

Extract.

No. 422 of 19/20 January 1925.

Memo

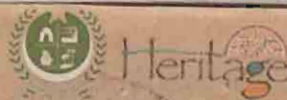
The accompanying Blue print is herewith sent to Messrs Charry & Co. for guidance. They are informed that ashlar fine dressed masonry is to be used from top of circular lintel to roof level, with circular dished appearing instad of Random rubble in the central dome.

Similarly fine dressed masonry on both the sides is to be used in place of animar dressed on one side and plaster inside from roof level to main cornice of base.

Would you please quote your rates for the following
Before starting the work.

X X X X X X X X

B



KMR.CDD.RbQ.1924-1925.01

CHARRY & CO.,
CONSTRUCTIONAL ENGINEERS
AND
CONTRACTORS

OPP. OLD SMALL CAUSES COURT,
BUNDER ROAD,

KARACHI, 26th January 1925



To.

The Executive Engineer,
Municipality, Karachi.

Dear Sir,

We are duly in receipt of your favour No.484 of the 21st instant for which we thank you.

While regretting the slow progress of the work at Museum even more than your goodself does, we beg to point out that the value of the work done so far is approximately Rs 65,300/= (To last bill 62,300/=, and work done since about Rs 3,000/= odd = 65,300/= odd) as against our total contract of 92,000 odd. We must here, humbly yet emphatically say that the most expensive mass item that take comparatively much less time to execute and carry big values have all been held up either due to your indecision or belated final orders.

Some such major items are:-

Reinforced Concrete Roof.	..	..	Rs. 8,610	0	0
Cement flooring tiles.	..	..	.. 7,285	0	00
Doors and Windows shutters					
		Total Value	8900		
		Less drawn on A/G	2400		
			.. 6,500	0	0
Dome.	..	..	.. 2,750	0	0
Plaster.	..	..	.. 2,090	0	0
		Total.....	27,235	0	0

Some of the walls still remaining incomplete, the roofing cannot be done. Until the roof and dome are completed, cement tile flooring and plaster cannot be taken in hand.

Door and window shutters come only after the plaster.

Thus while the question of walls remains undecided, all the other items are automatically held back. We beg to briefly

N.B.
This does not include amounts paid under requisitions.

explain the present actual position in the main as under:-

1. The Right and Left Wings.

With your permission we would take you back to your letter No.6376 of the 25th, and ours of the 26th and 29th September last referring to the wings, to all of which we invite your special attention, and as even to this day you have not issued your final orders, all the work on those sections are completely held up and have remained so for full four months, and surely you cannot lay the blame at our doors if the Municipal machinery is slow to move.

2. The Galleries.

The final sanction of the Managing Committee to the altered designs of the roof slabs and beams, which you have had under communication since the middle of September was communicated to us only as recently as under your favour No. 306 of the 14th instant. and already our centerings and reinforcing steel measuring nearly 2000 Sq Ft. are ready awaiting your inspection before concreting.

The thickness of the slabs and the amount of steel have both been increased (as already mentioned to you) over and above our designs on which we have based our rates; of this however we will represent to you under a special letter, though it becomes inconvenient to go into the question of rates after the work is done.

3. The Central Hall.

No roofing work can be attempted here, until further masonry over the circular lintel is raised, and just under your favour No. 422 of the 20th instant you have communicated your final decision to alter the class of this masonry from Random Rubble to Ashlar and have asked us to quote our rates, about which we will deal in a separate letter.

4. The Porch.

Here was the least scope of any work, and to avoid complete stoppage of all work at a later date we had been lingering on with just the minimum staff. Even that was stopped under your orders on the 23rd December and was resumed after you gave orders on the evening of the 8th inst. when you came round with the Assistant Engineer.

Thus you will no doubt be pleased to realise that if we had lingered on, it was solely with a view to avoid the necessity of a complete closure for sometime and expensive reorganisation later, and certainly not to suit any of our own purpose, under these circumstances we have been adjusting to suit your convenience and rather than be penalised, we humbly maintain that ours is the turn to claim compensation, for having been kept back.

Referring to para 1. of your favour under reply, though the ~~writer~~ was never out of Karachi for anything like two months at any one time, whenever he did go out, there were a qualified Engineer and an experienced Mestry on the job, and the very fact the Mestry Nakar Moosa holds a power of attorney refutes the argument that he was not allowed to do things for himself.

Para 2. Even if the pillar caps had arrived months ago, for reasons ^(our para 3) quoted above, we could not have advanced farther today.

Para 3. As explained above, necessarily we have had to adjust the number of workmen to avoid complete stoppage at a later date.

Para 4. Regarding the concreting the gallery portion, we would respectfully refer you to your letter No. 306 of the 14th instant until which date, though we had with a view to keep the staff engaged, commenced the centering work provisionally, we had not the final sanction of the Managing Committee.

Para 5. Regarding scaffolding we have always readily provided these wherever the work has been in progress, and sound ones at that, ^{as} other-
wise our workmen themselves could not work in safety having to handle



handle stones weighing 800 to 1000 LBs each 30 to 35 ft. above the ground, what we could not agree to was the demand for scaffolding all around the building, work or no work, as is customary in Bombay. May we beg to remind you that you discussed this question with one of the Working Committee members whom you brought round for inspection about the time you stopped the whole work for some days ostensibly on that account, though we have reasons to think otherwise.

Para 6. The delay from 1st to 9th inst. in concreting was to carry out your instruction, given when we were ready to concrete, to assemble the overlapping rods in a particular way, which meant undoing all the stirrups and rods once again, and then rearranging at the inconvenient height. The very fact that we have completed the concreting even while yet our claim for special rate for this class of circular beam not originally defined so in our tender, is yet undecided and disputed, (vide your letter 237 of the 10th inst.) goes to show our earnestness to get along wherever we have been ^{given} the least scope.

Para 7. We have dealt with the porch portion in an earlier para and we will not trouble you here with a reiteration. The reinforced concrete portion in lintels over the columns, has been ready for your inspection since a week, and the moment you pass it we will go ahead and fill it.

In the light of the above explanation we feel sure that you will be pleased to admit that we have been handicapped all along the line, and the we are really the aggrieved party, and in conclusion we trust that the whole situation will be considered with reasonableness and sympathy.

Yours faithfully,

D.S.

Charry & Co.

Swiss Whiting

P.S.

Since writing the above we have your favour No.514 of date conveying the resolution of the Managing Committee. From the tone of it as we gather that they are not apprised of the real situation from our stand point, and with a view to present the other side of the shield to them, in however small a degree we may succeed in our purpose, we are simply forwarding a copy of this letter to them with copies and extracts of such of the letters as are herein mentioned for ready reference and shall hold ourselves in readiness to furnish them any further particulars and explanation that they may demand of us either in person or by letter.

Charry & Co.

Submitted
with
26¹/₂ 11/11

625
571

27th January 5

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M e m o.

Messrs Charry & Co., are requested to clear the site for extension of both the wings of new museum and remove all their materials away from the area lined out at the back of the building for the arrangements of Chani etc., of the extension contrator, within 2 days from receipt hereof, failing which the same will be done at their cost by the Municipality.

U.C.P.

27/1/25
f Executive Engineer,
Karachi Municipality.

625

29th January

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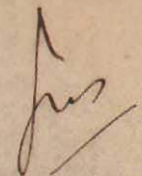
30

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M e m o.

With reference to their letter dated 26th instant regarding R.C.Lintels, Messrs Sharry & Co., are informed that when they tendered, they ought to have said so.

U.C.P.


Executive Engineer,
Karachi Municipality.

Khan



Karachi 26th Jan 25

The Executive Engineer
Karachi Municipality

Re: R. C. Lintell

Dear Sir.

Replying your favour
No. 237 of the 10th inst. we beg to say
that by a general definition of a
lintel it is understood a straight
one, any special shape like a circular
one being always specially defined as
such.

We may here remind you
that on one of your inspections
while the Circular centering was
being erected, we mentioned to you
of our claim for a special rate
for this item, ^{you} said that if ~~all~~ we
could prove that it was going to cost
more to put up a circular centering
you would consider. This circular ~~could~~
cannot be useful more than once.
We trust ^{that} you will kindly see
the reasonableness of our claim.

Yours faithfully,
Cherry



URGENT

574
24th January 5

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Messrs. Charry & Coy.

M e m o:-

Messrs. Charry & Co., are informed with reference to this office No.E/484 of the 21st instant, the Managing Committee have passed the following resolution:-

"Messrs. Charry & Co., to be given fortnight's notice that in case they do not show favourable progress to the satisfaction of the Executive Engineer, the said Officer is empowered to end the contract and carry out the work at their risk & cost."

You are therefore informed that this will be enforced after a fortnight from this date, if the progress is not improved.

Executive Engineer.,
Karachi Municipality.

S. 24/1/25.



KARACHI MUNICIPALITY.

:0:

Extract from the Proceedings of the Managing Committee Meeting of the

Karachi Municipality held on the 23 Jan 1925

SUBJECT—

203. Submitted with reference to Managing Committee's resolution No. 2097 dated 22nd November 1924, Executive Engineer's endorsement No. E. 485 dated 21st January 1925 submitting with his remarks a copy of his letter No. 484 dated 21st January 1925 to Messrs Cherry & Co., Contractors for the construction of the New Museum Building on the subject of rate of progress of the work of construction of the New Museum Building and requesting sanction under the circumstances mentioned to carry out departmentally the remaining portion of the said work at the Contractor's risk and cost.

RESOLUTION NO.

203. Messrs Cherry & Co., to be given fortnight's notice that in case they do not show favourable progress to the satisfaction of the Executive Engineer, the said Officer is empowered to end the contract and carry out the work at their risk and cost.

No. $\frac{203}{68}$

OF 19.

Municipal Office.

Karachi, 24.1. 1925

MEMO:

True extract forwarded to the Executive Engineer for

disposal with F.C

Inutides A

For Chief Officer,
Karachi Municipality.

72

Result of test
forwarded herewith
will compare



Karachi
22nd July 1924

Dear Mr. Brown.

I am sending
you one packet, sample
of G. S. Portland Cement.

Can you oblige me
by arranging to give me
a new cement, ^{terrible} test 7 days
old?

Yours sincerely
[Signature]



21st January

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Messrs Charry & Co.,Re: Progress of Museum.

You have been several times informed officially & verbally by the Undersigned and also by the Legal Adviser that the progress of the work at the Museum is very slow and that you have exceeded the contract time which ended on 30th of September. Even allowing a liberal time for the extra deep foundations, you have still not completed even 60% of your work.

You should note the following points, which show that you have not attempted to hasten up the progress:-

- (1) You remained absent from the work for over 2 months and gave powers of attorney to one Naker Moosa, who was not competent or was not allowed by you to decide things for himself. Vide my letter No.E 4521 of 9th July 1924. You have again remained absent from 12th January to date vide my No.411 of 19th January. There is no responsible man on the job.
- (2) For two & half months you were not able to obtain the pillar-caps for the central dome, as admitted by you vide this office No.E 14 of 7th January.
- (3) The number of workmen employed from 15th November to date show that there is not sufficient labour (vide statement attached.)
- (4) Centering for re-inforced floor over the rear rooms was complete about 25th December, but as yet no concreting is done.
- (5) You refused to provide scaffolding for a long time & I had to stop your work for not providing access for inspection of work on high level & still I find that except for one good ladder there is no other safe access for the work done on top. (vide my letter dated 15th November & 26th December)
- (6) The circular beam underneath the dome was declared by you complete for concreting on or about 28th December and inspected by me on 1st January and concreting was not begun till 9th January.
- (7) Work on the front porch is hanging on for want of dressed stones and re-inforcements for the last two months.

Please note that I am forced to take action under paragraph 5 of general conditions of the contract.



Karachi 21st January 1925

Copy forwarded to the Managing Committee for information and sanction to carry out the work departmentally at the contractor's risk & cost. The undersigned has before this submitted report vide Nos. 6038 & 7731 dated 12-9-24 & 14-11-24 respectively.

The Managing Committee have already considered this subject vide their resolution No.1725 dated 20-9-24 & No.2097 dated 22-11-24 respectively. Though the action has been taken on these resolutions, but the contractor has not in any way shown ^{improvement} ~~improvement~~ in the progress of his work.

It is therefore that the undersigned is compelled to suggest to put departmental labour on the work.

Fe with the Resolutions mentioned above is herewith sent.

Just
Executive Engineer,
Karachi Municipality.

In me,

22/1

103

3rd January

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5.

To,

Dipchand Chandumal., Esq.,

Acting Legal Advisor,

Karachi Municipality,

K a r a c h i.

Sir,

Reference to your letter No.E/11 of 19th November 1924, I have the honour to inform you that the Contractors may please be informed as given below:-

To,

Messrs. Charry & Coy.,
K a r a c h i.

Dear Sirs,

You are referred to this office No.E/4521 of 9th July 1924, where you have been asked to construct 20 feet of walling in the extensions and under No.E/6617 of 6th October 1924 you were informed in reply to your letter that the question of cross-walls was decided long ago, when orders to construct 20 feet walls of extensions was given under No.4521 of 9th July 1924.

You are also referred to No.E/3018 of 11th May 1924, where you were informed that all the information in connection with the work has been supplied to you and thus delay avoided in the execution of the work. This you have not contradicted.

You were also been informed verbally, which is admitted by you in your letter under reply in para 3. The fact that the side-wings are to be extended means, as you know that the cross-walls are not to be ~~made~~ built, which fact was made known to you several times on the work.

You were informed on various occasions regarding delay on your works, vide telegrams sent to you in July and also letter No.E/7732 of 14th November 1924.

You also admitted that the work was delayed for over two months on account of want of stones for capitals and rings of the columns as stated by you to the Executive Engineer. The Managing Committee have also under Resolution No.209 of 22nd November 1924 expedited you. In face of all this, it is too much for you to say that the Executive Engineer is forestalling your claims for delay.

You are therefore informed that you should note that the conditions of the contract in all respects will be adhered to and that it is in your interest to push on with the work. *That the condition*

A daily charge of Rs 25/- will be enforced

Yours faithfully,
etc., etc., etc.

I have the honour to be,
Sir,
Your most obedient servant,

Executive Engineer.,
Karachi Municipality.

S. 3/1/25.

① To see if any written
order of real to stop
further work.

2. Draw attention to delay.

Stones for capitals —
delay over 2 months.

Mr 3018 17/5/24 - says all information re: the present
Contract has been given
(no repl).

Mr Chang of 17/6/24 - Suggesting further progress pending
decision re: cross walls.

4521 of 9/7/24 20th water order given.
stopped 6376 of 25/9/24 - Chang's
27/9/24

6038 of 12/9/24 - to me re: delay in work

6617 of 6/10/24 - end walls long since
decided when order on 4521 of
9/7/24 given.

7731 of 14/11/24 Cdr to Cantor
re: delay in work.

~~6038 of 12/9/24~~
me. 1725 of 20/9/24 legal advisor
to serve to me.



Municipal Office,

Dated. 26th Dec 1924.

To

Cherry & Co.,

Karachi.

M e m o .

Inspite of my orders to put up the proper scaffolding for inspection of work, I find you have started the arches in front of the porch without any means of reinspection .

I have stop^d your work this after-noon and I am arranging to erect scaffolding at your expense .

No work should be done on this portion of arch until scaffolding is ready.

Executive Engineer,

Karachi Municipality.



Heritage

KMR.CDD.RbQ.1924-1925.01

No. E.11. of 1924.

From:

DIPCHAND CHANDOOMAL Esq.,
B.A.L.L.B.
Acting Legal Adviser,
KARACHI MUNICIPALITY.

Municipal Legal Adviser's Office,

KARACHI, 19th November 1924

To,

The Executive Engineer

Karachi Municipality

Karachi

Sir,

In continuation of my letter No. E. 10, dated 3rd Instt forwarding you the papers regarding Messrs. Charry & Co, I - have the honour to enclose herein a reply in original dated 18th Instant received by me from Messrs. Wadhumal & Co, Pleadars for Messrs. Charry & Co, for your information and to request you to return the same alongwith the other papers, with your instructions for a reply.

I have the honour to be

Sir

Your Most Obedient Servant.,

Dipchand Chandoomal
AG. LEGAL ADVISER

KARACHI MUNICIPALITY

Enclosure

N.G.V.

A/E please put in the file for me

Yes are herewith attached. The reference quoted by the E.A. with the J.C. on the subject has been forwarded to the Hon. member NO E. 7731 of 14/11/24

Sh. Hereafter 21/11/24

P.A. 2nd portion of paper which was before me with E.A. has been sent to E.A. for reply. The copy is in the file.

A/E please send

WADHUMAL & CO.
PLEADERS.

ISARDAS OODHARAM,
BAR-AT-LAW.
TRAMDAS WADHUMAL,
M.A. (OXON); BAR-AT-LAW.
DINGOMAL NARAINSING

No. T/1159 OF 1924

BUNDER ROAD,

KARACHI, 18th November 1924.

To,

Dipchand Chandumal Esquire,
B.A., LL.B.
Acting Legal Adviser,

Karachi Municipality.

Dear Sir,

Your letter No. E 9/24 dated the 3rd instant addressed to our clients Messrs: Charry & Co., has been placed by them in our hands with instructions to state that it is really amusing to see your clients putting in a claim of compensation of Rs: 25/- a day, when even till this day, they have not finally decided as to the final orders with respect to the contract in connection with the Museum Building. Our clients have reason to believe that the notice under reply has been sent with a view to evade the liability of the claim of our clients on account of the delay on the part of your clients in finally deciding whether they like to stick to the contract plan or have any alteration therein.
. In fact your clients have forestalled our clients in sending the notice.

Your clients have invited tenders in connection with the extention of the Eastern and Western sides and have in fact not made up their minds yet, whether to extend or not. Our clients have been anxious to have the question of Cross Walls determined in order to enable them to make progress in the work.

Our clients have been told not to begin the Cross



WADHUMAL & CO.
PLEADERS.

ISARDAS OODHARAM,
BAR-AT-LAW,
TIKAMDAS WADHUMAL,
M. A. (OXON); BAR-AT-LAW,
DINGOMAL NARAINSING

No. _____ OF 192

BUNDER ROAD,

KARACHI, _____ 192

Continued on page 2.

Walls which were stipalated in the contract, but instead to extend the longitudinal walls further by 20 ft: on the Eastern and Western side and that also, only up to the height of window sills.

Our clients once more make a request to your clients through you to let them know, the final orders with respect to the Cross- Walls in order to enable them to hurry on with the work and until your clients have done so, our clients will in no way , be responsible for any delay.

yours faithfully,

Wadhmal & Co

Pleaders.

8342

8th December

4

9
4Messrs. Charry & Coy.,

The Managing Committee at their meeting held on 22nd November 1924 have passed the following Resolution regarding slow progress of the work in the Museum:-

Resolution No.2097 of 22-11-1924:-

" To be expedited."

You are therefore requested to push on with the work.

Executive Engineer.,

Karachi Municipality.

S. 8/XII/24.



KARACHI MUNICIPALITY.

24 NOV 1924

Extract from the Proceedings of the Managing Committee Meeting of the
Karachi Municipality held on the 15 NOV 1924

SUBJECT—

31 Submitted with reference to Managing Committee's resolution No. 1725 dated 20th September 1924 Memo No. 7731 dated 14th November 1924 from the Executive Engineer reporting that practically no work has been done on the New Museum for the last month and submitting the Contractor's verbal explanation therefor. Deferred from the last meeting.



RESOLUTION No.

2097. To be expedited.

No. ²⁰⁹⁷
31 OF 19.

Municipal Office.

Karachi, 25. 11. 1924

MEMO:

True extract forwarded to the Executive Engineer for

disposal with F.C.

Assn. Engineer
for action
Memo.

For Chief Officer,
Karachi Municipality

11/26/11

(To be returned)
memo



KARACHI MUNICIPALITY.

Extract from the Proceedings of the Managing Committee Meeting of the
Karachi Municipality held on the 15 Nov. 1924

SUBJECT—

59. Submitted with reference to Managing Committee's Resolution No. 1725 dated 20th September 1924, Memo No. 7731 dated 14th November 1924, from the Executive Engineer reporting that practically no work has been done on the New Museum for the last month and submitting the contractor's verbal explanation herefor.

RESOLUTION No. 2069 DEFERRED

No. OF 19.

Municipal Office.

Karachi, _____ 192

MEMO:

True extract forwarded to the Chief Clerk for disposalwith F C

De M. S. S. S.
For Chief Officer,
Karachi Municipality

URGENT



Heritage

KMR.CDD.RbQ.1924-1925.01

1,000-12-11 1924

KARACHI MUNICIPALITY.

TELEPHONE No. 6.

J. N. SETNA,

B. Sc. (GLAS.) ETC.,

EXECUTIVE ENGINEER.

MUNICIPAL OFFICE,

KARACHI.

Dated 14th November 1924.

REFERENCE No E 2231 of 1924.

Managing Committee.

In continuation of my No. 6038 dated 12th September 1924, Undersigned has the honor to request that there is practically no work being done on the new Museum for the last month.

The Legal Adviser has already served the notice to the contractor.

Undersigned has interviewed the contractor and he has told me that he could not get the stones for the columns for a long time and still 20 stones are not yet received.

Undersigned places this letter on record for Managing Committee's information.

The papers on the subject are herewith sent.

For Mr.

Executive Engineer,
Karachi Municipality.

14/11

un.

From:—

No. E.10 of 1924.

DIPCHAND CHANDOOMAL Esq.,
B.A.L.L.B.
Acting Legal Adviser,
KARACHI MUNICIPALITY.

Municipal Legal Adviser's Office,

KARACHI, 3rd November 1924

To,

The Executive Engineer,
Karachi Municipality
Karachi

3 - NOV 1924
SIR,

With reference to your reference No. E.6716 dated 10th ultimo, I have the honour to enclose herein a notice in - original addressed by me to Messrs. Charry & Co, as desired, and shall thank you to have it served through the Municipal Peon.

I also enclose herein a copy of the said notice for your information, and return the papers in connection with the - matter.

I have the honour to be

Sir,

Your Most Obedient Servant.,

Dipchand Chandoomal
Acting Legal Adviser

Karachi Municipality

Accompaniments

N.G.V.

Mc M. Law it served by the city

in 1924 for compliance of 5th Nov 1924
copy of the notice
5th Nov 1924



3rd November 1924.

Messrs. Gharry & Co,
Karachi

Dear Sirs,

On behalf of the Karachi Municipality, I have to draw your attention to clause 3 of the agreement, relating to the date of completion of the work of the construction of MUSEUM building, and to state that a sum of Rs.25/- per day extra shall be charged if the work is not completed in time, as provided in the said clause.

Please note that the Municipality will enforce its rights under the contract if the terms of the contract are not -- complied with.

Yours faithfully

Sd. Dipchand Chaudhary

AG. LEGAL ADVISER

KARACHI MUNICIPALITY.,

N.G.V.



KARACHI MUNICIPALITY.

NOTE—(a) Tenders will be received on 28th Dec 1923 up to 4 p.m. (Standard Time.)

- (b) The cost of stamp to be affixed on the Agreement and the Bond shall be borne wholly by the Contractor, vide Managing Committee's Resolution No. 1391, dated 16th October 1893.
- (c) The Contractor will have to give two approved personal securities to the amount of Rs. 2000 after the tender is accepted and deposit a sum of Rs. 1000 cash deposit.
- (d) The Municipality do not bind themselves to accept the lowest or any tender.
- (e) All tenders to hold good until orders of the Municipality are passed thereon.

TENDER.

I the Undersigned having made myself fully acquainted with the details of work to be performed in connection with the construction of Museum Building, I do hereby tender to execute the said work as described in the Contract paper signed by D. Barrington Brow, Esq., M.C., A.M.I.C.E., Chief Engineer, Karachi Municipality, and dated 27th August 1923 at the prices fixed in the schedule herein below given, and should this tender be accepted by the Karachi Municipality, I do hereby agree and bind myself to abide by and fulfil all the terms and conditions contained in the Contract papers.

A sum of Rs. 500 five hundred accompanies this tender as earnest money and I do hereby agree and bind myself without delay when called upon to sign the Contract papers, to forfeit to the Karachi Municipality the said amount of earnest money and also to pay any damages that the Municipality may sustain by my default by resale or otherwise of the Contract.

Schedule of Prices.

Item No.	Quantity more or less.	Description of work.	Rate in Figures.	Rate in Words.	Per	Amount.
1	2	3	4	5	6	7
1	3,1300cft.	Excavtion for foundation including pumping water.			100 cft.	
2	15,650 "	Cement concrete in foundation			"	
3	13,200 "	R. R. Masonry in foudation in cement mortar.			"	
4	12,300 "	Cement concrete block in plinth to be cast on site set in cement mortar.			"	
5	13,700 "	Superstructure aninax fine dressed in ghaxi stone in face wall in lime mortar with cement pointing out side.			"	
		Carried over Rs...				



Item No.	Quantity more or less.	Description of work.	Rate in Figures.	Rate in Words.	Per	Amount.
1	2	3	4	5	6	7
6	8,500 „	E. R. Masonry in lime mortar for inner walls in courses of 8" thick.		Broughtforward Rs.	100 cft.	
7	2,500 „	Damp proof course of $\frac{1}{2}$ ply malthead on $\frac{3}{4}$ " cement plaster.			100 sft.	
8	31,800 „	Earth filling in rooms with watering and ramming 12" layers.			100 cft.	
9	7,750 sft.	Cement tiles flooring with 6" broken stone, coal cinders and grouting with cement.			100 sft.	
10	700 cft.	Rajkote stone fine dressed in steps in cement mortar with cement pointing.			1 cft.	
11	2,100 sft.	P. T. doors and windows $\frac{1}{2}$ panelled and $\frac{1}{2}$ glazed with brass fittings and 3 coats of varnish with 6" x 4" frame door shutters 2" thick and windows $1\frac{1}{2}$ " thick.			1 sft.	
12	1,160 „	P. T. venetian windows with brass fittings, 3 coats of varnish and 4" x 3 $\frac{1}{2}$ " frame $1\frac{1}{2}$ " thick shutters.			do.	
13	5,400 cft.	Hubb stone fine dressed column in cement mortar as per details.			100 cft.	
14	88 Nos.	Base and capital of columns in hubb stone fine dressed set in cement mortar			Each	
15	1,400 cft.	Main cornices in hubb stone fine dressed laid in cement and to be fine dressed on exposed faces (all through stones)			100 cft.	
16	2,500 „	R. C. concrete lintels			one cft.	
17	1 No.	R. C. in dome with fine dressed finial complete.			One	
18	5,000 sqr.	Cement concrete pre-cast segmental arched roofing.			100s ft.	
19	2,700 sft.	R. C. roofing to Central Hall			100 sft.	
20	19,000 „	Lime plaster to walls including 3 coats of approved distemper.			"	
Total Amount of Tender—Rupees...						
TENDER ACCEPTED.						

President.

Karachi Municipality.

Contractor.

Date 192 .

Date 192 .

Instructions for filling and completion of this form.

- (1) The blanks in the tender form must be filled in.
- (2) The rate in figures must be entered in column 4 and also the rate in words in column 5.
- (3) The tender must be clearly and correctly worked out in the amount column 7 and total correctly stated.
- (4) Any correction must be initialled by the Contractor.
- (5) Omission to comply with the above instructions will render the tender liable to be rejected.

KARACHI MUNICIPALITY.

—:0:—

Specification of various works connected with the erection of New Museum Building.

Setting out—The site of the building will be marked out for the Contractor by the Assistant-Engineer or such other persons as may be deputed by the Municipal Engineer for the work. The necessary levels will also be given. The Contractor must, however, provide the necessary labour and material for marking out the ground,

Item No. 1 Excavation—Trenches for foundation are to be dug to the depth and of the width shown on the drawings or deeper and wider, if found necessary, in order to obtain a hard firm bottom. No building is to be commenced until the foundation has been approved of by the Municipal Engineer. The earth from the excavation is to be used in filling in, but will only be paid for as excavation. No material excavated from foundation trenches of whatever kind it may be, is to be placed nearer than 4 feet from the outer edges of the excavation. The price quoted must include excavation under sub-soil levels and cost of pumping necessary in order to keep the trenches free from water during excavation.

Item No. 2 Cement Concrete in foundation—The concrete for foundation shall be composed of hard broken stone, sharp sand and Portland cement in the following proportion *viz* 6 of stone broken to $1\frac{1}{2}$ " gauge 3 of sand and 1 of Portland cement. The sand and cement will be gauged and well mixed dry on a clean boarded floor, the gravel or broken stone shall then be added and the whole mass turned over three times at least so as to ensure a proper mixture of materials before water is added from the rose of watering cans in sufficient quantity to thoroughly saturate it. The materials shall be again turned over three times at least to mix thoroughly together or they shall be mixed in a proper concrete mixing machine. The concrete must be deposited as quickly as possible after mixing in its intended position in the works in layers of 12" depth well punned with an iron headed rammer of approved form and weight so as to thoroughly consolidate it. All pieces of stone that become separated from the aggregate when it is placed in the work shall be removed. The whole of the concrete must be so worked and placed *in situ* as to become one solid mass and free from honey comb. If the concrete after having been put into the works be left exposed, and become hard, dry, unsound or dirty, or has been deposited for 10 hours before another layer is added, it shall be cleaned off or washed down as may be necessary, and be covered with a thin layer of cement mortar before another course of concrete is added.

Item No. 3. Random Rubble in Foundation—The foundation is to be laid of such ordinary thickness as may be required, and is to consist of large flat



bedded stones laid in cement mortar (5—1.) The stone to be the largest workable size, set with their broadest and truest bed downwards. All irregularities on the larger stones to be levelled up with smaller stones on the top bed only, and the whole must be thoroughly grouted with cement mortar. The whole stone to be used on this work must be the best from an approved quarry free from stains or blemishes.

Item No. 4 Cement Concrete Block Masonry in plinth—The blocks to be composed of 1 Part Cement 2 part sand and 4 part Gravel set in Cement mortar 1-5 with joints neatly finished off. The blocks to be not less than 9" inch thickness 15" inch breadth. Each course to break joint and headers shall be inserted at distances not more than 4 ft. apart in each course. The top course, of plinth shall be 6" in height with $1\frac{1}{2}$ " projection from outside with a bevelled edge at 45° . The stones in this course will be all headers.

The blocks shall be wetted in a covered place for 10 days before being used on the work. Brand of Cement to be used in the work shall be approved by the Engineer.

Item No. 5 Animar in Wall—The super-structure masonry is to be o animar and will be measured the full projection plus whole thickness of the wall and must be of best stone from Gizri Hill Quarry, free from stains or blemishes, and finely and truly dressed with a chisel on the face and dressed on all beds and joints to the dimensions given by the Engineer, or as shown on the plan. The stone to be fine dressed on the face and joints and rough tooled on beds, full, true and out of winding. The joints to be true and close and not to exceed $\frac{1}{4}$ " all visible edges and angles to be quite free from unsightly chipping. No stone to be less in any dimension than its height. All arches to be carefully turned on centres of the proper radii, and all arch stones to radiate to the proper arch centre. The whole work to be set in lime mortar (1-3) and pointed with cement mortar (1—3.)

Item No. 6 Random Rubble in walls—The stones to be used in the work as received from the quarry and without further dressing of any sort than that of knocking weak corners and edges with the masons hammer. The stone shall be carefully laid in courses not less than 8" deep so as to break joint as much as possible and to be solidly bedded with close joint. No joints shall exceed half an inch in thickness. No dry work or hollow spaces shall be allowed in the masonry any-where, small stones used in the filling being carefully selected to fit roughly the interstices between the larger ones. All walls to have headers not more than 4 feet apart centre to centre to go right through the walls. The walls are to be levelled every 18 inches in height, and to be carefully pointed both sides. The work to be set in lime mortar (1—4) and ~~pointed with cement mortar (1 cement and 3 sand.)~~

Item No. 7 Damp proof course—The damp proof course shall be of $\frac{3}{4}$ ply malthoid laid in compound in accordance with the specification issued by the makers. It will be laid at a level of about one foot above ground or as directed by the Engineer on a bed of $\frac{3}{4}$ " cement plaster.

Item No. 8, Filling in—The remaining filling in will have to be, brought from approved sites, or wherever the contractor may be able to find it and will be paid for according to the Schedule rate. All filling in must be done at once and properly rammed after the walls from foundation to ground level are finished.

Item No. 9 Cement Tiles flooring.—The flooring of the Museum will be of cement tiles 8"×8" of an approved shade and colour set in cement mortar 1-3 over 6" broken stone. The samples to be submitted to the Engineer for approval one month before they are used on work.

Item No. 10 Rajkote stone fine dressed in steps laid in cement mortar—The stone shall be of an approved quarry of Rajkote of black colour and shall be finely and truly dressed on all faces and joints chisel dressed on beds, set in cement mortar 1-3. The joints to be true and close and not to exceed $\frac{1}{4}$ " all angles be quite free from unsightly chippings. The stone to be as long as procurable in reasonable sizes. The measurement will be given of the actual quantity of the stone used in the steps and the filling in which will be of R. R. masonry will be paid according to the tendered rate.

Item No. 11 doors and windows.—The prices of the doors and windows of every description must include all necessary posts, frames, locks, bolts, hinges, fastenings, expanded metal, copper netting, and furniture required to make them in every way complete and effective. The articles must be of best quality and pattern of their respective kinds, and according to the detail drawings to be supplied and they must be submitted for approval of the Municipal Engineer before being used. The doors and windows to be of pukka teak. All the outside doors to be framed 2 inch and panelled as shown on the plan. The door-posts to be of pukka teak, 6 inches by 4½ inches. The doors to be hinged each with three 6 inches brass hinges, fitted with brass rim lock, 3 feet special bolts &c., on top and 9 inches brass bolts at bottom as may be required. The windows are to be of pukka teak, framed 1½ inches thick and each hung, with 4 inches brass hinges and fitted with brass bolts as may be required. All doors and windows to receive three good coats of the best Copal varnish or paint as may be directed, the cost of which is to be included in the rate for the doors and windows respectively.

Item No 12, Venetian windows.—The windows will be provided with P. teak Venetian shutters from outside, complete with brass furniture etc., as specified above. The rate to include 3 coats of varnish or oil-paint of an approved colour.

Item No. 13.—Hubb stones fine dressed column, set in cement as per details. All columns will be Hubb stones of an approved quarry, set in cement mortar 1-3 in large lengths as procureable, finely and truly dressed to the detailed sections supplied by the Engineer. The joints to be true and close and not to exceed $\frac{1}{2}$ inches and shall be free from unsightly chippings. The measurements will be given of the actual section of the columns in the work.

Item No. 14.—Base and capital of columns in Hubb stones fine dressed set in cement.—The Bases and capitals of the columns shall be in Hubb

stones in one thickness each, cut and dressed to the section supplied by the Engineer. The specification shall be similar to Item No. 14 in all other respects and price shall be paid per unit.

Item No. 15 Main Cornices in Hubb Stones.—The cornices shall be finely dressed to the section shown on the plans. No stones shall be less than 3 feet long or less than the full width shown on plan.

Item No. 16 R. C. Concrete Beams, Moulded Lintles.—The Beams and Lintels shall be in re-inforced concrete and shall be measured in cubic feet in actual work. The concrete will be mixed in the proportion of 1 of cement to 2 of sand and 4 of gravel not exceeding $\frac{3}{4}$ " gauge and as specified in Item No. 2. The price to include all reinforcement and centering and finishing of the surface neatly in cement mortar 1:2 to the details supplied by the Engineer.

Item No 17 Reinforced Concrete Dome 30 feet inside diameter including Hubb stone fine dressed finial complete.—The central Hall of the museum will be provided with a Reinforced Concrete Hemispherical Dome. The price to include all reinforcement staging centering, etc., including finishing off the surfaces perfectly smooth. The contractor will be required to submit the calculation of Dome including the details of reinforcement etc., for the approval of the Executive Engineer. The rate to include the Hubb stone fine dressed finial to the details supplied by the Execution Engineer.

Item No. 18 Reinforced Concrete pre-cast segmental arched roofing including beams, joists, filling in haunches and malthoid covering complete.—

The roofing of the museum will be of reinforced concrete pre-cast segmental arched blocks 4 feet in thickness set in cement mortar 1-4 and laid on Reinforced Concrete subsidiary beams supported by main beams. The ends of the blocks and the top surface of beams will be made sloping so as to radiate truly towards the centre of the curvature of the blocks. The blocks will be made of cement concrete mixed in the proportion of one of cement, two of sand and four of aggregate. The sand and aggregate shall comply with the specification already given for concrete in foundation with the exception that no stone in the aggregate in the reinforced concrete work shall exceed $\frac{3}{4}$ inches in diameter in any direction. The mixing and laying shall be as already described. The inner surface of the blocks and sides of the beams shall be finished with fine mortar of one cement to two of sand. The reinforcement for the beams shall be of best mild steel complying with the British Standard Specification having an elastic limit of 16 to 18 tons per square inch. The segmental blocks shall be suitably reinforced with expanded metal or in some other method to be approved by the Engineer. The contractor will be required to submit calculations and details of reinforcement for the beams for the approval of the Enagineer.

The rate to include filling in haunches with cement concrete 1-3-6 and laying malthoid 2 ply in thickness asdescribed by the makers.

Item No 19, Re-inforced Concrete Slab Roofing.—The roof of the rest of the rooms will be in re-inforced concrete slab, details and calculations of which will be supplied by the contractor. The proportion of cement concrete will be 1: 2: 4, and the reinforcement will be of best mild steel bars to comply with the British Standard Specification. The price to include centering etc, and finishing off surfaces perfectly smooth with Cement mortar (1—2)

*Note:—*The entire work of R. C. concrete mentioned in the above items shall be carried on by a firm specialists who have had wide experience in the execution of this type of works and the name of which shall be stated in the tender form. Only the firms of repute will be permitted to carry out the above works. The contractor will also required to guarantee the whole of the reinforced concrete works to withstand such tests as may be ordered by the Engineer and no payment will be made for reinforced concrete work until such tests have been carried out. All reinforced concrete work is to be finished off perfectly smooth and free from the smallest holes without any extra payment for plastering

Item No. 20, Chunam Plaster with 3 coats of distemper.—The interna walls of the building to be plastered half an inch thick and to receive three good coat of distemper wash colour approved by the Engineer. The plaster should be composed of lime-paste one part, sand two parts, hair or chopped hemp one-sixth part (by volume). It should be slacked with a moderate quantity of water, afterwards diluted to the consistency of cream by mixture of thin jaggery and water of the proper proportions the mass then allowed to harden by evaporation to the required consistency for working. The price to include 3 coats of distemper of an approved color.

General Conditions.

The whole of the work herein mentioned must be executed to the satisfaction of the Municipal Engineer, who shall have power to cause to be removed any materials or cause to be pulled down any work that may not be in his opinion satisfactory.

Alter Plan.—The Municipal Engineer has the power to alter the plan and specification for this work at any time and in such manner as he may think necessary, whether such alteration increases or reduces the quantity of work to be performed and if the work is reduced in quantity, the Contractor shall have no claim on the Municipality for the reduction made, and if the work is increased in quantity the Contractor shall be paid for such increases at his tender rate.

Date of completion.—The Contractor shall be bound to complete the entire work within 9 months from the date of acceptance of his tender for the same, or pay a fine of Rs. 25 per day for every extra day until all the work be finished. On the completion of the work, he shall inform the Municipal Engineer who will examine the whole work, and if found satisfactory, his term of maintenance (being 6 months) shall commence, during which time the building shall be kept in thorough repair by him (the Contractor.)

Payments :—The Contractor shall be entitled to payment monthly on account of the works at the rate of 90 per cent. of value of the work actually executed as certified by the Engineer ; a further 5 per cent. when the works are certified by the Engineer to be completed, and the balance of 5 per cent. will be paid at the expiration of the term of maintenance provided that the work have been delivered up to the Municipality, and shall have been certified by the Engineer to be completed according to the true intent, and meaning of this specification.

Power to end contract :—If the work shall not progress to satisfaction of the Municipal Engineer, either as regards progress, workmanship or materials the Municipal Engineer is hereby authorized to take the work out of the Contractor's hand carry on the same departmentally or re-let the contract to another persons. The loss to be sustained by the first contractor whose work or rate of progress was considered unsatisfactory.

Contractor to enter into agreement :—The party whose tender is accepted must enter into a stamped agreement with the Municipal Engineer for the due fulfilment of the several terms of this specification. The cost of such stamped agreement to be borne by the aforesaid Contractor.

The Contractor shall not on any pretence whatever sublet or assign contract or any portion of it to another party without the permission of the Municipal Engineer in writing. On the completion of the work, the contractor shall clear away all rubbish and trim up the ground as may be directed.

The Contractor will have to give two personal securities to the amount of Rs. 1000 for the due fulfilment of the contract, and deposit a sum of Rs. 250 cash.

D. BARRINGTON BROW, M.C., A.M.I.C.E.

Executive Engineer,
Karachi Municipality.

Municipal Office,
Karachi,
27th August 1923.

note
Hubb skin written
no 13, 14 & 15 are in pen
Hubb Gary of bed
skin near Kooradkhan
bund about 20 with
from Kooradkhan

E 6716

6th October 4

To
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To,

The Legal Adviser.,

Karachi Municipality,

Karachi.

Sir,

I have the honour to send herewith a copy of the tender, giving details of the contract etc., entered into with the Contractor.
(In case change of)

Clause "Power to end contract", page 6 of General Conditions lays down the procedure to be adopted when the work does not progress satisfactorily.

The work was lined out on 31st December 1923 and the period of the contract is 9 months. The work turned out upto the end of August was 58% of the contract.

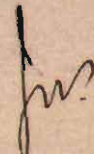
The contract period expired on 30th September, but the Contractors are entitled to an extension period, as they had to work deeper founds than what they had contracted for.

I suggest that a general notice be served asking the Contractors reasons why they should not be penalized, as per clause 3 of the agreement *under General Conditions*.

I have the honour to be,

Sir,

Your most obedient servant,


Executive Engineer.,

6/10/24, Karachi Municipality.

KARACHI MUNICIPALITY.

Extract from the Proceedings of the Managing Committee Meeting of the
Karachi Municipality held on the 20 SEP 1924 192

SUBJECT—

29. Submitted Memo No. 6038, dated 12th September 1924, from the Executive Engineer, submitting with his remarks a report on the work of the construction of the New Museum Building by Messrs. Charry & Co.



RESOLUTION No.

1725. The Legal Adviser to be requested to serve a notice on the Contractors to push on with the work in accordance with the conditions of the contract; otherwise it will be carried out by the Municipality at their risk and cost.

No. 1725
29

OF 192

Municipal Office.

Karachi, 24.9. 1924

MEMO:

True extract forwarded to the Executive Engineer for

disposal with F.C.

ME which is
level & vial.
for 1

Diatted

For Chief Officer,
Karachi Municipality.



KARACHI MUNICIPALITY.

MUNICIPAL OFFICE,

KARACHI.

B. Sc. (GLAS), ETC.,

EXECUTIVE ENGINEER.

Dated, 12th September 1924.REFERENCE No. E. 6038 of 1924To,
Managing Committee.

Undersigned has the hon our to report that the Contractor for the Museum Messrs. Charry & Co., have slackened the progress of the work during the last month and ^ahalf. Mr. Charry who has been called away to Bombay for a Law suit has been absent from works over ^{two} months on two occasions and his agent and partner has not shown any zeal to push on with the work. Several warnings have been given to the Contractor. His contract ~~extended~~ is for 9 months commencing from 31st December 1923 and allowing for certain unavoidable delays, such as time lost in excavating deeper foundations and pumping out water and delay in deciding the extensions, the work should be completed by end of January 1924. So far the quantity of work has been 58% of the total and it is unlikely that work will be completed by that time.

Undersigned recommends that the Contractor may be given a warning by the Managing Committee.

14/30Executive Engineer.,
Karachi Municipality.

11/11

For M.C.

12/9 12/11/24*after board*



21st January

5

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Messrs Charry & Co.,
Re: Progress of Museum.

You have been several times informed officially & verbally by the Undersigned and also by the Legal Adviser that the progress of the work at the Museum is very slow and that you have exceeded the contract time which ended on 30th of September. Even allowing a liberal time for the extra deep foundations, you have still not completed even 60% of your work.

You should note the following points, which show that you have not attempted to hasten up the progress:-

- (1) You remained absent from the work for over 2 months and gave powers of attorney to one Naker Moosa, who was not competent or was not allowed by you to decide things for himself, Vide my letter No.E 4521 of 9th July 1924. You have again remained absent from 12th January to date vide my No.411 of 19th January. There is no responsible man on the job.
- (2) For two & half months you were not able to obtain the pillar-caps for the central dome, as admitted by you vide this office No.E 14 of 7th January.
- (3) The number of workmen employed from 15th November to date show that there is not sufficient labour(vide statement attached.)
- (4) Centering for re-inforced floor over the rear rooms was complete about 25th December, but as yet no concreting is done.
- (5) You refused to provide scaffolding for a long time & I had to stop your work for not providing access for inspection of work on high level & still I find that except for one good ladder there is no other safe access for the work done on top.(vide my letter dated 15th November & 26th December)
- (6) The circular beam underneath the dome was declared by you complete for concreting on or about 28th December and inspected by me on 1st January and concreting was not begun till 9th January.
- (7) Work on the front porch is hanging on for want of dressed stones and re-inforcements for the last two months.

Please note that I am forced to take action under paragraph 8 of general conditions of the contract.

92-1

In arms			Cooling						
Date	Men	Sitting	With Sitting	Motor gun	Current Current	Conductors Succession			Remarks
			Men	Women	Men	Women	Men	Women	
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									
14.									
15.	10	Nil	"	"	5	"	"	"	12
16.	5	"	"	"	5	"	"	"	13
17.	11	2	5	"	"	"	"	"	12
18.	10	2	12	5	"	"	"	"	10
19.	13	4	16	6	"	"	"	"	5
20.	15	2	10	7	"	"	"	"	9
21.	18	2	12	3	"	"	"	"	9
22.	19	2	13	"	"	"	"	"	7
23.	19	Nil	"	"	"	"	"	"	3
24.	17	3	11	4	"	"	"	"	8
25.	16	3	10	1	"	"	"	"	3
26.	7	2	9	1	"	"	"	"	12
27.	1	2	18	"	"	"	10	9	5
28.	8	Nil	"	"	"	"	11	5	5
29.	8	2	7	1	"	"	"	"	4
30	Nil	Nil	"	"	"	"	"	"	13

92-2

December 1924

Date	Marrows		coalies						carpenters		Remarks
	Dresser	Sellers	with sellers	Martin fam		Cement Carroll		Miscellaneous			
				men	women	men	women	men	women		
1	3	2	4	1	-	-	-	7	-		
2	7	-	-	-	-	-	-	15	-		
3	6	-	-	-	-	-	-	16	1		
4	8	2	6	1	-	-	-	15	-		
5	6	-	-	-	5	-	-	16	-		
6	6	-	-	-	-	16	9	8	-		
7	2	-	-	-	-	-	-	13	1		
8	6	2	12	10	-	-	-	9	-	P	
9	8	2	15	8	-	-	-	8	-	P	
10	6	2	16	8	4	-	-	8	-	P	
11	9	2	11	6	-	-	-	9	-	P	
12	10	2	12	9	5	-	-	11	-	S	
13	9	2	10	-	-	-	-	11	-	P	
14	9	2	10	2	-	-	-	13	-	P	
15	9	2	8	-	-	-	-	12	-	S	
16	9	2	8	-	-	-	-	12	-	S	
17	8	2	12	-	-	-	-	8	-	P	
18	9	2	10	-	-	-	-	4	-		
19	8	2	10	-	-	-	-	9	-		
20	8	2	10	-	-	-	-	4	-		
21	8	2	9	-	-	-	-	2	-		
22	6	2	9	-	-	-	-	2	-		
23	9	2	11	-	-	-	-	4	-		
24	8	2	10	-	-	-	-	4	-		
25	10	2	12	-	-	-	-	8	-		
26	9	2	9	-	-	-	-	7	-		
27	8	-	-	-	-	-	-	4	-		
28	4	-	-	-	-	-	-	2	-		
29	10	-	-	-	-	-	-	8	-		
30	11	-	-	-	-	-	-	7	-		
31	10	-	-	-	-	-	-	4	-		



January 1925

223

Date	Masons		with		Mason		Cement		Carpenters		Remarks
	Order	Setters	Setters	Setters	gain	gain	Control	Control	Miscellaneous	Miscellaneous	
			men	men	men	men	men	men	men	men	
1	-	-	-	-	-	-	-	-	-	-	
2	-	-	-	-	-	-	-	-	4	-	
3	-	-	-	-	-	-	-	-	4	-	
4	-	-	-	-	-	-	-	-	-	-	
5	-	-	-	-	-	-	-	-	2	-	
6	-	-	-	-	-	-	-	-	4	1	
7	-	-	-	-	-	-	-	-	4	1	
8	4	-	-	-	-	-	-	-	-	-	
9	4	-	-	-	-	-	14	10	6	1	
10	4	-	-	-	-	-	15	10	-	-	
11	4	2	4	-	-	-	-	-	2	-	
12	2	2	4	-	-	-	-	-	4	-	
13	4	2	4	-	-	-	-	-	2	-	
14	4	2	8	-	-	-	-	-	10	-	
15	2	-	-	-	-	-	-	-	13	-	
16	8	-	-	-	-	-	-	-	14	-	
17	5	-	-	-	-	-	-	-	17	-	
18	-	-	-	-	-	-	-	-	2	-	
19	-	-	-	-	-	-	-	-	8	-	
20	8	2	7	-	-	-	-	-	10	-	
21	3	2	8	-	-	-	-	-	6	-	
22	-	-	-	-	-	-	-	-	-	-	
23	-	-	-	-	-	-	-	-	-	-	
24	-	-	-	-	-	-	-	-	-	-	
25	-	-	-	-	-	-	-	-	-	-	
26	-	-	-	-	-	-	-	-	-	-	
27	-	-	-	-	-	-	-	-	-	-	
28	-	-	-	-	-	-	-	-	-	-	
29	-	-	-	-	-	-	-	-	-	-	
30	-	-	-	-	-	-	-	-	-	-	
31	-	-	-	-	-	-	-	-	-	-	

444

19th January 5
20
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M e m o.

Messrs Charry & Co., are informed that the windows for the Museum are to be venitioned and not Gauze window as per your tendered rates. Details will follow.

2. Details shown in the detail drawing of dome sent to you, will have to be actually worked out full size on ground by drawing the diameter of dome. Instructions will be given on site, when you are ready.

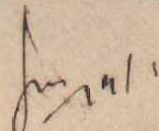
U.C.P.

Executive Engineer,
Karachi Municipality.

.....
No.E 445 of 1925

Karachi 19th January 1925

Copy forwarded to the Assistant Engineer for information.


Executive Engineer,
Karachi Municipality.



422

19th January 5

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M e m o:-

The accompanying Blue Print herewith sent to Messrs. Charry & Coy., for guidance.

They are informed that Ashlar Fine Dressed Masonry is to be used from top of Circular Lintel to roof level with Circular Dishes as per design instead of Randum Rubble in the Central Dome.

Similarly fine dressed masonry on both the sides is to be ~~xxx~~ used in place of Animar dressed on one side and plaster inside from roof level to main cornice of base.

Would you please quote your rates for the following before starting the work:-

1. Fine dressed masonry in Ghizree Stones with pannelling on both the sides (from top of Circular lintel to roof level).
per 100 Cft.
2. Fine dressed ashler masonry dishes.
per No.
3. Animar masonry dressed on both the sides,
(Roof to top of Cornice).
per 100 Cft.

M. M.

Executive Engineer.,
Karachi Municipality.

Kw

S. 19/1/25.

44
19th January 5

5

Messrs. Charry & Co.,
K a r a c h i.

Gentlemen,

Please note that Mr. Charry has remained absent from the works since Monday the 12th January 1925. The work therefore suffers on account of want of a responsible man on the job.

Yours faithfully,

S. 19/1/25.

19/1/25
Executive Engineer.,
Karachi Municipality.

306

13th January 5

14

5

M e m o:-

Contractors, Messrs. Charry & Coy., are informed that the Managing Committee held on 6th January 1925 have sanctioned the altered type of roof for the New Museum Building under construction, Viz., Beams & slabs. *plumican bases in my office*

Executive Engineer.,

Karachi Municipality.

S. 13/1/25.



KARACHI MUNICIPALITY.

Extract from the Proceedings of the Managing Committee Meeting of the
Karachi Municipality held on the 6 JAN. 1925

SUBJECT—

23 Submitted Memo No. 7343, dated 1st November 1924,
from the Executive Engineer, submitting with his remarks Resolution dated
20th October 1924, of the Works Committee with regard to the altered type
of roof for the New Museum Building under construction.

RESOLUTION NO.

23. S a n c t i o n e d .

No. $\frac{23}{23}$ OF 19.

Municipal Office.

Karachi, 9. 1. 1925

MEMO:

True extract forwarded to the Executive Engineer for
disposal with F.C

M/E Inform the
the contⁿ resolution
clear
Inform the Contⁿ
12/1/25

Diattar A
For Chief Officer,
Karachi Municipality.



KARACHI MUNICIPALITY.

TELEPHONE NO. 6.

J. N. SETNA,

B. Sc. (GLASGOW) ETC.,

EXECUTIVE ENGINEER.



MUNICIPAL OFFICE,

KARACHI.

Dated, 30th October 1924.

REFERENCE No. E. 7343 of 1924.

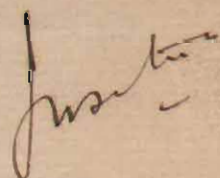
Managing Committee.

Undersigned forwards the accompanying recommendation of the Works Committee to the Managing Committee with regard to the altered type of roof on the Museum.

It will be seen from the report, that a stronger & economical form of Reinforced Concrete roof is arrived at and as this flat slab construction is already specified for the extensions, pre-cast type of slabs are changed to "in situ" construction to obtain uniformity.

No extra cost is involved as the Contractor has shown his willingness to work at the same rate as the pre-cast slabs. Sanction is requested to proceed with the work.

For me,
J. N. Setna


Executive Engineer.,
Karachi Municipality.



Extract of subject 2 from the minutes of the Works
Committee held at Municipal Office on Monday the 20th October
1924.

.....

2. Submitted letter No.6968 dated 18th October 1924 re -
Museum Sub-Committee proposals regarding R.C.Flat roof in place
of present segmental.

Resolved:- The flat roof be constructed provided the Contractor
accepts the same rate as for precast one.

~~~~~

Executive Engineer,  
Karachi Municipality.

un

## KARACHI MUNICIPALITY.

TELEPHONE No. 6.

MUNICIPAL OFFICE,

J. N. SETNA,

KARACHI.

B. Sc. (GLAS), ETC.,

EXECUTIVE ENGINEER.

Dated, 18th October 1924.

REFERENCE No. E. 6960 of 1924.

Works Committee.

M e m o:-

The galleries comprised in the extension of the Museum are to be covered with reinforced concrete beams and slabs over the same all formed in-situ (Vide sketch A.).

2. The first portion of such galleries which forms the wings to the central domed area and comprised in the original contract is arranged to be covered with reinforced concrete beams and precast segmental arches as covers (Vide sketch B.).

3. It would be preferable that the whole of the galleries including the portion now proposed to be undertaken and the short wings in the existing contract should be of the same roof construction.

Not only is this desirable on account of making the roof of the gallery throughout uniform, but as I show on the attached schedule the in-situ concrete roof covering is preferable to the <sup>precast</sup> ~~present~~ segmental covering.

The area involved is 4322 Square feet.

The cost of the present segmental type will be Rs. 5,375/-.

The cost of in-situ flat type will be ..... 6,188/-

I therefore recommend that the segmental covering in the wings be replaced with the flat covering as for the remainder of the gallery.

*C.S.  
I submit for the  
approval of the  
works committee  
the cost of the  
present segmental  
type is Rs. 5,375/-  
and the cost of the  
in-situ flat type is  
Rs. 6,188/-  
The difference is  
Rs. 813/-  
which is the cost of  
the extra work  
to be done in the  
wings to make them  
of the same type as  
the remainder of the  
gallery.*

Executive Engineer.,

Karachi Municipality.



101

Note on the roof on the central portion  
of the Museum.

1. According to the specification in the contract, the roof in the central portion underneath the dome is to be of plain re-inforced concrete slab with beams, without any waterproofing cover.
2. Roof over the side wings however is described as "precast segmental arched roofing 4" in thickness" placed over subsidiary beams which rest over main beams 32' feet long. This roofing is to be covered with Malthoid. These precast blocks are to be 5 feet long and about 2 to 3 feet wide. The arrangement would be as per isometric sketch <sup>below.</sup> attached.
3. My experience is that in re-inforced concrete precast units, (particularly in a roof) are a source of weakness, because the construction is not made monolithic, and every joint in <sup>the</sup> precast slabs is a source through which water is likely to leak. Besides hauling up of each block, which will weigh from 500 to 700 lbs according to the width, will produce stresses in the slab not allowed for.
4. But one of the principal objections is due to the long span of the main beam which is 32 feet centre to centre of the columns. In re-inforced concrete structures, it is very economical to stress steel & concrete to their safe limits of stress Viz., 16,000 lbs and 600 lbs per square inch respectively.
5. Taking these stresses to develop simultaneously, the economic depth for the main beam is calculated to be 47". Width of the beam <sup>assumed</sup> is ~~assumed~~ to be 24". ~~Calculations are attached over page 102.~~ The reason why such a heavy size of beam is required is, that the strength <sup>continuous</sup> that a ~~continuous~~ slab gives in a T beam is lost in this case, as the precast slabs are not continuous. This size of beam would appear out of place with the interior proportions of the Museum.
6. If however stresses in steel & concrete were not to be developed to their safe limits, it is possible to reduce the depth of the beam by providing re-inforcements at the top of the beam. Such a beam is calculated (vide sheets over leaf) and the size is given to be 27" x 16". But the great drawback in this beam is that concrete in compression is stressed beyond its limits and it is as a rule not advisable to stress the concrete to its breaking point, as it will produce cracks.

2.

7. I am therefore strongly of opinion that the roof in the wings ~~has~~ should be changed to plain slab construction with beams & water -  
-proofing on top.
8. This will be in uniformity with the roof in the extensions, which is specified as ~~of~~ plain R.C.Slabs with beams. There should not be two kinds roof in the same wing. I have designed such a beam which will be of size  $24\frac{1}{2}" \times 16"$  or  $28" \times 13"$ . (~~with calculation~~)
9. Going into the question of costs, I find that the present Contractor is to get Rs.80/- per 100 Sq.feet.of plain slab roof without beams. The beams are to be paid at Re.1/2- per Cft. For the pre-cast segmental roof, he is to get Rs.129/-per 100 Sq.feet inclu -  
-sive of all beams and waterproof cover.

If the Contractor<sup>s</sup> were asked to do the plain slab roof in the wings at ~~their~~ <sup>his</sup> rate of Rs.80/-per 100 Sq.ft. and pay extra for beams & waterproof ~~cover~~ cover, the rate works out as follows:-

For one bay of 60' x 11'

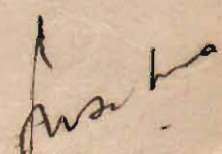
|                   |                                   |                       |   |                 |
|-------------------|-----------------------------------|-----------------------|---|-----------------|
| Slabs             | 660 Sq.ft.                        | @ Rs.80/-             | = | Rs. 528 - 0 - 0 |
| Beam              | $24\frac{1}{2}" \times 16"$ x 60' | @ Re.1/2-<br>per Cft. | " | 184 - 0 - 0     |
| Malthoid Covering | 660 Sft.                          |                       | " | 231 - 0 - 0     |
|                   |                                   |                       |   | <hr/>           |
| Rupees.           |                                   |                       |   | 943 - 0 - 0     |

Compared with this, if the Contractor did this portion at Rs.129/-per 100 Sft.including waterproofing, the cost works out to Rs.851/-. Therefore I recommend that the Contractor be asked to do the roof in plain R.C.Slab & Beam with Malthoid covering at Rs.129/-per 100 Sqft. This rate will apply to central portion also.

Municipal Office,

Karachi,

Dated, 17th October 1924.

  
Executive Engineer.,

Karachi Municipality,

## Museum Building.

- (1) Area of roof to be covered with precast slab with beams & Malthoid & Floatine.

Galleries area 4322 Sft. @ 129/- per % - Rs. 5,575

- (2) Area of the same roof with plain R.C.Slab, beams & Malthoid & Floatine.

|                      |                 |                                                  |
|----------------------|-----------------|--------------------------------------------------|
| Plain slab           | 80/-per % Sft.  | These are the tendered rates of the Contractors. |
| Beams.               | 1/2- " 1 Cft. = |                                                  |
| Malthoid & floatine. | 35/-%Sft.       | This is the current rate prevailing.             |

Area 4322 Sft @ 143/-per % = Rs. 6180

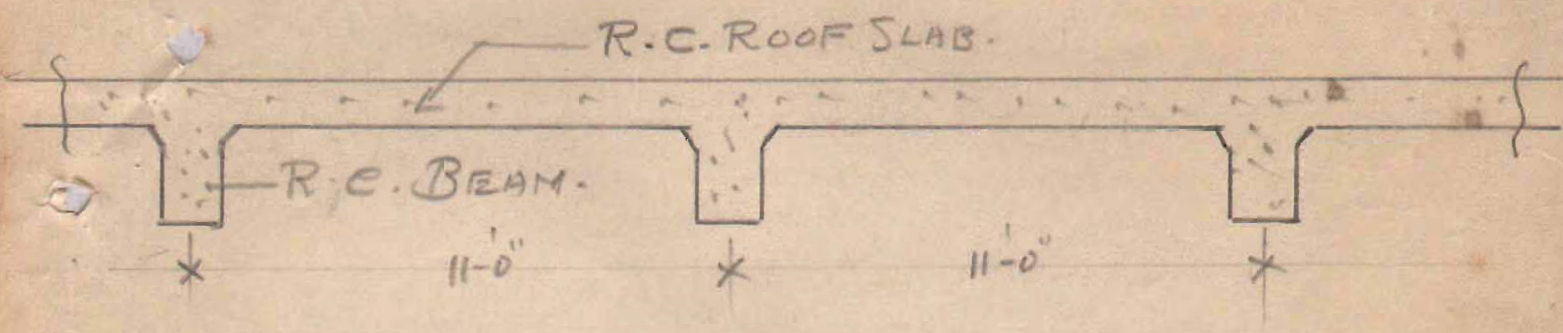
Difference Rs.- 605

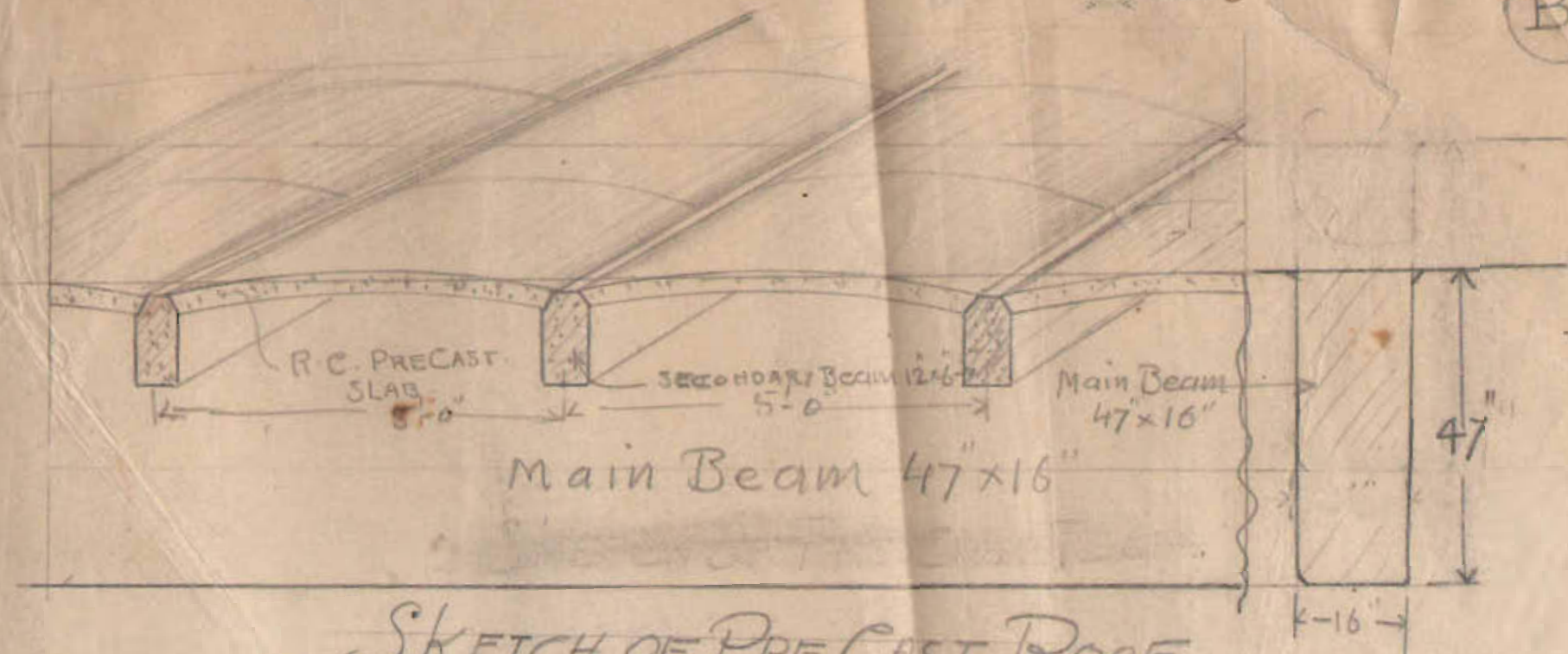


①

" "  
A  
104

# SKETCH OF R.C. SLAB ROOF WITH BEAM.









108

Eh.

I have given a permit  
to Messrs Chany & Co. to take  
stone from Gizi Quarry for  
the museum. Ahmed Mashty  
has been asked to issue chips  
~~of address~~ & number them.

Ahmed Mashty has been  
instructed to collect these  
& see that the same are  
~~kept~~ ~~used~~ ~~for~~ on the museum.  
If you do not approve of  
this please let me know  
so that the orders may  
be issued accordingly.

Shri 1st  
Cm

13/1/25

File  
14/1/25

237

10th January

5

5

Messrs. Charry & Coy.,Re - R. C. Lintels in Museum.

Reference to your letter of 18th ultimo, would you please show as to where it is mentioned in the tender that the R.C.Lintels mentioned there-in are to be straight and not round.

L. K. P. 21

Executive Engineer.,

Karachi Municipality.

S. 10/1/25.

Wm

24.

1<sup>st</sup> - letter will be sent as desired

2nd - He refers to the rule of  
Ri/s originally agreed to by  
you against Ri/s of the Secede.

from order re: the 2nd class  
where have I agreed 7/4/25

14

Show 7c, 4E.

8

In the morning  
 please attend to  
 the

in Triangles  
please attach 2c  
New

$$\frac{1}{25}$$

Subscribed to the U.E.  
with 7c. please  
them

Ken

ME

Cherry which is  
not a true cherry  
but a small tree  
with white flowers  
and red fruit.

He  
Refers to change  
as per page 17  
this will 73

12/20/12  
 We are very  
 glad to hear  
 of your success  
 in the  
 business world  
 and hope you  
 will continue to  
 prosper.

109-2

Karachi  
18<sup>th</sup> Dec. 1924

To  
The Executive Engineer  
Municipality  
Karachi

18 DEC 24

Received  
in file  
of Sir

R.C. Lintels in Museum

Sir,  
While thanking you for your favour No 8306 of 6.12.1924, we beg to say that while our tendered rate is 1/2/- per C.ft of purely straight R.C Lintels, We had never tendered either for a Combined Stone & Concrete lintel or for any circular lintel with double reinforcement referred to in <sup>our</sup> letter of 22<sup>nd</sup> Novr 1924. If there has been any mistake we may assure you that it has not been on this side. The Combined lintel had mostly been completed before receipt of your favour under reference.

A/c  
The cost is to be paid in full  
straight R.C. Lintels  
to be paid in full  
A/c  
51  
R.T.O.