

1853.

VICTORIA.

LIGHTHOUSES.

CORRESPONDENCE RESPECTING THE LIGHTING OF THE
COAST OF THIS COLONY.

*LAI*D upon THE COUNCIL TABLE, by THE COLONIAL SECRETARY, by command of HIS
EXCELLENCY THE LIEUTENANT GOVERNOR, and ordered by THE COUNCIL to be printed,
31st August, 1853.

COPY OF HIS EXCELLENCY'S MINUTE RESPECTING THE GABO ISLAND
LIGHTHOUSE CORRESPONDENCE.

I think that the whole question is one which ought to be considered and deter-
mined upon by the Legislative Council, and in laying before them the correspondence with
the New South Wales Government, respecting the Cape Howe Lighthouse, a Select
Committee for full enquiry into the subject might be moved for.

(Signed)

C. J. LA TROBE.

16th June, 1853.

(COPY.)

Port and Harbor Office, Williamstown,
10th June, 1853.

SIR,

I HAVE the honor to submit for the consideration of His Excellency the Lieutenant
Governor, a few suggestions relative to the better lighting of this Port and the entire Sea-
board of this Colony.

2. In my Report which accompanied the Estimates for 1853, I drew attention to
what then appeared to me, to be a necessary alteration in the light at the Heads.

Since that time a leading Lighthouse has been contracted for, which I am informed
will be erected within two months.

3. In accordance with His Excellency's instructions the Colonial Architect and
myself examined the reef at Point Lonsdale, for the purpose of ascertaining how far it would
be practicable to erect a permanent Sea Lighthouse there, but Mr. Ginn being of opinion
that it was advisable to have the nature of the reef examined *underneath the surface*, before
furnishing a Report, I left that work in his hands; and in a conversation I recently had with
that gentleman, he said, the boring had not been effected owing to the difficulty of procuring
qualified men to undertake it. He was further of opinion that it would not be advisable to
erect the Lighthouse on the reef; in this opinion I now concur, because the leading light
will effect one of the objects I had in view in proposing the extreme point of the reef as a
site for the Lighthouse, namely—to guard vessels from the reef by shewing them the limits
of the danger.

4. I beg respectfully to bring the whole subject again under the notice of His
Excellency the Lieutenant Governor, and would recommend that a plan be prepared for an
iron Lighthouse, fifty feet high, to be erected on the high land at Point Lonsdale, which is
the proper and natural site for a light to guide mariners into this port.

5. The lighting apparatus ought to be of the first class, and capable of being seen in
ordinary weather at least thirty miles, and of the description characterized as a Flash Light,
flashing at intervals of every ten seconds. A distinction of this sort is necessary in order to
prevent the Heads' light from being mistaken for the Harbor lights.

6. I am of opinion that the foundation of the tower will have to be built on screw
piles, as the best site for the Lighthouse is on the top of a sand hill; this process of securing
Lighthouses and beacons is now very generally used in England, when the nature of the soil
does not admit of a stone foundation.

7. With reference to the question whether Point Lonsdale or Cape Schank be the
best place for a Lighthouse, I think it is one of very easy solution; if the object of an

additional light be to guide mariners to the entrance of this Port, it requires no great skill to show that a light at the very entrance, is better than one seventeen miles from it.

8. Point Lonsdale being the most seaward point of the Port, the land high and bold, which can be approached within two cables length with safety, a Lighthouse there would be seen from all points to seaward, where a vessel would float within a range of seventeen miles to the south-east, and as far as the power of the light may extend to the south-west. The tower would serve as an admirable day mark, and also prevent the possibility of any vessel mistaking the Barwon Heads for the entrance of this Port, which occurred some time back in the case of the ships *President* and *Tenasserim*, both of which vessels got ashore in the bight between the Barwon Heads and Point Lonsdale. My reason for recommending that the tower, on Point Lonsdale, should be constructed of iron is, that were it built of stone all the material would have to be transported for a considerable distance, and the best site being simply a "sand hill," there would be great difficulty and trouble in getting down to the rock for a solid foundation, which will be obviated by using the screw piles, and an iron Lighthouse can be erected in one-third ($\frac{1}{3}$) the time.

I herewith forward a copy of the Circular of a Birmingham House, from which it appears that an iron Lighthouse complete, could be furnished at a very moderate rate, and as the Leading Light will not, I suppose, exceed Two Thousand Pounds, a balance of Thirteen Thousand Pounds will be left out of the sum voted last Sessions for a Light at the Heads.

£2,000.
£13,000.

Morant Point,
Jamaica.
Bermuda.
Point de Galle,
Ceylon.
Barbadoes.

With reference to any objection which may be raised against the use of metal for a Lighthouse, I would remark that iron has been used in many places for this purpose, and found by experience to stand well. Iron Lighthouses have been erected at the places mentioned in the margin, to my knowledge for many years.

I would respectfully submit, that should His Excellency approve of this Lighthouse being constructed of iron and at the site proposed, that a plan of the Bay be drawn, to embrace the entrance as far as Shortland's Bluff, and from thence thirty miles to seaward, upon which place the site should be marked and a Geological description of Point Lonsdale; this plan and description could be furnished by Mr. Skeen, who is at present laying out a Township at the Heads.

I have, &c.,

(Signed)

CHARLES FERGUSON,
Port and Harbor Master.

The Honorable the Colonial Secretary,
&c., &c., &c.

[COPY.]

Birmingham,
21st March, 1851.

GENTLEMEN,

In further reply to your favor of yesterday, but in the absence of particulars, we find it very difficult to give a definite reply; we do not think however, that a cast-iron Lighthouse with light apparatus complete, eighty-five feet high to the gallery platform, fifteen feet external diameter at the base, tapering truly and gradually upwards to a diameter of seven feet six at the top of the column under said platform, would exceed in cost the sum of £3,300, delivered free on board in Liverpool; or that a Lighthouse as above, seventy feet high, twelve feet six inches in diameter at base, and ten feet diameter at top of column under lantern, would exceed £2,500; observe that these prices merely provide for the tower and light apparatus—not for any masonry in the foundations.

We are, &c.,

(Signed)

JOHN LORD & Co.

P.S.—These would be turned out A. 1.; every minute dimensions, &c., &c., would be required.

Messrs. Ryrie Brothers.

Port and Harbor Office,
Williamstown, 14th June, 1853.

SIR,

With reference to my letter No. 53 | 85 11th of this date, respecting a Lighthouse on Point Lonsdale, I beg respectfully to submit for the consideration of His Excellency the Lieutenant Governor, that as the Foreign and Country Trade to this Colony is now increasing so rapidly, especially the steam traffic, it becomes a matter of grave consideration that a coast such as ours, possessing so few harbors, should be well lighted; I would therefore with this in view, submit in order to meet the wants of the Colony in this respect, that immediate steps should be taken to erect two additional coast Lights, one at Cape Northumberland, and

the other on Wilson's Promontory, or if practicable on Cleft Island near that promontory; a look at the coast map will shew that Cape Northumberland is in the province of South Australia, but as it is a turning point in our coast navigation, I consider it a better situation for a Lighthouse than Cape Wilson, which is the next prominent head land to it in this province.

I would respectfully submit whether a similar proposal to that recently made by the Government of New South Wales, with reference to the Cape Howe Lighthouse, might not now advantageously be made to the Government of South Australia, namely:—that the proposed Lighthouse being in their province, it should be erected by them, but the entire expense of erection and maintenance to be borne equally by both Governments; and with reference to the other position, namely, Wilson's Promontory, this also is a turning point in navigation and surrounded with many dangers, which would be materially lessened by the erection of this Lighthouse. A Lighthouse here would be of incalculable importance to the maritime interests of this Port and the Colonies at large; and I am quite sure that any steps taken towards procuring it, would be looked upon by masters of vessels and all who have occasion to pass that part of the coast, as a real boon.

Should His Excellency concur in this view, I would submit that a circular be written to the commanders of Vessels in the trade, requesting their opinion as to the best site; and in the mean time the Lantern and Lighting apparatus might be at once sent to England for.

I have, &c.,
(Signed) CHARLES FERGUSON,
Port and Harbor Master.

The Honorable the Colonial Secretary,
Melbourne.

No. 53. | 5700.
No. 53. | 42.

NEW SOUTH WALES.

Colonial Secretary's Office,
Sydney, 15th July, 1853.

SIR,

I do myself the honor to acknowledge the receipt of your letter of the 29th ultimo, stating that His Excellency the Lieutenant Governor of Victoria concurs in the views of this Government, as communicated to you in my letter of the 18th June last, No. 53 | 35, for the erection of a temporary Wooden Light House on Gabo Island, and in reply I am directed to request that you will have the goodness to convey to His Excellency, the Governor General's thanks for his ready co-operation in this work.

2. I am at the same time directed to inform you, in reference to the second and third paragraphs of your communication, that the Colonial Architect has been called upon to recommend properly qualified persons for appointments to the establishment necessary for maintaining the Light when erected, and to furnish an estimate of the probable expense of maintaining the establishment, and that as soon as his report shall have been received, a further communication will be made to you for the information of Lieutenant Governor La Trobe.

I have the honor to be

Sir,

Your most obedient servant,

(Signed) E. DEAS THOMSON.

P.S.—You will oblige me by furnishing, at your earliest convenience, a statement in detail of the establishment for the maintenance of the Light at Cape Otway, with the salary and allowances paid to each individual; and also of the contingent expenses attending the same, including the cost of oil, casks, and repairs, conveyance of stores by sea, stationery, &c. This should of course include the gold increase.

The Honorable the Colonial Secretary,
Victoria.

STATEMENT of the Establishment for the maintenance of the Light at Cape Otway, with Salary and Allowances paid to each individual; also of the contingent expenses attending same, for the year 1853.

	£	s.	d.
Lighthouse keeper per annum.....	300	0	0
Two Assistants, each per diem.....	0	12	0
Oil.....	470	0	0
Casks, cooperage, &c.....	80	0	0
Stationery and contingencies, as glasses, leathers, cloths, &c.	120	0	0

The stores have been conveyed to Cape Otway this year by vessels attached to the Harbor Master's Department; the expense would have been about £250 if a vessel had been chartered.

(Signed) JAMES BALMAIN,
Acting Colonial Architect.

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5520.

NEW SOUTH WALES.

Colonial Secretary's Office,
Sydney, 5th August, 1853.

SIR,

I am directed by the Governor General to acknowledge the receipt of your letter of the 17th June last, in which you request to be furnished with a memorandum of the provision which it may be necessary to make towards meeting the expense of erecting a first class Light and suitable Iron Pillars on Gabo Island, including the future cost for maintaining the establishment, and to inform you in reply, that this matter is superseded for the present by the measures authorized, as communicated to you in my letter of the 18th June last, No. 35, for the erection of a Wooden Framework.

2. You also request to be furnished with an account of the sums already paid from the revenue of the Colony of Victoria towards the erection of the Lighthouse on Gabo Island, and having referred to the Auditor General for the necessary information, I am directed by His Excellency to inform you that it does not appear that the Government of Victoria has contributed any sum for the erection of the Lighthouse; and also, that no portion of the expense hitherto incurred on that account seems to have been charged to that Government.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed)

E. DEAS THOMSON.

The Honorable the Colonial Secretary,
Victoria.

No. 53 | 629.

[COPY.]

VICTORIA.

Colonial Secretary's Office,
Melbourne, 19th January, 1853.

SIR,

I have received instructions from the Lieutenant Governor to communicate to you his desire to be furnished with information as to any measures which His Excellency the Governor General may be pleased to contemplate with regard to the proposed erection of a Lighthouse on Gabo Island.

2. I am commanded to request that you will have the goodness to express to Sir Charles Fitz Roy the Lieutenant Governor's anxiety to see the important work in question proceeded with, and to inform him that Mr. La Trobe is desirous of knowing if it may not be in his power to assist in furthering so desirable an object.

3. His Excellency is however under the impression that Gabo Island is within the limits of this Colony, and should the Governor General concur in this belief, I am directed to state that if the obstacles still exist which appear to have interposed in the way of the erection of the Lighthouse by the Government of New South Wales, the Lieutenant Governor sees no reason why the work should not be performed by that of Victoria.

I have, &c.,

(Signed)

W. LONSDALE.

The Honorable the Colonial Secretary,
New South Wales.

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[COPY.]

NEW SOUTH WALES.

Colonial Secretary's Office,
Sydney, 2nd June, 1853.

SIR,

I am directed by the Governor General to acknowledge the receipt of your letter of the 19th January last, communicating the desire of His Excellency the Lieutenant Governor of Victoria to be furnished with information as to any measures in contemplation by this Government in regard to the proposed erection of a Lighthouse on Gabo Island, and in reply I am directed to inform you that an earlier answer would have been given to your communi-

cation but that it was considered desirable previously to obtain the report of an officer of the Colonial Architect's department, who had been sent to Gabo Island to make a survey and examination of a site for the proposed Lighthouse.

2. The Report of the officer alluded to having been referred to Captain King, R.N., that officer has stated that he retains the opinion formerly expressed by him, as to the preference to be given to Cape Howe over Gabo Island as the site for the Lighthouse, and added that the objections to either the one or the other site (and the objections are comparatively of minor importance) should not be considered, but that the selection should be made wherever the Light can be most expeditiously established. Captain King proposed certain queries to be answered by the gentleman of the Colonial Architect's department who conducted the recent survey of the localities, with a view to elicit more fully the objections (if they exist) to the choice of Gabo Island.

3. The Governor General having laid before the Executive Council the reports received on this subject, I am directed to inform you for the information of the Lieutenant Governor of Victoria that the Council having fully considered the relative advantages which attach to the adoption of the one or the other site, have finally advised that the intended Lighthouse be erected on Gabo Island, in a position recommended by the late Captain Stanley, and that the offer of the Government of the Colony of Victoria, expressed in your letter of the 19th January, to participate in the undertaking be accepted on the following conditions :—

(1.) That there being already in the Colony a first-class Light, this Government should, to prevent delay, take the necessary steps for procuring from England an iron pillar on which to erect the Light, the pillar to be of such a height that the Light when erected shall be one hundred and twenty feet above the level of the sea.

(2.) That when the necessary pillar has been procured it will be convenient that the erection of it should be undertaken by the Government of Victoria, Gabo Island being situated within the limit of that Colony, and that for the same reason it will be desirable that the maintenance of the Light should be undertaken by that Government.

(3.) That the entire expense, as well of the original outlay for the pillar and lantern as for the maintenance of the Light, should be borne in equal proportions between this Colony and Victoria.

(4.) In conclusion, I am directed to request that you will have the goodness to apprise me of the views of His Excellency the Lieutenant Governor of Victoria on the proposal now communicated to you.

I have the honor to be,

Sir,

Your most obedient servant,

(Signed)

E. DEAS THOMSON.

P.S.—Copies of the Reports alluded to are forwarded herewith.

The Honorable the Colonial Secretary,
Victoria.

[COPY.]

The Colonial Architect to the Honorable the Colonial Secretary, forwarding Mr. Weaver's Report on site for Lighthouse, Cape Howe.

Colonial Architect's Office,
Sydney, 3rd March, 1853.

SIR,

In attention to your letter of the 19th ultimo, No. 79, relative to the survey and examination of a site for the proposed Lighthouse at Cape Howe :—

2. I do myself the honor herewith to transmit Mr. Weaver's Report upon the locality and upon the former works at Gabo Island, together with three plans; one of the coast generally, a plan of the Cape, and a section of the same, from which it appears that there does not exist any practical difficulty in erecting a Lighthouse on Cape Howe, but the balance of advantages would seem to be in favor of Gabo Island as a situation for the Light.

1st March, 1853.
Report enclosed, three plans accompanying.

I have, &c.,

(Signed)

EDMUND T. BLACKET,

Colonial Architect.

The Honorable the Colonial Secretary,

&c., &c., &c.

A.—No. 6. b.

[COPY.]

Colonial Architect's Office,
Sydney, 1st March, 1853.

SIR,

In laying before you the accompanying plans and sections, the result of my recent survey at Cape Howe, I have the honor to report thereon as follows:—

In carrying out your instructions to proceed to Cape Howe to survey and examine the locality, and to select a site for the erection of the proposed Lighthouse, I left Sydney for Eden, Twofold Bay, by steamer, and not being able to procure a conveyance for my equipment overland, I despatched the same by whale boats, although from the great difficulty and frequent danger in effecting a landing near the Cape, this means of communication cannot be depended on.

For the purpose of examining the country with reference to the formation of a road from Eden to Cape Howe, I walked over the track referred to in Mr. Massie's communication to the Honorable the Colonial Secretary of the 16th October, 1851, and which is shewn by a dotted red line on the accompanying general plan (No. 1.)

This track, after crossing the Towamba or Walker River in three places, diverges considerably from a direct course in order to cross the River Womboyne, which is effected at the Station known as Noora Barba, it then bears direct to the coast, passing over granite ranges thickly timbered.

Here the greatest difficulties in the formation of a road will commence, in consequence of its being necessary, from the extremely broken nature of the country, to descend to the sandy beaches, the approaches to which are in many cases precipitous, and at present render the passage of a dray *perfectly impossible*. Near "Mudgee" the track traverses sandy beaches at the mouths of two saltwater lakes, which, after heavy rains, open to the seas making a breach in the sand; these occasions are, however, rare, and when open the lakes are fordable at low water. As the track approaches Cape Howe the sandy hillocks, which entirely surround the Cape, stretching back towards the ranges and for many miles on the south-west coast, will render the latter part of the road at best difficult and heavy.

There are, however, in my opinion, no insurmountable obstacles to the formation of a road which will be always practicable for a dray with a minimum load of 20 cwt.; and from as careful an examination as circumstances would permit, both on my walk down and returning, I estimate the cost of the same at an average of £15 per mile. The distance from Eden to Cape Howe, by this route, will be about 45 miles.

This distance may, however, probably be shortened, when the country is more thoroughly examined with reference to the most direct line which can be adopted.

I now come to the consideration of the site for the proposed Lighthouse and buildings, with regard to which I have little to remark beyond what is apparent from the plans and sections. Cape Howe is a low tongue of land, stretching out from the ranges from four to five miles; the intervening country being a succession of sand hillocks and flats covered with scrub. Its formation at the point where the vegetation ends is a sandy loam deposited on a bed of granite of an exceedingly close grained, hard nature, at an elevation of only eighteen feet above the level of the sea.

Running almost parallel with the coast line, at a distance of about 150 yards, is a sand bank, as shewn on plan No. 2, and between it and the sea a low flat, little better than a swamp, terminating in a gentle slope to the sea, with a beach of granite boulders of various sizes.

At the north end of the Cape the sea face is a reef of flat granite rocks, not more than ten feet above the level of the sea at the highest point, and subject to the action of the surf, the bed of which dips to the southward, and at low water may be traced along the entire sea frontage. This bed of rock I have no doubt underlies the whole of the swampy flat before referred to, and was proved by me at the several points and depths shewn in the plan.

At these points holes were excavated in the sand till the rock was laid bare, although the rapid percolation of water rendered it a matter of some difficulty, and prevented my proving the rock farther in a southerly direction as I wished: I was however compelled to desist after boring to a depth of eleven feet, (which was as far as the water would allow) at the point marked W on plan, without striking the rock.

The extreme hardness of the rock rendered it impossible for me to prove the depth of the bed. The edges of all my tools (which in the Sydney sandstone would have bored a hole to a depth of upwards of twenty feet,) became perfectly blunted in "jumping" a hole only *four inches* deep.

Under these circumstances therefore I have selected the part tinted red in the plan, (No. 2,) as the most desirable site on Cape Howe for the erection of a Lighthouse. The rock being at an average depth of only four feet below the surface of the ground at this point, no difficulty would be experienced in laying the foundations, whilst there is ample space around equally favorable for the erection of all necessary buildings.

The surface of the ground at this point is fifteen feet above the ordinary high water mark. The absolute base or foundation of the Lighthouse would therefore be only eleven feet above the level of the sea.—If the building were placed farther south as may at first sight appear desirable, considerable additional expense would be incurred in sinking the rock, in consequence of the increased depth of sandy soil, and the rapid drainage of water through it.

With regard to the building materials to be found in the neighborhood; I have before remarked that the stone at Cape Howe is a granite of the hardest description, and lying in such low beds as to render the quarrying and working it exceedingly expensive. The “freestone” which is reported to exist near Cape Howe, is an upper bed so soft and friable as to be totally unfit for the purpose.—Sound timber fit for the construction of a large building, cannot be procured to advantage nearer than eleven miles distant—There can therefore be no doubt that a skeleton iron Lighthouse, would be by far the best and most economical description of Building to erect in such a locality.

Availing myself of the boat which conveyed my equipment to the Cape, I embraced the opportunity of visiting Gabo Island; having been informed there were materials remaining from former works there, which would be of service in any future operations—The only articles I found there are the iron rails and chains which formed the railway, and two crab winches. The whole of the iron work is so corroded from exposure as to be unfit for present use, and scarcely worth the expense of removal.

The weather having suddenly set in very unfavorable I was unfortunately weather bound on the Island four days, from its being unsafe to attempt a landing on the mainland opposite the Island, during which time I had ample opportunity to examine both the site of the former works and the Island generally.—Its formation is a bed of granite of a more granular description than that at Cape Howe, and generally speaking at an elevation of about twenty feet above the level of the sea. In the middle of the Island the granite is covered with sand hills varying in height from fifty to eighty feet, and on the top of one of the highest of these is the site of the former works. The site in Gabo Island best adapted for the erection of a Lighthouse, is in my opinion the extreme south-eastern point, where ample space will be found on a flat bed of bare granite, and which is the spot recommended by the late Captain Owen Stanley. Here several hundred feet of stone have been quarried, and are lying in blocks fit for building.

Before concluding my Report on this subject I consider it my duty to state for the consideration of His Excellency the Governor General, that after a careful examination of the various bearings of this part of the coast, and from a knowledge of the locality acquired after a months sojourn there, it is my firm conviction that a light placed on Gabo Island, would be of more service than one on Cape Howe, and that the former should therefore be selected as the site for the proposed Lighthouse.

The object in placing a light on this part of the coast appears to me to be as a mark for vessels coming from the southward and westward, and which after having lost the land for some time may make this Point at night, without being driven unnecessarily far to seaward in bad weather. This object I submit would be more effectually attained if the light were placed on the Island; and in this opinion I am borne out by the recommendation of the late Captain Stanley, and of several Masters of coasting and other vessels with whom I have conversed on the subject.

Here again I have no hesitation in recommending the use of iron as a material which will be found the most economical and best adapted; and I have no doubt that a building of this kind would be erected on Gabo Island at considerably less expense than on Cape Howe.

Means of communication with the Island are neither so difficult nor dangerous as is generally supposed—the numerous accidents attended with loss of life which took place there during former works, occurred as far as I can learn in every instance, to parties attempting to land in boats on the mainland opposite the Island, which is almost always attended with danger.

I have, &c.,
(Signed) WM. WEAVER,
Clerk of Works.

The Colonial Architect.

[COPY.]

Paramatta, April 4th, 1853.

SIR,

I have the honor to acknowledge the receipt of your letter dated 28th March, enclosing three plans and a report from Mr. Weaver, of the Colonial Architect's Office, in which you request me, after a perusal of the various statements therein contained, to inform

the Government whether I still retain the opinion I formerly expressed, that Cape Howe is preferable to Gabo Island for a site for the Lighthouse. Having given the report my best attention and re-considered the subject in all its bearings, I see no reason to alter the opinion I have already given, as to the preference of the Cape for the site of the Light.

At the same time, there are no very material objections to the southern extremity of Gabo Island, provided the landing of the materials be as easily and safely effected as Mr. Weaver thinks it may be done.

The expense that by Mr. Weaver's report would be necessarily incurred to form the road from Twofold Bay to the Cape, nearly £700; independently of the present state of the labor market, which would not only increase the estimate, but cause great delay in completing it, is a serious consideration.

The early construction of the building is of very great importance to the coasting trade, particularly for steam vessels, wherefore I think that the few objections to the site of either the one place or the other (and the objections are comparatively of minor importance) should not be considered, but that the selection should be made wherever the Light can be most expeditiously established.

But whilst Mr. Weaver has fully detailed the difficulties in erecting the Lighthouse on the Cape, he has very slightly touched upon many that might be expected to be experienced in landing the building materials on the Island. I would therefore respectfully suggest, that the accompanying queries be submitted to Mr. Weaver for his replies, before any decision be come to.

I return the plans and Mr. Weaver's report.

(Signed) I have, &c.,
PHILLIP P. KING,
Captain R.N.

The Honorable the Colonial Secretary.

[COPY.]

The Colonial Architect to the Honorable the Colonial Secretary, returning queries relative to site for Lighthouse, Gabo Island.

Colonial Architect's Office,
Sydney, 21st April, 1853.

SIR,

In attention to your letter of the 14th instant, No. 130, relative to Mr. Weaver's report on the site for the Lighthouse proposed to be erected on Gabo Island.

2. I do myself the honor to return the list of questions proposed by Captain King, with Mr. Weaver's answers written thereon.

(Signed) I have, &c.,
EDMUND T. BLACKET,
Colonial Architect.

The Honorable the Colonial Secretary,
&c., &c., &c.

[COPY.]

- | | |
|---|---|
| 1. Have you made any plan of the anchorage under Gabo Island where a vessel may lie whilst delivering her cargo? | 1. No. |
| 2. How near to the shore can the vessel lie at anchor, and how near could she be hauled in towards the landing place? | 2. A vessel of about sixty tons (which would be the size best adapted for the conveyance of cargo to Gabo Island), can lie with safety at a distance of one hundred yards from the land, and can be hauled in to within thirty feet of the landing place. |
| 3. What is the rise of tide? | 3. About six feet. |
| 4. Is the landing place rocky or a sandy beach; is it of shoal approach or steep? | 4. The landing place is a sandy beach with ledges of rock on either side, which form the only place on which cargo can be discharged out of a vessel. |
| 5. Would it or would it not be necessary to construct a wharf, for the purpose of erecting a crane or shears to unload the boats? | 5. Although <i>not</i> indispensable, the erection of a small wharf would of course improve the landing place. Shears must be erected in any case, either on the rocky shelf above-named or on the wharf. |

6. During the four days you were detained upon the Island, was the landing so bad as to prevent a boat from landing or leaving the Island?
7. Could the vessel be unloaded during westerly winds of moderate strength?
8. Could the vessel remain with safety at the anchorage during strong southerly or south-westerly winds, if lying at heavy moorings from which the vessel would not be likely to part?
9. Upon landing the materials how could they be conveyed to the place where the building is to be erected?
10. What is the distance?
6. There was no difficulty nor danger in landing or leaving the *Island* during my detention there. The cause of my detention was the impossibility of effecting a landing on the *Mainland* after leaving the *Island*, in consequence of the heavy surf which was breaking over the reef of rocks lying between the *Island* and the *Main*.
7. Yes, if properly moored.
8. Yes.
9. A road or track sufficient for the purpose could be formed at little expense, and a team of bullocks would be required to carry the materials to the site.
10. Nearly a mile.

(Signed)

WM. WEAVER,
Clerk of Works.

19th April, 1853.

[COPY.]

VICTORIA.

G. B.
No. 53 | 6943.Colonial Secretary's Office,
Melbourne, 17th June, 1853.

SIR,

I have the honor to acknowledge the receipt of your letter and enclosures of the 2nd instant, No. 1056, containing the proposals of His Excellency the Governor General for the erection of a Lighthouse on Gabo Island, to the effect, that this Colony should undertake the execution of the work, the Government of New South Wales providing a first class Light and suitable iron pillar, and that the entire expense of every description, including the future cost for maintaining the establishment, should be borne by both Colonies in equal proportions.

2. In reply, I am directed by Lieutenant Governor La Trobe to express His Excellency's full concurrence with the above propositions, and at the same time to request that you will have the goodness to move Sir Charles Fitz Roy to direct a memorandum to be forwarded of the provision which it may be requisite to make towards carrying out the work; and also an account of the manner in which the sum already furnished from the revenue of this Colony towards this erection has been expended, in order to lay the statement before the Legislative Council. *

I have, &c.,
(Signed)

W. LONSDALE.

The Honorable the Colonial Secretary,
New South Wales.

[COPY.]

NEW SOUTH WALES.

No. 53. | 5014.
No. 53. | 35.Colonial Secretary's Office,
Sydney, 18th June, 1853.

SIR,

With reference to my letter of the 2nd instant, No. 31, communicating to you the measures in contemplation by this Government for the erection of a Lighthouse on Gabo Island, I am now directed by His Excellency the Governor General to apprise you, for the information of His Excellency the Lieutenant Governor of Victoria, that it is proposed to take measures at once for the erection at the Island of a wooden frame of sufficient strength and stability to receive the Lantern intended for that locality, which, as mentioned in my letter alluded to, is now in the Colonial Store.

A.—No. 6. c.

2. It is proposed to place the wooden frame on one of the sandy hummocks on the Island, which, being of considerable elevation, renders it unnecessary that the column should be of greater height than from 20 to 25 feet, and it will be so constructed and placed as to form a beacon by day as well as a light by night.

3. It is proposed to prepare the wooden frame in Sydney, and to send it down ready for immediate erection on the spot, in the vessel which it will be necessary to engage for the conveyance of the lantern, and an officer under the direction of the Colonial Architect will be sent to the Island to superintend the work.

4. I am directed to observe that although the site is within the boundaries of Victoria, the Governor General has no doubt, from the anxiety which has been expressed by Lieutenant Governor La Trobe for the early accomplishment of this object, and from the greater facilities which at present exist here for the execution of the work, that His Excellency will approve of the measures which it has been considered expedient to adopt for the purpose.

5. It is intended, of course, to leave to the Government of Victoria the appointment of the Superintendent and other establishment necessary for the maintenance of the Light, as well as to make all other arrangements proper for continuing it in a state of efficiency, so soon as it can be brought into operation, which it is hoped may be the case in little more than two months from the present time; but as both Colonies are equally interested in the matter, the Governor General will propose to the Legislative Council of this Colony to make provision for a moiety of all expenses attending the establishment and future maintenance of the light.

6. For the information of His Excellency Lieutenant Governor La Trobe, I have the honor to forward a copy of the bill of parcels of the lantern, lamps, &c., as received from the Colonial Agent General.

I have the honor to be, &c., &c.,

(Signed)

E. DEAS THOMSON.

The Honorable the Colonial Secretary,
Victoria.

[COPY.]

CONTENTS of CASES containing LANTERN and FRAME and APPARATUS, LAMPS, REFLECTORS,
PLATE GLASS, &c., for CAPE HOWE LIGHTHOUSE.

Nos.	Cases.
1.	One case—16 roof plates, 16 brackets and plates for securing eaves.
2.	ditto 16 cast iron rolls for roof, 48 screws, and 6 extra.
3.	ditto 8 rafters, 16 curtain hooks, 4 extra, 17 dozen screws for roof, 3 dozen extra.
4.	ditto 8 rafters.
5.	ditto 6 uprights, 15 eave plates.
6.	ditto 5 uprights, 1 eave plate with angle water-pipe, 48 uprights, 32 cross bars, 16 top curb facings.
7.	ditto 5 uprights, 16 purline bars with bolts and nuts, 196 screws for uprights and cross bars, and 24 extra.
8.	ditto 32 cross bars, 32 rivets, 6 extra.
9.	ditto 8 pieces top curb, 8 halving bolts and nuts.
10.	ditto 4 pieces bottom curb, 4 halving bolts and nuts.
11.	ditto 4 pieces bottom curb, 4 halving bolts and nuts.
12.	ditto Hood and vane hoop of roof 2 lengths, water pipe with union screws, the copper point, feather, and dart.
13.	ditto 4 pieces top cross, with bolts and nuts supporting stand of spindle.
14.	ditto 2 reflector frames and stays.
15.	ditto 1 spindle for reflector frames, with collars and pins.
16.	ditto Ventilating apparatus complete, consisting of 12 long main tubes, and 12 shorter ditto, 24 bell mouthed bent tubes, with union screws, the copper protecting frame and main copper tubes, with condensing ball, fitted with brass tap for drawing off the water, 2 brushes for clearing tubes, 3 spanners for fitting ditto, 2 wooden handles for disconnecting the tubes when required, when hot, 1 circular iron frame for securing the tubes in their proper position.
17.	ditto Chest of tools.
18.	ditto 9 squares of plate glass.
19.	ditto 9 ditto ditto
20.	ditto 9 ditto ditto
21.	ditto 9 ditto ditto
22.	ditto 9 ditto ditto
23.	ditto 9 ditto ditto

24. One case—12 dozen glass cylinders for lamps.
 25. ditto 12 ditto ditto
 26. ditto 12 ditto ditto
 27. ditto 12 ditto ditto
 28. ditto 12 ditto ditto
 29. ditto 12 ditto ditto
 30. ditto 12 ditto ditto
 31. ditto 12 ditto ditto
 32. ditto 12 ditto ditto
 33. ditto 12 ditto ditto
 34. ditto 12 ditto ditto
 35. ditto 11 ditto ditto
 36. ditto 6 reflectors, Nos. 1, 17, 14, and 1 extra 16, 20.
 37. ditto 6 ditto ditto 22, 6, 11, 3, 2, 13
 38. ditto 6 ditto ditto 21, 19, 8, 18, 24, 15.
 39. ditto 7 ditto ditto 7, 5, 4, 9, 12, 23, 10.
 40. ditto 24 patent lamps, 3 extra ditto, 27 extra galleries, 27 extra cotton holders, instructions for trimming and sketch of burner, shewing the height the flame should be kept.
 41. ditto 1 oil cistern, 50 polishing leathers, 50 reflector cloths, 50 plate glass cloths, 72 oz. polishing powder, 2 trimming trays, 2 trimming cans, 6 receiving trays, 2 cylinder cases, 1 trimming belt, 2 brass hand lamps, 2 hand lanterns, 2 lighting burners.
 42. ditto 1 oil cistern, 50 gross cottons, 24 balls of cotton wick, 4 pair trimming scissors, 6 mandrills, 6 store cases, 1 set oil measures, 1 set funnels, 1 set of curtains
 43. ditto 1 oil cistern.
 44. ditto 1 ditto
 45. ditto 1 ditto
 46. ditto 1 ditto
 47. ditto 2 cwt. plate glass cement.
 48. ditto 2 cwt. white lead.

[COPY.]

EDWARD BARNARD, *Esquire*,

To WM. WILKINS, late R. WILKINS AND SON,
 Lighthouse Engineer,
 24, and 25, Long Acre, London.

CAPE HOWE LIGHTHOUSE.

1st May, 1847.

£ s. d.

A large strong malleable iron polygon lantern, 12 feet diameter, and 7 feet high in glass; the lantern constructed with strong upright standards jointed, and fitted to the top and bottom curbs with square halving joints and shoulders, with strong cross bars all dovetailed and fitted to the uprights, with large strong rafters, with bevelled shoulders fitted to the curbs and circular top frame of lantern; strong purlines with turned ends fitted to the rafters with screw bolts, and nuts to receive and support a large strong folded copper covering for roof, with copper tye plates, copper screws, bolts, and nuts, and strong copper circular top frame to secure the frame of lantern, with a large strong copper funnel, hood, and vane, with large copper feather and dart, highly gilt and varnished, mounted upon a turned iron upright arbor, with hardened steel pivots working on a steel centre in a metal receiver, with a strong double cross frame with turned collars and shoulders. The lantern all drilled, tapped, screwed, and fitted, with copper screws and facings, and glazed all round with best polished plate glass, made of double substance for the use of lighthouses, cut and fitted to the frames of lantern. The roof of the lantern prepared and fitted with strong copper projecting eaves with scroll supporter and conducting tubes to prevent the light being dimmed in bad weather; the whole prepared, jointed, and fitted in the best manner, with bolts, nuts, and screws ready to fix on the tower; including a strong wrought iron frame and apparatus mounted upon two tiers, prepared and fitted with 24 large strong silver-plated highly polished parabola reflectors of great power with 24 improved patent lamps, constructed for burning common oil, with brass burners, &c., to illumine the entire of the horizon: the whole of the works prepared and completed in the best possible manner ready to fix on the tower of the Lighthouse, including a complete ventilating apparatus upon Professor Faraday's principle, as per contract

1051 6 0

Amount brought forward... 1051 6 0

Stores and lighting materials necessary for exhibiting the light, viz :—

50 gross superfine patent cotton wicks.			
12 gross double annealed picked glass. Cylinders fitted to lamps.			
50 best polishing leathers.			
50 reflector cloths.			
50 plate glass cloths.			
24 balls cotton wick.			
72 ounces fine prepared polishing powder for reflectors.			
4 pair trimming scissors.			
6 mandrills.			
2 japanned trimming cans.			
2 japanned trimming trays with covers, wells, and strainers.			
6 strong tin cases, to contain and preserve stores, japanned inside and out.			
1 set of stamped imperial oil measures and funnels.			
1 lightkeeper's trimming belt.			
2 lighting burners, brass screws and copper spouts.			
2 brass hand lamps.			
2 hand lanterns.			
2 double tin cases, wooden bottoms to contain cylinders, with inside divisions japanned inside and out.			
1 set of curtains for the lantern, to protect the lamps and reflectors from the effects of the sun.			
6 large strong double tin oil cisterns, with 2 extra large best metal tower made lock cocks in each, with strainers, Rosse's lifting handles, painted three times in oil.			
6 strong double tin receivers, to prevent waste of oil, with covers, wells, and strainers, japanned inside and out.			
2 cwt. best prepared drying cement for fixing plate glass.			
2 cwt. best ground white lead for joints of lantern.			
3 extra lamps.			
1 extra silver-plated highly polished parabola reflector, in case of accident.			
27 extra cotton holders.			
27 „ brass framed galleries.			
6 „ squares of plate glass.			
The undermentioned tools in a strong chest for fixing the light, viz :—			
2 large screw drivers, 4 cold steel chisels, 2 cross cut ditto, 2 punches, 1 pair flat plyers, 1 pair of glass nippers, 2 screw wrenches, 2 spanners for framework, 1 box mallet, 1 frame saw f, 1 extra blade, 1 hand brace, 1 rymer, 1 countersink, 1 bench hammer, 1 side setting ditto, 1 hand hammer, 1 drift bolt, 1 round head hammer, 12 files various, 2 glazier's knives, 2 gouge chisels, 12 file handles, 2 crowbars, 1 large standing vice, including extra screws, bolts, nuts, &c., with working drawings to shew the manner of fixing the works, as per contract	167 2 0
46 very large and very strong iron bound packing cases and 2 casks some of the cases extra large and strong, with strong battens, including men's time, battening and packing iron binding, nails, screws, &c., with inside package	59 11 8
7 cwt. 3 qrs. 8lbs. fine tow, used in packing the lamps, reflectors, plate glass, chimneys, &c., &c. The tow coming in for the use of the light.			25 0 6
Cartage, toll, and expenses at various times per waggons to Brewer's Quay, including time and expenses, binding, &c....	3 12 8
			<hr/>
			£1306 12 10