



## **Revaluation 2023**

### **Public Buildings Committee**

#### **Practice Note 6 Valuation of Lighthouses & Lighthouse Stations**

##### **1.0 Introduction**

1.1 This Practice Note applies to the valuation of Lighthouses and their pertinents.

##### **2.0 Basis of Valuation**

2.1 Subjects covered by this Practice Note are valued on the Contractor's Basis as operational lighthouses and beacons are specialised assets which seldom change hands and for which there is little, or no, evidence of market transactions.

##### **3.0 Survey and Measurement**

3.1 Building areas should be calculated on a gross external basis (GEA).

##### **4.0 Valuation**

4.1 Valuations should be carried out with reference to the SAA Basic Principles Committee Practice Note 2 (Contractor's Basis Valuations).

4.2 Due to the size and nature of Lighthouses and Lighthouse Stations the recommended unit cost rates include adjustment for contract size, professional fees and external works.

##### **5.0 Estimated Replacement Cost (ERC)**

5.1 Due to the individual nature of each site and location, actual construction costs may vary considerably. It is therefore recommended that these actual costs, be used where available, adjusted as necessary to April 2022 levels.

5.1.1 As lighthouses and beacons have been constructed for more than 300 years, using a variety of construction methods, materials and designs, many of which are now obsolete, it is not practical to analyse each lighthouse in isolation. Instead, each lighthouse should be classified into one of the following categories which accurately describe each lighthouse's Modern Equivalent Asset (MEA).

5.1.2 The Northern Lighthouse Board (NLB) is required to provide valuations of their estate every five years, with interim valuations provided each year through indexation. The approach to valuation employed is the Depreciated Replacement Cost (DRC) method, which is very similar to the Contractor's Basis used in valuation for rating. To assist with the NLB's asset valuations a multi-disciplined group of engineers have determined a list of MEAs, or standard structures. These are listed below and the associated unit cost rates should allow for the valuation of all structures present in Scotland.

## 5.2 Unit Cost Rates

5.2.1 **Major lights** are all, apart from three, towers of the traditional interlocked stone type and are all over 100 years old, the earliest still in use being over 200 years old. They are sited in strategically important locations requiring navigational light. There are generally ancillary buildings consisting of workshops, stores, plant houses etc., apart from at a few sea rock lighthouse towers. The former living accommodation in tower lighthouses is now used for maintenance purposes. In many cases, due to automation, ancillary buildings are now unused and empty. Checks should be made to see if these have been let or sold to 3<sup>rd</sup> parties and the Valuation Roll entry amended if required.

5.2.2 The rates specified in 5.2.3 below should be used for the valuation of major lights, with ancillary buildings valued using the rate specified in 5.2.5.

### 5.2.3 Cladded Lattice Lighthouse Towers

Cladded lattice towers are the modern equivalent to traditional lighthouse towers of stone or brick construction, which tend to be 100 to 200 years old. A lattice tower is a structure that uses a series of triangulated interlocking steel members, specifically sized to provide the robustness necessary for towers of different heights. The lattice structure would then be cladded to provide a conspicuous daymark.

The Cladded Lattice Towers category is intended for those structures of greater height to exhibit a larger navigational range and a more conspicuous daymark. The structure is substantial enough to house the control room and overnight accommodation if required.

It is assumed that all lighthouses require a control room and this is always included in the MEA. The value of the accommodation (set at £66,000) is separated out and should be applied if present and appropriate.



Example of basic lattice structure (approx 15m tall)

<u>Size Variant</u>	<u>Height Range</u>	<u>Structure Cost</u>	<u>Installation Cost</u>	<u>Other Costs</u>	<u>Total Cost</u>
Low Rise	15m – 22m	£291,750	£316,000	£386,500	£994,250
Medium Rise	23m – 29m	£340,250	£368,750	£402,500	£1,111,500
High Rise	30m and over	£389,000	£421,500	£418,250	£1,228,750

“Other costs” include those which are affected by the scale of the structure (i.e. front-end investigations) and contribute to the final valuation but are not classifiable under “structure” or “installation” costs.

#### 5.2.4 **Ancillary Buildings**

Brick, stone or concrete workshops, stores and plant buildings. Including service plant. Value according to appropriate Rating Cost Guide Scotland rate for an equivalent building specification.

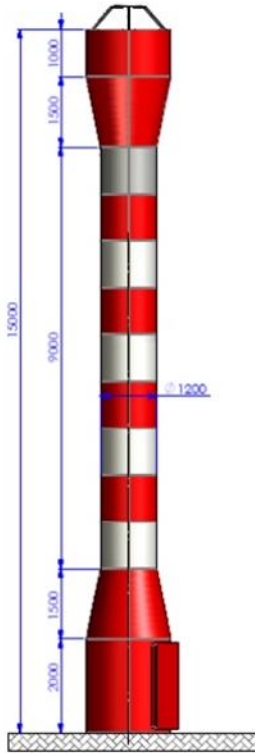
5.2.5 **Minor lights** are generally of local navigational importance. They are of modest height and are in the nature of automatic beacons. They are site specific and can vary greatly in nature and appearance. The foundations, main structure and power generating plant are rateable. They are generally powered by mains electricity or solar power. A variety of constructions have been used over the years.

5.2.6 The appropriate rates for minor lights should be chosen from sections 5.2.7 to 5.2.9 below, dependant on the construction and type of minor light being considered.

#### 5.2.7 **Glass reinforced Plastic (GRP) Towers**

GRP towers are made up by fixing sectional units of glass-reinforced plastic (or fibreglass) together and provide a height of between 5m to 15m in height.

Stations which have been categorised as GRP Tower, should be those structures which do not require a substantial daymark and whose installation can be housed within a slender GRP structure, or adjacent secure GRP housing. There is no provision for overnight accommodation.



Example of a GRP Tower



Example of GRP Housing

Size Variant	Height Range	Structure Cost	Installation Cost	Total Cost
Low Rise	up to 6m	£32,000	£27,750	£59,750
Medium Rise	7m – 12m	£43,500	£34,000	£77,500
High Rise	13m and higher	£54,000	£40,000	£94,000

### 5.2.8 Stainless Steel Towers

A stainless steel tower structure is a stand-alone tower clad in marine-grade stainless steel. Due to its heavy resistance to corrosion it would be a long-term solution appropriate for most island and remote island locations. This structure does not provide for accommodation but is sufficiently sized to house control equipment and designed in such a way to provide a secure elevated position to mount solar panels. The structure is left unpainted and isn't relied upon to exhibit a daymark.



Example of stainless steel tower structure (approx 7m tall)

<u>Size Variant</u>	<u>Height Range</u>	<u>Structure Cost</u>	<u>Installation Cost</u>	<u>Total Cost</u>
Low Rise	up to 6m	£77,250	£75,750	£153,000
Medium Rise	7m – 12m	£105,000	£151,500	£206,500
High Rise	13m – 25m	£130,500	£227,500	£358,000

### 5.2.9 Blockhouse Structures

A blockhouse is a robust structure which is simple to build and is usually constructed by local tradesmen using locally and readily procured materials.

The structure is appropriate for particular applications, such as housing a Directional or Port Entry Light (PEL). Such a light does not normally need to be at a height as it is normally required only for relatively short range. The light points in one direction so a lantern room is not required. The PEL equipment itself will benefit from being housed within a solid structure, so wind vibrations are eliminated.

This type of structure also provides improved physical security compared to other structures. This may be appropriate in more urban areas where there is a high possibility of unauthorised interference. A blockhouse with a flat roof can be used as a platform to install an external lantern, or Solar Panels in a secure manner as

the structure itself will provide physical protection from interference from ground level.

Such structures are also found at sites which already have height (e.g. cliff top) and therefore the building of a tower is not required.



Example of Direction Light & blockhouse with PEL installed internally

Size Variant	Height Range	Structure Cost	Installation Cost	Total Cost
Standard	3m	£21,000	£96,250	£117,250

### 5.3 Adjustments to ERC

5.3.1 As outlined in section 4.2 above, no further adjustments in respect of contract size or additions for professional fees should be made as these are already reflected in the rates recommended.

5.3.2 The figures recommended in 5.2 above are suitable for most subjects located on the Scottish mainland. For subjects located in locations where there is limited or no direct road access, or on islands it is recommended that these rates be adjusted to reflect the increased construction costs associated with such locations.

## 6.0 Adjusted Replacement Cost (ARC)

6.1 In applying age and obsolescence allowances reference should be made to guidance in SAA Basic Principles Committee Practice Note 2 (Contractors Basis Valuations) Table A at Appendix 1 should be used. In particular it should be noted that allowances in respect of age in excess of 50% should only be given to buildings (other than traditional lighthouse towers) and plant in exceptional circumstances. It is recommended that due to the exposed nature of these structures the buildings table of allowances is used throughout.

6.2 If appropriate, further allowances of a functional or technical nature should be considered with reference to the SAA Basic Principles Committee Practice Note 2 (Contractor's Basis Valuations).

6.3 It may be appropriate in the case of traditional lighthouse towers to grant an all-encompassing age, condition and obsolescence allowance of up to -65% to reflect factors identified at 6.2 above. Those subjects of a more contemporary design should be based on their actual age, but reflecting any refurbishment, or accelerated deterioration of their fabric due to their location.

## **7.0 Land**

7.1 Local evidence should be used to derive an appropriate land rate.

## **8.0 Decapitalisation Rate**

8.1 The appropriate statutory decapitalisation rate should be used.

## **9.0 End Allowance**

9.1 Any factors or circumstances which might affect the value of the occupation of the lands and heritages as a whole should be reflected at this stage. However, in this consideration it should be noted that by their very nature many subjects covered by this Practice Note are situated in remote and hard to access locations. So any form of allowance considered for these factors should be carefully reviewed to ensure that it is appropriate.