

***Tamil Nadu Road Development Company Ltd.***

***(TNRDC***











2. Throughout this Bidding document, the term bid and tender and their derivatives





**Section**

**Section I: Instructions to Bidders**

**TNRDC**

lead to the disqualification of the Bidder or the termination of its Contract without any further notice.

***Section I: Instructions to Bidders***





**Section I: Instructions to Bidders**  
**ii) Bank Guarantee**

**TNRDC**







**Section I: Instructions to Bidders**

within the overall cost as per the submitted financial

**TNRDC**







**Section**















**3. DECLARATION STATEMENT**

***(Letterhead paper of the Bidder)***

[date]

**To**

**Chief General Manager**  
**Tamil Nadu Road Development Company Limited,**  
171, 2nd Floor, Tamil Nadu Mitime Board Building,  
South Kesavaperumal Puram,  
Pasumpon Mamalingam Road (Greenways Road),  
Raja Annamalai Puram, Chennai



**5.LETTER OF FINANCIAL**

We confirm that our firm has VAT/PAN registrations along with **ESI/ Workmen**

**6. LETTER OF AWARD (LOA)/ WORK ORDER**









***Section II: Forms of Bid & Forms of Securities***













Accepted

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 201\_\_

(To be signed by the Lead Partner)

Witness:







**2. Interpretation**

- 2.1 In interpreting these Conditions of Contract, singular also means plural, male also means female or



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3	Planning Engineer	<b>B.E</b> Degree in Civil Engineering	07 Years
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However, it is for the contractor to decide whether the minimum amount specified in the C





















(iv)









Fraud



the Contractor has been frustrated. The Contractor shall make the site safe and stop works us e

**Secti**







III

- f. Employees PF and Miscellaneous Act, 1952







# **Section IV**

# **Contract Data**















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

(ii) Diameter above 900mm dia i.e for 1000mm Dia pipes

Lm.

80

(b) Dismantling of Brick Masonary works

**In Figures**

**In Words**

2.01 Excavation for roadway including shoulder and median with all lifts and leads upto 5 kms all complete as per Technical Specifications Clause 301.

(a) in soils ( other than soft rock and hard rock ) Cum. 187,766

(b) in soft rock ( not requiring blasting ) Cum.

<b>Quantity</b>	<b>Rate (Rs.)</b>	
	<b>In Figures</b>	<b>In Words</b>

**In Figures**

**In Words**

3.01 Constructing granular sub-base course with all lifts and

4.01 Providing bituminous

**In Figures**

**In Words**

4.05 Providing and laying bituminous concrete wearing coat,using 60/70  
grade for Paving Bitumen IS : 73

**In Figures**

**In Words**

5.01 Earthwork excavation in all types of soil including marshy soil for construction of unlined drains including marshy soil for construction

**In Figurpl8**



**In Figures**

**In Words**

6.01 Supplying and fixing at site retro-reflectorised type XI Diamond Grade signs/sign boards made of encapsulated lense type of reflective sheeting fixed over 2mm thick aluminium sheeting Post size 75X75X6 angle,and all complete includings

Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	
(vii)	Facility (standard) 800 mm x 600 mm	No.	17			
(viii)	Route marker NH/SH signs with definition plate of size 300 x 250 mm	No.	16			
(b)	Cautionary Signs, Triangular (Size 900 mm side).	No.	166			
(c)	Mandatory Signs, Size.					
(i)	Circular 600 mm dia.	Nos	32			
(ii)	Octagon 900 mm height (for "STOP").	Nos	16			
(iii)	Triangular 900 mm side (for "GIVE WAY").					

**In Figures**

**In Words**

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

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

6.10 Providing and fixing Road studs at Horizontal curves and median openings  
all complete as per Drawing. Nrtuds

**Item**

**Description**

**Unit**

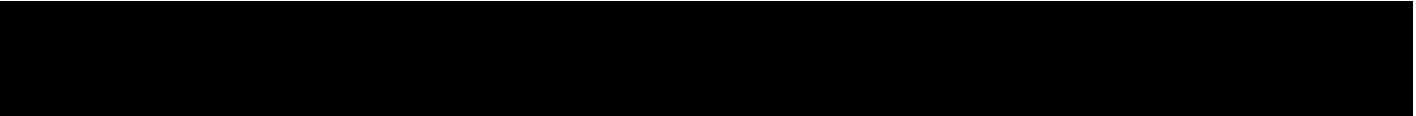
**Quantity**

**In Figures**

**Rate (Rs.)**

**In Words**

**Amount (Rs.)**



**In Figures**

**In Words**

7.01 Providing & laying Paver Block of 60mm

anf.63 oftr

Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	
7.03	Collection Drain for Toilet (Unit Qty:RCC - 0.3 cum,Rebar=27Kg)	LR				

anf.63 oftr

010 of 73851663br



**In Figures**

**In Words**

8.01 Plantation of trees as per MOEF guidelines in one/two rows depending upon space available on either side of road within ROW & central median (including planting with manure, gardening and maintenance) Nr. 670

8.02 Turfing of embankment/cut slopes,verge,earthen

**In Figures**

**In Words**

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, Yeild strength should be 355

9.01

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



			<b>In Figures</b>	<b>In Words</b>
10.01	Pot hole filling and patching work	Sqm	107	
10.02	Crack sealing	Sqm	1845	
10.03	Bridge deck sealing including bump at approaches			
10.04	Earthen shoc 0C841 49.795 3s41t holn2(ng)c(gu)-4(-2(ng)9( i)-2(nc)3(l)-2(udi)--2(e)3( f)2(i)-2(l)-2(i)-2(ng-2(l)a)3(r))3(c)3(k st)-2( holcm)-2(p a)3(c)3o fng			

10.08



**Rate (Rs.)**

**In Figures**

**In Words**



**MINOR BRIDGES- FOUNDATIONS**

**In Figures**

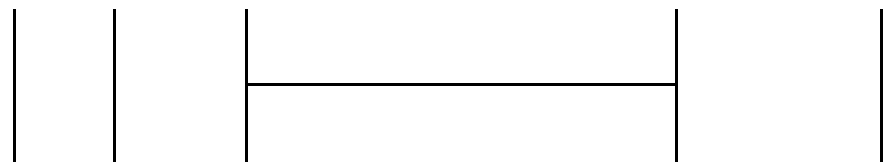
**In Words**

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

Item	Description	Unit	Quantity	Rate (Rs.)		Amount (Rs.)
				In Figures	In Words	
	<b>Pile cap RCC M35 Using Batching Plant, Transit Mixer and Concrete</b>					
<b>12.06</b>	<b>Pump</b>	cum	1161			
<b>12.07</b>	<b>Leveling course for Pile cap</b>	cum	100			
<b>12.08</b>	<b>Supplying, fitting and</b>					

nd





**In Figures**

**In Words**

**Rate (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	

**12.25 Painting -Protection works**

i) **For foundations & Sub structure Below Ground level**

Supply and apply

**Rate (Rs.)**

**In Figures**

**In Words**

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

**In  
Figures**

**In Words**

**MAJOR BRIDGES- FOUNDATIONS**

**Excavation for Structures** (Earth work in excavation of foundation of structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides etc.

**13.01**

**I Ordinary soil**  
**A Mechanical Means**

(i) Depth upto 3 m cum 2622

(ii) Depth 3 m to 6 m cum 2622

Filling with good earth

(iii)

**In**



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

**MAJOR BRIDGES/SUPER-STRUCTURE**

**13.12** **Furnishing and Placing Reinforced Cement Concrete** in super-structure as per drawing and Technical Specification

Concrete **M35 RCC Girders** cum 3410

**13.13** a) **Supplying, fitting and placing HYSD bar Fe 500 reinforcement** in super-

**Rate (Rs.)**

**In  
Figures**

**In Words**



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

**In  
Figures**

**In Words**

<b>In Figures</b>	<b>Rate (Rs.)</b>	<b>In Words</b>	<b>Amount (Rs.)</b>
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# **Section VI Drawings**

**(As a Separate Link in the Website)**

# **Section VII**

# **Technical Specifications**





## 2.1 PART - I: General Technical Specifications

Vjg" I gpgtcn" Vgejpkecn" Urgekhhkecvkqpu" ujcnn" dg" vjg" δURGEKHKKECVKQPU" HQT" TQCF" CPF" DTKF IG"



14	1700	Structural Concrete	1703,1704,1705,.1706,1707,1709,1710,1712,1713,1715,1719 and 1720
15	1800	Prestressing	1801,1802,1803.1804,1806,1807,1808.1



**PART - I**  
**GENERAL TECHNICAL SPECIFICATIONS**

**1.0**

**PART - II**  
**SUPPLEMENTARY TECHNICAL SPECIFICATION**  
**(AMENDMENTS / MODIFICATIONS / ADDITIONS TO EXM0STIMEN**

- Work instructions, quality control procedures, compliance testing, inspection procedures and work acceptance procedures.
- iii. **The Contractor's construction quality control including :**
- Control of test laboratories;
  - Control of test, measuring and inspection equipment;
  - Document Control;
  - Procedure for monitoring and recording the inspection, test and approval status of the Works;
  -









Any vehicle with as open load-

Spilling of oil and bituminous products during construction and transport shall be avoided to reduce the chances of contamination of surface as well as ground water.

**Clause 112      ARRANGEMENT FOR TRAFFIC DURING CONSTRUCTION**

**Clause 112.1    General**

Delete the last sentence and add the following:









x.







excavation by harrow













Insert the following sentence before the last sentence of fifth para:  
The relation between sand replacement densities and nuclear gauge densities shall be used on  
trials.

PCC / RCC M 20 grade (excluding reinforcement)      í í (lew) o  
HYSD Reinforcement      í í 0vqppg  
í í 0pqu



**Clause 406.3.3 Preparation of Mix**

The first para shall be read as follows:  
ō Y g<sup>v</sup> o k z<sup>n</sup> o c e c f c

**SECTION 500 BASE AND SURFACE COURSES (BITUMINOUS)**

**Clause 501**



## **REQUIREMENTS OF BITUMINOUS CONCRETE MIX**





**Clause 803.5 ReflectORIZED Paint**

This Clause shall be deleted.

**Clause 803.6 Application**

Add the following Sub-Clause at the end of this Clause:

**Clause 803.6.6 Tolerances**

- i. General

with angle of size 35 mm x 35 mm x 3 mm. The sign 5alzne with nug

eldinzn MS anglhe 6(ISA g)540 mm 40 m(m)42( )



**Clause 903.5.2.4**

strata or 300 ppm (0.03 per cent) in ground water. Tests to confirm actual values of sulphate

Vjg"eqctug"ci i tgi cvgu"ujcm"ucvkuh{ "vjg"tgswwktg o gpvu"qhø" i tcfkpi "cu" ikxgp"kp"Vcdng"3222-30ö"

Add the following at the end of the Clause



deterioration before use / reuse and shall be used only if found suitable after necessary repairs.







---

**Elements**

**Limits**

Add the following as second para:

ōVjg"nqecvkqp"qh"lqkpvu"kp"eqpvkpwqwu"tgkphqtekp i "dctu."pqv"ujqyp"kp0"ftcykpiu."ujcm"dg"uwdokwgf"



jt0Vjg"rncpv"ujcm"dg"cr rtqxf"d{"vjg"Gpikpggt06

Part (a) of third para of this Clause sha 144.02 737.52 Td [



**Clause 2210 RATE**

This Clause shall read as follows:

ōVjg"eqpvtcev"tcvg"hqt" o cuqpt{."eqpetgvg"cpf"tgkphqteg o gpv"kp"uwduvtwevwtg"ujcmm"kpewfg"cmn" yqtmu"  
as given in respective sections and cover the cost of incidental items like providing cofferdams,











other undesirable growth met with during excavation shall be separated out and unserviceable material removed from the site as directed. Useful material, if any, shall be stacked properly and



**A-4                    UTILITY DUCTS**

**A-4.1                Scope**

The work shall consist of providing and laying P.C.C. Utility Ducts in accordance with the requirements of these specifications with RCC manhole at either end of duct and PVC pipe.

**A-4.2                Materials**

The PVC pipes shall confirm to IS: 14787.

**A-4.3                Jointing**

e) The thickness





Head- That part of the road stud which is above the road surface when the road stud is fixed in position in the road.

Upper Surface- That part of the external surface of the road stud which is visible when the road stud is fixed in position in ion ioat

**A-6.4**

**Design**

**A-6.6.2****Placement**

The reflective marker shall be fixed to the road surface using the adhesives and the procedures recommended by the manufacturer. No nails shall be used to affix the marker as nails are hazardous for the roads.





#### 8.4.5 **Receipt & Storing of Materials**

Steel materials supplied by the contractor must be marked for identification and each lot should be accompanied by manufacturer's quality certificate, conforming chemical analysis and mechanical properties.





members (angles, axes nodes etc.)

Sharp edges, rust of cut edges, notches, irregularities and fissures due to faulty cutting shall be chipped or ground or filled over the length of the affected area, deep enough to remove faults completely.

Edge preparation s.or



approval of joints obtained.

The bolts shall be tightened starting from the centre of joint towards the edge.

#### **8.5.11 Planning of Ends**





assembly and erection cannot be inspected, painted and maintained. Holes shall be provided for water

- for quality certificates regarding materials and workmanship according to these general specifications





These tolerances shall apply to all parts of the structure unless the drawings issued for erection purposes state otherwise.

8

**ANNEXURE – A**  
**INSPECTION**

**Inspection**

**Coverage**



**GENERAL NOTES FOR STRUCTURAL STEEL WORKS**

1.





A.9.2.3.7 Guarantee

The contractor shall be required to furnish a guarantee for the exterior roof and wall sheeting for 20 years for plain Galvalume or colour coated material in accordance with our standard guarantee format.

A.9.4 **OTHER**

A.9.4.1 Material Sources:

The organic coated steel must be sourced from a reputed manufacturer who has adequate experience in coating the given specification material. The coated coil supplier should be a licensed manufacturer









or boring shall be taken by the Contractor. The joint between the hopper and tremie pipe as well as the joints in





## **Strands/ Steel for Prestressing**







**Technical Specification-Electrical Highway Lighting (Single Arm)**

**Description**

## **Technical Specification-Electrical Highway Lighting (Double Arm)**

### **Description**

- Industrially designed road lighting luminaire suitable for 40







***The protective coating system for super structures of bridges:***

Providing and applying a polyurethane resin based UV resistant protective coating system **Sikagard®-PU (UR) or Approved Equivalent** at 300 microns thickness approximately (2 coats).

**Product Description**

**Sikagard®- PU (UR) or Approved Equivalent** is a two component polyurethane resin based UV resistant protective coating system.

**Priming**

.48 Td [(Provi)3(ding )-3 /Lang4 /Ln-GB

The concrete surface has to be primed with one coat of a water based,



## Proposal for Dismantling & Strengthening of Pier



