(1) பக்கங்களின் எண்ணிக்கை 60

(2) புதுக்கித் திருப்பிய நாள் 17-6-88.

(3) ஆதாரங்குறிப்பவர் சுருக்கொப்பம்

தமிழ்நாடு ஆவணக் காப்பகம்.

தமிழ்நாடு அரசு

பொதுப்பணித் துறை

அரசாணை எண்.
மு. கோப்புத் தாள் எண். 1462 w

அச்சகம்
பலவகை

நாள் : 17. 5. 1888 ~~198~~.

மடிக்கவோ கண்டபடி கையாளவோ கூடாது

ஆவண. கா-1—18,006—15-6-87.

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

General.
Account.

Read—the following papers:—

From the Superintending Engineer, I Circle, dated 7th December 1887, No. 333 Gl.
Do. II „ „ 17th February 1888, „ 439 Gl.
Do. III „ „ 21st January „ „ 2100.
Do. IV „ „ 7th „ „ „ 11 E.W.
Do. V „ „ 23rd March „ „ 5452.
Do. VI „ „ 14th December 1887, „ 1679 T.J.

From J. W. BRASSINGTON, Esq., Consulting Architect to the Government of Madras, to the Chief Engineer, Public Works Department, dated Chepák, 6th March 1888, No. 1548.

With reference to G.O. No. 3130 W., dated the 19th November 1887, I have the honor to state that measurements are made for two reasons:

First,—Vouchers for payment and no bill is passed without the measurement book being produced and the pages quoted in bill, and these measurements are made as frequently as the petty contractors require, in order to keep them in cash and thus facilitate work.

Secondly,—For report of progress and comparison with the estimate, so as to check any error in either the estimate or work measurements. In the case of buildings, a floor, a plinth line is chosen; this is independent of any necessary connection with the monthly accounts.

I fail to see any great advantage in choosing a monthly period of measurement, except in the case of large contractors who could afford to wait so long a time.

Office Note from the Examiner, Public Works Accounts, dated 21st April 1888, No. 1388.

The following is, I think, a complete list of the opinions and proposals definitely expressed or made in the correspondence forwarded, so far as material to the issue:—

A—As regards persons who should measure—

(*a*) Mr. Walch would have the latter part of Code para. 1764 run thus: "The measurements made by subordinates will, as far as possible, be checked by the subdivisional officer or divisional officer (meaning, I suppose, the Executive Engineer) and the fact of . . . . . ."

(*b*) Colonel Pennycuick would have it run thus: "The measurements made by the officer in charge of the work will, as far as possible, be checked by the Executive or an Assistant Engineer, and the fact of . . . . ."

(*c*) Mr. Vincent thinks that perhaps every alternate measurement at least should be made by the subdivisional officer in person.

(d) Several officers say that final measurements are, and apparently imply, that they always should be made or checked by the subdivisional officer in person.

B—As regards frequency of measurements—

(e) Mr. Vincent thinks that probably intervals between measurements need, or should, rarely exceed two months.

(f) Colonel Vibart would substitute the following for the first two clauses of the Code para. 1367:—"Every officer or subordinate in charge of a work carried out under contract will measure up and submit contract bills at least once in three months, and if possible once a month. It will be his duty in case of his not being able to measure up any work within the prescribed time of three months to make a special report on the subject to the Executive Engineer."

(g) Colonel Vibart thinks the Executive Engineer and the Examiner should bring to notice cases of delay in measuring up works.

C—As regards other matters embraced in the Code para. 1367—

(h) Mr. Martin would simply omit the first clause of the paragraph, leaving the other two standing.

(i) Colonel Vibart considers the second clause of the paragraph impracticable, and would omit it.

(j) Colonel Pennycuick would cancel the first two clauses, and would substitute "officer or subordinate in charge of a work" for "officer" in line 8.

D—As regards records of inspections and measurements—

(k) Colonel Smalley would have the names of works measured and check measured entered (with dates) in the Executive Engineer's monthly inspection reports to the Superintending Engineer.

(l) Colonel Vibart suggests entering dates in register of works.

2. With regard to (A) there is not much difference between (a) and (b), but I should be disposed to take a little from each. Then supposing that (c) and (d) are considered reasonable, Code para. 1764, that is, the latter part of it, might run thus:

"The measurements made by the officer or subordinate in charge of the work will, as frequently and as far as possible, be checked by the subdivisional officer or by the Executive Engineer, and the fact recorded in the measurement book. In the case of works carried out under contract at least every second (or third) measurement should be so made or checked by the subdivisional officer; and no final payment whatever should be made, except on measurements made or checked by the subdivisional officer or the Executive Engineer, adding at the end of Code para. 1367 'with regard to measurements *see* para. 1764.'"

The entries on contract certificates should show whether measurements have been checked in accordance with the rule or not, and disregard of the rule would be noticed by the Examiner.

As remarked by Mr. Walch, it is bad policy not to put a fair amount of trust in upper subordinates of standing; but inasmuch as a subdivisional charge may, on occasion, be held by lower subordinates, it might be well to lay down that, when the subdivisional officer is below a certain rank, all final measurements must be checked or made by the Executive Engineer or some officer or upper subordinate of specified rank deputed by him.

3. With regard to the frequency of measurements (b), I would suggest the adoption of Colonel Vibart's, see (f) above, adding "The Examiner will bring to notice all cases in which the prescribed period of three months is exceeded." I think, however, that for such divisions as the Presidency and Nílgiri, and perhaps one or two others, and for works at head-quarter stations, the rule might require measurements every two months *at least*, and also that in all cases in which any stipulation as to frequency of measurement is made in the contract agreement, compliance with the stipulation should be insisted on; and, as a matter of course, no such stipulation should be made without due consideration of the responsibility involved. At present this stipulation is, I believe, generally made, being one of the conditions printed in the agreement form, but it is very seldom complied with.

---

4. With regard to (*C*), I think, with Colonel Vibart and apparently with Colonel Pennycuick, that the present second clause of para. 1367 is impracticable, and I would expunge it. The last clause might, I think, be modified as proposed by Colonel Pennycuick.

5. With regard to (*D*), the question of the record of dates of measurements is not one that concerns me much. Probably neither of the two suggestions (*k*) and (*l*) would give any very appreciable trouble. I do not think myself that the register suggested by the Deputy Examiner is necessary.

6. Very possibly some better arrangement of the rules might be made. It would perhaps be better that the proposed last part of para. 1764 should be embodied in para. 1367, or as 1367A, but that is a matter of form, which can be easily settled when the substance of the rules is determined.

7. I may be allowed to explain that in my Office Note No. 764, dated 14th November 1887, I had not the slightest intention of suggesting that the reports required by Code para. 1367 *ought* to be something quite apart from the measurements for contract certificates; I merely wished to draw attention to the fact that, as the Code stands, two different sets of measurements are apparently contemplated, viz., reports of progress and measurements for certificates.

ORDER—dated 17th May 1888, No. 1462 W., Public Works.

The above correspondence relates to measurements of work, the subject of which was brought forward in the Examiner's Office Note, recorded with G.O. No. 3130 W., dated 19th November 1887.

2. After consideration of the opinions recorded, the Government have arrived at the following conclusions:—

3. As regards—

A—Persons who should measure—

para. 1764 of the Public Works Code should be modified as follows:—

"Whether the work abstract is prepared by the subdivisional officer, or in his own office, the Executive Engineer will be careful that its preparation is not left in arrears. The measurements made by the officer or subordinate in charge of the work will, as frequently and as far as possible, be checked by the subdivisional officer or by the Executive Engineer, and the fact of such check measurements having been made will be recorded in the measurement book. Final measurements of completed work should be checked by the subdivisional officer or Executive Engineer, and the fact recorded in the measurement book before payment, and also in the contract certificate when the amount exceeds Rs. 500."

4. The Government are not disposed to adopt the Examiner's suggestion at the end of para. 2 of his Office Note, No. 1388, dated 21st April 1888. It will rarely happen that the charge of a subdivision is held by a lower subordinate, and there appears to be no reason why any subordinate who is considered fit for the charge of a subdivision should not be entrusted with the duty of checking measurements.

5. As regards—

B and C—Frequency of measurements and the other matters dealt with in para. 1367 *of the Code—*

the paragraph in question should be modified as follows:—

"Every officer or subordinate in charge of a work carried out under contract will measure up and submit contract bills at least once in three months, and if possible once a month. It will be his duty, if unable to measure up any work within the three months, to explain the cause by special report to the Executive Engineer. It is the duty of the officer or subordinate in charge of the work to bring to notice any dilatoriness, bad work, or anything militating against Government interests on the part of the contractor, and he will be responsible for any neglect in this respect. *See* also para. 393."

6. It is not considered desirable that there should be any special rule for particular divisions, as suggested by the Examiner in para. 3 of his Note of the 21st April.

7. With respect to—

D—Record of measurements—

It is considered that all measurements should be recorded in the measurement books. This is provided for in para. 1756 of the Code, but the following addition should be made to this paragraph :—

> "When an Executive Engineer or subdivisional officer checks the measurements of a work, he is to record the fact of his having done so in the measurement book of the subordinate who originally measured the work, and enter in his own measurement book an abstract of the measurements, and date of check."

The Examiner is requested to be good enough to arrange for the requisite alterations being carried out in the Public Works Code.

(True Extract.)

Captain R.E.,
Under-Secy. to Govt., P.W.D.

To Superintending Engineers.
To the Consulting Architect to Government.
" Chief Engineer for Irrigation.
" Examiner, Public Works Accounts.

Exd. F. R. Bantleman.
Spare Copies

GENERAL.
ACCOUNT.

Govt. of {1888} Madras.

PUBLIC WORKS.

Dated May, 17th.

Recd. *Encl.*

G.O., 17th May 1888, No. 1462 W.

MAY.

Measurements of Work

Directing the modification of Code para. 1367 regarding —.

1.

C.N. 3775

CAW 1462W

14
1462

As E.I's note is embodied in the revised draft it is proposed to remove his note and the original draft order before sending to AW

14. V. 88

The note should be kept with the file — I have removed the old draft order

R.S.
14-V-88

F.S. 33/1

5/1462

With regard to para 2
of Examiner's Note
I object to the latter
portion of his proposed para.
It is not necessary or
practicable for subalterns
to check all measurements
on which final payments
are made.
The first part might
stand but I would say
in the 8th line
"Recorded in the measurement
book".
The measurement book is
a permanent record
the copies sent with
the bills are not so.
The following might be
added
"Final measurements and"
"the of completed works"
"shd be checked by the"
"Sub Officer in ch. of work"
"& that recorded in the"
"measurement book and bill"
"before payment when the"
"amount exceeds R 300"
2 No action shd be taken
on the latter part of para
2
3 I see no objection
to the addition of

Col. Vibart's proposal
B f as proposed
by the Examiner but
no special rule shd
be made for any
of the Divisions as
the Exr suggests

4 With regard to
C I would adopt
Col Pennycuick's
proposal and omit
the 1st two clauses
and substitute "Officer
or subordinate in charge"
for "Officer"
The 2nd clause is I
consider unsuitable

5 I consider that
all measurements
shd be recorded in
the measurements
~~book~~ books this is
provided for in para
1756 but I would
add the following
"When an Ex Eng or
sub-divisional Officer
checks the measurement
of a work he is to
record the fact of
his having done so in

C/1462

the measurement book
of the subordinate who
originally measured the
work. and enter in
~~I consider no other record
necessary~~
his own measurement
book an abstract of
the measurements and
date of check."

I consider no other
record necessary the
fact and total of work
done would be recorded
in 2 books. and if
Sub Eng and Ex Eng
do their duty (also
the Account dept see
para 366) and see
that these books are
properly kept up and
that the subordinates
measurements ~~be~~ are
checked from time to
time all that is
necessary will be done.

11/5/88

I agree with Col. Mant generally the order may be altered accordingly

12/5/88

O.H. 33/V.
H.m. 14.5.88

No. 333 CA 7/1462

FROM,

G. T. Walch Esqre.

~~THE~~ SUPERINTENDING ENGINEER

FIRST CIRCLE.

TO,

THE CHIEF ENGINEER

PUBLIC WORKS DEPARTMENT.

DOWLAISHWARAM, 7th December 1887
Despd 12th

SIR,

1 With reference to GO 3130-19-11-87 I have the honor to say that I am opposed to the adding of yet another new Return or Register to the already too numerous Returns which Officers and Subordinates of this Department have to send in.

2. I consider that the words in Para 1764 of the Code "The Measurements made by the Sub Divisional Officer will, as far as possible, be checked by the Executive or an Assistant Engineer, and the fact of such check measurements having been made will always be recorded on it" should be changed to "the measurements made by Subordinates will as far as possible be checked by the Sub Divisional or Divisional Officer & the fact of × × × recorded on it." Sub Divisions are

generally held by Assistant Engineers or if not by them by Upper Subordinates of standing, in whom it is bad policy not to put a fair amount of trust.

I have the honor to be,
Sir,
your most obedient St.

C. [illegible] Ewald
Supt. Engr. 1st Circle.

CH

8/1462

EXAMINED
957
5 APR 1888
ENCLOSURES
P.W. ACCOUNTS

P.W.C. No. 10384

FROM,

THE SUPERINTENDING ENGINEER

FIRST CIRCLE

TO,

THE CHIEF ENGINEER

PUBLIC WORKS DEPARTMENT.

DATED 7th
DESPTCHED 12th } December 1887
RECEIVED 19

18 DEC 87

NO. 333 G.L.

ENCLOSURES. Nil

SUBJECT.

Modifications of Code paragraph 1367.

—

Opposes ~~to~~ the adding of yet another new Return or Register with reference to the —

14.12.87

R 17.5.88

No. 1277 C

Buckingham Canal Divn Office
21st December 1887.
Recd 22d

4/1467

From C. Vincent Esqre
Executive Engineer
Buckingham Canal Divn

To The Superintending Engineer
2nd Circle

Sir,

In reply to your endorsement No. 334 G.L. of the 9th instant on G.O. No. 3130 W of the 19th ultimo I have the honor to say that the ruling conveyed in Code para 1367 is quite impossible to carry out in practice. It is understood that so far as possible, measurements shall be taken & bills prepared for all works once every month, and though in the case of large masonry works, and of other works when an Officer is specially ~~of~~ in charge of one work, or of a small group of works, this may be practicable and advisable, in many other cases measurements at monthly intervals would be impossible, and inadvisable even if they were possible In such a category may be included all Earthworks, which can only conveniently be measured, when a certain depth & length of pit has been excavated, or a certain uniform height of bank put up. No doubt six months, as mentioned by the Examiner, would be an extreme instance of neglect to measure up work, and may probably be traced to some special reason. It is difficult to fix any interval within which works shall be measured, but perhaps the occasions on which more than two months need or should elapse between successive measurements would be extremely rare. To have a measurement to meet Code para 1367 separate from the measurement for bills, would be an obvious absurdity.—

2. As regards Code paras 1764 & 1818 it is inevitable that Overseers should be sometimes entrusted with the duty of making

1 10/142

making measurements, but I do not think that they should habitually make them, and perhaps at least every alternative measurement should be made by the Sub Division Officer in person. I have previously referred to the incorrectness of that portion of para 1818 which says that the original Contract certificate shall be presented by the Contractor to the Executive Engineer for payment.—

3. As regards the suggestion contained in the opening sentence of para 3 of the Examiner's letter, the maintenance of the proposed register seems to be wholly superfluous. As observed by you an Officer's Inspection Notes & Note Books show you whether he inspects his works sufficiently & properly.—

I have the honor to be
Sir
Your most obedient Servant

Executive Engineer
Buckingham Canal Dn

Enclosure to S.E.K. No 439 of 17-2-88
376 B.C.

From C. Vincent Corre
~~Ag~~ Executive Engineer
Buckingham Canal
Divn

To
The Supdt Engineer
2nd Circle

Dated 21st
Despd 22d } December/87
Recd

No 1277 C

Modification of Code paragraph 1367 requiring submission of monthly Statement of work done

---

Affords his opinion on the — proposed by the Examiner

0/575 — R. 17. 8. 88

No 439 GL

11/1461

Suptg. Engineer's Office,
2nd Circle, Bezvada.
17th February 1888.

From,

J. Hannan Esquire,
Superintending Engineer,
2nd Circle

To,

The Chief Engineer,
Public Works Department,
Madras.

Sir,

Enc. to
1 Report

With reference to G.O. No 3130 W. of the 19th November 1887 communicating for report Office Note from the Examiner, Public Works Accounts, regarding modifications of Code Para 1367, I have the honor to forward a report from Mr Vincent, Executive Engineer, Buckingham canal on the subject with which I concur.

I have the honor to be,
Sir,
Your most obedt Servant,

J Hannan
Superintending Engineer,
2nd Circle

Compd. W

P.W.C. No. ~~465~~
3775/88

951
APR
ENCLOSURES
P.W. ACCOUNTS

From

The Supty Engineer
II Circle

To

The Chief Engineer
P.W. Dept

Dated - 17th February 1888
Recd 21.2.88

No. 439 W

21 FEB 88
DEPARTMENT

1 Enclosure - one

P.W. Code para 1367 - modification of - requiring submission of monthly statements of work done - Mr Vincent's letter affording opinion on the - forwards -

ack
21.2.88

13/1462

Superintending Engineer's Office,

No. 2100

3RD CIRCLE

Camp [illegible]

~~Bellary~~ 21 Janry 1888.

FROM,

Col. H. Smalley R.E.
SUPERINTENDING ENGINEER,
IIIrd CIRCLE.

TO,

THE Chief Engineer
P.W.D
Madras

SIR,

G.O. No. 3130 W. 19th Novr. 87

Enclosures.

I have the honour to report that in this Circle the areas of the Divisions comprising it are so large, and the Officers of this Department so few, that it is quite impracticable to obtain monthly measurements of all works in progress. The only reports of measurements made are the measurement sheets attached to Contractors bills, extracted from the measurement books; these are made by all subordinates promiscuously, but the final measurements are made or at least checked by Sub Divisional Officers or Divisional Officers. The Supdg Engineer is not kept informed of the measurements taken monthly as it is desirable he should be, and to this end I should think it would be sufficient if every Officer and Subordinate were required to note in red ink in his monthly Inspection Report the names of works measured and Check measured by him with the dates.

I have the honour to be
Sir,
Your most obdt. servant,

H. Smalley Col. R.E.
Supdg Engineer
3d Circle

P.W.C. No. ~~44~~ 13775/88

EXAMINER
No. 951
5 APR 1888
ENCLOSURES
P.W. ACCOUNTS

From,
The Superintending Engineer,
IIIrd Circle.

To,
The Chief Engineer
P.W.D.
Madras

Dated 21 } January 1888.
Received }

Enclosures.

No. 2100

Monthly
Measurements of works
in progress.

Reporting on the impossibility
to obtain — in this Circle

23.1.88

15/1462

Supg. Engineer's Office 4th Circle,
Coimbatore 7th January 1888,

No. 11
Ew.

From,
J. W. Martin Esq.
Offg. Superintending Engineer,
Fourth Circle.

To,
The Chief Engineer,
P. W. Department.

Sir,

Adverting to G.O. 19th November 1887 No. 3130 W. regarding modification of Code paragraph 1367, I have the honor to report that the present practice is, that measurements of works under Contract are taken, as often as practicable, by either the Sub-division Officers or by upper-Subordinates and Contract Certificates are prepared on Form No. 14 in accordance with para 1818 of the Code. As regards upper-Subordinates, not being Sub-division Officers, measuring works, the Sub-division Officers measure as many works as practicable, but as the works are scattered over large areas it is often necessary to allow Upper-Subordinates to measure them for otherwise there would be great delay about payments, but the final payments are always made on measurements either taken or checked by the Sub-division Officers.

2. With reference to para 1367 of the Code, I am decidedly of opinion that it is impracticable with the present P.W. establishment to carry out the provisions of the first part of that paragraph. I assume that "subordinate" means only an Upper or lower subordinate and does not include temporary maistries charged to works, men who generally can neither read nor write except in the vernacular. With our present limited establishment a Sub-division Officer has charge of the works in two or three talugs with one or two Overseers under him. The works in charge of a Sub division officer

Officer and his Subordinates are, therefore, often, in fact, generally miles apart, and, consequently, it is impossible to get measurements and calculations of the quantities of work done on the last day of each month for all works carried out under Contract. But even if it were practicable to measure works on the last day or at end of each month, I consider that it is not necessary to measure them, because when payments are about to be made, measurements showing all work done to date and materials at site, are, at present, sent to the Executive Engineer to be recorded on form M.14 in accordance with para 1818 of the Code. It is therefore obvious that if works are measured at the end of each month there would be a great deal of repetition as regards measuring. An Executive Engineer does not require to know exactly how much work is done on the last day of each month except he wants to make a payment. All that he wants to know is, that the Contractor is making fair progress with the work or is working steadily at it, and this information he now gets from the progress report of works received from his Subordinates. Under these circumstances I would modify paragraph 1367 of the Code by omitting the first part so that in future it would run as follows:-

"No Officer or Subordinate in Charge of a work carried out under Contract will be relieved of his charge until after a careful inspection by his superior Officer or under a Certificate granted by the relieving Officer. It is the duty of the Officer in Charge to bring to notice any dilatoriness, bad work or any thing militating against Government interest on the part of the Contractor; and he will be responsible for any neglect in this respect. See also para 393."

I have the honor to be,
Sir,
Your most obedt. Servt.,

Offg. Superintending Engineer II Circle

17
#
1462

No. 957
5 APR 1888
ENCLOSURES
P.W. ACCOUNTS

PWC No 957

C3

37757/88

From
The Offg: Supg Engr:
Fourth circle.

Dated 7th }
Recd: } Jany: 1888

No: 11
EW

Modification of Code Para 1367:-

Proposing certain, requiring submission of a monthly statement of work done; and reporting on the present practice.

mov
11.1.88

HW

No. 5452 A.

18/1462

Supg Engineer's Office
5th Circle
Bangalore 23rd March 1888.

From
Colonel H. M. Vibart R.E.
Superintending Engineer
5th Circle

To
The Chief Engineer
Public Works Department.

Sir,

With reference to G. O. No. 3130 W. dated 19 November 1887, I have the honor to state that it would not be practicable to have monthly measurements of works made by Sub-Division Officers or their Subordinates, save in very exceptional cases where an Officer or Subordinat is in charge of some one work, such as the construction of an anicut or bridge. In some few cases works have perhaps been not so promptly measured up as they should have been, I consider the Executive Engineer, or if he fails to do it, the Examiner should bring such cases to notice. Code para 1367 might be omitted and some such rule as the following substituted. "Every Officer or Subordinate in charge of a work carried out under Contract will measure up and submit Contract bills at least once in three months and when possible once a month, it will be his duty in case of his not being able to measure up any work within the prescribed time of three months to make a Special report on the Subject to the Executive Engineer. It is the duty of the Officer in charge to bring to notice any dilatoriness, bad work or any thing militating against Government interests on the part of the contractors and he will be responsible for any neglect in these respects."

2. I consider that Sub. Divisional Officers ought to measure a certain number of works themselves and keep a record of measurements made by them. It is impossible for Sub. Divisional Officers whose works are numerous and scattered to measure up all works: the greater number must be measured up by the Subordinates under them. These measurements made by the Subordinates under the Sub-Divisional Officers have necessarily to be accepted as measurements

for

for contract Certificates, and the measurements required by Code para 1367 should not be considered as apart from those required by Code para 1818.

3. The sentence "and no such Officer or Subordinate will be relieved of his charge until after a careful inspection by his Superior Officer, or under the Certificate granted by the relieving Officer" might be omitted from Code para 1367. Such careful inspection as is there intended is very seldom possible as the time at the disposal of either the relieved or the relieving Officer is generally quite inadequate for the purpose. And a Certificate has to be granted in any case by the relieving Officer.

4. There are already a large number of forms returns & registers kept and it appears to me undesirable to add to their number by opening the register suggested by the Deputy Examiner. If thought necessary the dates of inspection might be entered in the register of works.

I have the honor to be
Sir,
Your most Obt. Servant.
Col. R.E.
Supg: Engineer 5th Circle

P.W.C. No. ~~288~~

EXAMINER
No. 957
5 APR 1888
ENCLOSURES
P.W. ACCOUNTS

From

The Superintending Engineer
5th Circle

To

The Chief Engineer
P.W. Department

Dated 23d } March 1888.
Recd }

1462 W

No. 5452 A.

Modifications of Code para 1367 — Gives his opinion regarding the ——

No. 16793 J

20/1462

Office of the Supd. Engr., Circle.
Thekady 14th December 1887
Despd 18th

From

Lt. Col. J. Pennycuick R.E.
Supd. Engr., Circle.

To.

The Chief Engineer
P.W.D.

Sir,

With reference to G.O. No. 3130 W of 19th November 1887, I have the honor to state that I should recommend the cancelment of Code para 1367 down to the words "relieving officer" in the eighth line and the addition of the words "or subordinate in charge of a work carried out by contract" at the end of this line.

2. Para 1764 should be modified by the omission of the word "Subdivisional" before "officer" at the end of the third line and the addition of the word "or subordinate in charge of the work" after "officer".

I have &c.

J. Pennycuick
Lt. Col. R.E.
Supd. Engineer, Circle —

EXAMINER
No. 957
6 APR 1888
ENCLOSURES
P. W. ACCOUNTS

P.W.C. No. ~~10052~~ 23377.

From,
Lieutt Col. J. Pennycuick
Offg
Supg Engineer 6th Circle

To,
The Chief Engineer
P.W.D.
Madras

Dated 14th } December 1887
Despd 18th }

R 20-12-87

20 DEC 87

No. 1679 J
Enclosure None

Suggesting the cancelment of Code para 1367 down to the words relieving officer in the 8th line & the addition of the words or subordinate in charge of a work carried out by contract at the end of this line &ca.

W.W.
21.12.87

0/575 R. 17. 5. 88

P. W. D

22
1462

2

Consulting Architect's Office,
Chepauk, Madras,
6th March 1888.

No 1548

From
J. W. Brassington Esqr.
The Consulting Architect
to the Government of Madras,

To
The Chief Engineer
Public Works Department

Sir,

Enclosure.

With reference to G. O. No. 3130 W. dated the 19th November 1887, I have the honor to state that measurements are made for two reasons:—

First. vouchers for payment and no bill is passed without the Measurement Book being produced and the pages quoted in bill and these measurements are made as frequently as the petty contractors require in order to keep them in cash and thus facilitate work.

Secondly. for report of progress and comparison with the Estimate so as to check any error in either the Estimate or work measurements. In the case of buildings a floor, a plinth line limit is chosen, this is independent of any necessary connection with the monthly accounts.

I fail to see any great advantage in choosing a monthly period of measurement except in the case of large contractors who could afford to wait so long a time

I have the honor to be
Sir
Your most obedient Servant.
J W Manning
Consulting Architect
to Government.

23
1462

EXAMINER
No. 957
5 APR 1888
ENCLOSURES
P.W. ACCOUNTS

PWC No ~~2231~~ 3775/88

Public Works Department.

1439 C. 4. 4. 88
3180 W. 19. 11. 87
2986 W. 8. 11. 87

From

THE CONSULTING ARCHITECT
TO THE GOVERNMENT OF MADRAS,

To

The Chief Engineer
P. W. D.

No. 1548

Dated 6th March 1888.
Received 6. 3. 88

No. of ENCLOSURES.

Subject.

Giving opinion as to the modification of Code para 1367 regarding measurements of work.

7. 3. 88

24/1462

No. 1439 C.

Government of Madras.

PUBLIC WORKS DEPARTMENT,

Chepâk, 4th April 1888.

OFFICE NOTE.

From W

To C

Current Nos 10384 of 8
1667, 641, 238, 2869 of 88,
10452 of 1887, & 2231 of 8

For favour o
remarks.

4. 4. 88

P

To W. No 1388/21-4-88

The following is I think
a complete list of the opinions
nd proposals definitely expressed

EXAMINER
No. 95
5 APR 1888
ENCLOSURE
P.W.ACCO NTB

77

5P

or made in the correspondence forwarded, so far as material to the issue:-

A. As regards persons who should measure

(a) Mr. Walch would have the latter
part of Code para 1764 run thus
"The measurements made by subordinates will, as far as possible,
be checked by the sub-divisional
officer or divisional officer
(meaning I suppose the Executive
Engineer) and the fact of— — —

(b) Colonel Pennycuick would have
it run thus.
"The measurements made by the
officer in charge of the work
will, as far as possible, be
checked by the Executive or an
Asstt. Engineer, and the fact of— — —

(c) Mr. Vincent thinks that perhaps
every alternate measurement
at least should be made by the
sub-divisional officer in person.

(d) Several officers say that
final measurements are, and
apparently imply that they always
should be, made or checked by
the sub-divisional officer in
person.

B. As regards frequency of measurements

(e) Mr. Vincent thinks that probably
intervals between measurements
need, or should, rarely exceed
two months.

(f) Colonel Vibart would substitute
the following for the first two
clauses of the Code para 1367.
"Every officer or subordinate
in charge of a work carried out
under contract will measure up
and submit contract bills at
least once in three months, and
if possible once a month. It
will be his duty in case of his
not being able to measure up
any work within the prescribed
time of three months to make a
special report on the subject

In the measurement book

25/14C

6P

to the Executive Engineer".

(g) Colonel Vibart thinks the Executive Engineer and the Examiner should bring to notice cases of delay in measuring up works.

C. As regards other matters embraced in the Code para 1367.

(h) Mr. Martin would simply omit the first clause of the para, leaving the other two standing.

(i) Colonel Vibart considers the second clause of the para impracticable and would omit it.

(j) Colonel Pennycuick would cancel
the first two clauses, and
would substitute "officer or
subordinate in charge of a
work" for "officer" in line 8.

D. As regards records of inspections and measurements.

(k) Colonel Smalley would have the
names of works measured and
check measured entered (with
dates) in the Executive Engineers' monthly inspection reports
to the Supg. Engineer.

(l) Colonel Vibart suggests entering dates in register of works.

2. With regard to (A) There is not much difference between (a) and (b), but I should be disposed to take a little from each. Then supposing that (c) and (d) are considered reasonable, Code para 1764 — that is the latter part of it might run thus -

" The measurements made by the
officer or subordinate in charge
of the work will as frequently and
as far as possible be checked by
the sub-divisional officer or by
the Executive Engineer, and the
fact ____________ recorded on it. In the case of
works carried out under contract at

30

least every second [or third] measurement should be so made or checked by the sub-divisional officer; and no final payment whatever should be made except on measurements made or checked by the sub-divisional officer or the Executive Engineer, adding at the end of Code para 1367 "with regard to measurements see para 1764"

The entries on contract certificates should show whether measurements have been checked in accordance with the rule or not, and disregard of the rule would be noticed by the Examiner.

As remarked by Mr Walch it is bad policy not to put a fair amount of trust in upper subordinates of standing; but inasmuch as a sub-divisional charge may, on occasion, be held by lower subordinates, it might be well to lay down that when the sub-divisional officer is below a certain rank, all final measurements must be checked or made by the Executive Engineer, or some officer or upper subordinate of specified rank deputed by him.

3. With regard to the frequency of measurements (B) I would suggest the adoption of Colonel Vibart's, see (f) above, adding " The Examiner will bring to notice all cases in which the prescribed period of three months

is exceeded". I think however that for such divisions as the Presidency and Nilgiri, and perhaps one or two others, and for works at head quarter stations the rule might require measurements every two months at least; and also that in all cases in which any stipulation as to frequency of measurement is made in the contract agreement, compliance with the stipulation should be insisted on; and as a matter of course no such stipulation should be made without due consideration of the responsibility involved. At present this stipulation is, I believe generally made, being one of the conditions printed in the agreement form, but it is very seldom complied with.

4. With regard to (C) I think, with Colonel Vibart and apparently with Colonel Pennycuick that the present second clause of para 1367 is impracticable, and I would expunge it. The last clause might, I think, be modified as proposed by Colonel Pennycuick.

5. With regard to (D) the question of the record of dates of measurements is not one that concerns

9P

PWC No. 3,775

me much. Probably neither of the two suggestions (k) and (l) would give any very appreciable trouble. I do not think myself that the register suggested by the Dy. Examiner is necessary.

6. Very possibly some better arrangement of the rules might be made. It would perhaps be better that the proposed last part of para 1764 should be embodied in para 1367, or as 1367 A, but that is a matter of form which can be easily settled when the substance of the rules is determined.

7. I may be allowed to explain that in my office note No. 764 dated 14th November 1887, I had not the slightest intention of ~~of~~ suggesting that the reports required by Code para 1367 ought to be something quite apart from the measurements for contract certificates, I merely wished to draw attention to the fact that, as the Code stands, two different sets of measurements are apparently contemplated, viz reports of progress and measurements for certificates.

C.

W. 1439 C d/ 4. 4. 88
" 2956 W d/ 8. 11. 87
" 3130 W d/ 19. 11. 87
9/5
33/[illegible]
H.W 1458

R 23. 4. 88

E8

No. 137 D 8th May 1888

To J

For favour of remarks
Complete file is forwarded

7/5/88

No. 1462 W

Genl Account

27/1462

PUBLIC WORKS DEPARTMENT.

PROCEEDINGS OF THE MADRAS GOVERNMENT.

UNDER date the 17th May 1888

READ the following

From the Suptg: Engineer I Circle,	H. E.	No. 383 Cl.	d/ 7th December 1887.
—— do —— II —"—	"	No. 439 Cl.	" 17th February 1888.
—— do —— III —"—	"	No. 2100.	" 21st January 1888.
—— do —— IV —"—	"	No. 11 E. W.	" 7th January 1888.
—— do —— V —"—	"	No. 5452.	" 23rd March 1888.
—— do —— VI —"—	"	No. 1679 T. J.	" 14th December 1887.
From the Consulting Architect to Govt.	"	No. 1548	" 6th March 1888.
Office Note from the Examiner P. W. Accts:	"	No. 1388	" 21st April 1888.

10P

PPH 15 May

1. The above correspondence relates to measurements of work, the subject of which was brought forward in the Examiner's Office Note recorded with G.O. 3130. W. dated 19th November 1887.

2. After consideration of the opinions recorded ~~[illegible]~~, the Government have arrived at the following conclusions:-

3. As regards

A Persons who should measure-

Para 1764 of the Public

Works Code should be modified as follows:

"Whether the work abstract is prepared by the Sub-divisional Officer, or in his own office, the Executive Engineer will be careful that its preparation is not left in arrears. The measurements made by the officer or subordinate in charge of the work will, as frequently and as far as possible, be checked by the Sub-divisional Officer or by the Executive Engineer, and the fact of such check measurements having been made will be recorded in the measurement book. Final measurements of completed work should be checked by the Sub-divisional Officer or Executive Engineer, and the fact recorded in the measurement book ~~and~~ bills before payment, and also in the Contract certificate when the amount exceeds Rs. 500."

4. The Government are not disposed to adopt the Examiner's suggestion at the end of para

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28/1462

2 of his Office Note 1388 dated 21st April 1888. It will rarely happen that the charge of a sub-division is held by a lower subordinate, and there appears to be no reason why any subordinate who is considered fit for the charge of a sub-division should not be entrusted with the duty of checking measurements.

5. As regards

B & C. Frequency of measurements, and the other matters dealt with in para 1367 of the Code— the para in question should be modified as follows:-

"Every officer or subordinate in charge of a work carried out under contract will measure up and submit contract bills, at least once in three months, and if possible once a month. It will be his duty, if unable to measure up any work within the three months, to explain the cause by special report to "the Executive Engineer. It is "the duty of the officer or "subordinate in charge of the "work to bring to notice any "dilatoriness, bad work, or any-"thing militating against Govern-"ment interests on the part of the "Contractor, and he will be "responsible for any neglect in "this respect. See also para 393"

6. It is not considered desirable that there should be any special rule for particular divisions, as suggested by the Examiner in para 3 of his Note of the 21st April.

7. With respect to

D. Record of measurements.

It is considered that all measurements should be recorded in the measurement books. This is provided for in para 1766 of the Code, but the following addition should be made to this para.

"When an Executive Engineer or Sub-divisional Officer checks

12P

79/1462

"the measurements of a work, he "is to record the fact of his "having done so in the measure-"ment book of the subordinate "who originally measured the "work, and enter in his own "measurement book an abstract "of the measurements, and "date of check."

The Examiner is requested to be good enough to arrange for the requisite alterations being carried out in the P. W. Code.

Jou
14/5/88

To
Superintending Engineers.
The Consltg: Architect
" Chief Engineer for Irrgn:
" Examr. P. W. Accts:

Bl. 33
[illegible] 14.5.86
[illegible] 15 [illegible]
R

Govt. of {1888} Madras.
PUBLIC WORKS.

Dated 19/5/88

Recd. Encl.

G.O. 17 May 1888, No. 1462 W

Measurements of work

=

Directing the modification of Code para 1367 regarding [illegible] ——

190/17

19/5 [illegible]