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(3) Initials of the Referencer car

TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

P. W. D.

DEPARTMENT

G.O. No.	309-w	Press.
B.P. No.		Mis.
Dated	18.1.1878	-197-

Not to be folded or roughly handled

25/10/89

307
GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

18th January 1878, No. 309 W.

Buildings and Roads.

Civil Works.

Read the following paper:—

No. 160. Circular of the Government of India, Public Works Department,
(Civil Works—Miscellaneous), dated Fort William, 27th December 1877,
No. 75 PW.

In continuation of Public Works Department Circular Nos. 128—46 M, dated
21st May last, the undersigned is directed to forward, for information, the accom-
panying statements of areas and cost of buildings, and lengths and cost of bridges, on
the Agra Canal.

(Signed) G. T. SKIPWITH, Captain, R.E.,
Asstt. Secy. to the Govt. of India.

Memorandum of construction and cost of Bridges on the Agra Canal, North-Western Provinces.

Executive Division.	Name of bridge, river or canal, and situation.	Date of completion.	Description of Bridge.	Kind and depth of foundation.	No. and size of span.	Width of roadway between parapets or railings.	Height of roadway above foundation or river bed.	Total length of Bridge.	Total cost.	Cost per 100 feet of length.	Remarks.
	Oldha Bridge.										
	Kanoni	..	Not made	Blocks 6 feet deep	1 of 37 6	11 4	24 0	17,655	17,655	14,023	
	Maknari	..	Brick masonry, segmental arch	" 6	3 of 29 0	12 0	25 3	14,023	24,000	12,344	
	Maknari	..	" arch	" 6	1 of 37 6	11 4	24 0	14,023	17,327	14,023	
	Kanoni	..	Brick masonry, segmental arch	2 feet concrete, 5' 4" rubble	3 of 28 0	12 0	25 6	15,311	15,311	9,917	
	Imadpur	..	Brick masonry, segmental arch	2 feet concrete, 4' rubble	1 of 37 6	11 4	24 0	14,023	14,023	14,023	
	Faridabad	..	" arches of B.W.	Foundation 7' 9" below bed left abutment, and piers on blocks, remainder on concrete.	3 of 23 0	12 0	25 3	17,955	17,955	9,425	
	Faridabad	..	" "	ft. in. ft. in.	Do.	18 0	7 9	21,864	21,864	14,106	
	Bahadur	..	" "	4 0 blocks 6 0 rubble	Do.	12 0	27 9	19,409	19,409	12,622	
	Chandani	..	" "	4 0 " 6 0 "	Do.	18 0	27 9	24,000	24,000	15,484	
	Digh	..	" "	2 3 concrete 6 3 "	Do.	12 0	27 6	17,327	17,327	9,408	
	Mankole	..	" "	2 3 " 8 0 "	Do.	12 0	27 0	30,760	30,760	19,974	
	Alwarpur	..	" "	2 3 " 8 0 "	Do.	12 0	27 0	19,038	19,038	10,403	
	Patwal	..	" "	2 3 " 8 0 R. masonry.	Do.	12 0	27 0	19,415	19,415	10,609	
	Chajungar	..	Brick masonry	2 3 " 8 0 R. masonry.	Do.	12 0	27 0	21,862	21,862	13,782	
	Rasulpur	..	Coursed rubble	2 3 " 8 0 R. masonry.	Do.	12 0	27 0	23,865	23,865	16,558	
	Bela	..	" "	2 3 " 8 0 R. masonry.	2 of 37 6	12 0	28 9	15,322	15,322	10,495	
	Glusra	..	" "	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	28 9	15,322	15,322	10,495	
	Kharabi	..	" "	2 3 " 8 0 R. masonry.	Do.	12 0	24 3	15,279	15,279	10,992	
	Beraki	..	" "	2 3 " 8 0 R. masonry.	Do.	12 0	24 3	15,279	15,279	10,992	
	Jessal	..	" "	2 3 " 8 0 R. masonry.	Do.	12 0	24 3	15,279	15,279	10,992	
	Kharote	..	Brick masonry	2 3 " 8 0 R. masonry.	1 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Bara Kosi	..	Coursed rubble	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Amirpur	..	Brick masonry	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Tamula	..	" "	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Bhudaival	..	" "	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Rahura	..	" "	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Sahar	..	" "	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Chota Barua	..	" "	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Pasanti	..	" "	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Aring	..	" "	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Sansa	..	" "	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Isapur	..	" "	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Chota Kosi	..	" "	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Mal	..	" "	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Tharapurna	..	" "	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	
	Fakhrum	..	" "	2 3 " 8 0 R. masonry.	2 of 35 0	12 0	24 3	15,279	15,279	10,992	

Banda	"	..	"	2 0	4 0	12 0	23 6	9,038	9,038	9,854	
Baipura	"	..	"	2 0	4 0	12 0	23 6	9,038	9,038	9,854	
Ara	"	..	"	2 0	4 0	12 0	23 6	9,038	9,038	9,854	
Chitra	"	..	"	2 0	4 0	12 0	23 6	9,038	9,038	9,854	
Navigation Channel	"	..	"	2 0	4 0	12 0	23 6	9,038	9,038	9,854	
Agra Navigation Channel	"	..	"	2 9	4 0 R. W.	12 0	21 6	8,468	8,468	9,009	
Takhanpur Bridge	"	..	Brick masonry, segmental arch	2 0 concrete, 4 0 brick	1 of 30 0	18 0	25 0	10,009	10,009	10,924	
Baipura	"	..	"	Do.	Do.	18 0	25 0	10,009	10,009	10,924	
Banda	"	..	"	Do.	Do.	18 0	25 0	10,009	10,009	10,924	
Chandari	"	..	"	Do.	Do.	18 0	25 0	10,009	10,009	10,924	
Pandi ka Nagla	"	..	"	Do.	Do.	18 0	25 0	10,009	10,009	10,924	
Sithanganj	"	..	"	Do.	Do.	18 0	25 0	10,009	10,009	10,924	

(Signed) M. KING,
Engr. In-charge, Agra Canal Division.

4 PUBLIC WORKS DEPARTMENT, 18TH JANUARY 1878, No. 309 W.

No. 161. ORDER THEREON, 18th January 1878, No. 309 W.

COMMUNICATED to District Engineers.

(True Extract.)

Colonel, R.E.,
Secretary to Government, P.W.D

To District Engineers.

To the Chief Engineer for Irrigation.

309
3.

BUILDINGS AND ROADS.
CIVIL WORKS.

Govt. of (1878) Madras.
PUBLIC WORKS.

To

DISTRICT ENGINEERS,

&c., &c., &c.

Dated January 1878.

Issued

By A.

Each

G. O., 1878 January 1878, No. 300 W.

JANUARY.

Nos. 160-161.

Agra Canal.—Circular of the Govern-
ment of India forwarding statements of
areas and cost of buildings, and lengths and
cost of bridges on the —, communicated to
District Engineers.

Enclosure to Circular No. 75 Public Works.

Memorandum of construction and cost of Bridges on the Agra Canal, North Western Provinces.

Executive Division.	Name of bridge, of river or inlet, and situation.	Date of completion.	Description of Bridge.	Kind and depth of foundation.	No. and size of span.	Width of roadway between parapets or foundations, for river bed.	Height of roadway above river bed.	Total length of Bridge.	Total cost.	Cost per 100 feet of length.	Remarks.
	Oldha Bridge	...	Not made	...	...	...	...	...	Rs. 17,055	...	...
	Kanoni	...	Brick masonry, segmental arch	Blocks 6 feet deep	1 of 37 6	11 4	24 0	100	14,023	14,023	...
	Madanpur	...	" " arches of B. W.	" 6 1/2	3 of 29 0	12 0	24 3	182	22,466	12,344	...
	Madanpur	...	" " arch	" 6	1 of 37 6	11 4	24 0	100	14,023	14,023	...
	Moharban	...	" " arches of B. W.	2 feet concrete, 5' 4" rubble	3 of 23 0	12 0	24 6	153	15,371	9,917	...
	Khandli	...	" " arch	Blocks 6 feet	1 of 37 6	11 4	24 0	100	14,023	14,023	...
	Madanpur	...	" " arches of B. W.	2 feet concrete, 4' rubble	3 of 23 0	12 0	24 3	181	17,053	9,423	...
	Madanpur	...	" " arches of B. W.	Foundation 7' 9" below bed left abutment, and piers on blocks, remainder on concrete.	Ditto	18 0	7 9	155	21,864	14,106	...
	Barauli	...	" " arch	4 0 blocks 6 0 rubble	Ditto	12 0	27 9	155	19,409	12,522	...
	Barabach	...	" " arch	4 0 " 6 0 "	Ditto	18 0	27 9	153	21,000	15,484	...
	Chandoli	...	" " arch	2 3 concrete 6 3 "	Ditto	12 0	27 6	153	17,327	9,468	...
	Digh	...	" " arch	2 6 " 8 0 "	Ditto	12 0	27 0	154	30,760	19,974	...
	Mandala	...	" " arch	2 3 " 6 3 "	Ditto	12 0	27 0	153	22,038	10,408	...
	Madanpur	...	" " arch	2 6 " 6 3 "	Ditto	12 0	27 0	153	19,415	10,609	...
	Palaul	...	Brick masonry	2 6 " 8 0 B. masonry	Ditto	18 0	27 0	155	21,363	13,752	...
	Chandoli	...	Coursed rubble	2 3 " 8 0 rubble	Ditto	12 0	27 0	155	23,865	16,558	...
	Madanpur	...	" " arch	2 0 " 6 6 "	2 of 37 6	12 0	23 9	149	15,322	10,425	...
	Digh	...	" " arch	2 6 " 6 0 "	2 of 35 0	12 0	24 3	189	16,279	10,992	...
	Bela	...	" " arch	3 0 " 6 0 "	Ditto	12 0	24 3	139	15,369	11,483	...
	G. sara	...	" " arch	2 1 " 6 0 "	Ditto	12 0	24 3	133	15,867	11,271	...
	Khandli	...	" " arch	2 0 " 6 0 "	1 of	...	...	...	15,113	...	...
	Barauli	...	Brick masonry	2 6 " 6 0 B. masonry	2 of 35 0	12 0	24 3	139	15,370	11,038	...
	Barauli	...	Coursed rubble	3 3 " 6 0 rubble	2 of 35 6	12 0	24 3	139	13,816	9,861	...

Khandli	Brick masonry	arches	2 0 " 4 0 B. W.	2 of 30 0	11 10	24 3	128	15,218	12,436	...
Barauli	"	"	2 0 " 4 0 B.	Ditto	12 0	24 0	129	17,361	13,563	...
Madanpur	Coursed rubble	" of B. W.	2 0 " 11 0 rubble	Ditto	12 0	24 0	124	23,427	13,802	...
Madanpur	"	"	2 0 " 4 0 "	Ditto	12 0	24 0	128	13,076	10,216	...
Madanpur	Brick masonry	"	2 0 " 4 0 B. masonry	2 of 30 0	12 0	24 0	128	17,033	13,807	...
Madanpur	"	"	2 0 " 6 6 "	2 of 25 0	12 0	24 0	119	12,503	10,695	...
Madanpur	Coursed rubble	" of B. W.	2 0 " 4 0 rubble	2 of 25 0	12 0	24 0	114	16,050	13,602	...
Madanpur	Brick masonry	"	2 0 " 4 0 "	2 of 25 0	12 0	24 0	118	13,636	11,607	...
Madanpur	"	"	3 0 " 4 0 back	2 of 25 0	12 0	24 0	119	14,108	12,005	...
Madanpur	"	"	2 0 " 7 8 B. masonry	2 of 25 0	12 0	24 0	119	13,443	13,032	...
Madanpur	"	"	3 0 " 4 0 "	2 of 25 0	12 0	24 0	118	14,453	12,273	...
Madanpur	Coursed rubble	" of B. W.	2 0 " 14 0 rubble	2 of 25 0	12 0	24 0	119	11,915	10,013	...
Madanpur	"	"	3 0 " 4 0 "	2 of 25 0	12 0	24 0	118	14,483	12,273	...
Madanpur	"	"	2 0 " 4 0 "	1 of 30 0	12 0	23 6	92	9,038	9,824	...
Madanpur	"	"	2 0 " 4 0 "	1 of 30 0	12 0	23 6	92	9,038	9,824	...
Madanpur	"	"	2 0 " 4 0 "	1 of 30 0	12 0	23 6	92	9,038	9,824	...
Madanpur	"	"	2 0 " 4 0 "	1 of 25 0	12 0	23 6	92	9,038	9,824	...
Madanpur	"	"	2 0 " 4 0 "	1 of 25 0	12 0	23 6	92	9,038	9,824	...
Madanpur	"	"	2 0 " 4 0 "	1 of 25 0	12 0	23 6	92	9,038	9,824	...
Madanpur	Brick masonry	"	2 0 " 4 6 "	1 of 25 0	12 0	23 6	92	9,038	9,824	...
Madanpur	"	"	2 9 " 4 0 B. W.	1 of 30 0	12 0	21 6	91	8,168	9,000	...
Madanpur	Brick masonry, segmental arch	"	2 0 concrete, 4 0 brick	1 of 30 0	18 0	22 0	91	10,560	10,824	...
Madanpur	"	"	Ditto	Ditto	18 0	22 0	91	9,008	9,663	...
Madanpur	"	"	Ditto	Ditto	18 0	22 0	91	8,732	9,413	...
Madanpur	"	"	Ditto	Ditto	18 0	22 0	91	9,275	9,867	...
Madanpur	"	"	Ditto	Ditto	18 0	22 0	91	8,683	9,237	...
Madanpur	"	"	Ditto	Ditto	18 0	22 0	91	10,017	10,755	...
Madanpur	"	"	Ditto	Ditto	18 0	22 0	91	8,733	9,343	...

Circular No. 75 Public Works.

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

CIVIL WORKS.

Miscellaneous.

To

THE GOVERNMENTS OF MADRAS AND BOMBAY, IN THE PUBLIC WORKS DEPARTMENT,
GENERAL, IRRIGATION AND RAILWAY BRANCHES.

THE GOVERNMENTS OF BENGAL AND PUNJAB, IN THE PUBLIC WORKS DEPARTMENT,
GENERAL AND IRRIGATION BRANCHES.

THE CHIEF COMMISSIONERS OF CENTRAL PROVINCES, BRITISH BURMAH, MYSORE AND
COORG, AND ASSAM.

THE RESIDENT AT HYDERABAD.

THE AGENTS TO THE GOVERNOR GENERAL FOR CENTRAL INDIA AND RAJPOOTANA.

THE INSPECTOR GENERAL OF MILITARY WORKS.

THE DIRECTORS OF STATE RAILWAYS, CENTRAL, WESTERN AND NORTH-EASTERN
SYSTEMS.

Fort William, December 27, 1877.

In continuation of Public Works Department Circular Nos. 123—45 M.
dated 21st May last, the undersigned is directed to forward, for information, the
accompanying statements of areas and cost of buildings, and lengths and cost
of bridges, on the Agra Canal.

W. E. Phipps Captain, R. E.

Asstt. Secy. to the Govt. of India.

*To, The Secretary, to the Government of Madras,
Public Works Dept., General Branch.*

GOVERNMENT OF INDIA.

PUBLIC WORKS DEPARTMENT.

CIVIL WORKS.

Miscellaneous.

To

The Governments of Madras and Bombay,
in the Public Works Department, General,
Irrigation and Railway Branches.

The Governments of Bengal and Punjab, in
the Public Works Department, General and
Irrigation Branches.

The Chief Commissioners of Central Provinces,
British Burmah, Mysore and Coorg, and
Assam.

The Resident at Hyderabad.

The Agents to the Governor General for Cen-
tral India and Rajpootana.

The Inspector General of Military Works.

The Directors of State Railways, Central, West-
ern and North-Eastern Systems.

Circular No. 75 Public Works.

Dated December 27, 1877.

Received

B. V. R. Clarke
No. 309 of 18th Jan 1878
W. H. 15717

88 140
89 9 17

Forwards, for information, statements of areas
and cost of buildings, and lengths and cost of
bridges, on the Agra Canal.

359
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1.6.77 No 779W

C. 329
Supt. of (1878) Works.
PUBLIC WORKS.

To

Dated

Issued

Recd.

Encl.

81-1-51
G. O., 18 Jan'y 1878, No. 3096

For

Agra Canal Circular
of the Supt forwarding state-
ments of areas & cost of
buildings, and lengths and
cost of bridges on the
Command & Drainage.