M.R.O. 1—77,006—8-6-37.

(1) Number of pages_____

(2) Date of repair_____

(3) Initials of the Referencer_____

MADRAS RECORD OFFICE.

Government of Madras.

Public works DEPARTMENT.

G.O. No. 2507-2508 Press
428-434 Mis.

Dated 24- 10- 1872.

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department, 24th October 1872.

Read the following papers:—

No. 428. From the Deputy Secretary to the Government of India, Public Works Department, (Account—Irrigation,) to the Secretary to the Government of Madras, Public Works Department, Irrigation Branch, dated Fort William, 22nd February 1872, No. 67 A. I.

I AM directed to acknowledge receipt of your letter, No. 351, dated 5th February 1872, requesting the sanction of the Government of India to a transfer of Rupees 20,000 from the grant for Extraordinary Agricultural Works to "Tools and Plant" to cover the cost of construction of certain lighters required for use on the Lower Godavery Works in the conveyance of stone from the quarries.

2. In reply I am to request that further particulars of the case may be furnished for the information of the Government of India, as to the number of lighters in use and the number required, and also that it may be stated whether the estimates of the works for which the stone is to be carried will be reduced by the proposed arrangement, and if so, to what extent.

No. 429. Memorandum from the Under Secretary to the Government of India, Public Works Department, (Account,) to the Secretary to the Government of Madras, Public Works Department, (Irrigation Branch,) dated Simla, 13th September1872, No. 67-1 A. I.

THE undersigned is directed to invite attention to the reference from this department noted in the margin, and to request an early reply thereto.

No. 67 A. I., dated 22nd February 1872.

(Signed) A. J. FILGATE, Captain, R.E.,
Under Secy. to the Govt. of India.

No. 430. From the Acting Superintending Engineer, 1st Division, to the Secretary to Government, Public Works Department, dated Dowlaishweram, 24th September 1872, No. 2,314.

WITH reference to my letter, No. 2,276, dated 20th instant, I have the honour to forward herewith plans and detailed estimates as per margin for the iron punts alluded to in the above letter, and request you will be good enough to lay them before Government for their approval and orders.

2 Plans.
2 Estimates.
1 Copy of Memorandum.

1	Estimate for building an iron punt	...	72×12	RS. 6,243
1	Do. for do.	...	50×10	2,898

No. 431. From the same Officer, dated Dowlaishweram, 20th September 1872, No. 2,276.

WITH reference to G. O. of the 19th August 1872, No. 1,968, I beg to state we require for present use—

12 iron punts 72×12 estimated to cost Rupees 6,000 each.
12 „ flat boats 50×10 „ „ „ „ 2,500 „

2. We have been using the twelve sea dredge punts for the conveyance of heavy stone materials, but as these are required to be returned to the dredges for

use with them, now that the boilers have come to hand, we require those now indented for to keep up the plant as it has been working for the last two years.

3. The iron flat boats are required for the conveyance of lime and sand, the nine now in use and sanctioned in G. O. of the 30th August 1870, No. 2,084, being quite insufficient to meet the requirements of the works in progress, "Imperial," "Provincial" and "Local."

4. As the Upper Godavery plant transferred to this district has been a long time on hand, used in very rocky parts of the river and very hard worked, it will require a good deal of repairs whenever it does come to hand, and I have been given to understand that, owing to the uncertainty which so long prevailed regarding the further prosecution of these works, the plant has not been very well kept up.

5. Under these circumstances I beg to submit this indent for the favourable consideration and orders of Government at an early date, as it will take some time to get two or three punts done, and the materials for the others out from England.

No. 203.

No. 432. *Note by the Acting Chief Engineer for Irrigation.*

THE boats noted in the margin for which application has been made to the Chief Commissioner of Nagpore, will be available for the Godavery; they give a tonnage of 556 tons in all, at fifty-two trips in a year these boats will carry 28,912 tons.

Letter No. 1,792-c., 27*th July* 1872.

3 Iron punts,	16	tons =	48
7 Wooden flats,	12	,, =	84
11 ,,	,,	5½ ,, =	60½
			192½

G. O., No. 1,968, 19*th August.*

6 Steel barges,	48	tons =	288
2 Wooden boats,	28	,, =	56
3 ,, flats,	6½	,, =	19½
			556

No. 1 *Range.*

72 × 12 6 punts for stone.
* 35 × 8 3 ,, for lime, etc.

No. 3 *Range.*

72 × 12 8 punts for stone.
* 35 × 8 3 ,, for lime, etc.

* Boats 50 by 10 are proposed instead of these; two of these will carry as much as 3-35 × 8.

2. From the letters from the Range Officers in the Godavery in G. O. No. 1,968 of 19th August 1872, it would appear that the boats noted in the margin are required in addition to those now available, but the Superintending Engineer in letter* No. 2,276, dated 20th September, states that twelve iron punts 72′ by 12′ for stone and twelve iron boats 50 by 10 for chunam, sand, etc., are required for present use, thus ignoring the Executive Engineer's demands as shown in the letters printed with G. O. No. 1,968 of 19th August 1872, taking no account of the boats to be obtained from the Upper Godavery and apparently providing to meet requirements of works in progress from Imperial, Provincial, and Local Funds.

3. With letter No. 2,276, dated 20th September, the Superintending Engineer submits revised plans and estimates of iron punts to carry stone* and chunam,† and in a note which accompanied them the Executive Engineer states that if all the iron for the boats were

* 72′ × 12′, Rupees 6,243 to carry 35 tons.
† 50 × 10, Rupees 2,898 to carry 30 tons.

obtained from England a saving of about 22 per cent. would be effected in the cost of the boats, and that the workshop centage might be reduced from 25 to 15 were a large number of boats required. With these reductions the estimates would become Rupees 4,220 and 1,925 respectively; it is very desirable, therefore, that it should be ascertained as early as possible whether the boats, etc., from the Upper Godavery are suitable for the work required of them in the delta, and if not, what extra aid is required for works likely to be executed from Imperial, Provincial, and Local Funds, the tonnage under each head being stated separately, and explanation being afforded as to the manner in which the tonnage required has been arrived at.

4. The larger boats adverted in paragraph 3 carry about 35 tons and the smaller 30, hence a tonnage of about 610 tons is required for the conveyance of 31,720 tons. The tonnage available from the Upper Godavery is 556 tons, sufficient to convey 28,912 tons in the year; hence only one new boat capable of carrying 35 tons and one new chunam punt to carry 30 tons would be sufficient for the present, provided that the boats, etc., noted above, which are expected from the Upper Godavery, all proved to be in good order and to be at once available for use. As, however, many of these boats, etc., have been in use for a long time and have probably met with rough usage at the upper barriers, where the river bed is very rocky, it is probable that the boats will require considerable repair, and hence it would be well at once to provide four large boats for stone and two chunam punts, and if not required for the Eastern and Western Delta works when repairs to the Upper Godavery boats, etc., have been completed, they will be available for the Central Delta works, the estimates for which will shortly be revised and submitted to Government.

14 × 35 =	490
4 × 30 =	120
	610
610 × 52 =	31,720
556 × 52 =	28,912
	2,808

72 × 12 to carry 35 tons.
35 × 52 = 1,820
30 × 52 = 1,560

5. Four boats are stated to be required in the Western Range for Local Fund Works, as these cannot be supplied from Imperial Funds no notice is taken of them here.

OOTACAMUND,
28*th September* 1872.

(Signed) R. F. OAKES, Major, R.E.,
Acting Chief Engineer for Irrigation.

No. 433. ORDER THEREON, 24th October 1872, No. 2,507.

IRRIGATION, No. 28.

FROM the Note recorded above it would appear that if the barges, boats, etc., from the Upper Godavery works, and for which application has been made to the Commissioner of Nagpore, are suitable for the conveyance of stone the provision of only two lighters will for the present be required for the Lower Godavery works; but the Acting Chief Engineer for Irrigation points out that it is probable that some of the boats from the Upper Godavery will require repair and will not be available at once, and suggests that four lighters for stone and

1—72 by 12.
50 by 10

two for chunam and sand should be sanctioned at once. In G. O. No. 350, dated 5th February 1872, the construction of three punts 72′ by 12′ was sanctioned, and His Excellency the Governor in Council resolves to sanction the construction of a fourth lighter 72 by 12 and of two chunam boats 50 by 10.

2. As it appears that a considerable reduction in the cost of the lighters can be effected if the iron for them is obtained from England and if a large number of lighters are required, the Superintending Engineer will report from time to time the number and dimensions of the boats received from the Upper Godavery works as the boats arrive, and will state whether the boats are worth repairing, what will be the probable cost of repairing them, whether the boats are suitable for the conveyance of stone or lime; and when all the boats noted in the margin of the note recorded above have arrived he will report the exact number of new lighters required to admit of the Extraordinary works in the delta being carried out rapidly and efficiently, having due regard to the points adverted to in paragraph 2 of G. O. No. 1,313 of 14th May 1872, and he will also state what boats are required for Provincial and Local Fund works, explaining how the estimate of the requirements under each head has been arrived at.

3. The removal of the Company of Sappers having already been sanctioned their services cannot now be retained.

4. Regarding the incidence of charges relative to the removal of the Sappers, the Superintending Engineer should have applied to the Controller of Public Works Accounts who will now issue the necessary instructions on the subject.

(Here enter No. 2,508, dated 24th October 1872.)

(True Extract.)

(Signed) R. F. OAKES, Major, R.E.,
Acting Joint Secretary to Government.

To the Acting Superintending Engineer, 1st Division.
" Controller of Public Works Accounts.
" Acting Chief Engineer for Irrigation.

Exd. E. C. Shunker.

1-3

PUBLIC WORKS DEPARTMENT,
OOTACAMUND, *24th October* 1872.

No. 434.

No. 2,508.

To

THE SECRETARY TO THE GOVERNMENT OF INDIA,
PUBLIC WORKS DEPARTMENT.

IRRIGATION, No. 29.

SIR,—With reference to letter No. 67 A.I., dated 22nd February 1872, I am directed to forward the accompanying list of lighters in use on the Lower Godavery Works, and to state that they are hardly sufficient for the conveyance of stone, lime, and sand for the ordinary works in the delta. To admit of the Extraordinary works in the Eastern and Western Deltas being carried out economically, an extra tonnage of 610 tons is required (the boats on an average will make fifty-two trips in a year). Boats of various kind with a tonnage of 556 tons as noted in the margin can, it appears, be obtained from the Upper Godavery Works, leaving a tonnage of 54 tons to be supplied. The boats it is proposed to build in future as most suitable for the conveyance of stone* and lime,† sand, etc., are, as per margin; one of each size would therefore appear to be sufficient to meet the immediate requirements of the Delta Works. In consideration, however, of the extreme improbability of all the lighters obtained from the Upper Godavery Works being fit for immediate use, I am to inform you that this Government has sanctioned the immediate construction of four of the larger boats and two of the smaller, and to request that the sanction of the Government of India may be given to the transfer of Rupees 30,000 from the grant for Extraordinary Agricultural works to Tools and Plant.

3	Iron Punts,	16 tons =	48
7	Wooden Flats,	12 ,, =	84
11	,, ,,	5½ ,, =	60½
6	Steel Barges,	48 ,, =	288
2	Wooden Boats,	28 ,, =	56
3	,, Flats,	6½ ,, =	19½
			556

* 72 × 12 × 3½ to carry 35 tons. Estimate Rupees 6,243.
† 50 × 10 × 4½ to carry 30 tons. Estimate Rupees 2,898.

Rupees 6,243 × 4 = 24,972
,, 2,898 × 2 = 5,796
29,768
Item No. 26 in Budget of 1872-73.

2. I am to state that if the lighters, etc., obtained from the Upper Godavery prove to be in good order and to be suitable for the work required of them, the new lighters under construction will be available for the Central Delta Works, the estimate for which is under revision and will shortly be submitted.

3. I am directed to state that unless the lighters are supplied at an early date, it will be impossible to push on with the Extraordinary works with rapidity and economy, and that the estimates for the works cannot in any way be reduced owing to the supply of the lighters and of the punts and barges from the Upper Godavery works, inasmuch as the rates entered in the estimates were calculated on the supposition that means of transport for the materials would be provided for independently of the estimates.

4. In the estimates for the Eastern and Western Delta, no provision was made for Tools and Plant; but in the estimate for the Central Delta two lakhs will be provided under that head to cover the cost of lighters, plant, etc., for the works in the three deltas.

I have the honour to be,

Sir,

Your most obedient servant,

(Signed) R. F. OAKES, Major, R.E.,
Acting Joint Secretary to Government.

1-4 5

Boats available for the conveyance of Stone, Lime, Sand, etc., for the Lower Godavery Works.

Boats.	No.	Remarks.
Iron Boats without Decks.		
93′ × 9½ × 4½	1	
80 × 10½ × 4¾	1	
60 × 12½ × 5	1	
60 × 11½ × 5	1	
35 × 8½ × 3	9	
Iron Decked Boats.		
61 × 11½ × 3¾	1	
60 × 10¼ × 2′10″	30*	* These boats belong to the dredges and can only be used for conveyance of materials when the dredges are not being worked.
Wooden Boats without Decks.		
88 × 13 × 4½	1	
83½ × 14 × 4¾	1	
73½ × 10 × 4½	1	
60½ × 14 × 3¾	1	
44 × 12½ × 5	1	
40½ × 8 × 3½	1	
Wooden Decked Boats.		
91 × 14 × 3½	1	
60½ × 14 × 3¾	2	

All communications should be addressed to the Secretary.

No. 67 A. I

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

ACCOUNT.

Irrigation.

To,

The Secretary to Government of Madras.

P.W. Department,
Irrigation Branch
Fort William, 22nd February 1872.

Sir,

I am directed to acknowledge
Receipt of your letter No. 351 dated 5th
February 1872, requesting the sanction
of the Government of India to a
transfer of Rs. 20,000 from the grant
for Extraordinary Agricultural Work
to "Tools and Plant", to cover the cost
of construction of certain lighters
required for use on the Lower Go
-davery Works in the conveyance
of stone from the Quarries.

2. In reply I am to request that further particulars of the case may be furnished for the information of the Government of India, as to the number of lighters in use and the number required, and also that it may be stated whether the Estimates of the works for which the stone is to be carried, will be reduced by the proposed arrangement, and if so to what extent.

I have the honor to be,
Sir,
Your most obedt. Servant.
J. M. Scott Innes
Dy Secretary to Govt. of India.

P. W. 1872 Despatch
Govt of India
No. 4605.

No. 67 A.S.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

ACCOUNT.

To

The Secretary to Govt Madras.
P.W.D. Irrigation Branch.

Dated Simla, 13th Septr 1872
Encl 1 of 21

THE undersigned is directed to invite attention to the reference from this Department, noted in the margin, and to request an early reply thereto.

Alex. J. Gibb Capt R.E.
Under Dy. Secy. to the Govt. of India.

No. 67 A.S. dated 22nd Febry 1872.

SUBJECT.

Requesting certain further particulars in regard to the Lighters required for use on the Lower Godavery Works of the Conveyance of stone from the quarries.

No 2508 - 2508 -
dated 24th Octr/72.

Estimate of the Probable Expense of building
1 Iron Punt 72 feet Long × 12 feet wide

Measurement Calculation

Particulars of Work. No. Length Breadth Depth Contents

Angle Iron 19½ × 3" × 3" × ¼" = 19½ lbs
at 5 lbs per foot 9½

Flat Iron 19½ × 3" × ¼" = 3¼ lbs
at 2½ lbs per foot 8⅛

Sheet Iron 1¼ × 4½ × ¼" = 11¼ lbs per foot
at 10 lbs per foot 9⅜

2 Rod Iron 3¼ × 1¼" diam = 6½ lbs
at 5 lbs per foot 26
Total for 1 Rod 141
Total for 2 Rods 282

1 Angle Iron 26½ × 3" × 3" × ¼" = 26½ lbs
at 5 lbs per foot 132½

Flat Iron 19½ × 3" × ¼" = 3¼ lbs
at 2½ lbs per foot 8⅛

2 Sheet Iron 1¼ × 4½ × ¼" = 11¼ lbs per foot
at 10 lbs per foot 9⅜

2 Rod Iron 3¼ × 1¼" diam = 6½ lbs
at 5 lbs per foot 26
Total for 1 Rod 186
Total for 2 Rods 372

1 Angle Iron 29¼ × 3" × 3" × ¼" = 29 lbs
at 5 lbs per foot 146¼

Flat Iron 19½ × 3" × ¼" = 3¼ lbs
at 2½ lbs per foot 8⅛

2 Sheet Iron 9 1/4 x 4 1/2 x 1/11 = 11 1/11 lbs @ 10 lb — 9 3/4

2 Rod Iron 3 1/4 x 1/8 diam = 6 1/2 lbs @ 4 lb — 26

Total for one rib. 189 3/4

Total for 8 Ribs — 1518

1 Keel Iron 29 x 3" x 3" x 1/4 = 29 lbs @ 5 lb per lb — 145

2 Flat Iron 19 1/2 x 3" x 1/4 = 3 1/4 — @ 2 1/2 — 8 1/4

2 Sheet Iron 11 1/2 x 6 1/2 x 1/4 = 11 1/2 lbs @ 10 — per lb — 9 1/1

2 Rod Iron 3 1/4 x 1/4 diam = 6 1/2 lbs — 11 — per lb — 26.

Total for one rib. 183 1/2

Total for 11 Ribs 2018 1/2

Total for 25 Ribs 4594

Mast Oak bow and Iron — 1/4 x 1/16 — 3

8 Angle Iron 3 6 x 3 x — 26 lbs @ 5 lb per lb — 130

11 Bottom plate 66 x — = 561 lbs @ 15 lb per lb — 8418

28 Keel plate 53 x — x 1/4 = 123 3/4

9 x 2 1/2 x 1/4 = 24 1/2 — 2" x 1/2 x 1/2 x 1/2 —

1/2 Cast 366 1/2 @ 10 lb per lb — 366 1/2

2 Bilge plate 44 x 1 1/2 x 3/8 = 231 lbs @ 15 lb per lb — 3465

8 Keel plate 42 x 2 x 2 1/2 x 1/2 = 420 — @ 20 — 3600

Gunnel Angle Iron 152 x 3" x 2" x 1/4 = 152 @ — x 1/2 x 1/4 —

4 Cover plates Thick Iron 5 10 x 6 x 1/2 = 172 1/2 @ 10 — 1720

21424

2 Pillar Chock Iron 4 x 2 1/2 x 1/2 = 20 lbs @ 20 lb — 400

8 Knee Iron 3" x 3" diam = 6 lbs @ 2 2/3 lb per lb — 16

22 Knee Iron 2 x 2 x 3" x 1/8 = 6 — @ 7 lb — 42

45 x

12750 Rivets 3 1/2 long 5/8 diam 37 1/2 lbs — 1/4 x 1/4 x 2 1/2 x 1/2 lbs —

Round Iron

Plate Iron 5 x 2 x 1/8 = 10 lbs @ 15 lb per lb — 150

Flat Iron 28 x 2 x 1/2 = 28 lbs — 1/2 — 93

Do Iron 1 x 2 1/2 x 2 1/2 — lbs — 21

Round Iron 1 x 1" diam — 3

Flat Iron 3/4 x 2 x 3/10 — @ 5 lb per lb — 6

Do 7 x 2" x 1/2 — @ 10 — 70

Rivets — 12

Total lbs — 31809

Wood Work

Oak Planking — 12 — 24

Hatchway & Gunnel Stuff — 8

Total Cft — 215

Abstract

Quantity	Description	Rate	Amount	Total
31809	lbs Wrought Iron Work	2 2	4307	6
215 1/2	Cft Teak wood wrought Work	2 1	539	
	Caulking Deck		25	
24 1/2	Sq Painting inside Work			
	with 2 Coat of Anticorrosive Paint	6	122	6
			4994	6
	Contingencies @ 25 per Cent		1248	6
	Total Rupees		6243	

12 — Probable Estimate for building an Iron Boat 50 × 10 × 4½

Particulars of Work	No.	Measurements Length	Breadth	Depth	Cubic Contents	Weight
6 Angle iron Ribs	27	9	3	½	101	
at 4⅔ lbs per Sqft						497
2 Do Do	27	3"	3"	¼	34-6	
at 4⅔ lbs per Sqft						161
2 Do Do	14	3"	3"	¼	28-6	
at 4⅔ lbs per Sqft						133
Iron Girder	27	9"	4"	⅜	111	
at 9 lbs per Sqft						999
28 Rod Iron	5	¼ diam			14.0	
at 4-1 lbs per Sqft						574
1 Keel plate	50	2-6	⅜		125 Sqft	
at 15 lbs per Sq ft						1875
2 Bilge plate	53	2-4	⅜		247-6	
at 15 lbs per Sq ft						3710
2 Sides	51-9"	3-3"	⅜		336-4½	
at 7-5 per Sqft						2522-9
2 Stull	49	2-9"	¼		269-6	
at 10 lbs per Sqft						2695
28 Gusset pieces	1¾	¾	¼		36-9	
at 10 lbs per Sqft						365
28 Tie pieces	2¼	3"	⅜		63	
at 1-87 Sqft						117-81
Cover plates	106	4"	⅜		35-4 Sqft	
at 7-5 per Sqft						266-6
						13915-81

Gunnel Angle Iron 110 × 3" × 3" × ¼ = 110 Qft
at 6 2/3 lbs per Qft 513-4

Keel 16 × 3" × 3" × ½ = 16 Qft
at 6 2/3 lbs per Qft

Rents to Rebs
at 6 lbs per dzn 1032

= ½ × " × " × Total weight lbs 13331

Wood work

Gunnel plank 7 26 2" 10

Deck planking 1 20 8 2" 26-8

= Total Qft 36-4

Painting 56 36 88 8

Rudder

" Mast

Sail

Abstract

Quantity	Particulars	Rate	Per	Amount		Total		
15,336	lbs Wrought Iron C	2	2	Cwts	2103	13	4	
36 2/3	Qft Teak wood brought and put aft C	2		Qft	73	5	4	
18	Lgs Painting	4		Lgs	81			
1	Rudder				10			
2	Mast Sail & Anchr				50			
						2318	2	8
	Contage	25		per Cent		579	13	4
				Total Rupees		2898		

Government Steam Office
Bombay the
24th September 1872

J Hyper Conductor
Deputy Supte Govt Works
W Ahmed Asstt Do
Supte Govt Workshops
Assistant Engineer Civil Cell R.E.
Acting Superintending Engineer 1st Dn

Memorandum

1-9

The rates allowed for iron works in the Estimates for the Stone Punt 72'×12' & the open iron line or sand boat 15'×10' is Rs 0—2—2 per lb this rate is taken in the average cost of iron obtained partly through Govt from England & partly from Calcutta market.

Should all the iron be obtained thro Govt from England the work could be done for Rs 0—1—6 per lb & this would reduce the Estimate about 22 per cent.

Should the Dowleswaram Workshop receive a large order for these iron boats the Contractor now taken at 25 per cent could be reduced to 15 per cent or perhaps even less.

(Signed) H.R. Mead Capt R.E
Supdt of Govt Workshop

Dowleswaram
24th Septr 1872

(True Copy)

Wm. Tweedie Lieut Col R.E
Actg Superintending Engr
1st Division

P. W. 476 3/12.

Enclosures as letter
Rs 23/4 duplicates
from the Executive Engineer
Cuddalore
Grd Ts. D. Bonnerjee

SUPERINTENDING ENGINEER'S OFFICE, 1ST DIVISION.
DOWLAISHWARUM, 24 September 1872

No. 2314

From

Lieutenant-Colonel R. L. Fischer R.E.
Superintending Engineer
1st Division

To

Colonel G. L. Walker R.E.
Secretary to Government D. P. W.
MADRAS

SIR,

With reference to my letter No. 2276 dated 20 instant, I have the honor to forward herewith, plans and detailed Estimates as per Margin, for the Improvements alluded to in the above letter, and request you will be good enough to lay them before Government for their approval and orders.

I have the honorable
Sir
Your most Obedt Servt
Lieut. Fischer Lieut Col R.E.
Superintending Engineer 1st Div.

1 No. for Rs 50 x 10

No: 203

Note: by the Acting Chief Engineer for Irrigation

The Boats noted in the margin for which application has been made to the Chief Commissioner of Salt Revenue are available for the Godavari Dt. for one a tonnage of 556 tons in all, at 52 trips in a year free Boat hire carry 28912 tons. From the Depot pm the Range Officer in the Godavir in GO dt 19 68 of 19 August 1872

No 1 Range				
72 X 12	6	Units	for	Stone
1035 X 8	3	—	for	Lime &c
No 3 Range				
72 X 12	8	Units	for	Stone
35 X 8	3	—	for	Lime &c
1 Boat	50	ft	etc	Shipwreck materials
Road- 2				
3-35 X 8.				

Vide Govt Letter No 2276 dated

P. W. 1872. Repair.
From Supdt Irrigation Cuttack No. 4763.
The Superintending Engineer,
First Division.

To
The Secretary to Government
Department Public Works
MADRAS

Dated 24 September 1872
Received. 1 October 72.

NO. 2314
ENCLO. Five

Subject.

Forwarding professional and Covering Government Plans and Detailed Estimates for Iron Punts required for the conveyance of heavy Stores Material

Sanctioned

No 2507-2508- -24-10-72

No 6430

dated 20th September states that 12 Iron punts 72' by 12' for Stone and 12 Iron Boats 50 by 10 for Chunam paid &c are required for present use thus ignoring the Executive Engineers demands as shewn in the letters printed with Rs 1968 of 19th August 1872, taking no account of the Boats to be obtained from the Upper Godavery and, apparently providing to meet requirements of works in progress from Imperial Provincial and Local funds.

3. Work letter No 2276 dated 20th September the Superintending Engineer submits revised Plans and estimates of Iron Punts to carry Stone and Chunam and in a note which accompanied them, the Executive Engineer states that if all the Iron for the Boats were obtained from England a saving of about 22 per cent would be effected in

× 72 × 12 Rs 6243 to carry 35 tons
50 × 10 Rs 2898 carry 30 tons

4 × 35 = 490
4 × 30 = 120
610

the cost of the Boats and that the work-shop Centage might be reduced from 25 to 15 were a large number of Boats required. With these reductions the estimates would become Rs 4220 & 1925 respectively, it is very desirable, therefore, that it should be ascertained as early as possible whether the Boats &c from the Upper Godavery are suitable for the work required of them in the Delta & if not, what extra and as required for works likely to be executed from Imperial Provincial and Local funds, the tonnage under each head being stated separately and explanation being afforded as to the manner in which the tonnage required has been arrived at.

4. The larger Boats adverted in para 3. carry about 35 tons and the smaller 30 hence a tonnage of about 610 tons

is required for the conveyance of 31720 tons. 610 × 52 = 31720

The tonnage available from the Lepper Godavery is 556 tons sufficient to convey 28912 tons in the year, hence, only one New Boat capable of carrying 35 tons and one new Chunam punt to carry 30 tons would be sufficient for the present, provided that the Boats &c noted above, which are expected from the Lepper Godavery, all proved to be in good order and to be at once available for use. As however many of these Boats &c have been in use for a long time and have probably met with rough usage at the Lepper Barrier, where the River bed is very rocky, it is probable that the Boats will require considerable repair and hence it would be well advised to provide 4 large Boats for Stone and 2 Chunam punts. & if not required for the Eastern & Western Delta works, when

556 × 52 = 28912
2808

72 × 12 to carry 35 tons
35 × 52 = 1820
30 × 52 = 1560

repairs

repairs to the Lepper Godavery Boats &c have been completed, they will be available for the Central Delta works the estimates for which will shortly be revised and submitted to Government.

5. 4 Boats are stated to be required in the Western Range for Local Fund Works as these cannot be supplied from Imperial Funds no notice is taken of them here.

Dotacamund
28 Septemter 72

I. F. A. Major R.E.
Offg Chief Engineer for Irrigation

To

The Secretary to Govt
PW Dept

Public Works Department

1-12

No 2507

Proceedings of the Madras Government

Read the following

From The Secretary to Govt Mad 13 Sept 72 No 1 dated 13 Sept 72
From The Superintg Engr 1st Circle No — dated 24th Sept 72 No —
To The Offg Chief Engineer No 2271 dated 28th Sept 72 No —
for Irrigation.

From the Collector &c

enclosing abstract of tenders received for the supply of Boats required for the Upper Godavery Works and for which application was made to the Commissioner of Salt Revenue, and requesting to be informed whether the Government will be prepared to grant the necessary number of Stout flat bottomed Boats for the conveyance of only two Cyclostyle sets, for the present half requisitioned for, the Inner Godavery works;

Works Dept, the Acting Chief Engineer

P. Works 1872 Department
No 4996.

The Offg Chief Engr
for Irrigation

To

The Secretary to
Govt P.W.D.

No 203

Dated 28 September 72
Despd 8 Oct 72
Recd 14 — — —

Note on the application made for the Boats from the Upper Godavery Works

No 2507-2508 — 24 accts 1/2

No 432

Returned 14th October 72

Engineer for Irrigation
points out that it is
probable that some of
the Boats from the Upper
Godavery will require repair
and will not be available
at once and suggests that
4 Lighters for Stone &
2 for Chunam & sand
should be sanctioned at
once. In G.O. No 350
dated 5 February 1872
the construction of 3 Boats
72' by 12' was sanctioned
and His Excellency the
Governor in Council re-
solves to sanction the con-
struction of a 4th Lighter
72 by 12 and of 2 Chunam
Boats 50 by 10.

As

2 As it appears that
a considerable reduction
in the cost of the Lighters
can be effected if the Iron
for them is obtained from
England and if a large
number of Lighters are
required, the Superintending
Engineer will report from
time to time the number
and dimensions of the Boats
received from the Upper
Godavery Works as the Boats
arrive and will state
whether the Boats are
worth repairing, what will
be the probable cost of
repairing them, whether the
Boats are suitable for the
conveyance of Stone or lime

And

and when all the Boats noted in the margin of the Note recorded above have arrived he will report the exact number of new Lighters required to admit of the Extraordinary Works in the Delta being carried out rapidly and efficiently, having due regard to the points adverted to in para 2 of G.O. No 1313 of 14th May 1872 and he will also state what Boats are required for Provincial and Local Fund works explaining how the estimate of the requirements under each head has been arrived at.

3. The removal of the Company

Company of Sappers having already been sanctioned their Services cannot now be retained.

4 Regarding the incidence of Charges relative to the removal of the Sappers the Superintending Engineer should have applied to the Controller of Public Works Accounts who will now issue the necessary instructions on the subject.

H.E.B.

40
4

To Dy Chief Engineer 1st Div
" Controller
" Ch. Engineer for Irrign

Despd 28/10/72

No 2508. 1-13

Secretary to the
Government of India

Sir,

With reference to Letter
No 67 AI dated 22nd Feby
1872, I am directed to
forward the accompanying
List of Lighters in use
in the Coringa Godavery
Works and to state that
they are hardly sufficient
for the conveyance of Stone
lime and sand for the
ordinary works in the Delta.

To

To admit of the Extraordinary works in the Eastern and Western Deltas being carried out economically, an extra Tonnage of 610 tons is required (the Boats on an average will make 52 trips in a year). Boats of various kind with a tonnage of 556 tons as noted in the margin, can, it appears, be obtained from the Upper Godavery Works, leaving a Tonnage of 54 tons to be supplied. The Boats it is proposed to build in future as most suitable for the Conveyance

3	Iron Punts	16 tons	=	48
7	Wooden flats	12 "	=	84
11	"	5½ "	=	60½
6	Steel Barges	48 "	=	288
2	Wooden Boats	28 "	=	56
3	" flats	6½ "	=	19½
				556

x 72 X 12 X 3⅛ to carry 35 tons
Estimate Rs 6243

o 50 X 10 X 4½ to carry 30 tons
Estimate Rs 2898

Rs 6243 X 4 = 24972
2898 X 2 = 5796
29768

x 1-14

Conveyance of Stone and Lime panel &c are, as per margin; not of each size would therefore appear to be sufficient to meet the immediate requirements of the Delta Works. In consideration however of the extreme improbability of all the Lighters obtained from the Upper Godavery Works being fit for immediate use, I am to inform you that this Government has sanctioned the immediate Construction of 4 of the larger Boats and 2 of the smaller and to request that the sanction of the Government of India may be given to the transfer of Rupees 30000

from the grant for Extra-
-ordinary Agricultural Works
to Tools and Plant.

Item c/ 26 in Budget
for 1872/73.

I am to state that if
the Lighters be obtained
from the Upper Godavery
prove to be in good order
and to be suitable for
the work required of them,
the new Lighters under
construction will be avail
able for the Central Delta
Works, the estimate for
which is under revision
and will shortly be sub-
mitted.

I am directed to state
that unless the Lighters
are supplied at an early
date it will be impossible
to push on with the
Extraordinary

Extraordinary works with
rapidity and economy and
that the estimates for the
works cannot in any way
be reduced owing to the supply
of the Lighters and of the
Punts and Barges from
the Upper Godavery Works,
in as much as, the rates,
entered in the Estimates,
were calculated on the
supposition that means
of transport for the ma-
terials would be provided
for independently of the esti
mates.

In the Estimates for
the Eastern and Western
Deltas no provision was made
for Tools and Plant but
in

in the estimate for the Central Delta 2 lacs will be provided under that head to cover the cost of Lighters Plant &c for the Works in the 3 Deltas.

G.W. H.E.B.

Resp. 25/10/72 with 7 copies of the statements

Boats available for the Conveyance of Stone lime sand &c for the Godavery Works. 1876

Boats	No	Remarks
Iron Boats Without Decks		
93 x 9 1/4 x 4 1/4	1	
80 x 10 1/2 x 4 3/4	1	
60 x 12 1/2 x 5	1	
60 x 11 1/2 x 5	1	
35 x 8 1/4 x 3	9	
Iron Decked Boats		
61 x 11 1/2 x 3 3/4	1	
60 x 10 1/4 x 2.10"	30 x	x These boats belong to the Dredges and can only be used for conveyance of materials, when the Dredges are not being worked.
Wooden Boats without Decks		
88 x 13 x 4 1/2	1	
83 1/2 x 14 x 4 3/4	1	
73 1/2 x 10 x 4 1/2	1	
60 1/2 x 14 x 3 3/4	1	
44 x 12 1/2 x 5	1	
40 1/2 x 8 x 3 1/2	1	
Wooden Decked Boats		
91 x 14 x 3 1/2	1	
60 1/2 x 14 x 3 3/4	2	

Nos. 1014, 4763, 4996, 4659 & 4605

Govt. of {1872} Madras.

PUBLIC WORKS.

To The Secy. Superintending Engr. 1st Division and The Secretary to the Govt. of India

Dated

Recd. Encl. 5

G. O. 24th Octr. 1872. 2507-2508.

Nos. 1284 & 1233 & 1434

Lower Sodavery Works.

Passing Orders in correspondence on in regard to the Lighters required for use in the Lower Sodavery Works.

Regarding the Lighters required for the Lower Sodavery Works.