original cast iron railings. The railings are supported by stay bars in three positions. The outer face of the retaining wall to the road is composed of rock faced granite. To the east corner there are pipes running straight through the retaining wall. A timber door to the retaining wall is located at this point. The car park has a tarmac surface, with deep concrete flagged pavement, having granite kerbing. Two Pay and Display machines are located on the pavement. The boundary wall to the yacht club is of coursed granite rubble with curved granite coping. Concrete patch repairs have been carried out in sections. Two metal signs are embedded into the east end of the wall. A granite slipway runs down the east side of the yacht club. Adjoining the East Pier, on the slipway, is a four bay, single storey, boathouse, with fine cut granite walls

Condition:
The area surrounding the railway tunnel appears neglected. The original walls and railings are buried beneath overgrown vegetation. The retaining wall facing the National Yacht Club has extensive vegetation growth due to an amount of open joints requiring pointing. The railings are in reasonable condition, though some corrosion has occurred at joints. Staining has occurred beneath the railings, possibly caused by water run. The slipway is generally in good condition. However, the joints have been repointed over the years using cement mortars which is accelerating decay of granite, in particular at the arrises. There is extensive ribbon pointing which has been continued recently with fresh pointing. Concrete repairs have been carried out in several locations.

Recommendations:

- Landscaping and redevelopment of the Carlisle Pier to be carried out to improve general environment and connection between it and the town centre.
- The banks facing the Royal St. George Yacht Club should be landscaped in a more cohesive manner.
- The area surrounding the railway tunnel is dilapidated and requires an overhaul. This should include clearing the vegetation and various debris. The granite wall requires pointing with a suitable lime mortar. The original cast iron railings should be repaired. A more sympathetic solution should be sought to replace the gates to the entrance.
- Pointing: retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars. Point all open joints following a similar approach. Refer to more detailed specification regarding mortar mixes and application methods in Maintenance Schedule.

AREA D: Royal St. George Yacht Club to East Pier

- **Ironwork:** Ensure that all iron and metalwork is adequately coated with protective primers before painting.

Victoria Drinking Fountain and site

General: The fountain was erected in 1901 to commemorate the visit of Queen Victoria to Ireland in 1900, where she landed in Dun Laoghaire, then Kingstown. This cast iron drinking fountain was manufactured in Glasgow by the Walter MacFarlane foundry who also manufactured the pair of cast iron lamp standards adjacent. The canopy to the fountain was damaged in 1980 and 1981 and was restored in 2002 by the Dun Laoghaire Harbour Company. The successors to the Walter MacFarlane company, Heritage Engineering/Saracen Castings, carried out the repair work to the fountain and lamp standards and the essentially new replica cast iron canopy, which incorporates a small section of the original canopy, including one of the griffins. As part of the recent works the area has been re-landscaped using granite paving.

Composition: Freestanding cast iron drinking fountain with four scallop shaped bowls, topped by a Pegasus feature and mounted on a raised granite plinth, two steps up from ground level. The plinth is finished in a mosaic tile pattern and the base of the fountain is inscribed with storks in reeds. The domed canopy covers the fountain and is supported by eight slender cast iron columns. The octagonal canopy contains several naturalistic features—owls at the top of each column, griffins resting on top of the lower section of the dome, lions' heads on the inner face of the dome and storks and swans on four of the eight plaques which are fixed to the outer face of each side of the canopy. The other images depicted on the plaques include Queen Victoria's head in profile, an original commemoration plaque ' Erected to commemorate the visit of Her Majesty Queen Victoria April 1900' and a new plaque acknowledging the recent restoration, 'restored by Dun Laoghaire Harbour Company 2002'. The canopy is topped by a crown feature. The two adjacent lamp standards have wide bases with a geometric pattern, curving in to a middle section finished by an urn like connection piece, out of which rises the slender top section with a climbing foliage pattern. The large tapering glass lanterns end in a domed top. As part of the recent restoration works fibre optic lighting has been introduced to the lanterns and the canopy.

Site: The area around has been paved with Spanish granite and the former earthen bank removed with steps formed, opening up the connection between the upper area containing the monument and the lower ferry terminal plaza area.

Rating Value and Importance Value:
Rating: International. **Importance:** A (Architectural) ; S (Setting); D (Detail or Design)

Condition: Excellent.

Granite obelisk.

View eastwards towards National Yacht Club.

Range of original octagonal bollards to pavement.

Fine snecked stonework to retaining wall. Note peeling railings and extensive vegetation.

Timber shelter pavilion on Queen's Road.

Details of ironwork to Victoria Fountain.

Restored Victoria Fountain with Civic Offices in background.

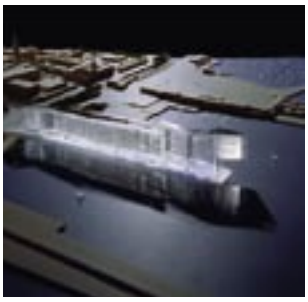
AREA D: Royal St. George Yacht Club to East Pier

NOVEMBER 2006 UPDATE: CARLISLE PIER

Images of winning scheme:

Evening view of proposed development from end of West Pier.

Proposed development with floating stage to foreground.



Early model of scheme.

General: The Carlisle Pier has lain disused since the closure of the ferry terminal. An international competition was held in 2003 by Dun Laoghaire Harbour Company for the redevelopment of the Pier. The brief derived from the zoning objective in the Dun Laoghaire-Rathdown Development Plan, as varied in 2002 which states:

"Due to the unique importance of the location of the disused Carlisle Pier, it is an objective of the Council, that the redevelopment of this site will result in an exceptional landmark building of international architectural quality that regenerates and enlivens the waterfront . The landmark building must incorporate uses that will bring significant cultural, social, recreational and economic benefits to the Nation and to Dun Laoghaire-Rathdown. The landmark building must include a major public cultural attraction of national importance. The landmark building must provide for significant public accessibility and permeability with walkways, viewing areas and public spaces throughout. The landmark building should integrate with the immediate built environment and should provide improved accessibility between the development and Dun Laoghaire town centre. The architectural character of the landmark building should be such that the image it portrays would be a reflection of its use and unique maritime setting and become a symbol of both the Nation and Dun Laoghaire. A proposal which demonstrates that it fully meets the above rigorous requirements, may depend on uses which would otherwise be "not permitted" in Zoning Objective H, in order to underpin its economic sustainability. Consideration will be given to allowing such uses in order to achieve this specific objective."

(extract from Dun Laoghaire-Rathdown County Development Plan 1998 Zoning Objective for the Carlisle Pier site, as varied in 2002.)

The Board of the Dun Laoghaire Harbour Company unanimously selected a consortium led by Urban Capital, including heneghan.peng.architects as the preferred bidder. The winning scheme provides for a National Marine Life Centre, a floating stage for public performances, a 227 bed hotel, 229 apartments and retail and leisure uses.

View of original National Yacht Club clubhouse from seaward side, showing 1980's raised terrace extension and new extension to background.

Detail of National Yacht Club extension looking east.

Detail of National Yacht Club extension looking west.

NOVEMBER 2006 UPDATE: NATIONAL YACHT CLUB EXTENSION

The National Yacht Club has commenced a programme of refurbishment and expansion of their clubhouse and seaward facilities. The extension, which includes a new boatmen's office and changing rooms, was designed by architects Cantrell Crowley. The building comprises a single storey annex clad with rock faced stone and timber, with nautical porthole fenestration to the north elevation. A flat roof minimises any disturbances to views at street level above. There are plans to further extend the clubhouse to fill the space beneath the first floor terrace. On the seaward side, the platform and launching slips have been extended.

AREA E: East Pier

General Description
The East Pier measures 4231 feet (1290 metres) in length and is made up of four kants. The area of enclosure is 251 acres. It was constructed between 1817 and 1842 to the designs of John Rennie. Rennie's son Sir John Rennie continued supervision of the pier's construction following his father's death in 1821. The resident engineer was John Aird, who had previously supervised the construction of Howth Harbour for Rennie. The contractors were named Smith The pier is constructed of granite, extracted from the local quarry on Dalkey Hill, to a depth of 24 feet (7.3 metres) below neap tide mark and rises to 6 feet (1.8 metres) below low tide mark. The pier stops 200 feet (70 metres) short of the original design with a circular pier end. Runcorn stone (sandstone) from Liverpool forms the 310 foot (94.5 metre) base of the pier. The granite is a mix of coursed and uncoursed construction, with some massive dressed blocks, in particular at the Battery end. The width of the East Pier varies from its narrowest (which is at the 2nd kant) dimension of 16metres (52 feet, six inches) to 8.7metres (94 feet) at Bandstand and, at its widest, 36.3metres (119 feet) at Berth No. 1. The upper section is protected by granite wall beyond which is a sloping breakwater of granite rubble. Rennie's detail specification for the construction of the harbour indicates the use of hydraulic lime mortars.

Analysis of the historic mortars is being carried out at present and will determine the variety and make up of mortars used. The military battery was one of a number of additions made to the Harbour in the 1850s, including the Carlisle Pier and the anemometer, which recorded wind speed and direction. The Battery was built 1859-1860 around the stone lighthouse, as a defensive fort.

The following is a more detailed description of the East Pier structure, working from the 1st kant at the Battery end to the fourth kant where the pier meets the shore.

1st Kant

Description: Length: 450 feet (137 metres); bearing W by 1/2 S, making an obtuse angle of 122° with 2nd kant.

This is the shortest kant of the East Pier and ends in a curved form at the harbour mouth, terminating with the circular Battery structure. A curved wall constructed from massive blocks of dressed granite encircles the Battery structure. There is evidence of extensive staining to this wall caused by rusting ironwork. The accommodation within the Battery comprises a guard house, officer's quarters, soldiers' quarters, magazine, gun platforms and centrally placed lighthouse. The Battery is dealt with in more detail in the Buildings section.

The pier comprises a lower walkway with wall sloping slightly into harbour, an upper walkway, an upper wall and a breakwater of sloped granite surface to the outside. The lower walkway has a surface of concrete laid in rectangular sections with cut granite edging. The inner pier wall is composed of random granite rubble, ribbon pointed with a cement mortar. Iron fixings within the wall are rusting. An obtrusive tray containing various cables runs from the Battery entrance to a sub-station located on the inner pier wall. This structure has walls of dressed granite with a string course and plinth course. The stonework is in good condition but requires repointing. There is some rust staining to the walls. The roof of the structure has been covered in concrete and is used as a viewing platform on the upper level. Extensively corroded railings to the roof are staining the surrounding materials. Steps beside the sub-station link the two levels of the pier. The eleven granite steps have tooled treads to prevent slipping. Two rusted rails to the upper level are damaging the stonework. There is a patchy concrete surface to the upper walkway. The wall running between the upper level and the breakwater consists of massive upright granite blocks with wide joints filled with cement mortar.. The wall is capped with cement. A single electric lamp standard, with a simple steel shaft and single light fitting, is located at this level. The breakwater is composed of large blocks of granite rubble, the joints of which are filled with a heavy cementicious mortar. A rectilinear concrete platform bearing three benches is located on the upper level where the upper wall terminates. The concrete is disintegrating and patch repairs have been carried out. The iron supports of the benches are severely rusted.

Beyond this stands a structure, built from four stepped courses of granite blocks, jutting out at right angles from the breakwater. Wall mounted plastic dog litter bins and lifebuoys are


View of East Pier Battery.


East Pier Battery.


Breakwater to 1st kant.


East Pier Battery.


1st kant with view of steps and cut granite structure.


Breakwater showing granite cutwater.

AREA E: East Pier

1st kant, General view.

2nd kant, steps.

Anemometer showing differing pier walls to either side.

Detail, steps 2nd kant.

View of 2nd and 1st kants.

Corner of 1st and 2nd kants.

placed at regular intervals along the inner pier wall for the duration of the pier.
Rating and Importance Value:
Rating: International
Importance: T (Technical); U (Unique or Rarity); D (Detail or Design); O (Other- Craftsmanship in stonework)

Condition:
The stonework is generally in good condition. Joints have been repointed over the years using cement mortars and this is accelerating the decay of the granite, in particular at the arrises. The iron railings on this section of the pier are very rusted. Ferric oxides are visible on the faces of stone blocks, possibly from embedded iron and/or the matrix composition of the stone. The joints of the granite edging to the lower level are generally open with some cement infill in areas. The stone on the cut granite structure is generally in good condition but a block beneath the string course has cracked and two holes have been filled with expanding foam.

Recommendations:
- **Stone:** replace concrete repairs/replacements with matching stone above water level. Remove corroded iron fixings where they are causing decay of the stone and replace with non corrosive material, e.g. stainless steel. Monitor and treat organic growth with an approved biocide as necessary, taking care not to destroy any significant plant species.

- **Pointing:** retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars. Point all open joints following a similar approach. Refer to more detailed specification regarding mortar mixes and application methods in Maintenance Schedule.

- **Ironwork:** Ensure that all iron and metalwork is adequately coated with protective primers before painting.

2nd Kant

Description: Length: 850 feet (260 metres); bearing NW by N1/2N, making an obtuse angle of 146° with 3rd Kant.

Structure and ground surface as per 1st Kant. There is a new painted metal rail at the corner with the 1st Kant. An opening in upper wall at start of kant, gives access to outer breakwater. Several corroded iron fixings are attached to the rear of the wall. Another opening is located beside the anemometer. There are three sets of steps, along this kant, connecting the two levels. They are cantilevered, running parallel to the wall. In each case the metal railings on the upper level have rusted to such an extent that the stonework has been stained. The granite treads have been tooled to prevent slipping. Another range of steps is recessed into the lower pier wall and leads into the sea. Each of the treads has diagonal tool marks. An extremely rusted handrail runs alongside the steps on the pier wall. The iron rail to the pier wall is rusted at the base. An anemometer is located on the upper walkway. The pier walls abut either side of this dressed, granite, pedimented structure. This structure is dealt within more detail in the Buildings section. The upper pier wall after the anemometer is composed from massive blocks of granite, more regular in shape than in the previous wall and fixed together without the use of mortar. Other features along this kant include three large circular, cut granite, mooring posts on the lower walkway and several iron mooring rings. Seven lamp standards line the upper walkway.

Rating Value and Importance:
Rating: International
Importance: T (Technical); U (Unique or Rarity); D (Detail or Design); O (Other- Craftsmanship in stonework)

Condition:
The stonework is generally in good condition. Joints have been repointed over the years using cement mortars and this is accelerating the decay of the granite, in particular at the arrises. The iron railings on this section of the pier are very rusted. Ferric oxides are visible on the faces of stone blocks, possibly from embedded iron and/or the matrix composition of the stone. The joints of the granite edging to the lower level are generally open with some cement infill in areas.

AREA E: East Pier

Recommendations:

- **Stone:** replace concrete repairs/replacements with matching stone above water level. Remove corroded iron fixings where they are causing decay of the stone and replace with non-corrosive material, e.g. stainless steel. Monitor and treat organic growth with an approved biocide as necessary, taking care not to destroy any significant plant species.

- **Pointing:** retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars. Point all open joints following a similar approach. Refer to more detailed specification regarding mortar mixes and application methods in Maintenance Schedule.

- **Ironwork:** Ensure that all iron and metalwork is adequately coated with protective primers before painting.

3rd Kant

Description: Length: 850 feet (260 metres); bearing NE, making an obtuse angle 157 ° with 4th Kant.

Structure and ground surface as per previous kants. A shelter is incorporated into the inner pier wall at the beginning of this kant. The shelter has an exposed steel lintel, concrete block surround and inner walls. The ground surface is of poured concrete. This shelter is unsightly and is used as urinal by some people fishing on the pier. There are three sets of steps, along this kant, connecting the two levels. They are cantilevered, running parallel to the wall. In each case the metal railings on the upper level have rusted to such an extent that the stonework has been stained. The granite treads have been tooled to prevent slipping. There are two ranges of steps, recessed into the lower wall, leading into the sea. The iron handrail is severely corroded. The granite steps have diagonal tool marks to prevent slipping. The first set of steps has rusted metal railings to walkway. Adjoining the second set of steps is a roughly hewn painted granite mooring post with a rusting iron fixing to the base. The Boyd Monument, a granite obelisk is located on the upper level has fine stonework that is in good condition. This structure will be dealt with in more detail in the Buildings section.

Other features along this section of the pier include a cast iron mooring post with decorative finial and which appears to be an upturned cannon and two large granite mooring posts. There is an opening in the upper wall, giving access to the breakwater, located approximately 3/4 way along the kant. Seven lamp standards line the upper walkway.

Condition:
The stonework is generally in good condition. Joints have been repointed over the years using cement mortars and this is accelerating the decay of the granite, in particular at the arrises. The iron railings on this section of the pier are very rusted. Ferric oxides are visible on the faces of stone blocks, possibly from embedded iron and/or the matrix composition of the stone. The joints of the granite edging to the lower level are generally open with some cement infill in areas.

Recommendations:

- **Stone:** replace concrete repairs/replacements with matching stone above water level. Remove corroded iron fixings where they are causing decay of the stone and replace with non-corrosive material, e.g. stainless steel. Monitor and treat organic growth with an approved biocide as necessary, taking care not to destroy any significant plant species.

- **Pointing:** retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars. Point all open joints following a similar approach. Refer to more detailed specification regarding mortar mixes and application methods in Maintenance Schedule.

- **Ironwork:** Ensure that all iron and metalwork is adequately coated with protective primers before painting.

Detail of steps into harbour.

Shelter to 3rd kant.

Ramp at corner of 3rd and 4th kants. Note original granite steps.

Corroded iron railing to steps, 3rd kant.

Detail, remnants of granite to 2nd kant, upper walk way. Care should be taken to ensure that historic elements such as this are retained after resurfacing.

General view, corner of 2nd and 3rd kants.

AREA E: East Pier

Boyd Monument.

Detail, Boyd Monument, showing high quality of masonry.

Cast iron mooring post. Note extensive rusting.

Upper pier wall, 3rd kant, composed of massive, roughly dressed granite blocks.

Opening in upper pier wall along 3rd kant.

Ramp between levels at corner of 3rd and 4th kants. Note inappropriate concrete facing.

Granite mooring post on 4th kant. Note granite setts.

Platform with base of telescope, now redundant. Removal is recommended.

Edge of lower walkway. Note vegetation growth to joints.

Edge of lower walkway. Note open joints and rusting fixings.

Steps before Bandstand, 4th kant.

Walls to upper level with view of breakwater.

AREA E: East Pier

4th Kant

Description:
Length: 2159 feet (658 metres): bearing NE by N1/2E, making an obtuse angle of 157° with 3rd Kant.

The 4th Kant is the longest and final section of the pier. The pier structure along this section differs from the previous kants. A wharf, built in 1827, projects from the pier by the bandstand. This wharf was originally reserved for the use of the Admiralty's Mail Packet. Corresponding to the wharf on the lower level is a forecourt on the upper level, on which the East Pier Shelter is located. The breakwater along this kant differs from previous kants, being composed almost entirely of exposed rock armour. At the corner of the 3rd and 4th Kants is a projecting breakwater that runs perpendicular to the pier walls. A ramp at the corner with the 3rd Kant runs parallel to the inner pier wall, linking the upper and lower walkways. The ramp surface is concrete and the side is clad in rock effect concrete blocks. The modern iron railings located on the upper walkway are rusted at the joints. The ramp structure probably dates to the 1970's and runs into a set of original granite steps. Two sets of granite steps, recessed into the pier wall, leading down to the sea, are located on the section of the pier before the bandstand. Both have an adjoining, roughly hewn, painted, granite mooring post. In both cases the iron handrail has corroded severely. The treads have diagonal tool marks. Also to this section are six large, circular, cut granite mooring posts. Three of these posts are surrounded by large granite setts. Vegetation is growing in the joints of the setts. Following the first set of steps to the sea are cantilevered granite steps linking the upper and lower walkways. The treads are tooled to prevent slipping and the railings on the upper level are rusting, causing staining of stonework.

There is another range of steps at the point where the upper level widens. These steps are cut into the upper wall, running at right angles to it. The end step projects past the wall and is rounded to either end. The modern railings to the upper level are rusting. The stonework is in good condition and has fine, narrow joints. It has, however, been stained by the ironwork and the top step is covered in concrete. The upper level opens outs to provide a large seating area, with a shelter structure, with a view over the bandstand below.

The upper wall along this section is lower than before, affording sea views of the coastline towards Sandycove. The wall is composed of random granite rubble, with curved concrete coping.

A drainage channel runs along the base of the wall. Two metal bins are fixed to the ground. The East Pier Shelter, located on this forecourt, is a glazed pavilion with ornate cast iron columns supporting a glazed iron frame canopy. The shelter is in relatively good condition with some rusting to the column brackets. To either side of the shelter are three painted metal flagpoles. A flight of steps leads from the shelter to the lower walkway, comprising nine granite risers cut into the inner wall, with steel rails to centre and to upper level. The octagonal bandstand has a copper roof (not original) with iron finial, eight ornate cast iron columns and rendered, panelled plinth and steel railings. The shelter and bandstand are dealt with in more depth in the Buildings section. The section of lower walkway on which the bandstand is located, projects slightly into the harbour. This wharf was originally used for the Admiralty Mail Packet. Seventeen cast iron posts with cast iron chains line the walkway edge. The posts are quite rusted and require stripping and repainting. Some of the cast iron chains have been replaced with steel chains. The next range of railings are reproductions and are in good condition, with just minor rusting to the bolts at the base. At this point there is another flight of steps down into the sea (same as before). Following the cast iron posts is a range of octagonal granite bollards with chains running between. The rusted iron chains are causing damage to the stonework. The ground surface from the bandstand onwards is tarmacadam.

A second, more substantial wharf is located after the bandstand. This wharf, known as Berth No.1, dating to the middle part of the last century, is formed of reinforced concrete supported by massive piers and reinforced, triangulated sections. Timber buffer piles and four cast iron columns line the west edge of the wharf. Modern steel uprights with chains run along the north and south sides of the wharf. A flight of concrete steps with iron railings are located parallel to the wharf at the inner pier wall. The railings are corroded at the joints.

General view along 4th kant.

Exposed rock armour to breakwater of 4th kant. Note extensive use of concrete and vegetation growth to open joints.

Lower walkway of 4th kant.

Steps into harbour, 4th kant. Note extensive rust staining from corroding iron handrail and also open joints to stonework.

General view of 4th kant looking southwards, showing patchy and inconsistent ground surface. A coherent ground surface plan is required along the entirety of the pier, taking care to preserve the fine stone edging.

AREA E: East Pier

General view from end of 4th kant looking northwards with range of octagonal granite bollards to west.

View from upper walkway of 4th kant with former ferry wharf in the midground.

View of East Pier Shelter, 4th kant.

Former ferry wharf, 4th kant.

View of East Pier Gardens.

Breakwater area to 4th Kant.

Running from the wharf to the pier end is a line of octagonal granite bollards with steel chains. A concrete kerb stands in front of the bollards on the pier side. Abutting the inner pier wall is a ramp running from the lower level up to the road above. The ground surface is tarmacadam with concrete kerbing to the edge, into which modern, square profile, steel railings are bedded. Parallel to the ramp on the upper level, is a range of early cast iron railings with two square profile horizontal members and having circular members at the joints. The upper level of the pier from the bandstand to the pier end is as follows: The walkway has granite edging and a concrete surface. The ground surface has been patched with tarmacadam in sections. The upper wall is formed from coursed granite rubble with curved concrete coping. A break in this wall occurs before the geographical pointer. At this point access is given to the rear breakwater area where several timber benches are provided. The pointer is a circular structure with coursed granite walls, concrete coping and steel railings. The adjoining public toilets are flat roof, concrete structures abutting the upper pier wall. An opening in the pier wall, flanked by fine, rock-faced, gate piers, provides access to the landscaped park area to the rear. This area stretches from the former Bathing Pavilion on the coast road to the geographical pointer.

This area to the sea side of the East Pier, known as the East Pier Gardens, was heavily landscaped in the first half of the twentieth century, with extensive use of concrete. This included the introduction of concrete pathways, steps, shelters and railings. The park is spread over several levels, having a network of meandering pathways and steps. The area immediately beside the entrance onto the pier has formal grassed areas with granite edging. The focal point of this area is a canon fixed on a circular granite feature. Two concrete shelter pavilions, c.1930, are located to the east end. These structures are no longer accessible as metal grilles have been attached to all openings. The pavilion further south has a flat concrete roof, to which wrought iron railings, c.1930, are attached. The railings are corroded at most joints. The central area of the park has grotto style landscaping comprising terraced banks with retaining walls of limestone boulders. Two concrete jetties project from amongst the exposed rocks at the base. The railings from the centre of the park as far as the bathing pavilion date to c.1960. These steel railings consist of four horizontal members with intermittent uprights. The railings have buckled under impact in one particular location and require replacement. A section of railings at the lower level has been replaced with a stainless steel version. A third shelter, c.1960, is located towards this end of the park, comprising painted timber uprights supporting a sprocketed, pyramidal, tiled roof. The bathing pavilion terminates the East Pier Gardens to the east. The derelict state of the baths is a sad loss to Dun Laoghaire as they stand as a reminder of the town's heyday as a seaside resort. The baths provided a wonderful and unique amenity up until recent years.

The park is bounded to the road by original cast iron railings. There are two entrances from the road into the park, the second of which has an original cast iron gate. A viewing area is located at his point consisting of a concrete flagged rectilinear area with stone sett edging, bounded by modern, tubular steel railings. There is a second viewing platform by the bathing pavilion.

Rating and Importance Value:
Rating: International
Importance: T (Technical); U (Unique or Rarity); D (Detail or Design);
O (Other- Craftsmanship in stonework)

Condition:
This section of the East Pier contains more elements and services than the previous three kants. Being the first section, it is also the widest and busiest of the kants. The stonework is generally in good condition. The various buildings located on this kant are dealt with in the Buildings Section. Joints have been repointed over the years using cement mortars and this is accelerating the decay of the granite, in particular at the arrises. Many of the iron railings on this section of the pier are very rusted, in particular those leading into the harbour. Ferric oxides are visible on the faces of stone blocks, possibly from embedded iron and/or the matrix composition of the stone. The joints of the granite edging to both walkways are generally open with some cement infill in areas. The ground surface is patchy and incoherent. The East Pier Gardens are under the control of Dun Laoghaire Rathdown County Council

AREA E: East Pier

Recommendations:

- **Stone:** replace concrete repairs/replacements with matching stone above water level. Remove corroded iron fixings where they are causing decay of the stone and replace with non corrosive material, e.g. stainless steel. Monitor and treat organic growth with an approved biocide as necessary, taking care not to destroy any significant plant species.
- **Pointing:** retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars. Point all open joints following a similar approach. Refer to more detailed specification regarding mortar mixes and application methods in Maintenance Schedule.
- **Ironwork:** Ensure that all iron and metalwork is adequately coated with protective primers before painting.
- **Ground surface:** a coherent ground surface plan is required.

East Pier Battery

General: Working from the pier end towards the 4th Kant there are a number of structures as follows:

The East Pier Battery, Anemometer, Boyd Memorial, East Pier Shelter, Bandstand and public toilets.

View of 4th kant looking southwards.

Entrance to East Pier from road.

Entrance to East Pier Gardens from road. The railings clearly require maintenance.

Area of East Pier Gardens to side of 1st kant of East Pier.

Dilapidated public toilets abutting upper pier wall.

View of East Pier Gardens at low tide showing concrete shelter pavilion and exposed rock armour.

Granite bollards imbedded in concrete adjoining shelter pavilion.

Wrought iron railings to parapet of shelter in need of maintenance.Modest details such as this are an important element of the history of the harbour and its surroundings.

View of East Pier Gardens. The network of concrete paths date to the first half of the last century.

General view of East Pier Gardens.

Concrete pathway and steps to north of Gardens.

Damaged section of railings requiring replacement. Note general air of dereliction created by the neglected Baths in the background.

AREA E: East Pier

General view showing grotto style landscaping to south.

View of East Pier Gardens with East Pier in background.

East Pier Battery, Entrance Passage.

View of Battery from inside harbour.

Interior Guard House

East Pier Battery

The Battery was built 1859-1860 around the stone lighthouse that had been built in the previous decade. Its defensive curved granite wall was designed to deflect canon balls. The lighthouse dominated the Battery courtyard. It forms the centre of the radiating circles which form the plan of the Battery. There is a high level of craftsmanship in the stonework throughout. The buildings contained within the circular Battery include, a soldiers' quarters, guard house, officer's quarters, gun powder magazine, machine room, w.c.s and the lighthouse. The entrance is from the East Pier lower walkway through an arched opening with timber double doors.

Rating: International
Importance: A (Architectural); T (Technical); H (Historic);
O (Other– Craftsmanship in stonework)

Entrance Passage

Composition: Entrance passage with barrel-vaulted, brick, ceiling and having round headed opening to either end.

Roof: Viewing platform located above.

Walls: Cut granite walls. Cast iron grilles and various service cables have been attached to the north wall. Red brick, barrel vaulted ceiling with some original lime mortar pointing.

Openings: Entrances to either end are round headed with cut granite keystones. A square headed opening is located on the south wall, giving access to a flight of granite steps leading down into the harbour. Cast iron gates are located to the end of the passage.

General: Granite flagstones to ground have been inappropriately patched with concrete. An obtrusive tray carrying service cables runs through the passage.

Condition: The walls, while in good condition, require repointing. Brick to vault requires urgent repointing.

Recommendations:

- Run services underground.
- Repoint brick to vault using an appropriate lime mortar.
- In cases where brick has disintegrated past the point of repair, the individual brick should be removed with care and replaced.
- **Pointing:** retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars Point all open joints following similar approach. Refer to more detailed specification regarding mortar mixes and application methods in Maintenance Schedule.

Ref. EE2: Guard Room and Officer's Quarters:

Composition: Single storey, four bay, former guard house and officer's quarters, with rendered walls and hipped slate roof.

Roof: Hipped roof with natural slates is in fairly poor condition. Bitumen has been used to weatherproof the roof. Clay ridge lap tiles and granite coping. Rendered chimney with inappropriate brick extension. Original granite capping retained. Original, cast iron, gutter, broken in sections and missing downpipe.

Walls: Smooth rendered, brick walls with slightly projecting plinth course.

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Openings: Square headed door openings with original tongued and grooved timber door leaves, with weatherboards. Original six-over-six pane, timber sash windows. Painted granite cills and entrance steps. Cast iron grilles attached to all openings.

Interior: The interior of the building is modest, comprising two rooms, each with fireplace. The guard house has a small ceramic fireplace, c.1930. The officer's quarters has a tiled fireplace, behind which the original flush granite fireplace has survived. There is a small vestibule with a panelled and glazed timber door, c.1930, at the entrance to both rooms.

Condition: The render to walls is in poor condition, especially on harbour elevation.

Recommendations:
- Render walls with an appropriate lime render according to architect's specification.
- Repair roof using matching slates and ridging materials. Ensure that rainwater goods are in working order.
- Restore sash windows.
- Repair floors.

Guard House and Officer's Quarters.

Outhouse

Composition: Single storey, two bay, rendered outhouse, with lean-to natural slate roof.

Roof: Lean-to roof with parapet wall to rear, having granite coping. Some detailing to corner at eaves level. Natural slates in fairly poor condition, with repairs carried out in bitumen. Cast iron rainwater goods are in poor condition.

Walls: Smooth rendered, brick, walls with plinth course.

Openings: Square headed door and window openings. Tongued and grooved timber door to front elevation and to side elevation. Small timber casement window to front elevation, with painted granite cill.

Condition: Generally in good condition. However roof requires some attention.

Recommendations:
- Repair roof using matching natural slate.
- Repair floors.

Outhouse.

Soldiers' Quarters.

Coalstore

Composition: Single storey, single bay, coalstore with rendered walls and hipped slate roof, located between the previous storehouse and the soldiers' quarters.

Roof: Hipped slate roof with overhanging eaves. small chimney to rear.

Walls: Rendered walls.

Openings: Single square headed door opening with panelled timber door leaf and granite step.

Condition: The roof is in a state of disrepair, with many slates missing.

Recommendations:
- Repair roof using matching natural slate.

View from upper gun platform.

Soldiers' Quarters

Composition: Single storey, four bay soldiers' quarters, with hipped slate roof, rendered walls and original sash windows.

Roof: Hipped natural slate roof with central rendered chimney. Chimney has been inappropriately extended with red brick but retains its granite capping. Cast iron rain water

Soldiers' Quarters, elevation to harbour.

AREA E: East Pier

Vaulted brick ceiling to entrance passage.

Radial paving with service duct running from entrance passage.

Exterior wall with attached service box. The stonework requires repointing. Note also rust staining from internal iron fixings.

Unsightly cables running from entrance passage.

Lancet opening to battery wall demonstrating immense depth of ashlar and quality of masonry work.

goods with central downpipe, having octagonal hopper. Clay ridge tiles.

Walls: Smooth rendered, brick walls with plinth course.

Openings: Original six-over-six pane, timber sash windows with painted granite cills. Square headed door opening with granite step. Tongued and grooved timber door leaf.

Condition: Cracks to wall evident on north elevation.

Recommendations:
- Render walls with an appropriate lime render according to architect's specification.
- Repair roof using matching slates and ridging materials. Ensure that rainwater goods are in working order.
- Restore sash windows.
- Repair floors.

Former W.C. area

Composition: Single storey rendered, brick structure, originally functioning as w.c.s, comprising three compartments with granite coping to roof.

Roof: Coved granite roof structure.

Walls: Exposed brick walls to interior. Rendered walls to harbour face.

Openings: Two segmental headed door openings and single square headed door opening. Two lancet headed openings above doors.

Condition: Poor condition. Brick has corroded due to water penetration and mortar loss. Pipes feeding from structures into the harbour are rusted, causing staining to stone.

Recommendations:
- Brick repair and consolidation.
- Treat lime leaching and repaint.

Shed structure

Composition: Single storey, single bay structure, abutting Battery wall, with concrete rendered walls and metal flashing to lean to roof.

Roof: Lean to roof with painted metal flashing. Cast iron rainwater goods, broken in sections.

Walls: Concrete rendered walls with concrete plinth course. To the north and south, the structure abuts projections of granite Battery walls flanking lancet openings.

Openings: Narrow square headed door openings to north and south elevations with timber door leaves. Concrete steps.

Condition: Good condition.

Recommendations:
- Removal of structure and reinstatement of window openings to Battery wall.

Artillery store

Composition: Single storey granite ashlar structure, originally artillary store, slightly sunk below ground level with granite roof and two brick barrel vaults to interior.

Roof: Concrete roof structure is supported by brick vaults and is covered in granite flagging.

AREA E: East Pier

Granite flagging has extensive vegetation growth and requires repointing.

Walls: Granite ashlar.

Openings: 2 no. square headed door opening to south elevation accessed via short flight of granite steps. Flush tongued and grooved timber door leaves. Small window opening with granite cill and timber casement window.

Interior: Brick vaults to interior.

Condition: Stonework urgently requires repointing as walls are weeping. The stonework has also been damaged by the rusting of iron fixings and by salt build up. Cracks to brick vaulting indicating settlement.

Recommendations:
- **Stone:** replace concrete repairs/replacements with matching stone above; remove corroded iron fixings where these are causing decay of the stone and replace with non-corrosive material, e.g. stainless steel; monitor and treat organic growth with approved biocide as necessary, taking care not to destroy any significant plant species.

- **Pointing:** retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars. Point all open joints following similar approach.

Machine Room

Composition: Machine Room located on gun position comprising single storey concrete hut with flat concrete roof, abutting the curved granite walls of the gun mounts.

Roof: Flat concrete roof.

Walls: Concrete walls. Upturned nineteenth century, copper bell is located on the Battery wall at this point, with metal fixings attached to the machine room.

Openings: Square headed openings.

Condition: The metal fixings for the bell are rusting, causing damage to the stonework on the Battery wall.

Recommendations:
- Removal of machine room and bell to another location.

Former Artillery Storage

Composition: Vaulted area beneath the upper gun platform, originally used for artillery storage, comprising series of vaulted spaces contained within Battery walls to east. Vaulted space accessed from beneath granite steps, originally functioned as a fitting room and express shell store. Second space is accessed through large segmental headed archway. Final space is entered through door in single bay breakfront.

Roof: The upper gun platform forms the roof to these spaces. Cast iron rainwater goods, almost entirely encased in stalactites.

Walls: Granite ashlar walls.

Openings: Square headed door to side of steps. Small window with granite cill and timber casement window to first space, located above steps. Segmental archway with mid twentieth century infill gives access to second space. Blocked up window opening to back wall. Small square headed window openings, with granite cill and fixed casement window to either side of single bay breakfront. Square headed door opening to breakfront.

View of Battery from harbour. Note rusted pipes discharging from W.C.s. Internal iron fixings have caused extensive rust staining.

Former W.C.s.

Concrete shed structure.

Artillery Store.

View of Artillery Store and gun position. Note extensive vegetation growth to joints.

Detail, granite roof to Artillery Store in need of pointing.

AREA E: East Pier

Detail, stonework to Artillery Store showing inappropriate cement strap pointing. The wall is suffering from wide spread water penetration.

Extensive rust staining to stonework. Note also unsightly cables.

Copper bell on concrete plinth attached to Battery wall and machine room. Relocation is recommended.

Machine room located on gun position.

Interior: Barrel vaulted brick ceilings throughout. Suspended timber floor to first space. Granite flagstones to second space. Granite steps lead downwards to third space, which has exposed brick walls. Granite flagging to ground surface. Square headed door opening with granite steps leading downwards. This space originally contained the shifting room and magazine.

Condition: Stonework to exterior is in poor condition with extensive staining from rusting iron railings and salt build up. Windows in poor condition.

Recommendations:

- Repair stone, repair and consolidate brickwork, removing salts. Repair windows.

White Flash Lighthouse

Composition: Lighthouse built of granite ashlar with widened cylindrical base, with bracketed granite viewing platform and painted metal lantern. Accommodation to base of light house is contained within single storey, cylindrical structure composed of eight courses of granite ashlar with string course and parapet. The roof is covered in granite, which has been sealed with a reflective paint. The shaft of the lighthouse rises from the centre of the roof. It is made up of seventeen courses of granite ashlar, above which stands a bracketed granite viewing platform. A robust cast iron railing encircles the platform. The structure is crowned by a glazed metal lantern with a domed, painted metal roof. The lighthouse is now fully automated.

Structure: Curved granite ashlar masonry.

Walls: Eight courses of ashlar make up the widened cylindrical base. Carved plinth course, pulvenated granite cornice and square profile parapet. There are seventeen further courses of granite ashlar to the shaft of the structure. Simple granite corbels support a granite platform. A course of large upright granite blocks run between the platform and lantern.

Openings: Square headed window openings with carved granite surrounds and cills. Single pane timber sash windows. Fixed metal grilles to front of window openings. Window opening to top of shaft has been blocked up. Square headed door opening with carved granite surround and step.

Roof: Cylindrical base has a granite roof, which has been sealed in with a reflective paint. Domed, metal roof to lantern, with decorative cast iron finial. Cast iron rainwater goods. Gutter is concealed behind cornice. Square profile downpipes. Two cut granite chimneys to cylindrical base. Inappropriate rendered extensions to chimneys. Variety of clay chimney pots.

Services: Service cables run along the top of the cornice. Timber tray running from lighthouse to start of passageway covers piping. Service duct runs from guard house to lighthouse with metal covering.

Battery Walls Structure

Composition: Walls are constructed of large blocks of granite ashlar, except those walls from Soldiers' Quarters to Guard House, which are composed of rendered brick. The walls curve, in an anti-clockwise direction from the entrance to the Soldiers' Quarters. The external walls to the Soldiers's Quarters to the Guard House are straight. There are various openings along the Battery wall, between the Soldiers' Quarters to the Artillery Store. The openings are defensive in design, narrowing to a lancet to the centre of the wall. Two of the openings are larger with a segmental heads. The walls by the lower gun platform have semi-circular recesses to accommodate three gun positions. The masonry at this point is exceptional. A flight of granite, cantilevered steps lead to the upper level. There are several further gun positions to this level. An inappropriate concrete platform was added in the mid twentieth century.

AREA E: East Pier

Condition: The Battery wall has been damaged by the disintegration of internal iron fixings. Pointing has failed in places. The cast iron pipes discharging from the toilets into the sea are severely rusted, causing extensive staining to the masonry.

Recommendations:

- **Stone:** replace concrete repairs/replacements with matching stone above water level; remove corroded iron fixings where these are causing decay of the stone and replace with non-corrosive material, e.g. stainless steel; monitor and treat organic growth with approved biocide as necessary, taking care not to destroy any significant plant species.

- **Pointing:** retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars. Point all open joints following similar approach. Refer to more detailed specification regarding mortar mixes and application methods in Maintenance Schedule.

- The granite paving has settled in places. Rebedding and repointing is necessary.

General Recommendations for Battery Complex

- Prepare more detailed condition assessment survey with recommendations for repair.

- Explore options for re-use of Battery to allow greater public access . Resurfacing of East Pier may provide opportunity to upgrade water and services provision to Battery.

Overall Rating for Battery Complex: International
Overall Importance Values for Battery Complex: A (Architectural); T (Technical); H (Historic); D (Design & Detailing); O (Other– Craftsmanship in stonework)

Battery structure with gun platform to roof.

Vaulted area beneath gun platform.

Detail, masonry of Battery walls.

Gun platform.

Detail of Battery Structure. Note extensive calcium deposits.

Detail of stonework.

Iron downpipe and hopper encased in calcite deposit.

Partially cantilevered granite steps.

White Flash Lighthouse.

Detail, window to vaulted space.

AREA E: East Pier

Anemometer.

Detail showing rust damage.

Anemometer

General: The anemometer was designed by Professor Robinson of Trinity College and was the first of its kind in the world. Its function is to monitor wind speed and direction. There is a commemorative plaque on the upper pier wall, which details the date of construction - 1852 and the refurbishment of the anemometer to working order in 2000.

Composition: Anemometer structure, Greek Revival in style, built 1852, composed of a plinth and seven courses of dressed granite and crowned by a carved pediment with Latin inscription.

Walls: Granite plinth, seven courses dressed granite, carved pediment. The quality of the masonry is exceptional. Each granite block is subtly tooled and finely jointed.

Openings: Square headed door opening to front elevation, accessed via single granite step. Modern timber door with single glazed panel to top, allowing view of visual display unit to interior.

Roof: Granite roof upon which meteorological instruments have been fixed.

Site: The anemometer is located approximately halfway along the upper walkway of the 2nd Kant.

Rating Value and Importance Value:
Rating: International
Importance: A (Architectural); T (Technical); H (Historic);
O (Other– Craftsmanship in stonework)

Condition: Stonework to front is in good condition. Very crude concrete repairs to junction with pier wall. To the rear of the building there is damage to the corners of the cornice. Stone has broken away to reveal rusted iron fixings. The cornice is stained extensively from rusting ironwork. A corroded iron pipe projects from the north elevation. The equipment on the roof is rusted to the base causing staining of stonework. The pointing to the rear has fallen away in sections.

Recommendations:
- Repoint where necessary using a lime based mortar derived from analysis of historic mortars.
- All redundant iron fixing should be removed and proper repairs carried out to stonework
- Ensure metal equipment on roof are adequately coated with a protective primer before painting.

Boyd Memorial.

Detail, showing fine carved stone detailing.

Boyd Memorial

Composition: Memorial obelisk to commemorate a lifeboat crew drowned at sea outside the Harbour on 9 February 1861 and composed of granite ashlar with fine carved detailing.

Walls: Three granite steps form a base. Rock faced granite detailing to corners and plinth. Plaque with carved shells and lettering. Pediment with inscription reading 'Boyd'. Carved rope course. Obelisk is composed of three massive pieces of granite.

Site: The Boyd Memorial is located on the upper walkway, towards the beginning of the 3rd Kant.

Rating Value and Importance Value:
Rating: International
Importance: A (Architectural); T (Technical); H (Historic); O (Other– Craftsmanship in stonework)

AREA E: East Pier

Condition: The stone work is in reasonably good condition, having its original pointing. Repointing is required in parts. The steps have black staining. There is some damage to the stone at the apex.

Recommendations:
- Repoint where necessary using a lime based mortar derived from analysis of historic mortars. Remove staining on steps.

East Pier Shelter.

East Pier Shelter

Note: The East Pier Shelter is owned and maintained by Dun Laoghaire Rathdown County Council. Though not under the owenership of the Harbour Company it forms an integral part of the Dun Laoghaire Harbour area and as such merits inclusion in the inventory.

General: The East Pier Shelter, built at a cost of £300 in c.1894, is located on the upper walkway of the 4th Kant. Originally manufactured by the Walter MacFarlane foundry, Glasgow.

Structure: The structure of the pavilion is made up of a 4x3 grid of cast iron columns. The columns have octagonal bases and serpentine detailing along the shaft. Each column is flanked by ornate brackets at the junction with the beams. Cast iron I-beams and tie-rods support the hipped, timber framed, glazed roof.

Openings: The pavilion is open to all sides.

Roof: Hipped, timber frame roof structure supported by cast iron I-beams. Wired, safety glass. Decorative timber eaves boards.

Rating Value and Importance Value:
Rating: International
Importance: A (Architectural); T (Technical); H (Historic);
O (Other– Craftsmanship in stonework)

Condition: The pavilion is in reasonably good condition. The ironwork, in particular the brackets, is rusting. The paint to the timberwork has peeled away in parts. Some of the roof glazing has slipped.

Recommendations:
- Repair and repaint the ironwork, ensuring that a protective primer is used first.

Detail, East Pier Shelter.

Bandstand and East Pier Shelter.

Bandstand

Note: The East Pier Shelter is owned and maintained by Dun Laoghaire Rathdown County Council. Though not under the owenership of the Harbour Company it forms an integral part of the Dun Laoghaire Harbour area and as such merits inclusion in the inventory.

Composition: Octagonal bandstand with copper roof, located on the lower walkway of the 4th Kant. The bandstand previously had an onion-shaped canopy supported by elegant barley-twist columns. The Bandstand was originally manufactured by the Walter MacFarlane foundry of Glasgow.

Structure: Eight slender cast iron columns with ionic capitals, having ornate brackets, support the octagonal copper clad roof and rest on a panelled rendered plinth.

Openings: The bandstand is open to all sides.

Roof: The roof is clad in copper and has a decorative cast iron finial and cast iron gutters.

General: A flight of concrete steps with steel railings give access to the stage area. The steel railings continue around the stage. The ground surface consists of timber deck.

Bandstand.

Detail, bandstand. Note rusting iron brackets.

Detail, bandstand soffit.

AREA E: East Pier

Geographical pointer.

Public toilets.

Public toilets.

Pavilion No. 1.

Pavilion No. 2, detail wrought iron railings.

Pavilion No. 2.

Rating Value and Importance Value:
Rating: International
Importance: A (Architectural); T (Technical); H (Historic);
O (Other– Craftsmanship in stonework)

Condition: This structure is in a fair to poor condition. The roof finial is rusted and is staining the surrounding surfaces. The cast iron columns and brackets are also rusted in places. The paintwork to the railings is flaking. The decorative timber detailing to the top of the plinth is in poor condition.

Recommendations:
- Repaint the metalwork and timber, ensuring that a protective primer is used first.
- General refurbishment is recommended and consideration should be given to reinstating the original roof.

Geographical Pointer

Composition: Circular structure, c. 1960. with coursed granite rubble facing and having concrete steps leading to upper platform, where geographical information is provided.

Structure: The upper and lower levels are circular in plan and faced with coursed granite rubble, with concrete pointing and coping. A flight of concrete steps to the south gives access to platform. The upper platform has mosaic tile detailing. Painted steel railings encircle the platform.

Rating Value and Importance Value:
Rating: Record only. **Importance:** None

Condition: Well maintained. There is some vegetation growth to horizontal surfaces.

Recommendations:
- Repoint stonework where necessary.

Public Toilets

Composition: The block of public toilets is located on the upper walkway of the 4th Kant, towards the end of the pier. The granite wall to the upper walkway is incorporated into the front wall of the structure.

Structure: Rendered blockwork structure incorporating granite wall to front. Flat, asphalt roof.

Walls: Painted, concrete rendered walls. Coarsed, granite rubble wall to front.

Rating Value and Importance Value:
Rating: Record only. **Importance:** None

Condition: Poorly maintained. Rainwater goods are blocked.

Recommendations:
- Ensure that the structure is maintained, with regular removal of graffiti.
- Consider replacement with a more appropriate structure of higher architectural quality.

Pavilion Shelter No. 1

Note: The East Pier Shelter is owned and maintained by Dun Laoghaire Rathdown County Council. Though not under the owenership of the Harbour Company it forms an integral part of the Dun Laoghaire Harbour area and as such merits inclusion in the inventory.

Composition: Reinforced concrete shelter, c.1930, with concrete walls and flat concrete roof.

AREA E: East Pier

Structure: Reinforced concrete structure.

Walls: Rough cast concrete walls with parapet.

Openings: Two square headed door openings. Square headed window openings with canted cills. Metal grilles attached to all openings.

Site: Located in East Pier Gardens.

Rating: Record only. **Importance:** None **Condition:** Fair condition.

Pavilion Shelter No.2

Note: The East Pier Shelter is owned and maintained by Dun Laoghaire Rathdown County Council. Though not under the owenership of the Harbour Company it forms an integral part of the Dun Laoghaire Harbour area and as such merits inclusion in the inventory.

Composition: Reinforced concrete shelter, c.1930, with concrete walls and flat concrete roof.

Structure: Reinforced concrete structure.

Walls: Rough cast concrete walls with parapet. Wrought iron railing attached to roof.

Openings: Square headed door openings to side elevations. Large square headed window openings to front elevation with canted cills. Metal grilles attached to all openings.

Site: Located in East Pier Gardens.

Rating: Record only. **Importance:** None

Condition: Fair condition. The wrought iron railings are corroding and require repainting.

UPDATE NOVEMBER 2006: EAST PIER RESURFACING

General:
A major resurfacing project on the lower level of the East pier has been completed in September 2005. The surface was designed to take impact from maintenance traffic as well as pedestrian traffic. The concrete is made up with a mix of aggregates that includes marine aggregate from Wexford, Wicklow aggregates and crushed seashell. Carlow granite (which is of the same geological formation as the Dalkey/Dun Laoghaire granite used in the original pier) was used in bands to articulate the concrete panels and facilitate the location of expansion joints for the concrete panels. A ten year planning permission was obtained for the resurfacing of the entire East Pier and it is planned to resurface the upper level in 2007/2008.

Berth No. 1 viewed from north on upper level of kant 4.

Berth No. 1 and kant 4 viewed from upper level. Note Carlow granite banding between the polished concrete bays in foreground.

View of kants 2 and 1 with East Pier Battery in the background.

Beginning of kant 4 showing new polished concrete surface and range of granite bollards.

AREA E: East Pier

The Granuaile berthed at Berth No.1.

Berth No. 1 viewed from south on upper level of Kant 4.

UPDATE NOVEMBER 2006: BERTH No:1
General:
Berth No.1, originally built to berth ships, was provided with a new, high performance surface. The Berth is constructed in three sections - the two, outer dolphins have been surfaced with the same concrete mix as the main Pier structure and the central, infill panel has been resurfaced in a special, more flexible variant of the main Pier concrete mix, due to the limited depth available arising from the structural form of this section of the Berth.

Detail of ground surface.

Analemmatic sundial comprising bronze plates sunken into the ground surface.

NOVEMBER 2006 UPDATE: EAST PIER RAILINGS, ANALEMMATIC SUNDIAL

Analemmatic Sundial
General: As part of the East Pier resurfacing, an analemmatic sundial has been installed in the northern dolphin panel in Berth No.1. The sundial comprises a series of bronze discs forming an ellipse around the central bronze panels containing instructions, a dedication and a calendar. The user stands on the relevant month panel and their resultant shadow falls upon a disc that indicates the time of day. Certain calculations, detailed on the panel, outlines the adjustments necessary to discern the exact time.

Railings
General: The corroded iron railings along the upper section of the East Pier have been replaced with stainless steel versions in a similar profile. The extent of railing was increased to provide a handrail to selected steps between the upper and lower levels, to facilitate easier use of the steps.

New stainless steel railings to upper level of East Pier

New stainless steel railings to upper level of East Pier.

New stainless steel railings.

New stainless steel railings.

New stainless steel railings to upper level of East Pier.

Analemmatic Sundial, Berth No.1, East Pier.

Analemmatic Sundial, Berth No.1, East Pier.

AREA F: Harbour Master's Lodge Complex

Harbour Master's Lodge

Composition: Freestanding three bay, two storey harbour master's lodge, built 1820 by George Smith (a stone contractor), with robust Greek revival portico and square profile clock tower and having roughcast rendered walls with granite dressings.

Roof: Pitched natural slate roof to main section of building, concealed by deep granite parapet and having granite coping and ridge stones. Hipped natural slate roof to two later returns to either side of stair hall. Cast iron rainwater goods. Clay ridge tiles. Chimney to either gable end- dressed granite with square profile banding and clay chimney pots. Tall red brick chimney between coal store and east scullery addition. Red brick detailing and concrete capping. Clay chimney pot.

Walls: Front and side elevations have a roughcast render finish– rear elevation is smooth rendered. Granite quoins to front and side elevations. Granite frieze, cornice and parapet. Stylised granite pediment flanked by roundheaded acroteria to centre of parapet. Acroteria also mark the corners. The clock tower projects two storeys above the stair hall and has walls of handmade brown brick. Some original, lime mortar, tuck pointing. Granite dressings to tower include canted quoins, string course, cornice, pediment and roundels.

Openings: Square headed window openings with rendered reveals and granite cills. Original sash windows to front and side elevations. Original hubbed, six-over-six pane sash window to stair hall. Granite balcony above portico with glazed double doors. Gothic detailing to side lights and overlight. This opening has a particularly fine granite surround with modillion detailing. There is also an original window to the western bay of the ground floor. Late nineteenth sash windows to first floor rear elevation. Clock tower has two openings to each elevation, comprising a round-headed timber louvred opening with block and start granite surround. The upper opening consists of a blind roundel with a granite surround. Entrance door with segmental headed fanlight. Square headed door opening with granite jambs. Panelled timber door leaf. Door opening to rear scullery extension has been blocked. New door opening to east with timber sheeted door leaf.

Interior: The finest feature to the interior is the open well oval staircase. Turned balusters and mahogany handrail. Elaborate plasterwork to boardroom ceiling comprising reeded oval frame with intertwined garlands of foliage surrounding a centrepiece of stylised acanthus.

Site: The building is set back from the road, having a large tarmac forecourt. Rear yard enclosed by rendered, coursed rubble boundary walls. Pedestrian entrance to west wall of yard comprising square headed timber sheeted door. Concrete surface to yard.

General: It appears that the house was originally T-plan at first floor level, the rooms to either side of the staircase having been added at a later date.

Rating Value and Importance Value:
Rating: National
Importance: A (Architectural) ; U (Unique); S (Setting); D (Detail or Design)

Condition:
Stonework is generally in good condition, but is badly stained. Most of the stonework at the upper levels require repointing. Expansion of iron fixings is causing a coping stone to crack. Render, which is not original, is in reasonable condition. However cracking has occurred between the brick of the later side rooms and the granite facing to which it has only a butt joint. Windows in good condition. Roofs appear to be in good repair though the rainwater goods require maintenance. Tall chimney to rear has some serious cracking. The brickwork to the tower was originally tuck pointed, but this pointing has all but disappeared. There is some vegetation growth to the joints of stonework.

Recommendations:
• **Stone:** remove corroded iron fixings where these are causing decay of the stone and replace with non-corrosive material and/or carrying out appropriate priming and surface treatment of ironworks to be retained; monitor and treat organic growth with approved biocide as necessary.

Harbour Master's Lodge, north elevation.

Harbour Master's Lodge, west elevation.

Harbour Cottages, Crofton Road Elevation.

Harbour Cottages, Front Elevations.

East end of terrace.

AREA F: Harbour Master's Lodge Complex

Harbour Cottages, Front Elevation.

Harbour Cottages, Rear Elevation to Crofton Road, taken from west.

Porch, note fine original window.

Harbour Cottages, Front Elevations, viewed from west with Civic Offices in the background.

Harbour Cottages, Front Elevations, viewed from west from end of terrace, with Civic Offices in the background.

- Pointing: retain any original sound mortars. Rake out replacement cement mortars and repoint using hydraulic lime mortars based on analysis of historic mortars. Point all open joints following similar approach.

- Landscape forecourt in order to provide a more sympathetic setting for this historic building, which at present appears lost amid a jumble of tarmac and concrete surfaces and temporary shed structures.

- Consideration should be given to reinstating clock to clock tower.

Harbour Cottages

Composition: Terrace of single storey cottages, c.1820-1840, with rendered rear elevations to Crofton Road and each having different internal layout.

Roof: Single span, pitched slate roofs with clay and concrete ridge tiles. Brown brick chimneys with clay chimney pots. Cast iron rainwater goods.

Walls: Cottages are of random rubble construction. Pebble dash finish to front walls, smooth concrete render to rear wall. Variety of porches to front elevation, each having a pitched natural slate roof.

Openings: Square headed window openings with granite cills. Patent reveals to front elevations and flush reveals to rear elevation. Many original sash windows have survived comprising six over six panes with convex sash horns. Some windows have been replaced with split pane sash windows. Square headed door openings. Some original granite threshold steps retained. Door leaves throughout have been replaced, with earliest examples dating to 1940's. Early cast iron roof lights.

Interior: There is no apparent order in the layout of cottages. Cottage No. 6 for example in entered via a porch that contains a kitchenette. An internal unlit corridor gives access to three further rooms, off which two further rooms are reached. Several of the suspended timber floors have been replaced with poured concrete. Modest joinery throughout including original skirting boards and simple flat timber window surrounds. Original flat panelled timber doors. Some original panelled shutter boxes have survived inside some of the other cottages.

Site: The terrace of cottages backs onto Crofton Road. Opposite the terrace, to the south is a range of small outbuildings, c.1900, constructed of machine-made red brick. The cottages form part of the Harbour Master's Complex.

General: These cottages, probably built for harbour workers, are contemporary to, if not earlier than the Harbour Master's Lodge. The remainder of the terrace to the east was demolished some time ago. Harbour Cottages, while not spectacular in appearance are an almost extinct typology in Dun Laoghaire. They form an important part of the town's social heritage.

Rating Value and Importance Value:
Rating: Local
Importance: M (Materials), S (Setting); D (Detail or Design)

Condition: The cottages have fallen into a state of disrepair following years of inadequate maintenance and recent disuse.

Recommendations:
- Any redevelopment of the site should include a full measured survey of the Harbour Cottages.

AREA F: Harbour Master's Lodge Complex

Harbour Company offices and Maintenance Sheds

Composition: Harbour Company offices comprise a terraced run of rendered single storey, pitched roof buildings, running to the rear of and parallel to the Harbour Cottages.

Maintenance Sheds comprise several large open plan and high volume utilitarian buildings all of late 20th Century vintage.

Roof: Simple A pitch roofs with corrugated iron/profiled metal sheeting with integrated polycarbonate rooflights.

Walls: Rendered concrete block walls with rendered plinth. The most recent maintenance shed is partially clad with profiled metal sheeting.

Openings: Offices: Square headed window openings with concrete cills. Combination of two over two and one over one timber sash windows with larger window opes with upvc windows. Hardwood timber door leaves.

Maintenance Sheds: Square headed opes with a combination of timber, steel and upvc casement and fixed windows. Door leaves are steel and timber with large and standard sized openings.

Interior: Offices: Light stud partitions form office spaces separate to entrance halls. Floors are covered with linoleum tiles and there are no finishes or fixtures of note.

Maintenance Sheds: Open volumes with no fixtures or fittings of note.

Site: A concrete path runs parallel to the front of the offices with a grassed area with concrete kerbs in front of the eastern range of offices. The remaining site is finished with tarmac and concrete with areas lined out for car parking and hard stand areas for maintenance working. A boundary wall with steel railings and gates separates the Harbour Master Lodge Complex in two.

General: The offices and maintenance sheds are now redundant as the former Harbour Company occupants have relocated to new office and maintenance facilities within the ferry terminal building complex. The site is subject to redevelopment proposals.

Rating Value and Importance Value:
Rating: Record only. **Importance:** None

Condition: Fair

Recommendations:
- The most recent maintenance shed is in good condition and could be dismantled for re-use elsewhere.

Harbour Cottages, Front Elevation, mid-terrace house, note original sash windows.

Harbour Cottages, Front Elevations, end of terrace, viewed from east.

Harbour Cottages, Front Elevation, house to end of terrace.

Harbour Company offices.

Maintenance Sheds.

AREA F: Harbour Master's Lodge Complex

NOVEMBER 2006 UPDATE: HARBOUR MASTER'S LODGE COMPLEX

Crofton Road
Composition: A large residential and commercial scheme, designed by O'Mahony Pike Architects, is currently under construction on the Harbour Master's Lodge site. The scheme provides 141 apartments, 6900m2 of commercial and accommodation and public and semi-public external spaces.

Site: The site extends from Crofton Road to the North to Eblana Avenue to the South, having road frontage from the Civic Offices to the east and to St. Michael's Hospital car park to the west.

General: This complex replaces the Harbour Cottages and the Harbour Company offices and warehouses, previously recorded in 2003 in the Dun Laoghaire Harbour Inventory.

View of scheme from Crofton Road, with the Civic Offices to the left and the Harbour Master's Lodge to the centre background.

View of scheme from Crofton Road looking eastwards.

View of scheme from Crofton Road looking westwards.

APPENDIX A : REPORT ON ASSOCIATED DOCUMENTARY RESOURCES

PREFACE

The purpose of this report is to give an overview of all documentary resources relating to the building of Dun Laoghaire Harbour, and an outline of where these are located. With regard to the conservation of the Harbour, it is of equal importance that all associated manuscripts - hand-drawn plans, maps of the Harbour in all of its phases, as well as manuscript documents, memorials, correspondence and minute books - should also be preserved. The establishment of their existence and whereabouts is a first step in this process. There is also a considerable quantity of original printed sources, such as for example the official inquiry chaired by Daniel O'Connell in 1833 that examined the viability of a Ships Canal connecting the Harbour to Dublin Port, or a report commissioned on behalf of the Department of the Marine in 1988 into the future development of the Harbour. These will be listed and a short summary of their contents given. Finally there are a number of good secondary sources i.e. narrative accounts of the history of the Harbour from its inception to the present day. These are also encompassed here. A brief chronology of the Harbour from its beginnings in the early 19th century through all its different phases to the present day, with an outline of the reasons why it was first built, will serve as a preliminary introduction.

INTRODUCTION

Dun Laoghaire Harbour was built between the years 1817 and 1842. The Harbour, and the railway that was built to service it, transformed the character of the small fishing village then known as Dunleary. In a very short period a suburban town of considerable scale sprung into existence. It became known as Kingstown after the visit to the Harbour by George IV in 1821[1]. The mail service that was transferred from Howth in 1826 gave added significance and importance to the town, while the railway built by James Pim, which serviced the mail, also made it possible for great numbers of civil servants, bank officials, merchants and tradesmen to commute daily into Dublin while retiring in the evening to the pleasant environs of the sea.

Dun Laoghaire Harbour was built as an asylum harbour to give safe refuge to ships on their way to Dublin stranded at sea during bad weather or poor tide conditions. The disastrous loss of up to four hundred lives during a storm in 1807 resulted in a public outcry. Persistent campaigning by means of petitions to the government and to local landowners, letters to newspapers and public meetings, orchestrated in large part by a local seaman named Captain Toutcher, resulted finally in an agreement that an asylum harbour would be built. Nonetheless it was the very poor nature of Dublin Port itself, with its sandbars and difficult tides, that raised the possibility that Dun Laoghaire Harbour's function might be considerably expanded. From the very beginning, during the time when ideas for the Harbour were first raised (c. 1800), the idea of a ships canal to connect it to Dublin was considered as a realistic possibility. While the debate raged on, about whether an asylum harbour should be built at Sutton, or on the north side of Howth or at Dunleary or indeed Sandycove, designs and costings were often included for a ships canal to link each of these to the capital. However it was finally decided, by an Act of Parliament in 1815, that five Commissioners should be appointed to oversee the erection of'an harbour for ships to the eastward of Dunleary, within the port and harbour of Dublin' [55 Geo. III Cap. 191].

The following year it was enacted that the Harbour should be built and a considerable sum of money was set aside for this purpose. One of the first decisions made by the Kingstown Harbour Commissioners was the appointment of John Rennie as Directing Engineer for the Harbour. Renowned for his considerable experience in the building of bridges, canals and harbours throughout Britain and Ireland, his work was marked by a thoroughness of planning and a solidity and firmness of execution. John Aird who had been the engineer on site at Howth Harbour, to which Rennie was also connected, acted in the same role at Dun Laoghaire. Toutcher, as well as being the most ardent agitator for the Harbour's construction, also made the singular contribution of securing the rights to the stone at Dalkey, and elsewhere, free of charge. It was estimated at the time that a saving of £80,000 was made as a result. Granite was excavated on Dalkey Hill and delivered to the Harbour by a funicular railway - connected by a continuous chain, the weight of the granite-filled trolleys going down was sufficient to pull the empty trolleys up and no horses or steam-engine were needed. Granite was also quarried at what is now known as the People's Park in Glasthule at the site of the now disappeared Martello tower, and in Churlfield, or Churl Rocks, now known as Moran's Park.

[1] *Kingstown reverted to Dún Laoghaire in 1920, but for the purposes of this report Dun Laoghaire will be the name used for the town and the harbour throughout the report.*

APPENDIX A : REPORT ON ASSOCIATED DOCUMENTARY RESOURCES

The first stone of the Harbour was ceremonially laid by Lord Lieutenant Whitworth on 31st of May 1817. A handful of coins and newspapers from the previous ten days were placed in a hole under the stone and this was sealed in turn by a plate with a memorial inscription. Rennie's original scheme provided for a two-piered harbour, but the one first agreed to by Parliament was a single pier to the east of what was later known as the Old Pier. This pier had been built in 1767, but had quickly dried up and was sometimes known as the Dry Pier [now the Coal Harbour]. However during the course of construction it was decided that a second pier to the west should be built and this was constructed according to Rennie's initial scheme. Decisions by Parliament to proceed, and the arrival of money to do so, came in stages and both piers were brought to a penultimate state of construction around the year 1831. There was considerable disquiet after this about how the Harbour mouth should be finished. Rennie's son, Sir John Rennie, who took over the responsibility for the construction of the Harbour after the death in 1821 of his father, believed that the original design, with an opening of 450 ft, should be adhered to. Others, such as William Cubitt suggested an opening considerably larger. Cubitt also proposed that a breakwater of 1200 ft be placed east of the Harbour in the open sea. The solution, that finally came to pass in the early 1840s, was for an opening of 750 ft with rounded pier-heads. This larger opening left entering ships vulnerable to north-easterly winds; a danger that Rennie's original plan had sought to overcome. Although there had been a moveable floating lighthouse at the end of the East Pier throughout the progress of the works, the permanent lighthouse with its battery was built in 1842. This brought to completion the construction of the great asylum harbour, which had been begun in 1817. At the time Dun Laoghaire Harbour was one of the most magnificent in what was then the British Empire. The East Pier reached a length of 4231 ft and the West Pier was 5077 ft. They enclosed an area which comprises 251 acres of water.

In 1834 a railway was extended from the city of Dublin out to Dun Laoghaire. Despite the government report one year earlier that decided in its favour, the idea of a ships canal was finally laid to rest as a result. However the railway was never used for the transport of heavy goods and no significant docks were ever built in the Harbour. The need for a canal became less logical in fact after the real improvement to Dublin Port by the building of the North Bull Wall in 1824. The Mail Packet was transferred to Dun Laoghaire in 1826. It was first accommodated by a wharf near the present band stand on the East Pier, then on the so called Trader's Wharf, immediately to the east of the Old Pier, which was built in 1855, and finally by Carlisle Pier which accommodated the mailboats until recent times. Carlisle Pier, which was begun in 1853, was built to accommodate the largest types of steamboat then being built. When the railway was extended from Dun Laoghaire to Wexford a connecting spur to the new pier was added. This was a considerable addition to the mail service itself while it provided added comfort and ease to passengers.

In more recent times the increasing transportation of cars to and from Holyhead necessitated a reappraisal of facilities in the Harbour. At the beginning of the century cars could be lifted onto the mailboat using derricks, but the maximum capacity of the ferry boats was about twenty-five cars. From the 1960s the need for a ferry service with drive-on and drive-off facilities became apparent. Although temporary facilities for a car ferry were located at the base of the East Pier in 1969 a new permanent ferry terminal located at St Michael's Wharf (formerly Victoria Wharf), to the west of Carlisle Pier, was built. Construction, which began in 1969, involved the loss of the granite neo-classical Sailor's Reading Room at that time the home of the Museum and Headquarters of the Maritime Institute of Ireland. A new pier, which absorbed St Michael's wharf and involved the filling in of the old Depot Harbour, was built, with a customs hall, departure point and car parking facilities. However the Mailboat continued to operate from Carlisle Pier until 1976. When the St Columba, a considerably wider vessel than those that had docked at Dun Laoghaire until then, was introduced in 1977, facilities for it were provided at Carlisle Pier and only smaller vessels used St Michael's Wharf.

1. MANUSCRIPTS: PLANS, DRAWINGS AND MAPS.

Perhaps the most significant, although not the largest, collection of original drawings and manuscript documents connected with the construction of the Harbour, especially in its earliest phases, is that associated with the Office of Public Works, or Board of Works as it was then known. This collection is now housed in the National Archives in Bishop Street, Dublin. According to A Guide to the Archives of the Office of Public Works, there are 2228

APPENDIX A : REPORT ON ASSOCIATED DOCUMENTARY RESOURCES

items relating to Kingstown Harbour. This is in a category, known as OPW 8, that contains materials relating exclusively to the five so-called Royal Harbours i.e. Kingstown, Howth, Donaghadee, Dunmore and Ardglass. The full contents are currently listed and briefly described on a set of index cards corresponding to each document. These are currently being entered on a computer data-base, and there are plans that this data-base will be published eventually on the World Wide Web.

The documentation preserved in OPW 8 relates back to the period from 1801 onwards and includes correspondence as well as a number of technical documents, plans and drawings, and reports from the directing and resident engineers, John Rennie and John Aird. There are also surveys and other details of the quarries at Dalkey and Glasthule, and details of the railway. Also featured are documents relating to the controversy regarding the size of the opening to the Harbour that was not resolved until 1841. A number of other reports are included regarding the staff at the Harbour, and their management. Details relating to the health and welfare of the workmen and disputes between them and the contractors about working conditions are also featured. A good example of the high quality of the drawings that have survived, - a watercolour drawing of proposed alterations to the mouth of the Harbour by Sir John Rennie in 1829 – is reproduced in colour in the Guide as well as some architects' plans for the construction of the then Harbour Master's house, now known as Moran House in Moran Park (pp 116 & 35).

However the largest collection of associated manuscript plans and drawings is in the possession of the Harbour Company itself and is located at their offices on Crofton Road. It is estimated that there are over 3000 drawings kept in this archive. The majority of these relate to later developments, especially since the 1960s, with the building of Car Ferry terminals and proposed marina developments from the 1980s to the present day. These are contained in two metal cabinets. Two wooden map cabinets hold a large number of Admiralty charts and surveys. There are some drawings in Drawer 8 of the wooden cabinets that are of an older vintage. They include quite a number of Ordnance Survey maps which have been marked with proposed or extant sewerage and water works, and also a number of built additions to the wharves and piers during the late 19th century and in the earlier years of the 20th century. There are, for example, sectional design drawings of iron bollards sunk deep within the masonry of the piers, some section and plan drawings relating to the construction of Carlisle pier that were based on other original drawings dated 1857, and some interesting design drawings of the ironwork sheds of Carlisle pier. There is a folder of drawings related to some minor utility buildings on the pier in Drawer 10 of the same cabinet and some materials related to the Commissioners of Irish Lights.

A computer data-base archive of all plans, maps and drawings located in this office was created by Arcline Ltd on behalf of the Harbour Company in 1999. A CAD system was developed which will incorporate all future plans and drawings and together with the data base of existing materials it is hoped that 'such a system ... will result in an integrated approach to the storage of and access to the Company's plans and drawings'. (Arcline proposal for the maps, plans and drawings of Dun Laoghaire Harbour Company, April 1999, p. 1).

Another important collection of plans and drawings related to the Harbour are those in the possession of the Commissioners of Irish Lights, Pembroke Street, Dublin. The Commissioners hold up to 26,000 drawings, plans etc. of all the lighthouses around the coasts of Ireland, including original plans for the lighthouse and battery on the East Pier and the lighthouse and lighthouse keepers house on the West Pier. As well as hard copies of these materials many drawings have been stored on microfilm. The Feasibility Study on the East Pier Battery commissioned by the Office of Public Works, which is considered below, includes amongst other things, reproductions of the original watercolour drawings dated to 1861 for the scheme there, which are located in the Commissioners headquarters. In order to access these materials it is necessary to seek permission from Dr. Stuart Ruttle, Engineer in Chief, Commissioners of Irish Lights, 16 Lower Pembroke Street, Dublin. However information on these materials can also be had from Mr Jim Pickett of the Drawings Office, whose immediate responsibility they are.

The last significant holding of manuscript drawings relating to the Harbour are located in the National Library, Kildare Street, Dublin. These are in a package known as Ms. 16E. 31.

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The materials here are of varied quality, with the majority of the contents (approximately 10 separate documents in total), relating to the building of the railway in 1834. However there is one very large scale hand-drawn linen-backed map of the area in the immediate vicinity of the Harbour at the base of the piers, not dated but probably originating in the period between the beginning of the West Pier and its completion, i.e. during the 1820s or slightly later. Besides these, there are a number of Ordnance Survey maps of the area with either rail lines indicated or in other cases details of planned underground waterworks inked in. The National Library also has a small quantity of original topographical drawings and prints of Dún Laoghaire and a number of the Harbour in particular. These are listed in full in Elmes, Catalogue of Irish topographical prints and original drawings (Dublin, 1975). There are twelve images in total in the collection. The earliest view included is an aquatint by F. Jukes of the 'pier at Dunleary 5 miles from Dublin' which was produced in 1799. Seven of the images are line engravings made after original drawings and these range in date from 1820 to 1849, a period that nicely covers the era when the Harbour was in construction. In fact three of these were made in 1842 the year the Harbour was completed. Of the rest there is a pencil sketch made in 1830 when construction was well under way, as well as a woodcut image from 1834 that is one of thirteen views of the new Dublin to Kingstown railway. To complete this collection of early images of Dún Laoghaire Harbour, there is an undated aquatint as well as a chromolithograph made some time between 1850 and 1870. It is important to note that there are many more such images of the Harbour and its environs in private collections, especially of people who live in the area. Most that are known were reproduced in Pearson's Dún Laoghaire-Kingstown or De Courcy Ireland's History of Dun Laoghaire Harbour albeit without full reference to sources or their present whereabouts.

Another important source of historical and topographical information regarding the harbour is the large number of related photographs taken during the course of the later 19th century and the early years of the 20th century. Besides those that remain in private collections, and there must be hundreds, there is a representative and important quantity available in the larger collections held by the National Library, now housed in the National Photographic Archive, Meeting House Square, Temple Bar, Dublin. Most important amongst the collections in the Archive perhaps is the Lawrence Collection. There are c. sixty-nine photographs of the Harbour in what has been indexed as the First Series, and possibly more than one hundred in the so-called Second Series, ranging in index numbers from 5100 to 6051. The majority of these photographs were taken around the turn of the 20th Century. Another offshoot of the Lawrence Collection is the one known as the Eblana Photographic Collection, that is made up of images owned by the Lawrence Company, but not actually taken by their photographers. These range in date between 1870 and 1890. There are nine photographs of the Harbour in this collection. Another possibly useful group of images is to be found in the Morgan Photographic Collection. This is a set of high-resolution aerial photographs taken all over the country between 1954 and 1957. There are about twenty-three of these related to the Harbour and the area immediately around it. Finally there are two important collections of images for postcards – The Valentine Collection whose photographs were taken from 1903-60, and the Eason Collection which dates from 1901-40. There are between forty and fifty images of the Harbour in the Valentine Collection and about sixteen related plates in the Eason Collection.

Finally the manuscript volume in the National Library, known as Ms. 217, also contains some original hand-drawn plans and schemes but these shall be considered in the next section that deals with other manuscript documents.

2. MANUSCRIPT DOCUMENTS OTHER THAN MAPS AND PLANS.

The most important manuscript documents surviving, that relate most directly to the Harbour, its construction from the earliest date, and its management and upkeep, are the Kingstown Harbour Commissioners Minute Books. For the most part these are located in the National Archives. The five volumes that cover the period between 25 September, 1815 and 1 August, 1832 include considerable details regarding the initial plans for the construction of the Harbour, as well as the details relating to the period of the construction proper, and much else besides. A sixth volume which is also in the National Archives and that brings proceedings as far as January 1836 could not be found when these others were consulted during August 1999. Other Minute Books may be located in OPW 5 in the National Archives. This section of the Archive contains materials relating to the Board of

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Works between the years 1855 and 1935. However these may only be located through a lengthy consultation of the longwinded and difficult register system which was operated by the Board of Works during the 19th century. The relevant register volumes are OPW 5/4/12 - OPW 5/4/87 (The different registration systems that were used by the Board of Works throughout these years is explained fully in Rena Lohan's Guide to the archives of the Office of Public Works, see bibliography). Finally there is one single manuscript volume of the Minutes in the Library of the present Office of Public Works, 51 St Stephen's Green, that covers the years 1897 to 1923.

The Commissioners Minute Books, are perhaps the most important source documents for the early history of the Harbour's construction. They contain a copy of all correspondence between the commissioners and the engineers, landowners and anybody else connected to the Harbour's construction. They also record all resolutions carried by the Commissioners, a record of the changing personnel, and payments and all costs related to the Harbour. They offer an insight into the social conditions of the time, for example the hiring of a physician to tend to the workers, the setting up of a dispensary and cholera hospital and various compensations paid out for injury and for loss of life. Full record numbers and locations for these and for all other documents can be found in the bibliography. It is also worth reiterating that a considerable quantity of manuscript materials that are not maps and plans, i.e. letters, memorials etc. will be found amongst the files located at OPW 8 as described above. Three manuscripts relating to Dún Laoghaire Harbour are to be found in the National Library. Ms 5217, known as *A report respecting Kingstown Harbour*, is a hand-written letter bound into a volume, made by Sir John Rennie in 1835. It relates to the controversy that raged at that time over the completion of the Harbour mouth. Rennie still maintains that the Harbour should be finished as it was originally envisaged by his father, with a small opening of 450 ft. He cites Donaghadee and Whitehaven Harbours as examples of other successful harbours built by Rennie senior along similar lines. Included in the volume is a hand-drawn diagram of the alternative proposals being debated, those of Rennie, and the plan with a breakwater out to sea, by Cubitt and Walker. At the end of this volume there is a second letter in a different hand but also signed John Rennie. This was probably the handwriting of Rennie senior and was probably dated to 1820.

Another manuscript volume, Ms 217, contains a number of copied letters of petitions to landowners and politicians, seeking the construction of a harbour at Dún Laoghaire. A number of these are copies of letters sent by Captain Toutcher between the years 1807 and 1815. Pearson has pointed to the similarity between these and the *Considerations for a harbour*, by A. Seaman in 1811, and has plausibly suggested that the author of the latter was Toutcher himself. Also included is a petition of consent from all those who held rights of Commonage in Dalkey, that stone may be quarried there free of charge for a harbour at Dún Laoghaire. There is a letter from Toutcher to Lord Viscount de Vesci, seeking 'perpetual tenure of the ground' in question. A petition from merchants and shipmasters contains an estimate for the works at £392,266, i.e. £472,266 minus £80,000 for the cost of the stone which is free.

A number of drawings are also included. There is a diagrammatic drawing of two proposals for the Harbour not unlike the ones contained in the Rennie manuscript report (no. 5217, as above) dated however to 1835. There is a copy of an etched plan (without titles) of a harbour with a single pier that was located at the Churl Rocks. The latter can be identified today by the obelisk monument on the promenade that was first erected to commemorate the laying of the first stone of the Harbour and the visit by King George IV in 1821. A copy of the same plan with titles is housed in the Maritime Museum in Dún Laoghaire, and this copy indicates that the plan is by John Rennie directing engineer and John Aird Resident Engineer, and that it was made in 1817. It shows that at this stage the scheme was still for a single pier only: the West Pier would only be agreed to by Parliament in 1820. Finally there is a hand-drawn map of a field called Spy Rock on the coast between Dún Laoghaire and Bullock, which indicates the properties there and their owners.

Also held at the National Library, is a microfilm copy of a series of letters known as the *Colvill Papers*, which are the preserved correspondence between a Major-General Charles Tarrant of England and a William Colvill of Bachelors Walk, Dublin between the years 1802 and 1820. This correspondence is on a huge scale, and seems to relate both to the building

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of the Harbour at Dún Laoghaire and to the Barrow navigation scheme. Colvill had been on the Board of Commissioners for Howth Harbour and had a landed interest in the area. This may partly explain his political opposition to the development of the Harbour. The Mail Packet service had originally been located at Howth and some had argued that the asylum harbour itself should also be built at this location.

3. PRIMARY PRINTED SOURCES.

A large number of publications, agitating for the building of an asylum harbour in Dunleary, was printed around the turn of the 19th Century. Amongst these were a number of official reports that considered the matter in the broader context of a solution to the problem of Dublin Port. Principal amongst the latter is Sir J. Rennie et. al., *The directors general of Inland Navigation in Ireland, to whom, in pursuance of the Act of the 40th year of His Majesty's reign, the improvement of the harbour is committed, have caused the following reports to be printed,* (Dublin, c. 1800-1803). This publication contained reports from a number of significant authorities on the problem of the inaccessibility of Dublin Bay and how this could be overcome. Each report was accompanied by a printed map of the bay, upon which proposed structures were delineated in red. Amongst those who entered reports were Captain William Bligh (with an address in Dawson Street, Dublin), Thomas Hyde Page, Henry R. Paine, Captain Daniel Corneille, Richard Broughton, John Rennie and J. Huddart. Rennie's proposals at this date (he offered two similar ones, but each placed at different points along the south bay) both included a double armed harbour, with a rectangular 'sealock'. Ships would enter the sea lock at Dún Laoghaire and proceed by canal to Dublin Port gaining access there through the Grand Canal Docks. One of the most important amongst the texts which agitated for the building of an asylum harbour at Dún Laoghaire was the one written by A. Seaman (probably Captain Toutcher, as Pearson has suggested), namely *Considerations for a harbour,* (1811). As has been noted the arguments in this were closely related to those in MS 217, already outlined above.

Included was a mapped proposal for a pier built to the east of the Old Pier, as well as an appendix which included copies of petitions addressed to the then Lord Lieutenant, the Duke of Richmond. The final section of the volume contained a wry commentary on the building of the harbour at Howth, with the implication that its *rationale* may have been more political than practical.

Another contemporary publication that agitated for an asylum Harbour was W. Dawson's Plan for three harbours: Howth, Dunleary and Holyhead, (1809). As the title suggested this was a less prejudiced examination of the question and included suggestions for possible harbours in each of three different locations. However the harbour which he proposed at Howth was south of the Head and he criticised strongly the one already begun on the north side of the promontory. It is interesting that for the East Pier at Dún Laoghaire he suggested a bridge to the pier so that a strong tide would wash the alluvium from the Harbour through the gap between land and pier. This same device was later used on the North Bull Wall with great success. The decision by the government in 1815 that a Commission for the building of a Harbour 'eastward of Dunleary' should be set up is recorded in the act 55 Geo. III, Cap. 191. This and all other Parliamentary Acts from the 19th Century related to Dún Laoghaire Harbour are recorded in Appendix 1, at the end of this report.

The question of a ships canal connecting Dún Laoghaire to Dublin raged on until the 1830s however. *A report of the committee appointed at a meeting of gentlemen, merchants and traders; held in Dublin, on the 11th August, 1833, with a view to promote and ensure the construction of a ship canal from Kingstown Harbour to Dublin* advocated, as its typically longwinded title suggests, the construction of the canal. That the Harbour at Kingstown was considered one of the finest docks in Europe, it argued, and yet was not connected to the Port of Dublin just a few miles away, which is in turn was connected through the canals to the Shannon and Lough Erne and so to almost the whole of Ireland, was an indefensible waste of resources and a lost opportunity on an enormous scale. The report correctly pointed out that the proposed railway would never have been suitable for the transport of goods (at least it proved never to have been used extensively for the purpose). The report also cited the authorities of Rennie, and Mr Nimmo amongst many others, who supported the proposal. A detailed and closely argued critique of the proposed canal appeared in H.E. Flynn's, *A glance at the question of a ship canal connecting the asylum harbour at Kingstown with the river Anna Liffey at Dublin &c*

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&c &c, (Dublin, 1834). He analysed, with the aid of detailed plans, the different proposals of Cubitt, Killaly and Nimmo. On the basis of engineering and mechanical realities associated with a close reading of the topography of the region and an understanding of the Liffey and its tides he rejected each scheme as physically impossible.

Based also on the belief that the Port of Dublin had been vastly improved by the building of the North Bull Wall he concluded "Kingstown, as an Asylum Harbour, is nearly perfect; and Dublin, as a Trading Port, is in a state of rapidly progressive and successful improvement; - alter the one, and protract, or rather *discontinue* the other, and the destruction of both is inevitable".

However an official inquiry upon the merits of the ships canal, that was chaired by Daniel O'Connell the previous year, did not concur. The Report *from the select committee on Dublin and Kingstown ship canal: with the minutes of evidence*, (London, 1833), chaired by O'Connell, sat between June 26th and July 22nd. Many, including William Cubitt, James Pim (responsible for the Dublin to Kingstown railway), and John Rennie appeared before the tribunal. Of interest is John Rennie's description of the problem of Dublin Port, "... the harbour of Dublin being formed by a river which discharges itself into a deep bay, the consequence is, that the alluvium brought down by the river from the interior of the country necessarily forms a bar at the mouth of the harbour." Although Rennie did not see much hope of the situation changing, he did explain that the purpose of the Clontarf wall which was being built was to increase the rate of flow of the river and increase the efficiency of its discharge. Rennie, then and later, supported the development of the ships canal.

However the railway to Kingstown was completed the following year, that is in 1834. The railway seemed to put an end to the possibility of a canal linking the Harbour to the Port of Dublin, as much by its physical existence than by its efficacy as a goods link between Dún Laoghaire and the capital. An important printed resource, which provides a parallel to the manuscript Harbour Commissioners Minute Books, are the sections relating to Dún Laoghaire Harbour in each of the annual reports of the Commissioner for Public Works. These were in print from 1831, and some details of the annual upkeep of the Harbour were recorded therein. For example in 1883 the following statement on Dún Laoghaire Harbour was made: "The works of this harbour, including the piers, sea slopes, parapets, slips, bollards, jetties, wharves, buildings, fences, roads, lamps, and sewers have been maintained in good order, and the roads lighted; and in addition a quantity of boulder stones has been removed from the bed of the coal harbour. Chains and posts to protect the Inner Harbour, additional lights and urinal for Mail Packet Pier, a large quantity of concrete was set in the sea slopes of the east and west piers to repair the damage of the previous year, water and ballast have been supplied to ships, and 25,300 tons of mud and sand have been dredged out of the harbour."

Another interesting document is the small pamphlet publication by J.J. Healy, *Dún Laoghaire Harbour: instructions for harbour constables*, (Dublin, 1925). A simple two-page document, it described the duties of the harbour constables, watchmen and police who patrolled the Harbour. The document sought to ensure that no damage was done to associated buildings and that infringements of the bye-laws might be discouraged or prevented. Constables were also to maintain order when boats arrived or departed and while passengers were embarking or disembarking.

Other contemporary commentary on the early history of the Harbour can be found in a number of articles in the *Dublin Builder* and the *Irish Builder* as well as the *Dublin Historical Record* which are listed in the bibliography. One article of note was by a G.H. Kinahan in an issue of the *Dublin Builder* of 1902. This was a complicated but informed discussion of the effects of tides, 'inshore', 'onshore', and 'offshore', and other sea behaviour, on the coasts and ultimately on the harbours and piers. Regarding the Harbour at Dún Laoghaire he concluded that 'if a curved pier (which he argued was more responsive to the laws of nature and the working of the tides and less open to destruction by them) had been ran out from Sandycove head, enclosing Scotchman's Bay, there would now be a better harbour at half the expense'.

Finally amongst contemporary commentary on the Harbour as it was built is the chapter dealing with Dún Laoghaire Harbour in Sir John Rennie's *The theory, formation and*

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construction of British and foreign harbours, (London, 1854). These two enormous volumes, the first of text, the second of high quality engraved plates, gave a summary of the works of the Rennies, including their many harbours, canals, bridges and other civil engineering work at the beginning of the 19th century. Regarding Dún Laoghaire the plans supplied indicate the Harbour as Rennie had envisaged it, after it was decided in 1820 that two piers should be built. However the plan does not represent the Harbour as it appears today nor when the book was published some twelve years after the Harbour was completed. This is because of the compromise harbour opening which was built instead of that suggested by John Rennie Senior. Rennie alluded to this controversy again and pointed to the consequent difficulty of access to the Harbour during Easterly gales. The account he gave of the building of the Harbour is valuable especially for the record he supplied of some of the constructional details. For example he explained that the Harbour was built of rubble masonry using the technique of throwing down the original stones *à pierre perdue* and allowing the action of the waves to consolidate the pile. He also recorded that the rubble blocks varied from one quarter to ten tons or more in weight; that the outer slope of the pier was 5 1/2 to 1 and that the inner slope was 1 to 1. While stone from Runcorn near Liverpool was used at Howth, all of the stone for Dún Laoghaire was mined locally. Finally in a summary of its qualities, he noted that the Harbour entrance was in deep water, free from shoals, protected from prevailing winds and sufficiently far to seaward to allow ships to leave with ease. It is disappointing to note that in Rennie's *Autobiography* (London, 1875) there is no reference to Kingstown. Perhaps this is an indication of the huge range and number of commissions which John Rennie and his son Sir John undertook throughout their working careers.

There are two modern printed reports on Dún Laoghaire Harbour, which should also be considered here in this section on primary sources, as well as a CD Rom published in 1999 by the Marine Institute, which may be a partial aid to the study of the area. In 1988 a report was published by the Department of the Marine entitled *Dún Laoghaire Harbour, report of the planning review group*. Amongst other things it is a response to the proposal for a new marina by Marina Developments (Ireland) Ltd and included a 'preparation of an outline management plan for the Harbour as a whole'. Consideration was given, for example, to the development of the entire Harbour, the commercial use of the Harbour, the development of the Ferry Terminal, the Marina Development proposal itself, and issues regarding the use of the Harbour as an amenity and as a leisure facility. A copy of the summary of its recommendations is included here as Appendix 2, at the end of this report. A more recent report is that carried out by the Office of Public Works in 1996, entitled *Feasibility study: the East Pier Battery, Dún Laoghaire Harbour, proposals for its conservation and future use*. The purpose of the report was to consider and set out proposals for the use of the Battery and Lighthouse after the reduced operations of Irish Lights resulted in a reduced space requirement. Keeping in mind issues of conservation, the feasibility of opening the facility to the public and developing it for commercial purposes was considered.

The report included an historical introduction to the battery as well as a detailed description of the building accompanied by photographs and ground plans. Of particular interest are the colour reproductions of original architects' drawings for the scheme. These drawings are in the collection of the Commissioners for Irish Lights, Pembroke Street, as outlined in an earlier section of this report.

Finally an original resource of limited use is the CD Rom edition of aerial digital images of the coastline of some eastern counties in Ireland. This was published in 1999 by the Marine Institute in Dublin. While the system has a reported resolution of up to 30 cm, it is disappointing to note that despite images extending inland 450 yds, they do not extend seawards to reach the ends of the piers of the Harbour at Dún Laoghaire. As a result these are cut off from view and the resource is rendered considerably less useful for the purposes of the Harbour than it could have been.

4. SECONDARY SOURCES: NARRATIVE ACCOUNTS.

There are a number of quite useful summary accounts of the building and general history of Dún Laoghaire Harbour. Probably the most comprehensive, and the most recent, is the book just published by John de Courcy Ireland, *History of Dun Laoghaire Harbour*, (Blackrock, County Dublin, 2001). This is a very comprehensive and detailed history of the Harbour from its earliest development to the present day, which includes an outline of future plans

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for the Harbour. It was published after the present report was first researched and written. Especially useful are the series of reproduced lithographs, paintings and other drawings, as well as facsimiles of some of the important original documents associated with the Harbour. De Courcy Ireland has also included in his text a long series of appendices on various aspects of the subject. He includes, for example, statistics on the use of the Harbour during the 19th Century, comparative figures from the 1970s, and statistics for present day tourist and container traffic. Other subjects covered by the appendices include activities of the British Navy in the Harbour during the 19th Century, an account of the activities and careers of the Harbour Masters, and various other accounts and statistics to do with shipping issues. These appendices end with a series of statements about the original rationale for the building of the Harbour, its continued function as an asylum harbour, its value culturally, aesthetically as well as commercially to the people of the state, and to Dún Laoghaire in particular, and the need for the establishment of a Dún Laoghaire Harbour authority which is democratically representative of the interests of the people of Dún Laoghaire.

An earlier, but almost equally useful, history of the Harbour and its environs is that found in Peter Pearson's *Dun Laoghaire-Kingstown*, (Dublin, 1981). As well as giving a general account of the building of the Harbour with interesting insights into the social and political events of the time, the book places the Harbour within the context of the development of Dún Laoghaire, and gives proper emphasis to the part that the Harbour played in establishing Dún Laoghaire as the important suburban town it is today. To this end considerable emphasis is placed upon the architectural development of what remains, despite serious losses, one of the finest Victorian towns in these islands. For this reason the book is also a good reference source for the different fine buildings which are dotted over the whole of the Harbour itself, including the superbly detailed cut-stone granite Coastal Station now being used by the FCA,or the noble granite cottage of the Lighthouse keeper at the end of the West Pier. Pearson also included descriptions of many of the fine buildings which are no longer in existence such as the Sailor's Reading Room once on St Michael's Wharf.

J. O'Sullivan and S. Cannon's *The book of Dun Laoghaire* (Blackrock, County Dublin, 1987) is another very well researched and important resource on the town in general as well as the Harbour. It comprises a very thorough study of the locality with chapters on the area's geology, flora and fauna, the history of the town as well as its pre-history. There also are sections on the town's maritime history as well as a history of the railway linking it to Dublin. It has a very fine section on how the locality was mapped through the century and includes good illustrations of a representative number of these. A section on planning issues includes a discussion of the Harbour as a public amenity and how best this might be enhanced and best utilised.

Another interesting and important secondary source dealing with the Harbour at Dún Laoghaire is Manning Robertson's *Dún Laoghaire, the history, scenery and development of the district* (Dún Laoghaire, 1936). This book was prepared in connection with a town planning survey carried out for the borough council by the author. It contains a history of the growth and development of the area as well as accounts of the physical features of the district. This includes a geological survey map which gives the concentrations of granite and other stone deposits in the area. There is a good collection of photographic views of the town, which includes some important views of the Harbour taken during the 1930s. In relation to the planning survey, to which this book is a more general narrative accompaniment, the economic development of the town is outlined for the years prior to 1908 and the years from 1908-36. The amenities of the area were mapped, and suggestions for their development, including the associated amenities of the Harbour, were given.

The only other text of concern to us here, which deals exclusively with Dún Laoghaire and goes into considerable detail about the building and general history of the Harbour, is D. O'Suilleabhain's Irish text *O Kingstown go Dun Laoghaire* (Dublin, 1977). The chapters dealing with the Harbour, *an caladh*, go into considerable detail on the political circumstances which pertained at the time of its building. The associated controversies and related political machinations are covered very closely. A happy inclusion, as introduction to the chapter on the Harbour, is the quote from Joyce's *Ulysses* in which Stephen Dedalus defines a pier "Kingstown pier, Stephen said. Yes, a disappointed bridge".

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There are a number of summary accounts of the Harbour's history to be found in for example the Department of the Marine's *Report of the Planning Review Group* referred to earlier, as well as in Rena Lohan's *Guide to the Archives of the Office of Public Works* also referred to. Another good summary source, albeit in the main based on Pearson, is in R.C. Cox & M.H. Gould *Civil Engineering Heritage Ireland* (London, 1988), which is an excellent source book for all civil engineering constructions in Ireland. An important associated resource is the Centre For Civil Engineering Heritage, in the Museum Building in Trinity College, Dublin which is managed by the author of the above-mentioned publication Ronald Cox. A record form on all civil engineering works in the country has been prepared in association with the above publication and this includes a full summary listing of Dún Laoghaire Harbour, with a number of associated plans, photographs and drawings. A copy of this record, which the centre kindly supplied , is included as Appendix 3[2] at the end of this report.

Finally for an understanding of the broader context of the Harbour, H.A. Gilligan's *A history of the Port of Dublin* (Dublin, 1988) is very helpful regarding the development of Dublin Port from the Viking era until the present, and the part Dún Laoghaire Harbour played in this development.

[2] *Appendices referred to in this report are available separately from the Harbour Company*

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APPENDIX B : DECLARATION 57

ISSUED BY DUN LAOGHAIRE RATHDOWN COUNTY COUNCIL

DUN LAOGHAIRE-RATHDOWN COUNTY COUNCIL

Economic Development & Planning Department

Comhairle Chontae Dhún Laoghaire - Ráth an Dúin
Halla an Chontae, Dún Laoghaire, Co. Átha Cliath
County Hall, Dun Laoghaire, Co. Dublin, Ireland
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FREY ASSOCIATES
2 8 AUG 2002
Job Ref.

27th August, 2002

Grainne Shaffrey
Shaffrey Associates
29 Lower Ormond Quay
Dublin 1

Local Government (Planning and Development) Act, 1999 Section 8 Declaration

Re: Dun Laoghaire Harbour
Dun Laoghaire
Co Dublin

Dear Ms Shaffrey,

I enclose herewith a Declaration in respect of works would not materially affect the character of the above structure.

Yours faithfully,

J. Gibson

Senior Administrative Officer
Economic Development & Planning Department

Enc

APPENDIX B : DECLARATION 57

ISSUED BY DUN LAOGHAIRE RATHDOWN COUNTY COUNCIL

DUN LAOGHAIRE RATHDOWN COUNTY COUNCIL Planning Department
DECLARATION
In accordance with Section 57(2) of the **Planning and Development Act, 2000**

This Declaration clarifies what works would materially affect the character of the Structure and as a result would require planning permission. Changes of use or intensification of the current use, inter alia, may require planning permission notwithstanding this declaration. If in doubt, please consult Dun Laoghaire Rathdown County Council for further advice before commencing any works. The legal protection afforded by the Act extends to the whole of this Structure including the interior and the land lying within the curtilage of the Structure. The protection also extends to any other structures lying within that curtilage, to their interiors and to all fixtures and features that form the interior or exterior of any structure within the curtilage, and, where specified in the Record of Protected Structures, to attendant grounds. This may include aspects of the Structure that seem unremarkable, or that are hidden. Any person who without lawful authority causes damage to a Protected Structure shall be guilty of an offence.

Declaration Reference DEC.29/01	**Date of Request** 03.08.01
Previous Declaration None	**Date of Issue** 09.07.02
Address of Structure Dun Laoghaire Harbour Dun Laoghaire Co. Dublin	**Applicant** Shaffrey Associates on behalf of Dun Laoghaire Harbour Company Dun Laoghaire Harbour Dun Laoghaire Co. Dublin
Map Reference D.P. List 1 Map 3 O.S. 3330 –25, 3331-16, 3331-17, 3331-21, 3331-22,3393-05, 3394-01, 3394-02	**Date of Inspection** August 2002
R.P.S. Reference R.P.S. 514,515,516,517,518	**Documentation** Method Statement/Schedule for Ongoing Repairs Drawing 48138/501

Brief Description of Structure
Dun Laoghaire Harbour, a Protected Structure, was previously listed in the 1998 County Development Plan Under List 1 Map 3 as :

Location		Description
Dun Laoghaire Harbour	East Pier	Pier, Bandstand and Shelter, Lighthouse Complex, Lifeboat House, Victorian Chain Fencing and Bollards from the RNLI Lifeboat House to the Bandstand
	West Pier	Pier, Lighthouse and Light Keeper's House
	Traders Wharf	Wharf and Boat House
	Old Pier/Coal Pier	Pier/Quay and
	Coastguard Station	(former).

The entire harbour area was a designated Conservation Area with the boundaries of this area marked on Map 3.
The following declaration relates to the entire harbour area (boundaries outlined in blue on Drawing 48138/501as Existing Harbour Layout and Limit of DLHC Land Ownership) which includes the above named Protected Structures, their associated curtilages and any other structures lying within those curtilages.

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Declaration Reference
Dec 29/01

NIAH Registration Number (if applicable)
N/A

Works which would affect the character of the structure

- Works which would result in the loss of or damage to the internal or external physical historic fabric of any of the structures.
- Extensions to, demolition of, and/or any development to any of the buildings/structures.
- Reinstatement works following damage by fire or explosion of any of the structures.
- Any works not outlined below.

Works which would not affect the character of the structure

- General repairs as outlined below.
- Any works authorised by an extant planning permission.

STRUCTURE TYPE	ELEMENT	REPAIR METHOD
BUILDINGS	EXTERNAL WORKS	
	ROOFS:	• Repair roof surfaces using original materials where sound and using matching material for any necessary replacements - e.g. natural Blue Bangor slates, ridge tiles, copper and lead coverings and flashings, etc.; • All sound timbers to be retained - where sections are decayed these can be cut off and sound, treated, new or salvage timer spliced on as a replacement; • Iron roof structures to be maintained and repaired; • Rainwater goods to be repaired using cast iron where replacement sections are necessary - profiles to match original; • Timber fascias, barge boards, soffit boards, etc.; any replacement sections required to be made up using matching timber or good quality treated softwood or sound salvage timbers. Decorative profiles to be matched; • Repairs to chimneys to use matching materials where replacement is necessary, e.g. matching salvage bricks; renders and pointing with lime (using hydraulic limes or lime putties as appropriate) mixes. Avoid taking down and rebuilding chimney stacks, if necessary for structural reasons, ensure stack is rebuilt to correct size and profiles and as much original material is reused.

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BUILDINGS: (contd.)	WALLS: (contd.)	• Retain stone where structurally sound. If replacement stone is needed, use native stone (Wicklow granite). Sizes, profiles, surface dressing and coursing pattern should match original. Where possible, using pinning/piecing in repairs rather than replacing stone; For granite repairs it is generally preferable to re-dress granite surface or piece in replacement section rather than use repair mortar; • Lime mortars to be used for bedding and pointing; • A programme for removal of earlier stone repairs and pointing where incorrect conservation methods and materials were used, and replacing these with current practice conservation methods, to be implemented on a phased basis in conjunction with the overall building maintenance programme; • Brick details to be retained - e.g., window and door surrounds, eaves details, etc. Matching salvage brick to be used for any replacements required; • Decorative wall elements such as cast iron vents, louvers, balconies, etc., to be retained. Any replacement sections required as part of repairs to use matching materials and profiles.
	WINDOWS AND DOORS:	• All sound timbers to be retained - decayed sections can be cut off and sound, treated, best quality softwood or salvage timber used for splicing repairs; • All windows and doors should be made operable, including shutters; • Any surviving original glass should be retained (use lamp burner to remove putty and retain glass if paint is being stripped); • Matching profiles and pane arrangementto be used for replacement sections/windows/doors. Sound original ironmongery to be retained; • Alterations to original single glazed windows to incorporate double glazed units to be avoided. Proprietary perimeter seals to be used instead and, if appropriate, secondary glazing may be fitted; • A programme of reinstating original matching windows where these have been previously replaced is to be implemented in conjunction with other repairs being carried out.
BUILDINGS	INTERNAL WORKS:	• As part of ongoing maintenance and repairs, no alteration to original plan form and room volume of protected structures will be carried out; • Surviving original plaster - wall and ceiling - to be retained where sound. Plaster repairs to external walls and masonry partitions to use lime plaster;

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BUILDINGS: (contd.)	INTERNAL WORKS: (contd.)	• Decorative wall and ceiling plasterwork to be retained and repaired where necessary; • Timber treatment to use conservation practice methods, i.e. only affected timbers to be removed and treated with proprietary preservatives, fungicides and insecticides to be kept to a minimum; • Original floor finishes to be retained and repaired - use salvage matching floorboards and tiles for replacement, where necessary; • Where upgrading for fire - original fabric to be retained and upgraded where possible, e.g., doors, ceilings/floors. • Original joinery to be retained and repaired - skirtings, architraves, panelling, stairs, internal doors, picture and dado rails, etc., - replacement sections, where necessary to match in profile and timber species.
	SERVICES:	• Ongoing maintenance to ensure services are not in danger of causing damage to fabric of protected structures; • Installation of new services to avoid alteration of fabric of protected structures; • Any historic services elements of architectural value, e.g. cast iron radiators, are to be retained; • As part of maintenance programme, fire detection and prevention systems to be installed where risk of fire would cause unacceptable damage to historic fabric. Any such system to involve minimum intervention to original fabric.
PIER STRUCTURES ABOVE HIGH WATER LEVEL:	STONEWORK:	• Retain all sound stone; • Replace like with like; • Use local granite for replacements - tooling, sizes and profiles to match original; • Where stone has become dislodged from piers, stone should be reset in its original position; • Earlier stone repairs carried out in concrete should be removed and redone using matching stone - this can be implemented on a phased basis to an agreed programme and in conjunction with structural repairs and any ongoing maintenance works; • Specifications for cleaning of stone, e.g., removal of differing types of graffiti, to be developed in conjunction with analysis of stone composition, to enable cleaning to be carried out when necessary.
	POINTING:	• Pointing is one of the major ongoing maintenance procedures in the harbour. Training in the use of lime mortars and correct pointing methods to be carried out; • Analysis of historic mortars to be carried out to enable appropriate materials to be sourced and compatible

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PIER STRUCTURES ABOVE HIGH WATER LEVEL: (contd.)	POINTING: (contd.)	mixes to be specified; • All sound historic pointing to be retained; • A programme of raking out and repointing walls where pointing has failed or has been carried out incorrectly to be implemented on a phased basis; • No pointing should be carried out at temperatures below 5° Celsius. Weatherstruck and ribbon pointing to be avoided. Pointing to be finished to stone arrises and mortar tamped back to expose aggregate in accordance with detailed specifications.
STREET FURNITURE ELEMENTS	IRONWORKS	• A schedule of historic railing types to be prepared; • A programme of repairs for railings to be implemented - all sound original fabric to be retained, matching profiles and materials to be used for replacement sections; • Due to maritime location, ironworks require more regular inspection and painting. All rust should be removed before painting. Suitable primers to be used to take account of maritime location; • A programme of replacing previous inappropriate repairs and replacements with ironworks matching original type to be implemented on a phased basis.
	BOLLARDS	• A schedule of bollard types to be prepared; • All historic bollards to be retained and maintained.
	LIGHTING	• All lighting in the harbour is modern (20th Century). Some cast iron gas lamps remain as part of non Harbour Company structures.
	GROUND SURFACES	• Granite copings, kerbs, etc., on the piers to be retained - repairs to be as that for the pier structures. • The West Pier surface will remain as is, with regular maintenance including filling of uneven surfaces with loose, pea gravel type chippings, including a percentage of granite chip; • The East Pier surface will be retained as concrete. Repairs to damaged or decayed surface to be carried out to match existing. • Footpaths throughout the harbour area: where granite kerbs and paving exist these will be retained.
	HISTORIC MARINE ENGINEERING MACHINERY	• An inventory of surviving historic marine engineering machinery to be prepared and a programme of repairs for this machinery to be prepared and implemented; • Where possible, machinery should be restored to working condition as part of a permanent display of the harbour's working history.

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PIER AND BERTH STRUCTURES BELOW HIGH WATER LEVEL	STONEWORK ABOVE LOW WATER	• Retain all sound stone; • Voids in face of pier stonework to be faced/filled with stone (local granite); • Voids behind existing some facing of piers to be filled with concrete. Concrete mix to be suitable for use in marine environment; • Where necessary, to hold granite stone facing in place, non-corrosive metal dowels to be used to tie facing stone to concrete filling behind.
	STONEWORK BELOW LOW WATER	• Retain all sound stone; • Voids in pier to be repaired by the most appropriate practical method. Repairs will generally be carried out under water; • Preference to be given to the replacement of granite facing stone where this is feasible.
	POINTING	• Pointing work to the pier structures below high water level will be in the inter-tidal zone. While every effort will be made to develop and specify a mortar mix that is compatible with that used in the original construction, it will be necessary to use a mix with rapid hardening properties to avoid the freshly placed mortar being washed out by the tide; • All sound historic pointing to be retained; • A programme of raking out and repointing walls where pointing has failed to be implemented on a phased basis; • No pointing should be carried out at temperatures below 5° Celsius.
	CONCRETE AND STEEL STRUCTURES	• Repair of concrete and steel structures to be carried out using best practical methods;
	WORKING BERTH FURNITURE e.g. BOLLARDS, FENDERS	• Historic bollards to be retained and maintained; • Existing timber fender piles to be retained where possible; • Where replacement of existing timber fender piles is necessary, replacement fender system to be of greenheart or similar hardwood timber suitable for use in a marine environment, or, where functionality requirements dictate, an alternative, suitably discreet, modern fendering system may be adopted.
	EAST AND WEST PIERS SEAWARD FACES	• Repair to concrete aprons to be to best practical methods, and will generally require mass concrete filling; • Repair to rock armour toe (below low water), where necessary, will be carried out by the importation and careful placement of additional armour rock in layers

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PIER AND BERTH STRUCTURES BELOW HIGH WATER LEVEL: (contd.)	EAST AND WEST PIERS SEAWARD FACES: (contd.)	over existing toe; • Loose rock armour protection above low water will be repaired, where necessary, by the importation of matching rock armour, of the same size, shape and composition as the existing and its careful placing to replace missing stone from the existing armour layer; • Where cut stone has become displaced from the pier, the stone will be reset in its original position or, where the original stone cannot be located, it will be replaced by suitable local granite.
PIER STRUCTURES ABOVE HIGH WATER LEVEL REPAIRS	STONEWORK:	• Retain all sound stone; • Replace like with like; • Use local granite for replacements - tooling, sizes and profiles to match original; • Where stone has become dislodged from piers, stone should be rest in its original position; • Earlier stone repairs carried out in concrete should be removed and redone using matching stone - this can be implemented on a phased basis; • Specifications for cleaning of stone, e.g. removal of differing types of graffiti, to be developed in conjunction with analysis of stone composition, to enable cleaning to be carried out when necessary.
MONUMENTS AND PLAQUES		Monuments and plaques throughout harbour comprise of stone and bronze materials. Repair works to these will generally be carried out by specialists to detailed specifications. Where cleaning of graffiti and pointing of stonework is to be carried out by Harbour Company maintenance staff, these operations will be carried out as per methods outlined above under Stonework and Pointing headings.

Special Remarks

General Principles to repair and maintenance:

- All work should be carried out in accordance with D.o.E. "Conservation Guidelines" and best conservation principles;
- All repairs should be carried out by a skilled practitioner;
- Repair rather than replace;
- Where replacement is necessary, replace like with like;
- Implement maintenance programme for all protected structures including regular inspections;
- Analysis of original mortars, core composition and stone composition to inform specifications for repointing, grouting and stone repair;

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- Training in use of lime mortars and correct methods for stone repair/building and pointing;
- Preparation of exemplars for varying repair types to agreed standard of repair;
- Small test samples of repair/cleaning materials to be provided to ensure compatibility with fabric;
- A supply of regularly used building materials (including sound salvage material), e.g. lime (hydraulic and putty) sand and aggregates, made up mortars, slates, copper nails, new and salvage timber (denailed and sorted by size), rainwater goods, lead, etc, to be kept in a compound by the Harbour Company for use when carrying out repairs;
- Cleaning of historic fabric, e.g. stone, should only be carried out where surface contamination is causing damage, e.g. graffiti, organic growth, and harmful pollutants. Non-abrasive cleaning agents to be used - specifications for suitable agents to follow geological/chemical analysis of surface being cleaned. Small sample sections to be treated first to assess performance;
- Proprietary surface treatments, e.g. water repellents are to be generally avoided.
- Before and after records, photographic, drawn and written, to be kept of all works;
- All replacement repairs to be programmed to avoid unsuitable weather conditions, e.g. pointing to be carried out between April and October and never when temperatures are below 5° Celsius.

Majella Wall	L. Walsh	
Conservation Officer	Senior Executive Planner	Senior Executive Officer
10th July 2002	28-8-02	26/8/02

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Published by:

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