M.R.O. 1—77,006—6-6-37.

(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. 2864 Press Mis.

216-23

Dated 13 11 1871.

Not to be folded or roughly handled

Proceedings of the Madras Government, Public Works Department, 13th November 1871.

Read the following papers:—

No. 216. From the Acting Superintending Engineer, 1st Division.
(Here enter No. 1,462, dated 2nd August 1871.)

No. 217. From the same Officer.
(Here enter No. 1,631, dated 21st August 1871.)

No. 218. From the General Superintendent of Public Works Stores and Workshops.
(Here enter No. 1,238, dated 30th September 1871.)

No. 219. From the Acting Superintending Engineer, 1st Division.
(Here enter No. 2,142, dated 9th October 1871.)

No. 220. From the same Officer.
(Here enter No. 2,201, dated 16th October 1871)

No. 221. From the Acting Chief Engineer for Irrigation.
(Here enter No. 183, dated 2nd November 1871.)

No. 183.

No. 222. *Note by the Acting Chief Engineer for Irrigation.*

WITH his letter No. 1,462 of 2nd August, the Superintending Engineer of the 1st Division submits an estimate of Rupees 5,500 for an iron punt 60 feet by 10 feet with a depth of 2 feet 9 inches, and, in paragraph 4 of No. 1,631 of 21st August, states that what is required is a strong iron boat about 60 feet long and 10 feet wide capable of carrying from 20 to 30 tons with a draught of not more than 2 feet.

2. The General Superintendent of Public Works Stores correctly remarks in his letter No. 1,238 of 30th September, that a boat of the dimensions proposed by the Superintending Engineer would carry only 15 tons with a draught of 2 feet of water. In calculating the buoyancy of the boat the Superintending Engineer appears to have omitted to deduct the weight of the boat itself. The Superintendent of Public Works Stores points out certain omissions in the estimate submitted by the Superintending Engineer, the cost of which at the rates which prevail at the Dowlaishweram Workshops would amount to Rupees 447-6-11, and would raise the estimate to Rupees 5,950.

		lbs.	Rs.	A.	P.
Rudder and pintals	...	352			
Stern and stern frames	...	180			
Butt straps... ...	...	1,875			
		2,407	325	15	2
At 2 Annas 2 Pies	...				
Centage 25 per cent.	...	...	81	7	9
			407	6	11
Canvass lining with red lead under butt straps, 400 feet	...	...	40	0	0
		Total...	447	6	11

3. The Superintendent of Public Works Stores submits a plan and estimate for a boat 50 feet by 12 feet with a depth of 3½ feet. This boat, with a draught of 2 feet and 3 feet, is capable of carrying a load of 15 and 30 tons respectively. The estimate amounts to Rupees 4,750. This is more than 50 per cent. above the cost of the boat as previously estimated, and is due, as the General Superintendent explains, to the fact that it was supposed that thinner plates could be used than it has now been found necessary to provide, owing to the rough usage to which the boats are liable to be subjected when trying to make the head locks when a strong current is running.

4. The estimate of the Superintendent of Public Works Stores provides for the cost of fitting the punt at Madras and then taking it to pieces and despatching it to Dowlaishweram, where the plates, etc., will be rivetted; the charge for this item is 2 Pies per lb. This the Superintending Engineer states, in his letter No. 2,201, dated 16th October, is not sufficient; on a reference to the Superintendent of Public Works Stores he has reported that the rates for such work at Dowlaishweram used to be 6 Pies per lb. wrought and put up, (for labour and fuel, etc., only,) and of this amount 4 Pies are required for fitting, cutting, punching plates, frames, etc., and for making rivets leaving 2 Pies per lb. for rivetting only, and he adds that he could get the rivetting carried out at Madras for 1 Pie per lb.

5. Though the boat proposed to be constructed by the Superintendent of Public Works Stores has a greater capacity and about 3 per cent. more metal in it than that proposed by the Superintending Engineer, the cost of the latter is estimated at Rupees 1,200 in excess of that of the former; this difference is due to the high rate at which wrought iron is turned out at the Dowlaishweram Workshops, the excess per lb., including centage, being 10 Pies or 45½ per cent. higher than the rates at Madras.

6. As it is probable that the workshops at Madras will shortly be fully engaged on works connected with the State Railways, and as the iron required for the punts is available at the workshops at Dowlaishweram, and the Superintending Engineer appears to be most anxious to build the punts there, it would be well to send him the plan and estimate submitted by the General Superintendent, and to call upon him to prepare a revised estimate submitting details of the cost of wrought iron, the market value of iron in Madras is 10 Pice per lb., but would appear to be much higher at Dowlaishweram.

7. From paragraph 4 of the Superintending Engineer's letter No. 1,229 of 13th July, it would appear that the punts are required at an early date, as, owing to the demand for dhonies for the conveyance of produce, exorbitant rates are charged for the latter. In paragraph 2 of No. 1,462 of 2nd August, a transfer of Rupees 30,000 from the Extraordinary Agricultural grant to Tools and Plant is applied for to cover the cost of the punts; if this charge may probably be covered by the saving effected in the conveyance of stone owing to the use of the punts, there would probably be no difficulty in obtaining sanction for the necessary transfer.

FORT ST. GEORGE,
2nd November 1871.

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

No. 223. ORDER THEREON, 13th November 1871, No. 2,864.

IRRIGATION, No. 12.

THE plan and estimate submitted by the Superintendent of Public Works Stores will be forwarded to the Superintending Engineer of the 1st Division who will prepare and submit a revised estimate for the iron punts with reference to the points adverted to in the note by

Proceedings of the Madras Government, Public Works Department,
13th November 1871.

the Acting Chief Engineer for Irrigation, and he will state whether it is anticipated that the cost of the boats will be covered by savings effected on the construction of masonry works in the Eastern and Western Deltas.

(True Extract.)

Colonel, R.E.,
Secretary to Government.

To the Superintending Engineer, 1st Division, with Plan and Estimate.
" Chief Engineer for Irrigation.
" General Superintendent of Public Works Stores.

Exd. E. C. Shunker.

SUPERINTENDING ENGINEER'S OFFICE, 1ST DIVISION.
DOWLAISHWARUM, 21st August 1871

No. 1631

55.

From

Major J. T. Fischer RE
Superintending Engineer
1st Division

To

Colonel J. Carpendale RE.
Secretary to Government D. P. W.
MADRAS

SIR,

With reference to para 4 of G. O. No. 2031 dated 4th instant, I have the honor to state that plans, and Estimates of the iron punts were forwarded with my letter No 1462 dated 2d Idem.

2. The Officers in charge of both Eastern, and Western Deltas were called upon to furnish plans of the boats they required, and they both reported that, the iron punts received some years ago from England were, they considered, the best boats for their work. The plans are therefore almost exact copies of the plans sent out from England.

3. By using thinner plates, and lighter iron in making up the boats, the cost could be lessened considerably, but the boats are so liable to be damaged on the stone groynes in

Surfaces

in the river, when trying to make the head
locks with a strong current, and perhaps
a high wind, that it is advisable to have
them built very strong –

4. If boats of the same tonnage and
as strong, can be made for Rupees 3000, I
would of course prefer them to more expensive
boats. What we want is a very strong iron
boat, decked, about 60 feet long, and 10ft wide,
capable of carrying from 20 to 30 tons with
a draught of not more than 2 feet, and with
reversible rudder to fit here for narrow channels.
If the lighters referred to in para 3 of the
G.O. under reply, fulfil these conditions,
and are considered sufficiently strong, I
have the honor to request you will kindly
cause me to be supplied with a drawing of
them, and permit me to offer some further
remarks before condemning the pattern of
boat now forwarded –

5. As a large stock of iron has
just been received at the Work Shop, direct
from England, there is no doubt that iron
boats

boats could be made up here as cheaply
as in Madras – 75.

6. I have the honor to request that
I may be favored with a reply as early
as possible, as it is very desirable that we
should have more boats ready by next
working season. It was found in last
season that, there was no difficulty, in
procuring a sufficient number of Masons,
or in keeping up the supply of stone at
the quarries, but it was impossible
to get the stone down to the works, as
fast as it was required

I have the honorable
Sir
Your Most Obed[t] Serv[t]

Lieut Capt. RE

for Ad[g] Supt Engineer 1st Div[n]

Surpara

No. 1462

Engineering Department
Coast Line
2nd August 1871

From

Major [illegible] R.E.
Acting Superintending Engineer
1st Division

To

Colonel [illegible] R.E.
Secretary to Government
Madras

Sir,

I have the honor to forward herewith a Letter from the Executive Engineer of the Nellore Division dated the 15th July 1871, & Plans & Estimate for a Canal from Kavaraipettai to Pallipalayam as noted in the margin, for the favorable consideration of Government.

2. I would beg to recommend that the Canal from Kavaraipettai to Pallipalayam be sanctioned as an Original Work, and that the Estimate for Rupees 3,000 be sanctioned for the purpose.

3. The Canal will be 2 miles in length, and will pass through Government Land, and will require the Cutting of no Trees.

4. The Canal will be 30 feet wide at the top, 18 feet at the bottom, and 5 feet deep, and will be capable of carrying Boats of 15 tons burthen.

5. The Canal will be made by Contract, and will be completed in 3 months from the date of sanction.

I have &c.

Major
Acting Superintending Engineer
1st Division

Chintadripettai
2nd August 1871

Received 7th August 1871

Fort St. George
7th August 1871

Under Secretary

Dated 2nd August 1871
Rec'd 7th August 1871

No. 1631

Encls: 1 M. 566/71

Informs that plans and Estimates of the Iron sluices proposed to be built at Doulaiswaram were forwarded with letter No. dated with certain description of the kind of boats for use in the Canals.

No. 2 Referred.

Dated 21st August 1871
Rec'd 28th August 1871

No. 1631

Encls: 1 M. 566/71

Informs that plans and Estimates of the Iron sluices proposed to be built at Doulaiswaram were forwarded with letter No. dated with certain description of the kind of boats for use in the Canals.

No. 2 Referred.

Referred to the General Superintendent of Public Works Stores in continuation of Endorsement of the 11th August 1871 and with a view to a copy of the drawing referred to in para 4 being furnished direct to the Supg Engineer of the 1st Division.

Asst Secy

Fort St. George
the 24th August 1871

Under Secretary

Estimates for the four Points, and the amount which will be held in Reserve by me, on another Point can be known.

3. I beg to state for the information of Government that, I purpose distributing the four Points between two of the Delta Ranges Viz.t 2 to the Eastern, and 2 to the Western Delta.

I have the honor to be
Sir
Your most Obed.t Servt

Lieut. Fischer Major R.E.

Dy. Superintending Engineer 1st Div.n

Specification for Iron Punt

Length 60 ft.
Beam 10 ft.
Depth 2¾ ft.

The sides to be of angle iron 3"×3"×⅜"-2¼ ft. apart from centre to centre & to have gussets rivetted ½" thick on both sides at the bilge. The keel beams to be of angle iron 3"×3"×⅜" and to be supported by 2 iron rods ½" thick in the middle & each end & by plate bar two 3" wide & ½" thick at the ends as shown in plan.

The bottom plate to be ⅜" thick throughout the plate to be ¼" thick, bilge plates to be ½" thick. Keel plate to be 2½ ft. wide and ½" thick. Gun plates to be 6" wide & ⅜" thick and Gunnel plate to be 7 ins 3"×3"×½" which at the bow & stern to be connected with an angle iron stays 3"×3"×½" The rivets to be ⅝" round headed.

The punt to be decked throughout with 2½" planks. The deck to be caulked & the seams to be painted with 2 Coats of anti Corrosive paint.

Executive Engineer's Office
Secunderabad
25th Aug 1871

Lieut
Captain R.E.
Executive Engineer

Approved
Lieut Colonel
Superintending Engineer
Secunderabad Circle

Signature

Ord 21 August 1871 No 46

No 1462

From
The Ag. Superg. Engineer
(1) 1st Division

To
The Secretary to Government
Madras

Dated 2d
Rec'd 4th } August 1871.

No 4966/71

Forwards for the sanction of Govt: an Estimate & Plan amounting to Rs 5500 for constructing a Punt and informs that 5 Punts are required 2 to the Eastern and 3 to the Western Deltas in the Godavary District.

No 2864 - 11th November 71

Forwarded to the General Supt of Public Works Stores and Workshops with reference to G.O. No 2031, dated 4th Augt 71, and with a view to his reporting the amount at which boats of the description and size referred to can be made up at the Local Workshops. The cost of conveyance to their destination should be added as a separate item to the Estimate, and the probable time in which the boats might be completed should be stated. The Estimate should be in detail & similar to that forwarded by Major Fischer in order that the Specification and Rates may be compared.

Secretariat
Capt R.E.
Under Secretary to Govt
P.W.D.

11th August 1871.

To the Chief Engineer
of P.W. Stores

Detailed Estimate of the probable expenses of building 2 iron Pontoons 60 ft. long × 10 ft. wide.

15

Particulars of work	No.	Length	Breadth	Depth	Contents	Weight	Rate	Amount
L iron 3"×3"×⅜" = 24 ft. @ 9 lbs per ft. =								
Keel iron 8"×½" = 4 ft. @ 2½ " " =								
Keel iron 2:3"×4½"×½" = 12½ ft. @ 10 lbs =								
Rod iron ½" 5 ft. @ ½ lbs =								
					For 1 nib			
					For 10 nibs			21346
L iron 3"×3"×⅜" = 24 ft. @ 9 lbs per ft. =								
Keel iron 1:2"×1:3"×½" = 1½ ft. @ 10 lbs =								
Keel iron 3"×½" 2½ ft. @ 2½ lbs =								
Rod iron ½" 5' @ ½ lbs =								
					For 1 nib			
					For 9 nibs			
L iron 3"×3"×⅜" = 22½ ft. @ 9 lbs per ft. =								
Keel rising 1:2"×1:3"×½" = 1½ ft. @ 10 lbs =								
Keel iron 3"×½" 2½ ft. @ 2½ lbs =								
Rod iron ½" 5 ft. @ ½ lbs =								
					For 1 nib			
					For 9 nibs			
For 8 flange L iron 3"×3"×⅜" = 22 ft. @ 9 lbs per ft. =								
Bottom skut iron ⅜" 60'×10½" = 630 ft. @ 15 lbs per ft. =								
Side " ⅜" 120'×1½" = 225 ¾ @ 10 "								
Bilge Plate ⅜" ½" 120'×1½" = 193½ @ 20 lbs "								
Keel Plate ⅜" ½" 60×2½" = 150 @ 20 "								
Gunnel Plate L iron 3"×3"×½" = 129 @ 4.65 "								
Cover Plate thick iron ⅜" 140×5" = 70 @ 15 "								
Skut iron ½" = 4'×2½" = 10 ft. @ 20 lbs per ft. =								
L iron 3"×3"×⅜" = 3 ft. @ 7 " " =								
RD iron 1" 3 ft. @ 2¾ lbs " =								
					For one Pontoon			
					For 2 Pontoons			
Remarks 11240 = neglect ⅜" = 3278 ft. @ ½ lbs per ft. =								

No. 4666/71

No. 4666/71

Enclosure in a letter No. 1462 dated 22nd August 1871 from the Deputy Engineer 1st Division to the Secretary to Govt. P.W.D.

Deck planking ——— 1. 60-0 × 2½ × 131¼

Teak wood C. ft. — 131¼

Caulking deck ———

Painting outside rail with 2 coats of anti corrosive paint 4 yds 20½

Executive Engineer's Office
Dockyard Colombo
25th July 1871

John Aitken Captain R.E.
Executive Engineer No 1 Range

Abstract Estimate for building an iron Punt 60 ft. long and 10 ft. wide.

175

Quantity	Description of work	Price	per	Amount	Total
29225½	lbs Wrought iron ——— lbs	"	2 2	3457	9 11
131¼	C. ft. Teak wood wrought in and put up C. ft.	2	8 "	328	2 "
	Caulking deck ———			13	" "
20½	Sqrs Painting inside and out with 2 Coats of anti corrosive paint ———	5	" "	102	8 "
				4401	3 11
	Contingencies ———			1098	12 1
				5,500	" "
	Total Rupees			5,500	" "

Executive Engineer's Office
Dockyard Colombo
25th July 1871

John Aitken Captain R.E.
Executive Engineer

Examined
Major R.E.
Acting Superintending Engr 1st Div.

Surveyed

Public Works Workshops Department.

No. 1238. Cheduba 30th September 1871.

From

The General Superintendent

Public Works Workshops & Store

Cheduba

To

The Secretary to Government

Public Works Department

Fort Saint George.

Sir,

In reply to G.O. of 11th August 1871

P.W.D. I have the honor to enclose a plan and

Rs. 4643-12-8. estimate of an iron screw launch, called for:

In para 4 of G.O. No. 2031 of 24th Aug. 71

it was recorded that boats of the description required

by the Superintending Engineer 1st Division, could

be made for Rs. 3000, each at the Presidency

Workshops - This estimate was made on the supposition

that Shinner's plates would have been employed in

their construction than has been estimated for.

In the plan submitted herewith, the

length of the punt is 50 feet, beam 12 feet and

depth 3 ft. 6 inches and weighing 17 Tons including

timber decking and would draw about 14 inches

of water when unloaded and 3 feet of water when

loaded with 30 Tons.

In para

Inclosure 4. of Superintending Engr's
letter communicated with his D. of 30th Augt/71.

Major Fletcher says that a boat "capable
of carrying from 20 to 30 tons with a draught
of not more than 2 feet" is required and which
draught (2 feet) the boat of the dimensions
submitted by him is capable of carrying
only 15 tons, the same being the case with
all boats of the dimensions given in the plans
submitted with this letter.

In the estimate submitted with
the Superintending Engineer's letter above
quoted the items "Bull-Straps" "Rudder
with spindle, and Skins and Stern frames
have not been estimated for.

The Six punts could be completed
in about twelve months after receipt of
the order.

I have the honor to be
Sir
Your most Obed.t Servant.

J. Scanlan
General Superint.g Works &c
Ft Clarke

D 4 "Augt/71-45-46

D 218
Encl.y 5 Augt/71

Dy. Sr. 1871 Mch 6th
Annual Prog. of Govt Jetty Works
To the General Supt.
P.W.D. Workshops and Stores
No 4655
do
The Secty to Government
P.W.D. Department
(3) Fort Saint George.
Dated 30th Novr 1871
Recd 2nd Decr 1871
No 1238.
2-8-Pds 10 Copies

Submits a plan and Estimate of an Iron Punt as directed in G. O. dated 11 August 1871

No 2864 - 13 Nov 71

Spec included in Major Fuchers estimate

Rudder & pintals 302 lbs (5) Should be 352 lbs
Stem & Stern pieces 1500
Butt Straps 1075
Ranning 18 high 1012
4249 lbs

@ Rs 12/2 per lb = 575-6-2
Contge 25% = 143-13-2
719-3-8

Common lining with red lead, under Butt straps 24 Sq ft } 40 - - -
759-3-8

To be included in my estimate

Common lining &c 500 ft } Rs 50 - - -

285

28th Oct. 71.

My dear Capt. Cakes

I have not here the rates charged for Grain Cwt. to Rayleigh and Dealler Green yard at Price on that date as I think the rates can be obtained from Col. Anderson's Report in 1868.

There is an Accounty for transhipment

Grain 5.4 32.1.9.
Fishers 29.22.5½
add for
Dunnage 2407
31.0.0 31.0.2½
9.0 6½

Detailed Estimate of the probable cost of building an Iron Punt.

Public Works Workshop Depot.
No 1239 Chepauk 30th September 1871

From The General Superintendent
Public Works Workshops and Stores
Chepauk.

To The Superintending Engineer
1st Division
Dowlaiswaram

Sir,

In compliance with G.O. dated 30th August 1871. I have the honor to forward herewith Copy of the plan & an iron boat lately built by me for approval of Government together with the Estimate for the same.

The Estimate Rs 3,000 for each boat recorded in G.O. No 2031 dated 4th August 1871 was framed on the supposition that thinner plates than those estimated for by Captain Haslet would have been employed.

I have &c &c

(Signed) J. T. Grainger
General Supt P.W. Stores and Workshops.

(True Copy)

Lieut. C. Buckle Major R.E.
Acting Secy Engineer 1st Division.

2nd Oct 71 275

My dear Capt Baker

When I was at Dowlaiswaram the Eater for Punt work I was per Dr wrong list of part up (for labour & fuel &c only). There was reason to alter the Rates given in my estimate i.e.

Statement of Arrears of Land Revenue and Sayer Collections for the Collectorate of Chittoor for the Fasly 1215

Names of Villages	Amount of Arrears	Remarks
Collectorate of Chittoor		
Singlachanpalle Ubbandaram depth 3:6"	1	20:2:32:36 Tds 2165
Vallandlu Neellapalle Ubbandaram ditto	2	31:0:3" 1/2 " 2:2:16 8
Kandukuru Ubbandaram	2	7:2:0" Pallam Tds 28
		Wrightsfield Rds 257
		Rd Sayer Rds 1065
Singlachanpalle Ubbandaram depth 3:7"	1	8:1:32:36 Tds 217
Vallandlu Neellapalle Ubbandaram ditto	2	8:1:3" 1/2 " 2:2:16 8
Kandukuru Ubbandaram	2	7:2:0" Pallam Tds 28
		Wrightsfield Rds 257
		Rd Sayer Rds 1065
Singlachanpalle Ubbandaram depth 3:8"	1	8:1:32:36 Tds 217
Vallandlu Neellapalle Ubbandaram ditto	2	8:1:3" 1/2 " 2:2:16 8
Kandukuru Ubbandaram	2	7:2:0" Pallam Tds 28
		Wrightsfield Rds 257
		Rd Sayer Rds 1028
Singlachanpalle Ubbandaram depth 3:9"	1	8:1:32:36 Tds 217
Vallandlu Neellapalle Ubbandaram ditto	2	8:1:3" 1/2 " 2:2:16 8
Kandukuru Ubbandaram	2	7:2:0" Pallam Tds 28
		Wrightsfield Rds 257
		Rd Sayer Rds 1032
Singlachanpalle Ubbandaram Cheruvu ditto depth 3:12"	1	8:1:32:36 Tds 2165
Vallandlu Neellapalle Ubbandaram ditto	2	8:1:3" 1/2 " 2:2:16 8
Kandukuru Ubbandaram	2	7:2:0" Pallam Tds 28
		Wrightsfield Rds 2702
		Rd Sayer Rds 5414

Vide Wrightsfield's and Ubbandaram's Letters Dated 15th Inst.

P. R. 4900/71
Enclosure in a letter
No. 2142 dated 9th Instant
from the Dy Registrar
1st Division to the
Secretary to Government
D. D. Monroe

Particulars of Work

Description of Work	No.	Breadth	Thickness	Length	Quantity
					lbs 4875
Single Sister for Channel Plate	2	112' 3"3"	¼"	5 lbs	560
Do for Garboards	8	25' 3"3"	⅜"	7 lbs	175
Flat Sister for Counter	4	9' 2"	½"	3 3	30
Steel Sister for Bottom of Pent		50' 1"½	⅜"	15 lbs	9,938
Do for Sides of Do	2	112' 3'	¼"	16 lbs	3,360
Do for Keel Plate	1	56' 3"½	½"	20 lbs	2,800
Do for Bilge Plates	2	112" 1"½	½"	20 lbs	3,360
Do for Keel Bars (bts)	2	16' 1"½	½"	20 lbs	350
Keel Covering Plates and Butt Straps		500' 6"	⅜"	15 lbs	3,750
Rivets each about 3½ to Length		10,000	2,916	5 Tons	1125 2,989
				Weight of Pent work	= 32,187
Flat Sister for Rudder	1	28' 2"	½"	33	92
Iron Square for Rudder Head		1' 2"½	2"½	21 lbs	21
Do Band for Rudder Brace		1'	1 Diar:	3 lbs	3
Do Flat Iron for Handle		3¼' 2"	¾"	5 lbs	4
Do Do for Handle		7' 2"	½"	10 lbs	70
Male Screw		5' 2"	⅜"	10 lbs	150
Rivets					12
				Total Weight of Pent work & Rudder	= 32,539
Deck Planking		50' 12"	2½"		125
Caulking Deck		50' 12"	Square		4
Caulking under deck bottom & Rudder Coat & Paint			Square		20

Public Works Workshops
Cheepauk 30th September 1871

Asst Sup P.W. Workshops Station

Abstract Estimate for building an Iron Punt
50 feet Long and 12 feet Broad

Description of Work	Weight	Rate	Per Cwt	Amount
Weight of Iron Work	lbs 32,539	@ 1 4 lbs		2711 9 4
Carriage at 25 per cent				677 14 4
Cost of Punt fitted and taken to pieces at the Presidency for shipment				3389 7 8
Freight from Madras to Cocanada Tons 15		20 @ 0 2 0		300 @ @
Cost of Punt delivered in pieces at Cocanada Rupees				3689 7 8
Total Estimated cost Rupees				4643 12 8

Items required to be supplied by the Dowlaishwaram Workshops

Public Works Workshops
Cheepauk 30th September 1871

J. Spellinger
Asst Sup P.W. Workshops Station

SUPERINTENDING ENGINEER'S OFFICE, 1ST DIVISION,
DOWLAISHWARUM, 9th October 1871

No. 1142

From

Major P. T. Fischer RE.
Acting Superintending Engineer
1st Division

To

Colonel J. Carpendale RE.
Secretary to Government D. P. W.
MADRAS

SIR,

Adverting to para 4 of G.O.No:2031 of the 4th August last, and in continuation of my letter of date the 21st Ulto No 1631, I have the honor to forward the accompanying Copy of letter received from the General Superintendent Public Works Stores, and Workshops, Madras, and to observe from the Plan and Estimate herewith enclosed that, the total cost of building an Iron Punt is Rupees 4,643-12-8 or Rupees 900 less than that Estimated for by the Officer in charge of the Workshop here, but this has been chiefly effected by reducing the length of boat, and so diminishing the Number of ribs, whilst the beam has been only slightly increased

increased, this is no advantage in narrow channels; our boats were estimated for from the English design which has been found to be of the greatest use on these works -

2. It will now be clear to Government that the rates to which objection has been raised, when compared with those at Madras, are not excessive - For fuel labor is cheaper here than at Madras, and materials can be as easily procured, at moderate rates -

3. I cannot see that any saving will be effected by making the punt up at Madras - the first design prepared there and sent to the Government was to be made up of thinner plates than we allowed for; such a boat would not have stood the wear and tear of the rough work of the Quarries for any time, when the cost would have become a dead loss, and it is to be regretted the Government have been so misled in the matter and such serious inconvenience caused to the

the works in this District -

4. I must also not omit to observe that, in the Estimate prepared by Mr. Granger, no provision is made for shipping and landing charges - Freight is provided for, but it is not shewn, if this is the cost by Steamers. If we are to take our chance of getting the Material merely cut up from the Workshops at Madras by sailing Vessels, and have to put it up again here, on arrival, the loss of time would be another great inconvenience, which cannot be properly estimated in the progress of the works. Another item omitted is the charge of conveying Materials from Cocanada to the shop here after landing - If all these be added to the total cost of a Punt, it will be evident that there will be no saving worth mentioning if any at all - Taking these circumstances into consideration, I trust the Government will accede to my request as soon as possible, as the works are being delayed for want of means to convey Materials from the Quarries

Freight by Canal
15 × 32 / 2 = 115
at 6 pice per ton for bottle charge
Is taken to Bostanishwaram without being landed at Cocanada

to

To thew —

Sir

Your Most Obedt Servant

Lieut Col Engineers Major RE.

Superintending Engineer 1st Div

P.S. Shew finds the trade the cube allowed
at 6.4 per ft is during a mild winter
& not sufficiently cold a little more
from the cost of the materials cut
from England.

H.H.

Proceed as
directed
& forward
by 1st Post
Sir

To the Lieutenant Col
Commanding Royal Engrs
Portsmouth

1 Copy of letter of 12th Feb 71
Feb 71 Sup Engr

1 Blue Book with abstract
returns

No 24

6 Copy 15 Feb 71

Gl. No 871 Dept.
From Govt. Lr. No 4900.

Major P. T. Fischer RE.
Actg. Superintending Engineer
1st Division

To,
Colonel J. Carpendale RE.
Secretary to Govt. D.P.W.
(4)
Madras

Dated 29 October 1871
Received 16 / 2 / 5
2-E-Body

No. 2142
Enclosures three

Offers certain observations on the cost of Iron Punt proposed to be constructed at the Government Workshops at Madras and requests sanction for building the required number as per plans Estimate sent up from this Office

No. 2864 - 16 Nov 71

SUPERINTENDING ENGINEER'S OFFICE, 1ST DIVISION.
DOWLAISHWARUM, 16 October 1871

No. 2201

438

From

Major P. T. Fischer RE.
Actg. Superintending Engineer
1st Division

To

Colonel J. Carpendale RE.
Secretary to Government D. P. W.
MADRAS

SIR,

C. No. 4900 dt. 9th Inst.

In continuation of this Office letter of the 9th Instant No. 2142 and more particularly with reference to the postscript, I have the honor to request Mr. Granger may be directed to send in his details for the estimated rate of wrought iron work being 0—1—4 per lb. It would appear from his Estimate, this is the rate he allows for the work at Madras, which is nothing more than cutting up the Material and fitting it together before being sent up here, to be again put together and properly riveted for which he allows the shop here 2 pie per lb. for the work, this being only a little more than the actual cost price of the Charcoal at this station; and at the same time

time he assures the Government, the work can be done at Madras 33⅓ per cent. cheaper than here; he then revises his Estimate putting in proper Rates, but by allowing nothing for the cost of the work at this Station, he shews a probable apparent saving of only 19½ per cent. on our Estimate. Considering then all the circumstances of the case, I beg very respectfully to observe, our Original Estimate, as taken from actual work turned out, was quite correct, and far more to be relied on, than any data which has yet been supplied to the Government.

I have the honorable
Sir
Your Most Obedt Servt

Wm. Tinckler Majr RE

Act. Superintending Engineer 1st
Division

Cb. 220

No 183

45

Note by the Acting Chief Engineer for Irrigation.

Vide his letter No 1462 of 2nd August the Superintending Engineer of the 1st Division submits an estimate of Rupees 5500 for an Iron Punt 60' × 10' with a depth of 2' 9" and in para 4 of No 1631 of 21st August states that what is required is a strong Iron Boat about 60 feet long and 10 feet wide capable of carrying from 20 to 30 tons with a draught of not more than 2 feet.

2. The General Superintendent of P.W. Stores correctly remarks in his letter No 1238 of 30th September that a Boat of the dimensions proposed by the Superintending Engineer would carry only 15 tons with a draught of 2' of water. In calculating the buoyancy of the Boat the Superintending Engineer appears to have omitted to deduct the weight of the boat itself. The Superintendent of P.W. Stores points out certain omissions in the estimate submitted by the Superintending Engineer

From The Secretary to Government
No 5001

To The Actg: Superintending Engineer
1st Division

The Secretary to Government
P.W.D.
(S.) Madras

Dated 16th October 1871.
Recd 23
Encl:
No 2201

Offers further observations on the Estimated rate of wrought iron work being Rs 0-1-4 per lb as calculated by Mr Grainger the Superintendent of P.W. Stores and Workshops Madras

No 2864 - 18 Novr

gineer the cost of which at the rates which
prevail at the Dowlaishweram Workshops
would amount to Rupees 447-6-11 and raised the estimate to Rupees 5950-

Rudder & pintals	352 lbs	
stem & stern frames	180 "	
Butt straps at 3-2	1875 "	
	2407	325-15-2
Centage 25 pc		81-7-9
		407-6-11
Canvas lining with red lead under butt straps 400 feet		40-"
		Rs-447-6-11

3. The Superintendent of P. W. stores submits a plan & estimate for a boat 50'x 12' suited to a depth of 3½'. This boat with a draught of 2' 3" is capable of carrying a load of 15 & 30 tons respectively. The estimate amounts to Rupees 4750-. This is more than 50 per cent above the cost of the boat as previously estimated and is due, as the General Supt explains, to the fact that it was supposed that thinner plates could be used, than it has now been found necessary to provide, owing to the rough usage to which the boats are liable to be subjected when trying to make the head locks when a strong current is running.

4. In the estimate of the Superintendent P. W. stores provides for the cost of fitting the

the Punt at Madras and then taking it to pieces and despatching it to Dowlaishweram where the plates & rivets will be riveted: the charge for this item is 2 pice per ℔, this the Superintending Engineer states in his Letter N° 2201 dated 16 October, is not sufficient. On a reference to the Supt of P.W. Stores he has reported that the rates for such work at Dowlaishweram used to be 6 pice per ℔ wrought & put up (for labor & fuel & only) and of this amount 4 pice are required for fitting, cutting, punching plates, frames &c & for making rivets leaving 2 pice per ℔ for riveting only. He adds that he could get the riveting carried out at Madras for 1 pice per ℔ 5. Though the boat proposed to be constructed by the Supt of P.W. stores has a greater capacity & about 3 per cent more metal in it than that proposed by the Superintending Engineer, the cost of the latter is estimated at Rupees 1200 in excess of that

of

of the former, this difference is due to the high rate at which wrought iron is turned out at the Dowlaishweram workshops. The excess per ton including cartage being 10 pie or 45½ per cent higher than the rates at Madras.

6. As it is probable that the workshops at Madras will shortly be fully engaged on works connected with the State Railways and as the iron required for the punts is available at the workshops at Dowlaishweram and the Superintending Engineer appears to be most anxious to build the punts there, it would be well to send him the below estimate submitted by the General Supt and to call upon him to prepare a revised estimate submitting details of the cost of wrought iron, the market value of iron in Madras is 10 pies per lb but would appear to be much higher at Dowlaishweram

From

1. From para 4 of the Superintending Engineer's Letter № 1229 of 13 July it would appear that the punts are required at an early date, as, owing to the demand for Boats for the conveyance of produce, exorbitant rates are charged for the latter. In para 2 of № 1462 of 2nd August a transfer of Rupees 30,000 from the Extraordinary Agricultural grant to 'Tools & Plant' is applied for to cover the cost of the punts: if this charge may probably be covered by the saving effected in the conveyance of stone owing to the use of the punts there would probably be no difficulty in obtaining sanction for the necessary transfer.

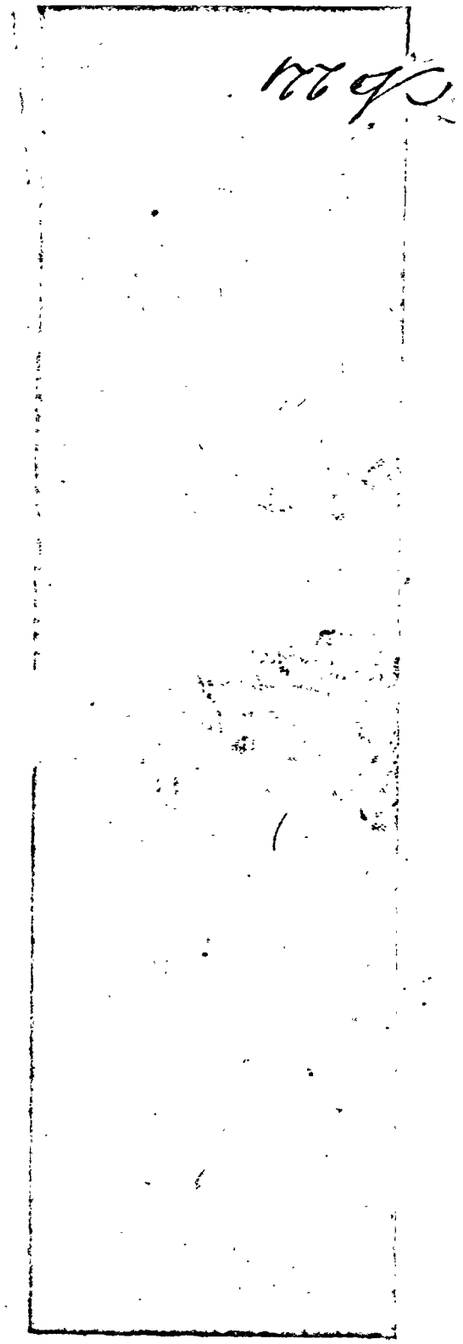
Fort St George
2nd November 1871

H. P. Parker Captain R.E.
(acting) Chief Engr for Irrigation

To

The Secretary to Government P.W.D.

3



Public Works 1871 Department
Genl of Govt for Irrign
No 2561
From
The Actg Chief Engr
for Irrigation.
To
The Secretary to Govt
P.W.D.

Dated 2nd November 1871.
Dely 3rd
Recd 4th

No 183
(6)

Note on the estimate of Rs 5,500 for an Iron Punt submitted by the Supt Engr 1st Div.

No 2864-13th Novr 71

From
The Public Works Department
No 2864
555
Proceedings of the Madras Government
Under date the 13th November 1871
Note by the
Read the following
From The Ag Supt Engineer 1st Div. N.E. No 1462 of 2nd Augt 1871
From " " " " 1631 of 21st " "
From The Genl Supt P.W. Workshops & Store " " 1238 of 30th Septr 71
From The Supt Engineer 1st " 2nd " " 2142 of 9th Octr 71
From The Ag Supt Engr 1st " 2nd " " 2201 of 16th Octr 71.
From The Ag Chief Engr for Irrigation " " 1837 of 2nd Novr 71.

The Plan and
Submitted.
Estimate by the Superin-
tendent of Public Works
Stores will be forwarded
to the Superintending
Engineer of the 1st Div.
who will prepare and
submit a revised Esti-
mate for the Iron Punts
with reference to the
points adverted to in
the

the note by the Acting
Chief Engineer for Irriga-
tion and he will state
whether it is anticipated
that the cost of the Boats
will be covered by savings
effected on the construction
of missing Works in the
Eastern & Western Delias.

I.I.

No. 3

28

Desp 14/11/71

To The Supdg Engr.
of the 1st Div. with Plan & Estimate
Chief Engr for Irrn
Ex Ltd 28th Nov 1871

Nos. 3753, 4008, 4665, 4699, 5001, 5257

Govt. of Madras. 1871

PUBLIC WORKS.

To The Superintending Engr. 1st Division

Dated

Recd. Encl. 8

G. O. 13th Nov. No. 2864.

Nos. 216 & 223

Iron pints. The plan & Est submitted by the Supdt of P.W. Stores for Iron pints required in connection with the Eastern & Western Deltas. Godavery, Forwarded & the Supdt Engr the 1st & 2nd for revision with reference to certain remarks by the Chief Engr