

Tamil Nadu Road Development Company Ltd.
(TNR)

Tamil Nadu Road Development Company Ltd.

(TNRDC)

CONTENTS

BID DOCUMENTS

**Improvement to Roads, Bridges and Culverts of North
Chennai Thermal Power Station Road and Ennore Port
Road for the Movement of 575 MT Special Transport
Vehicle in Thiruvallur District, Tamil Nadu**

INVITATION FOR BIDS

Section I

Instructions to Bidders

Section I: Instructions to Bidders

The scope of work (in part

Section

4.6 Financial Capabilities

The bidder shall demonstrate that he has access to or has available liquid assets

(aggregate of working capital, cash in hand and u[()] 2o9(dem9(dem3(api))8(a)23(t)-13(d)23(d)(and)b-2

The bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible and liable for such costs, regardless of the conduct or outcome of the tendering process.

6. Site Visit

The Bidder shall, prior to submission of

8.1.2 The purpose of the meeting will be to clarify issues and to answer questions on any matter regarding the work

11.3

Section I: Instructions to Bidders

Section

Section

at Clause 18 or (d)

whose bids are evalu

12 Months beyond the completion date of each package. The bidder should

- (c) will declare a firm ineligible, either indefinitely by TNRDC or for a stated period of time, to be awarded any contract in **TNRDC**, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing, this Contract.

34 na] TJ ET Q q BT 0 0 0 rg /F2 10.377 Tf40.492 651.6 Td the--14(r)31(i)-23(r)8ttrrn

Section II
Forms of Bid &
Forms of Securities

2. BIDDER, QUALIFICATION AND OTHER INFORMATION

Bidders are requested to complete the information in

Section II: Forms of Bid & Forms of Securities

2. Letter of Award

(Letterhead paper of the Employer)

To: [name and address of the contractor] [date]

Dear Sirs,

Sub: **"Improvement to Roads, Bridges and Culverts of North Chennai o78trhe Emea**

Section II: Forms of Bid & Forms of Securities

4. Issue of Notice to Proceed with the Work

(Letterhead paper of the Employer)

To: [name and address of the contractor)

Dear Sir,

Subject: **“Improvement to Roads, Bridges and Culverts of North Chennai Thermal Power Station Road**

FORM OF BANK GUARANTEE FOR EMD / BID SECURITY

WHEREAS _____

(Name of the Bidder) (hereinafter called the Contractor

Section II: Forms of Bid & Forms of Securities

Section III: CONDITIONS OF CONTRACT

A. GENERAL

1. Definitions

1.1

Section – III Conditions of Contract

5	Pavement Specialist	B.E Degree Holder in civil Engineering	05 Years
6	Land Surveyor	Diploma 2] T-cDin8(eer)-14(D)3e23(g)i[(L)8(a)-ing	

- 13.3 If the Contractor does not provide the policies and certificates as required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid, from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due

- 35.2 Provided further that no change in the rate or price for any item contained in the Contract shall be considered unless such item accounts for an amount more than 2 % of the Contract Price, each

38. Cash flow forecasts

The Contractor is to provide the Engineer with a cash flow forecast and an updated cash flow forecast as appropriate.

39. Payment

39.1 “The Contractor shall submit a statement in 3 (three) copies to the Engineer 127.2 648, 0 rg /Fe the Engt

42.

47. Advance Payment for Construction/ Improvement Works

47.1 No Mobilisation advance/Machinery and equipment advance pa[(M)/D(y)13(wo)-6d [(obi)23(l(r)8(y)13(b

Ne/Msineabidvanc14(cewo)-6d [(obi)23(l(r)8(be(y)46(e) [(/de or()31(8()8(pad [(od to8s)13(hec14(ceC)262(C))-1(ne)-23/M)22(a)[(otor(-

VII List of Safety equipments to be provided by the contractor

SI No

Name of Equipment

APPENDIX 2

- f. Employees PF and Miscellaneous Act, 1952
- g. Payment of Bonus Act, 1965
- h. Payment of Gra

Secti

APPENDIX IV

Power of Attorney for Lead Member of Consortium

(Refer Clause 14 of ITB)

Section IV
Contract Q1a

SECTION IV

Section V

Bill of Quantities

Bill of Quantities for oss

S.No	Description	Amount (Rs)
A Bill No.1	HIGHWAYS	

2.01 Excavation for roadwork with hydraulic excavator of 0.9 cum bucket

In Figures

In Words

Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	

Providing and laying dense graded bituminous macadam with 100-120 TPH batch type HMP producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with 60/70 grade bituminous binder @ 4.0 to 4.5 per cent by weight of

4.04

In Figures

In Words

Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	

6.03

In Figures

In Words

		Rate (Rs.)		Amount (Rs.)
		In Figures	In Words	
8.01	Supply, erection and commissioning of 6Mtr single arm Hot Dip Galvanised Octogonal decorative Street light pole with 1mtr length arm, Material for construction shall Complies to BSEN 10025, Yield strength should be 355 Mpa, Galvanization thickness 70 Microns, Base plate should be connected with gasket to avoid helical stresses, Bottom dia: 130mm & Top Dia: 75mm, sheet thickness 3 mm with 70W Street Light luminaire Model GE SPECTRA 70W CMH IP 66 with GE CMH Lamp or PHILIPS, CROMPTEN or Approved equavalant and all foudation accessories, civil foundation complete.	Nos	47	



FOUNDATIONS

In Figures

In Words

Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	

Bored cast-in-situ M35 grade R.C.C. pile excluding reinforcement complete as
per drawing and technical specifications and removal

3.a

Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	

Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	
	Providing and laying 25 mm thick mastic asphalt wearing course on					

Rate (Rs.)

In Figures

In Words

Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	

ii **For Super Structures**

Supply and apply two coats of a two component polyurethane resin based UV resistant protective coating system In1.f 327f 0 10(e)] r7.92 Tf 153.093 479.973 Td [(b)-3(a)-3(se)-3(d68)-323(g)] TJ ET g /F3ce

Rate (Rs.)

In Figures

In Words



In Figures

In Words

Package - II

Bill No.1 SITE CLEARANCE

In Figures

In Words

Clearing and grubbing road land including uprooting rank vegetation, grass, bushes, shrubs, saplings and trees girth up to 300 mm, removal of stumps of trees cut earlier and disposal of unserviceable materials and

In Figures

Providing and laying bituminous concrete with 100-120 TPH batch
type hot mix plant producing an average output of 75 tonnes per hour
using crushed aggregate

4.04

106.656 513.87(ushe)56 513.87sto7peci87stishef 10.87(di)-1(ng)10(, pr)3(56 5m)-1(i)-1(x)-9(56 5d w)2(i)-1(t)-1(h 60/)-1(70)] TJ ET Q q BT 0 0 0 rg /F3 9.6

5.01

In Figures

In Words

Package - II

Bill No.6 ROAD FURNITURE

In Figures

In Words

Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	

In Figures

In Words

7.01 Supply, erection and commissioning of 6Mtr single arm Hot Dip Galvanised Octogonal decorative Street light pole with 1mtr length arm, Material for construction shall Complies to BSEN 10025, Yield strength should be 355 Mpa, Galvanization thickness 70 Microns, Base plate should be connected with gasket to avoid helical stresses, Bottom dia: 130mm & Top Dia: 75mm, sheet thickness 3 mm with 70W Street Light luminaire Model GE SPECTRA 70W CMH IP 66 with GE CMH Lamp or PHILIPS, CROMPTEN or Approved equivalent and all foundation accessories, civil foundation complete.

Nos 16

Rupees _____ **Only**

Item

Description

Unit

In Figures

In Words

Item

In Figures

In Words

Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	

Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	

Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	
	System requirements:					
	Density – 1.35 Kg/l @ +27°C					

Solid Content – 84% (by weight)

Bond Strength on concrete:> 1.5 N/mm²

Sqm 1625

23 Floor Protection

Providing & laying filter media(600mm thk.) behind abutments, wing walls and retaining walls including all materials, labour, equipment etc. all complete as per drawing and Technical Specification,MORTH Clause 305, 309 & 2500.

Providing and laying Pitching 300mm thick on slopes laid over prepared filter media including boulder apron laid dry in front of toe of embankment complete

m² 162



In Figures

Item

In Figures

In Words

In Figures

Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	

In Figures

In Words

In Figures

In Figures

In Words

PREAMBLE

TECHNICAL SPECIFICATIONS

CONTENTS

Sr.	Description
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1 PREAMBLE

1.1

2 GENERAL REQUIREMENTS

The Technical Specifications, in accordance with which the entire work described hereinafter

Scope of Work

The "Works" consist of Construction for the Proposed Improvements to NCTPS Road for the movement

PART -

PART - II
SUPPLEMENTARY TECHNICAL SPECIFICATION

**(AMENDMENTS / MODIFICATIONS / ADDITIONS TO EXISTING
CLAUSES OF GENERAL TECHNICAL SPECIFICATIONS - PART -I)**

SECTION 100 GENERAL
Clause 102 DEFINITIONS

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Clause 111.13 Haulage Roads

Clause 111.16 Air Quality

The Contractor shall devise and implement methods of working to minimize dust, gaseous and other air-borne emissions and carry out the Works in such a manner as to

material to surrounding areas.

Construction camps shall be properly arranged to avoid noise pollution to the nearby habitants and to avoid contamination of river and canals from wastewater drainage. To prevent such contamination, wastewater generated at the camp sites shall be discharged into soak pits. These shall be of sufficient capacity to contain 120% of estimated volume. These shall be regularly cleaned and maintained to be effective.

Monitoring of Air / Water / Noise

shall be settled mutually between the Engineer and the Contractor. In case of failure to arrive at an agreed rate and cost; the Engineer's decision regarding the rate and cost

uninterrupted power supply etc.”

v. 200 tonnes compression testing mac

to the requirements of AASHTO T-

SECTION 125 *Deleted*

SECTION 126 *Deleted*

SECTION 200 SITE CLEARANCE

Clause 201

The Contractor shall be free to use dismantled / milled material, either as is where is basis or, by suitably modifying the material or, by crushing the material or, by breaking the material and screening the same, provided it meets the specifications and is approved by the Engineer.”

Clause 202.6 Measurements for Payment

This Clause shall be read as:

“The work on dismantled structures shall be paid for in units indicated here by taking

Clause 202.7 Rates

Clause 301t-2(0)2-2(0)12 Td [()] TJ ET Q q BT 0 0 0 rg /F1 916306.4f 93.36 692.92 Td [()] TJ ET Q q BT 0 0 0 rg /F1 91

Clause 304.3.7

ii. Graphs of Density versus moisture content through which values of maximum

Clause 507.2.1 Bitumen

Delete words "indicated in Table 500-10" and insert "grade of S 65 in third and fourth lines.

Clause 509.2.12 Coarse aggregates

The Stone polis

Clause 509.4.7 Spreading

- ◁ The length of segments of broken longitudinal lines shall not deviate from the specified length by more than 150 mm.

In broken lines, the length of segments and the gap between segments shall be

"Bituminous concrete wearing course shall be tested immediately after laying / finishing for riding quality by measuring rou

Add the following at the end of this Clause:
"The alkali aggregate reactivity shall be measured and reported for getting approval for the source."

Clause 1009 STEEL

Clause 1009.2

Maximum and minimum, to be specified as a percentage of weight of cement.

Add the following at the end of the Clause.

Clause 1503.2 The following shall be added to this Clause:

Add the following as fifth para.

“For prestressed units, the side forms shall be released, as early as possible and the

Elements	Limits
slabs, beams, horizontal and railing offsets	

in a clean and serviceable condition. Their accuracy shall be periodically checked.

SECTION 2100 OPEN FOUNDATIONS

Clause 3003

ADDITIONAL TECHNICAL SPECIFICATIONS

A-1 CURING USING LIQUID MEMBRANE FORMING COMPOUND

A-1.1 General

Liquid membrane forming compound are sometimes permitted to be used by the Engineer for curing concrete for part or whole of the total curing pe

The liquid compound should be of a sprayable consistency.

A-1.1.2

Equipment for spraying curing compound shall be of pressure tank type (5 to 7kg / cm

A-3.2.4 Oil Cake - The cake (Neem /

a)

A-4.4 Back Filling

Where directed by the Engineer shall be carried out in accordance with the Clause 305 of the specifications.

A-4.5 Closing of Ends

fixed in position in the road.

Upper Surface-

- (iv.) Marker height shall not exceed 20 mm.
- (v.) Marker width shall not exceed 130 mm and shall not be less than 100 mm.
- (vi.) The base of the marker shall be flat within 1.3 mm. If the bottom of the marker

required gu

Bolts and nuts shall be as per IS: 1367 and tested as per IS: 1608. It shall have a minimum tensile strength of 44 Kg/mm^2 and minimum elongation of 23% on a gauge length of 5.65 (A-Original cross

his own cost.

8.5.1 **Preparation of Materials**

-Two perpendicular diameters of any oval hole shall not differ by more than 1 mm.

The members shall be visibly marked with a weather proof lightllred ait.f The sie ad

ed the on the abe ad is the abe elived the me se the y-76 t that hal

dle r rteeeral tility me253(m)-29(b)-2(e)23(r)&(s)17()26[sh232()26[aeblese may-76()-3bb aed

thaies of thae mbers sh232(a)-2(l)-6(l)3-1-1538(b)-2(e)23()26[cshe a toe failiate thae ietifiat of me253(m)-29(b)-2(e)2

!

8.10.2 The actual lengths installed shall be measured and the weight of structural material/plate shall be calculated wherever necessary on the basis of IS handbook. If sections are different from IS

Insufficient

For weld lengths 11 + 5mm for
12 + 10mm for shorter seams
cut and reweld or complete to
length

Negligence

Rule checking

GENERAL NOTES FOR STRUCTURAL STEEL WORKS

In any event , permanent liners of not less than 8 mm thick shall be provided for at least 7m depth from bottom of the pile cap.

f.

e. Prolonged delays in t(n)0hge oeeen n oei ne t(n)0hge opoeion n t(n)0hge oring



23de. e i(e)-2()776(i)-31noel eee e oleic n

shahb2(l)e3(a)wle3(a)r2(l2(h)41(t)41(i7)17(g3(a)h2(l)t)41(h)41(-2(l)n2(l)d3(a)h)426(t)41(23(a)e2(l)h)41(t)426(r)3(e3(

web below the fillet between the deck slab and web. If permitted by the Eng(h)(l)-n(p)-2(e)23(e)-r,(f)-26()-o(e)2n(d)-

he lo-etnd ie the web aho e

TOLERANCES

Precast Concrete Superstructure.

Variation in cross – sectional dimensions:

- | | | | |
|----|------------------------|---|------------|
| a) | Upto and including 2 m | : | ± 5 mm |
| | over 2m | : | ± 5 mm |

available marginal materials to comply with the relevant stabilization specifications.

2.1 Materials

ii)

applied:

a) Primer coat One coat of ready mixed paint zinc chrome priming to IS:104 followed by one coat of ready mixed paint red oxide zinc chrome priming to IS:2074. or Two coats of zinc chromate red oxide

work.

15.3

A.13 .Methodology for Protective Coatings for Sub Structures and Super Structures of bridges

Scope

Protective Coating

Technical Specification-

