

(1) Number of pages 6
 (2) Date of repair 9-1-87
 (3) Initials of the Referencer Comp

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Lab DEPARTMENT

[Signature]

G.O. No.	1301 (1) <i>Lab</i>	Press.
B.P. No.	- 6	Mis.
Dated	26. 9. 1881.	<i>[Signature]</i>

Ch. 4

Not to be folded or roughly handled

3

1301
A1

APPE
ANST

- 2 double fly Sholdaries weighing, with tent
160 lbs. each.
- 2 bell tents do. do. do.
- 2 double fly "Pauls" weighing 80 lbs. each
writer.
- 2 double fly "Pauls" for servants.
- 4 double fly "Pauls" for lascars, i.e., one

2 small "Sepoys' tents"

- 2 Do. do. for the Revenue subordinate
- 2 "Necessary" tents.
- All the above with pegs, mallets, gunny

Instruments and

- 2 Perambulators (Madras pattern).
- 3 50-foot tape.
- 1 Prismatic compass and stand.
- 1 Pocket compass.
- 1 Battery of three Aneroid Barometers
- 1 " " " " " "
- 3 Aneroids to be carried about for observation
- 2 Thermometers, in cases, for the camp
- 1 Thermometer to be used with the barometer
- 1 Case of drawing instruments, first class
- 1 Color box, first class.
- 1 Parallel ruler on rollers.
- 1 Set of Marquois' scales.
- 1 Small T square.
- 12 Sheets of drawing paper, Imperial.
- 1 Paper "Crow quill" drawing pens.
- 6 Blacklead pencils, medium hardness.
- 2 Surveying Field books.
- 6 Yards wax-cloth.
- 6 Yards tracing cloth.

- 6 Quires white foolscap paper.
- 6 Quires blue " "
- 2 Quires demi-official note paper, gr
- 2 " " " "
- 100 Envelopes for the above.
- 20 Sheets of blotting paper.
- 2 Quires cartridge paper.
- 50 Goose quills.
- 2 Dozen steel pens.
- 4 Pen-holders.
- 1 Penknife.
- 1 Pair of scissors.
- 2 Office ink-stands.
- 6 Packets black ink powder.
- 2 " " red " "
- 2 Packing needles.
- 2 Skeins of yellow thread.
- 1 Pound twine.
- 2 Rolls of white tape.
- 1 Stick sealing wax, red.
- 1 " " " black.
- 1 Pound gum arabic.
- 1 Round ruler.
- 2 Blue pencils.
- 2 Red " "
- 2 Ink and pencil erasers.

B 1301 V

for the Executive Engineer and the
Upper Subordinate.
for the Hospital Assistant and the
five or six men.

for cooking in bad weather.

and his servant.

plete.

materials.

Bagapatam.

ades.

patam.

- 6 Memorandum books, octavo size.
6 " " " quarto "
4 Penny's patent " pocket books."
3 Leather bound books, foolscap size
6 Blacklead pencils, medium hardness.
6 Forms of salary bills.
6 " " travelling allowance bills.
12 " " of journal of occupations and
4 Official note books, Examiner's type.

Office Furniture. Miscellaneous Articles.

- 2 Record boxes for office books, stationery, &c.
- 2 Pairs of folding camp-tables for officers.
- 4 Camp-stools or folding chairs.
- 1 Small medicine chest,
- 1 Case of surgical instruments, } *See list of the medical subordinate.*
- 4 Tin cases of sizes for holding maps.
- 1 "Snider" or "Henri Martini" carbine, } *See regulation pattern.*
- 100 Rounds of ammunition for above.
- 1 Gunner's quadrant with stand and sights.
- 4 Public Works Department belts, } *See regulation pattern for peons.*

Approximate Estimate of cost of reconnoitering the line

- | | | | |
|---------------------------------|-----|-----|-----|
| Pay of Mr. Nordmann, Executive | ... | ... | ... |
| allowance for six months | ... | ... | ... |
| × 6 | ... | ... | ... |
| Pay of Mr. Cormac, Sub Engineer | ... | ... | ... |
| Petty Establishment, at Rs. 100 | ... | ... | ... |
| Mr. Nordmann's travelling | ... | ... | ... |
| at 8 annas per mile, 34 miles | ... | ... | ... |
| Do. do. Mettupalaiyam to | ... | ... | ... |
| Madras to Vizagapatam by sea | ... | ... | ... |
| Lascars | ... | ... | ... |

- 2 Sholdaries tents at Rs. 200
2 Bell tents at Rs. 200
8 Paul tents at Rs. 100
2 Small Sepoy tents for cooking
2 " " for Revenue sub
2 Necessary tents at Rs. 50
Cost of feeding Elephants at Rs.

for a line of Railway between Raipore and
Jamshatam.

- | | |
|---------------------------|--------|
| 2nd Grade + travelling | |
| added = (1,200 + 225) | 8,550 |
| do. do. = (375 + 135) × 6 | 3,060 |
| for six months | 900 |
| Sumund to Mettupálaiyam | 17 |
| annas per mile | 62 |
| for Mr. Nordmann and | 150 |
| | |
| | 400 |
| | 400 |
| | 800 |
| | 100 |
| | 100 |
| Graph 14) and servant | 100 |
| | 300 |
| | |
| Total .. | 14,939 |

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

16th September 1881, No. 2,294 W.

**Buildings and Roads.
Civil Works.**

Read the following papers:—

- No. 119. From the Agent to the Governor, Vizagapatam, to the Secretary to Government, Public Works Department, dated Camp, Koraput, 13th January 1881, No. 16.

From the Executive Engineer, Vizagapatam Division, to the Agent to the Governor,
Vizagapatam, dated Camp, Potinghy, 29th December 1880, No. 2,952.

- No. 120. Note by the Chief Engineer, Public Works Department, dated 26th January 1881.

- No. 121. Minute by the Honorable D. F. CARMICHAEL, dated Camp Jeypore,
3rd April 1881.

Read again—

G.O., Nos. 588—9 R., dated 14th September 1881, in the Railway Branch, on letter from the Government of India, No. 619 R.C., dated 18th August 1881.

- No. 122. ORDER THEREON, 16th September 1881, No. 2,294 W.

To insure an early preliminary examination of the country as called for by the Government of India in view to the selection of the best line for a railway between the littoral of Vizagapatam and Raipore in the Chhattisgarh District of the Central Provinces, the Honorable the Governor in Council is pleased to nominate Mr. K. F. Nordmann, Executive Engineer, Second Grade, for the duty with effect from the 1st

8	Tent Lascars.	
4	Do.	for two Perambulators.
2	Do.	in charge of Aneroids.

proximo, or such other date as he may be enabled to resign his present privilege leave.

Total 14 Lascars at Rs. 10	...	140
1 Servant for the Hospital		
Assistant at Rs. 10	...	10

Total per mensem ... 150

N.B.—The pay specified is to include all travelling allowances.

properly qualified Hospital Assistant (with a suitable supply of medicines) to accompany and take medical charge of the reconnoitring party under the Executive Engineer for about six months, during which, it is thought, the investigation may possibly extend.

2. Under his orders will be placed Sub-Conductor Sub-Engineer J. Cornac, and Mr. Nordmann is authorised on reaching Vizagapatam about the 7th proximo to entertain the establishment entered in the margin.

3. The Surgeon-General with the Government of Madras will be requested to place at Mr. Nordmann's disposal a suitable supply of medicines) to accompany a party under the Executive Engineer, the investigation may possibly extend.

Public 2011/87

4. Mr. Nordmann will be supplied free of charge with the tents and office requirements specified in attachment A, and while engaged on this special duty the provision of paragraph 673 of the Madras Public Works Code will be extended to him and also to Sub-Conductor Cormac. Mr. Nordmann will further be supplied with a free passage for himself, servants, and such of the establishment as he proposes to take with him from Madras to Vizagapatam.

5. The general scope of the inquiry having already been indicated in the Government of India letter read in the heading, it is here sufficient to add the following observations as a guide to the special objects in view, viz., to ascertain the best of the alternative routes, (1) that starting from Párvatipur and passing *via* Rayaghada through either Bundisor or Dadpur east of the Nawagarh hills to Raipore, or (2) that starting from Salur and passing through Nawagarh west of the above hills to Raipore, which is that more especially adverted to in the letter from the Government of India.

6. So far as can be ascertained by an examination of the maps, the reconnaissance for the purposes of Mr. Nordmann's report may be conveniently divided into the following sections, viz.:—

- (1) The route from Rayaghada through Bisemkattak and Ambadola towards Dadpur.
- (2) The alternative route from Rayaghada through Singapur to Bandisor and Dadpur.
- (3) The best route from Dadpur, east of the Nawagarh hills, to Araing and Raipore.
- (4) The best route from Raipore, through Dhamtari if possible west of the Nawagarh hills, to Naorangpur.
- (5) The route from Naorangpur to Jeypore and Kuraputi.
- (6) The route by the eastern road to the same place.
- (7) The best route from Kuraputi to Salur.

7. Only obligatory towns have purposely been named on both the alternative lines as above selected for inquiry, it being very desirable that in all other respects Mr. Nordmann should be perfectly free to select the easiest line for the location of a railway.

8. Maps on the largest published scale will be supplied in duplicate to Mr. Nordmann, and on these he will lay down as carefully as circumstances admit, not only the line which seems to him to be the best, but such others as may show themselves to be feasible alternatives, and which he may have examined, distinguishing, of course, the one he prefers.

9. Longitudinal sections should be given of the latter, with the heights determined by the aneroid.

Horizontal scale 1 inch to the mile.

Vertical „ 1 „ = 200 feet.

The sections should as far as possible show where rock, hard, medium, or boggy soil prevails, also if flat or side-lying.

10. The general character of the country passed should be noted, and as far as possible cross sections given of all streams requiring to be crossed by bridges of 30 feet span and upwards, giving also the character of the banks and bed.

11. For the rest of the drainage it will suffice to allow an approximate number of running feet per mile.

12. Observations should further be recorded under the following heads:—

- (1) Building material procurable.
- (2) Character and amount of labor available.
- (3) Rates of skilled and unskilled labor.
- (4) Camping grounds, drinking water, &c.
- (5) Climate and working seasons.
- (6) Cultivation and manufacturers.
- (7) Trade and trade routes.
- (8) Population and land available for immigrants.

13. The Superintending Engineer, First Circle, should warn Sub-Conductor Cormac to hold himself in readiness for the special duty assigned to him.

14. The instruments, &c., required will be supplied by the Public Works Stores at Madras and the stationery by the Superintendent of Stationery. The Deputy Chief Engineer will see that the requirements in these respects are fully met and duly despatched to Vizagapatam.

15. Copy of these Proceedings will also be furnished to the Agent to the Governor at Vizagapatam, with a request that he will arrange for such aid being given to Mr. Nordmann as may be needful as regards supplies, &c., along the route, and that he will arrange to attach to the party some intelligent person conversant with the vernacular of the tracts to be passed through.

16. The Chief Commissioner of the Central Provinces and the Government of India will also be furnished with copies of these Proceedings.

(True Extra.)

[Signature]
Colonel, R.E.,
Secretary to Govt., P.W.D.

To K. F. Nordmann, Esq.
To the Superintending Engineer, First Circle.
" Executive Engineer, Vizagapatam.
" Consulting Engineer for Railways.
" Surgeon-General with the Government of Madras.
" Public Department.
" Revenue
" Agent to the Governor at Vizagapatam.
" Deputy Chief Engineer, Madras.
" Examiner of Public Works Accounts.

Exd. S. T. Austin.

2 Spare Copies

Public Works Dept.
(Communications)
BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1881) Madras.

PUBLIC WORKS.

R. D. LANKS.

26 SEP 81

26 SEP 81

AY. E. O. No. 1301

K. F. NORDMANN, Esq.,

&c.,

&c.,

&c.

Dated September, 16th.

Issued

CURRENT NO. 2011

Recd.

Encl.

G. O., 16th September 1881, No. 2,294 W.

SEPTEMBER.

Nos. 119-122.

Reconnaissance of country for a line of Rail-
way between Raipore and the littoral of Viza-
gapatam.—Orders and instructions issued
to Mr. K. F. Nordmann on the subject of
the —

Order 26 Sept. 1881,

AY. E. O. No. 1301.

Accd.

26/9/81

26/9/81