

CONFIDENTIAL.

NATIONAL HIGHWAYS AUTHORITY OF INDIA

**SECOND VIVEKANANDA BRIDGE
TOLLWAY PROJECT
KOLKATA**

**CONCESSION AGREEMENT
SEPTEMBER 2002**

**SECOND VIVEKANANDA BRIDGE TOLLWAY COMPANY
57, NEHRU PLACE, NEW DELHI - 110019**

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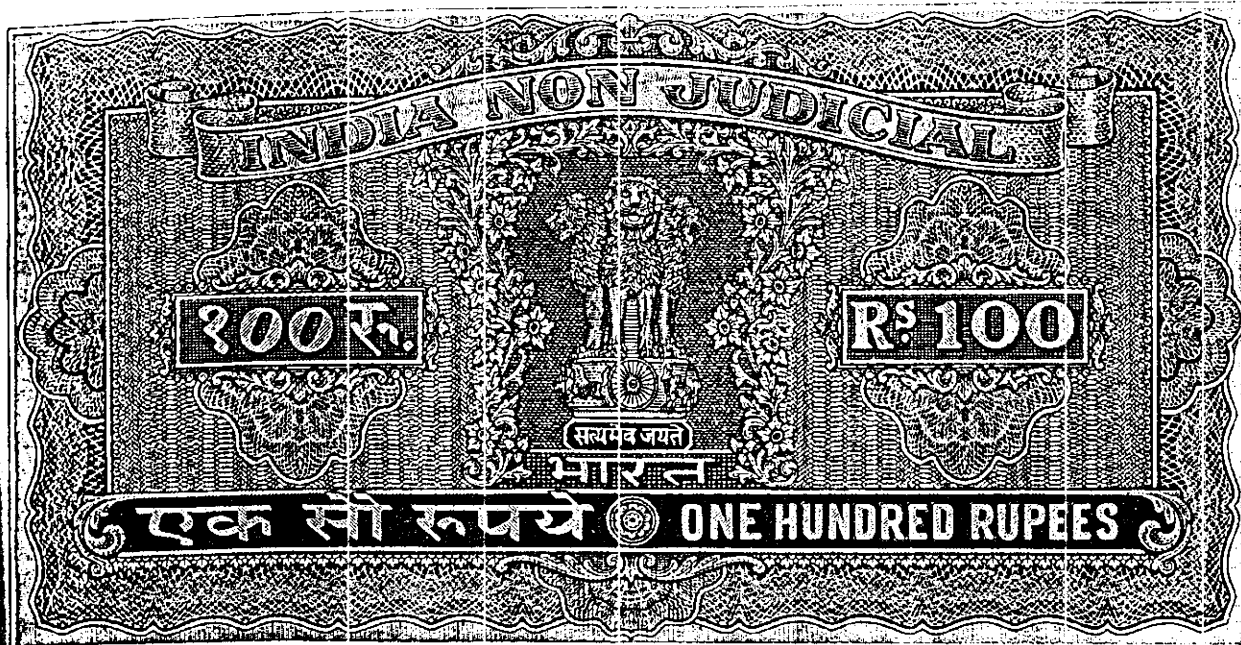
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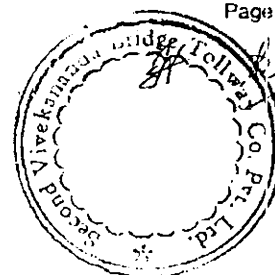
CONCESSION AGREEMENT

This Agreement is entered into on this the 2nd day of September 2002 between

1. **NATIONAL HIGHWAYS AUTHORITY OF INDIA**, a statutory body constituted under the provisions of the National Highways Authority of India Act, 1988, and having its principal office at G-5 & G-6, Sector 10, Dwarka, New Delhi – 110 045 (hereinafter referred to as "NHAI" which expression shall unless repugnant to the context or meaning thereof include its administrators, successors and assigns) of One Part,

AND

2. **SECOND VIVEKANANDA BRIDGE TOLLWAY COMPANY PRIVATE LIMITED**, a company incorporated under the provisions of the Companies Act, 1956 and having its registered office at C/o Consulting Engineering Services (India) Private Limited, 41-A, Maker Tower E, 4 th Floor, Cuffe Parade, Mumbai – 400 005 (hereinafter referred to as the "Concessionaire" or "Company" which expression shall unless repugnant to the context or meaning thereof include its successors and permitted substitutes) of the Other Part.

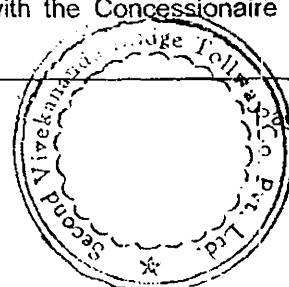


The Second Vivekananda Bridge Tollway Project

WHEREAS

- A. The Government of India in the then Ministry of Surface Transport (now Ministry of Road Transport and Highways and hereinafter referred to as "MORTH") invited bids in July 1995 ("Tender Notice") for the design, engineering, financing, procurement, construction, operation and maintenance of the Second Vivekananda Bridge across the river Hooghly along with its approaches from both Howrah and Calcutta sides, i.e. the Project (as defined hereinafter) through a concession on build, operate and transfer ("BOT") basis subject to and on the terms and conditions set forth in the Tender Notice. In response there to a consortium (including, as represented by the Concessionaire, the Pacific Alliance Inc. & Indian Investments Inc. of Pacific Alliance group of companies, Strategic Alliance Development Corporation and Consulting Engineering Services Private Limited of the Consulting Engineering Services group of companies) submitted its bid. MORTH subsequent there to issued its letter No. RW/ 15013/ 31/ 94-PL dated May 12, 1997 to the successful bidder, i.e. the above-referred consortium.
- B. MORTH subsequent thereto by its notification No SO. (78) E dated February 4, 1999 issued pursuant to Section 11 of the National Highways Authority of India Act, 1988 (the "Vesting Notification") inter alia, vested the National Highway from Panagarh to Kolkatta as set forth in the said Notification.
- C. On transfer of the Project (as defined hereinafter) from MORTH to NHAI pursuant to the Vesting Notification, NHAI continued discussions with the consortium referred to in Recital 'A' above.
- D. On account of unforeseen delays in materialisation of this Project, the above referred consortium has undergone certain restructuring and the Consortium (as defined hereinafter) has promoted and incorporated the Concessionaire as a limited liability company under the laws of India to enter into this Concession Agreement for undertaking, inter alia, the design, engineering, financing, procurement, construction, operation and maintenance of the Project Bridge (as defined hereinafter) on BOT basis and to fulfill other obligations of the Concessionaire set herein and has requested NHAI to accept the Concessionaire as the entity which shall undertake and fulfill and perform the obligations and exercise the rights of the Consortium under this Concession Agreement, including the obligation to undertake the design, engineering, financing, procurement, construction, operation and maintenance of the Project Bridge on BOT basis.
- E. NHAI has agreed to the said request of the Consortium and has accordingly agreed to enter into this Concession Agreement with the Concessionaire for,

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inter-alia, the design, engineering, financing, procurement, construction, operation and maintenance of the said Project Bridge on BOT basis.

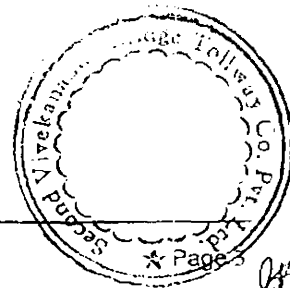
- F. It is deemed necessary and expedient to enter into this Agreement to record the terms of the said Agreement between the Parties.

NOW THEREFORE IN CONSIDERATION OF THE PREMISES AND THE MUTUAL COVENANTS HEREINAFTER CONTAINED, THE PARTIES HERETO HEREBY AGREE AND THIS AGREEMENT WITNESSETH AS FOLLOWS:

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Handwritten initials and a signature.

1 DEFINITIONS AND INTERPRETATION

1.1 Definitions

In this Agreement, the following words and expressions shall, unless repugnant to the context or meaning thereof, have the meaning hereinafter respectively assigned to them:

"Accounting Year" means the financial year commencing from 1st April of any calendar year and ending on 31st March of the next calendar year.

"Additional Facilities" means the facilities which the Concessionaire may provide or procure for the benefit of the users of the Project Bridge and which are (i) in addition to the Project Facilities, and (ii) not situated on the Site.

"Affected Party" shall have the meaning set out in Clause 29.1.

"Agreement" means this Agreement, the Schedules 'A' through 'ZC' hereto and any amendments thereto made in accordance with the provisions contained in this Agreement.

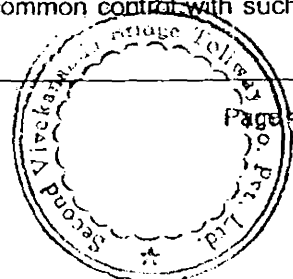
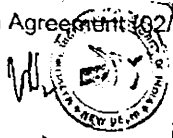
"Applicable Laws" means all laws, promulgated or brought into force and effect by GOI or GOWB including regulations and rules made thereunder, and judgements, decrees, injunctions, writs and orders of any court of record, as may be in force and effect during the subsistence of this Agreement.

"Applicable Permits" means all clearances, permits, authorisations, consents, no objection certificates and approvals required to be obtained or maintained under Applicable Laws in connection with the design, engineering, financing, procurement, construction, operation and maintenance of the Project Bridge during the subsistence of this Agreement.

"Appointed Date" means the date on which Financial Close is achieved in accordance with Article XXII and shall be deemed to be the date of commencement of the Concession Period.

"Arbitration Act" means the Arbitration and Conciliation Act, 1996 and shall include modifications to or any re-enactment thereof as in force from time to time.

"Associates" means in relation to either Party and/or Consortium Members, a person who controls, is controlled by, or is under the common control with such



Party or Consortium Member and has, in the case of any Consortium Member, been so approved by NHA'. As used in this definition, the expression "control" means with respect to a person which is a corporation, the ownership, directly or indirectly, of more than 50% of the voting shares of such person, or the irrevocable power to direct the management and policies of such person, whether by operation of law or by contract or otherwise. As on date, Associates include PACIFIC ALLIANCE-STRADEC Group Infrastructure Company ("PASGIC") and L & T Holdings Ltd. ("LTHL").

"Bank" means a bank incorporated in India and having a minimum net worth of Rs.10,000 million (Rupees ten thousand million) and having a branch in the proximity of the Project or at any other place acceptable to NHA.

"Bid" means the documents in their entirety comprised in the bid submitted by the Bidder in response to the Tender Notice in accordance with the provisions thereof.

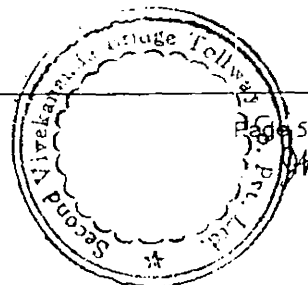
"Bidder" means the consortium referred to in Recital 'A' above.

"Cause" in relation to the failure or refusal to issue or renew or revocation or amendment of any Applicable Permit means any fact or circumstance, including without limitation any default, neglect or failure by the Concessionaire or any Contractor to abide by any of the terms and conditions of such Applicable Permit or making of any misrepresentation or incorrect statement by the Concessionaire or any Contractor, which legally entitles the issuing authority to withhold issuance, renewal or to revoke the same or make amendments to its terms and conditions.

"COD" means the commercial operations date of the Project Bridge and shall be the date on which the Independent Consultant has issued the Completion Certificate or the Provisional Certificate upon completion of the Project Bridge in accordance with the Agreement.

"Change in Law" means the occurrence of any of the following after the date of this Agreement:

- i. the enactment of any new Indian law;
- ii. the repeal, modification or re-enactment of any existing Indian law;
- iii. the commencement of any Indian law which has not entered into effect until the date of this Agreement;



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- iv. a change in the interpretation or application of any Indian law by a court of record or a tribunal or regulatory commission against which in law no appeal is permissible as compared to such interpretation or application by a court of record or such tribunal or regulatory commission prior to the date of this Agreement;
- v. any introduction of a new Tax or any change in the rate or incidence of any of the Taxes but excluding any change by reason of interpretation other than as set forth in sub-clause (iv) hereinabove; or
- vi. The issuance by an Indian court, tribunal or judicial body within India, of any order against the Concessionaire, NHAI or any Governmental Agency which suspends, prevents or prohibits the construction or operation of the Project Bridge pursuant to the Concession hereby granted solely on the ground of lack of legal power, right or authority of NHAI to grant this Concession.

"Change of Scope" shall have the meaning ascribed thereto in Clause 17.1.

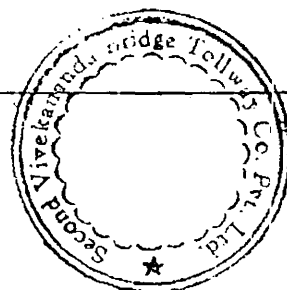
"Company" means the Company acting as the Concessionaire under this Agreement.

"Completion Certificate" means the Certificate issued by the Independent Consultant pursuant to Clause 16.4.

"Concession" means the rights and obligations of the Concessionaire set forth in this Agreement subject to the terms and conditions hereof for the Concession Period and shall include, without prejudice to the foregoing, the right of the Concessionaire to construct, operate and maintain the Project Bridge in accordance with this Agreement and to charge, collect and retain revenues from Fees collected for use of the Project Bridge by vehicles in accordance with this Agreement and the obligation to transfer the Project Assets to NHAI or its nominee upon the earlier of expiry of the Concession Period or Termination of this Agreement.

"Concession Fee" shall have the meaning ascribed thereto in Article VII.

"Concession Period" means the period beginning from the Appointed Date and ending on the Termination Date.



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"Concessionaire" means Second Vivekananda Bridge Tollway Company Private Limited and its successors and substitutes and assigns expressly approved in writing by NHAI.

"Connector Roads" means (i) that portion of the road connecting the intersection of NH-2 and NH-6 to the Project, on the Howrah side ("Howrah Connector"), and (ii) the proposed Belghoria Expressway Link to be built on the Kolkata side.

"Consortium" or "Consortium Members" means Pacific Alliance International LLC, Parsons Brinckerhoff Infrastructure Development Company Inc., STRADEC International Holdings Inc., Consulting Engineering Services India Private Limited and Larsen & Toubro Ltd.

"Construction Period" means the period beginning from the Appointed Date and ending on the C.O.D.

"Construction Works" means all works and things necessary to complete the Project Bridge for use of the traffic and other users thereof in accordance with this Agreement.

"Contractor" means the contractor or contractors, with whom the Concessionaire has entered into all or any of the Project Agreements other than the Financing Documents.

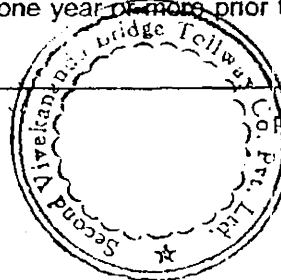
"Cure Period" means the period specified in this Agreement for curing any breach or default of any provision of this Agreement by the Party responsible for such breach or default and upon failing of which the Agreement may be terminated by the other Party in accordance with this Agreement and shall mean in the absence of any such specified period, a period of 60 (sixty) days.

"Damages" shall have the meaning ascribed thereto in Clause 1.2(p).

"Day" means calendar day.

"Debt Due" means the aggregate of the following sums expressed in Indian Rupees or in the currency of debt, as the case may be, outstanding and payable to the Lenders under the Financing Documents:

- (i) the principal amount of the debt provided by the Lenders under the Financing Documents for financing the Project (the "principal") which is outstanding as on the Termination Date but excluding any part of the principal that had fallen due for repayment one year or more prior to the



Termination Date unless such repayment had been rescheduled with the prior consent of NHAI; and

- (ii) all accrued interest, financing fees and charges payable on or in respect of the debt referred to in sub-clause (i) above upto the date preceding the Termination Date but excluding (a) any interest, fees or charges that had fallen due one year or more prior to the Termination Date, under the Financing Documents unless such repayment had been rescheduled with the prior consent of NHAI, and (b) penal interest or charges, payable under the Financing Documents to any Lender unless such penal interest or charges are payable due to an NHAI Event of Default.

"Debt Service Payments" means the sum of all principal and interest payments (excluding penal interest or charges payable on account of default in payment according to Financing Documents unless such penal interest or charges are payable due to an NHAI Event of Default), due and payable in an Accounting Year to the Lenders under the Financing Documents for financing the Project.

"Development Period" means the period from the date of this Agreement until the Appointed Date unless the Agreement is Terminated before that date, in which event, the date of such Termination.

"Dispute" shall have the meaning set forth in Clause 39.1(a).

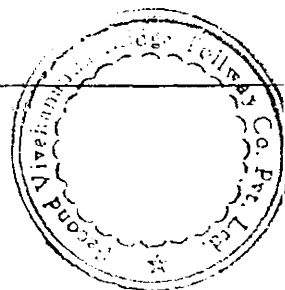
"Dispute Resolution Procedure" means the procedure for Dispute resolution set forth in Article XXXIX.

"Divestment Requirements" means the obligations of the Concessionaire and NHAI for and in respect of the transfer of the Project Bridge as set forth in Article XXXIII.

"Document" or "Documentation" means documentation printed or in written form, tapes, discs, drawings, computer programmes, writings, reports, photographs, cassettes, or expressed in any other written, audio or visual form.

"Drawings" means all the drawings, calculations and documents pertaining to the Project Bridge as set forth in Schedule 'I' and shall include "as built" drawings of the Project Bridge.

"EPC Contract" means contract or contracts entered into by the Concessionaire with one or more Contractors for the design, engineering, procurement of

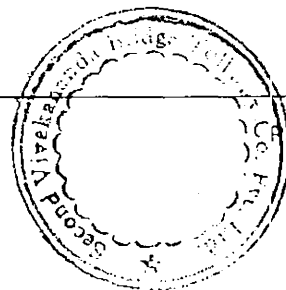


materials and equipment, construction, and completion of the Project Bridge in accordance with the provisions of this Agreement.

"Emergency" means a condition or situation that is likely to endanger the security of the individuals on or about the Project Bridge including users thereof or which poses an immediate threat of material damage to any of the Project Assets.

"Encumbrances" means any encumbrances such as mortgage, charge, pledge, lien, hypothecation, security interest, assignment, privilege or priority of any kind having the effect of security or other such obligations and shall include without limitation any designation of loss payees or beneficiaries (other than such designation of the Senior Lenders pursuant to the Financing Documents) or any similar arrangement under any insurance policy pertaining to the Project Bridge, physical encumbrances and encroachments on the Site where applicable herein excluding Permitted Utilities.

"Equity" means the sum expressed in Indian Rupees representing the equity share capital or any form of preference share capital of the Concessionaire and shall include any interest free funds advanced by any shareholders of the Concessionaire for meeting the equity component of the Project cost. Equity subscribed in lieu of direct Project development costs and other expenses (including a reasonable proportion of common overhead expenses) incurred by the Consortium Members shall be considered only to the extent such costs and expenses have been verified as forming part of the equity and the Project cost by a consultant to be appointed by the Senior Lenders and approved by the Senior Lenders for meeting the Project cost as set forth in the Financing Package. However, for determining Termination Payments, Equity shall not exceed the figure in respect of Equity provided in the Schedule 'ZB'. Further, Equity shall be reckoned as an amount that is arrived at after excluding from the Equity the sum by which the capital cost of the Project Bridge as certified by the Statutory Auditors of the Concessionaire exceeds the Total Project Cost. Without prejudice to the foregoing, it is expressly agreed that any amount contributed as Equity shall be treated as Equity through out the Concession Period even though it may have some debt like characteristics at any point of time. It is expressly agreed that Equity shall be computed in Rupees only and for this purpose any Equity contribution in any foreign currency shall be the actual Rupees as received by the Concessionaire if remitted to it or any person in India and in case of it being incurred in foreign currency only, the Rupee equivalent at the rate as on the date it was incurred.



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"Escrow Account" means an Account which the Concessionaire shall open and maintain with a Bank in which all inflows and outflows of cash on account of capital and revenue receipts and expenditures shall be credited and debited, as the case may be in accordance with the provisions of this Agreement.

"Escrow Agreement" shall have the meaning ascribed thereto in Clause 25.2.

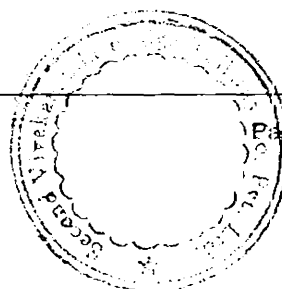
"Exempted Vehicles" means vehicles that shall be exempted from payment of Fees and include Defence Vehicles, Vehicles with very important person (VIP) symbols, Police Vehicles, Fire fighting vehicles, Ambulances, Funeral Vans, Post and Telegraph departments vehicles, Central and State government vehicles on duty only. The vehicles with the following dignitaries, shall be deemed to be vehicles having VIP symbols namely, President of India, Vice President of India, Governors of States, Central and State Ministers, Leaders of Opposition of Lok Sabha or Rajya Sabha or State Legislators, Lieutenant Governors of Union Territories, Speakers or Chairmen of Central and State Legislatures, Executive Councillors, Members of Parliament, Members of State legislatures in their own constituencies only and Foreign dignitaries on State Visit to India and Foreign Diplomats stationed in India using cars with CD symbols.

"Fee" means the charge levied on and payable by a vehicle for using the Project Bridge in accordance with the Fee Notification and this Agreement.

"Fee Notification" means Notification to be issued by GOI in exercise of the powers conferred by Section 8A of the National Highways Act, 1956 in respect of the levy and collection of the Fees and a draft copy of which is at Schedule "G" and shall include any such subsequent notifications issued from time to time for levy and collection of Fee contemplated by the provisions of this Agreement.

"Financial Close" means the date on which the Financing Documents providing for funding by Lenders have become effective and the Concessionaire has immediate access to such funding under the Financing Documents.

"Financing Documents" means the documents executed by the Concessionaire in respect of financial assistance to be provided by the Lenders by way of loans, guarantees, subscription to debentures and other debt instruments including loan agreements, guarantees, notes, debentures, bonds and other debt instruments, security agreements, and other documents relating to the financing (including refinancing) of the Project as on the date of Financial Close and includes amendments or modifications made in accordance with Clause 9.1(iv).



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"Financing Package" means the financing package of the Project furnished by the Concessionaire immediately before the execution of this Agreement and agreed to by the NHAI setting forth the envisaged Project cost and the means of financing thereof and shall be deemed to have been modified to the extent as submitted to the Senior Lenders and as approved by them for the purposes of funding of the Project under the Financing Documents.

"Force Majeure" or "Force Majeure Event" shall mean an act, event, condition or occurrence specified in Article XXIX.

"GOI" means the Government of India.

"GOWB" means the Government of the State of West Bengal.

"Good Industry Practice" means those practices, methods, techniques, standards, skills, diligence and prudence which are generally and reasonably expected of and accepted internationally from a reasonably skilled and experienced operator engaged in the same type of undertaking as envisaged under this Agreement and acting generally in accordance with the provisions of the NHAI Act, and would mean good engineering practices in the design, engineering, construction and project management and which would be expected to result in the performance of its obligations by the Concessionaire and in the operation and maintenance of the Project Bridge in accordance with this Agreement, Applicable Laws, Applicable Permits, reliability, safety, environment protection, economy and efficiency.

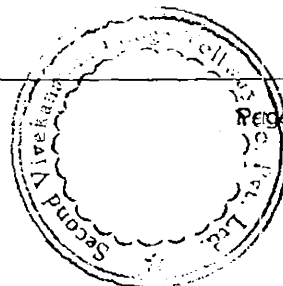
"Governmental Agency" means GOI, GOWB or any ministry, department, commission, board, authority, instrumentality or agency, under the control of GOI or GOWB or any statutory body having jurisdiction over all or any part of the Project Bridge or the performance of all or any of the services or obligations of the Concessionaire under or pursuant to this Agreement.

"Grant" shall have the meaning ascribed thereto in Clause 23.1.

"IRR" means the internal rate of return.

"Indemnifying Party" means the Party obligated to indemnify the other Party pursuant to Article XXXVII.

"Independent Consultant" shall have the meaning ascribed thereto in Clause 20.1.



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"Indirect Political Event" shall have the meaning ascribed thereto in Clause 29.3.

"Lenders" means Senior Lenders and Subordinate Lenders.

"Lenders' Representative" means the person(s) duly authorised by the Senior Lenders to deal with the Parties to the Agreement with regard to the issues arising out of and contained in this Agreement.

"Maintenance Manual" shall have the meaning ascribed to it in Clause 18.2.

"Maintenance Programme" shall have the meaning ascribed to it in Clause 18.3.

"Material Adverse Effect" means material adverse effect of any act or event on the ability of either Party to exercise its rights or perform any of its obligations under and in accordance with the provisions of this Agreement other than as expressly authorised or permitted by this Agreement.

"Material Breach" means a breach by either Party of any of its obligations in this Agreement which has a Material Adverse Effect and which it shall have failed to cure within the Cure Period.

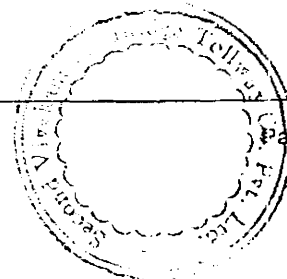
"NHA Representative" means such person or persons as may be authorised in writing by NHA to act on its behalf under this Agreement and shall include any person or persons having authority to exercise any rights or perform and fulfill any obligations of NHA under this Agreement.

"New Facility" shall have meaning ascribed thereto in Clause 8.1

"Net Cash Flow" means in any Accounting Year revenue income less tax payments, O&M Expense, Concession Fee, if any, and Debt Service Payments to Lenders.

"Non Political Event" shall have the meaning ascribed thereto in Clause 29.2.

"O&M" means the operation and maintenance of the Project Bridge during the Operations Period and includes but is not limited to functions of maintenance, collection and appropriation of Fees and performance of other services incidental thereto and performance of all obligations of the Concessionaire relating thereto hereunder.



"O&M Contract" means the Operation and Maintenance Contract that may be entered into between the Concessionaire and the O&M Contractor for O&M of the Project Bridge.

"O&M Contractor" means the person or entity with whom the Concessionaire may enter into an O&M Contract for discharging O&M functions for and on behalf of the Concessionaire.

"O&M Expense" means expenses incurred by or on behalf of the Concessionaire duly certified by its Statutory Auditors or by NHAI, as the case may be (provided however in the event of any conflict between the certification of Statutory Auditors and NHAI, the certification by the Statutory Auditors shall prevail) for all regularly scheduled and reasonably anticipated O&M during Operations Period, including, without limitation (a) all cost of salaries and other employee compensation and contract fee payable to the O&M Contractor and the Concessionaire's share of compensation payable to the Independent Consultant (b) cost of materials, supplies, utilities and other services (c) premia for insurance (d) all franchise, excise, property and other similar Taxes and all costs and fees incurred in order to obtain and maintain all Applicable Permits necessary for the O&M of the Project Bridge at its full design capacity, (e) all repair, replacement and maintenance costs of the Project Bridge, and (f) all other expenditures required to be incurred under Applicable Law or under Applicable Permits necessary for the operation and maintenance of the Project Bridge according to the Specifications and Standards at its full design capacity.

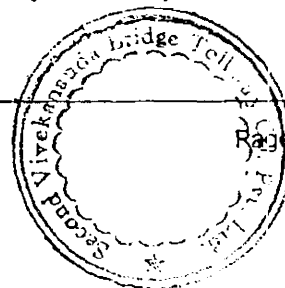
"O&M Inspection Report" shall have the meaning ascribed thereto in Clause 19.2.

"O&M Works" means all works necessary to keep the Project Bridge in operation during the Operations Period in accordance with this Agreement.

"Operations Period" means the period commencing from COD and ending on the Termination Date.

"PCU" shall have the meaning ascribed to the passenger car unit in the 'Indian Roads Congress', Publication No.IRC-64, 1990 and shall include any substitute or modification thereof as agreed between NHAI and the Concessionaire in Schedule 'W'. The PCU equivalency factors for different types of vehicles as agreed for this Project are documented in Schedule 'W'.

"Parties" means the parties to this Agreement collectively and "Party" shall mean any of the Parties to this Agreement individually.



"Performance Security" shall have the meaning ascribed thereto in Clause 5.1.

"Permitted Utilities" means any existing utilities on the Site that have been identified by NHAI and, if required by the Concessionaire, relocated by NHAI at the cost of NHAI to a mutually agreed location within the Site, such that, in each case, the continued presence of such utilities within the Site does not affect the execution of the Project in accordance with the Project Completion Schedule or the O&M of the Project. Provided that if an agreement on the relocation of such utilities is not reached between NHAI and the Concessionaire within 75 days of execution of this Agreement, the matter shall be referred by either party to the Independent Consultant for final determination as expert and not as arbitrator within 90 days of the date of such reference.

"Political Event" shall have the meaning ascribed thereto in Clause 29.4.

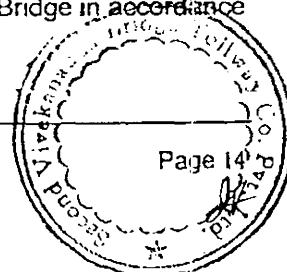
"Post Financial Close Portion of the Site" means the portion of the Site that is mutually agreed upon by the Concessionaire and NHAI as not being critical for the execution of the Project in accordance with the Project Completion Schedule, provided that if such agreement is not reached within 60 days of execution of this Agreement the matter shall be referred to the Independent Consultant for final determination as an expert and not as arbitrator within 90 days of execution of this Agreement.

"Post Financial Close Site Delivery Period" means the additional period of 90 days beyond the period ending 240 days from the date of execution of this Agreement by the Parties hereto, during which NHAI shall deliver all the Post Financial Close Portion of the Site to the Concessionaire.

"Pre Financial Close Portion of the Site" means the portion of the Site that is mutually agreed upon by the Concessionaire and NHAI as being critical for the execution of the Project in accordance with the Project Completion Schedule, provided that if such agreement is not reached within 60 days of execution of this Agreement the matter shall be referred to the Independent Consultant as an expert not as an arbitrator for final determination within 90 days of execution of this Agreement.

"Preliminary Notice" shall have the meaning attributed thereto in Clause 32.1.2.

"Project" means the development, design, financing, procurement, engineering and construction, operation and maintenance of the Project Bridge in accordance



with the provisions of this Agreement and shall include all works relating to or in respect of the scope of the Project Bridge as described in Article II.

"Project Agreements" means this Agreement, the Escrow Agreement, the Substitution Agreement, the State Support Agreement, the Financing Documents, the EPC Contract and the O&M Contract, if any, and shall include amendments thereto made hereafter with the prior consent of the NHAI.

"Project Assets" means all physical and other assets relating to and forming part of the Project Bridge including but not limited to (i) rights over the Site in the form of a licence hereunder, (ii) tangible assets such as civil works including the foundation, embankments, pavements, road surface, interchanges, bridges, approaches to bridges and flyovers, road overbridges, drainage works, lighting facilities, traffic signals, sign boards, milestones, toll plazas, equipment for the collection of tolls or relating to regulation of traffic, electrical works for lighting on the Project Bridge, telephone and other communication systems and equipment for the Project, rest areas, administration and maintenance depots, relief centers, service facilities, administrative offices etc. (iii) Project Facilities situated on the Site (iv) all the rights of the Concessionaire under the Project Agreements, (v) financial assets, such as receivables, security deposits for electricity supply, telephone etc. (vi) insurance proceeds, and (vii) Applicable Permits and authorisations relating to or in respect of the Project Bridge, but does not include Additional Facilities.

"Project Bridge" means the Second Vivekananda Bridge over the river Hooghly to be built on the Site and operated and maintained under and in accordance with this Agreement and shall include the Project Assets and the Project Facilities to be designed, engineered and built on Site and to be operated and maintained during the Concession Period in accordance with the provisions of this Agreement.

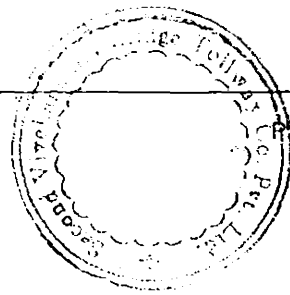
"Project Completion" shall have the meaning ascribed thereto in Clause 15.1.

"Project Completion Schedule" means the progressive Project milestone set forth in Schedule 'H' for the realization of the Project Bridge complete in all respects by the Scheduled Project Completion Date.

"Project Facilities" means all the amenities and facilities situated on the Site, as described in Schedule 'C'.

"Provisional Certificate" shall have the meaning ascribed to it in Clause 16.5.

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The Second Vivekananda Bridge Tollway Project

"Punch List" shall have the meaning ascribed to it in Clause 16.5.

"RBI" means the Reserve Bank of India as constituted and existing under the Reserve Bank of India Act, 1946 including any statutory modification or replacement thereof, and its successors etc.

"Realisable Fee" means all the Fees due and realisable under this Agreement but does not include Fees that the Concessionaire has not been able to realise after due diligence and best efforts.

"Revenue Shortfall Loan" shall have the meaning ascribed to it in Clause 24.1.

"Rs." or "Rupees" means the lawful currency of the Republic of India.

"SBI PLR" means the medium term lending rate per annum as fixed from time to time by the State Bank of India, and in the absence of such rate, the average of the medium term lending rates for such loans fixed by the Bank of India and the Bank of Baroda and failing that any other arrangement that substitutes such medium term lending rate as mutually agreed between the Parties.

"Scheduled Project Completion Date" shall have the meaning set forth in Clause 15.3.

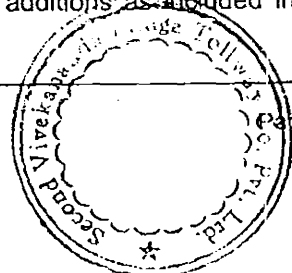
"Senior Debt" means the borrowings and financial assistance provided by the Senior Lenders under the Financing Documents to the Concessionaire for meeting whole or part of the Project cost.

"Senior Lenders" means the financial institutions, banks, funds and agents or trustees of debenture holders, including their successors and assignees, who have agreed to guarantee or provide finance to the Concessionaire under any of the Financing Documents for meeting costs of all or any part of the Project and who hold pari passu charge on the Concession granted by this Agreement and have a right of substitution of the Concessionaire pursuant to the Substitution Agreement.

"Site" means the land licensed by NHAI to the Concessionaire pursuant to and in accordance with this Agreement on which the Project Bridge is to be situated and more particularly described in Schedule 'A'.

"Specifications and Standards" means the specifications and standards relating to the quality, capacity and other requirements for the Project Bridge as set forth in Schedule 'D' and any modifications thereto, or additions ~~as included~~ in the

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The Second Vivekananda Bridge Tollway Project

design and engineering for the Project Bridge submitted by the Concessionaire to and expressly approved by NHAI.

"State Support Agreement" means the agreement to be entered into between the GOWB, NHAI and the Concessionaire substantially in the form set forth in Schedule 'R' for provision of support, backup and services required from GOWB for the performance of Concessionaire's obligations under this Agreement.

"Statutory Auditors" means an independent, recognized and reputable firm of Chartered Accountants duly licensed to practice in India acting as independent statutory auditors of the Concessionaire under the provisions of the Companies Act, 1956 including any statutory modification or re-enactment or replacement thereof, for the time being in force, and appointed in accordance with Clause 28.2.

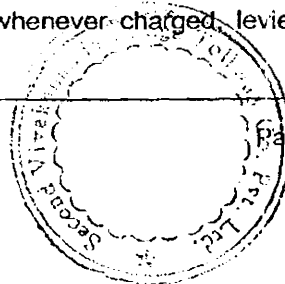
"Subordinated Debt" means any borrowings by the Concessionaire not secured by any Encumbrance on any part of the Project or the Concession or any rights of the Concessionaire under this Agreement, subordinated to the financial assistance provided by the Senior Lenders for meeting the Project cost and bearing interest not exceeding 2% (two percent) above the weighted average interest rate on the Senior Debt

"Subordinate Lenders" means lenders who are providing Subordinate Debt

"Subsistence Revenue Level" means the total amount of Fee revenue that is required by the Concessionaire in an Accounting Year to meet the sum of (a) the O&M Expense subject to the annual ceiling for O&M Expense set forth in Schedule 'ZB' hereto and (b) Debt Service Payments due to the Lenders in such Accounting Year.

"Substitution Agreement" means the agreement referred to in Article XXXV and to be entered into between the Concessionaire, NHAI and the Senior Lenders in the form set forth in Schedule 'U' (or in such other form as may be agreed by the Parties) providing, inter alia, for the substitution of the Concessionaire by any other person subject to and in accordance with the provisions of this Agreement and the Substitution Agreement.

"Taxes" means any Indian income tax, withholding tax, works contract tax, octroi, entry tax, property tax, water cess, fuel tax, environmental tax, sales tax, service tax, expenses tax or value added tax, any duty, countervailing duty, excise tax or duty in the nature of excise, surcharge, cess, impost or levy of any nature (whether central, state or local) whatsoever and whenever charged, levied or



The Second Vivekananda Bridge Tollway Project

imposed on the goods, materials, equipment and services incorporated in or forming part of the Project Bridge or on the construction, operation and maintenance thereof or on the Project Assets but excluding any rebates, interest and penalties in relation thereto imposed on any account whatsoever and any taxes on shareholders of the Concessionaire and on distributions to its shareholders by the Concessionaire.

"Termination" means the expiry or termination of this Agreement and the Concession hereunder.

"Termination Date" means the date on which this Agreement and the Concession hereunder expires pursuant to the provisions of this Agreement or is terminated by a Termination Notice or otherwise terminates.

"Termination Notice" means the communication issued in accordance with this Agreement by any one Party to the other Party terminating this Agreement.

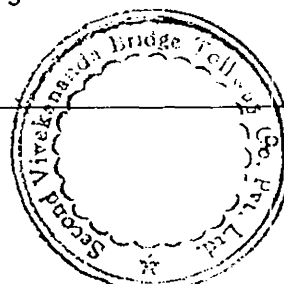
"Termination Payment" means the amounts, if any, payable by NHAI to the Concessionaire under and in accordance with this Agreement upon Termination and shall consist of payments relating to Debt Due and Equity, as the case may be, and such other amounts as are expressly provided for under this Agreement. Provided, however, that for purposes of determining Termination Payments to be made by NHAI under this Agreement, the capital cost of the Project Bridge shall at all times be reckoned as an amount not exceeding the Total Project Cost and the liability of NHAI to make such Termination Payments relating to Debt Due and Equity shall be determined as if such capital cost was restricted to Total Project Cost. The total Termination Payment payable by NHAI under this Agreement shall never exceed the ceilings in respect thereof as per in Schedule ZC.

"Tests" mean the tests to be carried out as set forth in and in accordance with Schedule 'J' to determine the Project Completion and its certification by the Independent Consultant for commencement of commercial operation of the Project Bridge.

"Toll Plaza" means the structures and barriers erected on the Project Bridge for the purpose of regulating the entry/exit of vehicles in accordance with the provisions of this Agreement and shall include all building, land equipment and other facilities related thereto.

"Total Project Cost" means the lowest of the following:

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The Second Vivekananda Bridge Tollway Project

- a. a sum of Rs. 6,414million (Rupees six thousand four hundred and fourteen million);
- b. actual capital cost of the Project upon completion of the Project Bridge as certified by the Statutory Auditors; or
- c. Total Project Cost as set forth in Financing Documents.

Provided that if part of the Total Project Cost is funded in foreign currency, in accordance with the Financing Package, then notwithstanding anything to the contrary contained herein, the rate of exchange shall be determined as on the date such foreign currency was invested in or lent towards (as the case may be) the Project or the date of Financial Close, whichever is earlier, and notwithstanding such funding for the Project cost in foreign currency the Total Project Cost shall always be reckoned in Indian Rupees. Provided further in the event of Termination of this Agreement and NHAI being required to make Termination Payments, the obligation, if any, of NHAI requiring any part of such Termination Payments to be made in foreign currency shall, notwithstanding anything to the contrary contained in this Agreement, be determined by conversion of Rupees into foreign currency at the rate of exchange prevailing on the date of such Termination Payments and the amounts payable by NHAI for Debt Due shall also be computed accordingly on the same basis as aforesaid.

"Vesting Certificate" shall have the meaning attributed to it in Clause 33.4.

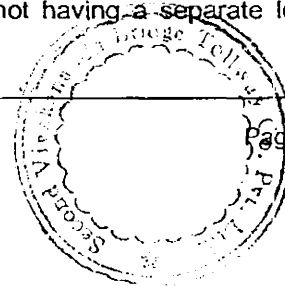
"WPI" means the wholesale price index published by the Ministry of Industry, GOI and shall include any index, which substitutes the WPI.

1.2. In this Agreement, unless the context otherwise requires,

- (a) any reference to a statutory provision shall include such provision as is from time to time modified or re-enacted or consolidated so far as such modification or re-enactment or consolidation applies or is capable of applying to any transactions entered into hereunder;
- (b) references to Indian law shall include the laws, acts, ordinances, rules, regulations, or bye laws which have the force of law in any State or Union Territory forming part of the Union of India;
- (c) the words importing singular shall include plural and vice versa, and words denoting natural persons shall include partnerships, firms, companies, corporations, joint ventures, trusts, associations, organizations or other entities (whether or not having a separate legal

Concession Agreement (02/09/2002)

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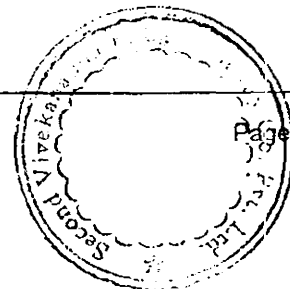
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entity);

- (d) the headings are for convenience of reference only and shall not be used in and shall not affect the construction or interpretation of this Agreement;
- (e) terms and words beginning with capital letters and defined in this Agreement shall have the meaning ascribed thereto herein and the terms and words defined in the Schedules and used therein shall have the meaning ascribed thereto in the Schedules;
- (f) the words "include" and "including" are to be construed without limitation;
- (g) references to "construction" include, unless the context otherwise requires, investigation, design, engineering, procurement, delivery, transportation, installation, processing, fabrication, testing, commissioning and other activities incidental to the construction;
- (h) any reference to any period of time shall mean a reference to that according to Indian Standard Time;
- (i) any reference to day shall mean a reference to a calendar day;
- (j) any reference to month shall mean a reference to a calendar month;
- (k) the Schedules to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement;
- (l) any reference at any time to any agreement, deed, instrument, licence or document of any description shall be construed as reference to that agreement, deed, instrument, licence or other document as amended, varied, supplemented, modified or suspended at the time of such reference provided that this clause shall not operate so as to increase liabilities or obligations of NHAI hereunder or pursuant hereto in any manner whatsoever;
- (m) references to Recitals, Articles, Clauses, Sub-clauses, Paragraphs, or Schedules in this Agreement shall, except where the context otherwise requires, be deemed to be references to Recitals, Articles, Clauses, Sub-clauses, Paragraphs, and Schedules of or to this Agreement;

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- (n) any agreement, consent, approval, authorisation, notice, communication, information or report required under or pursuant to this Agreement from or by any Party or the Independent Consultant shall be valid and effectual only if it is in writing under the hands of duly authorised representative of such Party or the Independent Consultant, as the case may be, in this behalf and not otherwise;
- (o) any reference to any period commencing "from" a specified day or date and "till" or "until" a specified day or date shall include both such days or dates;
- (p) the damages payable by either Party to the other of them as set forth in this Agreement, whether on per diem basis or otherwise, are mutually agreed genuine pre-estimated loss and damage likely to be suffered and incurred by the Party entitled to receive the same and are not by way of penalty or liquidated damages (the "Damages"); and
- (q) unless otherwise expressly provided in this Agreement any Documentation required to be provided or furnished by the Concessionaire to NHAI and/or the Independent Consultant shall be provided free of cost and in three copies and if NHAI and/or the Independent Consultant are required to return any such Documentation with their comments and/or approval, they shall be entitled to retain two copies thereof.

1.3 Measurements and Arithmetic Conventions

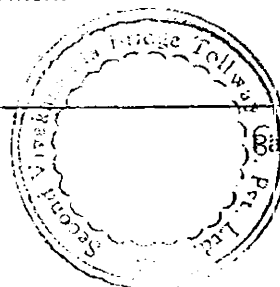
All measurements and calculations shall be in metric system and calculations done to 2 decimal places, with the third digit of 5 or above being rounded up and below 5 being rounded down.

1.4 Priority of contract documents and errors/discrepancies

1.4.1 The several documents forming this Agreement are to be taken as mutually explanatory to one another and, unless otherwise expressly provided elsewhere in this Agreement, the priority of the following documents shall in the event of any conflict between them be in the order they are set out:

- (i) this Agreement
- (ii) all other documents forming part of this Agreement

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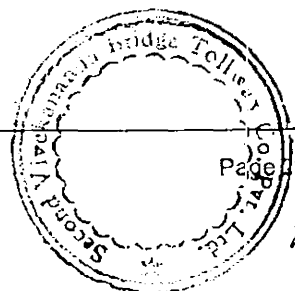
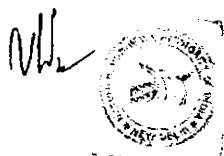
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The Second Vivekananda Bridge Tollway Project

i.e. document at (i) above shall prevail over the documents at (ii) above.

1.4.2 In case of ambiguities or discrepancies within this Agreement the following shall apply:

- (i) between two Clauses of this Agreement, the provisions of the specific Clause relevant to the issue under consideration shall prevail over those in other Clauses;
- (ii) Between the Clauses and the Schedules, the Clauses shall prevail save as otherwise expressly set forth in Clause 1.4.1;
- (iii) Between the written description on the Drawings and the Specifications and Standards, the latter shall prevail;
- (iv) Between the dimension scaled from the Drawing and its specific written dimension, the latter shall prevail;
- (v) Between any value written in numerals and that in words, the latter shall prevail.



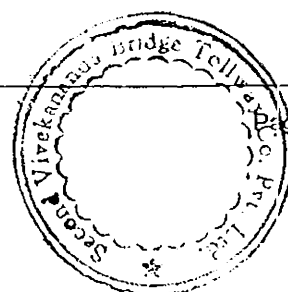
II SCOPE OF PROJECT

- 2.1 The scope of the Project shall include performance and execution by the Concessionaire of all development, design, engineering, financing, procurement, construction and completion in all respects of the Project Bridge and its operation and maintenance as described in Schedule 'B' and Schedule 'C' of this Agreement. The Project shall conform to and be executed, inter alia, in accordance with the Specifications and Standards set forth in Schedule 'D' and operation and maintenance thereof in accordance with Schedule 'L'. It shall also include the performance and fulfillment of other obligations by the Concessionaire under this Agreement. The Project shall be executed on the Site delineated in colour red on the site plan at Schedule "A".

Each of the Concessionaire and NHA shall undertake its respective obligations under this Agreement at its own cost and risk.

The alignment of the Project Bridge shall be as contained in Schedules "B" and "C" hereto.

The performance of all of its obligations hereunder by the Concessionaire including execution of the Project Bridge shall be in accordance with this Agreement.

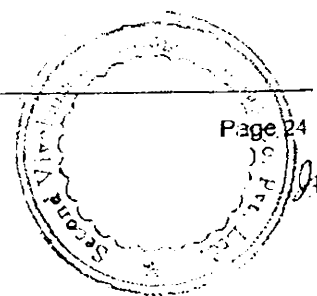


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CHAPTER – II GRANT OF CONCESSION

III. GRANT OF CONCESSION

- 3.1 Subject to and in accordance with the terms and conditions set forth in this Agreement, the Applicable Laws and the Applicable Permits, NHAI hereby grants to the Concessionaire and the Concessionaire hereby accepts the Concession for a period of 30 (thirty) years commencing from the Appointed Date, including the exclusive right, licence and authority during the subsistence of this Agreement to implement the Project and the Concession in respect of the Project Bridge.
- 3.2 Subject to and in accordance with the terms and conditions set forth in this Agreement, the Applicable Laws and the Applicable Permits, the Concession hereby granted shall entitle the Concessionaire to enjoy, and oblige the Concessionaire to undertake, inter-alia, the following:
- I develop, design, engineer, finance, procure, construct, operate and maintain the Project Bridge during the Concession Period;
 - II upon completion of the Project Bridge and during the Operations Period to manage, operate and maintain the Project Bridge and regulate the use thereof by third parties;
 - III levy, demand, collect and appropriate the Fees from vehicles and persons liable to payment of Fees for using the Project Bridge or any part thereof, to refuse entry of any vehicle to the Project Bridge if the due Fee is not paid or if any vehicle crosses a certain weight threshold established by the Independent Consultant;
 - IV perform and fulfill all of the Concessionaire's obligations under this Agreement;
 - V bear and pay all expenses, costs and charges incurred in the fulfillment of all the Concessionaire's obligations under this Agreement ;and
 - VI not to assign or create any lien or Encumbrance on the Concession hereby granted or on the whole or any part of the Project Bridge nor transfer, lease or part possession therewith save and except as expressly permitted by this Agreement and/ or the Substitution Agreement.



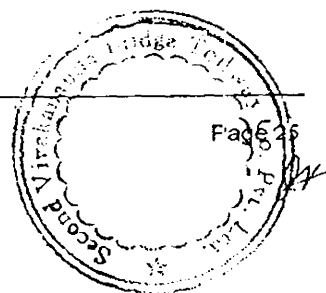
- 3.3. The Concession Period shall commence on the Appointed Date and shall end on the Termination Date.

IV. CONDITIONS PRECEDENT

4.1 Conditions Precedent

Save and except as provided in Articles IV, V and XXII, the rights and obligations of the Concessionaire under this Agreement are subject to the satisfaction in full of the following conditions precedents to be fulfilled on or before Financial Close unless any such condition has been waived as provided in Clause 4.2:

- (a) the Concessionaire shall have obtained all such Applicable Permits as listed in Schedule 'E' unconditionally or if subject to conditions then all such conditions have been satisfied in full and such Applicable Permits are and shall be kept in full force and effect for the relevant period during the subsistence of this Agreement;
- (b) the Concessionaire shall have been granted, within 180 days of execution of this Agreement, vacant possession of the Pre-Financial Close Portion of the Site free from any Encumbrances relating thereto subject to and in accordance with this Agreement and related rights including the following for the Concessionaire under and in accordance with this Agreement :
 - (i) rights of way for the alignment of the Project Bridge free from all Encumbrances;
 - (ii) rights of way from public roads to the Pre-Financial Close Portion of the Site; and
 - (iii) permission/ licence to enter upon and utilise the Pre-Financial Close Portion of the Site for the construction pursuant to and in accordance with this Agreement.
- (c) the Concessionaire shall have been granted all Applicable Permits under the Applicable Laws relating to environmental protection and conservation from the Ministry of Environment and Forests, Applicable Permits required from the Ministry of Railways and the Calcutta Port Trust. For avoidance of doubt, the Concessionaire shall be and remain responsible for obtaining approval for changes proposed in the General Arrangement Design ("GAD") and for agreeing the methodology for any construction over land that is under the control of the Ministry of Railways;



The Second Vivekananda Bridge Tollway Project

- (d) the Concessionaire shall have entered into the State Support Agreement with NHAI and the GOWB;
- (e) certified true copies of all Project Agreements, as well as the shareholders funding agreements have been delivered by the Concessionaire to NHAI;
- (f) the Performance Security in full has been provided by the Concessionaire to NHAI in accordance with Clause 5.1;
- (g) all of the representations and warranties of the Concessionaire and NHAI set forth in Article XI are true and correct as on date of this Agreement and as on the Appointed Date;
- (h) NHAI shall have received from the Concessionaire copies (certified as true copies by an authorised officer of the Concessionaire) of the constitutional documents of the Concessionaire;
- (i) NHAI shall have received copies (certified as true copies by a Director of the Concessionaire) of all resolutions adopted by the Board of Directors of the Concessionaire authorising the execution, delivery and performance by the Concessionaire of this Agreement and each of the Project Agreements;
- (j) NHAI shall have received from the Indian legal counsel of the Concessionaire a legal opinion with respect to the authority of the Concessionaire to enter into this Agreement and the Project Agreements and the Financing Documents and the enforceability of the provisions thereof;
- (k) MoRTH shall have issued a Fee Notification substantially in the form set out in Schedule 'G'; and
- (l) The Concessionaire shall have received within 75 days of execution of this Agreement appropriate evidence of NHAI having obtained full title to the Pre-Financial Close Portion of the Site and of NHAI being legally entitled to possession thereof and of NHAI having the absolute and unrestricted right to license the Site as set forth in this Agreement.
- (m) The Concessionaire shall have received within 210 days of execution of this Agreement appropriate evidence of NHAI having obtained full title to the Post-Financial Close Portion of the Site and of NHAI being legally

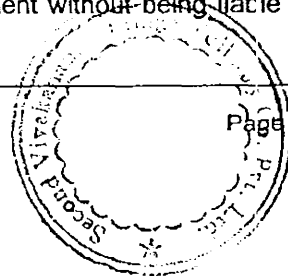
entitled to possession thereof and of NHAI having the absolute and unrestricted right to license the Site as set forth this Agreement.

- 4.2 Save and except the Conditions Precedent set out in Sub-clauses (b), (c), (d) and (l) of Clause 4.1, which can not be waived by any Party, the Conditions Precedent set out in Sub-clauses (g) – relating to the representations and warranties of NHAI, (k) and (m) may be waived in full or in part by the Concessionaire and those set out in Sub-clauses (a), (e), (f), (g) – relating to the representations and warranties of the Concessionaire, (h), (i) and (j) may be waived in full or in part by NHAI at anytime in its sole discretion.

- 4.3 Obligation to Satisfy the Conditions Precedent.

The Concessionaire shall make all reasonable endeavours to procure the satisfaction in full of the Conditions Precedent set out in Sub-clauses (a), (d), (e), (f), (g) – relating to the representations and warranties of the Concessionaire, (h), (i) and (j) of Clause 4.1 and NHAI shall make all reasonable endeavours to procure fulfillment of the Conditions Precedent set forth in Sub-clauses (b), (c), (d), (g) – relating to the representations and warranties of NHAI, (k), (l) and (m) of Clause 4.1. Each Party shall bear its respective cost and expense of satisfying such Condition Precedent. Each Party shall promptly upon the satisfaction (or waiver subject to Clause 4.2) of the Conditions Precedent specified in Clause 4.1 give the other Party written notice that such Condition Precedent has been so satisfied (or waived).

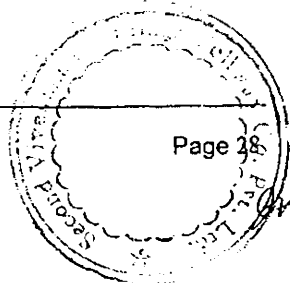
- 4.4 If the Conditions Precedent set forth in Clause 4.1 have not been satisfied on or before the Financial Close and NHAI has not, subject to Clause 4.2, waived, fully or partially, such Conditions Precedent which under Clause 4.3 the Concessionaire is required to fulfill, NHAI may, notwithstanding anything to the contrary contained in this Agreement, but subject to Clause 22.5, Terminate this Agreement in accordance with provisions of Clause 32.2 without being liable in any manner whatsoever to the Concessionaire and forfeit the Performance Security by way of Damages, provided that where NHAI does not fulfill its obligations under Clause 4.3 and Terminates this Agreement under this Clause 4.4, it shall refund in full to the Concessionaire the Performance Security. If the Conditions Precedent set forth in Clauses 4.1(c), 4.1(d), 4.1(g) (relating to the representation and warranties of NHAI) and 4.1(k) are not satisfied on or before the Financial Close or the Conditions Precedent set forth in Clause 4.1(l) is not satisfied by a date which is 105 days from the date of this Agreement, and the Concessionaire has not, subject to Clause 4.2 above, waived fully or partially such Conditions Precedent set forth in Clause 4.3 which NHAI is required to fulfill, the Concessionaire, may terminate the Agreement without being liable to



NHAI in any manner whatsoever and nor shall NHAI be liable to the Concessionaire upon such Termination in any manner whatsoever.

V. PERFORMANCE SECURITY

- 5.1 The Concessionaire shall for due and faithful performance of its obligations under this Agreement upto COD provide to NHAI a bank guarantee from any Bank substantially in the form set forth in Schedule 'F' (the "Performance Security") for a sum equivalent to Rs.100 million (Rupees one hundred million) within 120 (one hundred twenty) days of the date of fulfillment by NHAI of the Condition Precedent set out in Clause 4.1(i) of this Agreement. Failure of the Concessionaire to provide the Performance Security in accordance with this Clause 5.1, shall entitle NHAI to terminate this Agreement in accordance with the provisions of Clause 32.2 without being liable in any manner whatsoever to the Concessionaire.
- 5.2 The Performance Security shall be released by NHAI to the Concessionaire upon contribution of the Equity (excluding Equity Support, if any) by the shareholders of the Concessionaire to the extent of 100% and upon the Concessionaire having expended on the Project and paid out an aggregate sum of not less than 20% (twenty percent) of the Total Project Cost as certified by the Statutory Auditors of the Concessionaire and provided the Concessionaire is not in breach of this Agreement. If the Concessionaire is in breach of this Agreement, the Performance Security shall be continued till the COD or until the breach is cured; whichever is earlier.
- 5.3 In the event of the Concessionaire being in default in the due and faithful performance of its obligations under this Agreement and failing to remedy such default within the Cure Period, NHAI shall without prejudice to its other rights and remedies hereunder be entitled to encash and appropriate the relevant amount under the Performance Security as Damages for such default. Upon such encashment and appropriation of relevant amounts under the Performance Security, NHAI shall grant a period of 30 (thirty) days to the Concessionaire to replenish the Performance Security to its original level or to provide in the alternative fresh Performance Security and the Concessionaire shall within the time so granted replenish or furnish to NHAI such Performance Security as aforesaid failing which NHAI shall be entitled to Terminate this Agreement under Clause 32.2 and appropriate the balance amount, if any, under the Performance Security as Damages. The provision set forth in Clause 5.2 and this Clause 5.3 shall apply mutatis-mutandis to such fresh Performance Security.



- 5.4 Notwithstanding anything to the contrary contained in Clause 5.3, upon replenishing or furnishing of fresh Performance Security in accordance with Clause 5.3, the Concessionaire shall be granted an additional period of 60 (Sixty) days as Cure Period for remedying the defaults and complying with its obligations under this Agreement. In the event of the Concessionaire continuing to be in breach of the provisions of this Agreement after such Cure Period, NHAI shall be entitled to Terminate this Agreement under the provisions of Clause 32.2 and appropriate the balance, if any, under the Performance Security as Damages pursuant to this Agreement without being liable to the Concessionaire in anyway or manner whatsoever, subject however, to the provisions of this Agreement.

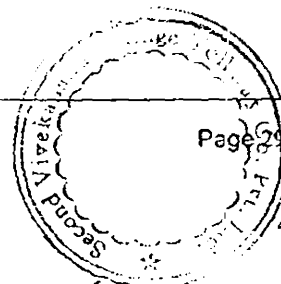
VI. FEES

- 6.1 The Concessionaire shall be entitled during the Operations Period to levy, collect and appropriate the Fees from the users of the Project Bridge pursuant to and in accordance with the Fee Notification set forth in Schedule 'G' and this Agreement. Provided, however, that such Fee shall be rounded off to the nearest one rupee for ensuring ease of payment and collection to the extent permissible under the Fee Notification.
- 6.2 The Concessionaire acknowledges that the Fee Notification, inter alia, provides for annual revision in the Fees in accordance with the formula set forth therein and hereby confirms that save and except as provided in the Fee Notification, the Concessionaire is not entitled to and shall not seek any relief whatsoever from NHAI, GOI or GOWB on account of increase or otherwise in WPI or on any other account except in accordance with the express provisions of this Agreement.

The Concessionaire shall not collect any Fees in relation to Exempted Vehicles.

- 6.3 The Fees collected by the Concessionaire or NHAI or NHAI's nominee pursuant hereto shall be deposited in the Escrow Account and appropriated in accordance with the provisions of Article XXV.
- 6.4 The Concessionaire may delegate its right to collect Fees to the O&M Contractor or to any other person provided, however, that notwithstanding such delegation, the Concessionaire shall be and remain solely liable and responsible for the collection of Fees in accordance with this Agreement and its deposit into the Escrow Account.

NHAI



VII. SHARING OF EXCESS REVENUES

7.1 In consideration of the grant of Concession under this Agreement, the Concessionaire shall share with NHAI any Fees that it actually receives in any Accounting Year which are in excess of the projected Fees for each Accounting Year commencing from the year in which COD shall occur, as set out in Schedule 'Y' (the "Projected Fees") for such Accounting Year ("Excess Fees"), in the following manner:

7.1.1 94% of such Excess Fees ("Net Excess Fees") shall be deposited into a separate sub-account as part of the Escrow arrangements on a monthly basis;

7.1.2 Subject to Sub-clause 7.1.3 below funds from this sub-account shall be used to meet any shortfalls in Projected Fees that may have arisen in any of the previous Accounting Years;

7.1.3 At the end of the Accounting Year, the Net Excess Fees plus any previous balance in the sub-account referred to in Sub-clause 7.1.1 less, the aggregate of the funds used in accordance with Sub-clause 7.1.2 above and 5% of the Projected Fees in the next succeeding Accounting Year shall be distributed equally between the Parties;

For the purposes of this Clause 7.1, a "shortfall" in Projected Fees shall mean the shortfall between the Projected Fees in an Accounting year, and the Realisable Fee plus the amount available in the sub-account referred to Sub-clause 7.1.1 above after distribution pursuant to Sub-clause 7.1.3 above.

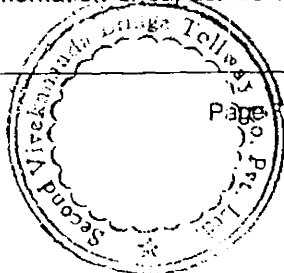
7.1.4 At the end of the Concession Period or upon Termination, any amount left in the sub-account referred to in para 7.1.1 above shall be distributed equally between NHAI and the Concessionaire.

7.2 NHAI's share of Net Excess Fees, if any, pursuant to Clause 7.1 above (the "Concession Fee") shall be paid within 30 (thirty) days of the commencement of the Accounting Year immediately following the Accounting Year for which it is due and payable.

VIII. NO COMPETING FACILITY

8.1 Notwithstanding anything to the contrary contained in this Agreement, NHAI agrees that it shall not commission any parallel competing trans-river facility whether by way of construction of a new facility or augmentation of capacities of

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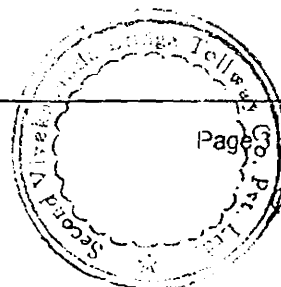


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The Second Vivekananda Bridge Tollway Project

existing facilities from and including Kalyani Bridge together with its approach link in the north to Rabindra Setu in the south, for a period of 22 years from the COD of the Project Bridge or on the attainment by the Project Bridge of its saturation capacity in terms of PCUs as set forth in Schedule W (the "Saturation Capacity"), whichever is earlier. Upon the expiry of said period of 22 years from the COD of the Project Bridge or on the attainment by the Project Bridge of its Saturation Capacity, whichever is earlier, NHAI may commission a new trans-river toll facility (the "New Facility") subject to the condition that the fees payable by the users of such New Facility shall not be less than 140% of the Fees, payable by the users of the Project Bridge, at the time of commissioning of such New Facility.

VU



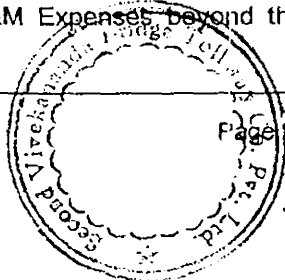
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**CHAPTER -III
OBLIGATIONS AND UNDERTAKINGS**

IX. OBLIGATIONS OF THE CONCESSIONAIRE

9.1 The Concessionaire shall at its own cost and expense observe, undertake, comply with and perform, in addition to and not in derogation of its obligations elsewhere set out in this Agreement, the following:

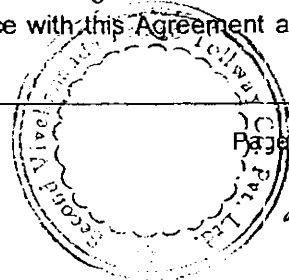
- (i) make, or cause to be made, necessary applications to the relevant Governmental Agencies with such particulars and details, as may be necessary for obtaining all Applicable Permits, and obtain such Applicable Permits in conformity with the Applicable Laws;
- (ii) notify to NHAI forthwith the occurrence of Financial Close;
- (iii) submit to NHAI certified true copies of each of the Project Agreements within 7 (seven) days of their execution;
- (iv) not to make any replacement, amendment or modifications to any of the Project Agreements, which has or may have the effect of imposing or increasing any new or additional financial liability or obligation (contingent or otherwise) on NHAI in any way or manner from that which NHAI has under this Agreement, without the prior written consent of NHAI, which if not given within 30 days of receipt of request in this behalf by NHAI from the Concessionaire shall be deemed to have been refused by NHAI, and where such amendment or modification is made without such consent, it shall not be binding on NHAI and the Concessionaire shall be deemed to have undertaken not to enforce such amendment or modification nor permit enforcement thereof against NHAI in any way or manner whatsoever;
- (v) give NHAI not less than 30 (thirty) days written notice prior to any amendment, modification or replacement of any Project Agreement (other than amendments, modifications or replacements of the nature referred to in Clause 9.1(iv) above) so as to enable NHAI to provide its consent or offer its comments, if any thereon within 30 (thirty) days from the date of receipt of such notice, and which, if made, shall be duly considered and given effect to by the Concessionaire before amending, modifying or replacing such Project Agreement provided, however, any such amendment, modification or replacement which has the effect of increasing the Total Project Cost or the O&M Expenses beyond the



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maximum limit set forth in this Agreement or has the effect of binding NHAI in any way or manner, shall not be binding on NHAI nor shall it be considered or taken into account in any way or manner for the purposes of Concessionaire's and/ or NHAI's rights and obligations under this Agreement unless expressly agreed to by NHAI;

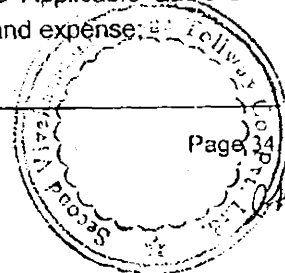
- (vi) remove promptly from the Project Bridge all surplus construction machinery and materials, waste materials (including, without limitation, hazardous materials and waste water), rubbish and other debris (including without limitation accident debris) and shall keep the Site in a neat and clean condition in accordance with Specifications and Standards, Good Industry Practice and in conformity with the Applicable Laws and Applicable Permits;
- (vii) procure, as required, the appropriate proprietary rights, licences, agreements and permissions for materials, methods, processes and systems used or incorporated into the Project Bridge;
- (viii) provide all assistance to the Independent Consultant as it may require for the performance of its duties and services;
- (ix) provide to NHAI reports on regular basis during the Construction Period and the Operations Period in the form and manner set forth in this Agreement and Schedule 'X';
- (x) obtain and maintain in force on and from the Appointed Date all insurance in accordance with the provisions of this Agreement and Good Industry Practice;
- (xi) acquire such real estate, as the Concessionaire may deem appropriate for the Additional Facilities and to indemnify and save harmless and defend GOI, NHAI, and GOWE from and against all proceedings, claims, demands, costs, expenses, losses and damages arising out of or relating to the securing of rights to use such real estate by the Concessionaire or any person claiming through or under the Concessionaire;
- (xii) undertake Debt Service Payments in accordance with the Financing Documents and instructions, if any, given in accordance with the Financing Documents;
- (xiii) levy and collect Fees from users of the Project Bridge at the rates set forth in the Fee Notification and in accordance with this Agreement and



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regulate the traffic on the Project Bridge in accordance with the Applicable Laws;

- (xiv) ensure and procure that each Project Agreement (save and except in case of the Financing Documents) contains provisions that entitle NHAI to step into such agreement in its discretion in place and substitution of the Concessionaire in the event of suspension and/or Termination of this Agreement on account of default or breach by the Concessionaire;
- (xv) appoint, supervise, monitor and control the activities of Contractors under their respective Project Agreements as may be necessary;
- (xvi) make reasonable efforts to maintain harmony and good industrial relations among the personnel employed by the Concessionaire or its Contractors in connection with the performance of the Concessionaire's obligations under this Agreement;
- (xvii) comply with all Applicable Permits and Applicable Laws in the performance of the Concessionaire's obligations under this Agreement including those being performed by any of the Contractors;
- (xviii) develop, implement and administer a surveillance and safety program for the Project Bridge, the users thereof, and the Contractors personnel engaged in the provision of any services under any of the Project Agreements including correction of safety violations and deficiencies, and taking of all other actions necessary to provide a safe environment in accordance with Schedule 'S', Applicable Laws and Good Industry Practice;
- (xix) take all reasonable precautions for the prevention of accidents on or about the Project Bridge and provide all reasonable assistance and emergency medical aid to accident victims;
- (xx) not to place or create and nor permit any Contractor or other person claiming through or under the Concessionaire to create or place any Encumbrance or security interest over all or any part of Site or the Project Assets, or on any rights of the Concessionaire therein or under this Agreement, save and except as expressly set forth in this Agreement;
- (xxi) make its own arrangements for quarrying, and observe and fulfill the environmental and other requirements under the Applicable Laws and Applicable Permits at Concessionaire's own cost and expense;



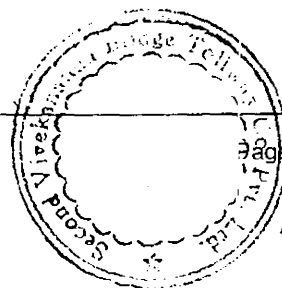
The Second Vivekananda Bridge Tollway Project

- (xxii) be responsible for safety, soundness and durability of the Project Bridge including other structures forming part thereof and their compliance with the Specifications and Standards;
- (xxiii) without prejudice to its rights under the State Support Agreement, not claim or demand possession or control of any roads, structures or real estate which do not form part of the Project Bridge;
- (xxiv) after receiving vacant possession of the Site or part thereof, ensure that such Site remains free from all encroachments and take all steps necessary to remove encroachments, if any;
- (xxv) make payment to Police department or any Government Agency, if required, for provision of such services as are not provided in the normal course or are available on payment;
- (xxvi) save and except as otherwise expressly provided in this Agreement, indemnify NHAI against all actions, suits, claims, demands and proceedings and any loss or damage or cost or expense (collectively "losses") that may be suffered by them on account of anything done or omitted to be done by the Concessionaire in connection with the performance of its obligations under this Agreement provided that such losses have not been caused solely by actions or omissions of NHAI in breach of this Agreement; and
- (xxvii) comply with the Divestment Requirements and hand over the Project Bridge to NHAI upon Termination of the Agreement.

9.2 Subject to the terms and conditions of this Agreement the Concessionaire shall at its cost and expense:

- (i) undertake the design, engineering, procurement and construction and financing of the Project Bridge in accordance with this Agreement;
- (ii) operate and maintain the Project Bridge at all times in conformity with this Agreement including but not limited to the Specifications and Standards set forth in Schedule 'D', Schedule 'L', the Maintenance Programme and Good Industry Practice.

Concession Agreement (02/09/2002)



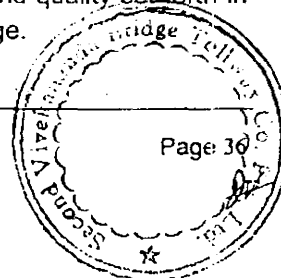
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9.3 The Concessionaire shall, before commencement of construction of the Project Bridge:

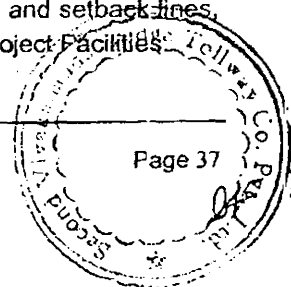
- (i) submit within 150 days of the date of this Agreement to NHAI with due regard to Project Completion Schedule as set forth in Schedule 'H' and Scheduled Project Completion Date, its detailed Project development and construction programme including Project design, engineering, procurement and construction time schedule including CPM/ PERT charts so as to achieve Completion of the Project Bridge on or before the Scheduled Project Completion Date (the "Programme") for their review and comments provided, however, such review and comments by NHAI and/ or the Independent Consultant shall not relieve and/ or absolve in any way or manner the Concessionaire of its obligations hereunder including execution of the Project in accordance with the Project Completion Schedule and its Completion on or before the Scheduled Project Completion Date;
- (ii) finalise the design and detailed engineering basis;
- (iii) have requisite organisation and designate and appoint a Project manager and such other managers, officers and representatives as it may deem appropriate to supervise the Project and to deal with the NHAI Representative and be responsible for all necessary exchanges of information required pursuant to this Agreement; and
- (iv) undertake, do and perform such acts, deeds and things as may be necessary or required for construction and Project completion under and in accordance with this Agreement.

9.4 In respect of the Concessionaire's obligations with respect to the Drawings of the Project Bridge as set forth in Schedule 'I', the following shall apply:

- (i) The Concessionaire shall prepare and submit with reasonable promptness and in such sequence as is consistent with the Project Completion Schedule, one copy each of all Drawings to NHAI and the Independent Consultant for review and comments.
- (ii) By forwarding the Drawings for review and comment to NHAI, the Concessionaire represents that it has determined and verified that the design and engineering including field construction criteria related thereto is in conformity with the Specifications, Standards and quality set forth in this Agreement for and in respect of the Project Bridge.



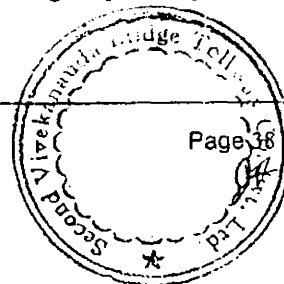
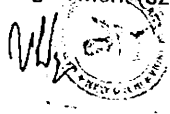
- (iii) Within 30 (thirty) days of the receipt of the Drawings, NHAI may review the same and convey its comments/observations to the Concessionaire with particular reference to the conformity or otherwise with the Specifications and Standards set forth in this Agreement. It is expressly agreed that notwithstanding any review and comment/observations of NHAI on any Drawings or failure of NHAI to provide comments/observations thereon, NHAI shall not be liable for the same in any manner whatsoever and the Concessionaire shall remain solely responsible for and shall not be relieved or absolved in any manner whatsoever of its obligations, duties and liabilities as set forth in this Agreement. The Concessionaire shall not be obliged to await the comments/observations of NHAI on the Drawings submitted pursuant hereto beyond the period set forth hereinabove.
- (iv) If the comments/observations of NHAI indicate that the Drawings are not in conformity with the Specifications and Standards set forth in this Agreement, the Concessionaire shall give due consideration to such comments and may revise such Drawings to the extent the Concessionaire believes necessary to bring them in conformity with the Specifications and Standards and shall resubmit the revised Drawings to NHAI for review, observations and comments. NHAI shall give its observations and comments, if any, within 15 (fifteen) days of the receipt of such revised Drawings. Notwithstanding anything to the contrary contained in this Agreement, any observations or comments of NHAI or failure of NHAI to give any observations or comments on any Drawings or on any revised drawings, as the case may be, or belief of the Concessionaire that Drawings conform to Specifications and Standards, shall not relieve or absolve the Concessionaire, in any manner or way of its obligation to conform to such Specifications and Standards.
- (v) The Concessionaire shall be responsible for delays in Project Completion Schedule caused by reasons of any Drawings not being in conformity with the Specifications and Standards, and the Concession Period shall not be extended in any manner whatsoever on account of submission or revision of any Drawings.
- (vi) Within 90 (ninety) days of the COD, the Concessionaire shall furnish NHAI with "as built" Drawings reflecting the Project Bridge as actually designed, engineered and constructed, including without limitation an "as built" survey illustrating the layout of the Project Bridge and setback lines, if any, of the buildings and structures forming part of Project Facilities.



- 9.5 The Concessionaire shall submit to NHAI the drafts of the Project Agreements for its review. NHAI shall have the right but not the obligation to provide its comments and observations, if any, in respect of the Project Agreements within 30 (thirty) days of the receipt thereof by NHAI and the Concessionaire shall consider all such comments/observations of NHAI. Any such comments/observations by NHAI on any Project Agreements or the failure to provide such comments shall not relieve or absolve in any manner whatsoever the Concessionaire of its obligations, duties and liabilities under this Agreement nor shall it make NHAI and/or Independent Consultant liable to the Concessionaire in any manner whatsoever and shall be without prejudice to the rights of NHAI hereunder.
- 9.6 During the Construction Period, the Concessionaire shall be responsible for maintaining the Site at its own cost and expense. The Concessionaire shall promptly undertake all such repairs and maintenance works as may be necessary to keep the relevant completed sections of Project Bridge traffic-worthy and safe during the Construction Period.
- 9.7 The Concessionaire shall, at all times, afford access to the Site to the authorised representatives of NHAI, Senior Lenders, and the Independent Consultant and to the persons duly authorised by any Governmental Agency having jurisdiction over the Project, including those concerned with safety, security or environmental protection to inspect the Project Bridge and to investigate any matter within their authority and upon reasonable notice, the Concessionaire shall provide to such persons reasonable assistance necessary to carry out their respective duties and functions with minimum disruption to the construction, operation and maintenance of the Project Bridge consistent with the purpose for which such persons have gained such access to the Site.

X. OBLIGATIONS OF NHAI

- 10.1 In addition to its obligations set out elsewhere in the Agreement, NHAI agrees to observe, comply and perform the following:
- (i) provide vacant possession of the Site, free from Encumbrances, in accordance with this Agreement;
 - (ii) permit peaceful use of the Site by the Concessionaire as a licensee under and in accordance with the provisions of this Agreement without any let or hindrance from NHAI, GoI Governmental Agency or any other persons claiming through or under NHAI;



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- (iii) assist and provide all reasonable support to the Concessionaire in obtaining Applicable Permits;
- (iv) upon written request from the Concessionaire, assist the Concessionaire in obtaining access to all necessary infrastructure facilities and utilities, including water, electricity and telecommunication facilities at rates and on terms no less favourable to the Concessionaire than those generally available to commercial customers receiving substantially equivalent services;
- (v) procure that no barriers are erected or placed by any GoI Governmental Agency and provide all reasonable assistance to the Concessionaire in procuring that no GoWB Governmental Agency places or erects any barriers on the Project Bridge except on account of any law and order situation or upon national security considerations;
- (vi) enter into the State Support Agreement with the Concessionaire and the GOWB;
- (vii) assist the Concessionaire in obtaining from GOWB necessary assistance to regulate traffic on the Project Bridge subject to and in accordance with the Applicable Laws;
- (viii) assist the Concessionaire in obtaining Police assistance from GOWB against payment of prescribed costs and charges, if any, for traffic regulation, patrolling and provision of security on the Project Bridge;
- (ix) ensure upgradation and/ or completion of the Connector Roads on or before the Completion of the Project Bridge;
- (x) maintain the Howrah Connector as a facility as required under the National Highway Development Programme of NHAI as in force from time to time;
- (xi) procure that the Fee Notification is in full force and effect on the Completion of the Project and remains in full force and effect during the Concession Period;
- (xii) provide forthwith to the Concessionaire written details of any actions, suits, proceedings or investigations to which NHAI is a party or of which NHAI becomes aware of, before any court or before any judicial, quasi-

judicial or other such authority, in relation to the process of acquiring the land comprising the Site or the resettlement and rehabilitation of dwellers on the Site; and

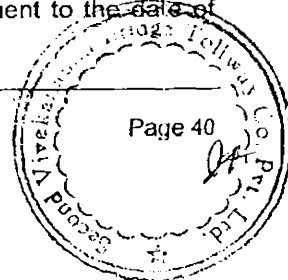
- (xiii) observe and comply with its obligations set forth in this Agreement.

XI. REPRESENTATIONS AND WARRANTIES

11.1 Representations and Warranties of the Concessionaire

The Concessionaire represents and warrants to NHAI that:

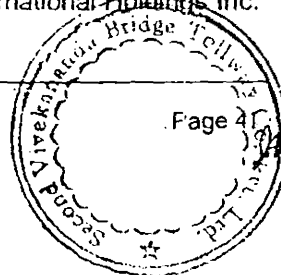
- (i) It is duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation;
- (ii) It has full power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;
- (iii) It has taken all necessary corporate and other action under Applicable Laws and its constitutional documents to authorize the execution, delivery and performance of this Agreement;
- (iv) It has the financial standing and capacity to undertake the Project;
- (v) This Agreement constitutes its legal, valid and binding obligation enforceable against it in accordance with the terms hereof;
- (vi) It is subject to civil and commercial laws of India with respect to this Agreement and it hereby expressly and irrevocably waives any immunity in any jurisdiction in respect thereof;
- (vii) All the information furnished in the Bid and as updated before the execution of this Agreement is, and shall be, true and correct as on the Appointed Date and COD and the Balance Sheet and Profit and Loss Account of the Concessionaire for each of its Accounting Years after the Appointed Date furnished to NHAI shall give true and fair view of the affairs of the Concessionaire;
- (viii) It shall furnish a copy of the audited accounts of the Company within 120 (one hundred twenty) days of the close of its each Accounting Year after the Appointed Date and any material change subsequent to the date of



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such accounts shall be notified to NHAI by the Concessionaire within 30 (thirty) days of its occurrence and warrants that the accounts and the information furnished as aforesaid shall be true and correct;

- (ix) The execution, delivery and performance of this Agreement will not conflict with, result in the breach of, constitute a default under or accelerate performance required by any of the terms of the Memorandum and Articles of Association of the Concessionaire or any Member of the Consortium or any Applicable Laws or any covenant, agreement, understanding, decree or order to which, it is a Party or by which it or any of its properties or assets is bound or affected;
- (x) There are no actions, suits, proceedings, or investigations pending or, to the Concessionaire's knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi judicial or other authority, the outcome of which may result in the breach of or constitute a default of the Concessionaire under this Agreement or which individually or in the aggregate may result in any Material Adverse Effect on its business, properties or assets or its condition, financial or otherwise, or in any impairment of its ability to perform its obligations and duties under this Agreement;
- (xi) It has no knowledge of any violation or default with respect to any order, writ, injunction or any decree of any court or any legally binding order of any Governmental Agency which would result in any Material Adverse Effect or impairment of the Concessionaire's ability to perform its obligations and duties under this Agreement;
- (xii) It has complied with all Applicable Laws and has not been subject to any fines, penalties, injunctive relief or any other civil or criminal liabilities which in the aggregate have or may have a Material Adverse Effect on its financial condition or its ability to perform its obligations and duties under this Agreement;
- (xiii) The (1) Pacific Alliance International LLC ("PAI"), a Consortium Member is a body corporate organised and existing under the laws of United State of America and is currently, as on date, a wholly owned subsidiary of Pacific Alliance Development, Inc. ("PAD") (2) Parsons Brinckerhoff Infrastructure Development Company ("PBIDC"), a Consortium Member is a body corporate organised and existing under the laws of United States of America and is currently, as on date, a wholly owned subsidiary of Parsons Brinckerhoff ["PB"], (3) STRADEC International Holdings Inc.



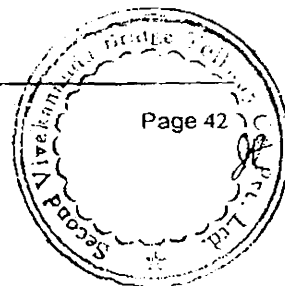
BVI ("STRADEC-INT"), a Consortium Member is a body corporate organised and existing under the laws of British Virgin Islands and currently, as on date, is a wholly owned subsidiary of Strategic Alliance Development Corporation ["STRADEC"], (4) PBIDC and Consortium Member Consulting Engineering Service India Private Limited ("CES") together currently, as on date, hold in aggregate the majority of the issued and paid up voting share capital of Transasia Infrastructure Holding LLC, a body corporate organised and existing under the laws of United States of America ("TRANSASIA"), (5) PAI, TRANSASIA and STRADEC-INT together currently, as on date, hold in aggregate the entire the issued and paid up voting share capital of the Pacific Alliance Stradec Group Infrastructure Company, a body incorporate organised and existing under the laws of Mauritius ("PASGIC"), and (6) L & T Holdings Ltd. ("L&THL") a body corporate organised and existing under the laws of India, is currently, as on date, a wholly owned subsidiary of Consortium Member Larsen & Toubro Ltd. ("L&T").

Whereas NHAI has recognised PBIDC and STRADEC-INT as Consortium Members on the basis of credentials of PB and STRADEC respectively submitted by the Consortium.

The Concessionaire shall procure and ensure that aggregate effective Equity holding of PAD, PB, STRADEC, L&T and CES, directly and/ or indirectly, in the issued and paid up Equity of the Concessionaire ("the effective Equity holding") shall not be less than (a) 51% (fifty one percent) during the Construction Period and for 3 (three) years following COD, and (b) 26% (twenty six per cent) during the balance remaining Operations Period. For computation of effective Equity holding, the Equity holding of each of PAD, PB, STRADEC, CES and L&T in the Concessionaire through one or more tiers shall be computed in accordance with the example given below:

If Company A holds 25% of Company B and Company B holds 50% in the Concessionaire, then the effective holding of Company A in the Concessionaire is 12.5% (i.e. $0.25 \times 0.50 \times 100\%$);

- (xiv) Each Consortium Member was and is duly organised and existing under the laws of the jurisdiction of its incorporation and has full power and authority to consent to and has validly consented to and requested NHAI to enter into this Agreement with the Concessionaire and has agreed to and unconditionally accepted the terms and conditions set forth in this



Agreement;

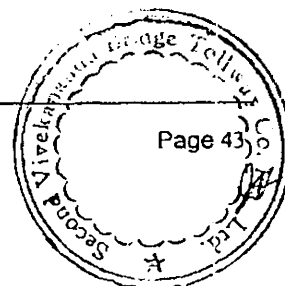
- (xv) All rights and interests of the Concessionaire in and to the Project Bridge shall pass to and vest in NHAI on the Termination Date, subject to and in accordance with the provisions contained in this Agreement, free and clear of all liens, claims, and Encumbrances without any further act or deed on the part of the Concessionaire or NHAI and that none of Project Assets including materials, supplies or equipment forming part thereof shall be acquired by the Concessionaire subject to any agreement under which a security interest or other lien or Encumbrance is retained by any person save and except as expressly provided in this Agreement;
- (xvi) No representation or warranty by the Concessionaire contained herein or in any other document furnished by it to NHAI, or to any Governmental Agency in relation to Applicable Permits contains or will contain any untrue statement of material fact or omits or will omit to state a material fact necessary to make such representation or warranty not misleading; and
- (xvii) It warrants that no sums, in cash or kind, have been paid or will be paid by or on behalf of the Concessionaire, to any person by way of fees, commission or otherwise for securing the Concession or entering into this Agreement or for influencing or attempting to influence any officer or employee of NHAI, GOI or GOWB in connection therewith.

11.2 Representations and Warranties of NHAI

NHAI represents and warrants to the Concessionaire that:

- (i) NHAI is duly organised and validly existing under the laws of India;
- (ii) NHAI has full power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;
- (iii) NHAI has taken all necessary action to authorise the execution, delivery and performance of this Agreement;
- (iv) This Agreement constitutes its legal, valid and binding obligation enforceable against it in accordance with the terms hereof;

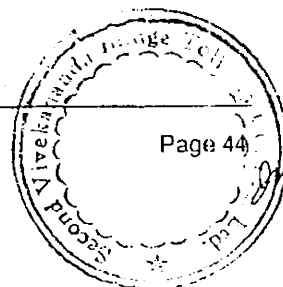
NHAI



- (v) NHAI is subject to civil and commercial laws of India with respect to this Agreement and it hereby expressly and irrevocably waives any sovereign immunity in any jurisdiction in regard to matters set forth in this Agreement; and
- (vi) There are no actions, suits, proceedings or investigations pending or, to best of NHAI's knowledge, threatened against it at law or in equity before any court or before any other judicial, quasi-judicial or other such authority, challenging the legal right, power and authority of NHAI to enter into this Agreement.

XII. DISCLAIMER

- 12.1 The Concessionaire acknowledges that prior to the execution of this Agreement, the Concessionaire has after a complete and careful examination made an independent evaluation of the traffic volumes, Specifications and Standards, Site and all the information provided by NHAI and has determined to the Concessionaire's satisfaction the nature and extent of such difficulties, risks and hazards as are likely to arise or may be faced by the Concessionaire in the course of performance of its obligations hereunder.
- 12.2 The Concessionaire acknowledges and hereby accepts the risk of inadequacy, mistake or error in or relating to any of the matters set forth in Clause 12.1 above and hereby confirms that NHAI shall not be liable for the same in any manner whatsoever to the Concessionaire, the Consortium Members or their Associates.
- 12.3 Nothing contained in Clause 12.1 above shall be construed as relieving NHAI from the performance of any of its obligations as set out in this Agreement.



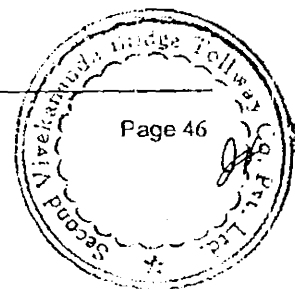
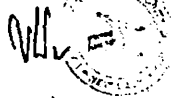
CHAPTER – IV
PROJECT DEVELOPMENT AND OPERATIONS

XIII. USE AND DEVELOPMENT OF THE SITE

- 13.1 NHAI hereby grants to the Concessionaire for the Development Period access to the Site for carrying out such surveys, investigations and soil tests as the Concessionaire may deem necessary and, if the Concessionaire deems appropriate, to commence construction of the Project Bridge at the Concessionaire's cost, expense and risk without causing disruption in the traffic on the existing lanes of the Connector Roads, it being expressly agreed and understood that NHAI shall have no liability whatsoever in respect of tests, surveys, investigations or other work done or construction undertaken by the Concessionaire as aforesaid or otherwise on or about the Site in the event of any Termination of this Agreement.
- 13.2 NHAI hereby grants to the Concessionaire for the Concession Period the right and licence to enter upon all real estate comprised in the Site as briefly described in Schedule 'A' and to survey, design, engineer, procure, construct, operate and maintain the Project Bridge including the Project Facilities in accordance with the provisions of this Agreement. Such right and licence of the Concessionaire to the use the Site shall be subject to:
- 13.2.1 The Concessionaire ensuring that all Permitted Utilities are not damaged by it during execution of the Project in accordance with the Project Completion Schedule or during the O&M. It is hereby agreed that Governmental Agencies responsible for the maintenance of these Permitted Utilities shall have a right of access to perform their obligations in respect of or relating to such Permitted Utilities;
- 13.2.2 The Concessionaire ensuring that minimum disruption is caused to the traffic flow on existing rights of way on both the Howrah and Kolkata sides of the Site and the existing Vivekananda Bridge;
- 13.2.3 The rights of the road users to use the road in accordance with this Agreement;
- 13.2.4 A right of access by NHAI itself and any of its agents to perform their obligations and rights under the Concession Agreement or any other functions that they have, and to conduct any study or trial for the purpose of research;
- 13.3 The licence and the right hereunder to use the Site is granted for the purpose of carrying out the functions and obligations and exercise of its rights by the

Concessionaire under and in accordance with this Agreement and not for any other purposes;

- 13.4 The Concessionaire shall bear all costs and charges for special and temporary rights of way required by it in connection with access to the Site. The Concessionaire shall obtain at its cost such facilities on or outside the Site as may be required by it for the purposes of the Project Bridge and the performance of its obligations under this Agreement other than rights of way on the Site for the alignment of the Project Bridge which shall be responsibility of NHAI and rights of way on and to the extent of public roads to the Site which shall also be responsibility of NHAI.
- 13.5 The Site shall be made available to the Concessionaire pursuant hereto by NHAI free from all Encumbrances and occupations and without the Concessionaire being required to make any payment to NHAI on account of any costs, expenses and charges for the use of such Site for the duration of the Concession Period save and except as otherwise expressly provided in this Agreement. Provided however, nothing contained in this Agreement shall be construed as requiring NHAI to keep the Site free from any occupation subsequent to the delivery of vacant possession thereof under and in accordance with this Agreement and the Concessionaire hereby acknowledges that after such delivery of possession by NHAI, it shall be responsible for keeping the Site free from all occupations by third parties provided, NHAI shall provide reasonable cooperation and assistance in its capacity as licensor, at the Concessionaire's costs and expense to the Concessionaire in discharging of Concessionaire's said obligations hereunder. NHAI shall procure for the Concessionaire access to the Post-Financial Close Portion of the Site in accordance with Clause 13.4 above, free of Encumbrances, within the Post-Financial Close Site Delivery Period. Provided, however, that if NHAI does not enable such access to any part or parts of the Post Financial Close Portion of the Site for any reason other than a Force Majeure Event or breach of this Agreement by the Concessionaire and such failure prevents the Concessionaire from undertaking the construction, completion or operation of the Project Bridge, NHAI shall pay to the Concessionaire Damages at the rate of Rs.1000 (Rupees one thousand) per month per 1000 (one thousand) sq. meters or part thereof if such area is required by the Concessionaire for Construction Works. Such Damages shall be raised to Rs.2000 (Rupees two thousand) per month after COD if such area is essential for the smooth and efficient operation of the Project Bridge. Provided further that the Completion Certificate or the Provisional Certificate, as the case may be, for the Project Bridge shall not be affected or delayed as a consequence of such parts of the Post-Financial Close Portion of the Site remaining under construction even after the Scheduled Project Completion Date.

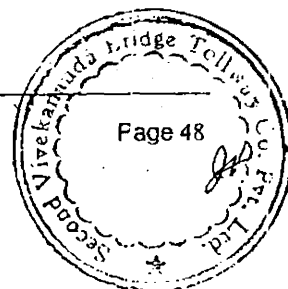


- 13.6 On or after the Appointed Date, the Concessionaire shall commence, undertake and complete all Construction Works on the Project Bridge in accordance with this Agreement.
- 13.7 Construction of the Project Bridge shall be undertaken by the Concessionaire in conformity with the Project Completion Schedule 'H' and the Project milestones set forth in Schedule 'H' for completion of the Project Bridge on or before the Scheduled Project Completion Date. If the Concessionaire fails to achieve any two Project milestones other than Project Completion, within a period of 90 (ninety) days from the date set forth in Schedule "H" then it shall pay Damages to NHAI at the rate of Rs.1,000,000 (Rs. One million) per day until such two milestones are achieved. NHAI may either recover such Damages from the Performance Security or demand payment thereof from the Concessionaire. The Concessionaire shall make such payment within 7 (seven) days of receiving such demand from NHAI and any delay in making such payment shall attract interest @ SBI PLR plus two per cent. If the Concessionaire fails to achieve Project completion as per the Scheduled Project Completion Date, then it shall pay damages to NHAI as per Article XV. However, in the event that the Concessionaire achieves the Provisional Certificate or the Completion Certificate by Scheduled Project Completion Date, the damages, if any, recovered under this clause would be refunded (without interest) to the Concessionaire.

XIV. MONITORING AND SUPERVISION OF CONSTRUCTION

- 14.1 During the Construction Period, the Concessionaire shall furnish to NHAI and the Independent Consultant monthly progress reports of actual progress of the Construction Works comprised in the Project Bridge and shall give all such other relevant information as may be required by NHAI and/or the Independent Consultant.
- 14.2 The Independent Consultant shall inspect the Construction Works and the Project Bridge at least once a month during the Construction Period and make out an Inspection Report of such inspection (the "Inspection Report"). It shall send a copy of its Inspection Report to NHAI and the Concessionaire. The Concessionaire shall take necessary action to remedy the lapses, if any, stated in the Inspection Report for ensuring compliance with the provisions of this Agreement. Such inspection or submission of Inspection Report by the Independent Consultant shall not relieve or absolve the Concessionaire of its obligations and liabilities hereunder in any manner whatsoever.

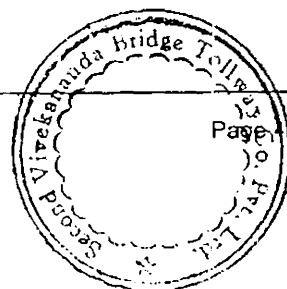
- 14.3 For the purposes of determining that Construction Works are being undertaken in accordance with Specifications and Standards and Good Industry Practice, the Independent Consultant shall require the Concessionaire to carry out such tests (including Tests) at such time and frequency and in such manner as may be necessary in accordance with Good Industry Practice for quality assurance. The Concessionaire shall with due diligence carry out, or cause to be carried out, all such tests in accordance with the instructions of the Independent Consultant and furnish the results of such tests forthwith to the Independent Consultant. The Concessionaire shall promptly carry out such remedial measures as may be necessary to cure the defects or deficiencies, if any, indicated in such test results and furnish a report to the Independent Consultant in this behalf.
- 14.4 If the Independent Consultant or NHAI shall reasonably determine that the rate of progress of the Construction of the Project Bridge is such that the Project Completion is not feasible on or before the Scheduled Project Completion Date by the Concessionaire, it shall so notify the Concessionaire about the same and the Concessionaire shall within 15 (fifteen) days thereof notify the NHAI and the Independent Consultant about the steps it proposes to take to expedite progress and the period within which it shall achieve COD.
- 14.5 (a) Upon recommendation of the Independent Consultant or suo-moto, NHAI may by written notice require the Concessionaire to suspend forthwith the whole or any part of the Construction Works if in the reasonable opinion of the NHAI such work is being carried on in a manner which threatens the safety of the works or of the users of the Project Bridge.
- (b) The Concessionaire shall, upon instructions of the NHAI pursuant to sub-clause (a) above suspend the Construction Works or any part thereof for such time and in such manner as may be specified by NHAI and subject to sub-clause (c) below, the costs incurred during such suspension to properly protect and secure the Construction Works or such part thereof as is necessary in the opinion of the Independent Consultant ("Preservation Costs"), shall be borne by the Concessionaire.
- (c) If the suspension pursuant to Sub-clause (a) above, is caused by:
- (i) any reason other than (a) default or breach of this Agreement by the Concessionaire (b) breach of any of the obligations of the Concessionaire under this Agreement or (c) on account of any Force Majeure Event, the Preservation Costs shall be borne by NHAI;



- (ii) reason of default or breach of this Agreement or breach of the obligations of the Concessionaire under this Agreement by the Concessionaire the Preservation Costs shall be borne by the Concessionaire; or
 - (iii) reason of any Force Majeure Event, the Preservation Costs shall be borne by the Concessionaire save and except to the extent otherwise expressly provided in Article XXIX.
- (d) If suspension of Construction Works is for reasons not attributable to the Concessionaire, the Independent Consultant shall determine any extension to the Project Completion Schedule, the Scheduled Project Completion Date and the Concession Period, to which the Concessionaire is reasonably entitled and shall notify NHAI accordingly. NHAI shall extend the Project Completion Schedule, the Scheduled Project Completion Date and the Concession Period in accordance with the recommendations of the Independent Consultant.

XV. COMPLETION

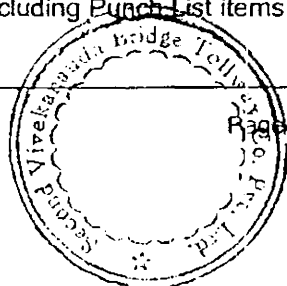
- 15.1 The Project shall be deemed to be complete and open to traffic only when the Completion Certificate or the Provisional Certificate is issued in accordance with the provisions of Article XVI (the "Project Completion").
- 15.2 COD of the Project shall be the date on which the Independent Consultant has issued the Completion Certificate or the Provisional Certificate, as the case may be, under this Agreement and the Concessionaire shall not levy and collect any Fee until it has received such Completion Certificate or the Provisional Certificate.
- 15.3 The Concessionaire guarantees that the Project Completion shall be achieved in accordance with the provisions of this Agreement on a date not later than 36 (thirty-six) months from the Appointed Date ("Scheduled Project Completion Date").
- 15.4 If the Project Completion is not achieved by the Scheduled Project Completion Date for any reason other than conditions constituting Force Majeure or for reasons attributable to NHAI or any Governmental Agency, the Concessionaire shall pay to NHAI as weekly Damages for delay in the achievement of the COD, an amount calculated at the rate of 0.01% (point zero one per cent) of the Total Project Cost per week or part thereof.



- 15.5 If the COD does not occur within 12 (twelve) months from the Scheduled Project Completion Date for any reason other than occurrence of Force Majeure or for reasons attributable to NHAI or any Governmental Agency, NHAI shall, without prejudice to its entitlement to Damages pursuant to Clause 15.4 above, be entitled to Terminate this Agreement in accordance with the provisions of Clause 32.2.
- 15.6 If no later than 1 (one) month from the Scheduled Project Completion Date, NHAI is in default of its obligation under Clause 10.1(ix) relating to upgradation/ completion of the Connector Roads and provided, the Provisional Certificate or the Completion Certificate has been issued, the Concessionaire shall be entitled to Terminate this Agreement in accordance with Clause 32.4.

XVI. TESTS

- 16.1 All Tests shall be conducted in accordance with Schedule 'J' and the Applicable Laws and Applicable Permits. NHAI shall designate a NHAI Representative to witness and observe the Tests. All Tests shall be held in accordance with the schedule notified by the Concessionaire to the Independent Consultant and the NHAI Representative who may either witness the Tests themselves or designate their representatives for this purpose, if they choose. Participation by NHAI Representative in any tests including the Tests held pursuant hereto shall not relieve in any manner the Concessionaire of its obligations under this Agreement.
- 16.2 The Independent Consultant shall monitor the results of the Tests to determine the compliance of the Project Bridge with the Specifications and Standards. The Concessionaire shall provide to the Independent Consultant and the NHAI with copies of all Test data including detailed Test results.
- 16.3 At least 30 (thirty) days prior to the likely completion of the Project Bridge, the Concessionaire shall notify the Independent Consultant and NHAI of the same and shall give notice of its intent to conduct any final Tests. The Concessionaire shall give to NHAI and the Independent Consultant at least 10 (ten) days' prior notice of the actual date on which it intends to commence the Tests and at least 7 (seven) days' prior notice of the commencement date of any subsequent Tests. The Independent Consultant shall have the right to suspend or delay any Test if it is reasonably anticipated or determined during the course of the Test that the performance of the Project Bridge or any part thereof does not meet the Specifications and Standards.
- 16.4 Subject to Clause 16.7, upon the Independent Consultant determining the Tests to be successful and all parts of the Project Bridge, including Punch List items to



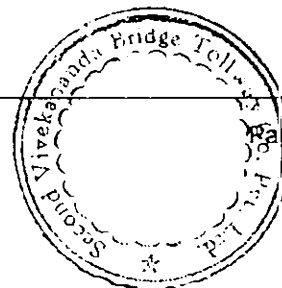
have been completed and the Project Bridge can be legally, safely and reliably placed in commercial operations, the Independent Consultant shall issue to the Concessionaire and NHAI a Certificate substantially in the form set forth in Schedule 'K' (the "Completion Certificate").

16.5 Subject to Clause 16.7, Independent Consultant may at the request of the Concessionaire issue a provisional certificate of completion substantially in the form set forth in Schedule 'K' ("Provisional Certificate") if the Tests are successful and all parts of Project Bridge can be legally, safely and reliably placed in commercial operation though certain works or things forming part thereof are not yet complete. In such an event such Provisional Certificate shall have appended thereto a list of outstanding items signed jointly by the Independent Consultant and the Concessionaire ("Punch List"). All Punch List items shall be completed by the Concessionaire within 120 (one hundred twenty) days of the date of issue of such Provisional Certificate. Subject to payment of Damages equal to Rs.200,000 (Rs. Two hundred thousand) per week or part thereof on account of any delay beyond the aforesaid period of 120 (one hundred twenty) days, the Concessionaire shall be entitled to a further period of upto 180 (one hundred eighty) days for completion of Punch List items. Upon completion of all Punch List items to the satisfaction of the Independent Consultant, the Independent Consultant shall issue the Completion Certificate to the Concessionaire. Failure to complete the Punch List items in the manner set forth in this Clause 16.5 shall entitle NHAI to Terminate this Agreement in accordance with the provisions of Clause 32.2.

✓ 16.6 If the Independent Consultant certifies to NHAI and the Concessionaire that it is unable to issue the Completion Certificate or Provisional Certificate because of events or circumstances which excuse the performance of the Concessionaire's obligations in accordance with this Agreement and as a consequence thereof the Tests could not be held or had to be suspended, the Concessionaire shall re-schedule the Tests and hold the same as soon as reasonably practicable.

✓ 16.7 Upon receipt of a report from the Independent Consultant or after conducting its own review or inspection, if NHAI is not satisfied (having acted reasonably) with the results of any Tests, it shall within 7 (seven) days thereof notify the Concessionaire of its reasons to conclude that the Completion Certificate or Provisional Certificate, as the case may be, should not be issued, in which case the Concessionaire shall promptly take such action as will achieve such satisfaction. Such procedure shall be repeated as necessary after rectification and remedy of reasons/ causes by the Concessionaire on account of which the Tests were unsuccessful, until the Completion Certificate or Provisional Certificate has been issued in accordance with this Agreement by the Independent Consultant.

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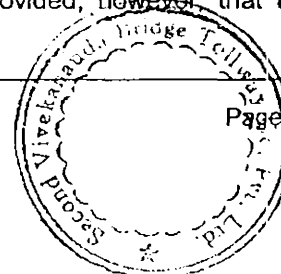
- 16.8 The Concessionaire shall bear all the expenses relating to tests under this Agreement. Provided, however, that if the NHAI Representative requires any test to be conducted which is not specified in this Agreement and such test is not necessary in the opinion of the Independent Consultant, then the Concessionaire shall not be required to carry out such test.

XVII. CHANGE OF SCOPE

- 17.1 NHAI may, notwithstanding anything to the contrary contained in this Agreement, require provision of such additional works and services on or about the Project Bridge which are beyond the scope of the Project as contemplated by this Agreement ("Change of Scope"), provided all such changes do not require expenditure in the aggregate exceeding 5% (five per cent) of the Total Project Cost and do not adversely affect the COD. All such changes shall be made by NHAI by an order (the "Change of Scope Order") issued in accordance with the procedure set forth in this Article XVII.

17.2 Procedure for Change of Scope

- (a) NHAI shall whenever it desires provision of additional works and services referred to in Clause 17.1, issue to the Concessionaire a notice of change of scope (the "Change of Scope Notice").
- (b) upon receipt of such Change of Scope Notice, the Concessionaire shall provide to NHAI and the Independent Consultant such information as is necessary and reasonable together with preliminary documentation in support of the following:
 - (i) the impact, if any, which the Change of Scope is likely to have on the Project Completion Schedule if the work is required to be carried out before COD, and
 - (ii) the cost to the Concessionaire of complying with such Change of Scope Notice (including, without limitation, material and labour cost information furnished in accordance with the current schedule of rates applicable to the works assigned by NHAI to its contractors, including the premium on such rates).
 - (iii) the options suggested for implementing the proposed Change of Scope and the effect, if any, each such option would have on the costs and time for the implementation thereof including a detailed breakdown by work classifications. Provided, however, that the

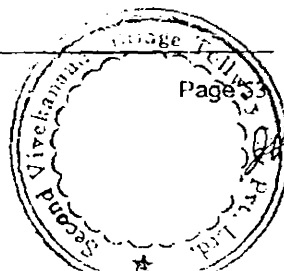


costs of providing such information shall be reimbursed to the Concessionaire by NHAI to the extent such costs are certified to be reasonable by the Independent Consultant.

- (c) If NHAI desires, after receipt of information set forth in sub-clause (b) to proceed with the Change of Scope, it shall convey the desired option to the Concessionaire by issuing a Change of Scope Order and thereupon the Parties shall make good faith efforts to mutually agree upon the costs and time for implementing of the same. Upon reaching an agreement relating to such costs and time, NHAI shall issue a written confirmation of the Change of Scope Order and thereupon the Concessionaire shall proceed with performance of such order. In the event, the Parties are unable to agree, NHAI may, by issuing a confirmation in writing of such Change of Scope Order, require the Concessionaire to proceed with the performance of the Change in Scope Order pending resolution of such dispute. Upon issue of such Change of Scope Order and provided the Independent Consultant opines that the said 5% threshold in Clause in 17.1 will not be crossed and there will be no change in the alignment of the Project, the Concessionaire shall proceed with the performance of the Change of Scope Order pending resolution of the dispute under the Dispute Resolution Procedure.

17.3 A Change of Scope Order will be effective and binding upon issuance of a confirmation of such Change of Scope Order by NHAI. Notwithstanding a dispute regarding cost and time for implementation of such Change of Scope Order but subject to the provisions contained in Clause 17.2(c), the Concessionaire shall proceed with the performance of such Change of Scope Order promptly following (i) NHAI's confirmation pursuant to Clause 17.2(c). Pending resolution of such dispute, NHAI shall pay to the Concessionaire upon completion of work pursuant to such Change of Scope Order an amount equal to the costs that are certified by the Independent Consultant to be reasonable plus one-half the difference between the amount certified by the Independent Consultant and the amount claimed by the Concessionaire with final adjustments to be made in accordance with the resolution of dispute under the Dispute Resolution Procedure.

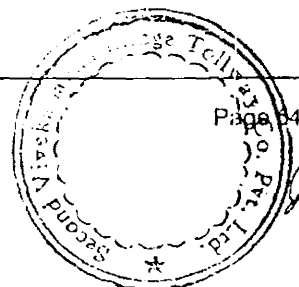
17.4 All claims by the Concessionaire pursuant to this Article XVII shall be supported by such documentation as is reasonably sufficient for NHAI to determine the accuracy thereof, including invoices from Contractors and subcontractors and certification of such claims by the Statutory Auditors.



XVIII. OPERATION AND MAINTENANCE

18.1 The Concessionaire shall operate and maintain the Project Bridge by itself, or through O&M Contractors and if required, modify, repair or otherwise make improvements to the Project Bridge to comply at all times during the Operations Period with Specifications and Standards, and other requirements set forth in this Agreement, Good Industry Practice, Applicable laws and Applicable Permits and manufacturer's guidelines and instructions with respect to toll systems, and more specifically:

- (i) permitting safe, smooth and uninterrupted flow of traffic during normal operating conditions;
- (ii) charging, collecting and retaining the Fees in accordance with this Agreement;
- (iii) minimizing disruption to traffic in the event of accidents or other incidents affecting the safety and use of the Project Bridge by providing a rapid and effective response and maintaining liaison procedures with emergency services;
- (iv) undertaking routine maintenance including prompt repairs of potholes, cracks, concrete joints, drains, line marking, lighting and signage;
- (v) undertaking major maintenance such as resurfacing of pavements, repairs to structures, repairs and refurbishment of tolling system and hardware and other equipment;
- (vi) carrying out periodic preventive maintenance to Project Bridge including tolling system;
- (vii) preventing with the assistance of concerned law enforcement agencies unauthorised entry to and exit from the Project Bridge;
- (viii) preventing with the assistance of the concerned law enforcement agencies encroachments on the Project Bridge including Site and preserve the right of way of the Project Bridge;
- (ix) maintaining a public relations unit to interface with and attend to suggestions from users of the Project Bridge, the media, Government Agencies, and other external agencies; and



- (x) adherence to the safety standards set out in Schedule 'S'.

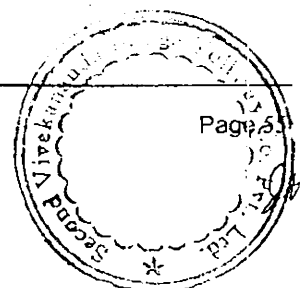
18.2 The Concessionaire shall in consultation with the Independent Consultant prepare not later than 180 (one hundred and eighty) days before the Scheduled Project Completion Date, the repair and maintenance manual (the "Maintenance Manual") for the regular and periodic maintenance, and shall ensure and procure that at all times during the Operations Period, the Project Bridge is maintained in a manner that it complies with the Specifications and Standards and the minimum maintenance requirements set forth in Schedule L. The Concessionaire shall supply, at least two months before the COD, 10 (ten) copies of the Maintenance Manual to NHAI and 3 (three) copies each to the GOI, GOWB and Independent Consultant. Copies of the Maintenance Manual shall also be made available by the Concessionaire for public inspection during office hours at a conspicuous place adjacent to each Toll Plaza on the Project Bridge.

18.3 Not later than forty five (45) days before the beginning of each Accounting Year, the Concessionaire, shall in consultation with the Independent Consultant prepare and provide to NHAI for its consideration and approval, its proposed programme of preventive and other scheduled maintenance of the Project Bridge subject to the minimum maintenance requirements set forth in Maintenance Manual and in Schedule 'L' necessary to maintain the Project Bridge at all times in conformity with the Specifications and Standards (the "Maintenance Programme"). Such Maintenance Programme shall include but not be limited to the following:

- (i) intervals and procedures for the carrying out of inspection of all elements of the Project Bridge;
- (ii) criteria to be adopted for deciding maintenance needs;
- (iii) preventive maintenance schedule;
- (iv) intervals at which the Concessionaire shall carry out periodic maintenance;
- (v) intervals for major maintenance and the scope thereof; and
- (vi) lane closures schedule for each type of maintenance (length and time).

18.4 Maintenance shall include replacement of equipment/consumables, horticultural maintenance and upkeep of all Project Assets in good order and working condition. Maintenance shall not include the extension of any existing pavements, bridges, structures and other civil works unless part of the Project.

18.5 The Concessionaire shall keep the carriageways, rest areas and other Project Facilities and Toll Plazas in a clean, tidy and orderly condition free of litter and



debris.

18.6 During the Operations Period, the Concessionaire shall not carry out any material modifications to the Project Bridge save and except where such (i) modification is required by Good Industry Practice; or (ii) modification is necessary for the Project Bridge to operate in conformity with the Specifications and Standards prescribed under this Agreement. Provided that the Concessionaire shall notify NHAI of the proposed modifications along with details thereof at least fifteen days before commencing work on such modifications and shall reasonably consider such suggestions as NHAI may make within 15 (fifteen) days of receipt of such details by NHAI.

18.7 Safety, Vehicle Breakdown and Accident

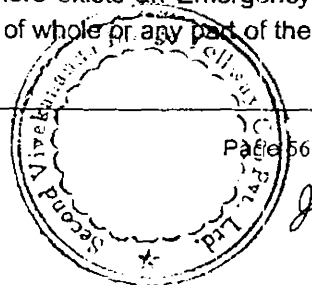
18.7.1 In the case of unsafe conditions, vehicle breakdowns and accidents, the Concessionaire shall follow the relevant operating procedures, which shall include the setting up of temporary traffic cones and lights as well as the removal of obstruction and debris expeditiously. Such procedures shall be in accordance with Applicable Laws, Applicable Permits and provisions of this Agreement.

18.7.2 The Concessionaire shall ensure that any diversion or interruption of traffic is remedied without delay. The Concessionaire's responsibility for rescue operations on the Project Bridge shall be limited to the removal of vehicles or debris or any other obstruction, which may endanger or interrupt the smooth traffic flow on the Project Bridge.

18.7.3 The Concessionaire shall ensure that safety standards specified in Schedule 'S' are strictly complied with in the event of any lane closure or diversion of traffic. Compliance with Schedule 'S' will be monitored by the Independent Consultant and a breach by the Concessionaire of its obligations in respect of this Schedule 'S' identified by the Independent Consultant shall be notified immediately and is required to be cured within 24 hours of its notification notwithstanding inspection, reporting procedures outlined elsewhere in this Agreement. In addition, each notified breach by the Concessionaire of its obligations under Schedule 'S' shall lead to the award of a penalty point to the Concessionaire. A total of five penalty points in any continuous period of 365 days shall constitute a Material Breach of this Agreement.

18.8 Emergency De-commissioning

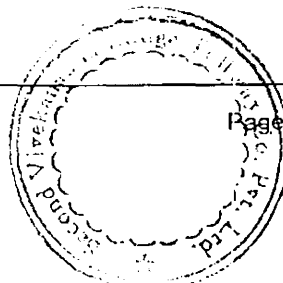
18.8.1 If, in the reasonable opinion of the Concessionaire there exists an Emergency which warrants decommissioning and closure to traffic of whole or any part of the



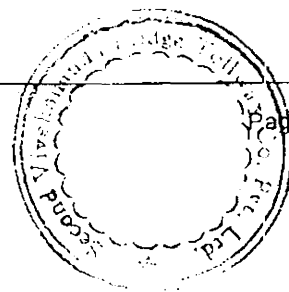
Project Bridge, the Concessionaire shall be entitled to de-commission and close the whole or the relevant part of the Project Bridge to traffic for so long as such Emergency and the consequences thereof warrant, provided however that such Emergency decommissioning will be notified to NHAI promptly. NHAI may issue directions to the Concessionaire for dealing with such situations and the Concessionaire shall abide by such directions.

- 18.8.2 The Concessionaire shall re-commission the Project Bridge or the affected part thereof as quickly as practicable after the circumstances leading to its de-commissioning and closure have ceased to exist.
- 18.9 The Concessionaire shall not close any lane of the Project Bridge for undertaking maintenance or repair works except with the prior written approval of the NHAI which may delegate its authority to the Independent Consultant. Such approval shall be sought by the Concessionaire through a written request to be made at least 7 (seven) days before the proposed closure of lane and shall be accompanied by particulars indicating the nature and extent of repair works, the length and section required to be closed and the period of closure. The Concessionaire shall also furnish particulars indicating the minimum time required for completing such repair works. Within 5 (five) days of receiving such request from the Concessionaire, NHAI or the Independent Consultant, as the case may be, shall grant permission with such modifications as it may deem necessary. Upon receiving such permission, the Concessionaire shall be entitled to close the lane in accordance with such permission and re-open it within the period stipulated in such permission. For any delay in re-opening such lane during the first Operations Year, the Concessionaire shall pay Damages to NHAI calculated at the rate of Rs.10,000 (Rs. Ten thousand), per day or part thereof for every stretch of 100 (one hundred) meters or part thereof in each lane until such time the stretch has been re-opened for traffic. These damages of Rs.10,000 (Rupees ten thousand) shall be applicable in the first operations year and shall be revised in each subsequent operations year by the change in WPI from WPI in the previous operations year. Provided, however, that these provisions shall not apply to Emergency decommissioning pursuant to Clause 18.8.
- 18.10 Save and except as otherwise be expressly provided in this Agreement, if the Project Bridge including Construction Works or any part thereof shall suffer any loss or damage during the Concession Period, from any cause whatsoever, the Concessionaire shall, at its cost and expense rectify and remedy such loss or damage forthwith in a manner so as to make the Project Bridge conform in every respect to the Specifications and Standards, quality and performance as prescribed by this Agreement.

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- 18.11 In the event the Concessionaire does not maintain and/ or repair the Project Bridge or a part thereof upto and in accordance with the Specifications and Standards and/or in accordance with the Maintenance Programme or the Maintenance Manual, and shall have failed to commence remedial works within 30 (thirty) days of receipt of notice in this behalf from NHAI or the Independent Consultant, or the O&M Inspection Report, as the case may be, NHAI shall, without prejudice to its rights under this Agreement, including Termination thereof, be entitled to undertake the repair and maintenance of the Project Bridge at the risk and cost of the Concessionaire and, subject to certification of such costs by the Independent Consultant, to recover the same from the Concessionaire. In addition to recovery of the aforesaid cost of repair and maintenance by NHAI, a sum equal to 25% (twenty five per cent) of such cost shall also be recovered by NHAI from the Concessionaire as Damages. NHAI shall have the right and the Concessionaire hereby expressly grants to NHAI the right to recover the same directly from the Escrow Account and for that purpose the Concessionaire hereby expressly authorises NHAI and hereby gives irrevocable instructions to the Escrow Bank to make payment from the Escrow Account in accordance with the instructions of NHAI under this Clause. In carrying out any repair and maintenance under this Clause 18.11, NHAI agrees to comply with the relevant MoST Specifications.
- 18.12 In the event NHAI does not exercise its option to undertake the required repair and maintenance after expiry of the 30 (thirty) days period stipulated in Clause 18.11, it shall recover Damages from the Concessionaire for default in operating and maintaining the Project Bridge in conformity with this Agreement. Such Damages shall be payable after the aforesaid period of 30 (thirty) days and until the default is cured. The amount of Damages shall be calculated for each day of default at the higher of the following, namely (a) Rs.10,000 (Rs. Ten thousand), and (b) 0.1% (zero point one per cent) of the cost of such repair as estimated by the Independent Consultant. Recovery of such Damages shall be without prejudice to the rights of NHAI under this Agreement, including Termination thereof.
- 18.13 If the Concessionaire commences any works for curing any defects or deficiencies in the Project Bridge, it shall complete such works expeditiously in accordance with Good Industry Practice and Specifications and Standards. If such works are carried out in a manner that results in a delay of more than 30 (thirty) days as compared to the time required in accordance with Good Industry Practice, NHAI shall recover Damages from the Concessionaire as if a default had occurred under Clause 18.12.



18.14 The Concessionaire shall not be considered in breach of its obligations under this Agreement if any part of the Project Bridge is not available to traffic after the COD on account of any of the following for the duration thereof:

- (i) an event of Force Majeure;
- (ii) measures taken with approval of NHAI to ensure the safe use of the Project Bridge except when unsafe conditions on the road occurred because of failure of the Concessionaire to perform its obligations under this Agreement; or
- (iii) compliance with a request from NHAI or the directions of any Governmental Agency the effect of which is to close all or any part of the Project Bridge.

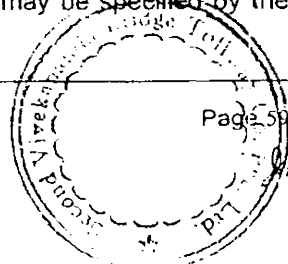
Notwithstanding the above, the Concessionaire shall keep all unaffected parts of the Project Bridge open to traffic and use provided they can be safely operated and kept open to traffic.

XIX MONITORING AND SUPERVISION DURING OPERATION

19.1 The Concessionaire shall undertake periodic (at least once every calendar month but once every week during monsoons) inspection of the Project Bridge to determine the condition of the Project Bridge including its compliance or otherwise with the Maintenance Manual, the Maintenance Programme, Specifications and Standards and the maintenance required and shall submit reports of such inspection ("Maintenance Reports") to NHAI and the Independent Consultant.

19.2 The Independent Consultant shall review the Maintenance Reports and inspect the Project Bridge at least once a month during the Operations Period and make out an Inspection Report of such inspection (the "O&M Inspection Report"). The Independent Consultant shall send a copy of its O&M Inspection Report to NHAI and the Concessionaire. The Concessionaire shall within 30 (thirty) days of the receipt of the O&M Inspection Report remedy the defects and deficiencies, if any, set forth in such O&M Inspection Report and submit its report in respect thereof to the Independent Consultant and NHAI within the said 30 (thirty) days period. Where the remedying of such defects or deficiencies is likely to take more than 30 (thirty) days in accordance with Good Industry Practice, the Concessionaire shall undertake the works in accordance with such practice and submit progress reports of such works every fortnight. The O&M Inspection Report may also require the Concessionaire to undertake such tests as may be specified by the

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Independent Consultant for the purpose of determining that the Project Bridge is at all times in conformity with the Specifications and Standards. The Concessionaire shall undertake such tests without any delay and furnish a copy of the results thereof to the Independent Consultant and NHAI along with a written statement specifying in reasonable detail the measures, if any, that it proposes to undertake for curing the defaults or deficiencies indicated in such results. Such inspection or submission of O&M Inspection Report by the Independent Consultant or submission of O&M Inspection compliance report by the Concessionaire shall not relieve or absolve the Concessionaire of its obligations and liabilities hereunder in any manner whatsoever.

19.3 NHAI may inspect the Project Bridge at its own cost at any time for a review of the compliance by the Concessionaire with its maintenance obligations under this Agreement.

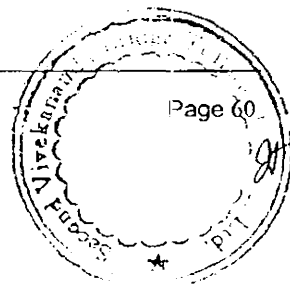
19.4 The Concessionaire shall furnish to NHAI within 7 (seven) days of completion of each calendar month during the Operations Period, a statement of Fees in the form set forth in Schedule 'M' (the "Monthly Fee Statement").

XX. INDEPENDENT CONSULTANT

20.1 NHAI and the Concessionaire shall jointly appoint a consulting engineering firm or body corporate out of the panel of 5 (five) consultants selected by NHAI and the Concessionaire in accordance with the selection process set forth in Schedule 'N' to be the Independent Consultant to undertake and perform the duties, work, services and activities set forth in Schedule 'O'.

20.2 The appointment of the Independent Consultant pursuant to Clause 20.1 shall initially be for a period of four years from the date of its appointment. The date of such appointment shall be no later than 45 (forty five) days from the date of this Agreement. After the expiry of the aforesaid appointment, NHAI and the Concessionaire shall jointly appoint for a term of 3 (three) years as Independent Consultant such person as it may deem appropriate from the list set forth in Schedule 'N' as amended from time to time by mutual consent of NHAI and the Concessionaire and who may or may not be the same person, who was Independent Consultant during the initial term. The Parties may in their discretion thereafter renew such appointment by mutual agreement or appoint another person out of the list determined pursuant to Schedule 'N', as the Parties may deem appropriate to be the Independent Consultant for a term of three years at a time.

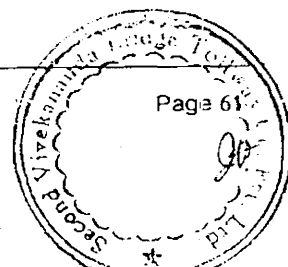
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- 20.3 The Independent Consultant shall report to NHAI with a copy to the Concessionaire about their work, services, and activities pursuant hereto through regular periodic reports (at least once every month) as the situation may warrant. Such report of Independent Consultant shall include but not be limited to the matters and things set forth in said Schedule 'O'.
- 20.4 The remuneration, cost and expenses of the Independent Consultant shall be paid in equal proportion by the Concessionaire and by NHAI.
- 20.5 NHAI may terminate the appointment of the Independent Consultant at any time subject to appointment of its replacement by another Independent Consultant in accordance with this Article XX.
- 20.6 If the Concessionaire has reason to believe that the Independent Consultant is not discharging its duties in a fair, efficient and diligent manner, it may make a written representation to NHAI, stating its reasons in detail, seeking termination of the appointment of the Independent Consultant. Upon receipt of such representation, NHAI shall hold a tripartite meeting with the Concessionaire and Independent Consultant for amicable resolution of the dispute. If the dispute remains unresolved, it shall be resolved in accordance with the Dispute Resolution Procedure. In case the appointment of Independent Consultant is terminated under this Clause, it shall be replaced by another Independent Consultant in accordance with this Article XX.
- 20.7 If either Party disputes any advice, instruction or award of the Independent Consultant, the dispute shall be resolved in accordance with the Dispute Resolution Procedure.

XXI. TRAFFIC SAMPLING

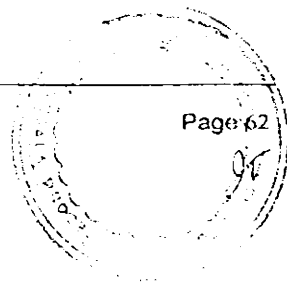
- 21.1 For the purpose of determination and/or verification of the actual traffic on the Project Bridge, NHAI shall, in addition to inspection of Concessionaire's records, be entitled to undertake traffic sampling at such frequency and in such manner as NHAI may deem appropriate including in the manner as set forth in Schedule 'P' hereto. The Concessionaire shall provide all facilities and assistance as NHAI may reasonably require for undertaking such traffic sampling.
- 21.2 If the data collected from traffic sampling undertaken pursuant to Clause 21.1 demonstrates that actual traffic is more than the traffic according to the records of the Concessionaire, the actual traffic for the purposes of this Agreement shall be deemed to be the traffic as determined by such NHAI traffic sampling pursuant to this Article XXI.



The Second Vivekananda Bridge Tollway Project

- 21.3 The Concessionaire may, in consultation with NHAI, commission an independent agency to conduct traffic sampling under this Article. The report of such agency shall be furnished to NHAI for such use as it may deem fit.
- 21.4 In the event of any dispute arising as to the actual traffic on the Project Bridge the same shall be resolved in accordance with the Dispute Resolution Procedure under this Agreement.

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CHAPTER - V FINANCING ARRANGEMENTS

XXII. FINANCIAL CLOSE

- 22.1 The Concessionaire shall provide to NHAI, a copy of the Financing Package furnished by it to the prospective Senior Lenders. As and when such Financing Package is approved by the Senior Lenders, with or without modifications, a copy of the same shall be furnished by the Concessionaire to NHAI forthwith.
- 22.2 Notwithstanding anything to the contrary contained in this Agreement, but subject to Clause 22.5, the Concessionaire covenants with NHAI that it shall achieve Financial Close within 240 (two hundred and forty) days from the date of this Agreement. If the Concessionaire shall fail to achieve Financial Close within the said 240 (two hundred and forty) days period, the Concessionaire shall be entitled to a further period of 90 (ninety) days subject to an advance weekly payment by the Concessionaire to NHAI of a sum of Rs.100,000 (Rupees one hundred thousand) per week or part thereof for any delay beyond the said 240 (two hundred and forty) day period, as Damages on account of such delay in achieving Financial Close within the said 240 (two hundred and forty) day period by the Concessionaire. NHAI shall be entitled to appropriate from the Performance Security the Damages it is entitled to pursuant to this Clause 22.2.
- 22.3 Notwithstanding anything to the contrary contained in this Agreement but subject to Clause 22.5, NHAI shall be entitled to Terminate this Agreement forthwith, without being liable in any manner whatsoever to the Concessionaire, by a communication in writing to the Concessionaire pursuant to Clause 32.2 if the Concessionaire shall have failed to pay in advance the Damages to NHAI under and in accordance with Clause 22.2 above.
- 22.4 Notwithstanding anything to the contrary contained in this Agreement but subject to Clause 22.5, if the Financial Close does not occur within 330 (three hundred and thirty) days as set forth in Clause 22.2 above, all rights, privileges, claims and entitlements, if any, of the Concessionaire under or arising out of this Agreement shall be deemed to have been waived by and to have ceased with the concurrence of the Concessionaire, and the Concession Agreement shall be deemed to have been terminated by mutual agreement of the Parties.
- 22.5 Notwithstanding anything to the contrary contained in this Agreement, the Concessionaire's obligation to achieve Financial Close as set out in this Article XXII is conditional upon satisfaction of the Conditions Precedent set out in Clauses 4.1 (b), 4.1(i) and 4.1 (m) of this Agreement. If any of the Conditions

The Second Vivekananda Bridge Tollway Project

Precedent set out in Clauses 4.1(l) and 4.1(m) have not been satisfied by a date which is 240 (two hundred and forty) days from the date of this Agreement and provided all other Conditions Precedent (which the Concessionaire is required to satisfy) have been satisfied, the Concessionaire shall not be liable to pay Damages to NHAI but either of NHAI or the Concessionaire shall be entitled to terminate this Agreement without being liable to the other in any manner whatsoever. If the Condition Precedent set out in Clause 4.1(b) has not been satisfied by a date which is 240 (two hundred and forty) days from the date of this Agreement, the Concessionaire shall not be liable to pay Damages to NHAI and the period for achieving Financial Close shall be extended until such Condition Precedent has been satisfied by NHAI provided, however, notwithstanding anything to the contrary contained herein either of NHAI and the Concessionaire shall be entitled to Terminate this Agreement without being liable in any manner whatsoever if such Condition Precedent has not been satisfied by a date which is 365 (three hundred and sixty five) days from the date of this Agreement.

- 22.6** Upon Termination of this Agreement under Clauses 22.3 and 22.4, NHAI shall be entitled to encash the Performance Security, and appropriate the proceeds thereof as Damages. ✓

XXIII. GRANT

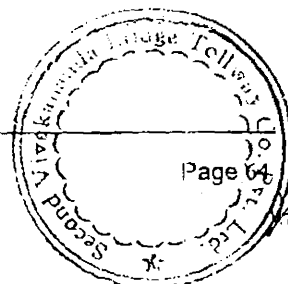
- 23.1** Subject to Clauses 23.3 and 23.4, NHAI agrees to provide to the Concessionaire cash support by way of an outright Grant (the "Grant") in a sum of Rs.1,200 million (Rupees one thousand and two hundred million) in accordance with the provisions of this Article XXIII.

The Parties agree that the Concessionaire is not required to repay any portion of the Grant validly disbursed to it by NHAI and utilised by the Concessionaire for the Project and that NHAI shall not be entitled to any interest (whether by way of equity or otherwise) in the Concessionaire or the Project solely by reason of the Grant.

- 23.2** Subject to provisions of Clause 23.4, the Grant shall be applied by the Concessionaire for meeting the capital cost of the Project.

- 23.3** The Grant shall:

- (a) not exceed 20% of the Total Project Cost; and
- (b) in no case be greater than total of Equity.



23.4 The whole or any part of the Grant shall be disbursed by NHAI to the Concessionaire if and only if:

23.4.1 the Concessionaire is not in Material Breach of this Agreement at the time of such disbursement;

23.4.2 the shareholders have contributed not less than 15% of the Total Project Cost as per Schedule 'ZB' as their Equity; and

23.4.3 the shareholders have contributed and spent on the Project at least 60% (sixty percent) of the total Equity required to be provided as part of the Project cost as per the Financing Package.

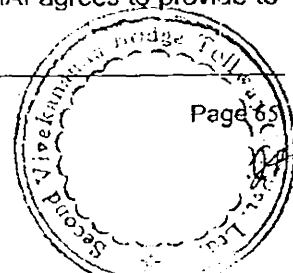
23.5 Subject to Clause 23.4, the disbursement of the Grant pursuant to this Article XXIII shall be made by NHAI to the Concessionaire proportionately along with the loan funds disbursed by the Senior Lenders under the Financing Documents for meeting the Project cost. Accordingly, if the Senior Lenders have disbursed any loan funds prior to 60% of the Equity having been contributed and spent on the Project, NHAI shall be required, within 15 days of receipt of a certification from the Statutory Auditors that conditions specified in Sub-Clauses 23.4.2 and 23.4.3 have been satisfied, to disburse an amount of the Grant which is proportionate to the loan funds already disbursed by the Senior Lenders. NHAI shall disburse each remaining tranche of the Grant by credit to the Escrow Account within 15 (fifteen) days of the release of each loan installment by the Senior Lenders to the Concessionaire provided the Concessionaire has submitted to NHAI along with each disbursement request a certificate from its Statutory Auditors certifying the release of the relevant loan instalment by the Senior Lenders and has given at least 7 (seven) days to NHAI for processing such request.

23.6 NHAI shall open a standby revolving Letter of Credit (in a format to be agreed by the Parties on or before Financial Close) in respect of amounts due by way of Grant from NHAI in each calendar quarter. Such Letter of Credit shall be in place at least 7 (seven) days before commencement of each quarter. If NHAI fails to disburse for reasons solely attributable to NHAI, any tranche of Grant within 7 (seven) days of the due date of payment thereof, the Concessionaire shall be entitled to draw upon such Letter of Credit.

XXIV. REVENUE SHORTFALL LOAN

24.1 If the Realisable Fees in any Accounting Year during the Concession Period shall fall below the Subsistence Revenue Level as a result of an Indirect Political Event, or a Political Event as set forth in Article XXIX, NHAI agrees to provide to

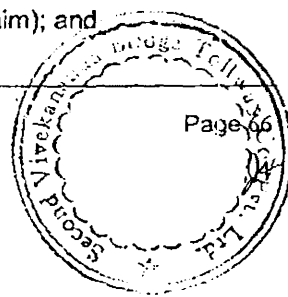
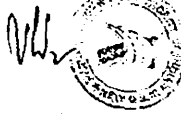
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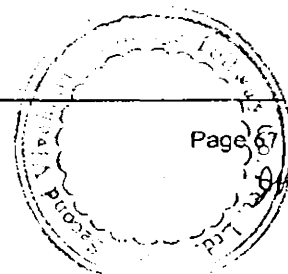
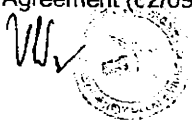
the Concessionaire such shortfall support, by way of a loan from time to time ("Revenue Shortfall Loan") with interest thereon @ SBI PLR per annum. Provided, however, that any reserves of the Concessionaire and any sums received or likely to be received by the Concessionaire through insurance claims (other than any amounts (a) received through insurance claims for loss of any Project Assets and utilised for reinstatement of such Project Assets and (b) sums received through insurance claims on account of third party liabilities and utilised for payment of such third party claims or reimbursement of third party liability paid by the Concessionaire and covered by such insurance claim) or payments by NHAI under Article XXIX shall first be deducted and only the balance remaining shall be disbursed to the Concessionaire as the Revenue Shortfall Loan.

24.2 For the purposes of claiming disbursements on account of Revenue Shortfall Loan pursuant to Clause 24.1 above in any Accounting Year, the Concessionaire shall:

- (a) Submit a reasonably detailed account of the Indirect Political Event or the Political Event, as the case may be, and its impact on total revenues of the Concessionaire as soon as feasible and submit weekly reports thereafter;
- (b) Provide to NHAI, the schedule of Debt Service Payments under the Financing Documents for the Accounting Year for which Revenue Shortfall Loan is claimed;
- (c) Provide to NHAI the details of O&M Expense budgeted for such Accounting Year and the expenditure incurred in that year out of such budget;
- (d) Within 15 (fifteen) days of the close of each Accounting Year in which the shortfall referred to in Clause 24.1 shall occur, provide a certificate from the Statutory Auditors of the Concessionaire certifying the Subsistence Revenue Level, the Realisable Fees and the Revenue Shortfall Loan requirement after deducting reserves, if any, of the Concessionaire, and any sums received or likely to be received by the Concessionaire through insurance claims (other than any amounts received or likely to be received through insurance claims for loss of any Project Assets and utilised for reinstatement of such Project Assets and sums received and likely to be received through insurance claims on account of third party liabilities to the extent utilised in payment of such third party liabilities or reimbursement of third party liabilities paid in the first instance by the Concessionaire and covered by such insurance claim); and



- (e) Submit a written request to NHAI under the hands of a Director of the Concessionaire requesting for disbursement of the Revenue Shortfall Loan to the Concessionaire by payment thereof into the Escrow Account.
- 24.3 Upon the receipt of the request and documents as set forth in Clause 24.2 above and provided the same is not found by NHAI to be wrong or incorrect, NHAI shall disburse the Revenue Shortfall Loan within 30 days (thirty) thereof.
- 24.4 In the event Realisable Fees during the first six months of an Accounting Year shall fall as a result of an Indirect Political Event or a Political Event and the amount of such Realisable Fees is less than the Debt Service Payments due for the first six months of such Accounting Year, NHAI shall upon request provide an advance to the Concessionaire for meeting the shortfall in such Debt Service Payments. For claiming such advance, the Concessionaire shall make a demand to NHAI accompanied by a certificate from the Statutory Auditors setting forth the Realisable Fees during the first six months of the Accounting Year, the reserves of the Concessionaire and the outstanding amount on account of Debt Service Payments due in the first six months of such year. The Statutory Auditors shall also certify the amount of advance required by the Concessionaire from NHAI for meeting such Debt Service Payments after deducting such Realisable Fees and the reserves of the Concessionaire. Within 15 (fifteen) days of receiving such demand, NHAI shall disburse the advance due to the Concessionaire at an interest rate equal to SBI PLR. Not later than 15 (fifteen) days after completion of such Accounting Year, the Concessionaire shall either refund such advance with interest to NHAI or adjust it against such Revenue Shortfall Loan as may be due to the Concessionaire under this Article.
- 24.5 The Revenue Shortfall Loan disbursed by NHAI pursuant hereto and the interest thereon shall be repaid by the Concessionaire in a sum equal to 50% (fifty per cent) of the Net Cash Flow of the Concessionaire as and when made and such repayments shall be made in one or more years as necessary.
- 24.6 Notwithstanding anything to the contrary contained in Clause 24.5, the Concessionaire shall repay the entire Revenue Shortfall Loan and interest thereon at least two years before the expiry of the Concession Period. If any sum remains due or outstanding from the Concessionaire under this Article XXIV at any time during a period of two years preceding the date of expiry of the Concession Period, it shall constitute a Concessionaire Event of Default under Article XXXII and NHAI shall be entitled to Terminate this Agreement under Clause 32.2.



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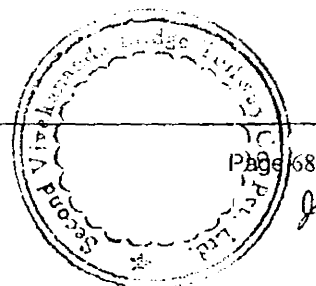
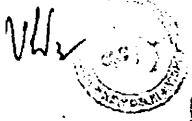
XXV. ESCROW ACCOUNT

25.1 The Concessionaire shall within 60 days from the date of this Agreement open and establish the Escrow Account with a Bank (the "Escrow Bank") and all funds constituting the Financing Package for meeting the Project cost shall be credited to such Escrow Account. During Operations Period all Fees collected by the Concessionaire from the users of the Project Bridge shall be exclusively deposited therein. In addition, all Fees collected by NHAI in exercise of its rights under this Agreement during the Concession Period and all disbursements or payments by NHAI pursuant hereto shall also, subject to the rights of deductions and appropriations therefrom of NHAI under this Agreement, be deposited by NHAI in the Escrow Account.

25.2 Disbursements from Escrow Account

25.2.1 The Concessionaire shall give, at the time of the opening of the Escrow Account, irrevocable instructions by way of an Escrow Agreement substantially in the form set forth in Schedule 'Q' (the "Escrow Agreement") to the Escrow Bank instructing, inter alia, that the deposits into the Escrow Account shall subject to Clause 25.2.3, be appropriated in the following order every month and if not due in a month then appropriated proportionately in such month and retained in the Escrow Account and paid out therefrom in the month when due unless otherwise expressly provided in the instruction letter:

- (a) All Taxes due and payable by the Concessionaire;
- (b) All expenses in connection with and relevant to the Construction of Project Bridge by way of payment to the EPC Contractor and such other persons as may be specified in the Financing Documents;
- (c) O&M Expenses including Fees collection expenses incurred by the Concessionaire directly or through O&M Contractor, if any, subject to the terms and ceiling in respect thereof as set forth in the Financing Documents and O&M Contract, if any;
- (d) The whole or part of the expense on repair work or O&M Expense including Fees collection expenses incurred by NHAI on account of exercise of any of its rights under this Agreement provided that the Independent Consultant certifies to the Escrow Bank that NHAI had incurred such expenses in accordance with the provisions of this Agreement;



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- (e) Monthly proportionate provision of Debt Service Payments due in an Accounting Year and payment of Debt Service Payments in the month when due;
- (f) Any payments and Damages, due and payable by the Concessionaire to NHAI pursuant to this Agreement, including repayment of Revenue Shortfall Loans;
- (g) Monthly proportionate amount of the Net Excess Fee due in an Accounting Year (which in any month shall be 94% of the Fees actually received by the Concessionaire from the beginning of such Accounting Year until the end of such month that are in excess of the Projected Fees (assuming a uniform monthly revenue projection) corresponding to the number of months that have elapsed from the beginning of such Accounting Year) and distribution of such Net Excess Fee in accordance with Clause 7.2; and
- (h) Balance in accordance with the instructions of the Concessionaire.

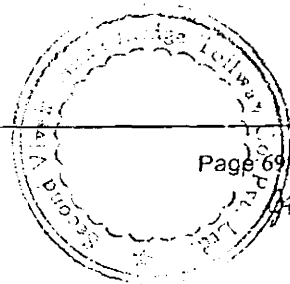
25.2.2 The Concessionaire shall not in any manner modify the order of payment specified in this clause 25.2 except with the prior written approval of NHAI.

25.2

25.2.3 In the event the Grant, if any, to the Concessionaire shall exceed 10% of the Total Project Cost, all disbursements on account of Project cost other than those to the EPC Contractor in accordance with the EPC Agreement, shall be made in accordance with the express provisions contained in that behalf in the Financing Documents. Provided, however, that if the total of such disbursements exceed 10% of the Total Project Cost, prior written consent of NHAI shall be required in respect of the disbursement arrangements for such excess amounts, and such consent shall not be unreasonably withheld by NHAI.

25.3 Notwithstanding anything to the contrary contained in the Escrow Agreement and subject to the provisions contained in Clauses 33.5 and Article XXXIV, upon Termination of this Agreement, all amounts standing to the credit of the Project Escrow Account shall be appropriated and dealt with in the following order:

- (a) all Taxes due and payable by the Concessionaire;
- (b) all accrued Debt Service Payment;



- (c) any payments and Damages due and payable by the Concessionaire to NHAI pursuant to this Agreement, including Termination claims, Concession Fee and repayment of Revenue Shortfall Loans;
- (d) all accrued O&M Expenses;
- (e) any other payments required to be made under this Agreement; and
- (f) balance, if any, on the instructions of the Concessionaire.

25.4 The instructions contained in the Escrow Agreement shall remain in full force and effect until the obligations set forth in Clause 25.3 have been discharged.

XXVI. STATE SUPPORT AGREEMENT

26.1 The Concessionaire acknowledges that for the performance of its obligations under this Agreement, it requires support and certain services from GOWB. The nature and scope of such support and services required by the Concessionaire from GOWB are fully described in the draft State Support Agreement set forth at Schedule 'R'.

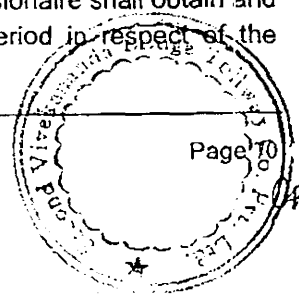
26.2 The Concessionaire and NHAI acknowledge their obligation to enter into the State Support Agreement and accordingly each of the Parties agrees and undertakes to enter into at its cost and expense the State Support Agreement with GOWB substantially in form and content as set forth in Schedule 'R'.

XXVII. INSURANCE

27.1 Insurance during the Construction Period: The Concessionaire shall effect and maintain, or cause to be effected and maintained, at no cost to NHAI during the Construction Period such insurances upto such maximum sums as may be required under and in accordance with the Financing Documents, Applicable Laws and such insurance as the Concessionaire may reasonably consider necessary or desirable in accordance with Good Industry Practice. The Concessionaire shall also effect and maintain such insurance, which is available in India commercially, as may be necessary for mitigating the risks that may devolve on NHAI as a consequence of any act of omission by the Concessionaire during the Construction Period.

27.2 Insurance during the Operations Period: Not later than 4 months prior to the anticipated Completion of the Project Bridge, the Concessionaire shall obtain and maintain at no cost to NHAI during the Operations Period in respect of the

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Project Bridge and its operations such insurance as may be required under any of the Financing Documents, Applicable Laws and such insurance as the Concessionaire may reasonably consider necessary or desirable in accordance with Good Industry Practice. Provided, however, the level of insurance to be maintained after satisfaction of Senior Lenders' dues in full, shall be determined on the same principles as applicable for determining the level of Insurance prior to such date. This level shall be agreed with NHAI within 120 days of date of this Agreement.

For the sake of brevity, the aggregate of the maximum sums insured under the insurance taken out by the Concessionaire pursuant to this Article XXVII are herein referred to as the "Insurance Cover".

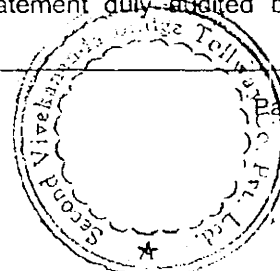
- 27.3 Evidence of Insurance Cover: All insurance obtained by the Concessionaire in accordance with this Article XXVII shall be maintained with insurer or reinsurers, and on terms consistent with Good Industry Practice. Within thirty days of obtaining any insurance cover, the Concessionaire shall furnish to NHAI, copies of certificates of insurance, copies of the insurance policies signed by an authorised representative of the insurer and copies of all premia payment receipts in respect of such insurance received from each insurance carrier, and such insurance will not be cancelled, changed or not renewed until the expiration of at least 45 (forty five) days after written notice of such cancellation, change of non-renewal has been received by NHAI.
- 27.4 Remedy for Failure to Insure: If the Concessionaire shall fail to effect and keep in force the insurance for which it is responsible pursuant hereto, NHAI shall have the option to keep in force any such insurance, and pay such premia and recover the costs thereof from the Concessionaire, or for the purposes of computation of payments to the Concessionaire pursuant to Article XXIX treat the insurance cover i.e. the maximum sums which such insurance was providing for had it been in force and effect as being deemed to have been received by the Concessionaire.
- 27.5 Waiver of Subrogation: All insurance policies supplied by the Concessionaire shall include a waiver of any right of subrogation of the insurers thereunder against, inter alia, NHAI, and its assigns, subsidiaries, affiliates, employees, insurers and underwriters and of any right of the insurers of any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such person insured under any such policy.
- 27.6 Concessionaire Waiver: The Concessionaire hereby further releases, assigns and waives any and all rights of recovery against, inter alia, the NHAI, and its affiliates, subsidiaries, employees, successors, permitted assigns, insurers and

underwriters, which the Concessionaire may otherwise have or acquire in or from or in any way connected with any loss covered by policies of insurance maintained or required to be maintained by the Concessionaire pursuant to this Agreement (other than third party liability insurance policies) or because of deductible clauses in or inadequacy of limits of any such policies of insurance.

- 27.7 Application of Insurance Proceeds: The proceeds from all insurance claims, except life and injury, shall be paid to the Concessionaire by credit to the Escrow Account (unless otherwise required by the Financing Documents) who shall, subject to its obligations under the Financing Documents, and notwithstanding anything contained in Article XXV, apply such proceeds for any necessary repair, reconstruction, reinstatement, replacement, improvement, delivery or installation of the Project Bridge.

XXVIII. ACCOUNTS AND AUDIT

- 28.1 The Concessionaire shall maintain full accounts of all Fees including Realisable Fees and other revenues derived/collected by it from and on account of use of the Project Bridge and of O&M Expenses and other costs paid out of the Project Escrow Account and shall provide copies of the said accounts duly audited and certified by the Concessionaire's Statutory Auditors within 120 (one hundred twenty) days of the close of each Accounting Year to which they pertain, during the subsistence of this Agreement. Such audited accounts shall form the basis of various payments by either Party under this Agreement. The Concessionaire shall also furnish, within one week of its publication, a certified copy of the audited accounts and annual report published by the Company under the Applicable Laws.
- 28.2 The Concessionaire shall appoint and have during the subsistence of this Agreement as its Statutory Auditors a firm of Chartered Accountants duly licensed to practice in India out of the mutually agreed list of 10 (ten) independent and reputable firms of Chartered Accountants in India (the "List of Chartered Accountants"). The criteria for preparing the List of Chartered Accountants are set forth in Schedule 'T'. Subject to a 30 days notice to NHAI and the replacement Statutory Auditors being appointed from the List of Chartered Accountants, the Concessionaire may terminate the appointment of any Statutory Auditor appointed in accordance with this Article. The fees and expenses of the Statutory Auditors shall be borne by the Concessionaire.
- 28.3 On or before the fifteenth day of April each Year, the Concessionaire shall provide for the preceding Accounting Year a statement duly audited by its



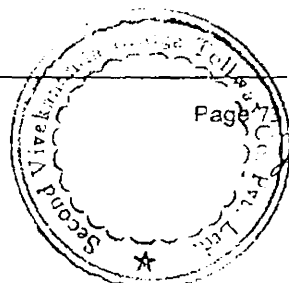
Statutory Auditors giving summarised vehicle/user wise information on (i) the traffic count for each category of vehicles using the Project Bridge and liable for payment of Fees therefore, and (ii) Fees charged and the amount of Fees received, Realizable Fees and other revenues derived from the Project Bridge and such other information as NHAI may reasonably require.

28.4 Notwithstanding anything to the contrary contained in this Agreement, NHAI shall have the right but not the obligation to appoint at its cost another firm of chartered accountants from the List of Chartered Accountants (the "Additional Auditor") to audit and verify all those matters, expense, costs, realisations and things which the Statutory Auditors of the Concessionaire, are required to do, undertake or certify pursuant to this Agreement.

28.5 Where a Grant has been provided, NHAI shall have the right to appoint for the duration of the Construction Period as Concurrent Auditor a firm of Chartered Accountants from the List of Chartered Accountants (the "Concurrent Auditor") who shall undertake concurrent audit of the Concessionaire during the Construction Period. The charges and expenses of such Concurrent Auditor shall be borne by the NHAI. After such Construction Period, NHAI may at its option have concurrent audit done at such time and for such period, as NHAI may deem appropriate at its cost and expenses.

28.6 In the event of their being any difference between the finding of the Additional Auditor or the Concurrent Auditor, as the case may be, and the certification provided by the Statutory Auditors of the Concessionaire, such Auditors shall meet to resolve such differences and if they are unable to resolve the same such disputed certification shall be resolved by recourse to the Dispute Resolution Procedure. ✓

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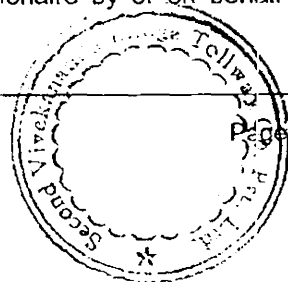
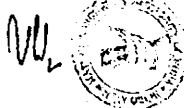
CHAPTER - VI FORCE MAJEURE

XXIX. FORCE MAJEURE

29.1 Force Majeure Event: As used in this Agreement, a Force Majeure Event shall mean occurrence in India of any or all of a Non Political Event, Indirect Political Event and/or Political Event as defined in Clauses 29.2, 29.3, and 29.4 respectively hereinafter which prevent or delay the Party claiming Force Majeure (the "Affected Party") from performing its obligations under this Agreement and which act or event is (i) beyond the reasonable control and not arising out reasons attributable to the Affected Party, (ii) the Affected Party has been unable to overcome such act or event by the exercise of due diligence and reasonable efforts, skill and care, including through expenditure of reasonable sums of money and (iii) has a Material Adverse Effect. For the avoidance of doubt, the occurrence of a Indirect Political Event and/ or Political Event shall not relieve NHA from having to provide Revenue Shortfall Loans as required under Article XXIV unless the Concessionaire or NHA has given Termination Notice in accordance with Clause 29.8.

29.2 Non Political Force Majeure Events: For purposes of Clause 29.1, Non-Political Events shall mean one or more of the following acts or events:

- (i) acts of God or events beyond the reasonable control of the Affected Party which could not reasonably have been expected to occur, exceptionally adverse weather conditions, lightning, earthquake, cyclone, flood, volcanic eruption or fire (to the extent beyond design specifications for the Construction Works) or landslide;
- (ii) strikes or boycotts (other than those involving the Concessionaire, Contractors or their respective employees/ representatives or attributable to any act or omission of any of them) interrupting supplies and services to the Project Bridge for a period exceeding a continuous period of 7 (seven) days in an Accounting Year, and not being an Indirect Political Event set forth in Clause 29.3 hereof and having a Material Adverse Effect;
- (iii) any failure or delay of a Contractor but only to the extent caused by another Non-Political Event and which does not result in any offsetting compensation being payable to the Concessionaire by or on behalf of such Contractor; or



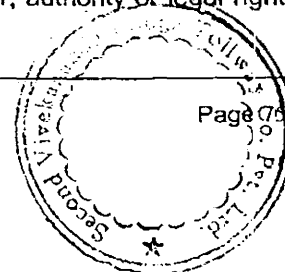
- (iv) Any event or circumstance of a nature analogous to any of the foregoing.

29.3 Indirect Political Force Majeure Events: For purposes of Clause 29.1, Indirect Political Event shall mean one or more of the following acts or events:

- (i) an act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, riot, insurrection, terrorist or military action, civil commotion or politically motivated sabotage, radioactive contamination or ionizing radiation, which prevents collection of Fees by the Concessionaire for a period exceeding a continuous period of 7 (seven) days in an Accounting Year;
- (ii) industry wide or state wide or India wide strikes or industrial action which prevent collection of Fees by the Concessionaire for a period exceeding a continuous period of 7 (seven) days in an Accounting Year; or
- (iii) any public agitation which prevents collection of Fees by the Concessionaire for a period exceeding a continuous period of 7 (seven) days in an Accounting Year.

29.4 Political Force Majeure Events: For purposes of Clause 29.1, Political Event shall mean one or more of the following acts or events by or on account GOI, NHAI, GOWB or any other Governmental Agency:

- (i) Change in Law, only when provisions of Article XXXVI cannot be applied;
- (ii) expropriation or compulsory acquisition by any Governmental Agency of any Project Assets or rights or shares of the Concessionaire or of the Contractors; or
- (iii) unlawful or unauthorised or without jurisdiction or without a valid Cause revocation, refusal to renew or grant, or modification of any Applicable Permit or the imposition without valid Cause of any material condition in respect thereof, having material and adverse effect on the Concessionaire or the Project (other than a consent the obtaining of which is Condition Precedent);
- (iv) Any failure or delay of a Contractor but only to the extent caused by a Political Event;
- (v) Any judgement or order of any court of competent jurisdiction or statutory authority in India holding that NHAI has no power, authority or legal right



to enter into this Agreement including with respect to grant of the Concession; or

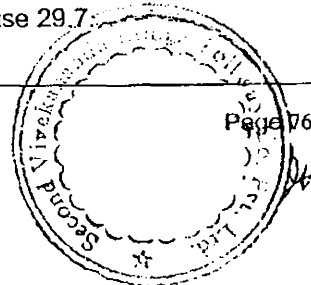
- (vi) Any act of commission or omission by NHAI or any Governmental Agency pursuant to the provisions of the National Highways Act, 1956 and the National Highways Authority of India Act, 1988 that has a Material Adverse Effect.

29.5 Effect of Force Majeure Event before Financial Close: Upon the occurrence of any Force Majeure Event prior to Financial Close as set forth in Article XXII, the following shall apply:

- (a) There shall be no Termination except as provided in Clause 29.8;
- (b) The date for achieving Financial Close shall be extended by the period for which such Force Majeure event or the effects thereof preventing the Affected Party from performing its obligations hereunder shall subsist; and
- (c) The Parties shall bear their respective costs and no Party shall be required to pay to the other Party any costs arising out of such Force Majeure Event.

29.6 Effect of Force Majeure Event after Financial Close: Upon occurrence of any Force Majeure Event after Financial Close, the following shall apply:

- (a) There shall be no Termination of this Agreement except as provided in Clause 29.8;
- (b) Where the Force Majeure Event occurs before COD, the dates set forth in the Project Completion Schedule, and the Concession Period shall be extended by the period for which such Force Majeure Event or the effects thereof preventing performance of its material obligations hereunder by the Affected Party shall subsist;
- (c) Where a Force Majeure Event occurs after COD, the Concessionaire shall continue to make all reasonable efforts to perform its obligations and collect Fees, but if the Concessionaire is unable to collect Fees during the subsistence of such Force Majeure Event, the Concession Period shall be extended by the period during which the Concessionaire was prevented from collection of Fees; and
- (d) Costs arising out of or concerning such Force Majeure Event shall be borne in accordance with the provisions of Clause 29.7.



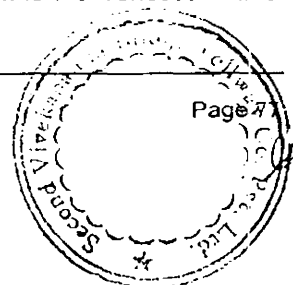
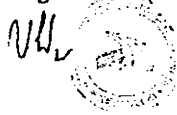
29.7 Allocation of costs during subsistence of Force Majeure: Subject to the provisions of clause 29.6, upon occurrence of a Force Majeure Event after Financial Close, the costs arising out of such event shall be allocated as follows:

- (a) When the Force Majeure Event is a Non Political Event, the Parties shall bear their respective costs and neither Party shall be required to pay to the other Party any costs arising out of any such Force Majeure Event;
- (b) Where the Force Majeure Event is an Indirect Political Event, the costs attributable to such Force Majeure Event and directly relating to the Project (the "Force Majeure Costs") shall be borne by the Concessionaire to the extent of the Insurance claims, and to the extent such Force Majeure Costs exceed the Insurance claims, one half of the same to the extent actually incurred and duly certified by the Statutory Auditors of Concessionaire shall be reimbursed by NHAI to the Concessionaire in one lump sum or paid in three equal annual installments with interest @ SBI PLR plus two percent;
- (c) Where the Force Majeure Event is a Political Event, the costs attributable to such Force Majeure Event and directly relating to the Project ("Force Majeure Costs") to the extent actually incurred and certified by the Statutory Auditors of Concessionaire shall be reimbursed by NHAI to the Concessionaire in one lump sum or paid in three equal annual installments with interest @ SBI PLR plus two percent; and
- (d) No Force Majeure Costs shall be payable by NHAI if the Concession Period is increased under Clause 29.6.

For the avoidance of doubt, Force Majeure Costs shall not include loss of Fee revenues or any debt repayment obligations or payments to Contractors but shall include interest payments on such debt, O&M Expenses and all other costs directly attributable to the Force Majeure Event.

29.8 Termination Notice: If a Force Majeure Event subsists for a period of 180 (one hundred eighty) days or more within a continuous period of 365 (three hundred sixty five) days, either Party may in its sole discretion terminate this Agreement by giving 30 (thirty) days Termination Notice in writing to the other Party without being liable in any manner whatsoever, save as provided in Clause 29.9.

29.9 Termination Payment for Force Majeure Events: Upon Termination of this Agreement pursuant to Clause 29.8, Termination Payment to the Concessionaire



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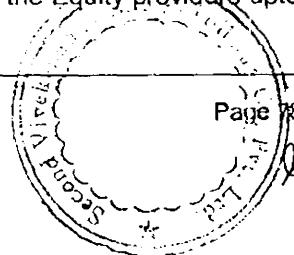
shall be made in accordance with the following provisions subject to the ceiling on NHAI's obligations to make Termination Payments as per Schedule 'ZC':

29.9.1 During Construction Period

- (a) If the Termination is on account of a Non Political Event, the Concessionaire shall be entitled to receive from NHAI by way of Termination Payment an amount equal to 90% of the Debt Due less due insurance claims and paid, if any. Provided that in the event some insurance claims are not admitted and paid, then 90% of such unpaid claims shall qualify for being included in the computation of NHAI's obligation to make the Termination Payments.
- (b) If the Termination is on account of an Indirect Political Event, the Concessionaire shall be entitled to receive from NHAI by way of Termination Payment an amount equal to Debt Due plus 100% of Equity. Further, NHAI's obligation to make the Termination Payment shall be reduced by due insurance claims, if any. Provided, however, that if all or any of the insurance claims are not admitted and paid, then 80% (eighty percent) of such unpaid claims shall be included to determine NHAI's obligation to make the Termination Payments.
- (c) If the Termination of this Agreement is on account of a Political Event, the Concessionaire shall be entitled to receive from NHAI by way of Termination Payment an amount equal to Debt Due plus 100% of Equity, plus interest on Equity @ SBI PLR + 3% (compounded annually) till the Termination Date.

29.9.2 During Operations Period:

- (a) If the Termination is on account of a Non Political Event, the Concessionaire shall be entitled to receive from NHAI by way of Termination Payment an amount equal to 90% of the Debt Due less due insurance claims, if any. Provided that in the event some insurance claims are not admitted and paid, then 90% of such unpaid claims shall qualify for being included in NHAI's obligation to make the Termination Payments.
- (b) If the Termination is on account of an Indirect Political Event, the Concessionaire shall be entitled to receive from NHAI by way of Termination Payment an amount equal to Debt Due plus 75% of an amount which taken with projected cashflows to the Equity providers upto



Termination Date as per Schedule 'ZB' gives an IRR of 25.87% on Termination Date on Equity, less forecast cash balance as per Schedule 'ZB' on the Termination Date less due Insurance claims, if any. Provided, however, that if all or any of the insurance claims are not admitted and paid, then 80% (eighty percent) of such unpaid claims shall be included to determine NHAI's obligation to make the Termination Payments.

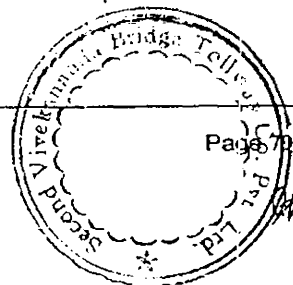
- (c) If the Termination of this Agreement is on account of a Political Event, the Concessionaire shall be entitled to receive from NHAI by way of Termination Payment an amount equal to Debt Due plus an amount which taken with projected cashflows to the Equity providers upto Termination Date as per Schedule 'ZB' gives an IRR of 25.87% on Termination Date on Equity less forecast cash balance as per Schedule 'ZB' on the Termination Date.

29.10 Dispute Resolution: In the event that the Parties are unable to agree in good faith about the occurrence or existence of a Force Majeure Event, such dispute shall be finally settled in accordance with the Dispute Resolution Procedure, provided however that the burden of proof as to the occurrence or existence of such Force Majeure Event shall be upon the Party claiming relief and/or excuse on account of such Force Majeure Event.

29.11 Liability for other losses, damages etc: Save and except as otherwise expressly provided in this Article XXIX, neither Party hereto shall be liable in any manner whatsoever to the other Party in respect of any loss, damage, cost, expense, claims, demands and proceedings relating to or arising out of occurrence or existence of any Force Majeure Event or exercise of any right pursuant to this Article XXIX.

29.12 Duty to Report: The Affected Party shall discharge the following obligations in relation to reporting the occurrence of a Force Majeure Event to the other Party:

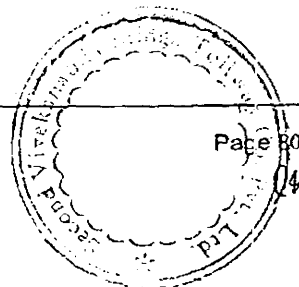
- (a) The Affected Party shall not claim any relief for or in respect of a Force Majeure Event unless it shall have notified the other Party in writing of the occurrence of the Force Majeure Event as soon as reasonably practicable, and in any event within 7 (seven) days after the Affected Party knew, or ought reasonably to have known, of its occurrence and the probable material effect that the Force Majeure Event is likely to have on the performance of its obligations under this Agreement.
- (b) Any notice pursuant to this Clause 29.12 shall include full particulars of:



- (i) the nature and extent of each Force Majeure Event which is the subject of any claim for relief under this Article XXIX with evidence in support thereof;
 - (ii) the estimated duration and the effect or probable effect which such Force Majeure Event is having or will have on the Affected Party's performance of its obligations under this Agreement;
 - (iii) the measures which the Affected Party is taking or proposes to take, to alleviate the impact of such Force Majeure Event; and
 - (iv) any other information relevant to the Affected Party's claim.
- (c) For so long as the Affected Party continues to claim to be affected by such Force Majeure Event, it shall provide the other Party with regular (and not less than weekly) written reports containing information as required by this Clause 29.12, and such other information as the other Party may reasonably request the Affected Party to provide.

29.13 Excuse from performance of obligations: If the Affected Party is rendered wholly or partially unable to perform its obligations under this Agreement because of a Force Majeure Event, it shall be excused from performance of such of its obligations to the extent it is unable to perform on account of such Force Majeure Event provided that:

- (a) The suspension of performance shall be of no greater scope and of no longer duration than is reasonably required by the Force Majeure Event;
- (b) The Affected Party shall make all reasonable efforts to mitigate or limit damage to the other Party arising out of or as a result of the existence or occurrence of such Force Majeure Event and to cure the same with due diligence; and
- (c) When the Affected Party is able to resume performance of its obligations under this Agreement, it shall give to the other Party written notice to that effect and shall promptly resume performance of its obligations hereunder.



CHAPTER - VII SUSPENSION AND TERMINATION

XXX. MATERIAL BREACH AND SUSPENSION

- 30.1 If the Concessionaire shall be in Material Breach of this Agreement NHA shall be entitled in its sole discretion and without prejudice to its other rights and remedies under this Agreement including its right of Termination hereunder, to (i) suspend all or any of the rights of the Concessionaire under this Agreement including the Concessionaire's right to collect and appropriate all Fees and other revenues from the Project Bridge, and (ii) exercise the rights of the Concessionaire under this Agreement itself or authorise any other person to exercise the same during such suspension. Such suspension by NHA shall be by a communication in writing to the Concessionaire and shall be effective forthwith upon the issue thereof to the Concessionaire. Any Fees or revenues collected by or on behalf of NHA during such suspension shall be deposited in the Escrow Account to the exclusion of the Concessionaire. Provided, however, that the period of such suspension under this Article XXX shall not exceed 120 (one hundred twenty) days.
- 30.2 Subject to clause 30.1, NHA shall have the right to utilise the proceeds of Fees and other revenues for meeting the costs incurred by NHA to remedy and rectify the cause of such suspension and for defraying the O&M Expenses during such suspension period. Provided, however, that if the Concessionaire is making diligent efforts to remedy and rectify such cause, then NHA shall allow the Concessionaire reasonable time and opportunity for such remedy or rectification.
- 30.3 The suspension of the rights of the Concessionaire by NHA pursuant to Clause 30.1 above shall be revoked by NHA forthwith upon the Concessionaire having submitted adequate proof to the satisfaction of NHA that the Concessionaire is willing and ready to remedy the default that led to the suspension under Clause 30.1 unless in the meantime this Agreement has been Terminated by NHA in accordance with Article XXXII. The Concessionaire shall be obliged to commence remedial work on such default within 2 days of revocation of suspension by NHA under this Clause 30.3, failing which NHA shall be entitled to Terminate this Agreement in accordance with Clause 32.2.
- 30.4 At any time during the period of suspension under this Article XXX, the Concessionaire may in writing notify to NHA that it does not intend to cure the breach or default that had caused such suspension. Upon receipt of such notice, NHA shall notwithstanding anything to the contrary contained in this Agreement

be entitled to Terminate this Agreement forthwith by a communication in writing to the Concessionaire as if a Material Breach of this Agreement had occurred on account of a Concessionaire Event of Default and the Concessionaire has failed to remedy the same. NHAI agrees that it shall during the period of such suspension, operate and manage the Project Bridge with all reasonable skill and care and in accordance with the relevant provisions of this Agreement.

XXXI. COMPENSATION FOR BREACH OF AGREEMENT

- 31.1 In the event of Concessionaire being in material default of this Agreement and such default is cured before Termination, the Concessionaire shall pay to NHAI as compensation, all direct additional costs suffered or incurred by NHAI arising out of such material default by the Concessionaire, in one lumpsum within 30 (thirty) days of receipt of demand in this behalf from NHAI or at the Concessionaire's option in 3 (three) equal semi-annual installments with interest @ SBI PLR plus 2% (two per cent) per annum.
- 31.2 In the event of NHAI being in material default of this Agreement and such default is cured before Termination, NHAI shall pay to the Concessionaire as compensation, all direct additional costs suffered or incurred by the Concessionaire arising out of such material default by NHAI, in one lumpsum within 30 (thirty) days of receipt of demand in this behalf from the Concessionaire or at NHAI's option in 3 (three) equal semi-annual installments with interest @ SBI PLR plus 2% (two per cent) per annum.

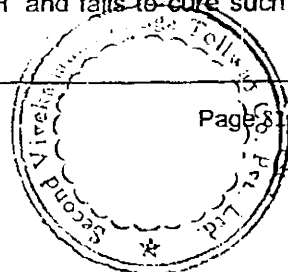
XXXII. TERMINATION

- 32.1 Termination for the Concessionaire Event of Default.

32.1.1 Concessionaire Event of Default

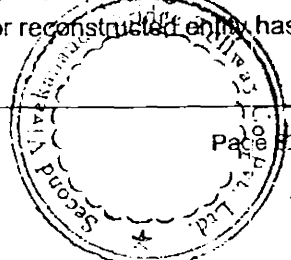
The following events shall constitute an event of default by the Concessionaire (a "Concessionaire Event of Default") unless such Concessionaire Event of Default has occurred solely as a result of a breach by GOWB of its obligations under the State Support Agreement or a breach by NHAI of its obligations under this Agreement, NHAI Event of Default or a Force Majeure Event:

- (1) The Concessionaire fails to achieve Financial Close in accordance with the provisions of Article XXII;
- (2) The Concessionaire fails to achieve any two Project milestones within the period set forth in respect thereof in Schedule 'H' and fails to cure such



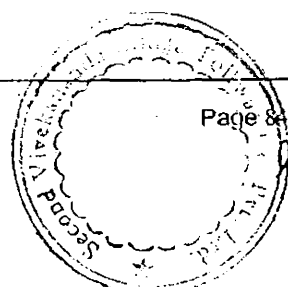
default within a period of 180 (one hundred and eighty) days from the date of its occurrence;

- (3) The Concessionaire is in Material Breach of this Agreement;
- (4) The Concessionaire commits default in complying with any of the terms and conditions of this Agreement and such default continues beyond the Cure Period provided in this Agreement (unless this Agreement entitles NHAI to Terminate forthwith;
- (5) The Concessionaire creates any Encumbrance, charges or lien in favour of any person save and except as otherwise expressly permitted under Clause 35.2;
- (6) The effective Equity holding of FAD, PB, STRADEC, L&T and CES falls below the minimum prescribed under Clause 11.1 (xiii) and the Concessionaire does not suo moto cure such default within 90 (ninety) days of its occurrence;
- (7) The transfer, pursuant to law of either (a) the rights and/or obligations of the Concessionaire under any of the Project Agreements, or (b) all or material part of the assets or undertaking of the Concessionaire except where such transfer in the reasonable opinion of NHAI does not affect the ability of the Concessionaire to perform, and the Concessionaire has the financial and technical capability to perform, its material obligations under the Project Agreements;
- (8) A resolution is passed by the shareholders of the Concessionaire for the voluntary winding up of the Concessionaire;
- (9) The Concessionaire is adjudged bankrupt or insolvent or if a trustee or receiver is appointed for the Concessionaire or for any of its property that has a material bearing on the Project;
- (10) Any petition for winding up of the Concessionaire is admitted by a court of competent jurisdiction and a provisional liquidator or receiver is appointed and such order has not been set aside within 90 (ninety) days of the date thereof or the Concessionaire is ordered to be wound up by Court except for the purpose of amalgamation or reconstruction provided that, as part of such amalgamation or reconstruction, the property, assets and undertaking of the Concessionaire are transferred to the amalgamated or reconstructed entity and that the amalgamated or reconstructed entity has



unconditionally assumed the obligations of the Concessionaire under this Agreement and the Project Agreements, and provided that:

- (i) the amalgamated or reconstructed entity has the technical capability and operating experience necessary for the performance of its obligations under this Agreement and the Project Agreements;
 - (ii) the amalgamated or reconstructed entity has the financial standing to perform its obligations under this Agreement and the Project Agreements and has a credit worthiness at least as good as that of the Concessionaire as at the Financial Close; and
 - (iii) each of the Project Agreements remains in full force and effect;
- (11) The Concessionaire is in material breach of any of the Project Agreements and has not remedied the same within 60 (sixty) days from the date thereof or within the period prescribed for cure thereof in the relevant Project Agreement, whichever is earlier;
- (12) An event of default of the Concessionaire under any of the Financing Documents has occurred and has not been remedied or waived within 30 (thirty) days or any of the Senior Lenders has recalled its loan under any of the Financing Documents;
- (13) The Concessionaire abandons the operations of the Project Bridge for more than 15 (fifteen) consecutive days without the prior consent of NHAI, provided that the Concessionaire shall be deemed not to have abandoned such operation if such abandonment was (i) as a result of Force Majeure Event and is only for the period such Force Majeure or its effect is continuing, or (ii) is on account of a breach of its obligations by NHAI;
- (14) The Concessionaire repudiates this Agreement or otherwise evidences an intention not to be bound by this Agreement;
- (15) The Concessionaire suffers an execution being levied on any of its assets/ equipment causing a Material Adverse Effect on the Project and allows it to be continued for a period of 45 (forty five) days;



- (16) The Concessionaire has delayed any payment that has fallen due for a period exceeding 90 (ninety) days from its due date; or
- (17) The Concessionaire is in breach of its obligation to repay the Revenue Shortfall Loans in accordance this Agreement.

32.1.2 Save and except as otherwise provided in Clause 32.2, and without prejudice to any other right or remedy which NHAI may have in respect thereof under this Agreement, upon the occurrence of any breach or default by the Concessionaire under this Agreement including any Concessionaire Event of Default, NHAI shall be entitled to terminate this Agreement by issuing a Termination Notice to the Concessionaire if the Concessionaire has failed to cure such breach or default within the Cure Period provided that before issuing the Termination Notice, NHAI shall by a notice in writing inform the Concessionaire of its intention to issue the Termination Notice (the "Preliminary Notice") and grant 15 (fifteen) days time to the Concessionaire to make its representation, if any, against such intended Termination Notice and shall after the expiry of said 15 (fifteen) day period whether or not it is in receipt of such representation, in its sole discretion issue the Termination Notice.

32.1.3 Subject to Clause 32.2, the following shall apply in respect of cure of any of the defaults and/or breaches of this Agreement.

- (i) The Cure Period shall commence from the date on which a notice in writing is delivered by NHAI to the Concessionaire asking the latter to cure the breach or default specified in such notice.
- (ii) The Cure Period provided in this Agreement shall not relieve the Concessionaire from liability for Damages caused by its breach or default;
- (iii) The Cure Period shall not in any way be extended by any period of suspension under this Agreement;
- (iv) If the cure of any breach by the Concessionaire requires any reasonable action by Concessionaire that must be approved by NHAI or the Independent Consultant hereunder the applicable Cure Period (and any liability of the Concessionaire for damages incurred) shall be extended by the period taken by NHAI or the Independent Consultant to accord their required approval.

32.2 Notwithstanding anything to the contrary contained in this Agreement, in the event of the Concessionaire being in default under any of the provisions of this

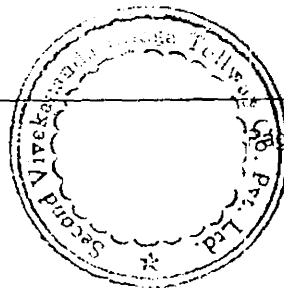
Agreement hereof expressly providing for Termination under or in accordance with this Clause 32.2, NHAI shall be entitled to terminate this Agreement forthwith by issuing a Termination Notice to the Concessionaire and upon issue of such Termination Notice by NHAI this Agreement shall stand terminated forthwith. Provided, however, that prior to such Termination, NHAI shall by notice grant to the Concessionaire a further Cure Period of one-month for curing the relevant breach or default of the provisions of this Agreement.

- 32.3 Upon Termination by NHAI on account of occurrence of Concessionaire Event of Default during the Operations Period, the NHAI shall pay to the Concessionaire by way of Termination Payment an amount equal to 90% (ninety per cent) of the Debt Due less insurance claims, if any, provided, however, that if all or any of the insurance claims are not admitted and paid, then 80% (eighty per cent) of such unpaid claims shall qualify for being included in the computation of NHAI's obligation to make Termination Payments. Further, NHAI's obligation to make such Termination Payments shall not exceed the ceiling amounts of NHAI's obligations to make Termination Payments as per Schedule 'ZC'.

32.4 Termination for NHAI Event of Default.

32.4.1 The Concessionaire may after giving 15 (fifteen) days notice in writing to NHAI terminate this Agreement forthwith by issuing a Termination Notice to NHAI upon the occurrence of any of the following events (each a "NHA Event of Default"), unless any such NHA Event of Default has occurred as a result of a breach by GoWB of its obligations under the State Support Agreement or a breach by the Concessionaire of its obligations under this Agreement, a Concessionaire Event of Default or due to a Force Majeure Event:

- (1) NHAI is in breach of this Agreement and such breach has a Material Adverse Effect on the Concessionaire and NHAI has failed to cure such breach or take effective steps for curing such breach within 90 (ninety) days of receipt of notice in this behalf from the Concessionaire;
- (2) NHAI repudiates this Agreement or otherwise evidences an irrevocable intention not to be bound by this Agreement;
- (3) GoI or GOWB or any Governmental Agency of GoI have by an act of commission or omission created circumstances that have a Material Adverse Effect on the performance of its obligations or the exercise of its rights by the Concessionaire and have failed to cure the same within 90 (ninety) days of receipt of notice by NHAI in this behalf from the Concessionaire;



- (4) NHAI has delayed any payment that has fallen due under this Agreement if such delay exceeds 90 (ninety) days;
- (5) The dissolution or restructuring or transfer of rights and obligations under this Agreement of NHAI pursuant to any law under which NHAI's successor under this Agreement does not assume the obligations of NHAI under this Agreement or is not reasonably financially capable of performing NHAI's obligations hereunder;
- (6) The Fee Notification ceases to be in full force and effect in accordance with this Agreement for a continuous period of 30 days; or
- (7) NHAI is in breach of its obligation as set out in Clause 15.6.

32.4.2 Upon Termination by the Concessionaire on account of an NHAI Event of Default, the Concessionaire shall be entitled to receive from NHAI by way of Termination Payment the following amounts:

32.4.2.1 During Construction Period: The Concessionaire shall be entitled to Debt Due plus 100% of Equity plus interest on Equity @ SBI PLR + 3% (compounded annually) till the Termination Date.

32.4.2.2 During Operations Period: The Concessionaire shall be entitled to Debt Due plus an amount which taken with the projected cashflows to the Equity providers upto Termination Date as per Schedule 'ZB' gives an IRR of 25.87% on Termination Date on Equity less forecast cash balance as per Schedule 'ZB' on the Termination Date.

NHAI's obligations to make Termination Payments in different years of the Concession shall not exceed the ceiling amounts in respect of Termination Payment obligation of NHAI set forth in the Schedule 'ZC'.

32.5 Upon Termination of this Agreement for any reason whatsoever other than for NHAI Event of Default, Indirect Political Event or Political Event, and in case of Termination on account of NHAI Event of Default, Indirect Political Event or Political Event, upon appropriate Termination Payment in accordance with Clause 32.6.2, NHAI shall:

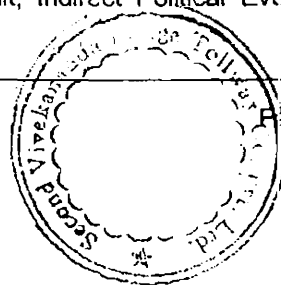
- (i) take possession and control of Project Bridge forthwith;
- (ii) take possession and control forthwith of any materials, construction plant, implements, stores etc. on or about the Site;

- (iii) restrain the Concessionaire and any person claiming through or under the Concessionaire from entering upon the Site or any part of the Project Bridge; and/or
- (iv) succeed upon election by NHAI without the necessity of any further action by the Concessionaire, to the interests of the Concessionaire under such of the Project Agreements (other than the Financing Documents) as NHAI may in its discretion deem appropriate and shall upon such election be required to compensate such contractors only for compensation accruing and becoming due and payable to them under the terms of their respective Project Agreements from and after the date NHAI elects to succeed to the interests of the Concessionaire as aforesaid. All sums claimed by such Contractors as being due and owing for work and services performed or accruing on account of any act, omission or event prior to such date shall constitute debt between the Concessionaire and such Contractors and NHAI shall in no way or manner be liable or responsible for such sums.

32.6 Termination Payments

32.6.1 Subject to Clause 33.6, upon Termination of this Agreement for any reason other than for NHAI Event of Default, Indirect Political Event or Political Event and provided possession and control of the Project Bridge and other things in accordance with Clause 32.5 has been delivered by the Concessionaire to NHAI, and the Concessionaire is complying with Clauses 33.1 and 33.2, NHAI shall, subject to Clause 32.6.2 and Clause 32.7 make the undisputed portion of Termination Payment to the Concessionaire in accordance with this Agreement within 30 (thirty) days of receipt by NHAI from the Concessionaire of the demand therefor together with necessary particulars duly certified by the Statutory Auditors. Any demand for Termination Payment shall be made no later than 21 (Twenty One) days after the Termination of this Agreement.

32.6.2 Subject to the mode of payment provided in Clause 32.7, the undisputed portion of Termination Payment for Termination by reason of NHAI Event of Default, Indirect Political Event or Political Event shall be made in accordance with this Agreement to the Concessionaire within 30 (thirty) days of receipt of demand from the Concessionaire together with the necessary particulars duly certified by the Statutory Auditors. Provided that the Concessionaire shall be obliged to deliver possession and control of the Project Bridge to NHAI pursuant to Clause 32.5 upon Termination for NHAI Event of Default, Indirect Political Event or



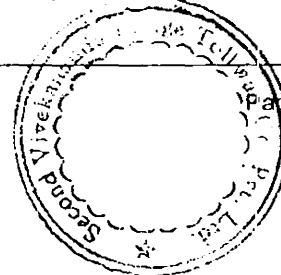
Political Event only against payment by NHAI of the Termination Payment sought by the Concessionaire after adjustments therefrom as contemplated in this Agreement including Clause 32.7.

32.6.3 If NHAI fails to disburse the full undisputed Termination Payment after adjustments therefrom within 30 (thirty) days or fails to deposit into the Escrow Account the amounts as per Clause 32.7 within 30 (thirty) days of determination by the Independent Consultant, the amount remaining unpaid shall be disbursed or deposited (as the case maybe) along with interest @ SBI PLR plus two per cent per annum for the period of delay in the payment thereof. Unless amicably resolved any dispute in regard to amount of Termination Payment between NHAI and the Concessionaire shall be finally settled in accordance with the Dispute Resolution Procedure.

32.7 Mode of Payment: Subject to Clause 33.6, the Termination Payment to be made by NHAI pursuant to this Article XXXII less any amounts due and payable to NHAI hereunder, shall be made by way of credit to a bank account specified by the Concessionaire along with its demand made pursuant to Clause 32.6 except in respect of outstanding statutory dues, outstanding O&M Expenses and/ or amount required to meet the Divestment Requirements as estimated by the IC and/or to the extent required by the Financing Documents or the Lenders and in respect of such part of the disputed portion of the Termination Payment which the Independent Consultant determines as payable (the "IC Determined Termination Payment"), which shall be paid into the Escrow Account. Such payments into the bank account specified by the Concessionaire and/ or in the Escrow Account shall constitute a valid discharge of NHAI's obligations for Termination Payment hereunder unless as otherwise determined in accordance with Dispute Resolution Procedure. Upon such payment or deposit (as the case may be) prior to final settlement in accordance with the Dispute Resolution Procedure, NHAI shall take possession of the Project Bridge. The IC Determined Termination Payment shall be kept separately in the Escrow Account and not dealt with in any manner till final determination of the dispute in regard thereto in accordance with the Dispute Resolution Procedure and upon such final determination shall be dealt with in accordance therewith.

The deposit of disputed amount of Termination Payment by NHAI in escrow account pursuant to this Clause 32.7 shall be deemed for the purpose of the Termination Payments under this Agreement as payment to the Concessionaire.

32.8 Notwithstanding anything to the contrary contained in this Agreement, any Termination pursuant to the provisions of this Agreement shall be without prejudice to accrued rights of either Party including its right to claim and recover



money damages and other rights and remedies which it may have in law or contract. All rights and obligations of either Party under this Agreement, including without limitation Termination Payments and Divestment procedures, shall survive the Termination of this Agreement to the extent such survival is necessary for giving effect to such rights and obligations.

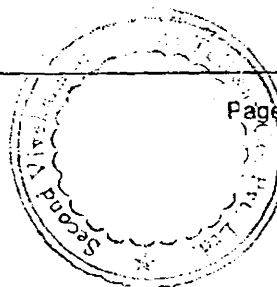
XXXIII. DIVESTMENT OF RIGHTS AND INTERESTS

33.1 Upon Termination of this Agreement and in case of Termination due to NHAI Event of Default, Indirect Political Event or Political Event, receipt of appropriate Termination Payment in accordance with Clause 32.6.2 and Clause 32.7, the Concessionaire shall comply with the following:

- (a) notify to NHAI forthwith the location and particulars of all Project Assets;
- (b) deliver forthwith actual or constructive possession of the Project Bridge free and clear of all Encumbrances and execute such deeds, writings and documents as may be required by NHAI for fully and effectively divesting the Concessionaire of all of the rights, title and interest of the Concessionaire in the Project Bridge and conveying the Project Bridge; and
- (c) comply with the Divestment Requirements set out in Clauses 33.2 and 33.3.
- (d) obtain all the necessary permits and clearances relating to transfer of the Project Bridge and related Project Facilities.
- (e) pay all transfer costs and legal fees in case the Project is being transferred due to a Concessionaire Event of Default having taken place. NHAI shall be liable and responsible in all other cases.

33.2 Upon Termination of this Agreement except in case of Non Political Force Majeure resulting in the Concessionaire losing possession and control of the Project Bridge, where divestment requirements shall be mutually agreed), the Concessionaire shall comply and conform to the following Divestment Requirements in respect of the Project Bridge:

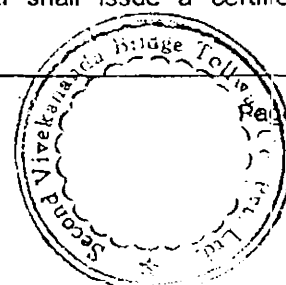
- (i) all Project Assets including the road, pavement, structure and equipment shall have been renewed and cured of all defects and deficiencies as necessary so that the Project Bridge is compliant with the Specifications and Standards set forth in this Agreement;



- (ii) all sections of each traffic lane (the "Carriageway") of the Project Bridge shall have a roughness index in accordance with Specifications and Standards and shall be free from defects in accordance with O&M requirements;
- (iii) all lamps shall be in working condition;
- (iv) the Concessionaire delivers relevant records and reports pertaining to the Project Bridge and its design, engineering, construction, operation, and maintenance including all operation and maintenance records and programmes and manuals pertaining thereto and complete as built Drawings on the Divestment Date;
- (v) the Concessionaire executes such deeds of conveyance, documents and other writings as the NHAI may reasonably require to convey, divest and assign all the rights, title and interest of the Concessionaire in the Project Bridge free from all Encumbrances absolutely to the NHAI or its Nominee; and
- (vi) the Concessionaire complies with all other requirements as may be prescribed under Applicable Laws to complete the divestment and assignment of all the rights, title and interest of the Concessionaire in the Project Bridge free from all Encumbrances absolutely to NHAI or its nominee.

33.3 Not earlier than 3 (three) months before the expiry of the Concession Period but not later than 30 (thirty) days before such expiry, or in the event of earlier Termination of this Agreement, immediately upon but not later than 15 (fifteen) days from the date of issue of Termination Notice, the Independent Consultant shall verify, in the presence of a representative of the Concessionaire, compliance by the Concessionaire with the Divestment Requirements set forth in Clause 33.2 in relation to the Project Bridge and, if required, cause appropriate tests to be carried out at the Concessionaire's cost for determining the compliance therewith. If any shortcomings in the Divestment Requirements are found by either Party, it shall notify the other of the same and the Concessionaire shall rectify the same at its cost. The provisions of Article XXXIV shall apply mutatis mutandis in relation to repair or curing of defects under this Article XXXIII.

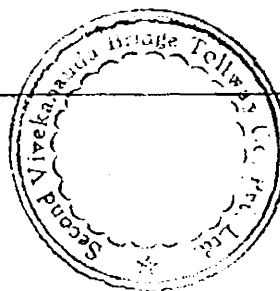
33.4 Upon the Concessionaire conforming to all Divestment Requirements and handing over actual or constructive possession of the Project Bridge to NHAI or a person nominated by NHAI in this regard, NHAI shall issue a certificate



substantially in the form set forth in Schedule 'V' (the "Vesting Certificate") which will have the effect of constituting evidence of divestment of all rights, title and lien in the Project Bridge by the Concessionaire and their vesting in NHAI pursuant hereto. Issue of the Vesting Certificate shall not be unreasonably withheld by NHAI. The divestment of all rights, title and lien in the Project Bridge shall be deemed to be complete on the date when all the Divestment Requirements have been fulfilled or the Vesting Certificate has been issued, whichever is earlier, it being expressly agreed that any defect or deficiency in any Divestment Requirement shall not in any manner be construed or interpreted as restricting the exercise of any rights by NHAI or its nominee on or in respect of the Project Bridge on the footing as if all Divestment Requirements have been complied with by the Concessionaire.

33.5 Notwithstanding anything to the contrary contained in this Agreement but subject to determination of any disputes under Clause 32.7 in accordance with the Dispute Resolution Procedure, any Termination Payments made by NHAI into the Escrow Account shall not be withdrawn therefrom for any purpose whatsoever until the Vesting Certificate has been issued by NHAI under this Article. Provided, however, that the aforesaid restriction shall not apply to withdrawals from the Escrow Account in favour of the Senior Lenders to the extent of Debt Due.

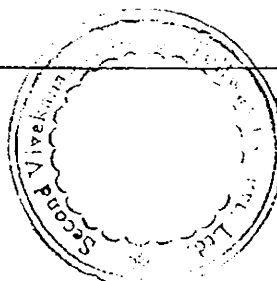
33.6 Notwithstanding anything to the contrary contained in this Agreement, the Concessionaire shall operate and maintain the Project Bridge till NHAI or its nominee takes over its possession and all the Fees collected by the Concessionaire or its nominee less such reasonable expenses as shall be agreed between the Parties to provide for O&M of the Project Bridge after date of Termination Notice or expiry of the Concession Period, whichever is earlier, shall be deposited in a bank account designated by NHAI, on a daily basis, failing which NHAI shall be entitled to take over the possession of Project Facilities without any payment/ obligations to the Concessionaire, if any. Notwithstanding anything to the contrary contained in this Agreement, the Concessionaire or its nominee shall be responsible for O&M of the Project Bridge for period mentioned in this clause, failing which NHAI shall be entitled to take over possession of the Project Facilities with any payment/ obligations to the Concessionaire under this Agreement.



CHAPTER – VIII
MISCELLANEOUS

XXXIV. DEFECTS LIABILITY

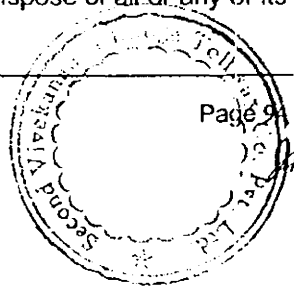
- 34.1 Not less than 30 months nor more than 36 months prior to the expiry of the Concession Period, the Concessionaire and the Independent Consultant shall conduct a joint inspection (the "Initial Inspection") of the Project Bridge and all Project Facilities.
- 34.2 Within 90 days after the completion of the Initial Inspection, the Concessionaire shall provide to the Independent Consultant a report on the condition of the Project Bridge and the Project Facilities and a notice setting out the Concessionaire's proposals as to the renewal works required to comply with the Divestment Requirements.
- 34.3 The Independent Consultant may, within 90 days after receipt of the notice from the Concessionaire in accordance with Clause 34.2, by notice to the Concessionaire object to the proposals giving details of the grounds for such objection and shall give the Independent Consultant's proposals in respect of the renewal works.
- 34.4 If no agreement is reached between the Concessionaire and the Independent Consultant within 30 days of receipt of such notice, then either the Concessionaire or the Independent Consultant may refer the matter to the Disputes Resolution Procedure.
- 34.5 Upon agreement or determination in accordance with the Disputes Resolution Procedure, the Concessionaire shall carry out the renewal works at its own cost.
- 34.6 Not less than 9 months nor more than 12 months prior to the expiry of the Concession Period, the Concessionaire and the Independent Consultant shall conduct a joint inspection (the "Second Inspection") of all elements of the Project Bridge and Project Facilities (whether or not the Renewal Works have been carried out).
- 34.7 Within 30 days after the completion of the Second Inspection, the Concessionaire shall provide to the Independent Consultant a report on the condition of the Project Bridge and Project Facilities and a notice setting out any revisions or additions to the renewal works required in order to ensure compliance with the Divestment Requirements.



- 34.8 The Independent Consultant may, within 30 days after receipt of the notice from the Concessionaire in accordance with Clause 34.7, by notice to the Concessionaire object to the proposed revisions giving details of the grounds for such objection and shall give the Independent Consultant proposals in respect of such matters.
- 34.9 If no agreement is reached between the Concessionaire and the Independent Consultant within 30 days of receipt of such notice, then either the Concessionaire or the Independent Consultant may refer the matter to the Dispute Resolution Procedure.
- 34.10 Upon agreement or determination in accordance with the Disputes Resolution Procedure, the Concessionaire shall carry out the renewal works (as so revised) at its own cost.
- 34.11 From the date which is 2 years prior to the expiry of the Concession Period a sum equal to the Fees realisable during the last two years of the Concession Period for a traffic volume calculated at the rate of 10,000 (ten thousand) PCUs per day per year or a higher sum estimated by the Independent Consultant for Renewal Works, shall notwithstanding anything to the contrary contained in this Agreement, be retained in the Escrow Account provided that if a Bank Guarantee of an equivalent sum in the form and content acceptable to NHAI has been furnished by the Concessionaire to NHAI, no such retention shall be made.
- 34.12 If following the Second Inspection, it is agreed or determined that no renewal works are required, then within 14 days of such agreement, 50% of the sums retained in accordance with Clause 34.11 shall be released from the Escrow Account to the Concessionaire.
- 34.13 On the date of the issue of the Vesting Certificate issued in accordance with Article XXXIII the sums retained in accordance with Clause 34.11 shall be released from the Escrow Account to the Concessionaire.

XXXV. ASSIGNMENTS AND CHARGES

- 35.1 Subject to Clauses 35.3 and 35.4, this Agreement shall not be assigned by the Concessionaire save and except with prior consent in writing of NHAI, which consent NHAI shall be entitled to decline without assigning any reason whatsoever.
- 35.2 Subject to Clause 35.3, the Concessionaire shall neither create nor permit to subsist any encumbrance over or otherwise transfer or dispose of all or any of its

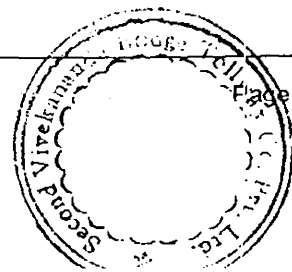


rights and benefits under this Agreement or any Project Agreements to which Concessionaire is a party except with prior consent in writing of NHAI, which consent NHAI shall be entitled to decline without assigning any reason whatsoever.

35.3 Restraint set forth in Clauses 35.1 and 35.2 shall not apply to:

- (i) liens arising by operation of law (or by an agreement evidencing the same) in the ordinary course of business of the Project Bridge;
- (ii) mortgages/pledges/hypothecation of goods/assets other than (i) Project Assets; (ii) the rights and obligations of the Concessionaire under the Concession and (iii) those covered by the Substitution Agreement and their related documents of title arising or created in the ordinary course of business of the Project Bridge and as security only for indebtedness to the Senior Lenders under the Financing Documents and/or for working capital arrangements for the Project Bridge;
- (iii) assignment of rights, title and interest to or in favour of the Lenders pursuant to and in accordance with the Substitution Agreement in respect of financing by the Senior Lenders under the Financing Documents for the Project;
- (iv) any Encumbrances created by the Senior Lenders over the shares of the Concessionaire; and
- (v) liens or encumbrances required by any Applicable Law.

35.4 Senior Lenders may exercise the rights of step-in or substitution as provided in the Substitution Agreement to be entered into among the Concessionaire, NHAI and Senior Lenders in the form set forth in Schedule 'U' provided that the person substituting the Concessionaire shall be deemed to be the Concessionaire under this Agreement and shall enjoy all rights and be responsible for all obligations under this Agreement as if it were the Concessionaire. Provided, however, that in the event of such step-in or substitution, an additional Cure Period of 90 (ninety) days shall be provided by NHAI to enable the substitute concessionaire to cure any breach or default subsisting on the day of such step-in or substitution. Provided further that if the Senior Lenders step in to operate and manage the Concession for a period not exceeding 90 (ninety) days, their liabilities shall be restricted to the obligations relating to and arising during such 90 (ninety) days period.



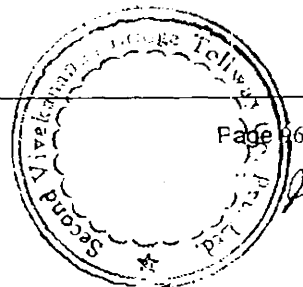
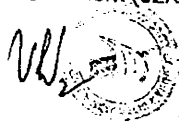
- 35.5 Notwithstanding anything to the contrary contained in this Agreement NHA may assign any of its rights and benefits and/or obligations under this Agreement where in the reasonable opinion of NHA such assignee is capable of fulfilling all its obligations under this Agreement.

XXXVI. CHANGE IN LAW

- 36.1 If as a result of Change in Law, the Concessionaire suffers an increase in costs or reduction in net after tax return or other financial burden, the aggregate financial effect of which exceeds Rs.10 million (Rupees ten million) in any Accounting Year, the Concessionaire may notify NHA and propose amendments to this Agreement so as to put the Concessionaire in the same financial position as it would have occupied had there been no such Change in Law resulting in such cost increase, reduction in return or other financial burden as aforesaid. Upon notification by the Concessionaire as aforesaid, the Parties shall meet as soon as reasonably practicable but no later than 30 (thirty) days and either agree on amendments to this Agreement or on alternative arrangements to implement the foregoing.

Provided that if no agreement is reached as aforesaid by the Parties within 90 (ninety) days of the meeting pursuant to this Clause 36.1, the Concessionaire may by notice in writing require NHA to pay an amount that would put the Concessionaire in the same financial position it would have occupied had there been so such Change in Law resulting in such cost increase, reduction in return or other financial burden as aforesaid. Such notice shall be accompanied by necessary particulars duly certified by the Statutory Auditors of the Concessionaire. NHA shall make payment of such compensation within 15 (fifteen) days of receiving such notice or with interest @ SBI PLR if the payment thereof is delayed beyond such 15 (fifteen) days. If NHA shall dispute the quantum of such compensation claim of the Concessionaire, the same shall be finally settled in accordance with the Dispute Resolution Procedure.

- 36.2 If as a result of Change in Law, the Concessionaire enjoys a reduction in costs or increase in net after tax return or other financial benefit, the aggregate financial effect of which exceeds Rs.10 million (Rupees ten million) in any Accounting Year, NHA may so notify the Concessionaire and propose amendments to this Agreement so as to put the Concessionaire in the same financial position as it would have occupied had there been so such Change in Law resulting in such decreased cost, increase in return or other financial benefit as aforesaid. Upon notification by the NHA as aforesaid, the Parties shall meet as soon as reasonably practicable but no later than 30 (thirty) days and either agree on such



amendments to this Agreement or on alternative arrangements to implement the foregoing.

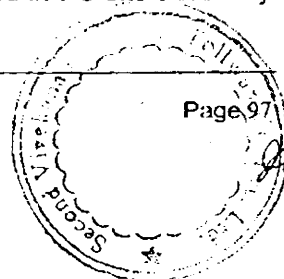
Provided that if no agreement is reached as aforesaid by the Parties within 90 (ninety) days of the meeting pursuant to this Clause 36.2, NHAI may by notice in writing require the Concessionaire to pay an amount that would put the Concessionaire in the same financial position it would have occupied had there been no such Change in Law resulting in such decreased cost, increase in return or other financial benefit as aforesaid. Such notice shall be accompanied by necessary particulars duly certified by the NHAI Representative. The Concessionaire shall make such payment within 15 (fifteen) days of receiving such notice or with interest @ SBI PLR if the payment is delayed beyond such 15 (fifteen) days. If the Concessionaire shall dispute such claim of NHAI, the same shall be finally settled in accordance with the Dispute Resolution Procedure.

- 36.3 Notwithstanding anything to the contrary contained in this Agreement, NHAI shall not be liable to reimburse to the Concessionaire any sums on account of any Change in Taxes if the same are by law recoverable from the users of the Project Bridge only to the extent the Fee Notification has been amended to enable the Concessionaire to include such charge in Taxes or if the aggregate financial effect of such changes in any Accounting Year is less than or equal to Rs.10 million (Rupees ten million).

XXXVII. LIABILITY AND INDEMNITY

37.1 General Indemnity

- (i) The Concessionaire will indemnify, defend and hold NHAI harmless against any and all proceedings, actions and, third party claims (other than a claim by NHAI or GOI or Governmental Agency of GoI) for loss, damage and expense of whatever kind and nature arising out of any defect in the design, engineering, construction, procurement, Operation and Maintenance of the Project Bridge or arising out of a breach by Concessionaire of any of its obligations under this Agreement except to the extent that any such claim has arisen due to breach of this Agreement by NHAI including due to NHAI Event of Default).
- (ii) NHAI will, indemnify, defend and hold harmless the Concessionaire against any and all proceedings, actions, third party claims for loss, damage and expense of whatever kind and nature arising out of defect in title and/or the rights of NHAI in the land comprised in the Site adversely



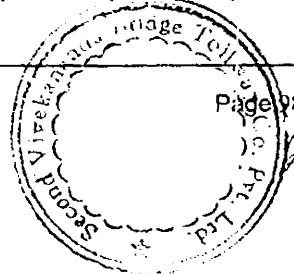
affecting the performance of the Concessionaire's obligations under this Agreement and/or arising out of acts done in discharge of their lawful functions by NHAI, its officers, servants, agents, subsidiaries and contractors ("NHAJ Indemnified Persons") or arising out of a breach by NHAI of any of its obligations under this Agreement including NHAI Events of Default except to the extent that any such claim has arisen due to an act or omission or , breach of this Agreement including of Concessionaire's obligations hereunder or breach of statutory duty on the part of the Concessionaire, its Subsidiaries, affiliates, contractors, servants or agents or due to Concessionaire Event of Default.

- (iii) Notwithstanding Clause 37.1(i) and (ii) neither the Concessionaire nor NHAI shall be liable to indemnify, defend and hold the other harmless against any and all proceedings, actions and, third party claims in relation to any exercise of its (NHAJ or Concessionaire as the case may be) rights and performance of its obligations under this Agreement.

37.2 Without limiting the generality of Clause 37.1 and subject to the limitations set out in Clause 37.1, the Concessionaire shall fully indemnify, save harmless and defend NHAI including its officers, servants, agents and subsidiaries ("NHAJ Indemnified Persons") from and against any and all loss and damages arising out of or with respect to (a) failure of the Concessionaire to comply with Applicable Laws and Applicable Permits, (b) payments of taxes relating to the Concessionaire contractors, suppliers and representatives, income or other taxes required to be paid by the Concessionaire, or (c) non-payment of amounts due as a result of materials or services furnished to the Concessionaire or any of its Contractors which are payable by the Concessionaire or any of its contractors.

37.3 Without limiting the generality of the provisions of this Article XXXVII but subject to the limitations set out in Clause 37.1, the Concessionaire shall fully indemnify, save harmless and defend the NHAI Indemnified Persons from and against any and all damages which the NHAI Indemnified Persons may hereafter suffer, or pay by reason of any demands, claims, suits or proceedings arising out of claims of infringement of any domestic or foreign patent rights, copyrights or other intellectual property, proprietary or confidentiality rights with respect to any materials, information, design or process used by the Concessionaire or by the Concessionaire's Contractors in performing the Concessionaire's obligations or in any way incorporated in or related to the Project. If in any such suit, claim or proceedings, a temporary restraint order or preliminary injunction is granted, the Concessionaire shall make every reasonable effort, by giving a satisfactory bond or otherwise, to secure the suspension of the injunction or restraint order. If, in any such suit claim or proceedings, the Project, or any part, thereof or comprised

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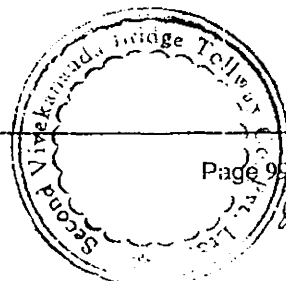


therein is held to constitute an infringement and its use is permanently enjoined, the Concessionaire shall promptly make every reasonable effort to secure for NHAI a licence, at no cost to NHAI, authoring continued use of the infringing work. If the Concessionaire is unable to secure such licence within a reasonable time, the Concessionaire shall, at its own expense and without impairing the specifications and standards either replace the affected work, or part, or process thereof with non-infringing work or parts or process, or modify the same so that it becomes non-infringing.

- 37.4 In the event that either Party receives a claim from a third party in respect of which it is entitled to the benefit of an indemnity under this Article XXXVII (the 'Indemnified Party') it shall notify the other Party ('Indemnifying Party') within 14 (fourteen) days of receipt of the claim and shall not settle or pay the claim without the prior approval of the Indemnifying Party, such approval not to be unreasonably withheld or delayed. In the event that the Indemnifying Party wishes to contest or dispute the claim it may conduct the proceedings in the name of the Indemnified Party subject to the Indemnified Party being secured against any costs involved to its reasonable satisfaction.

37.5 Defence of Claims

- 37.5.1 The Indemnified Party shall have the right, but not the obligation, to contest, defend and litigate any claim, action, suit or proceeding by any third party alleged or asserted against such party in respect of, resulting from, related to or arising out of any matter for which it is entitled to be indemnified hereunder and their reasonable costs and expenses shall be indemnified by the Indemnifying Party. If the Indemnifying Party acknowledges in writing its obligation to indemnify the person indemnified in respect of loss to the full extent provided by this Article XXXVII, the Indemnifying Party shall be entitled, at its option, to assume and control the defence of such claim, action, suit or proceeding liabilities, payments and obligations at its expense and through counsel of its choice provided it gives prompt notice of its intention to do so to the Indemnified Party and reimburses the Indemnified Party for the reasonable cost and expenses incurred by the Indemnified Party prior to the assumption by the Indemnifying Party of such defence. The Indemnifying Party shall not be entitled to settle or compromise any claim, action, suit or proceeding without the prior written consent of the Indemnified Party unless the Indemnifying Party provides such security to the Indemnified Party as shall be reasonably required by the Indemnified Party to secure, the loss to be indemnified hereunder to the extent so compromised or settled.



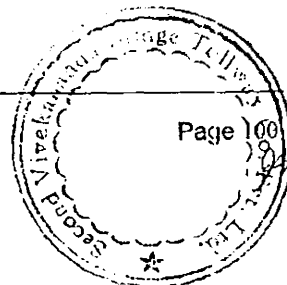
37.5.2 If the Indemnifying Party has exercised its rights under Clause 37.4, the Indemnified Party shall not be entitled to settle or compromise any claim, action, suit or proceeding without the prior written consent of the Indemnifying Party (which consent shall not be unreasonably withheld or delayed).

37.5.3 If the Indemnifying Party exercises its rights under Clause 37.4 then the Indemnified Party shall nevertheless have the right to employ its own counsel and such counsel may participate in such action, but the fees and expenses of such counsel shall be at the expense of such Indemnified Party, when and as incurred, unless:

- (i) the employment of counsel by such party has been authorised in writing by the Indemnifying Party; or
- (ii) the Indemnified Party shall have reasonably concluded that there may be a conflict of interest between the Indemnifying Party and the Indemnified Party in the conduct of the defence of such action; or
- (iii) the Indemnifying Party shall not in fact have employed independent counsel reasonably satisfactory to the Indemnified Party to assume the defence of such action and shall have been so notified by the Indemnified Party; or
- (iv) the Indemnified Party shall have reasonably concluded and specifically notified the Indemnifying Party either:
 - (a) that there may be specific defences available to it which are different from or additional to those available to the Indemnifying Party; or
 - (b) that such claim, action, suit or proceeding involves or could have a material adverse effect upon it beyond the scope of this Agreement;

provided that if clauses (ii), (iii) or (iv) shall be applicable, counsel for the Indemnified Party shall have the right to direct the defence of such claim, action, suit or proceeding on behalf of the Indemnified Party and the reasonable fees and disbursements of such counsel shall constitute legal or other expenses hereunder.

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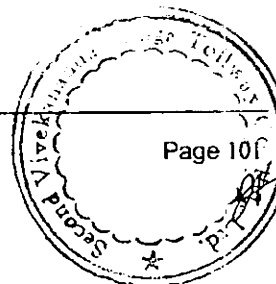
XXXVIII. RIGHTS AND TITLE OVER THE SITE

- 38.1** The Concessionaire shall have rights to the use of the Site in accordance with the provisions of this Agreement and for this purpose it may regulate in accordance with this Agreement the entry and use of the Project Bridge by third parties.
- 38.2** The Concessionaire shall allow access to, and use of the Site for telegraph lines, electric lines or such other public utilities as NHAI may specify. It is agreed that NHAI shall act reasonably to the best of its judgement. However, where such access or use causes any damage to the Project Bridge and consequent financial loss to the Concessionaire, it may seek compensation or damages from such user of the Site as per Applicable Laws.
- 38.3** The Concessionaire shall not be liable to pay any property taxes for the Site to the extent provided in the State Support Agreement.
- 38.4** For the purposes of claiming tax depreciation, the property representing the capital investment made by the Concessionaire shall be deemed to be acquired and owned by the Concessionaire without prejudice to the rights, title and interest of NHAI under this Agreement.
- 38.5** The Concessionaire shall not sublet the whole or any part of the Site save and except as may be expressly set forth in this Agreement provided however that nothing contained herein shall be construed or interpreted as restricting the right of the Concessionaire to appoint contractors for the performance of its obligations hereunder including for operation and maintenance of all or any part of the Project Bridge including Project Facilities.

✓XXXIX. DISPUTE RESOLUTION

39.1 Amicable Resolution

- (a) Save where expressly stated to the contrary in this Agreement, any dispute, difference or controversy of whatever nature howsoever arising under, out of or in relation to this Agreement including non-completion of the Project Bridge between the Parties and so notified in writing by either Party to the other (the "Dispute") in the first instance shall be attempted to be resolved amicably in accordance with the conciliation procedure set forth in Sub-clause (b) below.



- (b) In the event of any Dispute between the Parties, either Party may call upon the Independent Consultant to mediate and assist the Parties in arriving at an amicable settlement thereof. Failing mediation by the Independent Consultant or without the intervention of the Independent Consultant, either Party may require such Dispute to be referred to the Chairman of NHAI and the Chairman of the Board or Directors of the Concessionaire, for the time being for amicable settlement. Upon such reference, the said two Chairmen shall meet not later than 7 (seven) days of the date of such request to discuss and attempt to amicably resolve the Dispute. If such meeting does not take place within the said period or the Dispute is not amicably settled within 15 (fifteen) days of such meeting between the said two Chairmen, either Party may refer the dispute to arbitration in accordance with the provisions of Clause 39.2.
- (c) If the Dispute is not resolved as evidenced by the signing of the written terms of settlement within 30 (thirty) working days of the aforesaid notice in writing or such longer period as may be mutually agreed by the Parties, then the provisions of Clause 39.2 shall apply.

39.2 Arbitration

Any Dispute, which is not resolved amicably as provided in Clause 39.1 shall be finally decided by reference to arbitration by a Board of Arbitrators, appointed pursuant to Clause 39.2.2 sub clause (b) below. Such arbitration shall be held in accordance with the UNCITRAL Rules of Arbitration ("the Rules") and shall be subject to the provisions of the Arbitration Act.

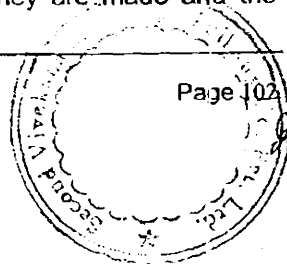
39.2.2 There shall be a Board of three arbitrators of whom each party hereto shall select one and the third arbitrator shall be appointed in accordance with the Rules.

39.2.3 The arbitrators shall issue a reasoned Award.

39.2.4 The venue of such arbitration shall be New Delhi, India and the language of the arbitration shall be English.

39.3 Arbitration Awards to be Binding

39.3.1 The Concessionaire and NHAI undertake to carry out any decision or award of the arbitrators (the "Award") without delay. Awards relating to any Dispute shall be final and binding on the Parties as from the date they are made and the



Parties hereby waive the right to appeal or review such Award by any court or tribunal of competent jurisdiction in so far as such waiver can validly be made.

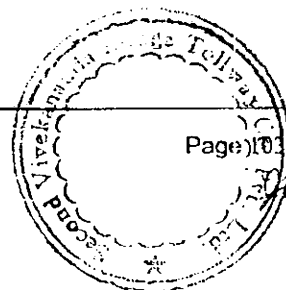
39.3.2 The Concessionaire and NHAI agree that an Award may be enforced against the Concessionaire and/or NHAI, as the case may be and their respective assets wherever situated.

39.3.3 This Agreement and rights and obligations of the Parties shall remain in full force and effect pending the Award in any arbitration proceeding hereunder.

39.4 The arbitrators shall denote the currency or currencies in which any Awards shall subject to Applicable Laws, be paid along with appropriate mechanisms for protecting the recipient of such award from fluctuations in currency exchange rates between the date of such award and the date payment thereof is made.

39.5 The Parties agree that if the Concessionaire or NHAI is, whether before or after the reference of any Dispute to arbitration in accordance with this Clause 39, involved in a dispute with one or more other parties (a "Third Party") which:

- (i) involves substantially the same questions of law or contract interpretation; or
- (ii) arises out of the same or similar facts parts or circumstances; and
- (iii) in either case is to be determined by arbitration in accordance with an agreement to arbitrate contained in the State Support Agreement, EPC Contract or O&M Contract (a "Related Dispute"), then the Concessionaire or NHAI (if party thereto) may by notice in writing require subject to the provisions of such arbitration agreement that:
 - (1) the Related Dispute with the Third Party is determined before the same arbitrators and at the same time as the Dispute to which it relates as if the Third Party had been a party to this agreement to arbitrate; or
 - (2) this Dispute is determined at the same time as the Related Dispute with the Third Party in accordance with the procedures contained in the relevant agreement concerned before arbitrators appointed to determine the Related Dispute. ✓

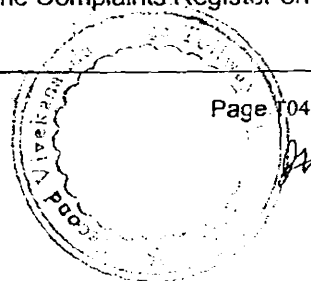


XL DISCLOSURE

- 40.1 The Concessionaire shall make available for inspection by members of public free of charge during normal business hours on all working days copies of this Concession Agreement, the O&M Contract and the State Support Agreement (hereinafter collectively referred to as "Public Documents") at the Concessionaire's Site office during the subsistence of this Agreement. The Concessionaire shall prominently display at the Toll Plazas public notices about the availability of the Public Documents for inspection and shall make available upon request and payment in advance of copying charges on no profit no loss basis to members of public copies of the said Public Documents.

XLI. REDRESSAL OF PUBLIC GRIEVANCES

- 41.1 The Concessionaire shall maintain a public relations office adjacent to each Toll Plaza and keep it open to public access at all times. At each such office, the Concessionaire shall open and maintain a register (the "Complaints Register") for recording of complaints by any person (the Complainant") at any time of the day. The availability of and access to such office and the Complaints Register shall be prominently displayed by the concessionaire at each Toll Plaza so as to bring it to the attention of all persons who are entering and exiting the Project Bridge.
- 41.2 The Complaints Register shall be securely bound and kept in proper custody at the public relations office. Each page of the Register shall be duly numbered and each complaint recorded therein shall also be duly numbered. Soon after a complaint is registered the Complainant shall be given a receipt by such office stating the date and complaint number, which the Complainant may refer to in any subsequent correspondence or claim. The Complaints Register shall have appropriate columns including but not limited to the complaint number and date, name and address of the Complainant, the complaint and the action taken by the Concessionaire thereon.
- 41.3 The Concessionaire shall inspect the Complaints Register at reasonable intervals and take prompt steps for redressal of the grievances stated in each complaint. The action so taken by the Concessionaire shall be briefly noted in the 'Action taken' column of the Complaints Register and a suitable reply shall also be sent to the Complainant by post under a certificate of posting.
- 41.4 Within one week following the close of each calendar month, the Concessionaire shall send to NHAI a true photocopy of such pages of the Complaints Register on



which any entries have been recorded of any Complaint on the Concessionaire during the course of such month. NHAI may in its discretion direct the Concessionaire to take such further reasonable action as NHAI may deem appropriate for a fair and just redressal of any grievance. Nothing contained in this Agreement shall be deemed to prejudice NHAI's right to refer such matter to the Consumer Redressal Forum having jurisdiction over such matter. Where NHAI is of the opinion that the Complainant is entitled to any further redressal or compensation beyond what the Concessionaire is willing to provide, NHAI may refer the matter to the Consumer Redressal Forum having jurisdiction for its disposal in accordance with the provisions of the Consumer Protection Act, 1986.

XLII. ADVERTISING ON THE SITE

- 42.1 The Concessionaire shall not undertake or permit any form of Commercial advertising, display or hoarding at any place on the Site if such advertising, display or hoarding shall be visible to a user of the Project Bridge while driving on such Highway.

XLIII. GOVERNING LAW AND JURISDICTION

- 43.1 This Agreement shall be construed and interpreted in accordance with and governed by the laws of India and, subject to Clause 39, the Courts at New Delhi, India shall have jurisdiction over all matters arising out of or relating to this Agreement.

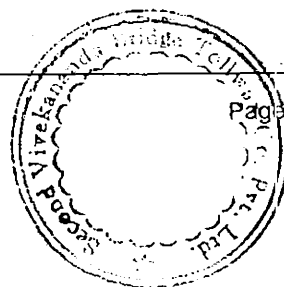
XLIV. MISCELLANEOUS

44.1 Video Recording

During the Construction Period, the Concessionaire shall provide a video recording to NHAI every calendar quarter which will be compiled into a 3 (three) hour cassette, covering the construction of the Project Bridge in that quarter. Such video recording shall be provided no later than fifteen days after the close of each quarter.

44.2 Waiver

- (a) Waiver by either Party of any default by other Party in the observance and performance of any provision of or obligations of or under this Agreement.



- (i) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this Agreement;
 - (ii) shall not be effective unless it is in writing and executed by a duly authorised representative of the Party; and
 - (iii) shall not affect the validity or enforceability of this Agreement in any manner.
- (b) Neither the failure by either Party to insist on any occasion upon the performance of the terms, conditions and provisions of this Agreement or any obligation thereunder nor time or other indulgence granted by a Party to the other Party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

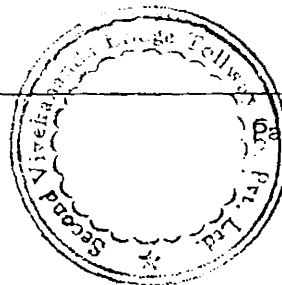
44.3 Survival

Termination of this Agreement (a) shall not relieve the Concessionaire or NHAI of any obligations hereunder which expressly or by implication survives Termination hereof, and (b) except as otherwise provided in any provision of this Agreement expressly limiting the liability of either Party, shall not relieve either Party of any obligations or liabilities for loss or damage to the other Party arising out of or caused by acts or omissions of such Party prior to the effectiveness of such Termination or arising out of such Termination.

All obligations surviving the cancellation, expiration or Termination of this Agreement shall only survive for a period of 5 (five) years following the date of such Termination or expiry of this Agreement.

44.4 Entire Agreement:

This Agreement and the Schedules together constitute a complete and exclusive statement of the terms of the agreement between the Parties on the subject hereof and no amendment or modification hereto shall be valid and effective unless expressly previously approved in writing by NHAI and executed by the person expressly authorised by a resolution of NHAI in this behalf.



44.5 Notices

Any notice or other communication to be given by a Party to the other Party under, or in connection with the matters contemplated by this Agreement shall be in writing and shall:

- (a) in the case of the Concessionaire, be given by letter delivered by hand to the address given and marked for the attention of the person set out opposite the corresponding signature below or to such other address marked for such other attention as the Concessionaire may from time to time designate by notice to NHAI, provided that notices or other communications to be given to an address outside New Delhi may (if they are subsequently confirmed by sending a copy thereof by first class registered airmail or by courier) be sent by facsimile to the number as the Concessionaire may from time to time designate by notice to NHAI; and
- (b) in the case of NHAI, be given by letter delivered by hand and be addressed to the Chairman, NHAI

Copies of all notices shall also be sent by facsimile and by registered acknowledgement due pre-paid post or courier.

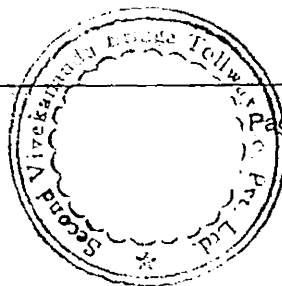
Copies of all notices shall also be sent to the NHAI Representative.

44.6 Severability

If for any reason whatever any provision of this Agreement is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the Parties will negotiate in good faith with a view to agreeing one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to dispute resolution under this Agreement or otherwise.

44.7 No Partnership

Nothing contained in this Agreement shall be construed or interpreted as constituting a partnership between the Parties. Neither Party shall have any authority to bind the other in any manner whatsoever.



44.8 Language

All notices required to be given by one Party to the other Party and all other communications, documentation and proceedings which are in any way relevant to this Agreement shall be in writing and in English language.

44.9 Exclusion of Implied Warranties etc.

This Agreement expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the Parties or any representation by either Party not contained in a binding legal agreement executed by both Parties.

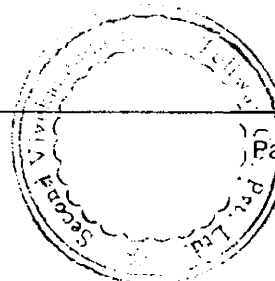
44.10 Counterparts

This Agreement may be executed in two counterparts, each of which when executed and delivered shall constitute an original of this Agreement.

44.11 Consequential and Indirect Loss

Neither Party shall be liable to the other Party in contract, tort, warranty, strict liability or any other legal theory in respect of any cost, expense, loss or damage of an indirect, consequential, incidental, punitive or exemplary nature suffered by the other including but not limited to loss of use of property, contract, production, revenue or goodwill or cost of business interruption or increased costs of working howsoever arising including but not limited to the default or sole or concurrent negligence of a Party and whether or not foreseeable at the date of this Agreement. Neither Party shall have any liability to the other Party except pursuant to, or for breach of, this Agreement Provided that this provision is not intended to constitute a waiver of any rights of one Party against the other with regard to matters unrelated to this Agreement or to any activity contemplated by this Agreement.

VH



Handwritten signature and initials.

The Second Vivekananda Bridge Tollway Project

IN WITNESS WHEREOF THE, PARTIES HAVE EXECUTED AND DELIVERED THIS AGREEMENT AS OF THE DATE FIRST ABOVE WRITTEN.

SIGNED SEALED AND DELIVERED

Signed, sealed and delivered
National Highways Authority of India

(Signature) V. L. Patankar
02/09/02
(Name) Mr. V L PATANKAR
(Designation) GENERAL MANAGER

In presence of

1. [Signature]
2. [Signature]

Signed, sealed and delivered
Second Vivekananda Tollway Bridge Private Limited

(Signature) 1. Jay Ved
02/09/02
(Name) 1. Dr. JAY VED
(Designation) 1. CHAIRMAN
2. S. S. Chakraborty
02/09/02
2. Mr. S S CHAKRABORTY
2. CO-CHAIRMAN

In presence of

1. [Signature]
2. [Signature]

SITE OF THE PROJECT

1. DESCRIPTION OF PROJECT

The project consists of a new bridge (named the Second Vivekanand Bridge) across river Hooghly and its approaches. The project is proposed to be constructed as a high speed facility connecting NH-2/ NH-6 interchange in Jaypore Bill (west of Bali) and NH-34 on the east side via the proposed Belghoria Expressway [Refer maps in figure A1, A2, A3 and A4 and site plan in figures A5 and A6].

1.1 Project Location

The project is located within a heavily populated area in the outer suburbs of Kolkata and Howrah. The site of the new bridge is 50 m downstream of the existing Vivekananda Setu and is well situated to provide a fast-moving regional crossing across the river Hooghly in the Northern Kolkata Metropolitan Area (NKMA), linking NH-2 and NH-6 on the west with NH-34, NH-35, through proposed the Belghoria Expressway and the Dum-Dum Airport on the east. In the immediate vicinity of the project (including its approaches on both the banks of the river Hooghly) a number of venerable temple and heritage structures such as the Dhakshineswar Temple exist requiring a project design highly tuned to the aesthetics of the environment. The location at 50 meter downstream of the Vivekananda bridge, also requires that the new facility does not visually impose on the existing bridge.

1.2 Project Inventory

The chosen alignment is the result of a detailed feasibility study regarding possible alternative design for the bridge. The study concerned itself with a comprehensive set of parameters including structural forms, river hydraulics including a model study carried out by the Kolkata Port Trust (KPT), construction methods, traffic aspects and so on.

The project has a total length of 6.1 km. This includes the main bridge and the approaches on the Howrah and Kolkata sides.

1.3 Land Detail

The project as per the finalized alignment traverses through municipal and railway land in addition to private and other government lands. On the Howrah side, the alignment runs through Bali municipal, Bali non-municipal, railway and PWD lands. On the Kolkata side the alignment primarily goes through Baranagar & Kamarhati area in addition to railway land as indicated in the land plans at A5 and A6.



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A-1



SITE OF THE PROJECT

1.4 Project Elements

The project elements and their salient features are indicated in the plans, typical cross sections and general arrangement drawings of the structures given in Schedule-I. These are briefly described below:

Howrah Approach

- A. Main Approach (Ch. 666+165 to Ch. 669+833)
- B. Toll Free NH-2 on the northern side (Ch. 666+283 to Ch. 669+314)
- C. Toll free local Road on the southern side (Ch. 666+420 to 667+917)
- D. Underpasses at Ch. 666.420, 667.917, 668.210, 668.341 and 668.895 (tentative locations)
- E. Toll Plaza

Main Bridge (Ch. 669+833 to Ch. 670+713 (880m))

Kolkata Approach

1. Main Ramp (Ch. 670+713 to Ch. 670 + 961 & Ch.670+713 to Ch. 670+926)
2. Ramp A (Ch. 670+961 to Ch. 672+101)
3. Ramp B (Ch. 670+926 to Ch. 672+026)
4. Ramp C (Ch. 671+133 to Ch. 672+197)
5. Ramp D (Ch. 671+130 to Ch. 671+197)
6. Ramp G (Ch. 671+466 to Ch.671+741)
7. Ramp H (Ch. 671+445 to Ch. 671+805)
8. Rotary at the ground level
9. Surface treatment of existing PWD Road (Ch. 671+280 to Ch. 672+100 & Ch. 671+900 to Ch. 672+200)
10. Lower level road (New) LLR2 (Ch. 671+390 to Ch. 672+100)

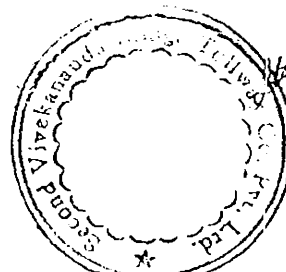
Tentative dimensions & details of Howrah & Kolkata approach have been given in the following tables. These shall be suitably modified, if required, by the Concessionaire based on site conditions and detailed design.

1.4.1 Howrah Approach

MAIN APPROACH					
Sl. No.	Chainage/Description	Length (m)	Formation Width (m)	Carriage-way width (m)	Remarks
1.	From Ch. 666+165 (start of the project) to Ch. 666+240	75	35.4 - 43.9	2x14.25 - 2x18.5	On grade

A-020902

A-2



SITE OF THE PROJECT

Sl. No.	Chainage/Description	Length (m)	Formation Width (m)	Carriage-way width (m)	Remarks
2.	From Ch. 666+240 to Ch. 666+644 (start of toll plaza)	404	28.4	2x10.75	Embankment
3.	From Ch. 666+644 to Ch. 667+084	440	28.4-86.2	2x(10.75-39.7)	
4.	From Ch. 667+084 to Ch. 667+186	102	86.2-104.05	2x(39.7-48.8)	
5.	From Ch. 667+186 to Ch. 667+220	34	104.05	2x48.8	
6.	From Ch. 667+220 to Ch. 667+262	42	104.05	2x48.8	
7.	From Ch. 667+262 to Ch. 667+800 (End of toll plaza)	538	(104.05-46.65)	2x(48.8-20.1)	
8.	From Ch. 667+800 to Ch. 667+917	117	(46.65 - 28.0)	2x(20.1-10.75)	
9.	From Ch. 667+917 to Ch. 668+210	293	28.0	2x10.75	On grade
10.	From Ch. 668+210 to Ch. 668+500	290	28.0	2x10.75	
11.	From Ch. 668+500 to Ch. 668+800 (start pt. of HB main line)	300	28.0	2x10.75	Embankment
12.	From Ch. 668+800 to Ch. 668+850	50	28.0	2x10.75	I girders
13.	From Ch. 668+850 to Ch. 669+00	150	28.0	2x10.75	On grade
14.	From Ch. 669+000 to Ch. 669+200	200	28.0	2x10.75	Embankment
15.	From Ch. 669+200 to Ch. 669+280	80	28.0	2x10.75	
16.	From Ch. 669+280 to 669+340	60	2x12.0*	2x11	Box Pushing (45° inclined)
17.	From Ch. 669+340 to Ch. 669+469	129	27.9	2x10.75	Embankment
18.	From Ch. 669+469 to Ch. 669+833 (start of main bridge)	364	27.9	2x10.75	Viaduct

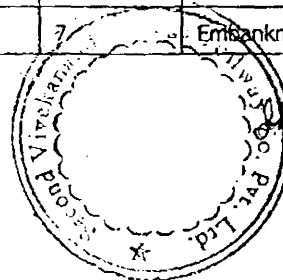
* Horizontal clearance in the box underpass to be reviewed during detailed design for possible increase to meet IRC requirements, subject to site constraints

B. Toll Free NH-2

S. No.	Chainage/Description	Length (m)	Formation Width (m)	Carriage-way width (m)	Remarks
1.	From Ch. 666+283 to Ch. 666+420 East Bound	137	7	4	Embankment
	From Ch. 666+283 to Ch. 666+420 West Bound	137	7	4	
2.	At Ch. 666.420 West Bound	28.4	8.50	7.50	Proposed Subway
	From Ch. 666+420 to Ch. 666+800	380	11	7	Embankment

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A-3



SITE OF THE PROJECT

S. No.	Chainage/Description	Length (m)	Formation Width (m)	Carriage-way width (m)	Remarks
	Combined East & West Bound				
3.	From Ch. 666+800 to Ch. 667+084	284	11	7	Embankment
4.	From Ch. 667+084 to Ch. 667+186	102	11.45	7.25	
5.	From Ch. 667+186 to Ch. 667+220	34	11.45	7.25	
6.	From Ch. 667+220 to Ch. 668+500	280	11.45	7.25	
7.	From Ch. 668+500 to Ch. 668+800	300	11.45	7.25	
8.	From Ch. 668+800 to Ch. 668+850	50	11.65	7.25	1 girders
9.	From Ch. 668+850 to Ch. 669+280	430	11.45	7.25	Embankment

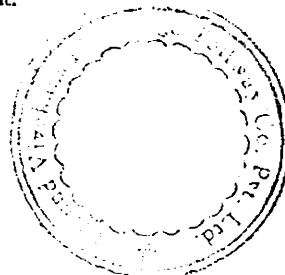
C. LOCAL ROAD

S. No.	Chainage/Description	Length (m)	Formation Width (m)	Carriage-way (m)	Remarks
1.	From Ch. 666+420 to Ch. 667+084	664	5.75	3.75	On grade
2.	From Ch. 667+084 to Ch. 667+250	166	5.75	3.75	
3.	From Ch. 667+250 to Ch. 667+917	667	5.75	3.75	

D. PROVISION OF UNDERPASSES AS EXTENSIONS OF EXISTING ONES BETWEEN 667+914 AND 669+000

S. No.	Chainage/Description	Existing Width (m)	Additional* Length (m)	Remarks
1.	From Ch. 667+914 to 667+920 (Underpass 1)	6	27.5	On grade
2.	From Ch. 668+210 to 668+216 (Underpass 2)	6	10	
3.	From Ch. 668+340 to 668+346 (Underpass 3)	6	10	On grade
4.	From Ch. 668+924 to 668+930 (Old Panchanantala Road) (Underpass 4)	6	37.0	
5.	Ch. 669.00 (Bituminous Road)	6	52 (inclined)	

* Additional length in excess of the existing width across rail embankment.



SITE OF THE PROJECT

TOLL PLAZA

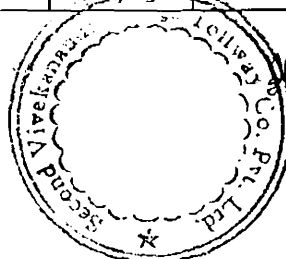
S. No.	Description	Length (m)	Formation Width (m)	Floor Area (m ²)
1.	Administrative Building (GF + FF)	40	15	600 for ground floor 520 for first floor = 1120
2.	Toll Booths	—	—	640
3.	Generator Room	10	5	50

1.4.2 Kolkata Approach

S. No.	Chainage/Description	Length (m)	Formation Width (m)	Carriage-way width (m)	Remarks:
	Main Ramp				
1a)	From Ch. 670+713 to Ch. 670+961	248	15.4	10.75	Viaduct
1b)	From Ch. 670+713 to Ch. 670+926	213	15.4	10.75	
2.	Ramp A				
	From Ch. 670+961 to Ch. 671+133	172	15-22	Varying	Viaduct
	From Ch. 671+133 to Ch. 671+330	197	10-12	Varying	
	From Ch. 671+330 to Ch. 671+400	70	12-17	Varying	
	From Ch. 671+400 to Ch. 671+466	66	17-20	Varying	
	From Ch. 671+466 to Ch. 671+520	54	9.9	7.0	Embankment
	From Ch. 671+520 to Ch. 671+585	65	9.9	7.0	
	From Ch. 671+585 to Ch. 671+620	35	8.5**	7.5	Box Pushing
** Internal width of the box					
	From Ch. 671+620 to Ch. 671+70	80	9.9	7.0	Embankment
	From Ch. 671+700 to Ch. 671+800	100	9.9	7.0	
	From Ch. 671+800 to Ch. 671+950	150	9.9	7.0	
	From Ch. 671+950 to Ch. 672+101	151	9.9	7.0	
3.	Ramp B				
	From Ch. 670+926 to Ch. 671+130	204	16-22	varying	Viaduct

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A-5

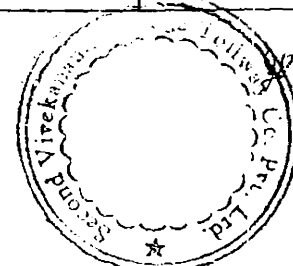


SITE OF THE PROJECT

S. No.	Chainage/Description	Length (m)	Formation Width (m)	Carriage-way width (m)	Remarks
	From Ch. 671+130 to Ch. 671+375	245	10-12	varying	Viaduct
	From Ch. 671+375 to Ch. 671+410	35	12-14	varying	Viaduct
	From Ch. 671+410 to Ch. 671+445	35	14-16	varying	Viaduct
	From Ch. 671+445 to Ch. 671+520	75	9.9	7.0	Embankment
	From Ch. 671+520 to Ch. 671+585	65	9.9	7.0	
	From Ch. 671+585 to Ch. 671+620	35	9.9	7.0	
	From Ch. 671+620 to Ch. 671+700	80	9.9	7.0	
	From Ch. 671+700 to Ch. 671+750	50	9.9	7.0	
	From Ch. 671+750 to Ch. 671+800	50	9.9	7.0	
	From Ch. 671+800 to Ch. 671+850	50	9.9	7.0	
	From Ch. 671+850 to Ch. 672+026	176	9.9	7.0	
4.	Ramp C				
	From Ch. 671+133 to Ch. 671+775	642	9.9	7.0	Viaduct
	From Ch. 671+775 to Ch. 671+850	75	9.9	7.0	Embankment
	From Ch. 671+850 to Ch. 671+900	50	9.5	7.0	
	From Ch. 671+900 to Ch. 671+950	50	9.5	7.0	
	From Ch. 671+950 to Ch. 672+100	150	9.5	7.0	
	From Ch. 672+100 to Ch. 672+197	97	13	10.5	On grade
5.	Ramp D				
	From Ch. 671+130 to Ch. 671+747	617	9.9	7.0	Viaduct
	From Ch. 671+747 to Ch. 671+850	103	9.9	7.0	Embankment
	From Ch. 671+850 to Ch. 671+900	50	9.5	7.0	
	From Ch. 671+900 to Ch. 671+950	50	9.5	7.0	
	From Ch. 671+950 to Ch. 672+100	150	9.5	7.0	
	From Ch. 672+100 to Ch. 672+197	297	13	10.5	On grade
6.	Ramp G				
	From Ch. 671+466 to Ch. 671+516	50	6.65	3.75	Embankment
	From Ch. 671+516 to Ch. 671+666	150	6.65	3.75	
	From Ch. 671+666 to Ch. 671+741	75	6.65	3.75	
7.	Ramp H				

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A-6



SITE OF THE PROJECT

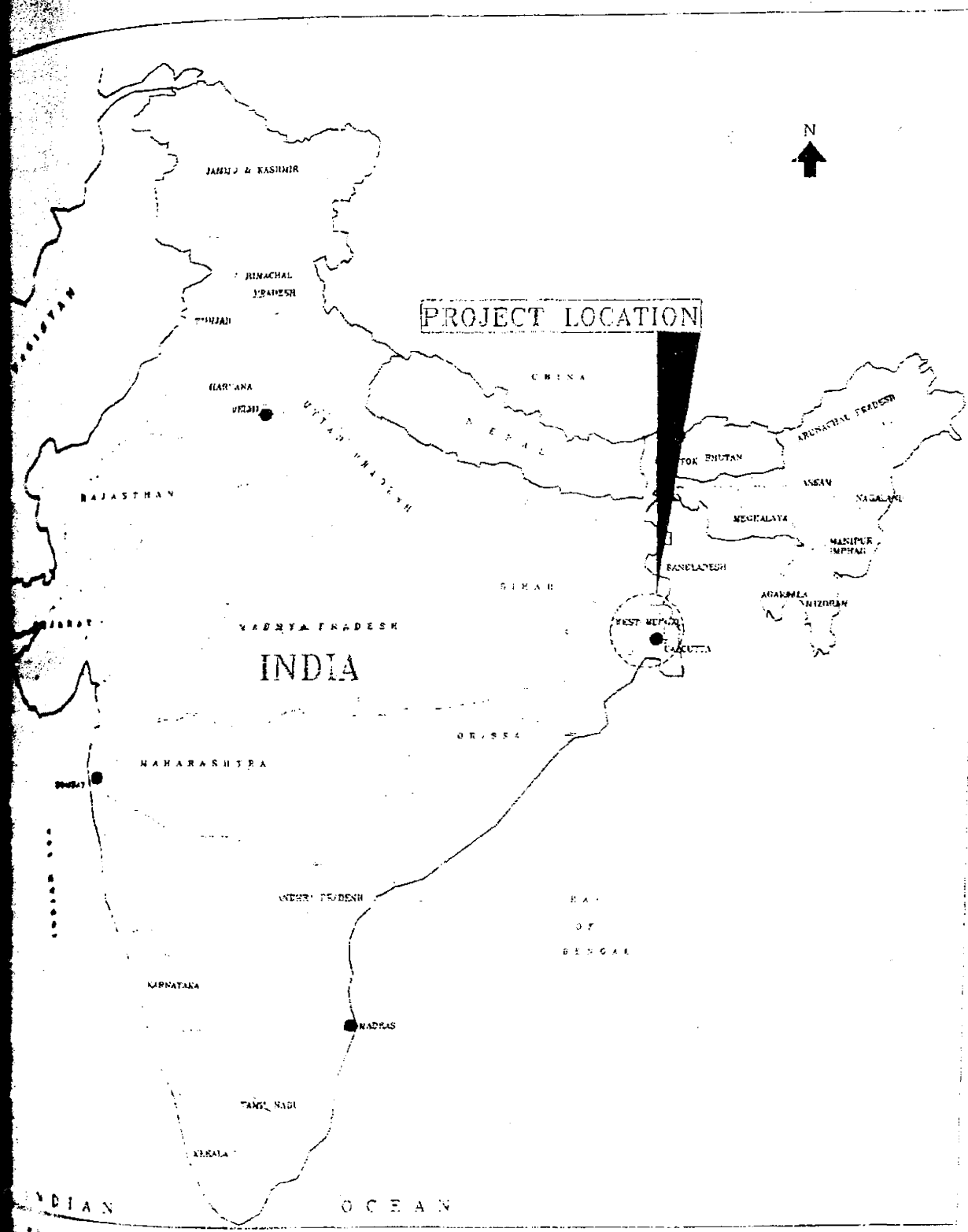
S. No.	Chainage/Description	Length (m)	Formation Width (m)	Carriage-way width (m)	Remarks
	From Ch. 671+445 to Ch. 671+495	50	6.65	3.75	Embankment
	From Ch. 671+495 to Ch. 671+645	150	6.65	3.75	
	From Ch. 671+645 to Ch. 671+805	160	6.65	3.75	
8.	Improvement of existing Rotary				
	Rotary of Inner dia 60 m & Outer dia 81.5 m			10.5	On grade
9.	Improvement of existing PWD Road				
	Ch. 671+280 (end of rotary) to 672+100 (Including loop) - LLR1	820	8.5	7.5	On grade
	Ch. 671+90 to 672+200 (Start of rotary)	110	24	(10.5 + 7.0)	
10.	Lower Level road (New) - LLR2				
	Ch. 671+390 (end of rotary) to 672+100 (Including loop)	710	8.5	7.5	On grade

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A-7



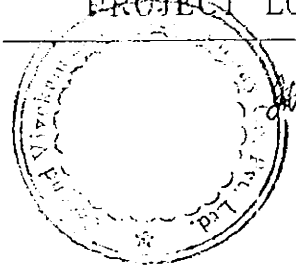
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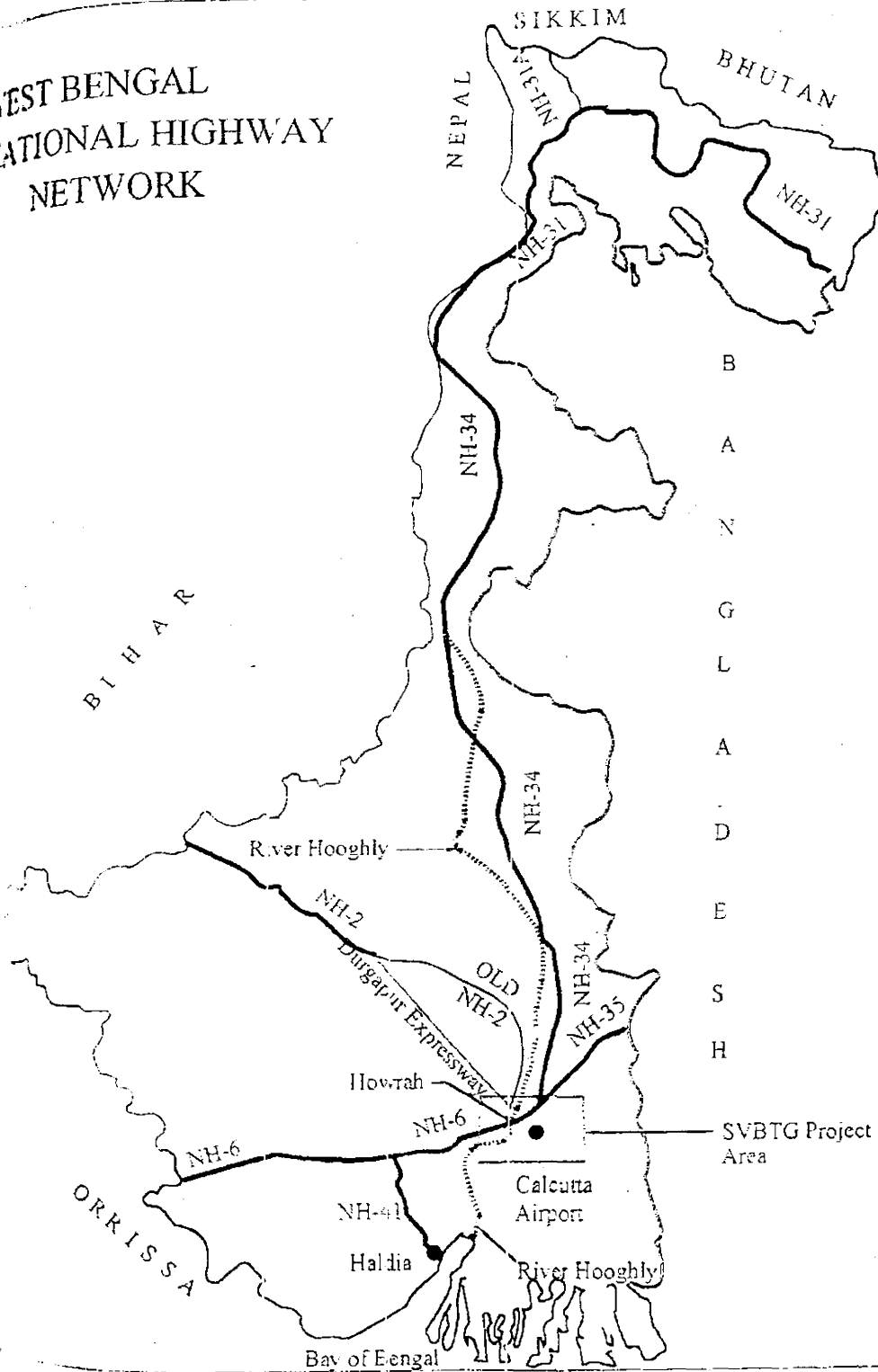
PROJECT LOCATION

PROJECT LOCATION

A-8

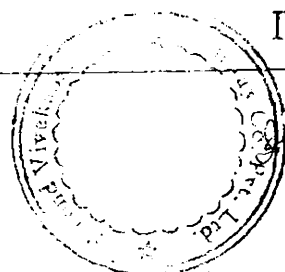


WEST BENGAL NATIONAL HIGHWAY NETWORK



INDEX MAP

A-9



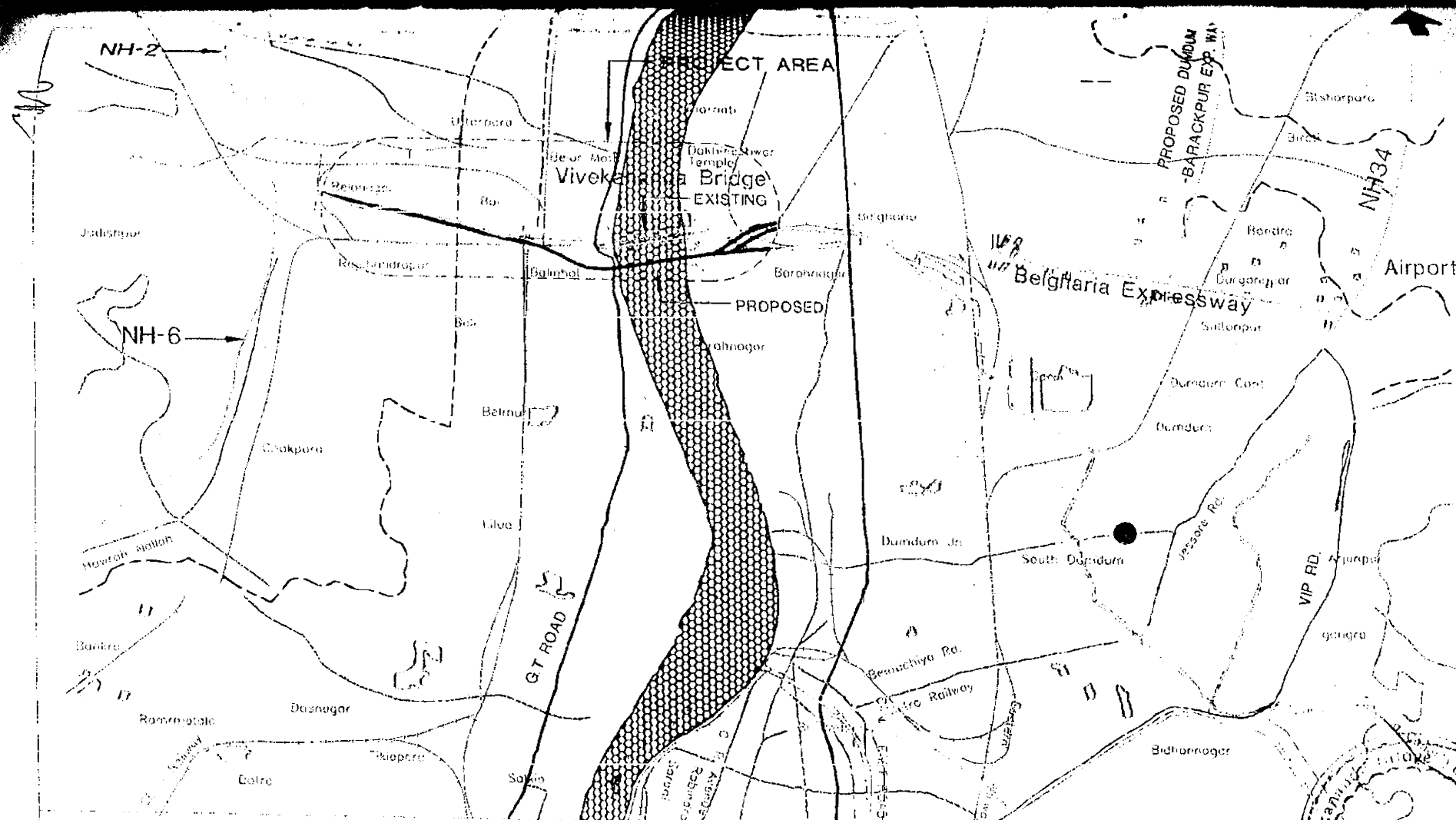
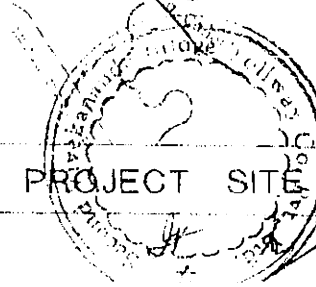
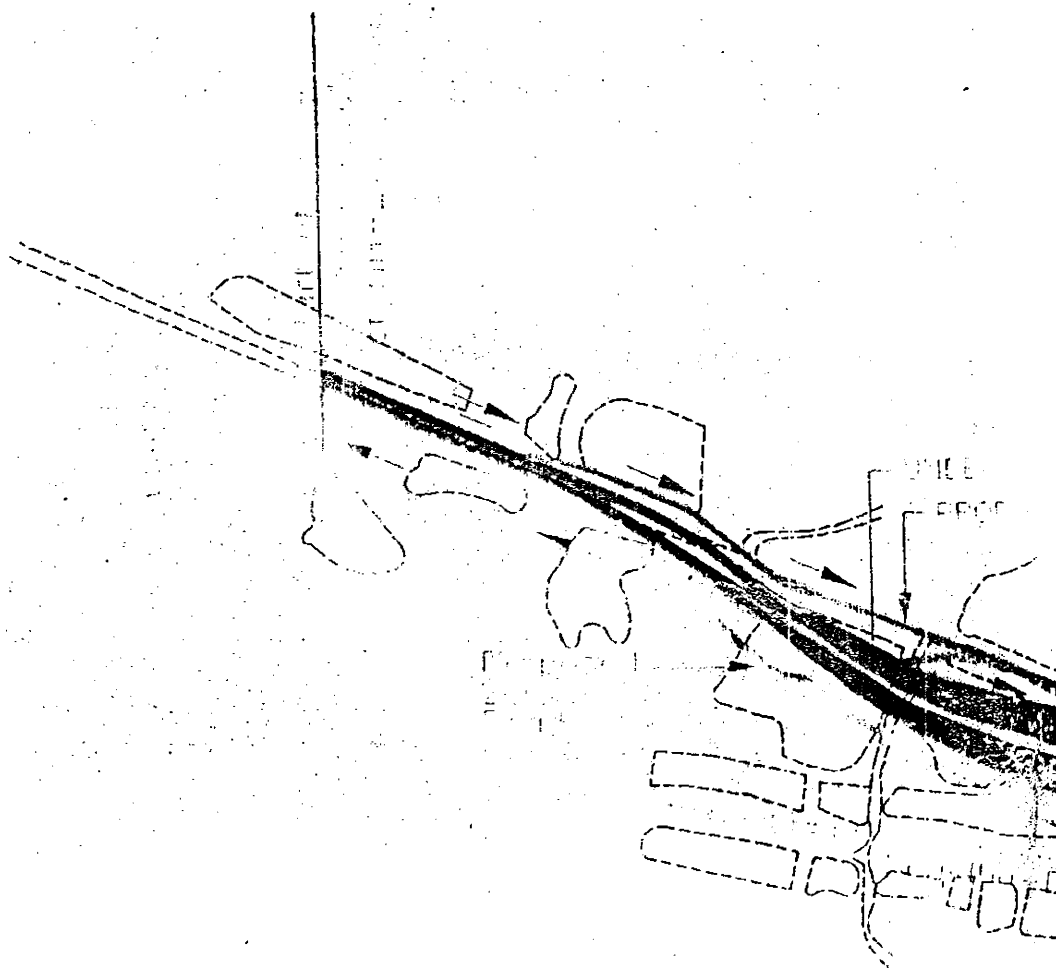


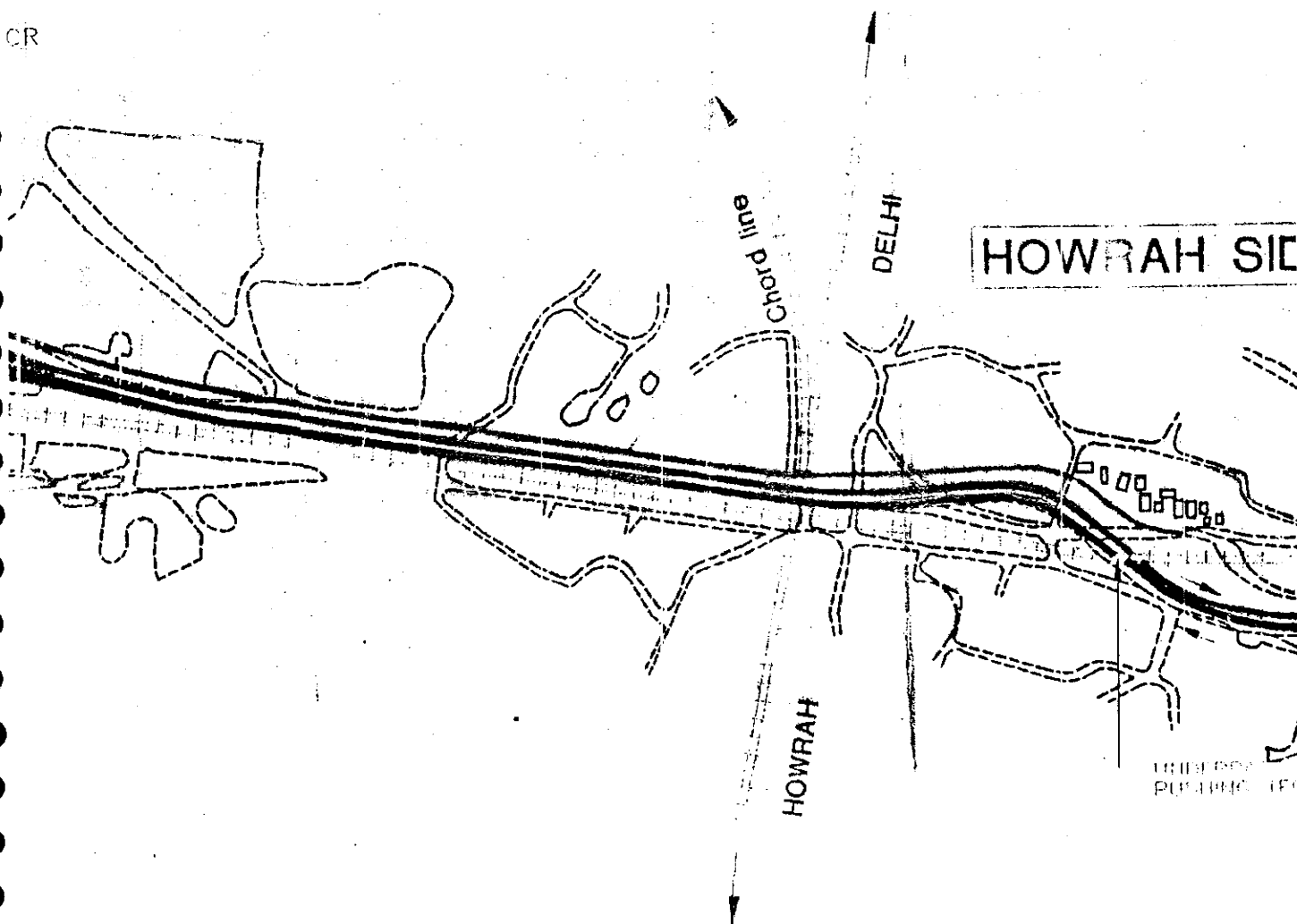
Fig. A3





A11-1

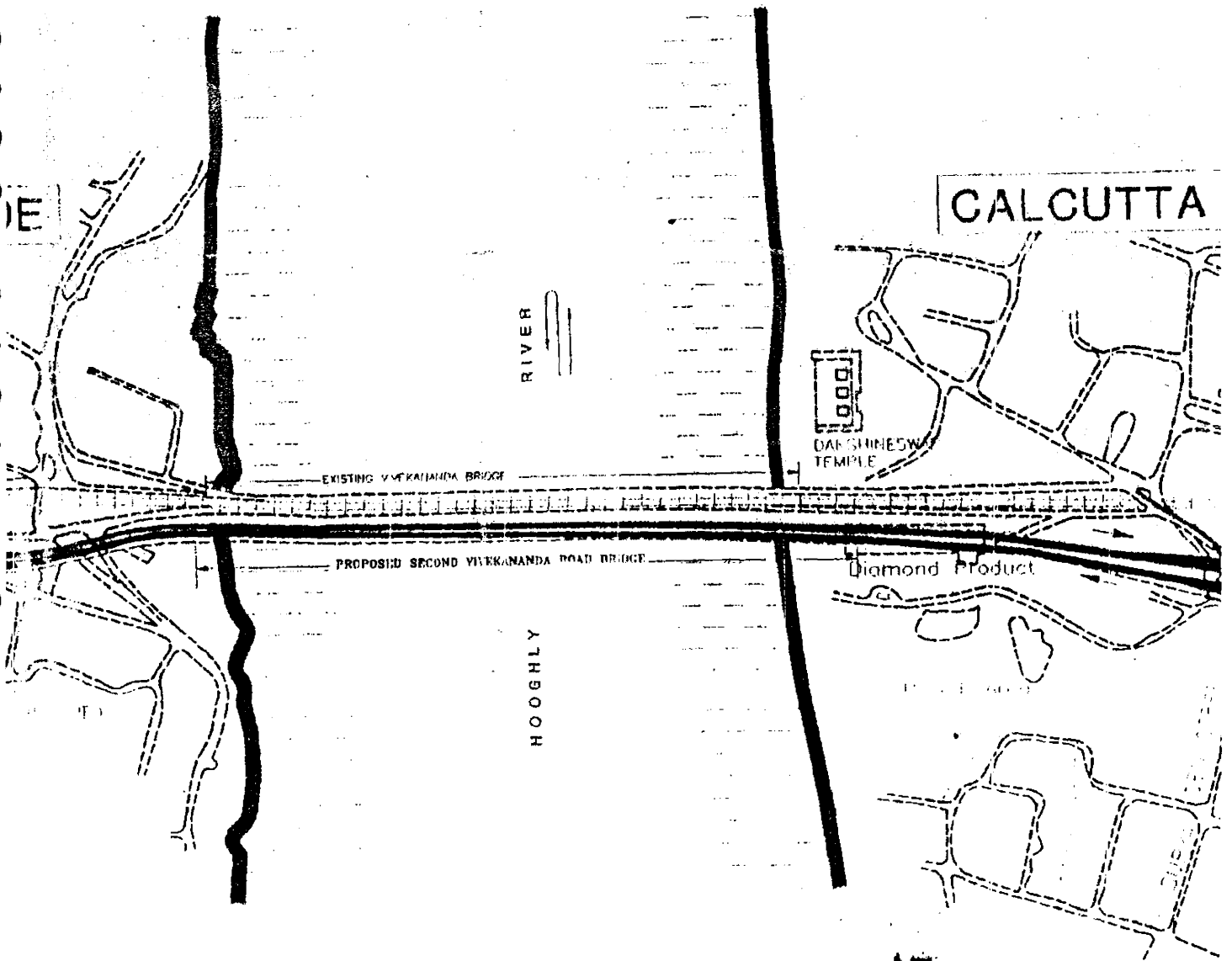
CR



SECOND VIVEKANANDA ROAD

W. A-11

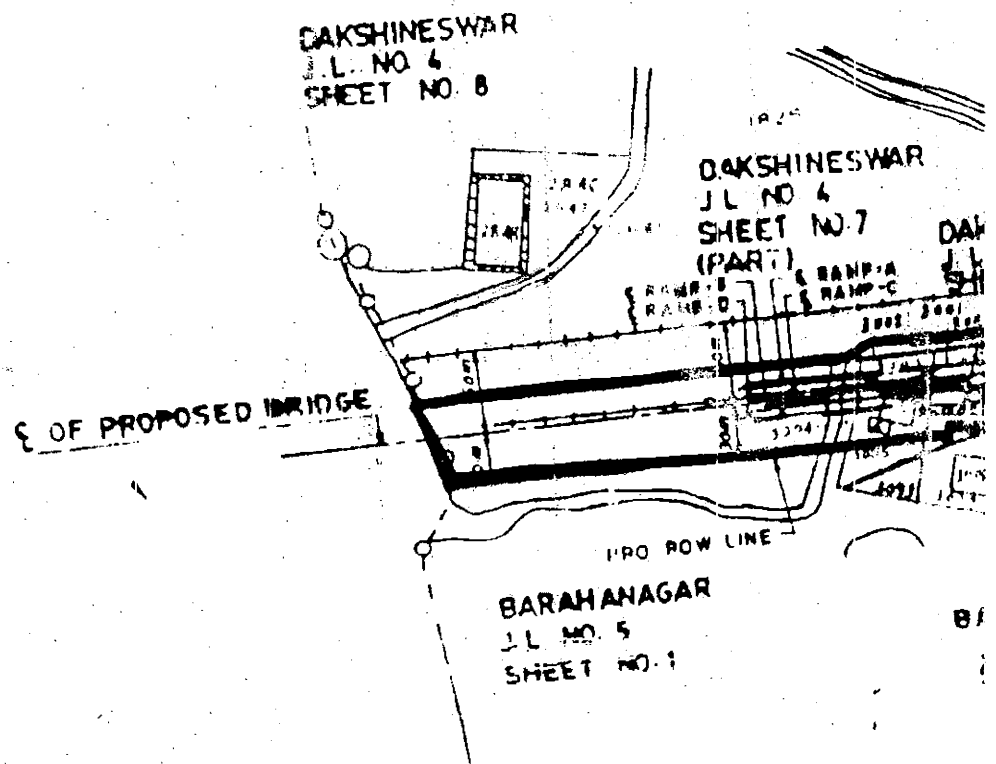
A11-2



D BRIDGE PROJECT

All - 3

HOOGLY RIVER



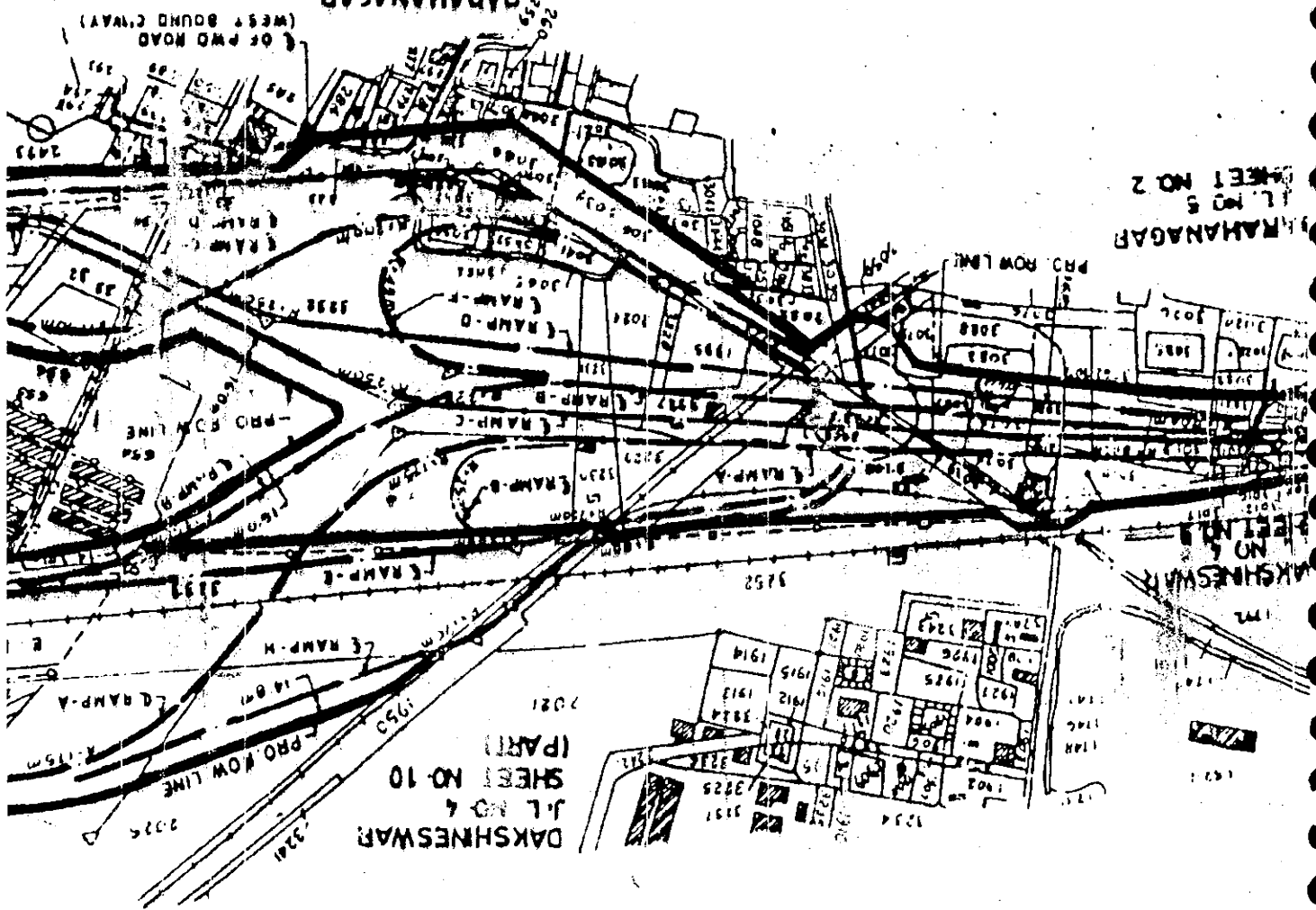
A-12 - 1

412-02

BARAHANAGAR

BARAHANAGAR
J.I. NO. 5
SHEET NO. 3

BARAHANAGAR
J.I. NO. 5
SHEET NO. 2



DAKSHINESWAR
J.I. NO. 4
SHEET NO. 10
(PART)

DAKSHINESWAR
J.I. NO. 4
SHEET NO. 1

TO BARRACKPUR

[1985]

END OF PROJECT

END OF PROJECT

BANPUKI

A12-3

A12-4

BANHUGLI
J.L. NO. 8
SHEET NO. 5

FROM CALCUTTA

BANHUGLI
J.L. NO. 8
SHEET NO. 4

BANHUGLI
J.L. NO. 8
SHEET NO. 3

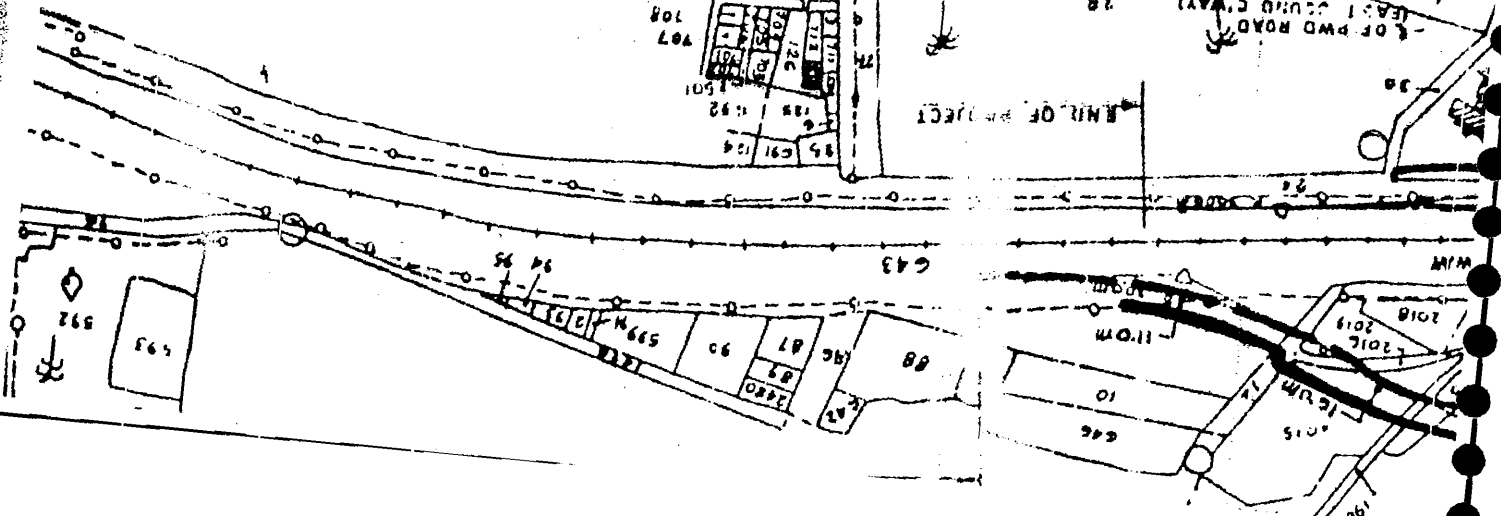
END OF PROJECT

P.W.D. ROAD

END OF PROJECT

BANHUGLI
J.L. NO. 8
SHEET NO. 1

END OF PROJECT



SCALE 1" = 1 MILE

OR

SCALE 1 Metre = 3.16 Kilometres



LEGEND

BUILDING

BUILDING (Not shown in correct position)

BOUNDARY PILLAR

OTHER PILLAR

MUNICIPAL BOUNDARY

STATION

Previous Survey

Present Survey

BUND

Small

Wide

SINGLE DOUBLE OR MORE
RAILWAY LINE WITH MILE
STONE AND CULVERTS / BRIDGES
ELECTRIC LINE POST

TO SCALDAH

NOTE

1. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF RELIABLE SURVEYS BY CONCERNED OFFICERS AS INDICATED IN THE DRAWING. WITH A SUITABLE REDUCTION OF SHEET NO. 9 OF MOWA - DAP, SHEET NO. 14 NO. 2 SHEET NO. 2 & 3 OF MOWA - BARAHANAGAR, 14 NO. 5, AND SHEET NO. 2 OF MOWA - BANHUGA, 14 NO. 8, FOR COMBINATION OF SCALE BY WITH 1:10,000 SHEET NO. 14 NO. 10 & 11.

2. PROPOSAL LEGEND

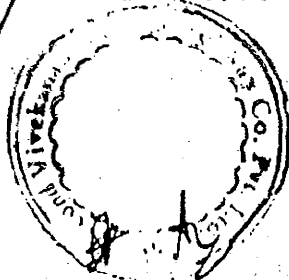
PROPOSED CENTRE LINE

PROPOSED RIGHT OF WAY LINE

3. DUE TO LIMITATION OF SPACE, ALL THE PROPOSED AND EXISTING MISSING GAS NUMBERS, REFER TO HOUSE NO. 1000.

4. EXISTING PWD LAND AND LAND OF LOCAL ROADS SHOWN THIS

5. NEW ACQUISITION SHOWN THIS



REDRAWN AND CORRECTED BY THE LAND

AP-5

OTHER PILLAR

MUNICIPAL BOUNDARY

STATION	Previous Survey	Present Survey

SUND 5 mile wide

SINGLE DOUBLE OR MORE
RAILWAY LINE WITH MILE
STONE AND CULVERIS / BRIDGES
ELECTRIC LINE POST
2029

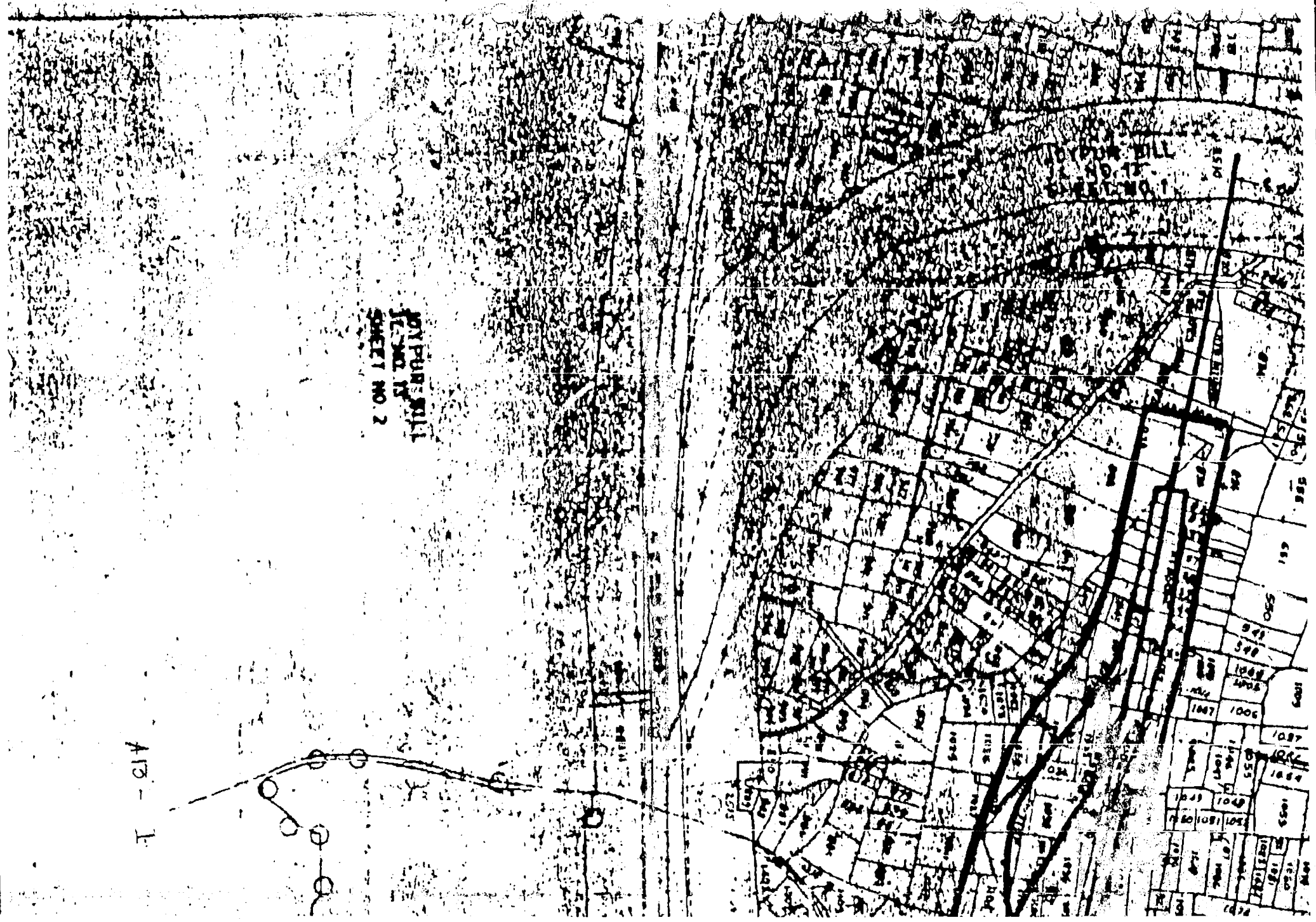
THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF PREVIOUS SHEETS OF CONCERNED MOUZAS AS INDICATED IN THE DRAWING WITH A PARTIAL REDUCTION OF SHEET NO. 3 OF MOUZA - DADAR, SHEET NO. 4 OF MOUZA 283 OF MOUZA - BARAMANAGAR, & NO. 5, NO. 6 SHEET NO. 2 OF MOUZA - BAHUGU & NO. 8, FOR COMPLETION OF SCALE DRAWING WITH 1:10,000 SHEET NO. 104-20-00 PLAN.

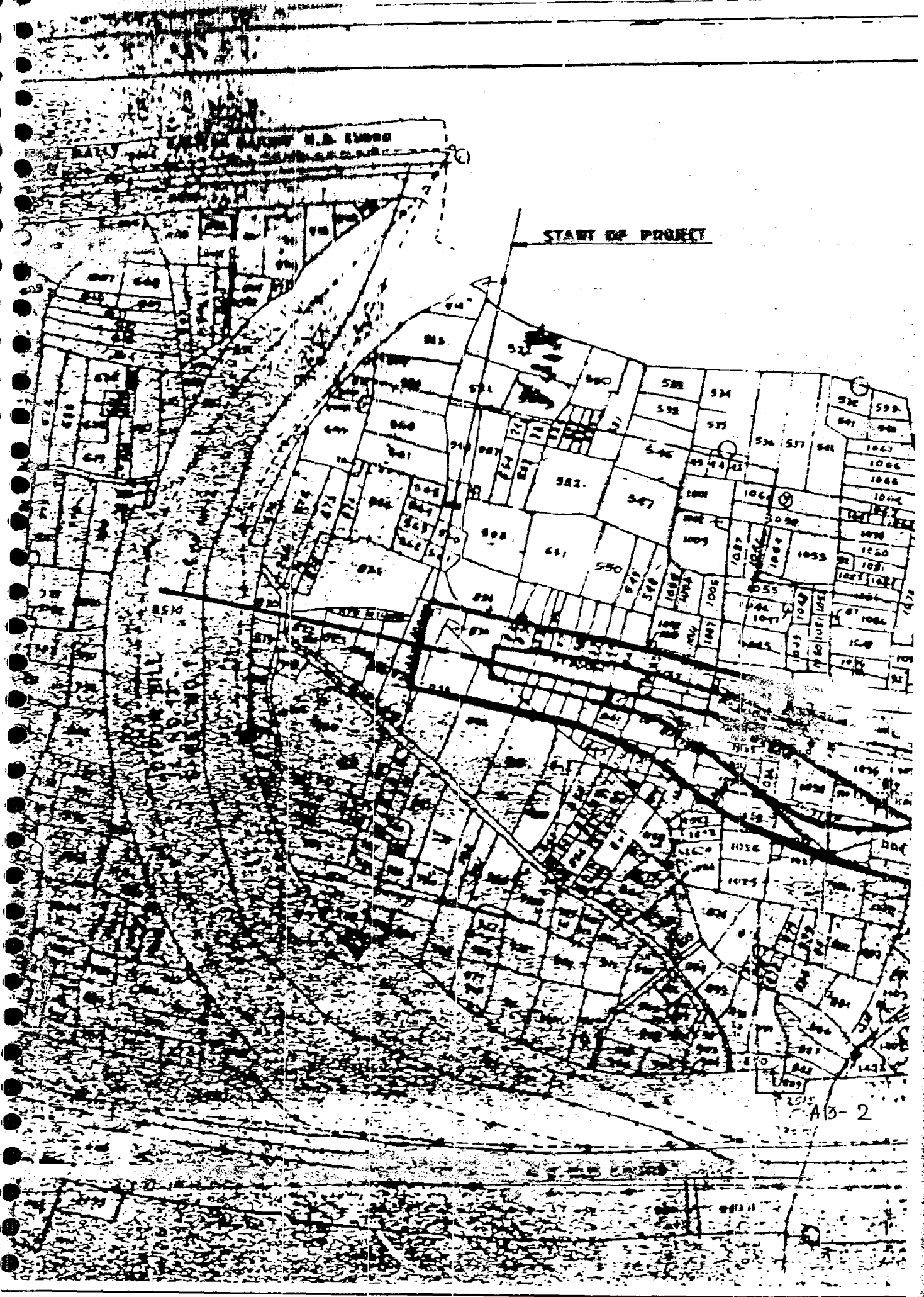
2 PROPOSAL L'IDEND
PROPOSED CENTRE LINE'S
PROPOSED RIGHT OF WAY LINE'S

1 DUE TO LIMITATION OF SPACE, ALL INFORMATION IS MISSING
MISSING GAS NUMBERS, REFER TO HOUSEHOLD NUMBER 1000000

A13 - 1

JOY PUD HILL
1E-MD-15
SHEET NO 2

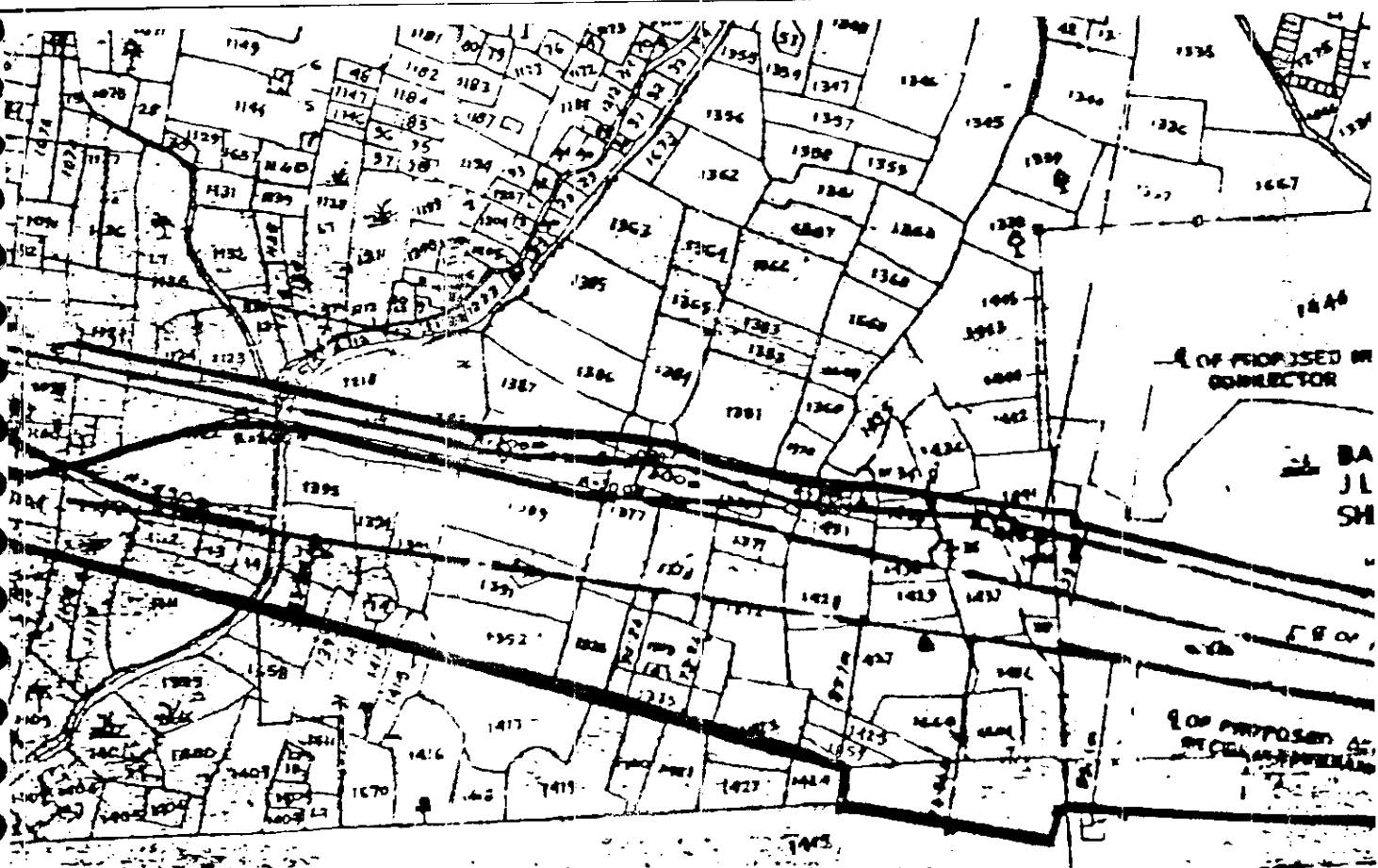




START OF PROJECT

U.S. 1000

A3-2

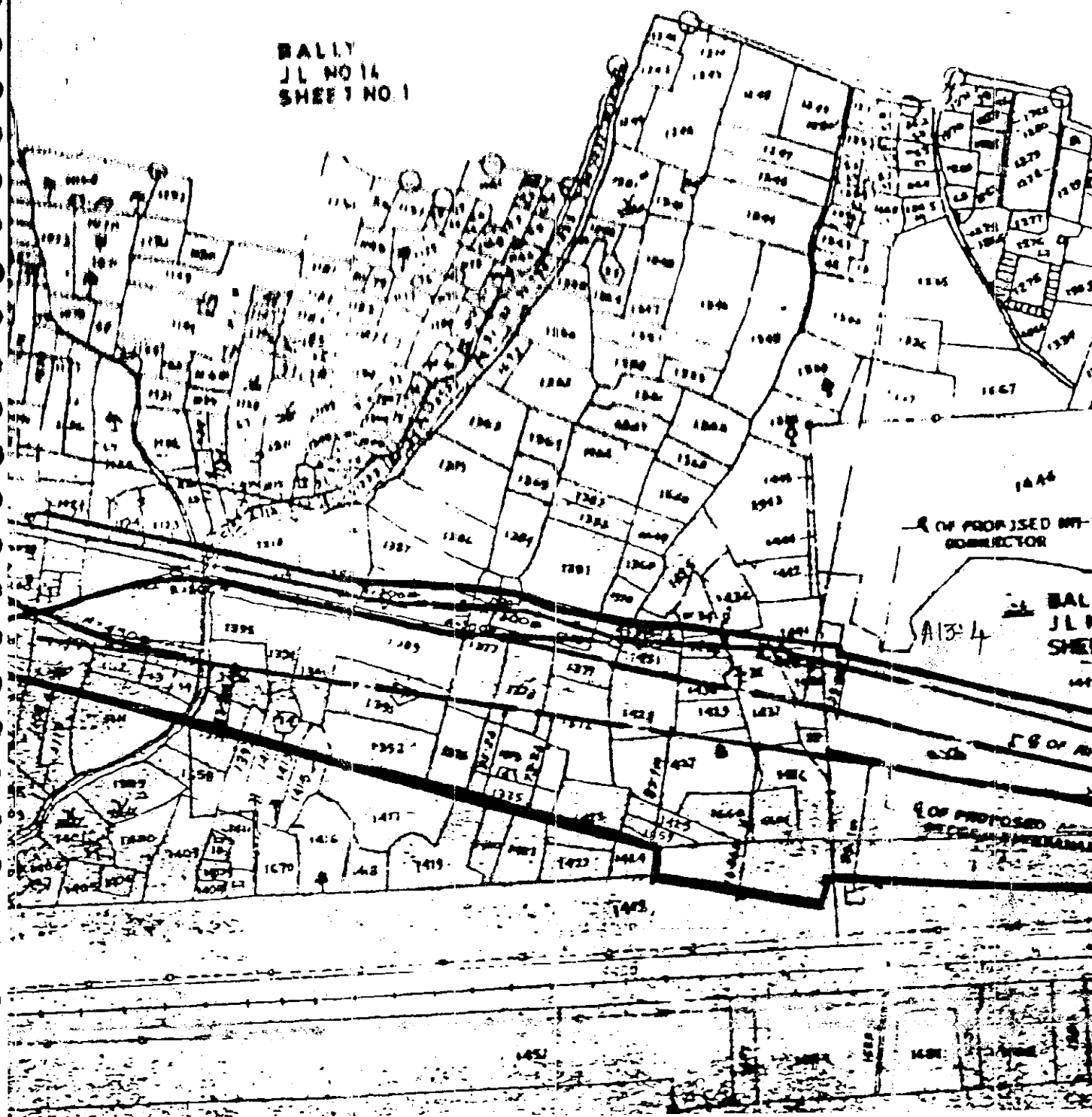


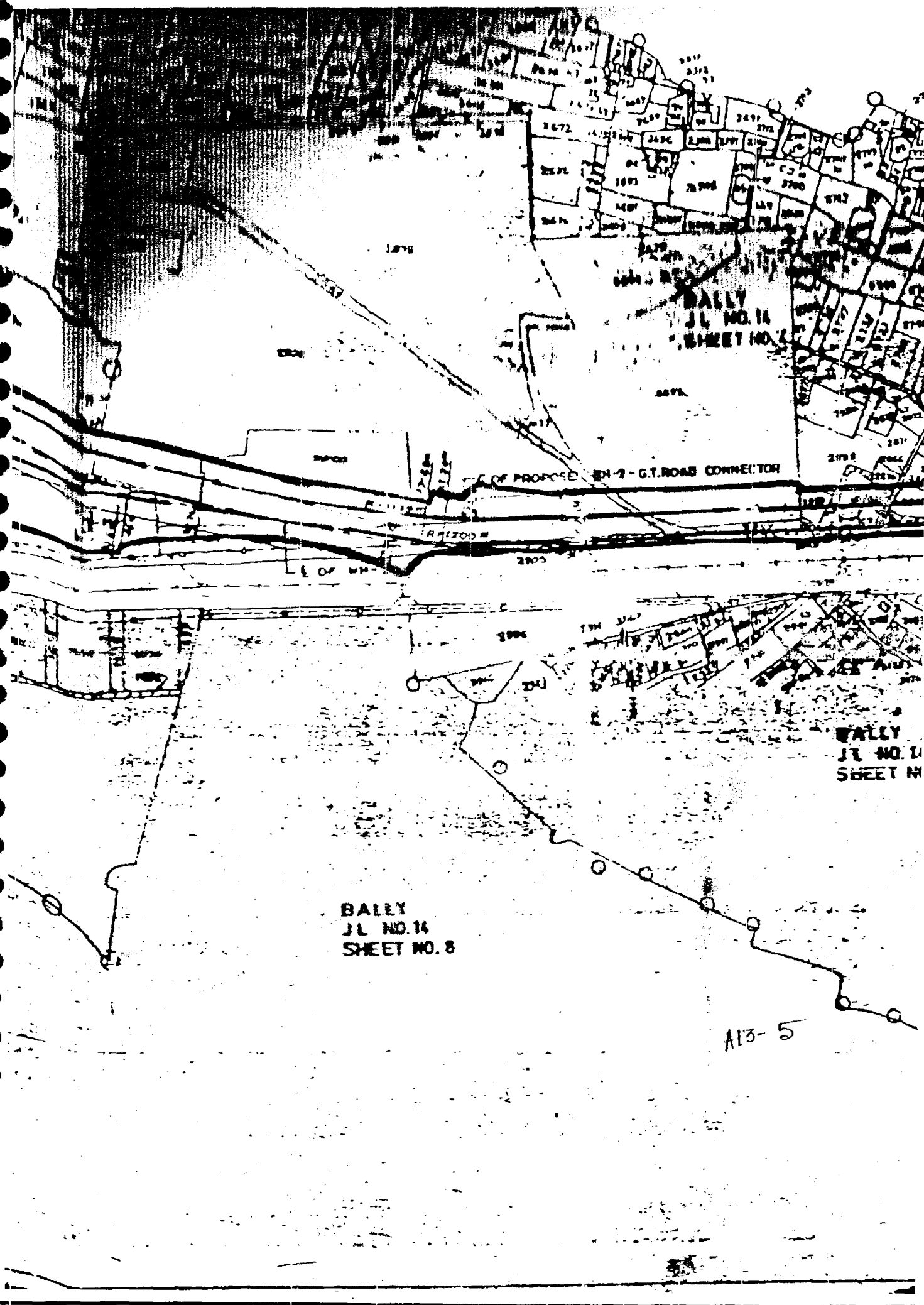
BALLY
JL NO. 14
SHEET NO. 2

BALLY
JL NO. 14
SHEET NO. 5

A13- 3

BALLY
JL NO 14
SHEET NO. 1





A13-6

BALLY
JL NO.16
SHEET NO.

OF PROPOSED IN-2 - G.T. ROAD CONNECTION

R 51200

2905

EASTERN RAILWAY
TO BANGALORE

BALLY
JL NO. 11
SHEET NO. 10

BALLY
JL NO. 11
SHEET NO. 11

OLD PANCHANANTALA ROAD

PANCHANANTALA ROAD

SC OF PROPOSED APPROACH &
SECOND VIVEKANANDA BRIDGE

BALLY
JL NO. 11
SHEET NO. 9

BALLY
JL NO. 11
SHEET NO. 10

BALLY
JL NO. 11
SHEET NO. 11

FROM HOWRAH

A13-7

EASTERN RAILWAY
TO BUNDWAN

A13-8

BALLY
JL NO. 14
SHEET NO. 10

BALLY
JL NO.
SHEET

OLD PANCHANANTALA ROAD

ROW
LINE

VIVEKANANDA BRIDGE

(OF EX. AM-2)

PANCHANANTALA ROAD

OF PROPOSED APPROACH &
SECOND VIVEKANANDA BRIDGE

BALLY
JL NO. 14
SHEET NO. 6

BALLY
JL NO. 1
SHEET NO. 16

SURVEY []
[]

SINGLE DOUBLE OR MORE
RAILWAY LINE WITH MILE STONE
AND CULVERTS / BRIDGES

ELECTRIC LINE - POST

TRAIL

EXISTING HIGHWAY AND LAND OF LOCAL
ROADS SHOWN THUS
NEW ACQUISITION SHOWN THUS

OF PROPOSED BRIDGE

RIVER
HOUGLY

NOTE

1. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF RELEVANT SHEETS OF CONCERNED MOUZAS AS SHOWN (WITH SUITABLE REDUCTION OF SHEETS NO. 12, 13 & 14 MOUZA - BALLY, J.L. NO. 14 AND SHEET NO. 10 MOUZA - BALLY, J.L. NO. 13 FOR COMPATIBILITY OF SCALE BETWEEN ADJOINING SHEETS) AND APPROVED LAYOUT PLAN.
2. PROPOSAL LEGEND: * PROPOSED RIGHT OF WAY LINES

REV.	DESCRIPTION	DATE
C	GENERALLY REVISED INCLUDING INCORPORATION OF REQUIREMENT DUE TO REALIGNMENT / PROVISION OF LOCAL ROADS / SERVICE ROAD	12.12.94
B	A FEW D.A.G. NOS. CORRECTED AND OTHER MINOR CORRECTIONS INCORPORATED	24.12.94
A	REVISED ISPERAPPD. LAYOUT & ALSO NOTES REVISED	24.12.94

REVISIONS

GOVERNMENT OF WEST BENGAL

PUBLIC WORKS (ROADS) DIRECTORATE

(NATIONAL HIGHWAY WING)

SECOND VIVEKANANDA ROAD BRIDGE PROJECT

SCALE AS SHOWN	DATE	LAND ACQUISITION PLAN HOWRAH SIDE
DEALT	Amended	
CHECKED		
APPROVED		

DRG. NO. 12/11/MP-05

CONSULTING ENGINEERING SERVICES PVT. LTD.

In Association with

DYWDAG-SYSTEMS INTERNATIONAL

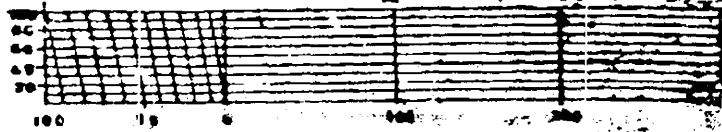
FIGURE A-6

A-12

SCALE 1" = 1 MILE

OR

SCALE 1 Metre = 3.94 Kilometre



LEGEND

BUILDING

BUILDING (Not shown in correct position)

BOUNDARY PILLAR

OTHER PILLAR

MUNICIPAL BOUNDARY

STATION

Previous Survey

Present Survey

BLIND

Small

Wide

SINGLE DOUBLE OR MORE
RAILWAY LINE WITH MILE STONE
AND CULVERTS / BRIDGES

ELECTRIC LINE - POST

TREE

EXISTING M.H. LAND AND LAND OF LOCAL
ROADS SHOWN THUS

NEW ACQUISITION SHOWN THUS

PLAN OF PROPOSED BRIDGE

HUGHLY RIVER

A13-10

NOTE

1. THIS DRAWING HAS BEEN PREPARED ON THE BASIS OF
RELEVANT SHEETS OF CONCERNED MOUZAS AS MENTIONED
(WITH SUITABLE REDUCTION OF SHEETS IN SCALE) AND
MOUZA-BALLY, J.L. NO. 14 AND SHEET 10 OF MOUZA-BALLY
J.L. NO. 13 FOR COMPATIBILITY OF SCALE BETWEEN
ADJOINING SHEETS) AND APPROVED LAYOUT SHEET

BALLY
J.L. NO. 14
SHEET NO. 15

BALLY
J.L. NO. 14
SHEET NO. 14

SCOPE OF THE PROJECT

1 GENERAL

The following sections of this schedule highlight the scope of the work of the Project as reference.

2 THE PROJECT

The Concessionaire shall carryout engineering surveys, investigations and detailed engineering designs and prepare the working drawings for all the components relevant to the project for implementation and to fulfil the scope of the Project as envisaged hereinunder. The designs for different project facilities shall follow the locations and indicative designs given in Schedule C and shall comply with design specifications and standards outlined in Schedule D. The maintenance of the different elements of the Project and facilities thereon shall follow the maintenance requirements as described in Schedule L. All the designs and drawings shall be reviewed by the Independent Consultant (IC) prior to execution.

2.1 Core Requirement

2.1.1 In the planning , design and execution of the works and other works in connection with maintenance of the Project and functions associated with the construction of the Project, the Concessionaire shall take such actions and do such things :

- a. Provide an acceptably safe bridge including its approaches in respect of its condition (structural safety) and use (road safety) ; and
- b. Fulfil its statutory and common law obligations ; and

2.1.2 Provide a congestion free uninterrupted flow of traffic on the Project bridge and its approaches;

2.1.3 Provide a level of service to the public commensurate with relevant Indian Roads Congress (IRC) documents;

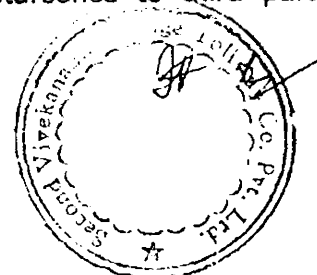
2.1.4 Enable the police, local authorities, and others with statutory duties or functions in relation to the Project or adjoining roads to fulfil those duties and functions;

2.1.5 Minimise the occurrence and adverse effects of accidents and ensure that all accidents and emergencies are responded to as quickly as possible ;

2.1.6 Minimise the risk of damage, destruction or disturbance to third party property

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B-1



SCOPE OF THE PROJECT

- 21.7 Ensure that members of the public are treated with all due courtesy and consideration;
- 21.8 Provide a safe, clear and informative system of road signs;
- 21.9 Comply with any specified programme requirements, including for the completion of the new bridge and its approaches;
- 21.10 Enable standards of reliability, durability, accessibility, maintainability, quality control and assurance, and fitness for purpose appropriate to the character of the Project to be achieved throughout the Concession Period;
- 21.11 Achieve a high standard in the appearance and aesthetic quality of the Project and achieve integration of the Project with the character of the surrounding landscape through both appropriate design and sensitive management of all visible elements including the existing bridge

22 Cross Sections

The details of cross sections along the chainage are as per pages A-2 to A-7 of Schedule-A.

23 Pavements

23.1 General

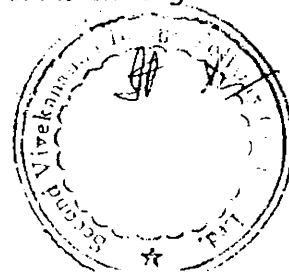
The detailed pavement design of the Project including that of the service road shall be made in accordance with Schedule D.

- 23.2 The entire stretch of ramps of the Project including the service roads will have flexible pavement except at certain locations. At these locations e.g. the toll plaza, concessionaire may choose between rigid or flexible pavements, but ensuring the level of service as per 2.1.3 of Schedule-B.

- 23.3 Strengthening of the existing flexible pavement if any shall be Bituminous Macadam (BM) 50 mm and Dense Bituminous Macadam (DBM) 100 mm. The profile corrective course will be 75 mm BM on average. However, where the strengthening need is more than 150 mm, the additional thickness shall be provided through EM as per site requirement.

The shoulders shall be paved and have the same thickness as that of the main carriageway but different composition. The thickness of the Wet Mix Macadam (WMM) layer shall be 275 mm as no layer of BM is envisaged here.

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SCOPE OF THE PROJECT

It will ensure that the wearing course have the same composition as that of the main pavement for monolithic construction.

Overlays shall be designed in accordance with the design standards set in Schedule D. Benkleman beam deflection tests shall be carried out on the Project at repeated intervals (every year). Whenever the characteristic deflection is more than 0.8 mm, an overlay shall be designed for an additional traffic of 100 msa.

2.3.4 Rigid Pavement Design

2.3.4.1 The pavement shall be designed for a design life of 30 years.

2.3.4.2 Joints

Contraction joints with dowel bars shall be provided.

2.4 Geometric Improvement

2.4.1 Tentative alignment and geometry of various components have already been decided and is given in Schedule I -- Drawings. The Concessionaire shall however make modifications as per site conditions and availability of land. While doing so the flat gradients shall be corrected in such a way so as to attain a minimum 1% longitudinal gradient in order to achieve longitudinal drainage. The horizontal and vertical alignment along the Project shall be as per the standards set out in Schedule D.

2.4.2 Kinks in the horizontal alignment for the existing road covered by the project shall be eliminated.

2.5 Slope Protection and Drainage

The improvements in the drainage and the slope erosion shall be made as per the following norms:

2.5.1 Drainage Measures

Following measures shall be adopted:

- Chute drains alongwith shoulder drains in high embankment (3m and above);
- Median drains at super elevated sections



SCOPE OF THE PROJECT

2.5.2 Slope protection measures

Following measures shall be adopted:

- Side slopes of embankments 3 m high or more shall be protected by stone pitching, geo-mesh or, geo-grids in consultation with the Independent Consultants
- Embankments less than 3 m in height shall be turfed as per MOST Specifications

2.6 Traffic Signage and Pavement Markings

2.6.1 Traffic signs and pavement markings shall include road side signs, overhead signs, kerb mounted signs and road markings along the Project. The design and marking for the Project shall be as per the design standards indicated in Schedule D and the locations for various treatment shall be finalized in consultation with the Independent Consultant.

2.6.2 All signs shall be the reflectorised type with high intensity retro-reflective sheeting of encapsulated type. The height, lateral clearance, location and installation shall be as per relevant clauses of IRC, MoRTH specifications. Overhead signs shall be installed ahead of major intersections, exit & entry ramps, toll plazas.

2.6.3 Kilometer stones and hectometer stones shall be provided and scripted along the project as per IRC standard for National Highways.

2.7 Crash Barrier

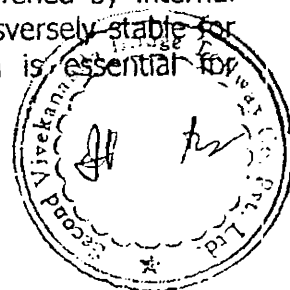
Crash barrier shall be provided as per provision of IRC-5. In addition raised kerb will be used on either side of the central verge.

2.8 Structures

All the structures shall be designed in accordance with the design standards set in Schedule D. The outline details of structures as proposed by the Concessionaire and generally agreed to by NHAI are as follows:

2.8.1 Main Bridge Superstructure

The superstructure consists of a single-cell box girder stiffened by internal struts. This section is well suited for precasting; it is transversely stable for segments stored with supports under the webs, which is essential for



SCOPE OF THE PROJECT

matching of the segments at erection. Preliminary GAD enclosed in Schedule-I.

28.2 Main Bridge Substructure & Foundation

The cast-in-place pier shafts will be supported on deep foundations, either as well or pile foundations.

The well foundation system is typically used for major river crossings in India. The wells would be circular with the top of the well cap located at riverbed level to reduce scour. A jack-down system would be used to accelerate the construction. This method has been tried before in India and proven successful. The large-diameter piles-alternative is with top of the pile cap located at riverbed level. Precasting can be considered for the pile cap shell, which could be mounted on top of the completed drilled shafts.

In case it is decided to continue substructure and foundation work during monsoon, appropriate precautions would be taken for work in river. The monsoon generally lasts for 4 months in a year at the site.

28.3 Approach Spans

General

Both the Kolkata and Howrah Approach Viaducts are well suited for precast segmental construction. This method typically results in aesthetically pleasing approach viaducts, which shall then in turn blend well with the main bridge.

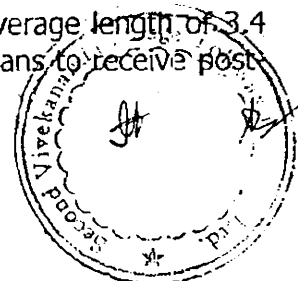
To accommodate variations in the box girder widths, two different sections are proposed for this project:

Both Sections are 2.4 m deep. In areas of mergers or where more than three lanes are required, the two girders can be connected together with a cast-in-place joint between the segment wings tips.

The top slab of the box girder is transversely post-tensioned.

The spans are simply supported to take into account potential differential settlements; however, the box girders top slabs are linked together with an in-situ slab across the adjoining span's diaphragm segments. The linking of the spans together results in improved rideability. Expansion joints are placed approximately every three spans.

The Spans are divided into concrete segments with an average length of 3.4 m. Diaphragm segments are used at each end of the spans to receive post-



SCOPE OF THE PROJECT

tensioning tendon anchorages and distribute bearing reactions. The post-tensioning tendons are placed inside the box girder but outside of the concrete. They are typically draped and deviated at three locations within the span. To simplify the post-tensioning layout, "diabolo" are used to deviate each tendon. The "diabolo" is a pipe with bell-shaped extremities, which is cast into the segment. After casting, the "diabolo" is removed leaving a bell shaped void. The radii of the bells are computed to accommodate all variations of tendon angles due to span length and geometry. This design allows for simplicity and standardization of the tendon geometry, and simplification of the casting process.

The superstructure is erected by the "span-by-span" method with dry joints. After erection, the top slab segment joints are sealed with an epoxy compound.

The foundations for the approach viaducts are proposed with bored piles. Detailed subsoil investigations shall be carried out to finalize pile lengths.

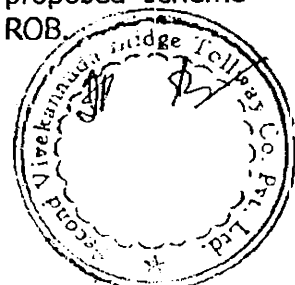
Above the pile caps, reinforced concrete pier shafts are cast in place. The piers include a flare at the top to harmoniously match the box girder shape.

The concrete box girders are supported on elastomeric bearings.

2.8.4 Howrah Approach

The salient features of the approach on the Howrah side are enumerated below:

- The scheme allows for crossing over the existing GT Road ramp with the required vertical clearance.
- It envisages crossing the Calcutta Chord Railway lines (CCR) as an underpass to be implemented by jack-pushing technique. The underpass has been planned at a skew angle of about 45 degrees, with required vertical clearance.
- For the jacking required under the CCR, it is proposed to critically address any potential problems such as settlement, obstructions, etc. by close monitoring. This being a fairly difficult process, depending on the soil conditions, jet grouting or freezing of the soil shall also be investigated.
- The scheme seeks to incorporate the existing (4-lane) Road over Bridge (ROB) over Howrah-Bardhaman Main line within the proposed scheme through widening and necessary upgradation of existing ROB.



SCOPE OF THE PROJECT

- The design speed for the alignment will be as per IRC standards for National Highways except due to site constraints, where reduced speed may be adopted depending upon road geometrics, availability of land and to match the formation level of the existing bridge/navigational clearance as appropriate. Vertical gradient has been restricted to 3% except where site demands differently. Wherever it is not possible to fix the profile within 3% vertical gradient, approval from NHAH shall be obtained for gradients above 3%.
- Since the existing NH-2 is being used for the tollway approach, a non-toll facility for local Howrah traffic is proposed. The non-toll facility comprises single-lanes, east-bound and west-bound on either side of the toll facility at the start of the project on the Howrah side. The West-bound lane merges with the east-bound lane through a new underpass across the tollway approach and the combined carriageway continues as a 2 lane facility connecting existing GT road at chainage 669+280.
- Typical plan and profiles are included in "Schedule-I: Drawings" and indicated in table in Schedule-A.

As the Howrah approach is proposed with embankments over borrow pit areas an effective combination of conventional concrete retaining wall and soil embankment is proposed to be adopted.

28.5 Kolkata Approach

The immediate approach to the main bridge on the Kolkata side passes through the land of the Diamond Product Factory and WIMCO. Thereafter, the dual carriageway bifurcates to allow for the interchange between the PWD Road and the proposed Belghoria Expressway traffic. The connections between the proposed bridge, the Belghoria Expressway and the PWD Road, entailing a major traffic dispersal system, have been effected through free-flowing directional Ramps marked A, B, C, and D. Two additional ramps marked G and H, to cater for the local traffic to/from the proposed bridge, are also included as part of the Project. Typical plan and profiles are included in "Schedule-I : Drawings" and indicated in table in Schedule-A.

Important features of the scheme, on the Kolkata side are

- Interconnection between the proposed bridge, PWD Road and Belghoria Expressway - accomplished in a comprehensive manner.
- The main underpass at the crossing with CCR line for traffic from the new bridge to Belghoria Expressway is located at East End of Dakshineswar



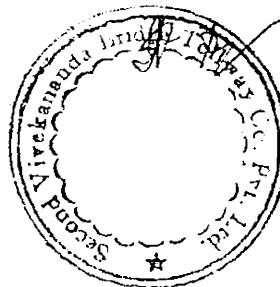
SCOPE OF THE PROJECT

Station Platform. The skew angle is about 41 degree, keeping the railway spans at around 15 m or so.

- The scheme envisages the carriageways for the traffic from PWD Road to New Bridge and New Bridge to PWD Road (i.e. connections to PWD Road) to run alongside in the starting reach (on the east) for a stretch of about 300 m or so after which these directional ramps get separated. Starting these two bridge-ramps together will have enhanced aesthetics and also help to delineate the concessionaire functional area for operation and maintenance in a more positive manner.
- The non-bridge (local) traffic on PWD Road will remain on the outer sides in the eastern reach, but the northern carriageway, envisaged to carry traffic from west to east, will have to cross under the above bridge corridor, and reverse with a minimum radius of 150 m.
- All mainline ramps (A, B, C & D) have been provided with a minimum 175-m radius corresponding to a design speed of 65 km/h.
- The PWD Road traffic from western end (carrying traffic from other local roads) is proposed to be carried through a "U-turn" Ramp H merging it to Belghoria Expressway connector to the Bridge (Ramp B) for linkage towards proposed Bridge.

In general, in view of the urban nature of the project on the Kolkata side, viaducts have been envisaged to be provided for height of ramps over 3.0 meters or so, to enable the scheme to be environment friendly.

Embankments with retaining walls have been provided due to restrictive land availability as well as to curb uncontrolled access of pedestrians, cattle and slow moving vehicles to ramps at or near the ground level.



PROJECT FACILITIES

1. GENERAL

The following sections of the schedule provide the minimum spatial and functional requirements of the facilities to be provided on the Project with an aim to cater to the envisaged demand till the end of the Concession Period. The Concessionaire shall review the adequacy of the proposed facilities at regular intervals and accordingly provide additional facilities with necessary approval from the IC in order to meet the demand of the road users till the end of the Concession Period at the Concessionaire's cost.

2. TOLL PLAZA

The toll plaza shall be provided in the Howrah approach between chainage 666.644 to 667.800 km. First stage of development is proposed with 2x8 lanes to be increased to 2x10 lanes at an appropriate time at the Concessionaire's own cost.

A Mixed-Mode Semi-Automatic System for toll collection shall be developed that is operated manually and all other operations like vehicle classification, ticket printing, lane controlling, accounting system and monitoring the plaza operation are computerised. This system offers a well coordinated and efficient toll plaza operation coupled with high vehicle handling capacity. This system has already been adopted in other toll projects in India and elsewhere in South-East Asia. Future enhancement of the toll plaza and tolling technology to be decided upon by performance criteria as outlined in para 4.11.2 of Schedule D. The sketches for the toll plaza are given in Schedule-I, 'Drawings'.

3. PUBLIC ACCESS TELEPHONE (PAT) SYSTEM

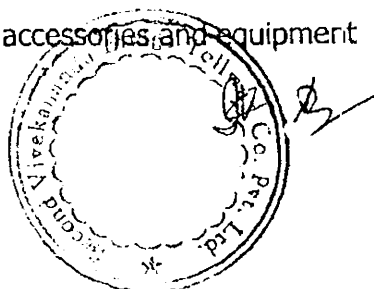
The Project shall be provided with an independent emergency telephone communication system, accessible to public.

4. TRAFFIC CONTROL AND MANAGEMENT

One Traffic Aid Post (TAP) shall be provided on the Project at the location of the proposed toll plaza. The TAP shall be equipped with adequate communication system, information collection and data processing system. The TAP shall maintain regular records of all the information and Action Taken Reports (ATR) and pass it on to the Control Center on daily basis.

The emergency services along the Project at Traffic Aid Post shall include the following:

- i) Ambulance (Accident/Trauma) with medical accessories and equipment
- ii) Fire tender



PROJECT FACILITIES

- O)** Tow away truck and cranes
- N)** Traffic patrolling

In addition to the above, the facility to ensure the safety of the road users as well as the work force involved in maintenance activities on the Project shall be provided. During maintenance period a system for traffic management depending on the site requirement shall be evolved.

5. MAINTENANCE BASE CAMP

There shall be one Maintenance Base camp, at the toll plaza.

The Maintenance Base camp shall cater to the requirement of the following services.

- Central traffic and toll control
- Project maintenance
- Facility for storage and repair of maintenance equipment and vehicles
- Traffic Aid Post

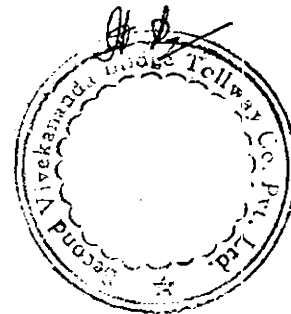
6. LANDSCAPING

Landscaping in approach areas and toll plaza will be done.

7. ENVIRONMENT

The Ministry of Environment and Forest (MoEF) has accorded its approval for the Project. Copy of the approval is attached at Annex-C1. The Project during design, construction, operation and maintenance shall conform to stipulations of the MoEF approval mentioned above.

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ANNEX-C1

GOVERNMENT OF WEST BENGAL
P. W. (ROADS) DEPARTMENT
WORKS BRANCH

No.....R/W.

Dated:

To
The Director General(Road Dev),
Govt. of India,
Ministry of Surface Transport(RW),
Transport Bhawan, Parliament St.,
New Delhi - 110 001.

Sub : Environmental clearance for the Second
Vivekananda Road Bridge Project on river
Hoochly in Howrah District, West Bengal

Sir,

I am to send herewith the copy of letter No. J-21012/6/93-1A dated the 2nd August 1999 received from the Ministry of Environment and Forests (IA Division), Govt. of India in connection with environmental clearance accorded by the Ministry of Environment and Forests to the project of Second Vivekananda Bridge which is self explanatory for your kind perusal.

Encls: As stated.

Yours faithfully,

sd/-

CHIEF ENGINEER (NH)

No.....R/W.

Copy with copy of Ministry of Environment and Forest's letter forwarded to the S.E.(RO), M.O.S.T., Calcutta, Salt Lake, for information.

Encls: As stated.

CHIEF ENGINEER (NH)

No. 2054(2)-R/W.

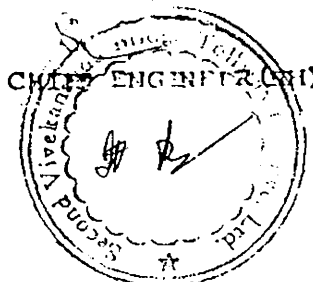
dt. 13.9.99

Copy with copy of Ministry's above letter forwarded to the S.I., N.H.C.No.1 / Project Engineer I, State Cell, 2nd Vivekananda ~~East~~ Bridge for information and necessary action.

Encls: As stated

CHIEF ENGINEER (NH)

Handwritten notes:
in Dept. (B.B.M.) - Environment
All documents in
clearance file
C-3
16/09/99



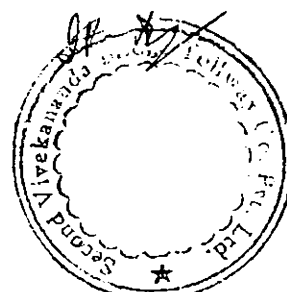
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RECEIVED
Public Works
MAY 1991
FORESTS

Dated the 2nd August, 1999

The undersigned is directed to refer to the letter No.1693-R/W dated 16-10-98, from the Principal Secretary (PWD), Govt. of West Bengal and their subsequent communications No.398-R/W dated 4-3-99 and No.650-R/W dated 22-4-99 regarding the subject mentioned above. The proposal involves construction of a new bridge having eight spans of 110 meters each to be located at 50 meter downstream of the existing Vivekananda Bridge site with piers placed at identical longitudinal intervals as in this case of existing bridge. The width of the proposed bridge will be 29.6. m.. The total length of the proposed project is 6,106 m (Bridge 880 m, Road on Calcutta side -1558 m and Road on Howrah side -3668 m). The proposal has been examined and the Ministry hereby accords environmental clearance to the project subject to strict compliance of the terms and conditions mentioned below:-

- i) Protective walls for protection of shore areas on either side of the bridge shall be provided. This requirement shall be carefully assessed and necessary provision shall be made in the proposal for providing suitable protective walls.
- ii) Although there are no notified wetlands being affected by the project, conservation of the existing wetlands to the extent feasible shall be ensured.
- iii) Adequate number of trees shall be planted in lieu of the trees to be felled for construction of the project.
- iv) During the period of construction, necessary mitigative measures should be taken for noise and dust suppression.

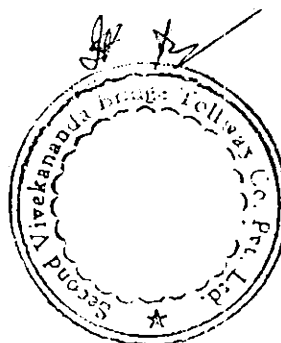


- v) The construction material should be obtained only from approved quarries. In case new quarries are to be opened, specific approvals from the competent authority should be obtained in this regard.

B. General Conditions:

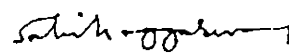
- i) All the conditions stipulated by West Bengal Pollution Control Board vide their NOC No.892/WPB-NOC/97-98 dated 24-8-98 shall be implemented effectively.
- ii) Adequate provision for infrastructural facilities including water supply, fuel and sanitation must be ensured for labourers during the construction period in order to avoid any damage to the existing environment.
- iii) Appropriate protection measures must be taken while undertaking digging activities to avoid degradation of surrounding environment including water quality.
- iv) Borrow sites for earth, quarry sites for road construction material and dump sites for the waste material must be identified keeping in view:
- (a) No excavation or dumping on any private property should be carried out without written consent of the concerned land owner.
 - (b) No excavation or dumping shall be allowed on wetlands, forest areas or other ecologically valuable/ sensitive locations
 - (c) The excavation work should be done in consultation with the soil conservation and watershed development agencies, if any, working in the area.
 - (d) Construction waste material, including bituminous material, and other hazardous material, if any, should not be allowed to contaminate the nearby water courses and the dump sites for such materials must be identified well in advance before starting construction and the dump sites shall be lined properly before dumping so that the wastes do not reach to the groundwater.
- v) Adequate precautions should be taken during transportation of the construction material both via road/river route so that it does not affect the environment adversely.
- vi) Borrow pits and other scars created during bridge construction should be properly levelled and treated.

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- vi) The project-affected people should be adequately rehabilitated and the details of action taken in this regard should be furnished to this Ministry
- vii) Tree felling should be restricted only to the right of way necessary for undertaking the project. The trees, which are necessary to be felled, should be identified before hand and necessary approval from the competent authority should be obtained for felling the same. Sufficient number of trees of suitable species should be planted in lieu of the trees felled
- ix) Adequate financial provision must be made in the project to implement the aforesaid safeguards.
- x) Full support should be extended to the officers of this Ministry's Regional Office at Bhubaneswar by the project proponents during inspection of the project for monitoring purposes by furnishing full details and action plan including the action taken reports in respect of mitigative measures and other environmental protection activities.
- xi) A six-monthly monitoring report shall be submitted to the Regional Office of this Ministry at Bhubaneswar regarding the implementation of the stipulated conditions.
- xii) The Ministry or any other competent authority may stipulate any other conditions for environmental safeguard, subsequently, if deemed necessary, which should also be complied with.
- xiii) The Ministry reserves the right to revoke this clearance if any of the conditions stipulated are not complied with to the satisfaction of the Ministry.

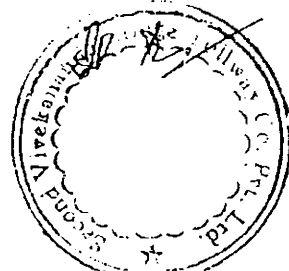
The above-mentioned stipulations shall be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, and the Environment (Protection) Act, 1986, the Environmental Impact Assessment Notification, 1994, the Public Liability Insurance Act, 1991 and the amendments and rules made thereunder from time to time.



(Dr. S.K. Aggarwal)
Additional Director

To
The Principal Secretary,
Govt. of West Bengal,
PW (Roads) Deptt., NH Wing,
Writers' Buildings, Calcutta-700 001





SPECIFICATION & STANDARDS

INTRODUCTION

Specifications and Standards for construction, operation and maintenance of the Second Vivekananda Bridge on NH2, Kolkata are described herein under in this schedule.

The following terminology used in the Concession Agreement will carry the meaning shown against each of them for the contractual and professional understanding in the implementation of the Schedule.

i) Grantor	National Highways Authority of India (NHAI)
ii) Concessionaire	Company responsible to implement the provisions of the Concession Agreement.
iii) Independent Consultants(IC)	Consulting Engineering firm selected jointly by the Concessionaire and NHAI to review the designs furnished by the Concessionaire and oversee the construction, maintenance and operations and provide other services as envisaged in the Concession Agreement.

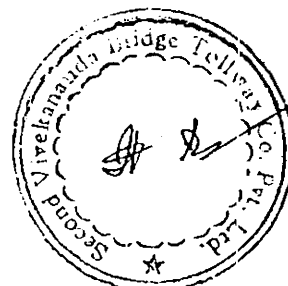
The Concessionaire may employ various agencies to design, construct, operate and maintain the Project. In doing so, it shall follow the Schedule in addition to other documents included in the Concession Agreement. The Schedule D in question uses the terms Contractor and Engineer particularly with reference to the Ministry of Surface Transport Specifications for Road and Bridge Works [hereinafter referred as MoRTH Specification]. In implementation of the said specifications, the terms Contractor and Engineer used therein shall carry the meaning and/or reference as indicated herein under:

i) Contractor	The Contractor(s) employed by the Concessionaire to execute the Project
ii) Engineer	The construction supervision Consulting firm(s) employed by the Concessionaire for the construction supervision of the project

Schedule D comprising specifications and standards (inclusive of reference to codes and manual(s) for construction, operation and maintenance of the project on the basis of the Concession agreement) is subdivided in three parts, namely,

- General
- Specifications
- Standards

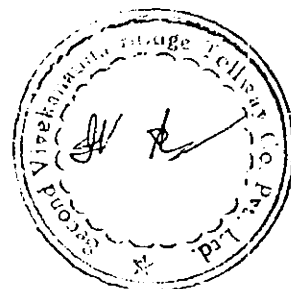
which are described herein as under.



SPECIFICATION & STANDARDS

GENERAL

- 2.1 All works related to the Project shall conform to IRC standards, Codes, Guidelines and Special Publications as applicable to National Highways and MoRTH specifications. In the absence of any definite provisions on any particular issue related to the specifications and/ or standards, reference may be made to the latest codes and specifications of the Bureau of Indian Standards, British Standards, American Association of State Highway and Transportation Officials (AASHTO), American Society for Testing and Materials (ASTM), American Concrete Institute (ACI) or any other international standards. But, where even these are silent, the construction and completion of the works shall conform to sound engineering practice.
- 2.2 Amendments and/ or modifications carried out by MoRTH in the specifications and IRC standards, and codes and Special Publications available to the public as indicated in pages 63 to 72 of Indian Highways Nov.2001 unless otherwise mentioned in this Agreement.
- 2.3 All building works shall conform to Central Public Works Department (CPWD) specifications for class (1) building works and standards given in the National Building Code (NBC) as amended and/or modified from time to time. However, whenever any specific provision for any building works is given in the MoRTH specifications, IRC standards and codes, those shall apply. For the purpose of this clause, building works shall be deemed to include road furniture, landscape elements and/ or any other works incidental to the building works.
- 2.4 In so far as amended/modified/added clause supersedes a clause or part thereof in the said specifications and standards, then any reference to the superseded clause elsewhere shall be deemed to refer to the amended/modified/added clause or part thereof.
- 2.5 If amended/modified/added clause comes in conflict or be inconsistent with any of the provisions of the said specifications and standards, the amended/modified/added clause shall always prevail.
- 2.6 The project shall be designed and executed as Q-4 class of quality assurance as per IRC SP-47:1998 with respect to bridges and IRC SP-57-2000 with respect to approach roads. The Concessionaire shall plan and implement the quality assurance programme for the Project and finalise it in consultation with the Independent Consultant at least one month prior to the commencement of the work.



SPECIFICATION & STANDARDS

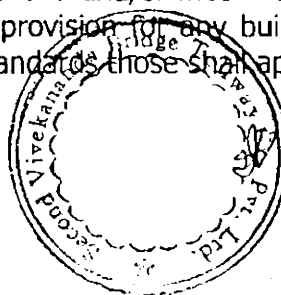
- 1.1 The design quality and/ or the quantities of various items shall primarily be the responsibility of the Concessionaire. The Independent Consultants shall, however, ensure its soundness and/or verify it by devising suitable means. On noticing any deficiency in the design quality and/or quantity, corrective measures as ordered by the Independent Consultant shall be carried out by the Concessionaire. In case of any disagreement or non-compliance by the Concessionaire, the dispute will be referred for resolution in terms of the Concession Agreement.

SPECIFICATIONS

- 1.1 "Specifications" herein under mean the specifications relating to the quality and other requirements for the Project as set forth in this schedule and any modifications thereof, or additions thereto as included in the design and engineering for the Project submitted by the Concessionaire to and expressly approved by the Independent Consultants.
- 1.2 Any specifications and materials used shall be consistent with MoRTH specifications and other publications referred to therein and in this schedule.
- 1.3 The materials to be used in the work of the Project (including facilities thereon) shall conform to MoRTH specifications. However, where the said specifications are silent in regard to specification for the material in question, in that case, specifications of the Bureau of Indian Standards, British Standards, AASHTO, ASTM, or any other international standards shall apply.
- 1.4 Guidelines on Selection of the Grade of Bitumen and Use of Anti-stripping Agents for Bituminous Materials and Mixes as given in MoRTH Specifications shall be followed.

3.5.1 BUILDINGS

- 3.5.1.1 All building works shall be designed to meet the functional requirements and shall be compatible with the regional architecture and micro-climate. Locally available materials shall be given preference but not at the cost of construction quality. All brick masonry works shall be of first class type and as per sound engineering practice. All steel works shall conform to Section 6, Part VI of the NBC and Sections 1900 and 2000 of MoRTH specifications.
- 3.5.1.2 All building works shall conform to Central Public Works Department (CPWD) specifications for class (1) building works and standards given in the National Building Code (NBC) as amended and/or modified from time to time. However, whenever any specific provision for any building works is given in the MoRTH specifications/IRC standards those shall apply.



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3.5.1.3 The design of water storage and distribution systems, laying of mains and pipes, cleaning and disinfecting of the water supply system shall be as per relevant clauses of section 1, Part IX of the NBC.

3.5.1.4 The design, layout and construction of drains for sewage disposal system with all ancillary works such as connections, manholes and inspection chambers and septic tanks shall be as per relevant clauses of Section 2, Part IX of the NBC. Each septic tank, if provided, shall have a soak pit of adequate size. The location of the septic tanks and subsurface absorption system shall be as per Clause 12.15.1 of Part III of NBC.

3.5.1.5 The design and location of all electrical installations, distribution system, wiring, fittings, accessories and lightning protection of buildings shall be as per the relevant clauses of Section 2, Part VIII of the NBC.

3.5.2 LIGHTING SYSTEM

3.5.2.1 The following codes shall be followed while designing the lighting system on the Project for different locations such as grade-separated junctions, bridges, junction of slip roads with elevated roads, pedestrian crossing, toll plazas, base camps, TAPS etc.

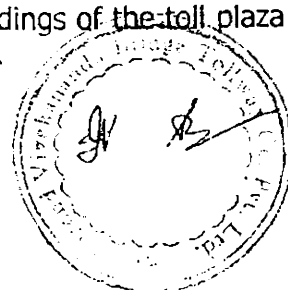
- i) IS: 1944 (Parts I and II) - 1970
- ii) IS: 1944 (Part V) - 1981
- iii) IS: 1944 (Part VI - 1981)
- iv) IS: 1944 (Part VII - 1981)

The layout of the lighting system together with type of luminaires and level of illumination for different locations shall be determined in consultation with the Independent Consultants.

3.5.2.2 Underground/overhead electric power and telecommunication provision erected within the Right of Way (RoW) by the Concessionaire shall be provided with adequate clearance so that safe use of road is not affected. Vertical and horizontal clearances shall conform to IRC: 32-1969.

3.5.3 TOLL PLAZA**3.5.3.1 Toll Plaza Complex**

Toll booth shall be structurally sound and capable of withstanding extreme weather conditions of the region. They shall have clear visibility of approaching vehicles and shall be strong to withstand all forces as per relevant clauses of Section 1, Part VI of NBC. The buildings of the toll plaza complex shall conform to Clause 3.5.1 of this Schedule.



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3.5.3.2 The Toll Plaza complex including its canopy, having 5.5 m clear height in the central portion covering 16 lanes and 8.5 m clear height in the portion of outer lane for oversized vehicles and barriers shall have an effective illumination system for safe movement of vehicles and their identification and all round visual comfort. Toll gates shall be provided with check barriers which can be electrically operated from the toll booths. High mast lighting shall be provided. Power supply shall be from the public power supply system and standby diesel generating sets of adequate capacity shall be provided.

3.5.3.3 The Toll Plaza Complex shall have its surface and sub surface drainage system.

3.5.3.4 Fire-fighting equipment including smoke detectors and audio visual alarm system shall be planned and installed as per section 4.17.1 of NBC.

3.5.3.5 The pavement of the 12 service lanes shall be cement concrete and shall be designed as stipulated under pavement design, pavement markings shall conform to the requirements stated in clause 2.8 of Schedule-B.

3.5.3.6 The toll collection system shall be semi-automatic as explained under Clause 2 of Schedule-C.

3.5.4 TRAFFIC SAFETY MEASURES

3.5.4.1 Highway Patrolling

Traffic Aid Posts (TAPs) for highway patrolling established at Toll Plaza shall be manned with appropriate personnel in consultation with Independent Consultant/NHAI. The Concessionaire shall reach an agreement for hiring the personnel with the concerned department of the State Government of West Bengal.

3.5.4.2 Traffic Aid Post shall be equipped with a Crane, Diesel Jeep or Station Wagon, ambulance, motorcycle and other equipment as per requirement. All the vehicles shall conform to the Motor Vehicles Act 1988.

3.5.5 TRAFFIC CONTROL

3.5.5.1 Highway Signs

3.5.5.1.1 The road signs erected on the bridge/ramps shall conform to IRC: 67, Code of Practice for Road Signs

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3.5.5.1.2 All road signs shall be with retro-reflective type made of high intensity grade with encapsulated lens type reflective sheeting fixed over aluminium and conforming to MoRTH specifications.

3.5.5.1.3 The overhead signs shall be placed on a structurally sound gantry structure reviewed by the Independent Consultants. The said sign shall be reflectorised type with high intensity retro reflective sheeting of encapsulated type. The height, lateral clearance and installation shall be as per the MoRTH Specifications.

3.5.6 PROJECT VEHICLES AND EQUIPMENT FOR OPERATION

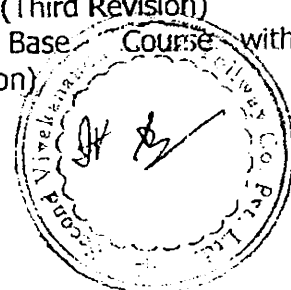
3.5.6.1 All the vehicles used for activities pertaining to the highway operation shall conform to the Motor Vehicles Act 1988.

3.5.6.2 All the gadgets, equipment or any systems used for operation and maintenance of the highway shall be of standard make and shall conform to international standards.

4.0 DESIGN STANDARDS**4.1 Design Specifications**

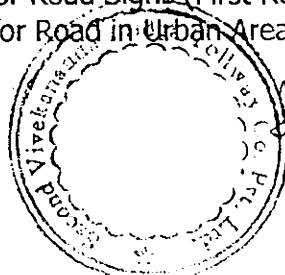
The detailed design shall be undertaken in accordance with the following Standard Specifications and Code of Practice unless otherwise mentioned in this document.

IRC: 2-1968	Route Marker signs for National Highways (First Revision)
IRC: 5-1998	Standard Specifications and Code of Practices for Road Bridges, Section I - General Features of Design (Seventh Revision)
IRC: 6-2000	Standard Specifications and Code of Practices for Road Bridges, Section II - Loads & Stresses (Fourth Revision)
IRC: 7-1971	Recommended Practice for Numbering Bridges and Culverts (First Revision)
IRC: 8-1980	Type Designs for Highway Kilometer Stone (Second Revision)
IRC: 12-1983	Recommended Practice for Location and layout of Roadside Motor Fuel Filling and Motor Fuel Filling-cum Service Stations (Second Revision)
IRC: 15-2002	Standard Specification and Code of Practice for Construction of Concrete Roads (Third Revision)
IRC: 16-1989	Specification for Priming of Base Course with Bituminous Primers (First Revision)



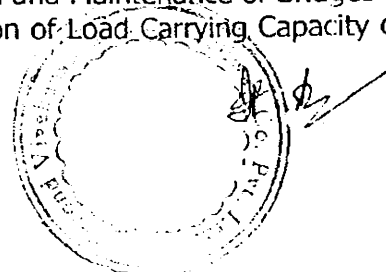
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IRC:18-2000	Design Criteria for Prestressed Concrete Road Bridges (Post-Tensioned Concrete) (Third Revision)
IRC:21-2000	Standard Specifications and Code of Practices for Road Bridges, Section III -Cement Concrete (Plain & Reinforced) (Third Revision)
IRC: 22-1986	Standard Specifications and Code of Practice for Road Bridges. Section VI Composite Construction (First Revision)
IRC: 24-2001	Standard Specifications and Code of Practice for Road Bridges. Section V Steel Road Bridges (Second Revision)
IRC: 25-1967	Type Designs for Boundary Stones
IRC: 26-1967	Type design for 200-meter stones
IRC: 30-1968	Standard Letters and Numbers of Different Heights for Use on Highway signs
IRC: 32-1969	Standards for Vertical and Horizontal Clearances of Overhead Electric Power and Telecommunication Lines as Related to Roads
IRC: 35-1997	Code of Practice for Road Markings (with Paints) (First Revision)
IRC: 36-1970	Recommended Practice for the Construction of Earth Embankment for Road Works
IRC: 37-2001	Guidelines for the Design of Flexible Pavement (Second Revision)
IRC: 38-1988	Guidelines for Design of Horizontal Curves for Highways and Design Tables (First Revision)
IRC: 40-2002	Standard Specifications and Code of Practices for Road Bridges, Section IV - Brick, Stone & Block Masonry (Second Revision)
IRC: 45-1972	Recommendations for Estimating the Resistance of Soil Below the Maximum Scour Level in the Design of Well Foundations of Bridges.
IRC: 54-1974	Lateral and Vertical Clearances at Underpasses for Vehicular Traffic.
IRC: 56-1974	Recommended Practice for Treatment of Embankment Slopes for Erosion Control
IRC: 62-1976	Guidelines for Control of Access on Highways
IRC: 64-1990	Guidelines for Capacity of Roads in Rural Areas (First Revision)
IRC: 65-1976	Recommended Practise for Traffic Rotaries
IRC: 66-1976	Recommended Practice for Sight Distance on Rural Highways
IRC: 67-2001	Code of Practice for Road Signs (First Revision)
IRC: 69-1977	Space Standards for Road in Urban Areas



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IRC: 73-1980	Geometric Design Standards for Rural (Non-Urban) Highways
IRC: 75-1979	Guidelines for the Design of High Embankments
IRC:78 - 2000	Standard Specifications and Code of Practice for Road Bridges, Section VII Foundations and Substructure (Second Revision)
IRC: 79-1981	Recommended practice for Road Delineators
IRC: 82-1982	Code of Practice for Maintenance of Bituminous Surfaces of Highways
IRC: 83 (Part I) 1999	Standard Specifications and Code of Practice for Road Bridges. Section IX Bearings, Part 1 : Metallic Bearings (First Revision)
IRC: 83 (Part II) 1987	Standard Specifications and Code of Practice for Road Bridges, Section IX-Bearings, Part II: Elastomeric Bearings
IRC: 83 (Part III) 2002	Standard Specifications and Code of Practice for Road Bridges, Section IX-Bearings, Part III: POT, POT-CUM-PTEF, PIN AND METALLIC GUIDE BEARINGS
IRC: 86-1983	Geometric Design Standards for Urban Roads in Plains
IRC: 87-1984	Guidelines for the Design & Erection of False work for Road Bridges
IRC: 89-1997	Guidelines for Design & Construction of River Training & Control Works for Road Bridges (First Revision)
IRC: 92-1985	Guidelines for the Design of Interchanges in Urban Areas
IRC: 93-1985	Guidelines on Design and Installation of Road Traffic Signals
IRC: 98-1997	Guidelines on Accommodation of Under Ground Utility Services Along and Across Roads in urban Areas (First Revision)
IRC: 103-1988	Guidelines for Pedestrian Facilities
IRC: 106-1990	Guidelines for Capacity of Urban Roads in Plain Areas
IRC: 108-1996	Guidelines for Traffic Prediction on Rural Highways
IRC:SP; 11-1988	Hand Book of Quality Control for Construction of Roads and Runways (Second Revision)
IRC: SP:13-1973	Guidelines for the Design of Small Bridges and Culverts
IRC:SP;15-1996	Ribbon Development along Highways and its Prevention
IRC: SP:18-1978	Manual for Highway Bridge Maintenance Inspection
IRC:SP;21-1979	Manual on Landscaping of Roads
IRC:SP;23-1983	Vertical curves for Highways
IRC:SP;31-1992	New Traffic signs
IRC: SP:35-1990	Guideline for Inspection and Maintenance of Bridges
IRC: SP:37-1991	Guidelines for Evaluation of Load Carrying Capacity of Bridges



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IRC: SP:40-1993	Guidelines on Techniques for Strengthening and Rehabilitation of Bridges
IRC:SP;41-1994	Guidelines on Design of At-Grade Intersections in Rural and Urban areas
IRC:SP;42-1994	Guidelines on Road Drainage
IRC:SP;44-1994	Highway Safety Code
IRC:SP:50-1999	Guidelines on Urban Drainage
IRC:SP:51-1999	Guidelines for Load Testing of Bridges
IS:432	
IS:875(Part 1)-1987	Practice for Building and Structures – Dead Loads
IS:875(Part 2)-1987	Practice for Building and Structures – Imposed Loads
IS:875(Part 3)-1987	Practice for Building and Structures – Wind Loads
IS:1786	
IS:1944	Code of Practice for lighting of Public Thoroughfare:
(Parts I&II) 1970	Parts I and 2 For Main and secondary roads (Group A and B) (first revision) (Amendments No. 1 and 2) Parts 1 and 2 in one volume) (Amendments 2)
IS:1944	Code of Practice for Lighting of Public Thoroughfares:
(Parts V) 1981	Parts 5 Lighting for Grade separated junctions, Bridges and Elevated roads (Group D)
IS: 1944	Code of Practice for lighting of Public Thoroughfare:
(Parts VI) 1981	Part 6 Lighting for Towns and city centres and areas of civic importance (Group E)
IS:2911-1979, Part I, Section 2	Code of Practice for Design and Construction of Pile Foundations
IS:6006	
IS: 7537 : 1974	Road traffic signals
IS: 10748-1995	Hot rolled steel strips for welded tubes and pipes (first revision)
IS:14268:1995	Uncoated stress relieved low relaxation seven-ply strand for prestressed concrete.

Publications, Ministry of Road Transport & Highways

MoRTH, Manual for maintenance of roads, 1983

MoRTH, Specifications for Road and Bridge Works, 2001 (Fourth Revision)

MoRTH, Addendum to Technical Circulars and Directives on National Highways and Centrally Sponsored Road and Bridge Works, 1989

MoRTH, Type Designs for Intersections on National Highways, 1992

MoRTH, Addendum to Ministry's Technical Circulars and Directives on National Highways and Centrally Sponsored Road and Bridge Projects (August 1988 to December 1992), 1993

MoRTH, Addendum to Ministry's Technical Circulars and Directives on National Highways and Centrally Sponsored Road and Bridge Projects (Jan. 1993 to Dec. 1994) 1996

MoRTH, Report of the Committee on norms for maintenance of roads in India 2001.



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MoRTH, Manual for construction and supervision of bituminous works, 2001.

Other Codes and Publications

ACI 318-95	Building Code Requirements for Structural Concrete
Post Tensioning Institute (PTI)	Recommendations for Cable Stay Design, Testing and Installation, 4 th edition, 2001
AASHTO	Standard specifications for Highway Bridges, 16 th edition, 1996
AASHTO	Guide Specifications for Design and Construction of Segmental Concrete Bridges, Second edition, 1999
CEB-FIP*	CEB-FIP Model Code 1990

* CEB - Comité Euro-International du Béton;
FIP - Fédération Internationale de la Précontrainte

4.2 Materials

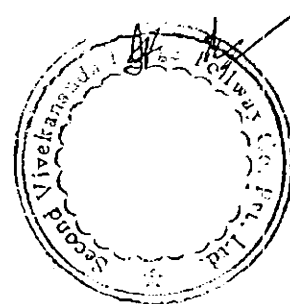
4.2.1 Concrete

The minimum grades of concrete to be used in various structural components shall be as per following table:

Structural Member	Cube Strength MPa
Pile caps/Well caps	35
PCC/RCC Well steining	25
Piles	30
Bottom Plug	25
Abutment	30
Pylons	40
Precast/Prestressed Concrete	40
Reinforced Concrete/Columns	35
Parapets or median	35

For reinforced and prestressed concrete, the coefficient of thermal expansions shall be 117×10^{-7} per degree centigrade. For steel structures the coefficient of thermal expansions shall be 117×10^{-7} per degree centigrade. The Young's Modulus, Poisson's Ratio, creep and shrinkage shall be in accordance with CEB-FIP.

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Concrete cover to reinforcement and prestressing tendon ducts shall be as follows:

Location	Minimum Concrete Cover
Piles	75 mm
Pile caps	75 mm
Tie Beams, Piers:	Exposed faces
	Internal faces
	40 mm
Pylons below deck:	Exposed faces
	Internal faces
	40 mm
Pylons above deck:	Exposed faces
	Internal faces - In-situ
	40mm
	Internal faces - Precast
	35 mm
Segmental box girders:	Exposed faces
	Internal faces- In-situ
	40mm
	Internal faces - Precast
	35 mm
	Top surface - In-situ
	40mm
	Top surface - Precast
	35 mm
Parapets and Median	40 mm

4.2.2 Reinforcing Steel

Reinforcement bars shall be High Yield Strength Deformed Bars (grade designation S415) conforming to IS:1786, or Mild Steel Bars (Grade Designation S240) conforming to IS:432.

Mild Steel (IS:432 Part I): $f_y = 240$ MPa

High Yield, Deformed Steel (IS:1786): $f_y = 415$ MPa

4.2.3 Prestressing Steel -- Strand (other than Stay Cables)

Seven wire low relaxation steel conforming to IS:14268-1983 or stress relieved strand confirming to IS:6006-1983; with the following typical properties:

Nominal size:	15.2mm dia
Nominal mass:	1.10 kg/m
Nominal area:	140.0 mm ²
Nominal tensile strength:	1860.0 N/mm ²
Relaxation:	2.5% at 70% UTS
Apparent modulus of elasticity:	195.0 kN/mm ²

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4.2.4 Stay Cables

Design testing & installation of stay cables shall follow the recommendations of the Post Tensioning Institute – Fourth Edition, Feb.2001.

The stay cables shall be made of either:

- 15.2-mm-diameter, seven-wire, low-relaxation, stress-relieved strands, with a minimum breaking load of 261 kN per strand.
- 7-mm-diameter, low-relaxation, stress-relieved, parallel wires, with a minimum ultimate tensile strength of 1,700 MPa.

4.3 Loading

4.3.1 Self Weight

Unit weight of structural concrete (reinforced):	24 KN/m ³
Unit weight of structural concrete (prestressed):	25 KN/m ³
Unit weight of steel:	78 KN/m ³

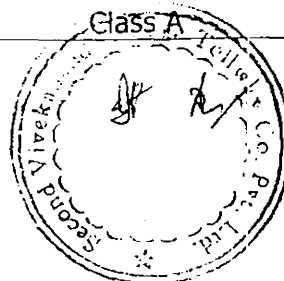
4.3.2 Superimposed Dead Loads

Superimposed dead load comprises surfacing, parapet rails, crash barriers, medians and other miscellaneous items as appropriate.

4.3.3 Live Loading

Class A and or 70R as per IRC:6-1966, Clause 207.

Type of Carriageway	Loading Combination
3 – Lane carriageway without shoulder (c/w width = 11.0 m)	Class 70R + 50% of 1 lane Class A Or 2 lanes Class A + 50% of 1 lane Class A
3 – Lane carriageway with shoulder (c/w width = 12.65 m)	Class 70R + 1 lane Class A Or 3 lanes Class A
2 – Lane carriageway without shoulder (c/w width = 7.5 m)	Class 70R Or 2 lanes Class A
2 – Lane carriageway with shoulder (c/w width = 9.15 m)	Class 70R + 40% of 1 lane Class A Or 2 lanes Class A + 40% of 1 lane Class A



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The minimum clear distance 'g' between the outer edge of passing vehicles shall be considered as follows:

Load Combination	Distance 'g'
Class 70R + 50% of 1 lane Class A	1.35 m
2 lanes Class A + 50% of 1 lane Class A	1.20 m
Class 70R + 1 lane Class A	1.35 m
3 lanes Class A	1.20 m
2 lanes Class A	1.20 m
Class 70R + 40% of 1 lane Class A	1.35 m
2 lanes Class A + 40% of 1 lane Class A	0.975 m

Central Verge and Footway Loading:

The central verge and footpath shall be designed for a live load intensity of 5 kN/m² with a reduction factor as per IRC:-6-2000, Clause 209.

4.3.4 Hydrological Data

The concessionaire will construct, design, maintain and operate the facility considering the hydrological, hydraulic, sub-soil data, clearance and bank protection requirements for the Hooghly river at the project site. The following information is given for guidance.

Flood Level

The Highest High Water Level (HHWL) in the vicinity of the existing bridge is 7.76m above KODS (Kidderpore Old Dock Seal ;2.36m above MSL) and the Lowest Low Water Level (LVWL) is 1.10m above KODS [(-)1.26m MSL]. The extreme range of tidal variation is of the order of 6.0m. Bores or tidal waves occur at certain stages of the spring tide every month, and in six months of the year. The effect of bore tide has been considered in the preliminary design as per suggestion of Kolkata Port Trust (KPT).

The effective linear waterway for the existing bridge is about 770m. Based on Lacey's formula, as per IRC, the calculated linear water, considering the discharge of 7936 cumecs, works out to 561m. However, by providing similar span arrangement to that of the existing bridge with reduced size of piers and foundations, the effective linear way for the proposed bridge is more than 770m.

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Design Discharge & Scour Depth

Data with regard to the design discharge and scour depth have been obtained from CPT Model Study Report. The values considered are as follows:

Design discharge	=	7936 cumecs
Scour depth	=	28 m below HHWL

Vertical Clearance

On the basis of circular of the Inland Water Transport Authority (River Notice No. 11/92 dated 20/8/93); and as suggested by KPT, the minimum vertical clearance above HHWL for the proposed bridge is kept at 8.887m.

Bank Protection

The Kolkata side bank in the vicinity of the Dakshineswar Temple is well protected near the existing bridge. The Howrah side bank is dotted along the stretch with bathing ghats, revetments, retaining walls, etc. providing bank protection.

As per the recommendation of model study, certain bank protection measures as required on Kolkata side in the form of repair of retaining walls/revetments wherever damaged shall be carried out. For the Howrah side, additional bank protection measures, if, needed shall be incorporated.

Velocity of Flow

Based on model study report, the maximum velocity observed at any cross-section is 2.14m/sec with proposed bridge in position and occurs during floods.

4.3.5 Impact

As defined in IRC:-6-2000.

4.3.6 Temperature

Viaduct

Temperature effect will be designed in accordance with IRC:-6-2000.

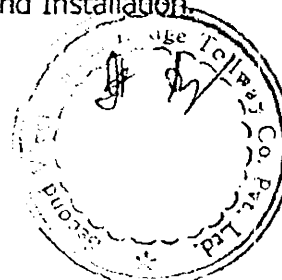
Stay Cables

Temperature differential between stay cables and deck or between stay cables and pylon shall be considered in accordance with PTI Recommendations for Stay Cable Design, testing and Installation.

4.3.7 Differential Settlement

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A differential settlement to be considered shall be 50% of the gross settlement used to calculate safe bearing capacity as per Sub-soil Investigation report. Forces induced by differential settlement shall be considered as long term forces.

43.8 Ship Impact

Forces to be considered as per provision of IRC-6. The large barge/ship weight expected during the design life of the structure shall be ascertained from the Inland Waterways Authority.

43.9 Tidal Flow/Wave Action/Water Currents

Water currents as defined in IRC:-6-2000, Clause 213. A maximum current velocity 'V' of 3.0 meters per second will be considered.

43.10 Earthquake

As defined in IRC:-6-2000, with the bridge site located in Zone III. The horizontal seismic force is developed as follows:

$$F_{eq} = \alpha \beta \lambda G$$

Where

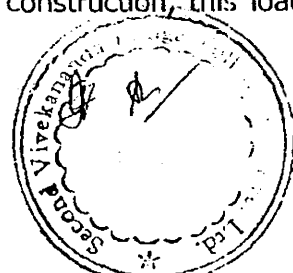
- F_{eq} = Seismic force to be resisted
- α = Horizontal seismic coefficient (0.04 based on zone III)
- β = Coefficient dependent on soil condition
- λ = 1.5 (important Bridge structure)

43.11 Construction Loads

The following construction loads shall be considered for cantilever construction:

- Dead Load (G)
- Differential Dead Load (DIFF)
2% of G applied to one cantilever in the case of balanced cantilever construction.
- Distributed Construction Live Load (DCQ)
0.20 kN/m² -- In the case of balanced cantilever construction, this loads may be applied on one cantilever only.

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- Specialized Construction Equipment (CE)
These loads include support reaction from launching gantry, beam and winch system, segmental delivery trailer, and coils of strands for stay cables. Impact shall be included in the construction equipment. For gradual lifting of the segments an impact of 10% can be considered.

- Segmental Unbalanced (U)

- Wind (W)
An uplift wind of 0.20 kN/m^2 shall be taken into account on one cantilever only.

The effects of wind on erection equipment such as launching gantry, and the beam and winch system shall be taken into account.

- Segment Release
The accident release (A) of a precast segment shall be considered at the ultimate limit state only with an impact factor of 2. The following load combinations shall be considered:

$$1.1(G + \text{DIFF}) + 1.3 \text{ CE} + 2A$$

$$G + \text{CE} + 2A$$

Note: Alternatively the impact factor may be established from dynamic calculations.

4.3.12 Stay Cable Replacement

Loads and load factors to be considered during stay cable replacement will be as per the Cl. C.5.4 (Cable replacement) of PTI recommendations for stay cable design, testing and installation.

4.3.13 Cable Stay Loss

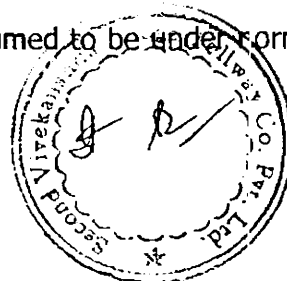
The structure shall be designed for the loss of a stay as per Cl. C.5.5 (Loss of Cable) of PTI recommendations for stay cable design, testing and installation.

4.3.14 Wind Loads

Wind loads shall be designed in accordance with IRC:-6-2000.

4.3.14 Exposure Condition

For the purpose of design, the superstructure is assumed to be under normal exposure conditions.



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4.4 Allowable Stresses – Prestressed Concrete

The structure will be designed in accordance with IRC:18-2000 unless otherwise mentioned hereunder:

4.4.1 Longitudinal Serviceability Limit State

- No tension is allowed across precast segment joints neither during construction nor in service under any load combination.
- Under service load conditions the minimum allowable compression across any joint shall not be less than five per cent of the maximum permanent compressive stress that may be developed in the same section (IRC:-18-2000)
- No tension is allowed across any in situ closure joint under any load combination.
- Maximum compressive stress: $0.33 f_{ck}$.
- The structure shall be checked for a 20 per cent increase in time dependent losses such as creep, shrinkage, relaxation, etc. Under this condition, no tensile stress shall be permitted (IRC:-18-2000).

4.4.2 Shear - Torsion & Flexural Strength

The provisions for shear-torsion and flexural strength would be as per relevant IRC/AASHTO as appropriate, with preference given to IRC wherever guidelines are available.

4.5 Allowable Stresses – Reinforced Concrete

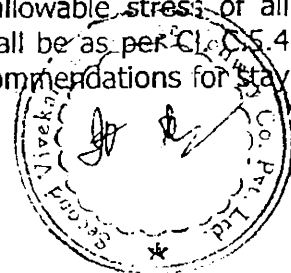
Reinforced concrete members shall be designed as per provisions of IRC18:2000.

4.6 Allowable Stresses – Stay Cables

For allowable stresses in stay cables the resistance factors will be applied as per Cl. C.5.3.3 (Resistance factors) of PTI recommendations for stay cable design, testing and installation.

4.7 Stay Cable Replacement / Loss

During the replacement of any one stay cable, the allowable stress of all members designed at the Serviceability Limit State shall be as per Cl. C.5.4 (Cable Replacement) & C.5.5 (Loss of Cable) of PTI recommendations for stay



SPECIFICATION & STANDARDS

cable design, testing and installation.

4.8 Foundations

Well foundations shall be designed according to IRC: 78-2000 or IRC: 45-1972 as applicable.

Bored cast in-situ piles shall be designed according to IS:2911-1979, Part 1, Section 2.

4.9 Geometric Design Standards

Geometric design standards shall be adopted as per relevant IRC code as applicable to the National Highways.

4.10 Drainage System

4.10.1 An effective surface and sub-surface drainage system of pavement structure shall be designed as stipulated in IRC SP: 42 1994.

4.10.2 An effective drainage system shall be planned and designed for the drainage of medians, toll plazas ensuring that there shall be no pooling of water at any time.

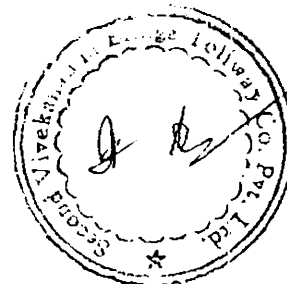
4.10.3 Surface channels used to intercept and remove surface run-off from the ramp and the adjacent areas shall have adequate capacity for the design run-off and should be located and shaped to avoid creating traffic hazard and erosion of soil.

4.11 Toll Plaza

4.11.1 The design of toll plaza shall be done in accordance with the guidelines given in the Schedule C. The design shall aim at optimising efficiency of toll collection and minimising vehicle delays.

4.11.2 Toll Collection System shall be semi-automatic. The number of service lines shall be enough to ensure an average service time of 20 seconds per vehicles leading to a maximum waiting time during peak hour of 60 seconds. The number of service lanes required shall be designed judiciously to cater the traffic for entire Project period. There shall be a separate lane for traffic not required to pay fees. For each direction of traffic the toll plaza shall consist of:

- 3.0 m wide lane for cars and jeeps
- Two 3.0 m wide lane for buses & LMVs
- Four 3.0 m lanes for Trucks

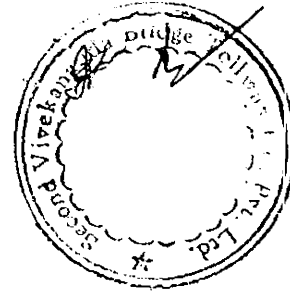


SPECIFICATION & STANDARDS

- One 5.5 m lane for oversized vehicles and non tollable vehicles
- A toll canopy covering all lanes except oversized vehicle lane
- An Administration building including Traffic Aid Post

411.3 The height of the canopy shall be such that a vertical clearance of 5.5 m is provided.

VH



APPLICABLE PERMITS

1. Ministry of Finance / RBI

- i) Approval for foreign investment and foreign loans, if required
- ii) Approval for import of equipment and machinery for construction and operation, if required

2. Department of Telecommunication (DOT)

- i) Permission / clearance for setting up of wireless system, if required
- ii) Clearance / permission for the use of optical fibre cables of DOT, if required

3. State Government Permits

Quarrying Permits:

- Permits for extraction of boulder from quarry from ADM Mines
- Permit for installation of crusher from village panchayat and Pollution Control Board
- License for explosives from Explosive controller
- Explosive license for storing Diesel

Electricity:

- Permission required from City/State Electricity Board/Authority for installation of Diesel Generator
- Permission for electrical connection, if power source is available

Water:

- If water has to be taken from river/ reservoir, permission to be obtained from KPT

Borrow Earth:

- From village panchayat and ADM mines for Government & private land, if required
- Permission for cutting of trees

4. Any other permit not covered by the above list, if required.

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Schedule F

BANK GUARANTEE FOR PERFORMANCE SECURITY

[The Concessionaire will be required to provide the Performance Security which must be in this form or in a similar form acceptable to NHAI.]

[To be issued by a Bank / Financial Institution based in India and having a net worth of at least Indian Rupees one thousand crores only and having a branch in the proximity of the Project or at any place acceptable to NHAI]

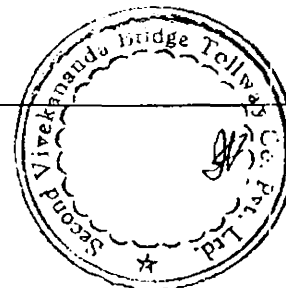
From:
[Bank/Financial Institution]

To: National Highways Authority of India
G-5 & G-6, Sector # 10
Dwarka
New Delhi - 110 045

- A. *[Concessionaire]* (the "**Concessionaire**") has agreed in accordance with the Concession Agreement dated *[date to be inserted]* between it and National Highways Authority of India (the "**Concession Agreement**") to construct and operate the Second Vivekananda Bridge Tollway Project on BOT basis (the "**Project**").
- B. The Concessionaire is required to give National Highways Authority of India ("NHAI") a guarantee by a recognized bank or financial institution based in India in the sum of Rs. 100,000,000 only (Indian Rupees one hundred million only) as security for compliance with its obligations under the Concession Agreement during the Construction Period.
- C. The Guarantor has agreed to give NHAI the abovementioned guarantee on the terms set out herein.

GUARANTEE

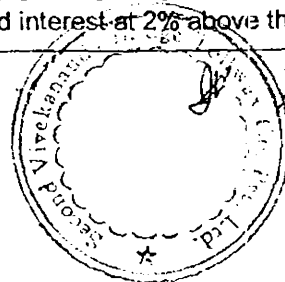
1. *[Name of Bank/Financial Institution]* (the "**Guarantor**") with its registered office at unconditionally guarantees to pay NHAI upon first written demand and without any deduction any sum claimed by NHAI upto a maximum of Rupees 100,000,000 (Rupees One Hundred Million only) (the "**Guaranteed Sum**") subject to the conditions set out below.



Schedule F

2. The Guarantor unconditionally and irrevocably promises to pay on demand the Guaranteed Sum, without protest or demur whatsoever upon the receipt of a written demand from NHAI, which shall be final and conclusive as against the Guarantor requiring the Guarantor to make the payment to NHAI.
3. The Guarantor waives any requirement that NHAI demand any debt or payment from the Concessionaire before presenting it with a demand under this Guarantee.
4. NHAI shall notify the Guarantor of its demand for payment of the Guaranteed Sum without any deduction of whatsoever nature and without reference to any claim or counter claim or set off, in accordance with the Concession Agreement.

Such notification by NHAI shall be conclusive and binding on the Guarantor.
5. Upon encashment and appropriation of the whole or any portion of the Guaranteed Sum by NHAI in accordance with the Concession Agreement, the Concessionaire shall be obliged to replenish the existing Guarantee or provide fresh guarantee of the Guaranteed Sum in accordance with the Concession Agreement and should the Concessionaire fail to fulfill its obligation in this regard, NHAI shall be entitled to make a demand under this Guarantee.
6. No underlying dispute as between NHAI and the Concessionaire nor any pending application for interim relief or arbitration proceedings or other legal proceedings shall constitute any ground for prevention, delay or obstruction for making payment to NHAI by the Guarantor and the existence of any disputes or differences or claims in arbitration or otherwise shall not constitute any ground for non-payment on this Guarantee.
7. This guarantee is valid and effective from its date. This guarantee and the Guarantor's obligations under it will terminate on the Commercial Operations Date of the Project as advised to the Guarantor in writing by NHAI. However the Guarantee shall be released earlier by NHAI to the Concessionaire, upon contribution of the Equity (excluding Equity Support, if any) by the Shareholders of the Concessionaire to the extent of 100% and upon the Concessionaire having expended on the Project and paid out an aggregate sum of not less than 20% of the Total Project Cost as certified by the Statutory Auditors of the Concessionaire but provided the Concessionaire is not in breach of this Agreement or the Concession Agreement.
8. The Guarantor agrees that its obligation to pay any demand made by NHAI before the termination of this Guarantee will continue until the amount demanded has been paid in full.
9. This Guarantee shall be valid and effective for enabling NHAI to lodge a claim for payment under the Guarantee till the date of expiry of the term of the Guarantee. The Guarantor shall be obligated to make payment upon the Guarantee forthwith on demand, if the claim is lodged within the claim validity period and the obligation to pay is subject to normal limitation for payment of claims upon a guarantee. Time is of essence for payment and in the event of failure to make payment, Guarantor shall be obligated to pay compound interest at 2% above the



Schedule F

prime lending rate of the Guarantor institution, compounding quarterly in the event of the Guarantor's failure to make payment upon the Guarantee for any reason whatsoever. Payment of interest as provided is no excuse for delayed payment or non-payment of the Guaranteed Sum.

10. No change in the constitution of the Concessionaire or of the Guarantor shall be a ground for release of the Guarantee and no variation in the concession agreement made post selection of the bidder, or post making of the bid, shall constitute a variation, which would, subject to the terms and conditions of this agreement, discharge the Guarantor. The Guarantor shall notwithstanding such change, be bound to make payment upon the Guarantee on demand.
11. The Guarantor agrees that no change, addition to or other modifications to the terms of the Concession Agreement or to any documents which have or may be made between NHAI and the Concessionaire will in any way release it from any liability under this Guarantee and that it waives any requirement for notice of any such change, addition or modification.
12. The Guarantor agrees that it will not assign its obligations under this Guarantee without the prior written consent of NHAI. NHAI will not unreasonably withhold its consent if the proposed assignee is of at least equal financial standing to the Guarantor and the assignee assumes in writing the obligations of the Guarantor under this Guarantee at the same time or before the assignment.
13. This Guarantee binds the Guarantor, its successors and permitted assigns.
14. Notwithstanding anything to the contrary contained in the guarantee above, our guarantee shall remain in force until [one year from scheduled project completion date]

SEAL OF [THE BANK/FINANCIAL INSTITUTION]

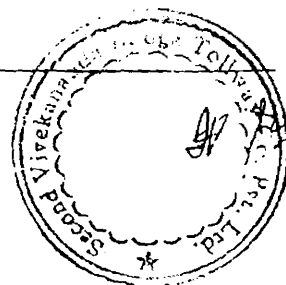
NAME OF [THE BANK/FINANCIAL INSTITUTION]

SIGNATURE

NAME

TITLE

DATE



SCHEDULE OF USER FEE

TO BE PUBLISHED IN THE GAZETTE OF INDIA
EXTRAORDINARY
PART II - Section 3 Sub Section (ii)
PUBLISHED BY AUTHORITY
MINISTRY OF ROAD TRANSPORT & HIGHWAYS

New Delhi, the [Date of Notification]

NOTIFICATION

S.O. (E) - In exercise of powers conferred by section 7 and 8(A) of the National Highways Act, 1956 (48 of 1956) read with sub-rule (2) of rule 3 of the National Highways (Collection of Fees by any person for the use of Section of National Highways/ Permanent Bridge/ Temporary Bridge on National Highways) Rules, 1997, the Central Government, having regard to expenditure involved in building, maintenance, management and operation of the part of National Highways, i.e. the Second Vivekananda Bridge Tollway Project (hereinafter referred to as "Project Bridge"), starting with Kilometer [] and joining at Kilometer [] of National Highway Number 2 in the state of West Bengal, the interest on capital invested, reasonable return, the volume of traffic and the period of Concession Agreement entered by National Highways Authority of India with M/s Second Vivekananda Bridge Tollway Company Private Limited, having its registered office at c/o Consulting Engineering Services (India) Private Limited, 41-A, Maker Tower E, 4 th Floor, Cuffe Parade, Mumbai - 400 005, notifies that there shall be levied and paid Fees on mechanical vehicles for the use of Bridge Project at the rates specified in the schedule below, and authorises the said M/s Second Vivekananda Bridge Tollway Company Private Limited, or its authorised legal representative to collect and retain Fees at the rates specified in the schedule below from the date of its opening to traffic to April 30, 2033.

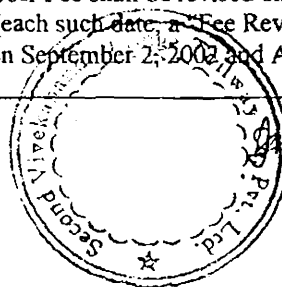
SCHEDULE OF USER FEE

S.No.	CATEGORY OF VEHICLE	FEE PER VEHICLE PER ONE WAY TRIP (IN RUPEES)
(1)	(2)	(3)
1.	A car, passenger van or jeep	25.00
2.	Bus	50.00
3.	Light Goods Vehicle (LGV)	70.00
4.	Truck	120.00
5.	Multi-Axle Vehicles and Earth moving equipment and Heavy construction machinery including, without limitation, oversized vehicles carrying boilers, turbines, generators.	140.00

2. These rates of Fees specified in the above Schedule of User Fee shall be revised on every anniversary of the Scheduled Project Completion Date (each such date a "Fee Revision Date").
[For example - If the Concession Agreement is signed on September 2, 2002 and Appointed

sch-G--020902

G-1



Schedule G

Date is May 1, 2003, the Scheduled Project Completion Date will be May 1, 2006 and the First Fee Revision Date shall be May 1, 2007]. The revised Fee on the Fee Revision Date as determined above shall be computed ("Computed Fee") to two decimal places as follows:

$$\text{Computed Fee} = \text{Preceding year Computed Fee} \times [1 + 0.75 \times (\text{WPI}_n / \text{WPI}_{n-1} - 1) + 0.25 \times (\text{FE}_n / \text{FE}_{n-1} - 1) + A]$$

Where

- WPI_n = is the WPI on January 31 immediately preceding the Fee Revision Date (e.g. for Fee revision due on May 1, 2007, WPI on January 31, 2007)
- WPI_{n-1} = is the WPI on January 31 of the year immediately preceding the year of the Fee Revision Date (e.g. for Fee revision due on May 1, 2007, WPI on January 31, 2006)
- FE_n = is the INR/ USD rate (RBI reference rate) on January 31 immediately preceding the Fee Revision Date (e.g. for Fee revision due on May 1, 2007, WPI on January 31, 2007)
- FE_{n-1} = is the INR/ USD rate (RBI reference rate) on January 31 of the year immediately preceding the year of the Fee Revision Date (e.g. for Fee revision due on May 1, 2007, RBI reference rate on January 31, 2006)
- A = a constant factor = 1.15/100 (zero point zero one one five)

"WPI" means the wholesale price index published by the Ministry of Industry, GoI and shall include any index, which substitutes the WPI.

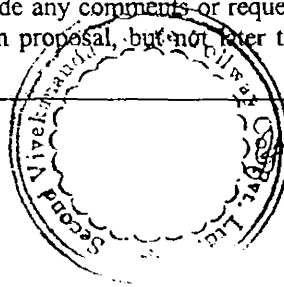
The actual Fees to be charged shall be the Computed Fees rounded off to the nearest one Rupee ("Actual Fees").

1. The following types of vehicles are exempted from the Fee specified above in the schedule, namely:

- (i) *Defence Vehicles*
- (ii) *Vehicles with very important person symbols*
- (iii) *Police Vehicles*
- (iv) *Fire fighting vehicles*
- (v) *Ambulances*
- (vi) *Funeral Vans*
- (vii) *Post and Telegraph departments vehicles*
- (viii) *Central and State government vehicles on duty.*

The vehicles with following dignitaries, shall be deemed to be vehicles having VIP symbols namely, President of India, Vice President of India, Governors of States, Central and State Minister, Leaders of Opposition of Lok Sabha or Rajya Sabha or State Legislators, Lieutenant Governors of Union Territories, Speakers or Chairman of Central and State Legislature, Executive Councillors, Members of Parliament and Members of State Legislatures within their respective Constituencies, Foreign dignitaries on State Visit to India and Foreign Diplomats stationed in India using cars with CD symbols.

The Actual Fee rates to be charged to users will be computed by the Concessionaire and sent to NHAI for validation as soon as possible after January 31 every year, but at least 45 days before the rate increase is to be effective. NHAI shall provide any comments or request clarifications as soon as possible upon receipt of the Fee revision proposal, but not later than 15 days of

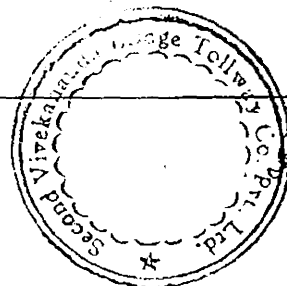


Schedule G

receipt of the Fee revision proposal. If NHAI does not offer comments/ seek clarifications during this period, the revised Fee, as proposed by the Concessionaire, will be deemed to be confirmed by NHAI.

5. The Actual Fees, category of Exempted Vehicles and the name, address and telephone number of the person of the Company to whom the complaint, if any, should be addressed shall be conspicuously and prominently displayed 500m ahead of toll booths, 100m ahead of toll booths and at the toll booths also, the height of display boards and size of letters being such that it is easy for drivers to read the display boards. Further, the display boards shall be displayed in English and [*Hindi and/or regional language*] languages. The Second Vivekananda Bridge Tollway Company Private Limited (SVBTC) shall give a receipt on each and every occasion of recovery of Fees under this notification.

VU₂



PROJECT COMPLETION SCHEDULE

[illegible]

MS : MILESTONE

NOTE: The Concessionaire shall ensure unhindered movement of traffic on NH-2 during the concession period and for this purpose a 2-lane toll free facility all through shall be made available by the concessionaire

Work schedule for Howrah vis-à-vis Kolkata Approaches are interchangeable depending on the location of the precasting yard

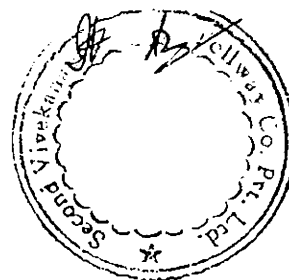


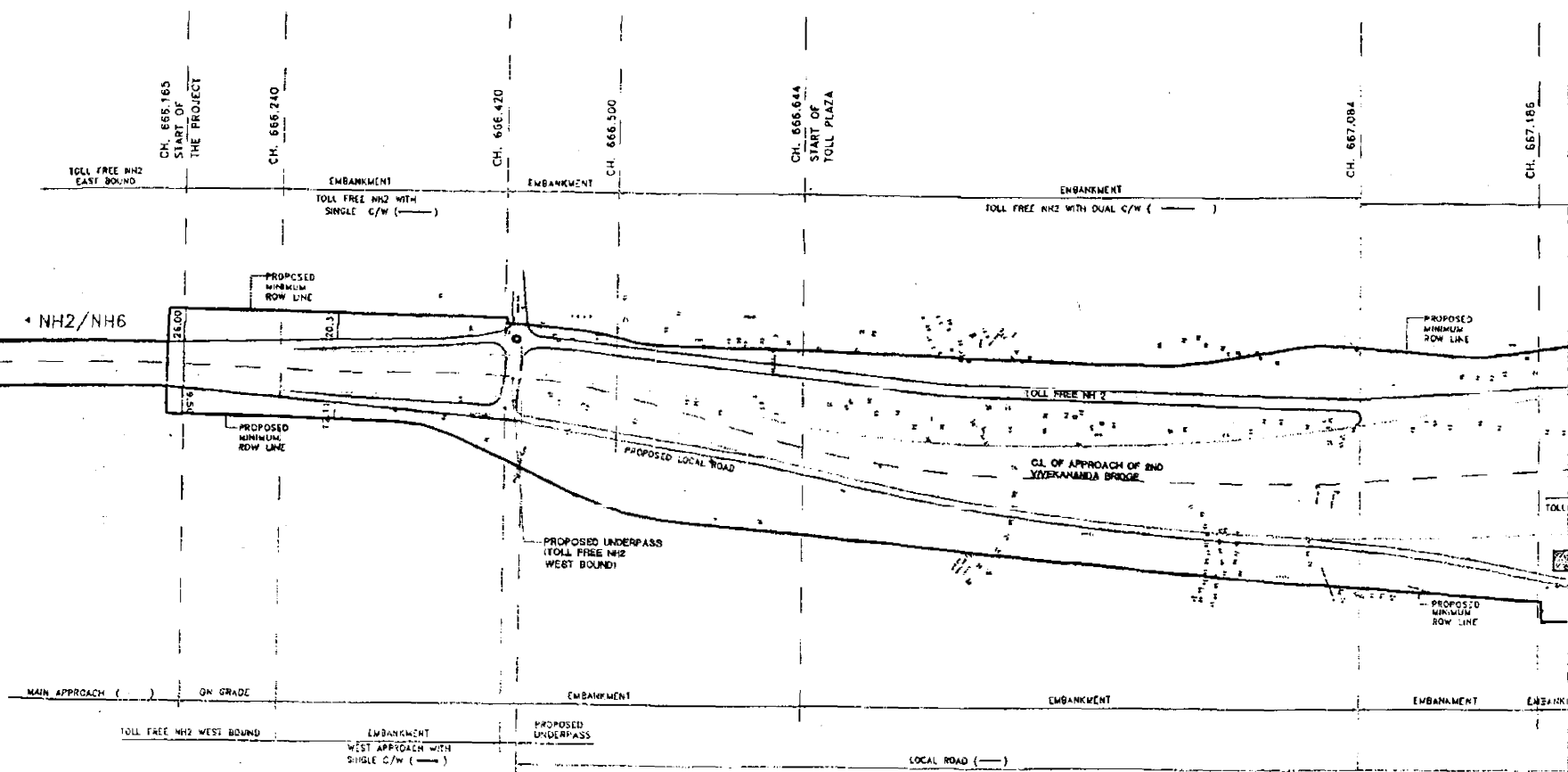
Schedule - I

DRAWINGS

List of drawings

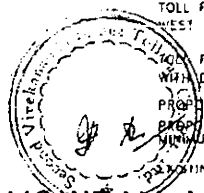
Drg. No.	Contents	Chainage	
		From	To
	Plans		
1	Howrah Approach	666.165	667.186
2	Howrah Approach	667.186	668.300
3	Howrah Approach	668.300	669.340
4	Howrah Approach	669.340	669.833
5	Main Bridge	669.833	670.712.9
6	Kolkata Approach	670.713	671.833
7	Kolkata Approach	671.833	672.197
8	Toll Plaza		
	Cross-sections		
9	Howrah Approach (Main)	666.165	667.186
10	Howrah Approach (Main)	667.186	667.917
11	Howrah Approach (Main)	667.917	669.280
12	Howrah Approach (Main)	669.280	669.834
13	Howrah Approach Toll Free NH-2 - East Bound & West Bound	666.283	666.420
14	Howrah Approach Toll Free NH-2 - with dual carriageway	666.420	667.220
15	Howrah Approach Toll Free NH-2 - with dual carriageway	667.220	669.280
16	Howrah Approach (Local Road)	666.420	667.917
17	Kolkata Approach (Viaduct Portion, Main Ramp, Ramps A/C and B/D)	670.713	671.810
18	Kolkata Approach (Embankment Portion, Ramp A)	671.466	672.101
19	Kolkata Approach (Embankment Portion, Ramp B, Ramp C, Ramp D)	671.445	671.747
20	Kolkata Approach (Embankment Portion, Ramp D, Ramp G/H)	671.990	671.805
21	Kolkata Approach (Lower Level Road Improvement)	671.390	672.100
	Cross-section across the Project Width		
22	Howrah Approach	--	--
23	Kolkata Approach	--	--
	General Arrangement Drawings		
24	Main bridge	--	--
25	ROB over Howrah - Burdwan main railway line near Bally station (with proposed extension)	--	--
26	Proposed railway underpass (ROB) through Calcutta Chord Railway embankment near Dakshineswar railway station	--	--
27	Proposed railway underpass (ROB) through Kolkata, Chord Railway embankment near Bally Ghat railway station	--	--





LEGEND :

- MAIN APPROACH —
- TOLL FREE NH-2 EAST BOUND —
- TOLL FREE NH-2 WEST BOUND —
- TOLL FREE NH-2 WITH DUAL C/W —
- PROPOSED LOCAL ROAD —
- PROPOSED MINIMUM ROW LINE —
- EXISTING ROADS —



SECOND VIVEKANANDA BRIDGE - HOWRAH APPROACH
DRG. NO. - 1

CH. 667.800
END OF TOLL
PLAZA

EMBANKMENT

TOLL FREE NH2 WITH DUAL C/W ()

PROLOCAL ROAD

PROP LOCAL ROAD

PROPOSED ADMIN. BLDG.
TRAFFIC AND POSTS

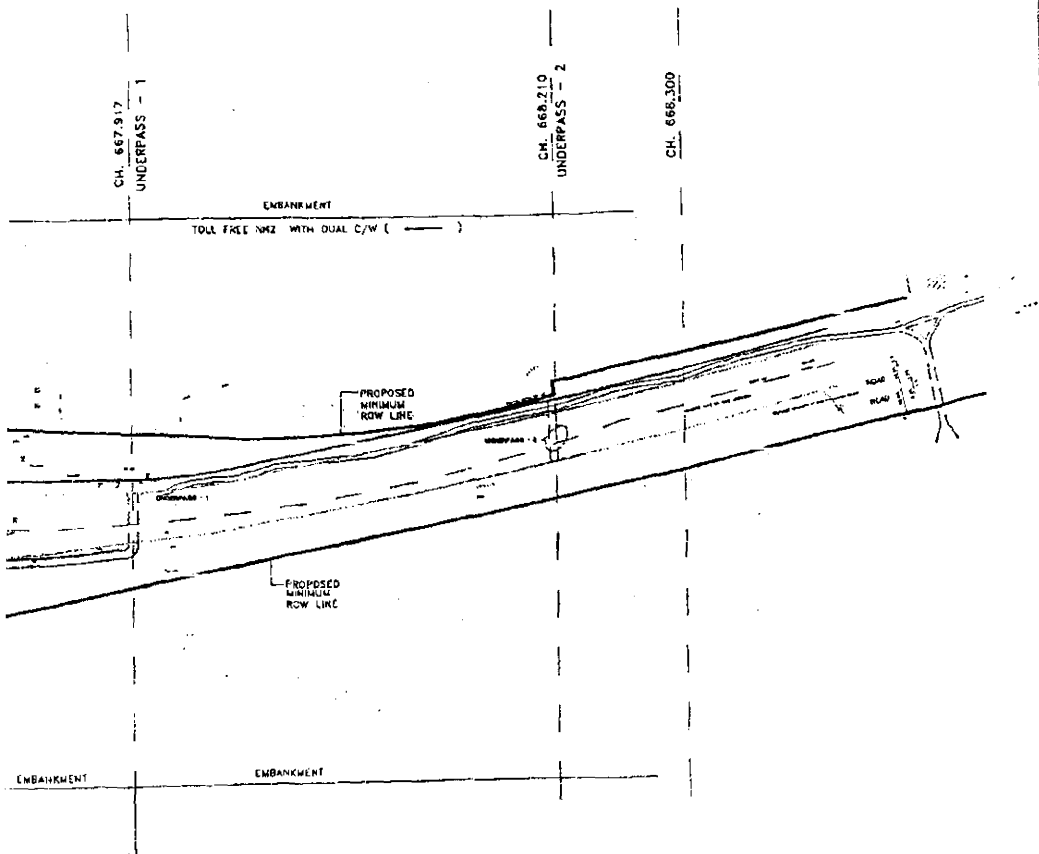
EMBANKMENT

EMBANKMENT

MAIN APPROACH ()

LOCAL ROAD ()

WV



LEGEND :

MAIN APPROACH

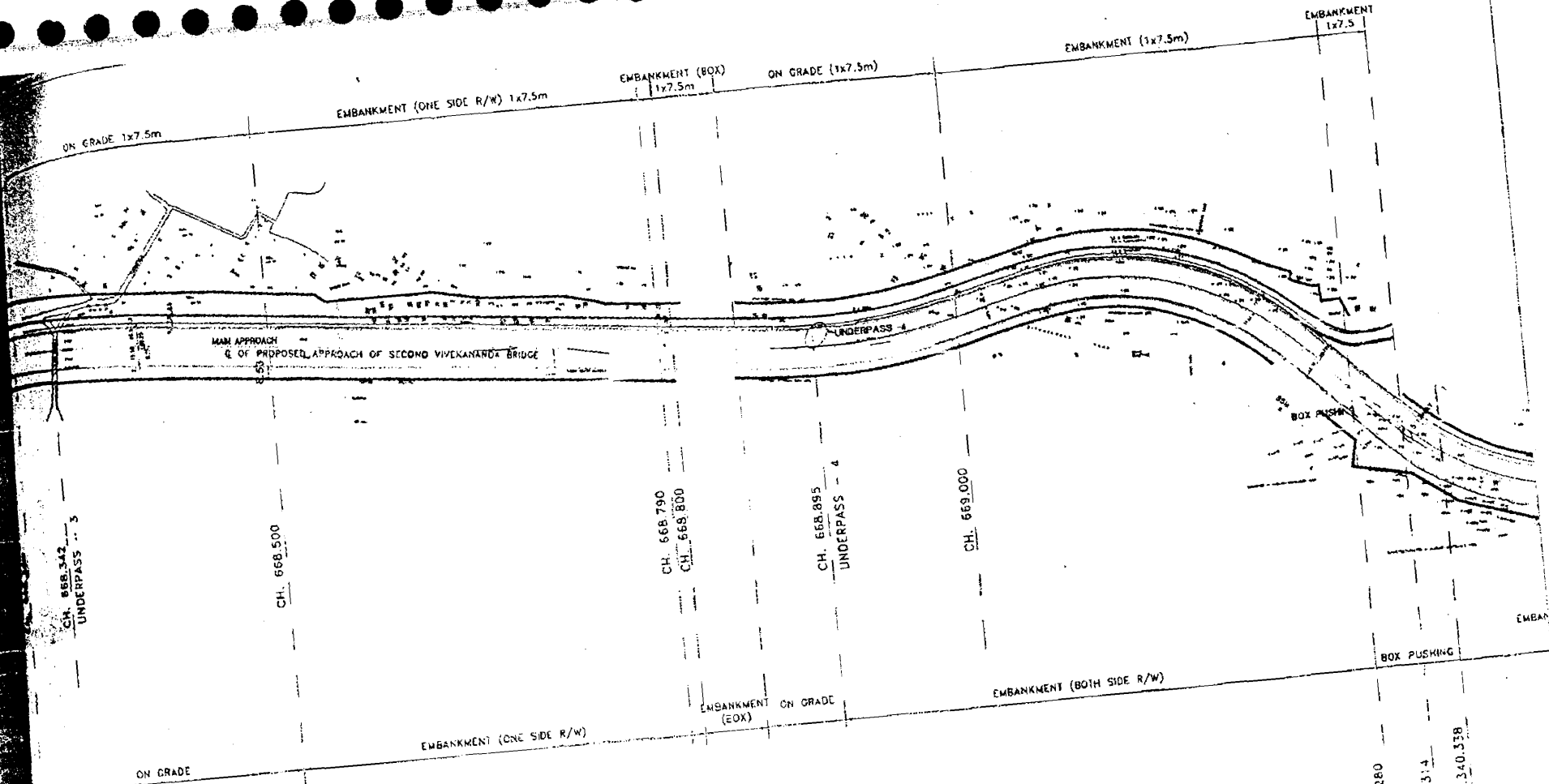
TOLL FREE NH-2
WITH DUAL C/W

PROPOSED LOCAL ROAD

PROPOSED
MINIMUM ROW LINE

EXISTING ROAD

SECOND VIVEKANANDA BRIDGE - HOWRAH APPROACH
DRG. NO. - 2



- LEGEND**
- MAIN APPROACH
 - PROPOSED NH-2 G.I. ROAD WITH DUAL C/W
 - MINIMUM ROW LINE
 - EXISTING ROADS



SECOND VIVEKANANDA BRIDGE - HOWRAH APPROACH
DRG. NO. - 3

CH. 669.469
START OF
VIADUCT

CH. 669.712

CH. 669 +
833.30
START OF
MAIN BRIDGE

EMBANKMENT

VIADUCT PORTION

QJL

CARRIAGE WAY

MAIN BRIDGE

RIVER K O O G L Y
880M (1455+771.10+1455M) LONG (FROM P1 TO P10) MAIN BRIDGE

2+105 C/W

MAIN BRIDGE

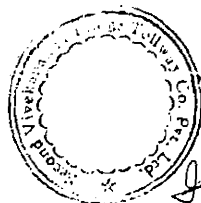
LEGEND :

MAIN APPROACH

PROPOSED
NH-2 CT ROAD
WITH DUAL C/W

MINIMUM ROW LINE

EXISTING ROADS



SECOND VIVEKANANDA BRIDGE - HOWRAH APPROACH
DRG. NO. - 4

CH. 669 +
833.30
START OF
MAIN BRIDGE

MAIN BRIDGE

MAIN BRIDGE
KNOW (1355+711.0+1355M) LONG (FROM P: 10 P10) MAIN BRIDGE

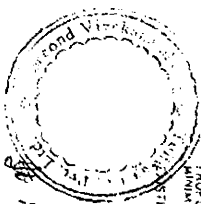
CARRIAGEWAY

CH. 670 + 712.803

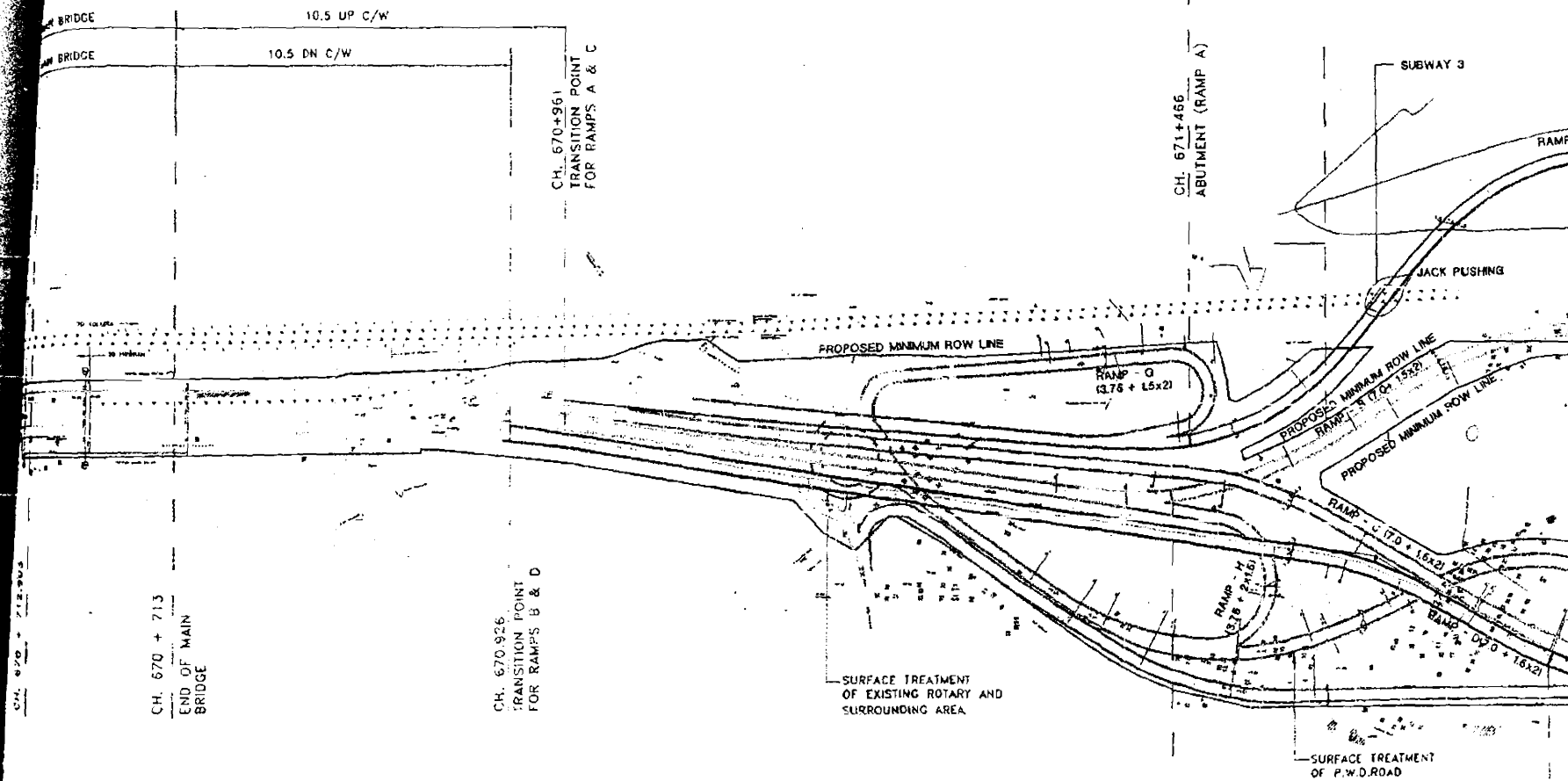
044

SECOND VIVEKANANDA BRIDGE - MAIN BRIDGE

DRG. NO. - 5

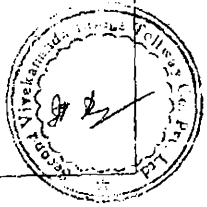


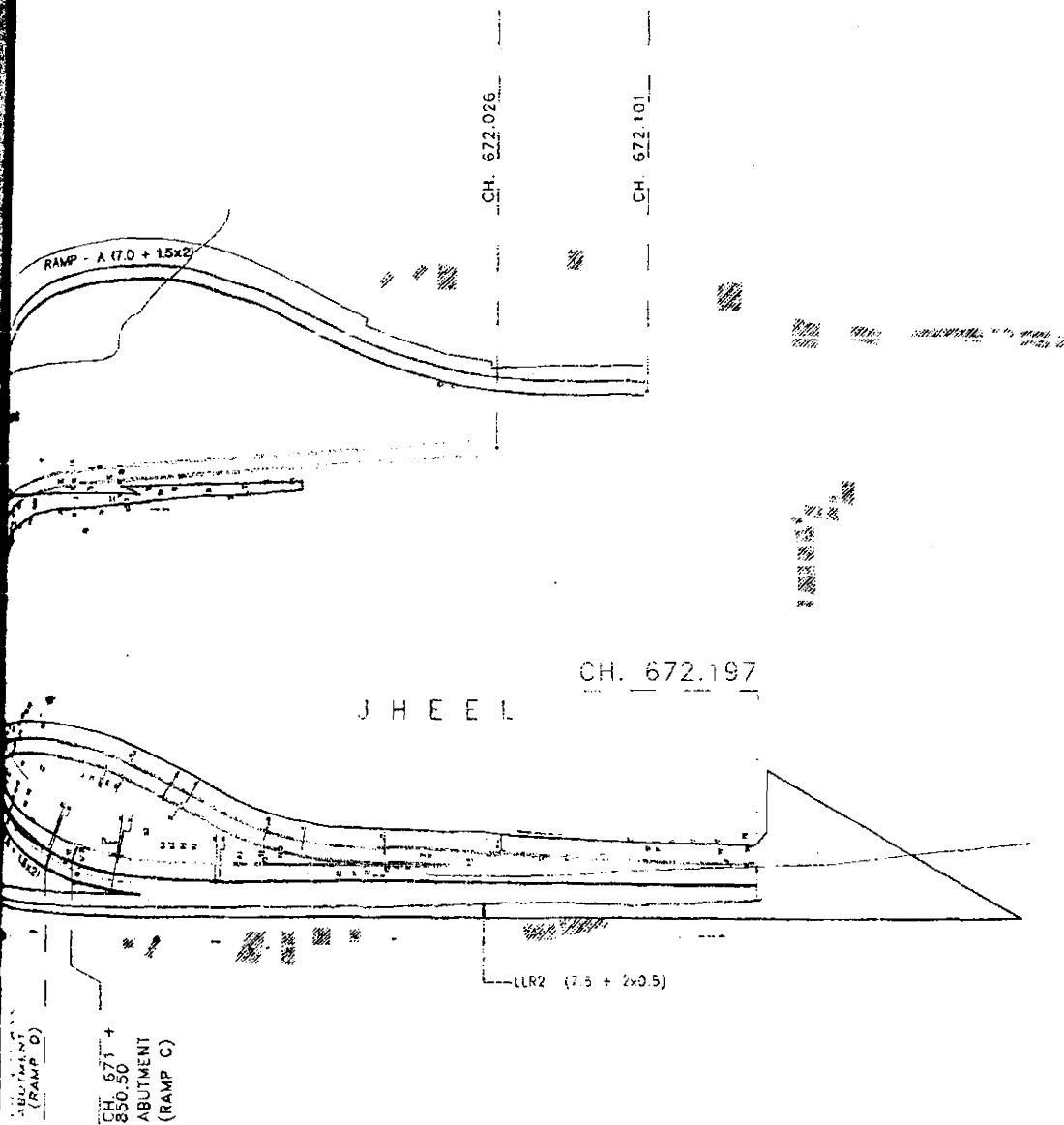
LEGEND
MAIN APPROACH
BRIDGE
PROPOSED
BRIDGE
EXISTING ROAD



- CH. 671+445
RAMP B
ABUTMENT
- CH. 671+833
ABUTMENT
(RAMP D)
- LEGEND**
- RAMP-A
 - RAMP-B
 - RAMP-C
 - RAMP-D
 - RAMP-H
 - RAMP-Q
 - PWD ROAD
 - LOWER LEVEL ROAD
 - PROPOSED ROW LINE

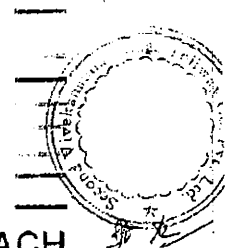
SECOND VIVEKANANDA BRIDGE - KOLKATA APPROACH
DRG. NO. - 6



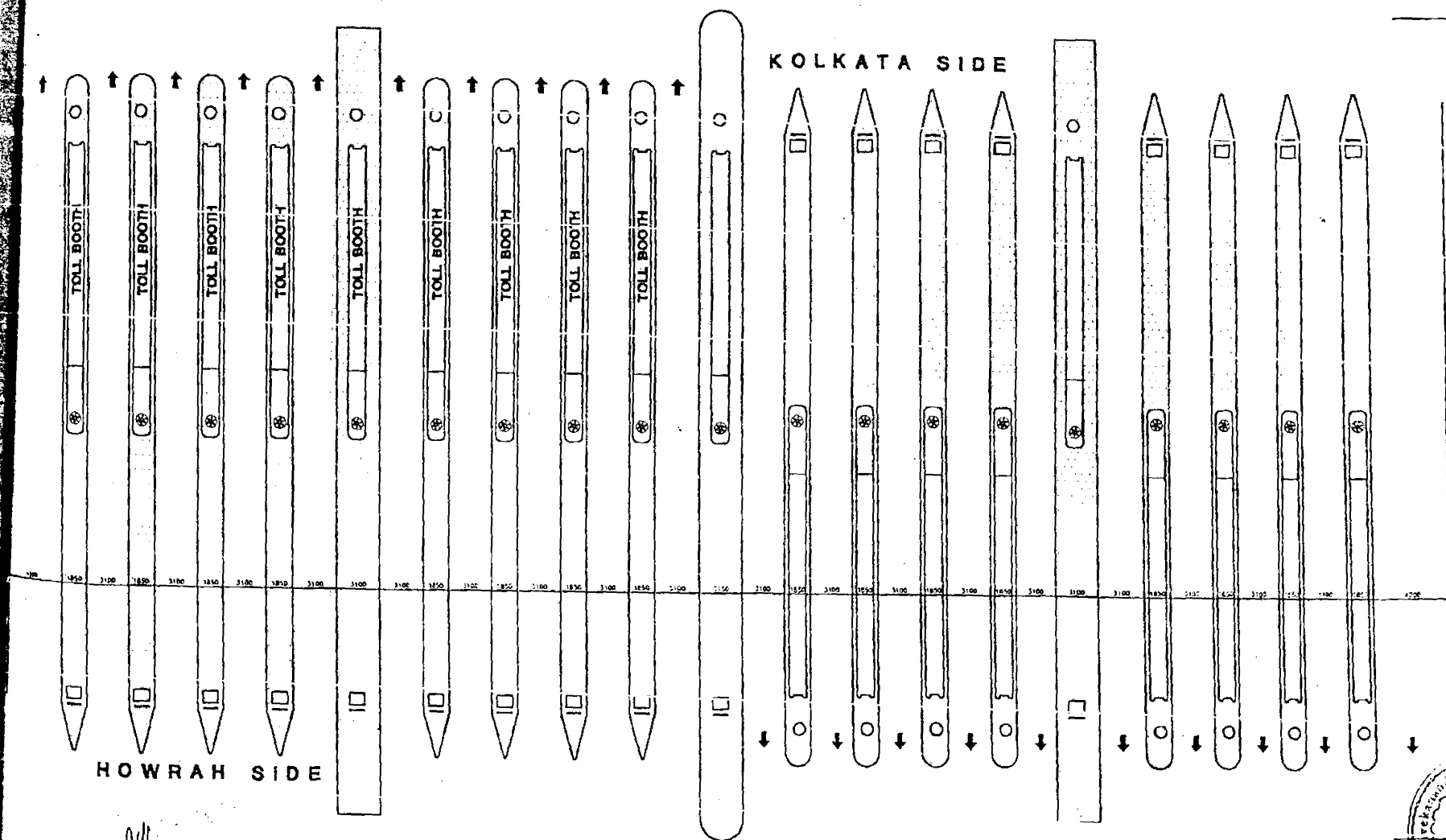


LEGEND

- RAMP-A
- RAMP-B
- RAMP-C
- RAMP-D
- RAMP-G
- RAMP-H
- PWD ROAD
- LOWER LEVEL ROAD
- PROPOSED ROW LINE



SECOND VIVEKANANDA BRIDGE - KOLKATA APPROACH
DRG. NO. - 7



HOWRAH SIDE

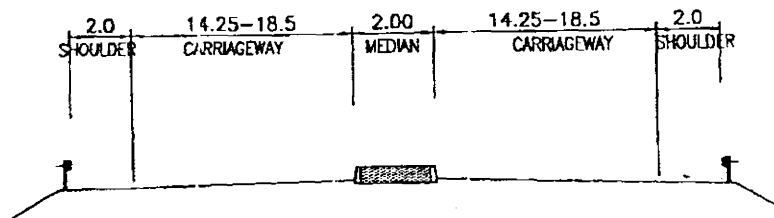
KOLKATA SIDE

40000 (CENTA METER)

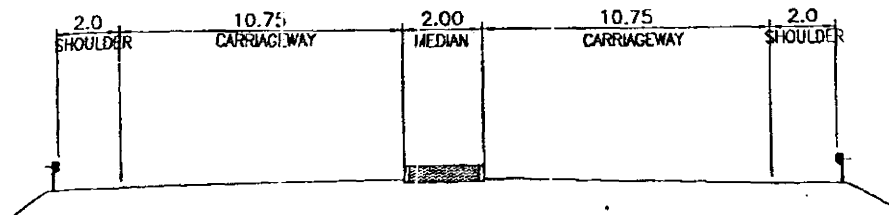
PLAN OF TOLL PLAZA
DRG. NO. - 8



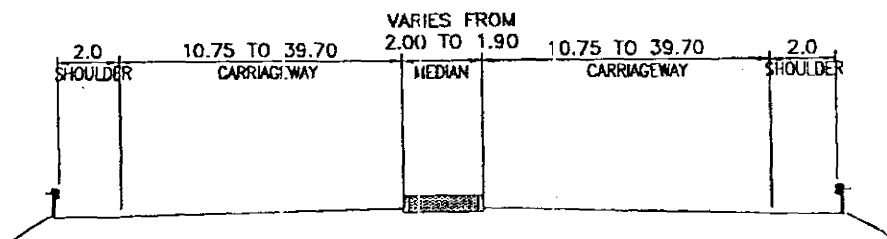
HOWRAH APPROACH (MAIN)



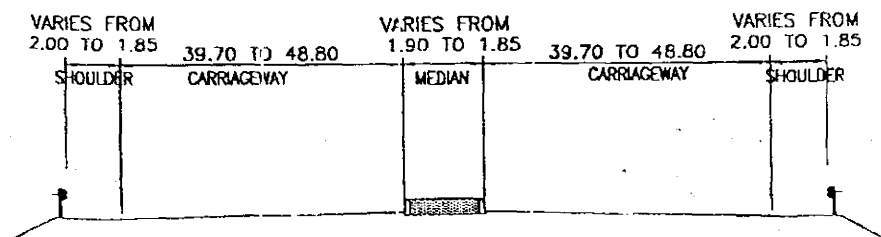
CROSS SECTION FOR CH. 666.165km TO CH. 666.240km



CROSS SECTION FOR CH. 666.240km TO CH. 666.644km



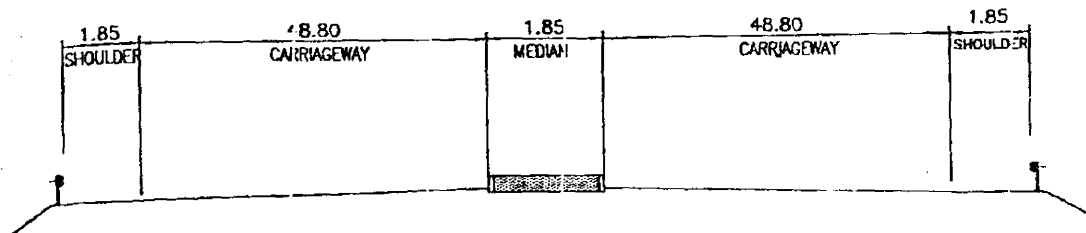
CROSS SECTION FOR CH. 666.644km TO CH. 667.084km



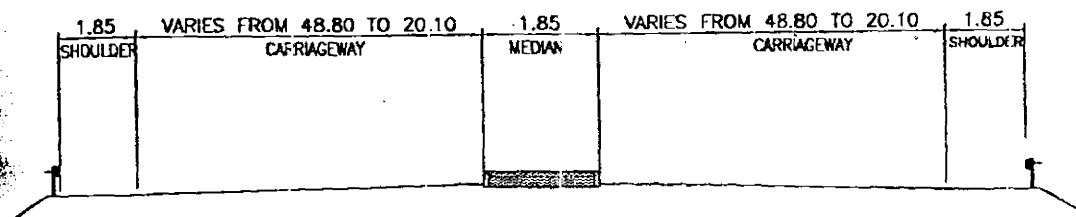
CROSS SECTION FOR CH. 667.084km TO CH. 667.186km



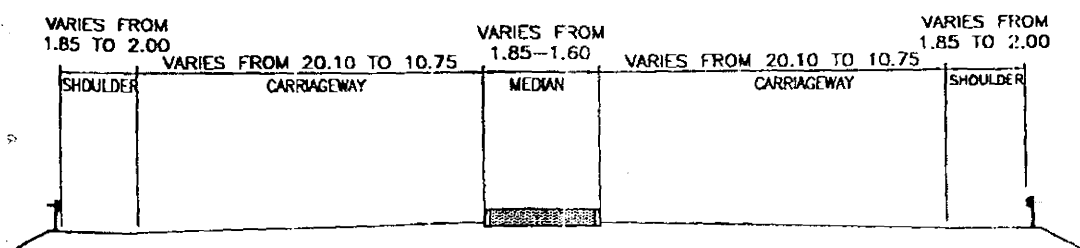
HOWRAH APPROACH (MAIN)



CROSS SECTION FOR CH. 667.186km TO CH. 667.262km

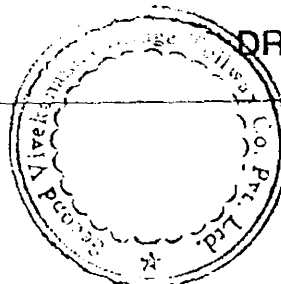


CROSS SECTION FOR CH. 667.262km TO CH. 667.800km

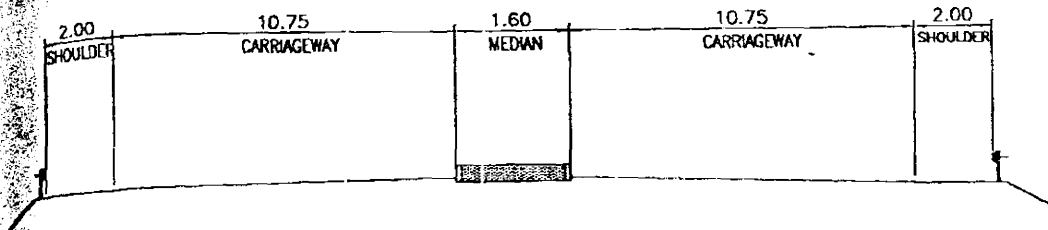


CROSS SECTION FOR CH. 667.800km TO CH. 667.917km

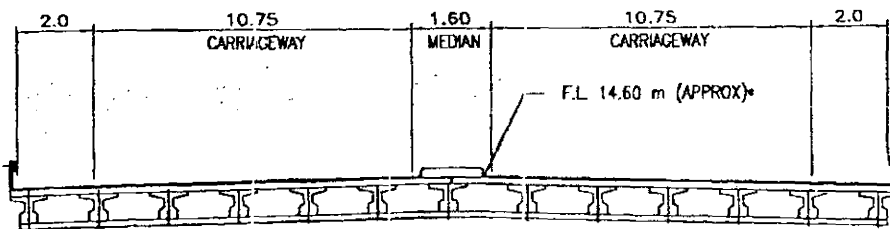
DRG NO. - 10



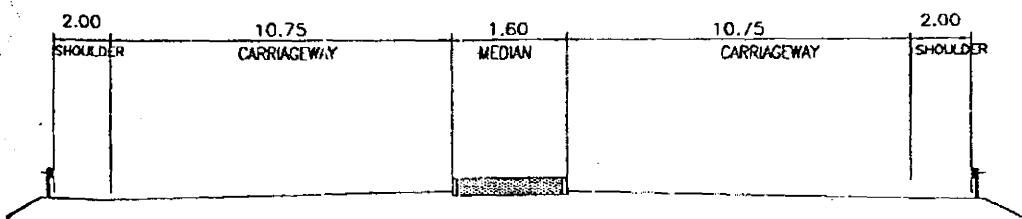
HOWRAH APPROACH (MAIN)



CROSS SECTION FOR CH. 667.917km TO CH. 668.800Km

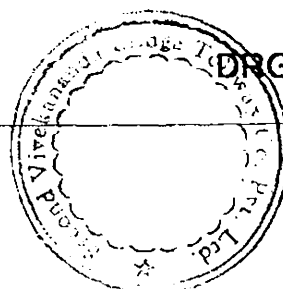


CROSS SECTION FOR CH. 668.800km TO CH. 668.850km

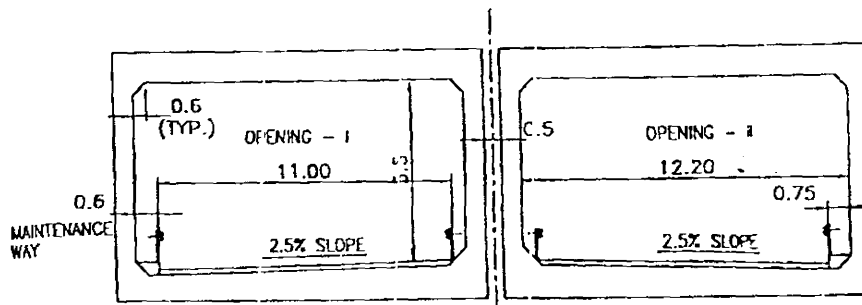


CROSS SECTION FOR CH. 668.850km TO CH. 669.280km

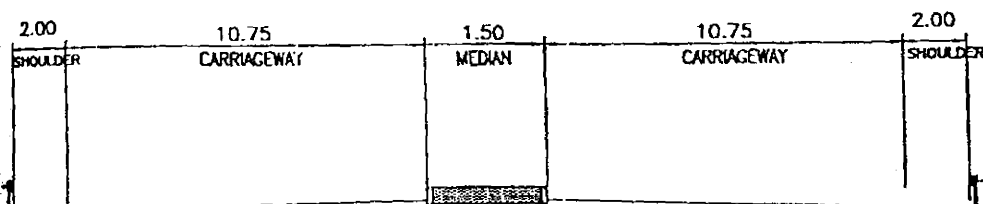
DRG. NO. - 11



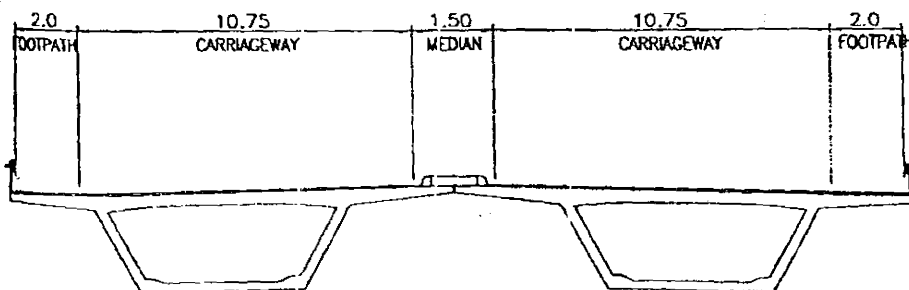
HOWRAH APPROACH (MAIN)



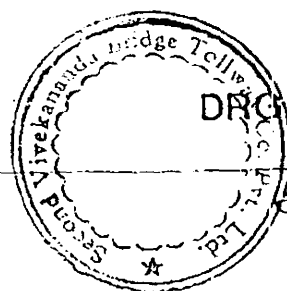
CROSS SECTION FOR CH. 669.280km TO CH. 669.340km



CROSS SECTION FOR CH. 669.340km TO CH. 669.469km

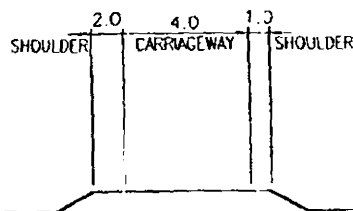


CROSS SECTION FOR CH. 669.469km TO CH. 669.834km



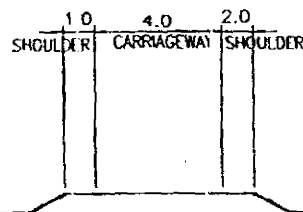
DRG NO. - 12

HOWRAH APPROACH (TOLL FREE NH2 EAST BOUND)

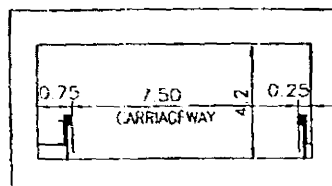


CROSS SECTION FOR CH. 666.283km TO CH. 666.420km

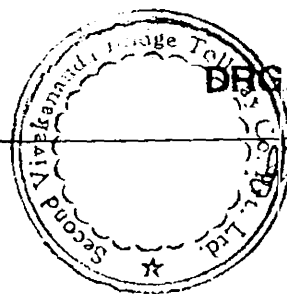
HOWRAH APPROACH (TOLL FREE NH2 WEST BOUND)



CROSS SECTION FOR CH. 666.283km TO CH. 666.420km

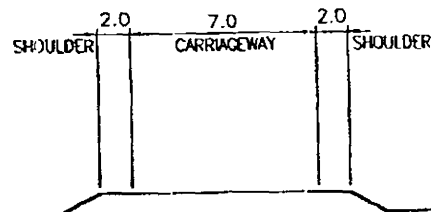


CROSS SECTION AT CH. 666.420

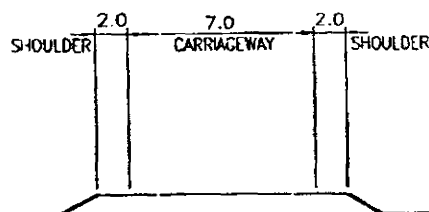


DRG. NO. - 13

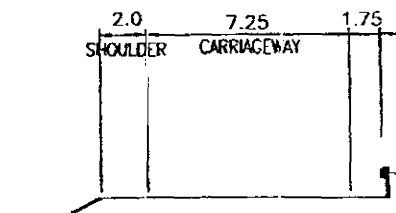
APPROACH (TOLL FREE NH2 WITH DUAL CARRIAGEWAY)



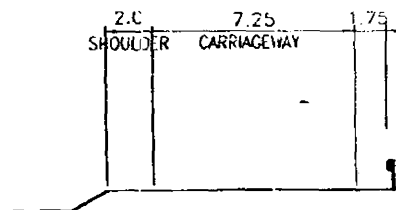
CROSS SECTION FOR CH. 666.420km TO CH. 666.800km



CROSS SECTION FOR CH. 666.800km TO CH. 667.084km



CROSS SECTION FOR CH. 667.084km TO CH. 667.186km



CROSS SECTION FOR CH. 667.186km TO CH. 667.220km

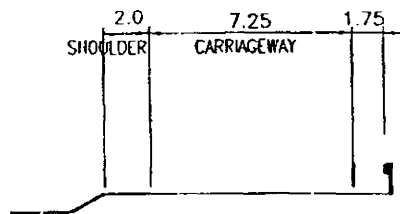
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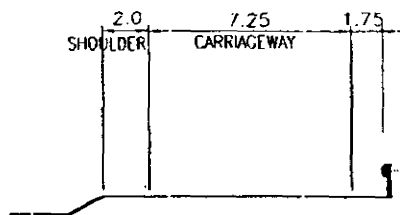
DRG. NO. - 14

98/8

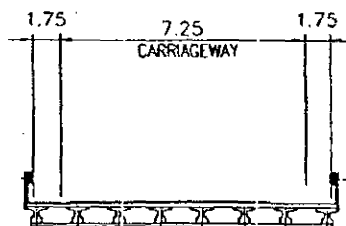
APPROACH (TOLL FREE WITH DUAL CARRIAGEWAY)



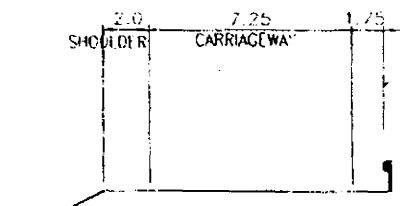
CROSS SECTION FOR CH. 667.220km TO CH. 668.500km



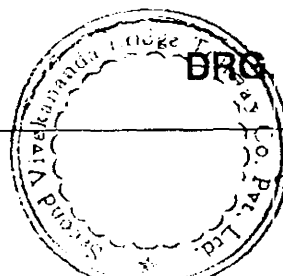
CROSS SECTION FOR CH. 668.500km TO CH. 668.800km



CROSS SECTION FOR CH. 668.800km TO CH. 668.850km

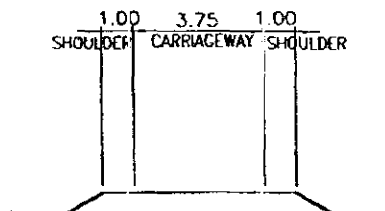


CROSS SECTION FOR CH. 668.850km TO CH. 669.280km



DRG. NO. - 15

HOWRAH APPROACH (LOCAL ROAD)

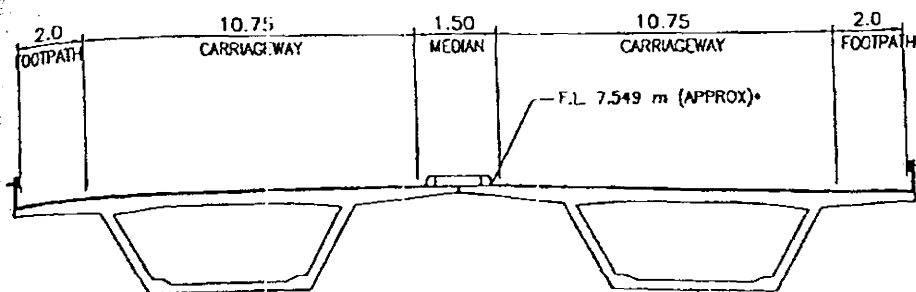


CROSS SECTION FOR CH. 666.420km TO CH. 667.917km

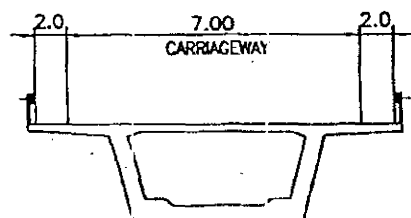
DRG. NO. - 16



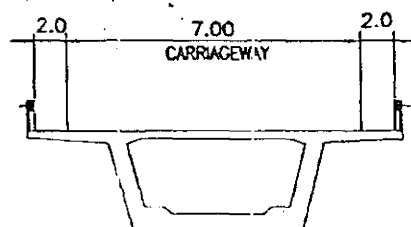
KOLKATA APPROACH (VIADUCT PORTION)



CROSS SECTION FOR CH. 670.713km TO CH. 670.926km (MAIN RAMP)



CROSS SECTION FOR CH. 670.926km TO CH. 671.468km (RAMP A/RAMP C)



CROSS SECTION FOR CH. 671.090km TO CH. 671.81km (RAMP B/RAMP D)

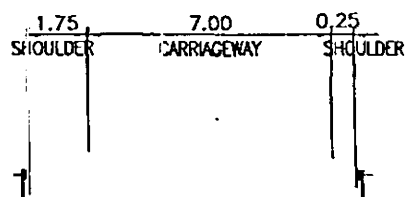


DRS NO. - 17

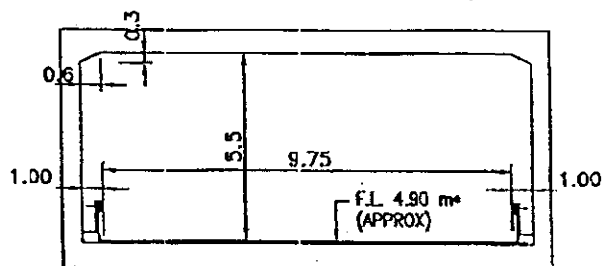
Handwritten signature/initials.

Handwritten signature/initials.

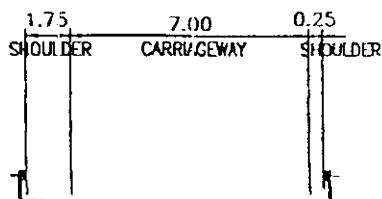
KOLKATA APPROACH (EMBANKMENT PORTION)



CROSS SECTION FOR CH. 671.466km TO CH. 671.585km



CROSS SECTION FOR CH. 671.585km TO CH. 671.620km

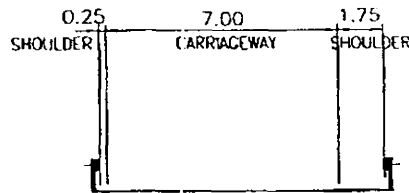


CROSS SECTION FOR CH. 671.620km TO CH. 672.101km

DRG NO. - 18

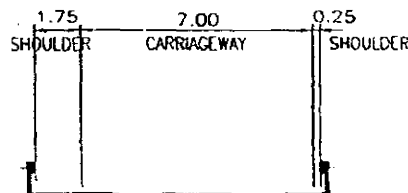
KOLKATA APPROACH (EMBANKMENT PORTION)

RAMP B



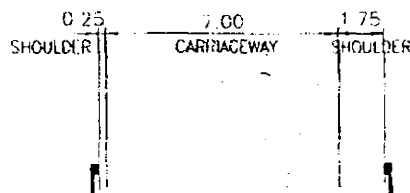
CROSS SECTION FOR CH. 671.445km TO CH. 672.026km

RAMP C



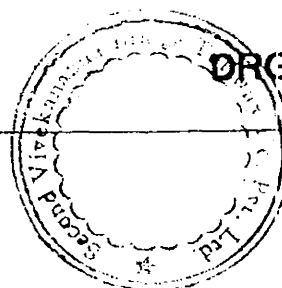
CROSS SECTION FOR CH. 671.775km (RAMP-C)

RAMP D



CROSS SECTION FOR CH. 671.747km (RAMP-D)

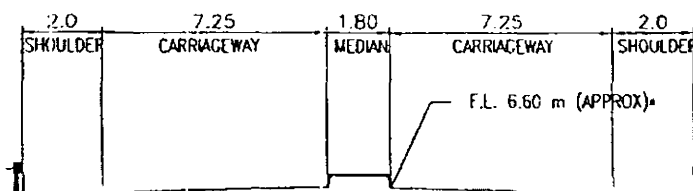
VV



DRG. NO. - 19

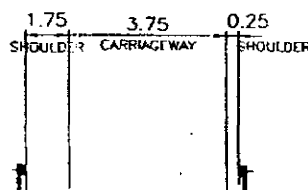
Handwritten initials and a checkmark.

KOLKATA APPROACH (EMBANKMENT PORTION)



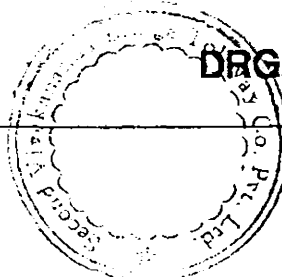
CROSS SECTION FOR CH. 671.900km TO CH. 672.100km (RAMP-D)

RAMP G/RAMP H



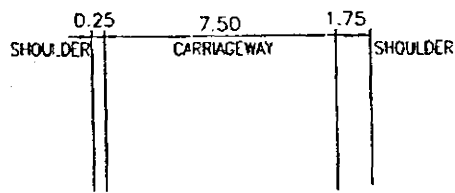
CROSS SECTION FOR CH. 671.466km TO CH. 671.741 (RAMP-G)
CH. 671.445km TO CH. 671.805 (RAMP-H)

DRG. NO. - 20



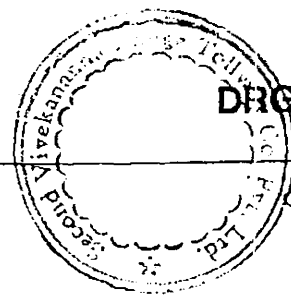
VW₂

KOLKATA APPROACH (LOWER LEVEL ROAD IMPROVEMENT)



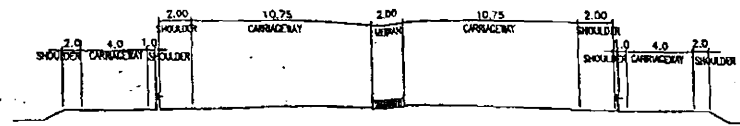
CROSS SECTION FOR CH. 671.390km TO CH. 672.100km

VL

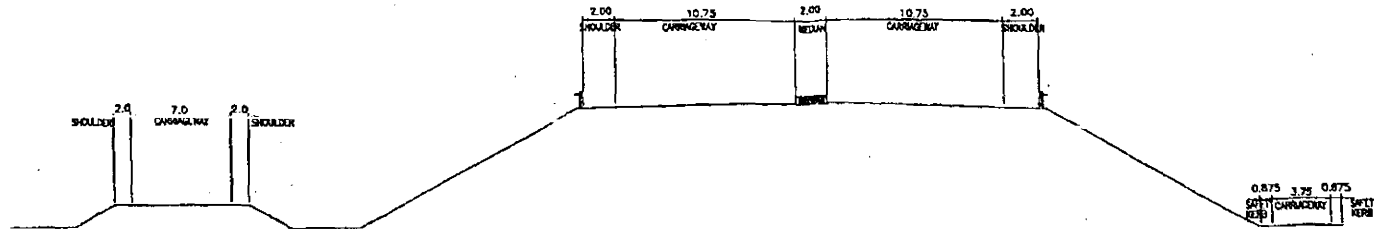


DRG. NO. - 21

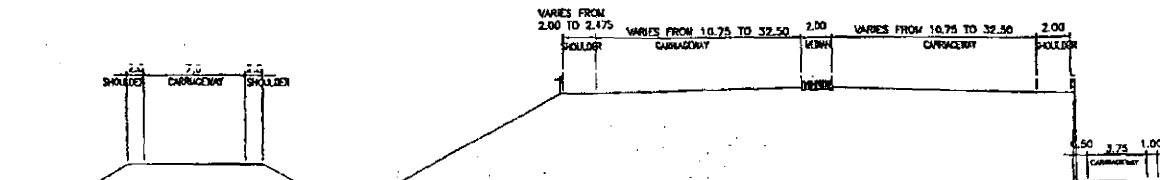
HOWRAH APPROACH



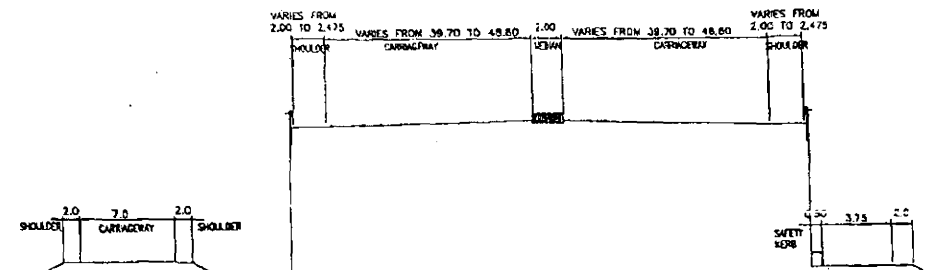
CROSS SECTION NEAR CH. 666.283km



CROSS SECTION NEAR CH. 666.500 km



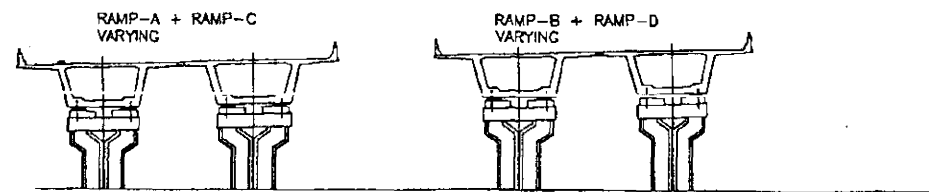
CROSS SECTION NEAR CH. 666.644km (START OF TOLL PLAZA)



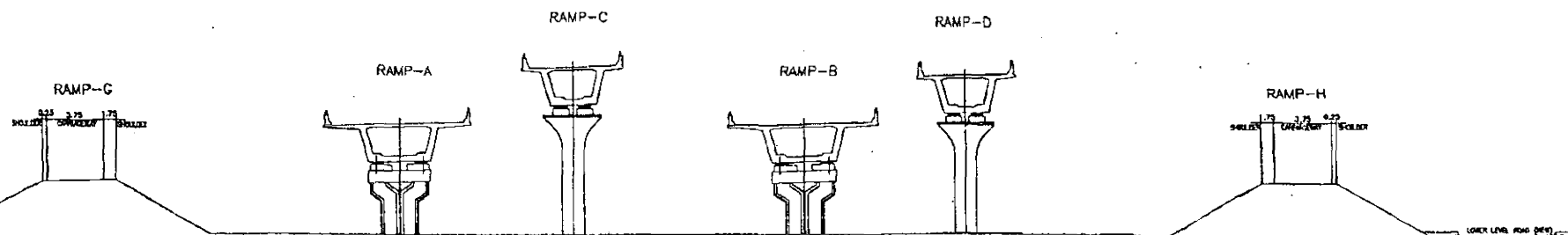
CROSS SECTION NEAR CH. 666.800 km



CALCUTTA APPROACH

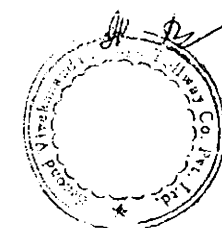


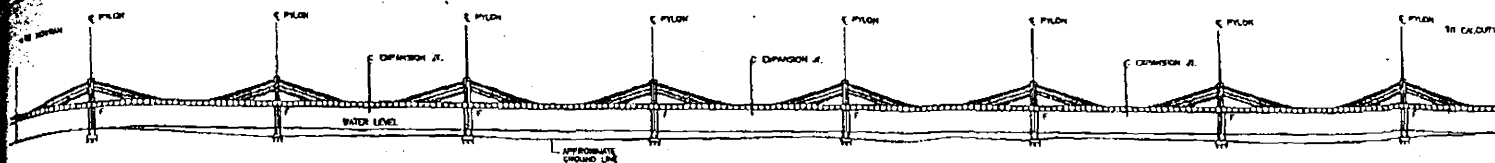
CROSS SECTION NEAR CH. 670.961km (RAMP PORTION)



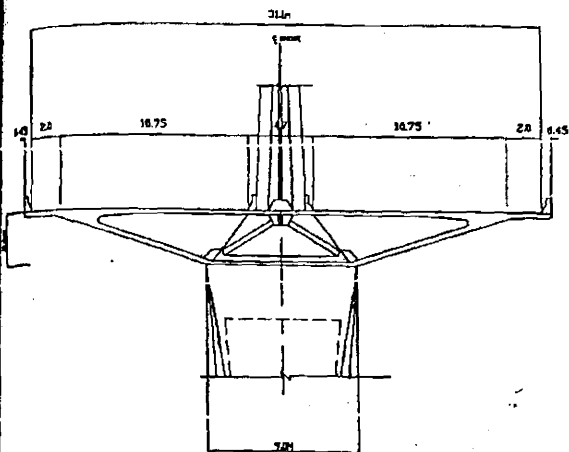
CROSS SECTION NEAR CH. 671.444km (RAMP PORTION)

DRG. NO. - 23

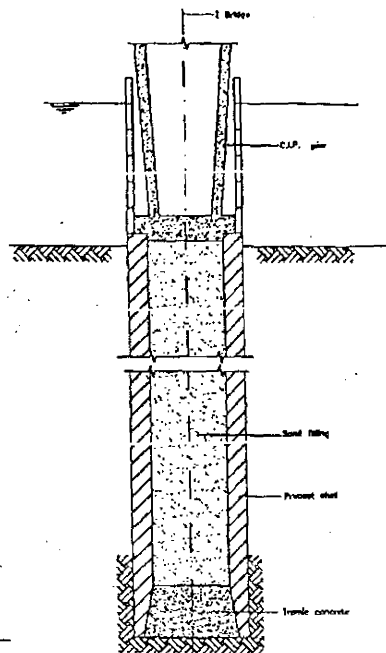




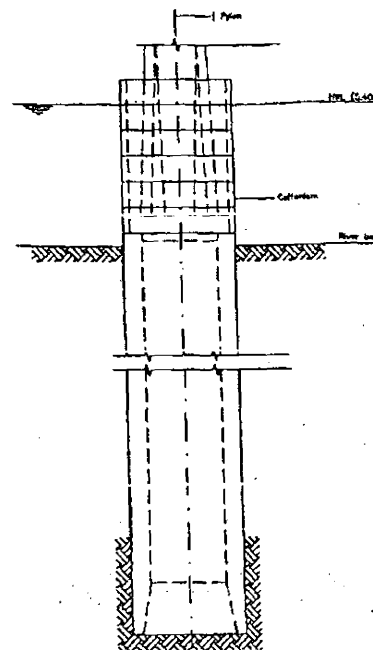
TYPICAL SPAN ELEVATION WITH 110M SPANS



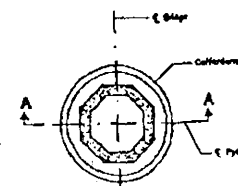
DECK CROSS SECTION AT FIXED PIER



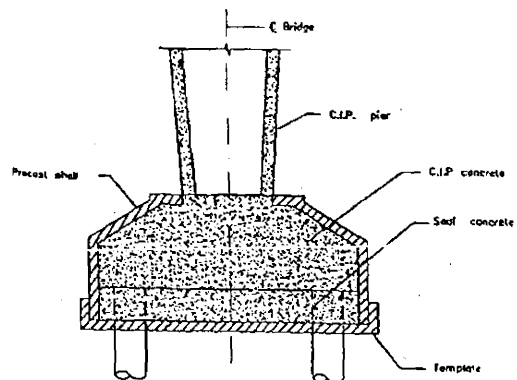
SECTION A-A



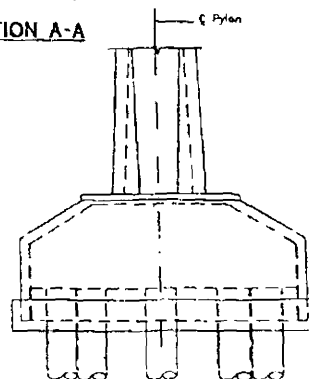
LONGITUDINAL ELEVATION



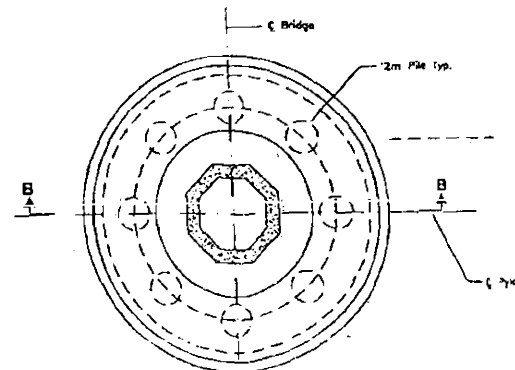
PLAN VIEW



SECTION B-B



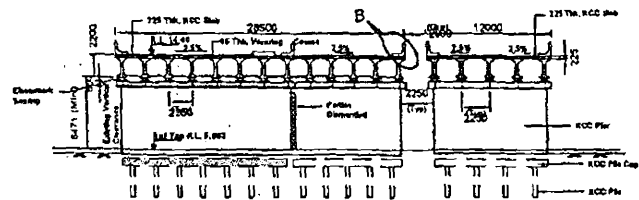
LONGITUDINAL ELEVATION



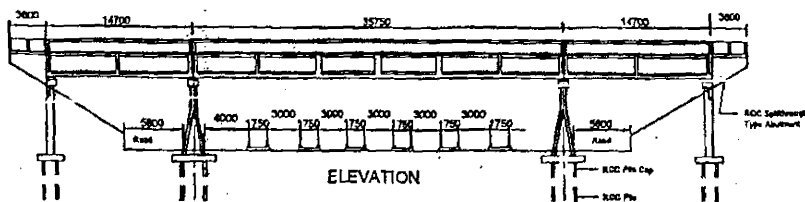
PLAN VIEW



GAD OF MAIN BRIDGE
2.4

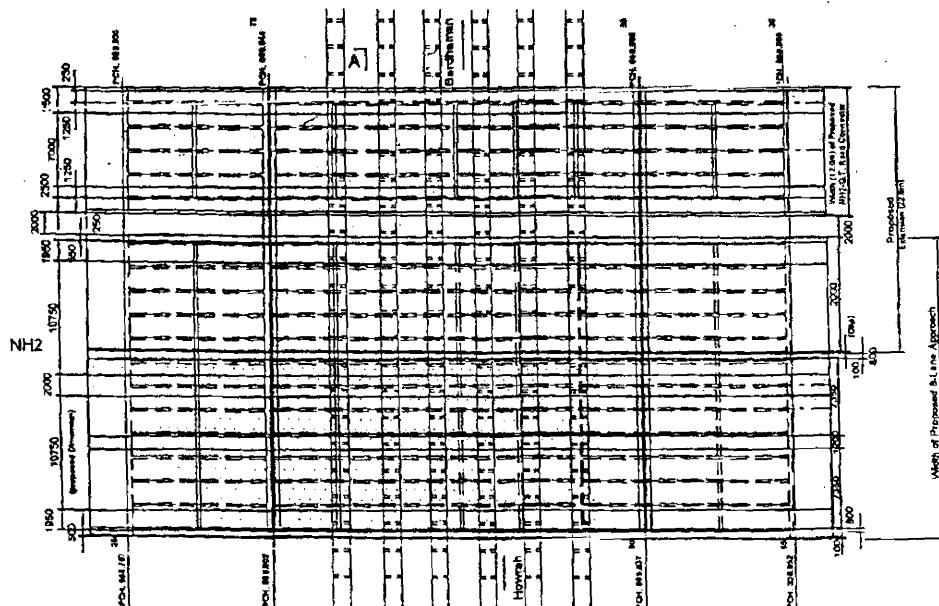


SECTION A-A



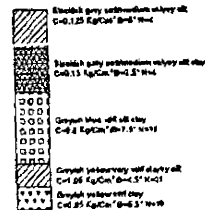
ELEVATION

Bally Rly. Station



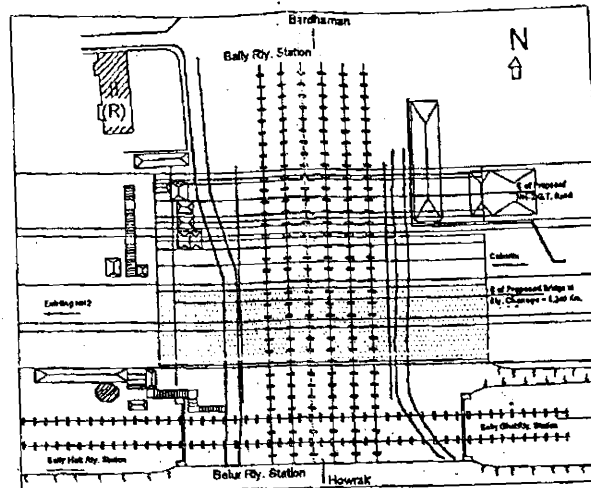
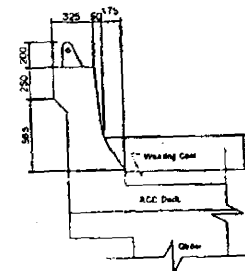
PLAN

Belur Rly. Station



DETAILS OF BORE LOG

Calcutta

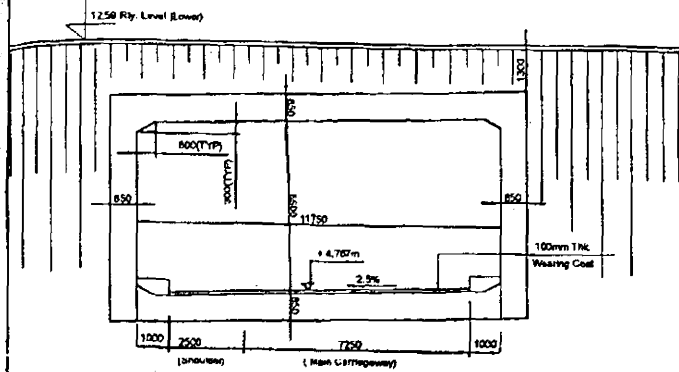


NOTE -

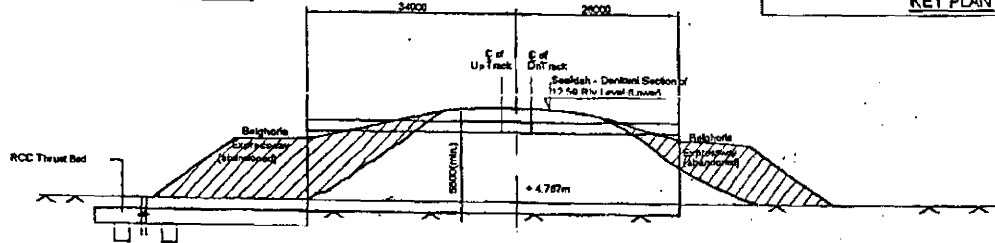
1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.
2. DIMENSION AND TYPE OF STRUCTURE OF EXISTING ARE AS SHOWN AND BASED ON THE SURVEY.
3. SPAN SYSTEM OF WIDENED PORTION IS SAME AS THAT OF EXISTING.
4. THE VERTICAL CLEARANCE OF THE EXTENDED PORTION SHALL BE SAME AS THAT ON EXISTING.
5. FOR LOCATION REFER DRAWING NO. 10218/08/04.
6. EXISTING STRUCTURE SHOWN THIS.
7. UNMOUNTED PORTION SHOWN THIS.
8. SECTION OF THE PROPOSED ABUTMENT AND PIER SHALL BE SAME AS THAT OF EXISTING.
9. WORKING OF EXISTING ROAD SHALL BE COMMENCED AFTER DIVISION OF CALCUTTA ROAD TRAFFIC THROUGH PROPOSED ROAD T.T. ROAD CONNECTION.

REVISIONS

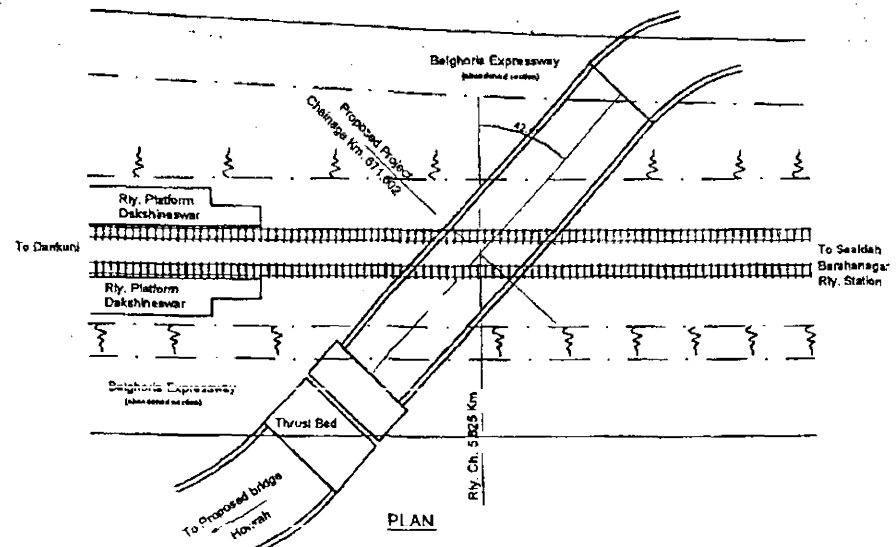
NOTICE	
THIS DRAWING IS NOT A SUBSTITUTE FOR THE ORIGINAL DRAWING AND IS NOT TO BE USED FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER IN CHARGE. ANY REVISIONS TO THIS DRAWING SHALL BE MADE BY THE ENGINEER IN CHARGE AND SHALL BE INDICATED BY A CIRCLED NUMBER AND A DATE.	
CLIENT	GOVT. OF WEST BENGAL NH DESIGN & PLANNING CIRCLE PW(ROADS) DIRECTORATE (NH WING)
PROJECT	SECOND VIVEKANANDA BRIDGE PROJECT
DESIGNER	
CHECKED	
APPROVED	
SCALE	AS SHOWN
DEALT.	LOAD OF ROAD OVER HOWRAH BUDHAN HAWA RLY. LINE NEAR BALLY STMT WITH PROPOSED EXTENSION
DRAWING NO.	10218/08/04
CONSULTING ENGINEERING SERVICES (PVT.) LTD. 100, BLOCK 10, SECTOR 1, SALT LAKE CITY, CALCUTTA 700 063	



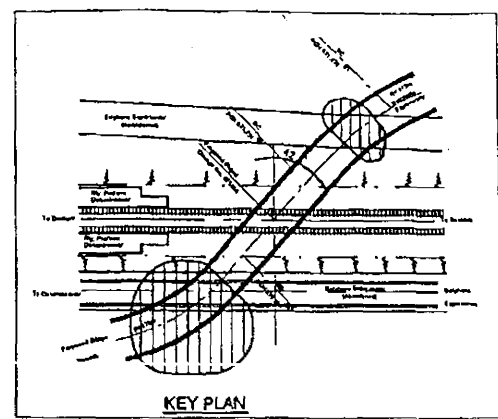
CROSS SECTION



LONGITUDINAL SECTION



PLAN

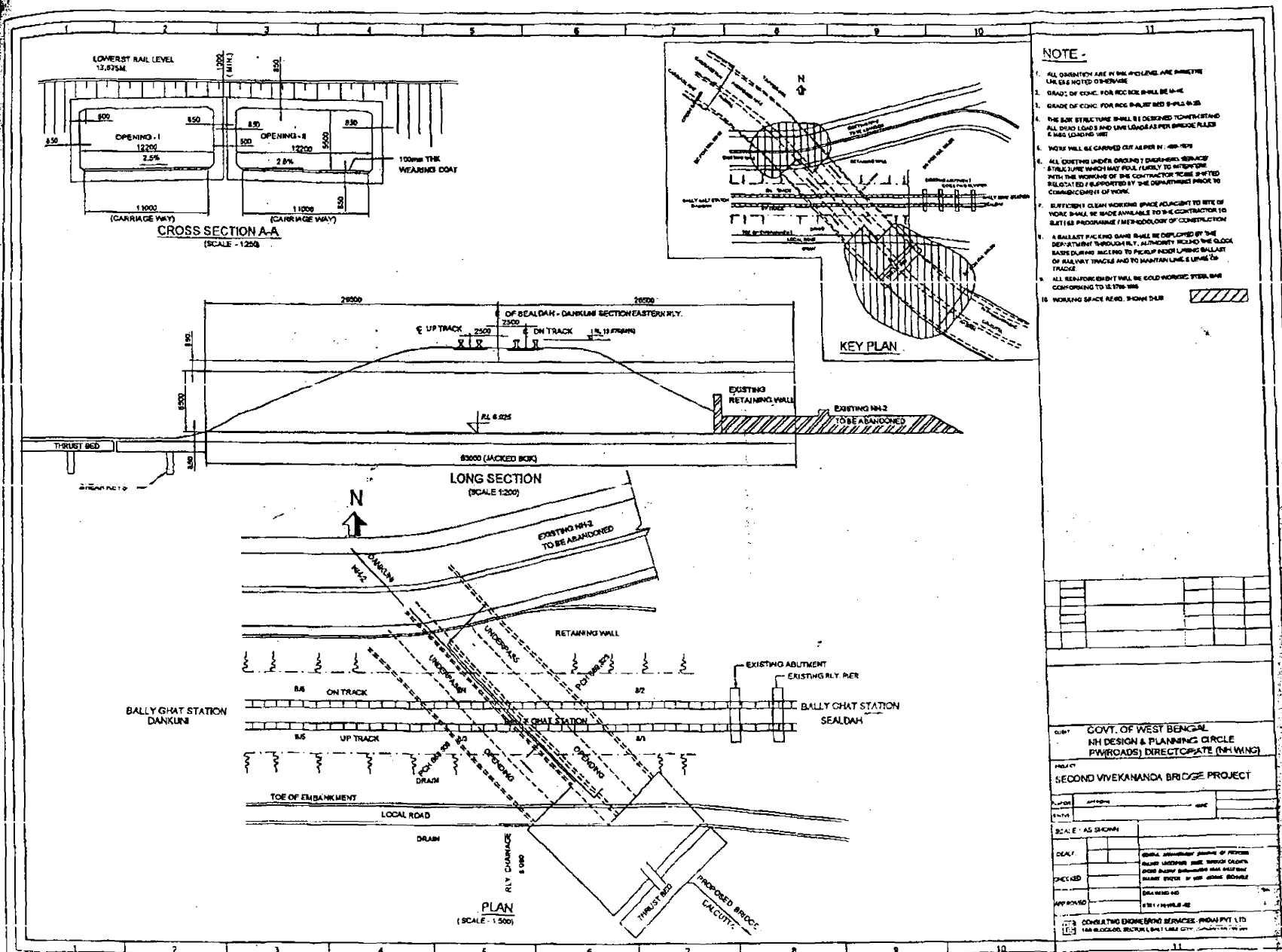


KEY PLAN

NOTE -

- ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METER UNLESS NOTED OTHERWISE
- GRADE OF CONC. FOR RCC SHALL BE M-40.
- GRADE OF CONC. FOR RCC SHALL BE M-40.
- THE R/C STRUCTURE SHALL BE DESIGNED TO WITH STAND ALL DEAD LOADS AND LIVE LOADS AS PER INDICATED RULES & REGS. LENDING UNIT
- WORK SHALL BE CARRIED OUT AS PER IN: 1051/1978
- ALL EXISTING UNDER GROUND OVERHEAD SERVICES STRUCTURE WHICH MAY BE AFFECTED BY THE WORKING OF THE CONTRACTOR TO BE SHIFTED / RELOCATED / SUPPORTED BY THE DEPARTMENT PRIOR TO COMMENCEMENT OF WORK.
- SUFFICIENT CLEAR WORKING SPACE ADJACENT TO SITE OF WORK SHALL BE MADE AVAILABLE TO THE CONTRACTOR TO SUITS HIS PROGRAMME / METHODOLOGY OF CONSTRUCTION
- A GALLARY FACING GAWD SHALL BE DEPLOYED BY THE DEPARTMENT THROUGHOUT THE WORKING OF THE BRIDGE DURING JACKING TO PREVENT COLLAPSE OF GALLARY OF THE TRACKS AND TO MAINTAIN LINE & LEVEL OF TRACKS.
- ALL REINFORCEMENT SHALL BE CORROSION RESISTANT STEEL BAR CONFORMING TO IS: 1786-1985
- WORKING SPACE AS SHOWN

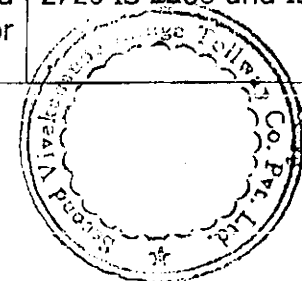
GOVT. OF WEST BENGAL NH DESIGN & PLANNING CIRCLE PW(ROADS) DIRECTORATE (NH WING)	
PROJECT SECOND VIVEKANANDA BRIDGE PROJECT	
DATE	19/01/2018
SCALE	AS SHOWN
DESIGN	1
CHECKED	1
APPROVED	1
1. ALL DIMENSIONS ARE IN MM AND LEVELS ARE IN METER UNLESS NOTED OTHERWISE 2. GRADE OF CONC. FOR RCC SHALL BE M-40. 3. GRADE OF CONC. FOR RCC SHALL BE M-40. 4. THE R/C STRUCTURE SHALL BE DESIGNED TO WITH STAND ALL DEAD LOADS AND LIVE LOADS AS PER INDICATED RULES & REGS. LENDING UNIT 5. WORK SHALL BE CARRIED OUT AS PER IN: 1051/1978 6. ALL EXISTING UNDER GROUND OVERHEAD SERVICES STRUCTURE WHICH MAY BE AFFECTED BY THE WORKING OF THE CONTRACTOR TO BE SHIFTED / RELOCATED / SUPPORTED BY THE DEPARTMENT PRIOR TO COMMENCEMENT OF WORK. 7. SUFFICIENT CLEAR WORKING SPACE ADJACENT TO SITE OF WORK SHALL BE MADE AVAILABLE TO THE CONTRACTOR TO SUITS HIS PROGRAMME / METHODOLOGY OF CONSTRUCTION 8. A GALLARY FACING GAWD SHALL BE DEPLOYED BY THE DEPARTMENT THROUGHOUT THE WORKING OF THE BRIDGE DURING JACKING TO PREVENT COLLAPSE OF GALLARY OF THE TRACKS AND TO MAINTAIN LINE & LEVEL OF TRACKS. 9. ALL REINFORCEMENT SHALL BE CORROSION RESISTANT STEEL BAR CONFORMING TO IS: 1786-1985 10. WORKING SPACE AS SHOWN	



TESTS

Sl. No.	Item	Test	Testing Procedure
1.0 Earthwork for embankment, subgrade construction and cut formation			
1.1	Embankment and Subgrade borrow materials	Quality Audit of the following tests performed during construction for soil type, density, moisture content and CBR as required by MoRTH specifications for Road and Bridge works - Moisture Content test as per IS:2720 (Part 2) - Sand Content Test according to IS:2720 (Part 4) - Plasticity Characteristics of soils according to IS:2720 (Part 5) - Moisture Content dry density relationship using heavy compaction according to IS:2720 Part 3. - Deleterious content determination as per IS:2720 Part 27 - CBR Test as per IS:2720 (Part 16)	As per relevant Parts of IS-2720
1.2	Compaction	Quality Audit of the following Tests performed during construction as required by MoRTH specifications for Road and Bridge works. - Compaction density and - Determination of dry density of soils in place according to IS-2720, Part 28	As per IS-2720, Part 28
2.0 Pavement Structure			
2.1	Sub base and base courses	Quality Audit of quality control tests on soils, aggregate and moisture content – density tests and CBR tests as required by MoRTH specifications for Road and Bridge works.	As per relevant parts of IS-2720 IS 2386 and IS 5640

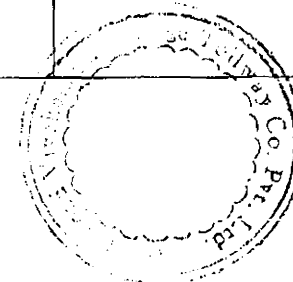
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TESTS

Sl. No.	Item	Test	Testing Procedure
		• Plasticity Characteristics of soils according to IS:2720 Part 5 • Dry density of soils in place according to IS:2720 Part 28 • Deleterious constituents as per IS:2720 Part 27 • CBR test as per IS:2720, Part 16 • Dry density moisture content relationship as per IS:2720 Part 8 • Aggregate grading as per Job Mix Formula • Aggregate Impact value as per IS:2386 (Part 4) or IS:5640 • Flakiness and Elongation indices as per IS:2386(Part.1)	
2.2	Bituminous base and wearing courses	Quality Audit of quality control tests on aggregates and bitumen and on bituminous mixes as laid down in clause 903.4 of MoRTH specifications for Road and Bridge works. • Aggregate Impact Value as per IS2386, Part 4 • Flakiness and elongation index as per IS:2386 (Part I) • Stripping value test as per AASHTO T182 • Water absorption as per IS:2386 (Part 3) • Soundness Test as per IS:2386(Part 5) • Marshall stability test as per ASTM D-1559	As specified in the codes IS 2386, parts 1, 3, 4 and 5, AASHTO T182 and ASTM D-1559

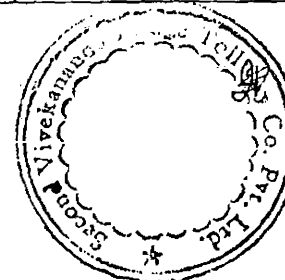
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TESTS

Sl. No.	Item	Test	Testing Procedure
2.3	Cement concrete Pavement	Quality audit of sampling and testing of cubes and beams for strength of concrete and quality control tests on aggregates • Aggregate Impact Value as per IS:2386 (Part 4) • Soundness Test as per IS:2386 (Part 5) • Alkali Aggregate Reactivity IS: 2386 (Part 7) • Strengths of Concrete (Tests on Cubes and beams) as per IS:516 • Workability of fresh Concrete – Slump Test IS:1199	As per relevant parts of IS 2386, IS 516 and IS1199
2.4	Riding Quality of Surface	Checking unevenness index of the finished pavement surface.	Roughness measurement by fifth wheel bump integrator (Annexure A) or an equivalent device approved by IC
3.0 Bridge (Main)			
3.1	Cement, aggregate, reinforcement pre-stressing steel and Concrete	Quality Audit of Tests performed during construction	The Auditing shall be carried out in accordance with the IRC:SP 47 on Quality Assurance
3.2	Superstructure	Static load testing of any one span of the structure for carrying design load as per IRC	Test shall be carried out in accordance with IRC:SP 51

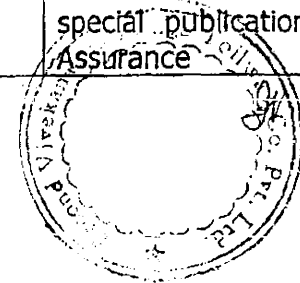
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TESTS

Sl. No.	Item	Test	Testing Procedure
3.3	Bearings	Checking and verification of the bearings to ascertain proper functioning	The inspection shall be carried out in accordance with requirement laid in MoRTH specification for Road and Bridge works and shall meet the prescribed criteria.
3.4	Expansion Joints	Checking and verification of the Expansion joints to ascertain proper functioning	The inspection shall be carried out in accordance with requirement laid in MoRTH specification for Road and Bridge works and shall meet the prescribed criteria.
3.5	Foundation & Substructure	Checking and verification of the Foundation settlement	The settlement of foundation for superstructure load at completion shall be measured with reference to a fixed datum. (For this purpose, the records of measurements taken before the superstructure concreting should also be available.)
4.0	Viaducts		
4.1	Cement, aggregate, reinforcement pre-stressing steel and Concrete	Quality Audit of Tests performed during construction	The Auditing shall be carried out in accordance with the IRC special publication on Quality Assurance

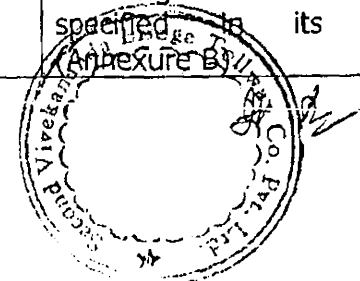
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TESTS

Sl. No.	Item	Test	Testing Procedure
4.2	Bearings	Checking and verification of the bearings to ascertain proper functioning	The inspection shall be carried out in accordance with requirement laid in MoRTH specification for Road and Bridge works and shall meet the prescribed criteria.
4.3	Expansion Joints	Checking and verification of the Expansion joints to ascertain proper functioning	The inspection shall be carried out in accordance with requirement laid in MoRTH specification for Road and Bridge works and shall meet the prescribed criteria.
4.4	Foundation & Substructure	Checking and verification of the Foundation settlement	The settlement of foundation for superstructure load at completion shall be measured with reference to a fixed datum. (For this purpose, the records of measurements taken before the superstructure concreting should also be available.)
5.0	Highway Lighting System	Level of Illumination	The illumination level shall be measured with luxmeter following the method as specified in its manual

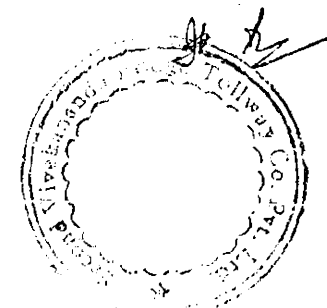
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Sl. No.	Item	Test	Testing Procedure
6.0	Traffic Signals	Test in accordance with the relevant clauses of IRC:93 and IS 7537	Meet the prescribed criteria in IRC 93 and IS 7537
7.0	Toll System Operations	1. Certified report of Factory Acceptance test (FAT) 2. Post installation site test to conform to the functionality and specifications of the contract	Real time test for individual functionality of each component which should conform both specifications/codes stipulated in the country of manufacture. It should include manual operations in case of no power.
8.0	Emergency Communication System	Independent Systems to be developed to operate on the project site	Real time test to be carried out to conform the designed system.
9.0	Traffic Signage and Pavement Marking	Test in accordance with relevant clauses of section 800 of MoRTH specifications for Road and Bridge works published by IRC 1997	To follow section 800 of MoRTH specifications for Road and Bridge Works published by IRC 1997

Note: Any other tests required as per IRC/MoRTH Codes & Specifications/Manuals shall also be taken care of.

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TESTS

Annexure-A

TEST PROCEDURE FOR MEASURING UNEVENNESS OF THE RIDING SURFACE OF A FLEXIBLE PAVEMENT

Equipment – British Towed Fifth Wheel Bump Integrator

Test Procedure:

The following test procedure shall be adopted for the test

- 1) Check the installation and operation of the equipment is in order and meets the requirements prescribed in its operational manual. For example the towing hitch maintains the frame in a upright position but provides freedom of movement in longitudinal and transverse directions. The tyre pressure of wheels is as prescribed.
- 2) The instrument shall be calibrated prior to its use for measurement as prescribed in its operational manual.
- 3) The operators shall familiarize themselves with the 5th wheel Bump integrator, operation using its Test Made before commencing a survey.
- 4) A uniform speed of 30 km./hour, which is the specified operating speed of the British Towed Fifth Wheel Bump Integrator, shall be maintained during measurements. The readings shall be taken for each carriageway independently.
- 5) The equipment shall run on wheel paths of each lane in the direction of the traffic movement and the average of lane values in a carriageway taken for its unevenness index.
- 6) Pavement unevenness/roughness of 3 lane carriageway shall be obtained from the summation of values of the 3 lanes recorded.
- 7) The unevenness index value is obtained by using the following formula.

Unevenness index Value = $B/W \times R \times 1 \text{ cm/km.}$

Where

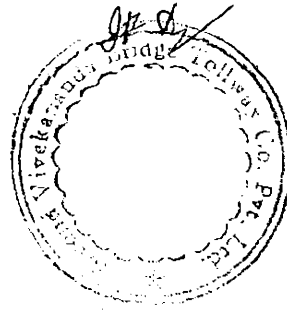
B = Number of Bump in a section
W = Number of Wheel Revolution Counter
R = is a constant, 1000 nos. of wheel revolution counter per km.
Least count of B = 1 cm.



TESTS

8. All data shall be properly recorded with appropriate referencing and stored in a prescribed manner as in the operation manual.

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TESTS

Annexure - B

Illumination Testing Procedure by Luxmeter

Instrument : Luxmeter
(of renowned company)

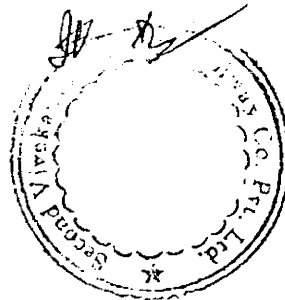
Basis : Comparison
(with standard lamp)

Test Procedure:

Following steps shall be taken for the test

- Put off the light in the area to be tested
- Put on the standard lamp
- Observe the luxmeter reading
- Put off the standard light
- Put on the existing lights in the area to be tested
- Observe the luxmeter reading
- Difference (positive or negative) in addition with standard light illuminance level will give the actual illuminance of existing lighting system.

Note: The testing procedure shall be as per the manual of the Lux meter used.



PROVISIONAL CERTIFICATE

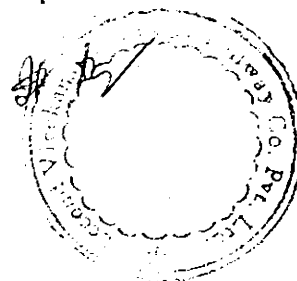
I/We (Name of Independent Consultant) acting as Independent Consultant on the project, "Second Vivekanand Bridge from Km ____ to Km ____ on National Highway No. 2, in West Bengal, India on Build, Operate and Transfer (BOT) basis" through the concessionaire, (Name of Concessionaire) hereby issue this provisional certificate of completion in-terms of sub-clause 16.5 of Concession Agreement dated (Date of Agreement), between the said Concessionaire and the NHAI, on the request of the said Concessionaire subject to the appended Punch List containing a list of outstanding items since the tests stipulated in schedule J have been successfully carried-out and all parts of Project Highway can be legally, safely and reliably placed in commercial operations though certain works and things forming part thereof are not yet complete as indicated in the said Punch List. All the items of the said Punch List shall be completed by the said Concessionaire with in 180 (one hundred and eighty) days of the date of issue of this Provisional Certificate of Completion.

Dated _____

(Date of issue)

Independent Consultant

[Handwritten Signature]



OPERATION & MAINTENANCE REQUIREMENTS

1. GENERAL

The Concessionaire shall be responsible for the Project's operations and maintenance services covering routine and periodic maintenance till the end of the Concession Period.

1.1 Submission of plan and reports

The Concessionaire shall submit to NHAI/ Independent Consultant:-

- a) An annual work plan containing activities, the Concessionaire proposes to carry out for routine and periodic maintenance.

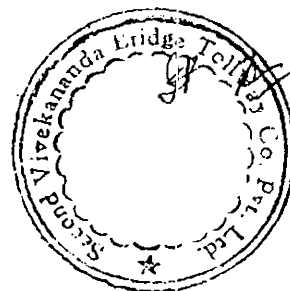
The annual work plan shall include Periodic inspection and maintenance of Project Components such as embankment, ramps, bearings, super structure, expansion joints, etc. The annual work plan shall be prepared in consultation with Independent Consultant and shall be submitted to NHAI/ IC not later than forty five (45) days before the beginning of each Accounting Year

- b) A conservation plan including the status of compliance of various activities as indicated in the annual work plan.
- c) Annual report indicating the status of Project Component
- d) Report on emergency road and security assistance provided to users.
- e) Report on accidents, indicating direction, cause and hour of the accident
- f) Report on environmental management
- g) Report of user complaints
- h) Inspection Reports
- i) Reports on Major Repair and Unscheduled Maintenance

1.2 Traffic Forecast

Record of actual traffic flow will be kept and if warranted the traffic flow projections would be reviewed at periodic intervals.

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OPERATION & MAINTENANCE REQUIREMENTS

1.3 Traffic Flow

The Concessionaire shall be responsible for providing maintenance services for smooth traffic flow from the commencement date till the end of the Concession period. The Concessionaire shall be responsible to take action during accidents, and to clear obstructions, wreckage and broken down vehicles. For this purpose the Concessionaire shall ensure ready availability/accessibility to an ambulance and a tow vehicle at all times, starting from the commencement date of the Concession.

1.4 Routine Maintenance

"Routine Maintenance" for the purpose of this concession shall include periodic inspections to assess the conditions of Project components.

Activities of routine maintenance shall be included in Annual Work plan.

1.5 Major Repairs and Unscheduled Maintenance

The Concessionaire shall inform NHAI and the Independent Consultant when work is necessary and use materials that allow for rapid return to normal service and re-organize work crew to minimize disruptions. The Independent Consultant shall routinely monitor work prior to commencement and after repairs are completed. Independent Consultant shall confirm the maintenance/repairs conforms to the required standards.

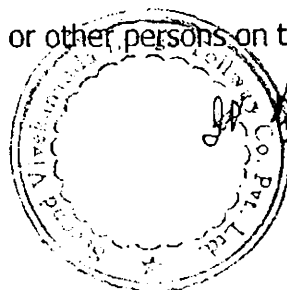
1.6 Overlays

Based on the traffic projections and the design, the Concessionaire shall indicate, in an Annual Report, the point of time at which the pavement shall require an "overlay". For the purpose of this agreement an "overlay" is defined as a strengthening layer which is required over the entire extent of the pavement of the main carriage-way without any way effecting the safety of the structures. "Overlay" shall be carried out by the Concessionaire and the same shall be monitored by the Independent Consultant.

2. O&M REQUIREMENTS

2.1 In the design, planning and execution of all works and functions associated with the operation and maintenance of the Project Facilities, the Concessionaire shall undertake necessary measures to secure:

- a) the safety of Users of the Project, workers or other persons on the Project ;



OPERATION & MAINTENANCE REQUIREMENTS

- b) the ability of the NHAI and others with statutory duties or functions in relation to the Project to perform those duties and functions remains unimpaired;

and, subject to paragraphs a) and b), that:

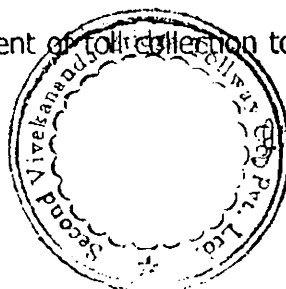
- 21.1 Minimum one lane shall be made available for smooth traffic movement during the maintenance operation for carriageway having two or more lanes. In the ramp with single lane carriageway (such as ramp G & H and local roads) 50% of the formation width shall be made available for smooth traffic movement during the maintenance operations. A riding surface width of 3.0m would be provided from the total width of carriageway and shoulders during maintenance operations. The activity of renewal of pavement surface and/or of strengthening of the pavement structure shall not be taken up in a continuous length of more than 1 kilometer at a time. The closure of the affected lanes shall not generally be more than one week at a time except in special circumstances. Moreover, proper information about the maintenance activity will be displayed at site and adequate safety measures taken up on the construction zone in the operational periods.
- 21.2 Delay to users of the Project facilities is minimised;
- 21.3 All accidents and emergencies are responded to as quickly as possible and their adverse effects minimised;
- 21.4 Risk of adverse effect on the environment, damage or disturbance to or destruction of third party property is minimised;
- 21.5 Members of the public are treated with due courtesy and consideration;
- 21.6 Users are given adequate information and forewarning of any events on or any matters affecting the Project, which will enable them to minimise any adverse consequences on them of those events or matters.

3. SCOPE OF WORK FOR TOLL OPERATIONS

3.1 General

The Concessionaire shall be responsible for the collection of toll, the accounting and security thereof, manning the toll booths and check barriers, operation and maintenance of toll collecting equipment, maintenance of the toll plaza.

The Concessionaire shall forward a monthly statement of toll collection to the NHAI in the format set forth in Schedule M.



OPERATION & MAINTENANCE REQUIREMENTS

3.2 Toll Capacity Augmentation

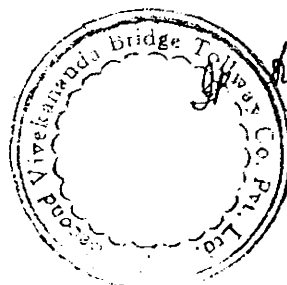
The design and execution of the Concessionaire's toll strategy shall take into account the traffic forecast and reviewed by the Concessionaire periodically from time to time. Enhancement of toll collection lanes and appropriate tolling technology at any future stage during the Operations Period shall be undertaken as needed by the Concessionaire at its own cost.

3.3 Toll Administration

Toll shall be collected by issuing single tickets or monthly passes or in such other frequencies or modes as may be determined by the concessionaire.

3.4 Scope of Other Works in Toll Operations

- a) Manning toll plaza and check barriers and collection of toll
- b) Operation and maintenance of toll collecting equipment
- c) Accounting, and reporting at prescribed frequency
- d) Security arrangements at toll plaza and for carrying cash
- e) Maintenance of communication arrangements at toll plaza
- f) Measures to check and prevent toll leakage
- g) Maintenance of toll plaza
- h) Signage (horizontal and vertical)
- i) Lighting
- j) Reporting accounting and any other works set out in the conditions of contract



OPERATION & MAINTENANCE REQUIREMENTS

4. PERFORMANCE STANDARDS

4.1 Performance Standards for Maintenance

The Concessionaire will prepare and submit 10 (ten) copies of a maintenance manual to NHAI, 3 (three) copies each to the GOI, GOWB and Independent Consultant. Copies of the Maintenance Manual shall also be made available by the Concessionaire for public inspection during office hours at a conspicuous place adjacent to each Toll Plaza on the Project Bridge. The Maintenance Manual shall be finalized in consultation with IC and submitted at least 2 months before COD. This manual shall form a basis for the maintenance work of the project during the Operations Period.

4.2 Roadway

The time limits as set out in sub paras a) through j) below shall be specified by the Concessionaire. The reports concerning operations and maintenance shall provide information about any scheduled and unscheduled repairs. The concessionaire shall rectify any "pavement defect" roughness problems or other problems that renders the standard of the bridge in non-compliance with the specifications.

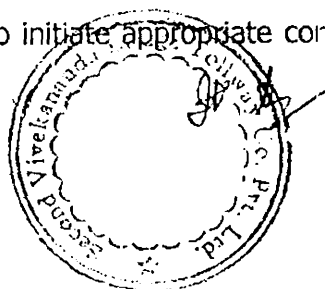
Pavement: IRC 82-1982, code of practice for maintenance of bituminous surfaces of highways and MoRTH Specifications for Road and Bridge Works (Fourth Revision) or any modifications to these from time to time shall be followed.

- a) Any cavity of diameter 150 mm and depth 25 mm or more shall be classified as a pothole. In the event of a pothole being formed, it shall be repaired and rectified within 48 hrs.
- b) Any physical damage to the road, median carriageway, bridges and cross drainage works, road furniture, signs, markings and any other appurtenance which occurs due to any reason shall be repaired within a reasonable period limited to 7 days.
- c) The pavement shall be maintained to provide a riding quality rating of "Good", i.e. to level I standard as per MoRTH Report of the Committee on norms for maintenance of roads in India, 2001.
- d) Roughness measurements shall be done by the Concessionaire once a year, immediately after the monsoon.
- e) Monthly inspections shall be made and used to initiate appropriate corrective measures.

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OPERATION & MAINTENANCE REQUIREMENTS

Any defects or deficiencies other than that explicitly set out, noticed in any component of the project shall be made good by the concessionaire within a reasonable time.

The geometric profile of the carriageway, railing, shoulders and medians shall be maintained as specified.

Signs and markings shall be maintained to adhere to the specifications for the as-built form.

All road furniture shall be maintained in as built form.

Cleaning of the roadway regularly.

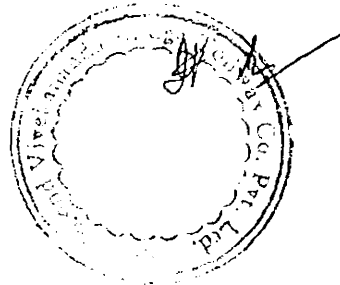
4.3 Bridge & Structure

Periodic inspection both pre-monsoon and post monsoon shall be carried out on all the project elements. The repair shall be as per maintenance manual.

4.4 Drainage System

- a) The inspection and maintenance shall follow the guidelines specified in IRC-SP35-1997.
- b) Pre-monsoon inspection and repairs shall include: Detailed condition inspection of the bridge, culverts and the longitudinal drainage system. This shall be followed by repairs as required.
- c) During the monsoon, any blocked vent-ways shall be cleared immediately.
- d) After monsoon a summary inspection shall be done to identify any severe damage.
- e) Cleaning of drainage shall be done daily.

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OPERATION & MAINTENANCE REQUIREMENTS

Performance Standards for Toll Operations

The delay and queue at toll booths shall not exceed the levels assumed in the design specifications.

The lighting arrangements at the toll plaza shall be maintained intact. Standby power arrangements shall be provided.

The roadway shall be kept clear of all obstructions to traffic. Broken down vehicles, accident remnants, fallen trees, or any other obstructions shall be cleared at once, after completing any legal formalities. The availability of tow-trucks, cranes and other equipment required for this purpose have to be ensured.

Accident relief measures including an ambulance shall be available round the clock. The response time should be the minimum. The availability of tow-trucks, cranes and other equipment required for this purpose have to be ensured.

An effective communication system shall be installed between the toll plaza and administrative building. The communication system shall have adequate standby to remain working continuously.

The intersections at either end and in-between shall be managed such that delays to through traffic are minimized.

Regular patrolling shall be done to ensure smooth traffic movement on the project road.

The users shall be able to get monthly or other periodic passes readily.

4.6 Compliance of Performance Standards

The adherence to the performance standards shall be periodically monitored by the Independent Consultant.

5. EMERGENCY OPERATIONS

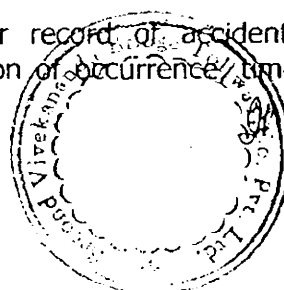
5.1 The Concessionaire shall take effective steps for

a) minimising disruption to the traffic in the event of accidents and/or incidents affecting the safety and use of the Project by providing a rapid and effective response and maintaining liaison procedures with emergency services.

b) ensuring reasonably smooth and safe movement of traffic during emergency activities such as special repairs during floods, hurricane and earthquakes.

c) avoiding failure of a system due to human error, electrical or mechanical failure.

5.2 The Concessionaire shall keep regular record of accidents that occur including the nature of accident, location of occurrence, time and date in



OPERATION & MAINTENANCE REQUIREMENTS

the prescribed format, included in the Maintenance Manual and shall forward the particulars of the same to NHAI.

6. TRANSFER

6.1 Introduction

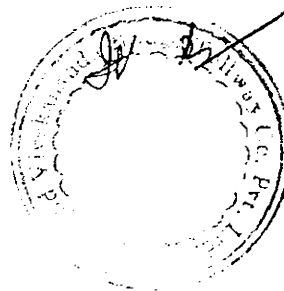
6.1.1 The Concessionaire shall deliver possession of the Project and the Project Assets with all relevant records in accordance with the Concession Agreement to the NHAI and/or its nominee or any person pursuant to and in accordance with the said agreement on the satisfactory completion of the Concession Period or Termination thereof.

6.1.2 All the Project facilities such as Toll Collection Systems, Traffic signals, Road furniture, Emergency Service Equipment including TAP's, PAT's, Administrative Operation and Maintenance Base Camp, Vehicles and Communication network Hard Landscape elements etc. shall be in 'sound' condition during the time of hand over of the Project to the NHAI. If not, the repair/replacement work required shall be carried out by the Concessionaire at its own cost.

6.2 Transfer Certificate

The Concessionaire shall obtain a Transfer Certificate, Annex L₁, appended to this Schedule, from the Independent Consultant, who shall issue it after satisfying itself that the Project has been constructed, operated and maintained in terms of the Concession Agreement during the Concession Period or any extension thereof and is in sound, durable and operational condition prior to the proposed delivery.

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TRANSFER REQUIREMENTS

TRANSFER CERTIFICATE

I/We, _____ (name of the Independent Consultant) issue this certificate, designated Transfer Certificate for the Project Second Vivekananda Bridge including its approaches on Howrah & Kolkata sides, West Bengal by the Concessionaire _____ (name of the Concessionaire) on Build, Operate and Transfer (BOT) basis as per the Concession Agreement between the National Highway Authority of India (NHAI) and the said Concessionaire, having satisfied that the Project has been constructed, operated and maintained during the Concession Period or the extended period is in sound, durable and operational condition on completion of the said concession period, and it is in a fit condition for transfer by the said Concessionaire to the NHAI or its nominee. The transfer of the said Project together with facilities thereon shall be effected on the strength of this certificate.

Place of Issue _____

Date of Issue _____

(Independent Consultant)



Schedule M

MONTHLY FEE COLLECTION STATEMENT

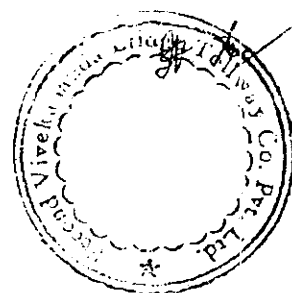
1. Name of Work:
2. Date of commencement of fee collection: (D/M/Y)
3. Report for month ending.....
4. Fee rates (in Rs.)

Vehicle Type	Fee rates on commencement	Rates during year before last year w.e.f. (Date)	Rates during previous year applied w.e.f. (Date)	Present rates applied w.e.f. (Date)
Car, passenger van or jeep				
Light Goods Vehicle				
Truck				
Bus				
Multi Axle Vehicles and Earth moving equipment and Heavy construction machinery including, without limitation, oversized vehicles carrying boilers, turbines, generators.				

5. Collection during month under report (Amount in Rs. millions)

Vehicle Type	Previous Month		Corresponding Month during Previous Year		Current Month	
	Nos.	Amount	Nos.	Amount	Nos.	Amount
Car, passenger van or jeep						
Light Goods Vehicle						
Truck						
Bus						
Multi Axle Vehicles and Earth moving equipment and Heavy construction machinery including, without limitation, oversized vehicles carrying boilers, turbines, generators.						
Gross Total						

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SELECTION CRITERIA FOR INDEPENDENT CONSULTANT

1.0 Selection of the Independent Consultant (IC) shall consist of the following key steps:

1. Finalisation of Terms of Reference (TOR) and Letter of Invitation (LOI).
2. Issue of Letter of Invitation (LOI) alongwith Terms of Reference to five shortlisted Consultants (names to be agreed jointly as at 3.0 below).
3. Evaluation of Technical Proposal of the Consultants.
4. Evaluation of Financial Proposal of the Consultants.
5. Negotiation and selection of Independent Consultant by the Selection Committee.

2.0 **SELECTION COMMITTEE**

The selection of the IC shall be done by a Selection Committee comprising four members, two each to be nominated by the Concessionaire and NHAI. The Committee shall be chaired by one of the members nominated by NHAI and co-chaired by one of the members nominated by the Concessionaire.

3.0 **SHORTLISTED CONSULTANTS**

The names of the shortlisted consultants are given below:

- Parsons Transportation Group, USA
- Vienna Consulting Engineers (VCE), Austria
- Schlaich Bergemann und Partner GbR, Germany
- COWI Consulting Engineers and Planners, AS, Denmark
- Buckland and Taylor, Vancouver Canada

In case, any of the above consultants, do not submit the bid, the same shall be replaced by qualified consultants mutually agreed between the Concessionaire and NHAI.

Each of the shortlisted consultants would be required to provide a declaration of not being affiliated to or have a financial interest in or be a recipient of financial interest of Consortium Members and their Associates.

4.0 **REQUEST FOR PROPOSAL**

The request for proposal shall be sent by NHAI to the five short listed consultants. This shall include a LOI and the TOR besides information (Data Sheet) to the firms and the proposed form of contract. It shall contain the guidelines for the preparation of technical and financial proposals by the firms and submission details. TOR issued to short listed consultants shall incorporate relevant details, not inconsistent with Concession Agreement, as



SELECTION CRITERIA FOR INDEPENDENT CONSULTANT

provided in NHA template documents for soliciting Independent Consultant proposals for other real toll BOT/ Annuity projects.

5.0 EVALUATION OF TECHNICAL PROPOSAL

The technical Proposals received from the five short listed consultants shall be evaluated based on the following evaluation criteria and the proposals ranked accordingly.

Evaluation Criteria for Technical Proposal

S.No.	Description	Marks
1	Specific experience of the firm related to the assignment	15
2	Adequacy of the proposed work plan and methodology in response to the ToR	15
3	Qualifications and competence of the key staff for the assignment	70
	Total	100

Sub criteria for qualification of key staff

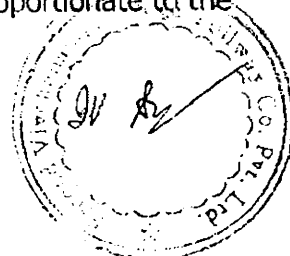
General qualifications	30
Adequacy for the project	70
Total	100

6.0 EVALUATION OF FINANCIAL PROPOSAL

The Financial proposals of the three short listed firms shall be subsequently opened and evaluated as under, and the proposals ranked accordingly.

The financial score of the lowest bidder shall be 100 marks. The financial score for the remaining bidders shall be calculated in proportionate to the lowest bidder by the following formula :

W₂



SELECTION CRITERIA FOR INDEPENDENT CONSULTANT

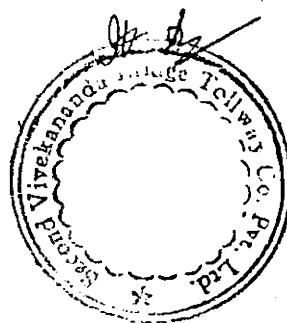
Financial Score of 'X' = {100 X Bid price of lowest bidder} / {Bid price of 'X'}

7.0 SELECTION OF INDEPENDENT CONSULTANT

The combined aggregate points from (5) and (6), with 80% weightage to the Technical Proposal and 20% weightage to the Financial Proposal, shall result in a final ranking of the three shortlisted consultants, and negotiations shall commence with the top ranked consultant for subsequent award.

In case of failure of negotiations, the second ranked consultant with second highest score shall be called for negotiations. In case of failure of negotiations with the second highest scoring firm, the firm with the third highest score shall be called for negotiations.

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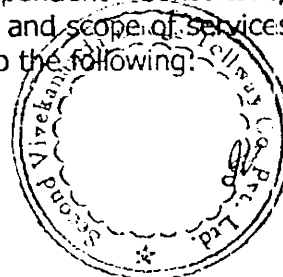


TERMS OF REFERENCE OF INDEPENDENT CONSULTANT

This schedule gives the structure of the Bid Documents to be issued to the five short-listed Independent Consultants for submitting detailed proposals. Bid documents shall be prepared by the Concessionaire and approved by NHAI before NHAI issues the same.

LETTER OF INVITATION

1. **INTRODUCTION** This shall provide the relevant project background and necessary details.
2. **DOCUMENTS** This shall include Scope of Work, Terms of Reference (TOR), Conditions of Contract, Payment Schedule, besides others
3. **PREPARATION OF PROPOSAL**
 - Technical Proposal** - The Objectives, Scope of Work and technical requirements shall be described in the TOR based on NHAI standard documentation for other annuity/BOT projects.
 - Financial Proposal** - The commercial terms and conditions shall be described in the TOR based on NHAI standard documentation for other annuity/BOT project.
4. **SUBMISSION OF PROPOSALS-** Deadlines for receipt of proposals and any pre-bid meetings shall be described.
5. **PROPOSAL EVALUATION** - This shall describe the broad evaluation criteria
6. **NEGOTIATIONS** - This shall outline the procedure for final presentations, negotiations and subsequent award.
7. **AWARD OF CONTRACT**
8. **OBJECTIVES & SCOPE** - Upon selection and appointment of the Independent Consultant, the objectives and scope of services shall conform to the following:



TERMS OF REFERENCE OF INDEPENDENT CONSULTANT

8.1 Objectives

The objectives of the Independent Consultancy service are to

- i) act independently to review periodically activities associated with Design, Construction and Operation & Maintenance to ensure overall compliance of requirements of the Concession Agreement.
- ii) Report to both the Concessionaire and NHAI on the critical financial and technical aspects of the Project. The Concession Agreement envisages that NHAI places considerable reliance on Independent Consultants advice and opinion on a number of matters, hence the parties acknowledge that the IC shall act in a manner consistent with above.

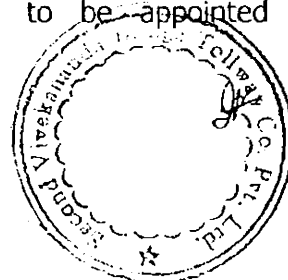
8.2 Scope of Services

The project provides for the design & construction of the Second Vivekananda Bridge and its approaches on both Kolkata and Howrah sides, and its operation and maintenance on a BOT Basis. The Project shall include but not be limited to the following:

- Construction of Bridge and its ramps
- Road works
- Fee Collection system including buildings and related structures, hardware and software
- Communication systems
- Administration and Maintenance Camp
- Lighting System
- Interchanges
- Service Roads
- Traffic safety, Landscaping, arboriculture and other Project facilities.

The Concession Agreement envisages the appointment of an Independent Consultant (IC) by the Concessionaire and NHAI. The IC shall be, in principle, responsible for periodic review of Designs, Drawings, Construction, Progress Monitoring, affirmation of all certifications done by the Concessionaire, etc. The IC shall not be involved in day-to-day implementation of the project. The Concessionaire will appoint a separate consultant to undertake all the design work and the day to day supervision of Construction, monitoring of progress, certification of works of the Contractor(s) to be appointed by the Concessionaire.

Handwritten signature/initials



TERMS OF REFERENCE OF INDEPENDENT CONSULTANT

The Independent Consultant shall supervise the project from the perspective that all the requirements of the Concession Agreement and various schedules are met by the Concessionaire and in case of any discrepancy/ deviations, he shall inform NHAI and the Concessionaire. The responsibility of the IC during various stages of Design, Construction and Operation and Maintenance shall be as follows but not be limited to :

(a) Design Stage

- i) Pre execution review of all Design and drawings submitted by the Concessionaire for the construction of various components of the bridges/structures.
- ii) Review of the implementation schedules of Engineering, Design and Construction of the project submitted by the Concessionaire.
- iii) Reviews of the environmental compliance and traffic management plans submitted by the Concessionaire for the Project during Construction and Operation and Maintenance phases.
- iv) Reviews for quality assurance and safety compliance provisions during the design, construction and operation & maintenance stages.

(b) Construction Stage

- (i) The duties of the IC are to periodically review the works on sample basis and to approve the materials and workmanship of the works. As stated in the Concession Agreement, IC shall have no authority to relieve the Concessionaire of any of their duties or to impose additional obligations. The IC shall review and take appropriate action to ensure that the Contractual clauses, as related to quality and schedule of the works, are adhered to.
- (ii) Periodic review of the material testing results and Mix Designs and to order special tests of materials and/or completed works, and/or order removal and substitution of substandard materials and/or works as required.
- (iii) Review for quality assurance and safety compliance during the construction period.
- (iv) Ensure that the construction work is accomplished in accordance with the technical specifications.

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TERMS OF REFERENCE OF INDEPENDENT CONSULTANT

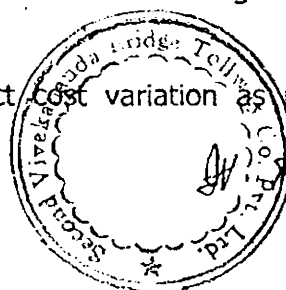
- (v) Review the 'As Constructed' drawings for each component of the works prepared by the Concessionaire.
- (vi) Determine any extension of the Project Completion Schedule and the Concession period, to which the Concessionaire is entitled as per the Concession Agreement.
- (vii) Issue Provisional Completion Certificate duly appended with list of outstanding items (Punch List) signed jointly by the IC and the Concessionaire if situation so demands.
- (viii) Issue Completion Certificate after checking the results of prescribed tests.

(c) Operation and Maintenance Stage

- (i) Review of the work plan and schedules of various operation and maintenance activities.
- (ii) Review of operational and maintenance manual prepared and updated by the Concessionaire.
- (iii) Periodic review of the performance of O&M activities including equipment, service, traffic operation and safety, toll plazas and fees collection system, landscaping, environmental issues and way side amenities.
- (iv) Periodic audit of the traffic using the Project.
- (v) Periodic review and inspection of the Project during the O&M period and issue an Inspection Report of such inspections as and when needed.

(d) Transfer/Termination

- (i) Certify that all the divestment requirement have been met by the Concessionaire.
- (ii) Issue Transfer Certificate to the Concessionaire.
- (e) IC shall submit comprehensive progress report on a regular basis to the Concessionaire and NHAI, covering all relevant stages of the project.
- (f) IC shall assist in arriving at any project cost variation as per the



TERMS OF REFERENCE OF INDEPENDENT CONSULTANT

Concession Agreement.

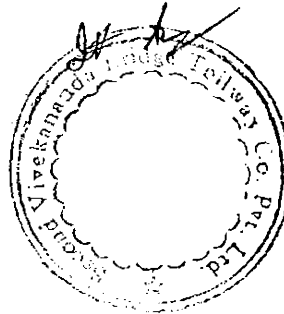
- (g) IC shall assist NHAI and the Concessionaire and mediate in resolving their disputes if called upon by either party to do so as per the Concession Agreement.

8.3 Consultant's proposal

List of key personnel to be fielded by the Consultants shall be as below :

- i) Team Leader-cum-Senior Bridge Engineer
- ii) Senior Highway/Structural Engineer
- iii) Traffic & Transportation Expert
- iv) Senior Pavement Specialist
- v) Senior Quality/Material Expert
- vi) Financial Expert
- vii) Legal Expert

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TRAFFIC SAMPLING

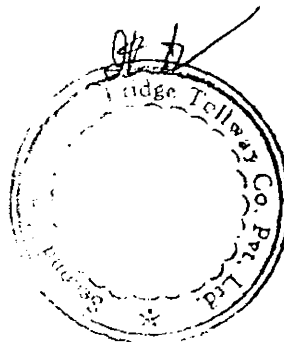
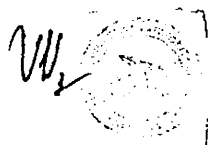
NHAI through Independent Consultant shall have the right to undertake the traffic sampling for the purpose of determination and/or verification of the actual traffic on the proposed bridge. This shall be done through Traffic Count-cum-classifier to be provided and maintained by the Concessionaire.

The system shall be capable of detecting and recording all types of vehicles plying on Indian roads and of classifying any other vehicle category as per user needs. The vehicle classification shall be user selectable based on length of vehicle and number of axles. It would have the following main components:

Data Recording - The system shall be capable of recording data for later analysis on an individual vehicle basis related to time, date, direction, lane number, number of axles, axles spacing and site identification. The system should be able to record and store vehicle data for a period of at least two weeks.

Data Retrieval - The system shall have the capability of data retrieval through removable floppy diskette, data cartridge, direct data transfer through a serial link to a portable computer and telemetry transmission via telephone link by modem.

The sampling shall be done at intervals of 15 days by continuous 24 hrs counting for three days. If no abnormal trends are observed in three days counting at the frequency of 15 days, the frequency would be increased to 1 month after a period of one year.



DRAFT
ESCROW AGREEMENT

among

..... (THE COMPANY)

and

.....

as Lenders Representative

and

.....

as Escrow Agent

and

National Highways Authority of India

(Subject to terms of the Financing Document(s) between the Concessionaire and Senior Lenders. However, NHAI's position in the cashflows shall not be changed.

This agreement does not fully reflect all the events in the Concession Agreement that require the Escrow Agent to take specific actions. It is also necessary to agree Escrow provisions after the Senior Lenders have no further rights on the Escrow account. These issues shall be addressed prior to signing of this Agreement.)

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Schedule Q

THIS AGREEMENT (the "Agreement") is made on the day of 2002 by and among:

..... a Company incorporated in India whose registered office is at, India (the "Company")

And

..... and having its registered office at, as Senior Lenders Representative (the "Lenders Representative");

And

....., and having its registered office at, (the "Escrow Agent").

And

The National Highways Authority of India, a statutory body constituted under the provisions of the National Highways Authority of India Act 1988 and having its principal office at Plot No. G-5 & G-6, Sector 10, Dwaraka, New Delhi 110 045, as Employer (the "NHAI").

WHEREAS:

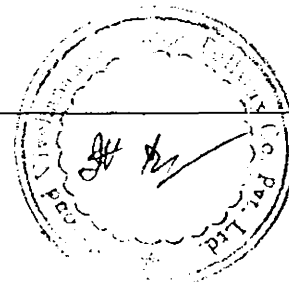
- The Company is undertaking a project for construction of the Second Vivekanda Bridge across the river Hooghly along with its approaches from both Howrah and Calcutta sides, i.e. the Project Bridge in the state of West Bengal through a concession on build, operate and transfer ("BOT") basis.
- The Company has entered into a Concession Agreement dated as of 2002 with NHAI (the "Concession Agreement") wherein NHAI has granted Concession to Company for the work referred to above, on BOT basis.
- The Company has entered into Financing Documents with Senior Lenders wherein Senior Lenders (the "Senior Lenders") have agreed to lend and advance to the Company Rupee amounts aggregating Lacs and foreign currency amounts aggregating US Dollars in terms thereof;
- One of the terms of the Concession Agreement and the Financing Documents is that the Company is required to establish an Escrow Account, inter alia, on terms and conditions satisfactory to Senior Lenders.

NOW IN CONSIDERATION FOR THE PREMISES IT IS AGREED BY THE PARTIES AS FOLLOWS:-

1. Definitions and Construction

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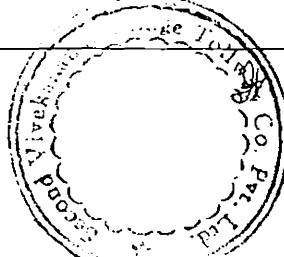
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Schedule Q

1.1 **Definitions:** Each capitalised term used herein and not otherwise defined shall have the definition assigned to such term in the Concession Agreement or the Substitution Agreement as the case may be

- "Account" means the Escrow Account to be opened by the Company in accordance with this Agreement;
- "Authorised Investment" means any authorised investments which Lenders Representative may, from time to time permit the Company to make in accordance with this Agreement;
- "Business Day" means any day on which banks are open for business in or in relation to any notice or communication to be made under this Agreement, a day on which banks are open for business in the place of receipt of such notice or communication;
- "Company Account" shall mean any bank account of the Company, other than the Escrow Account.
- "Enforcement Notice" means any enforcement procedure commenced by the Lenders Representative under any of the Security Documents;
- "Escrow Account" means an Escrow Account established in terms of and under this Agreement;
- "Event of Default" means an event of default as defined and detailed in the Financing Documents;
- "INR" means the lawful currency of India;
- "Payment Date" means in relation to any Permitted Payment, the date(s) specified for such payment;
- "Permitted Payment" means the Payments Agreed to in this Agreement excluding payment to the Company Accounts as more particularly given in clause 3.3.1;
- "Required Balance" means on any Date in relation to the Sub-Account of the Escrow Account, an amount in INR/Dollars which if proportionately built over the months, would be sufficient to meet Permitted Payment on the Payment Date(s).
- "Security Documents" means all or any of the Documents executed, delivered or furnished to secure the Financial Assistance under the Financing Documents including but not limited to the Deed of Hypothecation, Mortgage Deed, Equitable Mortgage, Deed of Guarantee, Pledge Agreement, Undertakings, Negative Lien and other incidental or supplemental documents related thereto.
- "Sub-Accounts" means the Sub-Accounts of the Escrow Account, into which the monies due in relation to Permitted Payment would be credited every month and paid out if due and if not due in a month then appropriated proportionately in such month and retained in



Schedule Q

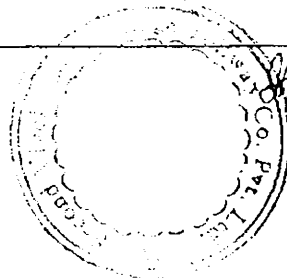
the Sub Account and paid out therefrom on the Payment date.

- "Year" means each twelve month period ending on March 31.

1.2 Construction

In this Agreement:

- Unless the context otherwise requires, the singular includes the plural and vice versa;
- Headings and the use of bold typeface shall be ignored in its construction;
- A reference to a Clause, or Schedule is, unless indicated to the contrary, a reference to a clause or schedule to this Agreement;
- References to this Agreement shall be construed as references also to any separate or independent stipulation or agreement contained in it;
- The words "other", "or otherwise" and "whatsoever" shall not be construed to be as any limitation upon the generality of any preceding words or matters specifically referred to;
- References to the word "includes" or "including" are to be construed without limitation;
- References to a person shall include such person's successors and permitted assignees or transferees;
- All references to agreements, documents or other instruments include (subject to all relevant approvals) a reference to that agreement, document or instrument as amended, supplemented, substituted, novated or assigned from time to time.
- The words "herein", "hereto" and "hereunder" refer to this Agreement as a whole and not to the particular Clause in which such word may be used;
- Words importing a particular gender include all genders;
- "person" includes any individual, partnership, firm, trust, body corporate, government, governmental body, authority, agency, unincorporated body of persons or association;
- any reference to a public organisation shall be deemed to include a reference to any successor to such public organisation or any organisation or entity which has taken over the functions or responsibilities of such public organisation;
- references to "Party" means a party to this Agreement and references to "Parties" shall be construed accordingly; and
- references to any law shall include references to such law as it may, after the date of this Agreement, from time to time be amended, supplemented or re-enacted.



2. THE ACCOUNTS

2.1 Acceptance of Appointment of Escrow Agent

- (a) The Escrow Agent hereby agrees to act as such and to accept all payments and other amounts to be delivered to or held by the Escrow Agent pursuant to the terms of this Escrow Agreement. Escrow Agent shall hold and safeguard the Escrow Account during the term of this Escrow Agreement and shall treat the amount in the Escrow Account as monies deposited by Company / NHAI with the Escrow Agent, as agent for the benefit of the Lenders Representative, or its nominee, successors or assigns, in trust in accordance with the provisions of this Escrow Agreement. In performing its functions and duties under this Escrow Agreement, the Escrow Agent shall act as agent for the Lenders Representative.

The Company also hereby declares that all right, title and interest in and to the Escrow Account, the Authorised Investments and Permitted Payments made from the Escrow Accounts shall be vested in the Escrow Agent and held in trust for the Senior Lenders acting through Lender's Representative, NHAI and the Company in accordance with the terms of this Agreement and as their respective interests are provided for herein. Amounts deposited in the Escrow Account from time to time shall be held by the Escrow Agent in trust and received and applied as provided in and in accordance with the Agreement. No person other than the Lenders Representative, NHAI and the Company shall have any rights hereunder as the beneficiaries of or as third party beneficiaries under this Agreement.

- (b) The rights of Company/NHAI in the monies held in Escrow Account are set forth in their entirety in this Escrow Agreement and Company/NHAI shall have no other rights against or to the monies in the Escrow Account.

2.2 Establishment of Escrow Account

At least thirty (30) days prior to seeking any disbursement (including issue of guarantees or all forms of Financial Assistance), the Company shall establish the Escrow Account with the Escrow Agent.

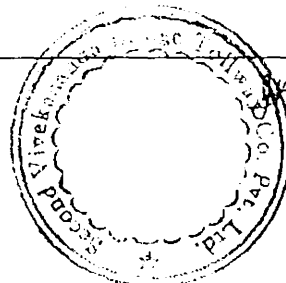
2.3 Maintenance of the Account

The Escrow Agent shall maintain the Escrow Account in accordance with the terms of this Agreement and its usual practices and applicable regulations and pay the maximum rate of interest payable to its customers on the balance in the said account from time to time.

2.4 Operating Procedures

The Escrow Agent and the Company shall agree (after consultation with the Lenders Representative) on the detailed mandates, terms and conditions and operating procedures for the Escrow Account but in the event of any inconsistency between this Agreement and such mandates, terms and conditions or procedures, this Agreement shall prevail.

3. Currency



Schedule Q

3.1 The Escrow Account shall be established with the Branch of the Escrow Agent. The Escrow Account shall be denominated in INR.

3.2 Deposits

3.2.1 The Company

(A) agrees, confirms and undertakes that it shall deposit and/or credit the Escrow Account with:

- (i) all its receivables;
- (ii) all proceeds received pursuant to any insurance claims; and
- (iii) all monies received from any other sources in relation to and in respect of the Project Bridge.

(B) may make other deposits of the Company's other funds into the Escrow Accounts at any time. Provided however that the terms of this Agreement shall apply to such other funds deposited in the Escrow Account by the Company.

The NHAI agrees, confirms and undertakes that it shall deposit and/or credit the Escrow Account with:

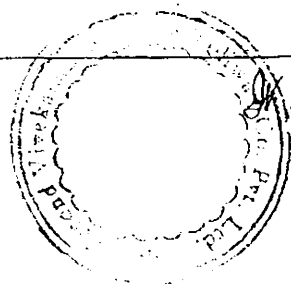
- (i) all Fees collected by NHAI in exercise of its rights under Concession Agreement;
- (ii) Revenue Shortfall Loan;
- (iii) Grant and other monies paid or disbursed in accordance with the provisions of the Concession Agreement and/or the Substitution Agreement; and
- (iv) Termination Payments as per provisions of the Concession Agreement and/ or Financing Documents.

3.2.2 The Escrow Agent shall ensure that all interest, if any, on the balances of the Escrow Accounts and interest on Authorised Investments made from the Escrow Accounts shall be credited to or deposited in the Escrow Account.

3.3 Withdrawals

3.3.1 The Escrow Agent shall withdraw amounts from the Escrow Accounts and appropriate in the following order every month as more particularly given in the Bank Proforma in Schedule 1 and deposit in the relevant Sub-Account for payments and if not due in a month then appropriate proportionately in such month and retain in the Sub-Account and pay out therefrom on the Payment Date(s):

(a) * All Taxes due and payable by the Concessionaire;



Schedule Q

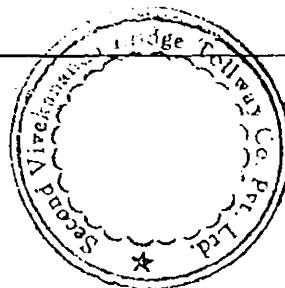
- (b) All expenses in connection with and relevant to the Construction of Project Bridge by way of payment to the EPC Contractor and such other persons as may be specified in the Financing Documents;
- (c) O&M Expenses including Fees collection expenses incurred by the Concessionaire directly or through O&M Contractor, if any, subject to the terms and ceiling in respect thereof as set forth in the Financing Documents and O&M Contract, if any;
- (d) The whole or part of the expense on repair work or O&M Expense including Fees collection expenses incurred by NHAI on account of exercise of any of its rights under this Agreement provided that the Independent Consultant certifies to the Escrow Bank that NHAI had incurred such expenses in accordance with the provisions of Concession Agreement;
- (e) Monthly proportionate provision of Debt Service Payments due in an Accounting Year and payment of Debt Service Payments in the month when due;
- (f) Any payments and Damages, due and payable by the Concessionaire to NHAI pursuant to Concession Agreement, including repayment of Revenue Shortfall Loans;
- (g) Monthly proportionate provision of the Net Excess Fee due in an Accounting Year (which in any month shall be 94% of the Fees actually received by the Concessionaire from the beginning of such Accounting Year until the end of such month that are in excess of the Projected Fees (assuming a uniform monthly revenue projection) corresponding to the number of months that have elapsed from the beginning of such Accounting Year) and distribution of such Net Excess Fee in accordance with Clause 7.2 of Concession Agreement; and
- (h) Balance in accordance with the instructions of the Concessionaire.

The amounts specified in Clause 3.3.1 (a) to (h) constitute the Permitted Payments.

For each year, Bank Proforma would be separately provided by the Company to the Escrow Agent, with the permission of Lenders Representative and NHAI, not later than 60 days prior to the first day of each year.

3.3.2 Notwithstanding anything to the contrary contained in this Agreement upon Termination of Concession Agreement or the expiry of Concession Period, whichever is earlier, all amounts standing to the credit of the Escrow Account shall be appropriated and dealt with in the following order:

- (a) all Taxes due and payable by the Concessionaire;



Schedule Q

- (b) all accrued Debt Service Payment;
- (c) any payments and Damages due and payable by the Concessionaire to NHAI pursuant to Concession Agreement, including Termination claims, Concession Fee and repayment of Revenue Shortfall Loans;
- (d) all accrued O&M Expenses;
- (e) any other payments required to be made under Concession Agreement; and
- (f) balance, if any, on instructions of the Concessionaire.

3.4 Application of Insufficient Funds

As provided in Clause 3.3, the application of funds in the Escrow Account shall be in the serial order of priority set forth therein. If the funds available for payment to the Sub-Accounts are sufficient to pay a portion, but not all, of the amount required to be paid to any Sub-Account, the Escrow Agent shall apply such funds in the serial order of priority set forth in Clause 3.2, until exhaustion thereof

4. Authorised Investments

4.1 Power to Invest

The Escrow Agent shall invest the amounts standing to the credit of any of the Sub-Accounts in Authorised Investments on the instructions of the Company as approved by the Lenders Representative, from time to time, in accordance with the provisions of the Agreement. The Escrow Agent shall not be bound to and shall not make investments under the Indian Trusts Act, 1882 without prior approval of the Lenders Representative.

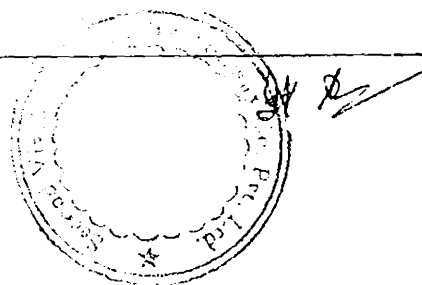
4.2 Procedure for Investments

4.2.1 All Authorised Investments shall be made and/or realised by the Escrow Agent on the instructions of the Company as approved by the Lenders Representative from time to time, in accordance with the provisions of this Agreement.

4.2.2 All documents of title or other documentary evidence of ownership with respect to Authorised Investments made out of any Escrow Account will be held in the custody of the Escrow Agent.

4.3 Realisations

Upon the realisation of any investment made under this Clause, the proceeds of realisation shall immediately be credited to the relevant Sub-Account by the Escrow Agent or immediately invested in another Authorised Investment in accordance with the Company's instructions as approved by the Lenders Representative.



4.4 Mandatory Realisations

In the event that the Company becomes aware that any Authorised Investment has ceased to be an Authorised Investment, the Company shall immediately instruct the Escrow Agent on a best efforts basis to realise such Authorised Investment on its maturity date or earlier if possible under intimation to the Lenders Representative or NHAI.

4.5 Accounts include Investments

Any reference in this Agreement to the balance standing to the credit of the Escrow Account shall be deemed to include a reference to the amount of the Authorised Investments in which all, or part of, such balance is for the time being invested.

4.6 Interest on Investments

Any interest or other income received on account of Authorised Investments shall be to the credit of the Escrow Account.

4.7 Enforcement Notice

On receipt of an Enforcement Notice from the Lenders Representative, the Escrow Agent shall realise the Authorised Investments, whether such investments have matured or not on a best effort basis, and apply the proceeds as directed by the Lenders Representative.

5. Withdrawals following Event of Default

5.1 If the Lenders Representative notifies the Escrow Agent that an Event of Default is likely to occur or has occurred, and is continuing, then, until such time as the Lenders Representative has notified the Escrow Agent that the Event of Default has been cured or waived under the Financing Documents, the Escrow Agent shall only make withdrawals from the Escrow Accounts which constitute Permitted Payment and shall not make any payments from the Escrow Account to the Company Accounts.

6. Escrow Agent Provisions

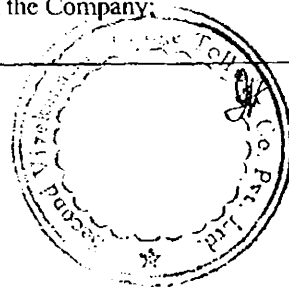
6.1 The Escrow Agent and the Senior Lenders

The Company hereby appoints the Escrow Agent to act as trustee for the Lenders Representative, NHAI and the Company in connection herewith and authorises the Escrow Agent to exercise such rights, powers, authorities and discretion as are specifically delegated to the Escrow Agent by the terms hereof together with all such rights, powers, authorities and discretion as are reasonably incidental hereto, and the Escrow Agent accepts such appointment pursuant to the terms hereof.

6.2 Particular Duties of the Escrow Agent

The Escrow Agent:

(A) may, in the absence of bad faith or gross negligence on its part, rely as to any matters of fact which might reasonably be expected to be within the knowledge of the Company upon a certificate signed by or on behalf of the Company;



Schedule Q

(B) may, in the absence of bad faith or gross negligence on its part, rely upon the authenticity of any communication or documents believed by it to be authentic;

(C) shall, within five (5) Business Days after receipt, deliver a copy to the Lenders Representative of any notice or document received by the Escrow Agent in its capacity as the Escrow Agent from the Company or any other person hereunder or in connection herewith; and

(D) shall, within five (5) Business Days after receipt, deliver a copy to the Company of any notice or document received by the Escrow Agent from the Lenders Representative in connection herewith.

6.3 Segregation of Funds

Monies and other property received by the Escrow Agent under this Agreement shall, until used or applied in accordance with this Agreement, be held by the Escrow Agent in trust for the purposes for which they were received, and shall be segregated from other funds and property of the Escrow Agent.

6.4 Termination

6.4.1 This Agreement shall remain in full force and effect so long as amounts remain outstanding from the Company in respect of the Financial Assistance received by it from the Senior Lenders or its obligations to NHAJ, unless terminated earlier by the mutual consent of the Parties or otherwise in accordance with the provisions of this Clause.

6.4.2 The Company may, by not less than 45 days prior notice to the Escrow Agent, NHAJ and the Lenders Representative, terminate this Agreement and appoint a new Escrow Agent, provided that the new Escrow Agent is acceptable to the Lenders Representative and arrangements are made satisfactory to the Lenders Representative for transfer of amounts deposited in the Escrow Account to a new Escrow Account established with the successor Escrow Agent.

6.5 Fees

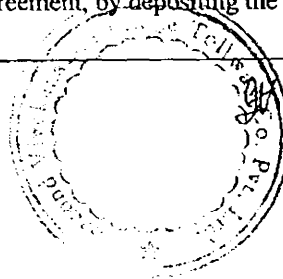
The Company shall pay the Escrow Agent fees in an amount and at such times as may be agreed between the Escrow Agent and the Company.

7. Escrow Agreement Defaults

7.1 If the Company is in breach of any of its obligations under this Agreement and, following a notice of default from the Lenders' Representative, fails to remedy the same:

(A) in the case of a failure to deposit funds received by the Company in the Escrow Account, by depositing the same in the Escrow Account within five Business Days of receipt of such notice;

(B) in the case of a breach consisting of causing the Escrow Agent to transfer funds to any Company Account in breach of the terms of this Agreement, by depositing the relevant



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funds in the Escrow Account or any Sub-Account in which such transfer should have been made within five Business Days of receipt of such notice.

- (C) in the case of a breach of the Company's obligations under Clause 4, by instructing the Escrow Agent to realise any investment made in breach of Clause 4 within five (5) Business Days of receipt of such notice; or
 - (D) in the case of any other breach, by remedying the same within five (5) Business Days to the satisfaction of the Lenders Representative.
- 7.2 The Company and the Escrow Agent agree and confirm that any default by the Company in the performance of its obligations under this Agreement resulting, in the opinion of the Lenders Representative, in a breach of this Agreement, shall qualify as an Event of Default under the Financing Documents/Security Documents.

8. Miscellaneous

8.1 Closure of Accounts

The Escrow Agent shall, at the request of the Company made on or after the payment by the Company of all outstanding amounts under the Financing Documents and Concession Agreement and upon confirmation of receipt from Senior Lenders and NHAI, close the Escrow Accounts and pay any amounts outstanding to the credit thereof to the Company. However, in the case of all outstanding amounts having been paid under the Financing Documents only, prior to closure of the Escrow Accounts, NHAI and the Company shall enter into a separate agreement to give effect to the provisions of Clause 25 of the Concession Agreement and such agreement shall be effective immediately after closure of Escrow Accounts. For clarification purpose, any amount standing to the credit of the Escrow Accounts at the time of closure of the Escrow Accounts shall be governed by the proposed new agreement.

8.2 Successors and Assignors

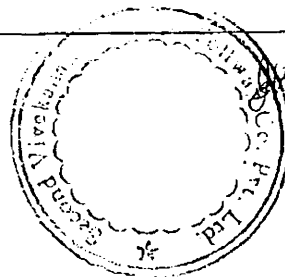
This Agreement shall be binding on and shall accrue to the benefit of the Parties and their respective successors and permitted assigns.

8.3 No Set Off

The Escrow Agent agrees not to claim or exercise any right of set off, banker's lien or other right or remedy with respect to amounts standing to the credit of the Escrow Accounts. For the avoidance of doubt, it is declared by the Escrow Agent that the monies and properties held by the Escrow Agent shall not be considered as part of the assets of the Escrow Agent and being trust property, shall in the case of bankruptcy or liquidation of the Escrow Agent be wholly excluded from the assets of the Escrow Agent in such bankruptcy or liquidation.

8.4 Notices

- 8.4.1 All notices or other communications to be given or made under this Agreement shall be in writing, shall either be delivered personally or sent by courier, registered or certified



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mail or facsimile. The address for service of each Party and its facsimile number is set out under its name on the signing pages hereto. All notices shall be effective upon actual receipt save that where a notice is received after 5.30 p.m. on a Business Day or on a day that is not a Business Day, such notice shall be deemed to be received on the first Business Day following the date of actual receipt. Without prejudice to the foregoing a Party giving or making a notice or communication by facsimile shall promptly deliver a copy of such notice or communication personally, by courier or mail to the addressee of such notice or communication.

- 8.4.2 Any party may by notice change the addresses and/or addresses to which such notices and communications to it are to be delivered or mailed. Such change shall be effective when all the Parties have notice of it.

8.5 Waiver

Failure by any Party at any time to enforce any provision of this Agreement or to require performance by other Parties of any provision of this Agreement shall not be construed as a waiver of such provision and shall not affect the validity of this Agreement or any part of it or the right of the relevant Party to enforce any provision in accordance with its terms.

8.6 Severability

If any condition, Clause or provision of this Agreement not being of a fundamental nature, is held to be illegal or unenforceable, the validity or enforceability of the remainder of this Agreement shall not be affected thereby.

8.7 Amendments

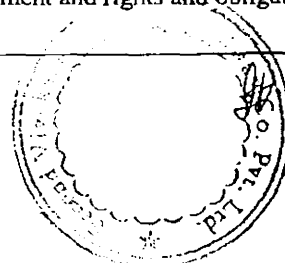
No amendment to this Agreement shall be binding unless in writing and signed by the duly authorised representatives of the Parties.

8.8 Governing Law

This Agreement shall be governed by and construed in accordance with Indian law and, subject to Clause 8.9 below, the courts at New Delhi shall have jurisdiction over all matters arising out of or relating to this Agreement.

8.9 Arbitration

Any dispute, difference or claim arising out of or in connection with this Agreement, which is not resolved amicably shall be decided finally by reference to a Board of Arbitrators comprising of one nominee of each Party to the dispute. Such arbitration shall be held in accordance with the UNCTRAL rules of Arbitration and shall be subject to the provisions of the Arbitration Act. The Arbitrators shall issue a reasoned award and the venue of such arbitration shall be New Delhi. The Parties undertake to carry out any award of the arbitrators without delay. Awards relating to any dispute shall be final and binding on the Parties as from the date they are made and the Parties hereby waive the right to appeal or review such Award by any court of Tribunal of competent jurisdiction in so far as such waiver can be validly made. This Agreement and rights and obligations



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of the Parties shall remain in full force and effect pending the Award in any arbitration proceeding hereunder.

8.10 Regulatory Approvals

The Escrow Agent shall use its best efforts to procure and shall thereafter maintain and comply with all regulatory approvals required for it to establish and operate the Escrow Accounts. The Escrow Agent represents and warrants that it is not aware of any reason why such regulatory approvals will not be ordinarily granted to the Escrow Agent.

8.11 Notification of Balances

Seven Business Days prior to each Payment Date (and for this purpose the Escrow Agent shall be entitled to rely on an affirmation by the Company and/or the Lenders Representative as to the relevant Payment Dates), the Escrow Agent shall notify the Lenders Representative of the balance of the Escrow Account as at the close of business on the immediately preceding Business Day.

IN WITNESS whereof the Company has caused its Common Seal to be affixed hereto and to a triplicate hereof on the date first above written and the Escrow Agent, NHAI and the Lenders Representative have caused the said triplicate to be executed by the hand of an authorised official.

SIGNED AND DELIVERED BY

..... within named Escrow Agent
by the hand of an authorised official of the Account Trustee
Address:
Fax Number:
Attention:

SIGNED AND DELIVERED BY

..... within named Lenders Representative
by the hand of an authorised official of the Senior Lenders Representative
Address:
Fax Number:
Attention:

SIGNED AND DELIVERED BY

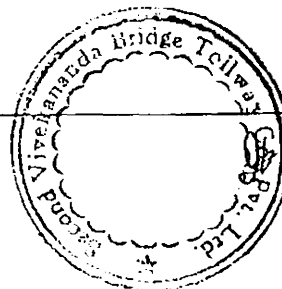
NHAI within named by the hand of an authorised official of the NHAI
Address:
Fax Number:
Attention:

THE COMMON SEAL OF

has pursuant to the Resolution of its Board of Directors passed in that behalf on the day of 2002 hereunto been affixed in the presence of Shri and Shri

..... Directors who have signed these Presents in token thereof and Secretary/authorised Person who has countersigned the same in token thereof.

Address:
Fax Number:
Attention:



STATE SUPPORT AGREEMENT

THIS SUPPORT AGREEMENT is made on this day of 2002
AMONG

1. THE GOVERNOR OF THE STATE OF WEST BENGAL through the Secretary, Public Works (Roads) Department, Government of West Bengal, Kolkata, (hereinafter referred to as "GOWB" which expression shall unless repugnant to the context or meaning thereof include its successors and assigns).
2. National Highways Authority of India, a statutory body constituted under the provisions of the National Highways Authority Act, 1988 and having its principal office at G-5 & 6, Sector 10, Dwarka, New Delhi - 110 045 (hereinafter referred to as "NHAI" which expression shall unless repugnant to the context or meaning thereof include its administrators, successors and assigns).

AND

3. Second Vivekananda Bridge Tollway Company Private Limited, a company incorporated under the provision of the Companies Act, 1956 and having its registered office at c/o Consulting Engineering Services (India) Private Limited, 41-A Maker Tower E, 4th Floor, Cuffe Parade, Mumbai 400 005 (hereinafter referred to as the "Concessionaire", which expression shall unless repugnant to the context or meaning thereof include its successors and substitutes).

WHEREAS

- A. A. The Government of India in the then Ministry of Surface Transport (now Ministry of Road Transport and Highways and hereinafter referred to as "MORTH") invited bids in July 1995 ("Tender Notice") for the design, engineering, financing, procurement, construction, operation and maintenance of the Second Vivekananda Bridge across the river Hooghly along with its approaches from both Howrah and Calcutta sides, i.e. the Project (as defined hereinafter) through a concession on build, operate and transfer ("BOT") basis subject to and on the terms and conditions set forth in the Tender Notice. In response there to a consortium (including, as represented by the Concessionaire, the Pacific Alliance Inc. & Indian Investments Inc. of Pacific Alliance group of companies, Strategic Alliance Development Corporation and Consulting Engineering Services Private Limited of the Consulting Engineering Services group of companies) submitted its bid. MORTH subsequent thereto issued its letter No. RW/ 15013/ 31/ 94-PL Dated May 12, 1997 to the successful bidder, i.e. the above-referred consortium.
- B. B. MORTH subsequent thereto by its notification No SO. (78) E dated February 4, 1999 issued pursuant to Section 11 of the National Highways Authority of India Act, 1988 (the "Vesting Notification") inter alia, vested the National Highway from Panagarh to Kolkata as set forth in the said Notification.

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- C. On transfer of the Project (as defined hereinafter) from MORTH to NHAI pursuant to the Vesting Notification, NHAI continued discussions with the consortium referred to in Recital 'A' above.
- D. The Consortium has promoted and incorporated the Concessionaire as a limited liability company under the laws of India to enter into this Concession Agreement for undertaking, inter alia, the design, engineering, financing, procurement, construction, operation and maintenance of the Project Bridge on BOT basis and to fulfill other obligations of the Concessionaire set herein and has requested NHAI to accept the Concessionaire as the entity which shall undertake and fulfill and perform the obligations and exercise the rights of the Consortium under this Concession Agreement, including the obligation to undertake the design, engineering, financing, procurement, construction, operation and maintenance of the Project Bridge on BOT basis.
- E. NHAI agreed to the said request of the Consortium and accordingly entered into the Concession Agreement with the Concessionaire for the design, engineering, financing, procurement, construction, operation and maintenance of the Project on BOT basis subject to and on the terms and conditions set out therein including Schedules forming part thereof (the "Concession Agreement").
- F. GOWB, NHAI and the Concessionaire agree that the implementation of the Concession including performance of its obligations by the Concessionaire under and in accordance with the Concession Agreement requires extensive continued support and grant of certain rights and authorities as hereinafter set forth by GOWB and is an essential pre-condition for mobilization of resources therefore by the Concessionaire.

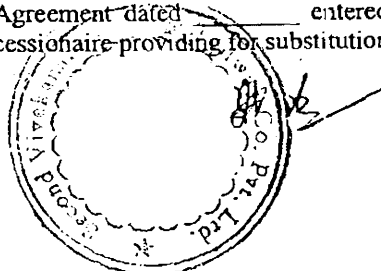
NOW THEREFORE THE PARTIES HERETO HEREBY AGREE AND THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. DEFINITIONS AND INTERPRETATIONS

- 1.1 For the purposes of this Agreement the following terms shall have the meanings hereinafter respectively assigned to them.
- 1.1.1 "Agreement" means this Support Agreement and all amendments if any thereto made in accordance with the provisions contained herein in this behalf.
- 1.1.2 "Concession Agreement" means the Concession Agreement dated _____ entered into between NHAI and the Concessionaire and shall include all of its annexures and appendices and any amendments made thereto in accordance with the provisions contained in this behalf therein.
- 1.1.3 "Substitution Agreement" means the Substitution Agreement dated _____ entered into between the Senior Lenders, NHAI and the Concessionaire providing for substitution

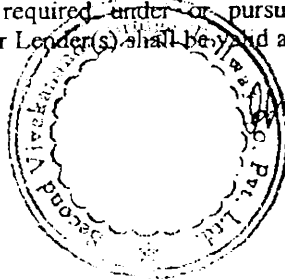
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of the Concessionaire by the Selectee selected by the Senior Lenders in the manner and subject to and on the terms and conditions set forth therein.

- 1.1.4 "GOWB Support" means the obligations assumed and the facilities agreed to be provided by GOWB to the Concessionaire hereunder or pursuant hereto.
- 1.2 The words and expressions beginning with or in capital letters used in this Agreement and not defined herein but defined in the Concession Agreement shall have, unless repugnant to the context, the meaning respectively assigned to them in the Concession Agreement. Words and expressions used in this Agreement and neither defined herein nor in the Concession Agreement but defined in the Substitution Agreement shall have the meaning respectively assigned to them in the Substitution Agreement.
- 1.3 In this Agreement unless the context otherwise requires-
- (a) any reference to a statutory provision shall include such provision as is from time to time modified and re-enacted or consolidated so far as such modification or re-enactment or consolidation applies or is capable of applying to any transactions entered into hereunder;
 - (b) the words importing singular shall include plural and vice versa, and words denoting natural persons shall include partnership, firms, companies, corporations, joint ventures, trusts, associations, organizations or other entities (whether or not having a separate legal entity);
 - (c) the headings are for convenience of reference only and shall not be used in and shall not affect the construction or interpretation of this Agreement;
 - (d) terms beginning with capital letters and defined in this Agreement shall have the meaning ascribed thereto herein;
 - (e) the words "include" and "including" are to be construed without limitation;
 - (f) Any reference to a "day" shall mean reference to a calendar day;
 - (g) Any reference to "month" shall mean reference to a calendar month;
 - (h) any reference at any time to any agreement, deed, instrument, license or document of any description shall be construed as reference to that agreement, deed, instrument, license or other document as amended, varied, supplemented, modified or suspended at the time of such reference provided that this clause shall not operate so as to increase liabilities or obligations of GOWB hereunder or pursuant hereto in any manner whatsoever;
 - (i) References to Recitals, Clauses, Sub-Clauses or Paragraphs in this Agreement shall, except where the context otherwise requires, be deemed to be references to Recitals, Clauses, Sub-Clauses and Paragraphs, of this Agreement;
 - (j) Any agreement, consent, approval, authorization, proposal, notice, communication, information or report required under or pursuant to this Agreement from or by any Party or Senior Lender(s) shall be valid and effectual



only if it is in writing under the hands of duly authorized representative of such Party or the Senior Lender(s), as the case may be, in this behalf and not otherwise.

- (k) Any reference to any period commencing "from" a specified day or date and "till" or "until" a specified day or date shall include days or dates; and
- (l) "Concessionaire" shall include Selectee under the Substitution Agreement.

2. TERM

- 2.1 This Agreement shall come into force on the date hereof and shall continue to be in full force and effect for the period the Concession Agreement is in force and effect including any extension thereof.

3. OBLIGATIONS AND SUPPORT OF GOWB

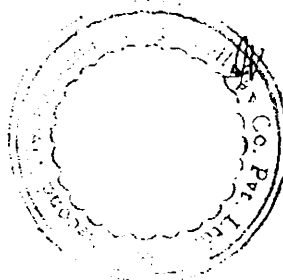
- 3.1 Upon and with effect from the date hereof, GOWB agrees to:

- (i) enable access to the Site to the Concessionaire for peaceful use of and carrying out its operations at the Site by the Concessionaire under and in accordance with the provisions of the Concession Agreement without any let or hindrance from GOWB or persons claiming through or under it. GOWB further agrees, on being notified by the Concessionaire, to use its best efforts in supporting the Concessionaire in obtaining additional land, required during the Construction Period, for the purposes of successfully implementing the Project, including for the purpose of setting up pre-cast yards, project stores, site offices and wayside facilities;
- (ii) subject to the Concessionaire complying with Applicable Laws and paying the usual fees provide to the Concessionaire Applicable Permits to be issued by GOWB, any Governmental Agency of GOWB and/or any municipal and other local authorities and bodies, including panchayats, in the State of West Bengal;
- (iii) upon written request from the Concessionaire, assist the Concessionaire in obtaining access to all necessary infrastructure facilities and utilities, including water, electricity and telecommunication facilities at rates and on terms no less favourable to the Concessionaire than those generally available to commercial customers receiving substantially equivalent services;
- (iv) ensure that no barriers are erected or placed by GOWB or any Governmental Agency of GOWB that interrupts free flow of traffic on the Project except on account of any law and order situation which has arisen in spite of GOWB having used its best efforts to maintain law and order, and on considerations of National Security;
- (v) take all necessary regulatory measures to ensure entry rights for trucks & commercial vehicles to the Calcutta Northern Metro Core through the Second Vivekananda Bridge;

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- (vi) take all regulatory measures to debar ALL truck traffic and commercial vehicles (except three wheelers, cars and local buses) from using the existing Vivekananda Bridge and diversion to the new facility upon Completion;
- (vii) upon written request provide the Concessionaire with assistance through a dedicated team against payment of prescribed fee and charges, if any, for regulation of traffic on the Project;
- (viii) upon written request from Concessionaire provide the necessary manning at appropriate locations against payment of cost and charges mutually agreed, along approaches to the existing Vivekananda Bridge, to avoid leakage of traffic from the proposed facility.
- (ix) upon written request provide the Concessionaire with police assistance in the form of dedicated patrol parties against payment of prescribed costs and charges, if any, for patrolling and provision of security on the Project;
- (x) take all necessary measures by the Transport Department of the Government of West Bengal, for the purposes of Chapter VIII of the Motor Vehicles Act, to regulate, manage, control and restrict traffic over the Project Bridge, on request from the Concessionaire;
- (xi) observe and comply with its obligations set forth in this Agreement;
- (xii) support, cooperate with and facilitate NHAI and the Concessionaire in the implementation of the Project. Without limitation to the foregoing, GOWE will not object to the right and ability of the Concessionaire to levy and collect Fees in accordance with the Concession Agreement;
- (xiii) take all necessary regulatory measures to prevent pedestrians, slow moving traffic (including bullock carts, tongas and tractors) and two and three wheeled traffic from using the Project Bridge;
- (xiv) upgrade key approach roads to the Project Bridge, including the road connecting the Project Bridge (on the Kolkata side) to the Barackpur Trunk Road as well as to upgrade the junction on the Barackpur Trunk Road, three months prior to Completion of the Project Bridge, so as to ensure the free flow of traffic on either side of the Project Bridge. In addition, GOWB shall ensure that traffic is not diverted from such approach roads and/or such approach roads are not closed down in a manner so as to detrimentally affect the free flow of traffic to and from the Project Bridge;
- (xv) ensure, subject to considerations of National Security, that all relevant municipal and other local authorities and bodies including Panchayats in the State of West Bengal do not put any barriers or other obstructions that interrupt free flow of traffic on the Project; and
- (xvi) not do or omit to do any act, deed or thing which may in any manner be violative of or cause the Concessionaire to violate any of the provisions of the Concession Agreement or which may in any manner prevent the Concessionaire from enjoying its rights under the Concession Agreement.

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3.2 Ensure that no parallel competing trans-river facility is developed by way of construction of new facility or augmentation of capacities of existing facilities within the project influence zone from Kalyani Bridge together with approach links in north to Rabindra setu in south for a period of 22 years from the date the facility is opened for use. However, after 22 years or attainment of saturation point of the capacity for the Project Bridge the GOWB or any other municipal or local authorities and bodies in the state of West Bengal may plan new toll facility subject to the condition that the toll charge on such facility shall not be less than 1.4 times that of Second Vivekananda Bridge prevailing at the time of commissioning of such competing facility. Regarding determination of the saturation point of the capacity of the Second Vivekananda Bridge the prevailing international norms will be followed and agreed to both by GOWB and the entrepreneurs.

3.3 GOWB agrees and undertake that it shall not levy any additional toll, fee, charge or tax on the use of, or on, any part of the Project. GOWB acknowledges the rights of Senior Lenders and NHAI under the Substitution Agreement and hereby covenants that upon substitution of the Concessionaire by the Selectee pursuant to the Substitution Agreement, it shall be deemed for the purposes of this Agreement that as if Selectee is a party hereto and the Selectee shall accordingly be deemed to have succeeded to the rights and obligations of the Concessionaire under this Agreement on and with effect from the date of substitution of the Concessionaire by the Selectee.

4. CONCESSIONAIRE'S OBLIGATIONS

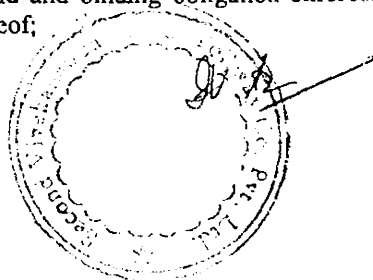
4.1 Concessionaire agrees and undertakes to perform, observe and comply with the following:

- (i) All Applicable Laws and Applicable Permits;
- (ii) The provisions of the Concession Agreement and the Substitution Agreement; and
- (iii) Observe, comply and perform its obligations under this Agreement.

5. REPRESENTATIONS AND WARRANTIES

5.1 The Concessionaire represents and warrants to GOWB that:

- (i) It is duly organized, validly existing and in good standing under the laws of India;
- (ii) It has power and authority to execute, deliver and perform its obligations under this Agreement and to carry out the transactions contemplated hereby;
- (iii) It has taken all necessary corporate and other action under applicable Laws and its constitutional documents to authorize the execution, delivery and performance of this agreement;
- (iv) This Agreement constitutes its legal, valid and binding obligation enforceable against it in accordance with the terms hereof;



- (v) It is subject to civil and commercial laws of India with respect to this Agreement and it hereby expressly and irrevocably waives any immunity in any jurisdiction in respect thereof;
- (vi) the Balance Sheet and Profit and Loss Account of the Concessionaire for each of its Accounting Year after the Appointed Date furnished to GOWB shall give true and fair view of the affairs of the Concessionaire.
- (vii) The Concessionaire shall furnish a copy of its audited Balance Sheet within 120 (one hundred twenty) days of the close of its each Accounting year after the Appointed Date and any material change subsequent to the date of such Balance Sheet shall be notified to GOWB by the Concessionaire within 30 (thirty) days of its concurrence and warrants that the Balance Sheet and the information furnished as aforesaid shall be true and correct in all material respects;
- (viii) The execution, delivery and performance of this Agreement will not conflict with, result in the breach of, constitute a default under or accelerate performance required by any of the terms of the Concessionaire's Memorandum and Articles of Association or any member of the Consortium or any Applicable Laws or Applicable Permits or any covenant, agreement, decree or order to which it is a party or by which it or any of its properties or assets is bound or affected;
- (ix) Each Consortium Member was and is duly organized and existing under the laws of the jurisdiction of its incorporation and has full power and authority to consent to and has validly consented to the Concessionaire entering into this Agreement with the GOWB;
- (x) No representation or warranty by the Concessionaire contained herein or in any other document furnished by it to GOWB, or to any Governmental Agency in relation to Applicable Permits contains or will contain any untrue statement of material fact or omits or will omit to state a material fact necessary to make such representation or warranty not misleading; and
- (xi) The Concessionaire warrants that no sums have been paid or will be paid, by or on behalf of the Concessionaire, to any Person by way of fees, commission or otherwise for entering into this Agreement or for influencing or attempting to influence any officer or employee of NHAI, GOI or GOWB in connection therewith.

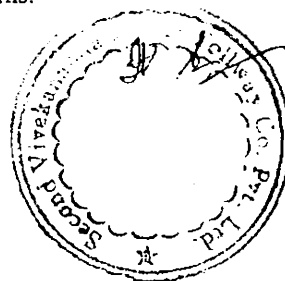
5.2 GOWB represents and warrants to the Concessionaire that:

- (i) It has full power and authority to execute, deliver and perform this Agreement;
- (ii) It has taken all necessary governmental action to authorize the execution, delivery and performance of this Agreement; and
- (iii) This Agreement constitutes the legal, valid and binding obligation of GOWB enforceable against it in accordance with its terms.

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- (iv) There are no actions, suits, proceedings or investigations pending or, to GOWB's knowledge, threatened against the Project at law or in equity before any court or before any other judicial, quasi-judicial or other authority, the outcome of which individually or in the aggregate would materially and adversely affect the successful implementation of the Project

6. SOVEREIGN IMMUNITY

6.1 GOWB hereto unconditionally and irrevocably:

- (i) Agrees that the execution, delivery and performance by it of this Agreement do not constitute sovereign acts and instead constitute private and commercial acts;
- (ii) Agrees that should any proceedings be brought against it or its assets in relation to this Agreement or any transaction contemplated by this Agreement, no sovereign immunity from such proceedings, execution, attachment or other legal process shall be claimed by or on behalf of itself or with respect to any of its assets, to the extent permitted by law; and
- (iii) to the extent permitted by law, waives any right of sovereign immunity, which it or its assets now has or may acquire in the future and consents generally in respect of any judgement against it in any proceedings to the giving of any relief or the issue of any process in connection with such proceedings.

6.2 Notwithstanding anything to the contrary herein contained such waiver of right of immunity shall not apply to

- a) Property and assets of any consular or diplomatic mission or consulate; or
- b) Property belonging to the Defence services and such assets of the Union of India.

7. BREACH AND COMPENSATION

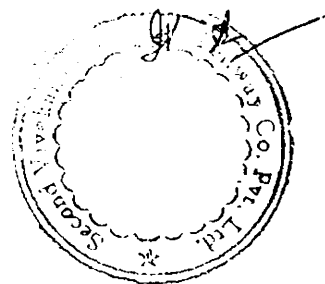
7.1 In case GOWB is in breach of any of its obligations under this Agreement, which breach is not cured within 30 days of receipt of a notice in writing from the Concessionaire and which has not occurred as a result of Concessionaire's breach of its obligations under this Agreement or the Concession Agreement, the Concessionaire shall have the right to recover, all costs and material losses (which material losses are to be determined by reference to the average monthly revenues earned by the Concessionaire in the 90 days immediately preceding the breach by GOWB) incurred or suffered by the Concessionaire, determined by NHAI as arising out of such material default by GOWB.

7.2 In case of breach of any of its obligations on part of the Concessionaire under this Agreement which has not occurred as a result of breach on part of GOWB or on part of NHAI under the Concession Agreement, resulting in public inconvenience due to failure of transportation within the facility in turn leading to severe impact on social, economic and law and order situation in the state or its part and the same is not cured within 30 days of receipt of a notice in writing from GOWB, GOWB shall have the right to recover material losses to be ascertained by NHAI arising out of such default by the Concessionaire.

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7.3 In case of any dispute by GOWB or Concessionaire on admissibility of the claim or extent of compensation determined by NHAI, the claim shall be settled as per provisions of the Dispute Settlement mechanism provided in Article 9 of this Agreement.

7.4 Any such compensation payable shall be paid to GOWB or the Concessionaire, in one lumpsum amount within 90 (ninety) days of, receiving NHAI's determination of compensation or, receiving the arbitration award pursuant to Article 9 of this Agreement, as the case may be..

8. INDEMNITY

8.1 The Concessionaire will indemnify, defend and hold GOWB harmless against any and all proceedings, actions and claims for any loss, damage, cost and expense arising out of any breach by the Concessionaire of any of its obligations under this Agreement resulting in public inconvenience due to failure of transportation within the facility in turn leading to severe impact on social, economic and law and order situation in the state or its part and the same is not cured within 30 days of receipt of a notice in writing from GOWB;

8.2 GOWB will, indemnify, defend and hold harmless the Concessionaire against any and all proceedings, actions and third party claims for any loss, damage, cost and expense arising out of failure of GOWB to fulfill any of its obligations under this Agreement adversely affecting the performance of the Concessionaire's obligations under the Concession Agreement other than any loss, damage, cost and expense, arising out of acts done in discharge of their lawful functions by GOWB, its officers, servants and agents;

8.3 Without limiting the generality of Clause 8.2, the GOWB shall indemnify the Concessionaire and shall save it harmless from and against any payments required to be made by the Concessionaire with respect to levy of any Local Taxes provided nothing contained herein shall be construed or interpreted as restricting in any way or manner the right of GOWB or any municipal, panchayat or other local authorities to levy any taxes which they or any of them are lawfully entitled to levy, impose or collect (the "Expected Taxes"). The Concessionaire shall not be entitled to and GOWB shall be under no obligation to reimburse Expected Taxes to the Concessionaire or any person claiming through or under the Concessionaire;

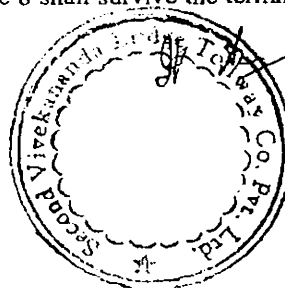
8.4 In the event that either party hereto receives a claim from a third party in respect of which it is entitled to the benefit of an indemnity under Clause 8 or in respect of which it is entitled to reimbursement (the "Indemnified Party") it shall notify the party liable (the "Indemnifying Party") within 14 (fourteen) days of receipt of the claim or payment, as the case may be, and shall not settle or pay the claim without the prior approval of the Indemnifying Party. In the event that the Indemnifying Party wishes to contest or dispute the claim, it may conduct the proceedings in the name of the Indemnified Party and shall bear all costs involved in contesting the same. The Indemnified Party shall provide all cooperation and assistance in contesting any claim and shall sign all such writings, and documents as the Indemnified Party may reasonably require.

9. GOVERNING LAW AND DISPUTE SETTLEMENT

9.1 This Agreement shall be governed by and construed and interpreted in accordance with the laws of India. The provisions contained in Clause 8 shall survive the termination of this Agreement.

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9.2 Any dispute, difference or claim arising out of or in connection with or in relation to this Agreement which is not resolved amicably shall be decided finally by reference to arbitration to three arbitrators comprising of one nominee of the Concessionaire, one of GOWB (GOWB having consulted with NHAI in putting forward such nomination) and one appointed by each of the foregoing. Such arbitration shall be held in accordance with the UNCITRAL Arbitration Rules and shall be subject to the provisions of the Arbitration and Conciliation Act, 1996. The Arbitrators shall issue a reasoned award. The venue of such arbitration shall be New Delhi, India. The Award shall be final and binding on the Parties.

9.3 The Parties agree that if the Concessionaire is, whether before or after the reference of any dispute to arbitration in accordance with this Clause 9, involved in a dispute under the Concession Agreement which involves substantially the same questions of law or contract interpretation or arises out of the same or similar facts or circumstances (a "Related Dispute"), then the Concessionaire may by notice in writing require that the Related Dispute is determined before the same arbitrators and at the same time as the dispute to which it relates or this dispute is determined at the same time as the Related Dispute in accordance with the procedure contained in the Concession Agreement before arbitrators appointed to determine the Related Dispute.

10. MISCELLANEOUS

10.1 Alteration of Terms

All additions, amendments, modifications and variations to this agreement shall be effectual and binding only if in writing and signed by the duly authorized representatives of GOWB, NHAI and the Concessionaire.

10.2 Time or Indulgence Allowed

An indulgence by one Party to the other in respect of any obligation or matter hereunder including time for performance to the other party hereunder or to remedy any breach hereof shall not be construed as a waiver of any of its rights hereunder Party may be on such terms and subject to such conditions as the Party giving it may specify and shall be without prejudice to that Party's then accrued rights under this Agreement except to the extent expressly varied in writing when giving such time or other indulgence.

10.3 Severance of Terms

If any provisions of this Agreement are declared to be invalid, unenforceable or illegal by any competent arbitration tribunal or court, such invalidity, unenforceability or illegality shall not prejudice or affect the remaining provisions of this Agreement, which shall continue in full force and effect.

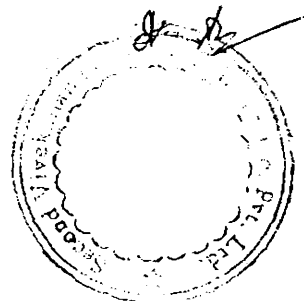
10.4 Language

All notices, certificates, correspondence or other communications under or in connection with the Agreement shall be in English.

10.5 Notices

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Any notice or communication hereunder shall be in writing and shall either be delivered personally or sent by registered post, with copy by facsimile transmission or other means of telecommunication in permanent written form. A copy of all the notices and communications will also be forwarded to the Lenders Representative. The service of notice shall unless otherwise notified by a notice hereunder to the parties at their following address:

IF to GOWB:

Attn. _____
Fax no. _____
Tel no. _____

IF to NHAI:

Attn. _____
Fax no. _____
Tel no. _____

IF to Concessionaire:

Attn. Mr S S Chakraborty
Fax no. 011 646 0409 Tel no. 011 643 1915

The notice pursuant hereto will be deemed to have been received on the date when such notice is in fact received by the addressee.

10.6 Authorised Representatives

Each of the Parties shall by notice in writing designate their respective authorised representatives through whom only all communications shall be made. A Party hereto shall be entitled to remove and/or substitute or make fresh appointment of its such authorised representative by similar notice.

10.7 Original Document

This Agreement is made in three counterparts, each of which shall be deemed to be an original.

IN WITNESS WHEREOF THE PARTIES HERETO HAVE PUT THEIR HANDS HEREUNTO ON THE DAY, MONTH AND YEAR FIRST ABOVE WRITTEN.

FOR CONCESSIONAIRE

FOR GOVT. OF WEST BENGAL

By:

By:

Name:

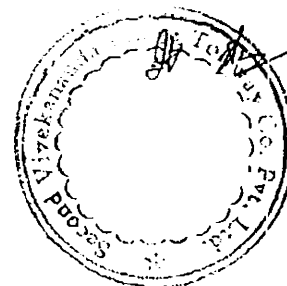
Name:

Title:

Title:

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FOR NHAI

By:.....

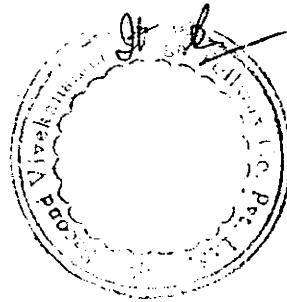
Name:.....

Title:.....

In the presence of:

1.

2.



SAFETY REQUIREMENTS

1. OBJECTIVE

1.1 The objective of Traffic safety standards is to provide safe travel to the vehicles plying on the Project at all times. Obviously, it involves different situations on the Project including construction zones, obstructed lengths etc. This schedule incorporates requirements for such situations.

1.2 The guiding principles of traffic safety measures shall be

- i) warn the drivers unambiguously and sufficiently in advance of the situation on the Project.
- ii) provide clear demarcation for movement of vehicles
- iii) provide devices to guide the drivers to ensure safe transit through construction zones.

2. CONSTRUCTION ZONE

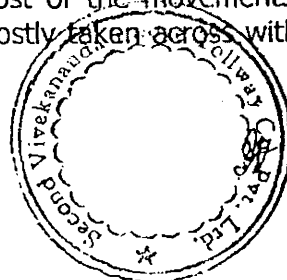
In order to plan and provide appropriate traffic management and safety measures, it is necessary to appreciate the concept of the construction zone. The construction zones can be defined as areas of the Project which involve the conflict of the right of use between the road users and authority responsible for the maintenance/improvement of the Project. From traffic safety point of view a construction zone comprises four sub-zones (Fig. S1) as described herein under:

2.1 The Advance Warning Sub-Zone

The advance warning zone is meant to prepare the driver for an alert behaviour and is an essential part of any traffic control system. The warning system shall prepare the driver well in advance by providing information regarding distance, extent and type of hazard ahead so that he can gradually reduce the speed of the vehicle. The information in this zone is conveyed mostly through a series of traffic signs along the length of the zone.

2.2 The Transition Sub-Zone

The transition zone is the area in which the traffic is steered and guided into and out of the diverted path around the work zone. This is the most crucial zone from safety point of view since most of the movements are turning movements. The traffic in this zone is mostly taken across with the help of barricades and channelizers.



SAFETY REQUIREMENTS

2.3 The Working Sub-Zone

This is the actual area where construction or maintenance activity is taking place and the main concern, therefore, is the safety of the worker at the site. The path of the traffic must, therefore, be very clearly delineated to avoid intrusion of vehicles moving into the work area. The work zones shall not be close by and the distance between the two work zones shall be such that the flow of traffic can return to normal stream by permitting fast moving traffic to overtake slow moving vehicles.

2.4 Termination Sub-Zone

An information sign board shall be erected to inform road user of the end of Construction Zone.

3. TRAFFIC CONTROL DEVICES

The primary traffic control devices used in work sub-zones are signs, delineators, barricades, cones, pylons, pavement markings, flashing lights etc. They shall be such that they are easily understood without any confusion, are clearly visible during day and night, conform to the prevailing speeds in immediate vicinity, stable against sudden adverse weather conditions and are easy in installation, removal and maintenance.

3.1 Signs

The construction and maintenance signs fall into the same three major categories as do other traffic signs; viz. regulatory signs. Warning signs and Guide signs. The IRC:67-1977 (Code of practice for road signs) gives a comprehensive list of traffic signs to which the size, colour and placement of signs shall conform. These signs shall be placed on the left hand side of the road.

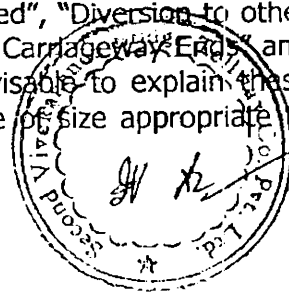
3.1.1 Regulatory Signs

Regulatory signs mean legal restrictions on the traffic. They shall be used only after consulting the local police and/or authorities. The most common types for the use in construction zones are "Do not Enter", "Road Closed", "Give Way to Pedestrian", "Speed limit" etc.

3.1.2 Warning Signs

The most common type of warning signs to alert the drivers of the possible dangers ahead in construction zones are "Lane closed", "Diversion to other Carriageway", "Divided Carriageway Starts", "Divided Carriageway Ends" and "Two Way Traffic" etc. Sometimes it might be advisable to explain these signs with the help of a rectangular definition plate of size appropriate to

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SAFETY REQUIREMENTS

the size of warning triangle

3.1.3 Guide Signs

Guide signs in construction zones shall have different background colour than the normal informatory signs of IRC:67-1977. These signs shall have black messages and arrows on yellow (Traffic Yellow of IS:5-1978) background. The commonly used guide signs are : "Diversion", "Road Ahead Closed" and "Sharp Deviation of route" etc.

3.2 Delineators

These channelising devices such as cones, traffic cylinders, tapes, drums are placed in or adjacent to the roadway to guide the drivers along a safe path and to control the flow of traffic. These shall normally be retro-reflectorised for night visibility. IRC:79-1981 (Recommended Practice for Road Delineators) gives details of some of the delineators.

3.3 Barricades

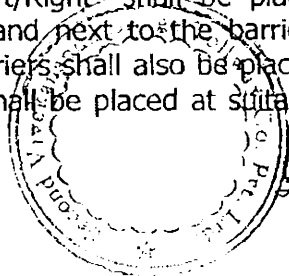
Whenever the traffic has to be restricted from entering the work areas, such as excavations or material storage sites so that protection to workers is provided or there is a need for separating the two way traffic, barricades can be used. The barricades can be portable or permanent type and can be made of wooden planks, metal or other suitable material. Suitable support or ballasting shall be provided so that they do not over turn or blown away in strong winds. In case of permanent type barricade, a gate or movable section shall be provided to allow the movement of construction/supervision vehicles.

3.4 Flagmen

In large construction sites, flagmen with flags and sign paddles can be effectively used to guide the safe movements. The sign paddles shall conform to IRC:67-1977 and provided with a rigid handle.

4. CARRIAGEWAY REPAIRS

When the work is of small magnitude, to be done in the middle of the carriageway, such as minor repairs of potholes and patches, then the traffic control measures shall mainly consist of providing cautionary signs of "Men at Work", about 500m before the work zone for the approaching vehicle and other cautionary sign of "Road Narrows", shall be placed at 100m ahead of work area. Regulatory sign of "Keep Left/Right" shall be placed at the commencement point of the work zone and next to the barriers for the approaching vehicles. Movable type of barriers shall also be placed on both sides of the work area. Cones or drums shall be placed at suitable interval



SAFETY REQUIREMENTS

to demarcate the work area. If the operation is to continue during night time, necessary lighting arrangements with flashing lights shall be provided.

5. SAFETY MEASURES DURING NORMAL OPERATION

5.1 For smooth and normal flow of the traffic on the project highway, the actions stated herein under will be taken as a normal operation of the Project.

5.2 Patrolling shall be done to ensure safe, uninterrupted and smooth traffic flow so that :

- i) no parking of a vehicle on any of the carriageway takes place at anytime;
- ii) prompt assistance is provided to accident victims and their rescue by ambulance;
- iii) minor debris and stalled vehicles are removed from carriageway within an hour's time;
- iv) in the incident of traffic congestion, adequate measures are taken to mitigate the same promptly and the approaching traffic is cautioned about it immediately.

5.3 Safety, Vehicle Breakdown and Accidents

In the case of unsafe conditions, vehicle breakdowns and accidents, the Concessionaire shall follow the relevant operating procedures, which shall include the setting up of temporary traffic cones and lights as well as the removal of obstruction and debris expeditiously. Such procedures shall be in accordance with Applicable Laws, Applicable Permits and provisions of Concession Agreement.

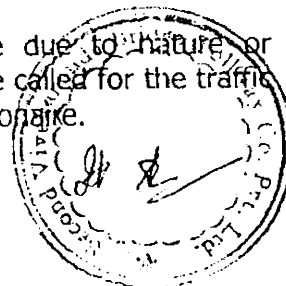
The Concessionaire shall ensure that any diversion or interruption of traffic is remedied without delay. The Concessionaire's responsibility for rescue operations on the Project Bridge shall be limited to the removal of vehicles or debris or any other obstruction, which may endanger or interrupt the smooth traffic flow on the Project Bridge.

6. SAFETY MEASURES DURING CONCESSION PERIOD

6.1 Safety measures for the Road Users and the Project Workmen at site is of paramount importance and obligatory for the Concessionaire throughout the concession period.

6.2 In Emergency arising on account of Force Majeure due to nature or administrative reasons especial safety measures may be called for the traffic and/or the workmen at site to be taken by the Concessionaire.

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SAFETY REQUIREMENTS

- 6.3 The following principles shall be kept in view in Emergency situations from safety considerations:
- 6.3.1 Where part width of lane is envisaged to be used for passage, paved shoulders may be used as required. A minimum of one lane shall be made available during emergency blocking of more than one lane.
- 6.3.2 At the points where traffic is to deviate from its normal path, the channel for traffic shall be clearly marked with the aid of pavement markings or other similar device. At night the passage shall be delineated with lamps or lanterns or any suitable light source.
- 6.3.3 On the approach of any type of closure suitable regulatory/warning signs shall be installed for guidance of Road Users. At least two signs shall be put up one close to the carriageway where transition of carriageway begins and the other 120 m ahead. The signs shall be of approved design and of reflectory type.

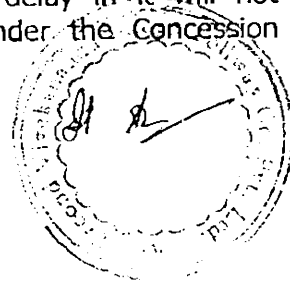
7. SAFETY OF PROJECT WORKMEN AT SITE

- 7.1 Safety of the Project workmen at site during duty hours is the responsibility of the Concessionaire, it shall be ensured by him that safety measures appropriate for the job a workman performs shall be provided.
- 7.2 Also, safety measures against accidents of the Workmen by the traffic using the highway and/or diversions shall be taken. The Concessionaire shall provide Helmets and protective Chest Vests to its Workmen at site and make it compulsory for them to wear the same.
- 7.3 The Concessionaire shall insure all the project Workmen against accident.
- 7.4 Labour Laws in force shall be followed.

8. Other Safety Requirements

- 8.1 Safety of Road users and workers on the Project Highway during its Construction, Operation and Maintenance is obligatory and the Concessionaire shall be fully responsible to discharge it in terms of the Concession Agreement including its Schedules.
- 8.2 In case of emergency situations the Concessionaire shall take action(s) for the safety of the road users and the workers as required by the site conditions immediately without waiting for consultation with the Independent Consultant and/or NHAI because any delay in it will not absolve the Concessionaire of its responsibilities under the Concession Agreement including its Schedules.

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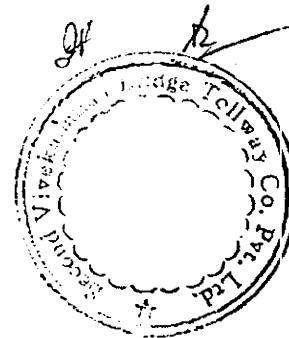


SAFETY REQUIREMENTS

8.3

A breach by the Concessionaire of its obligations in respect of the safety standards shall be dealt with in terms of clause 18.7.3 of the Concession Agreement.

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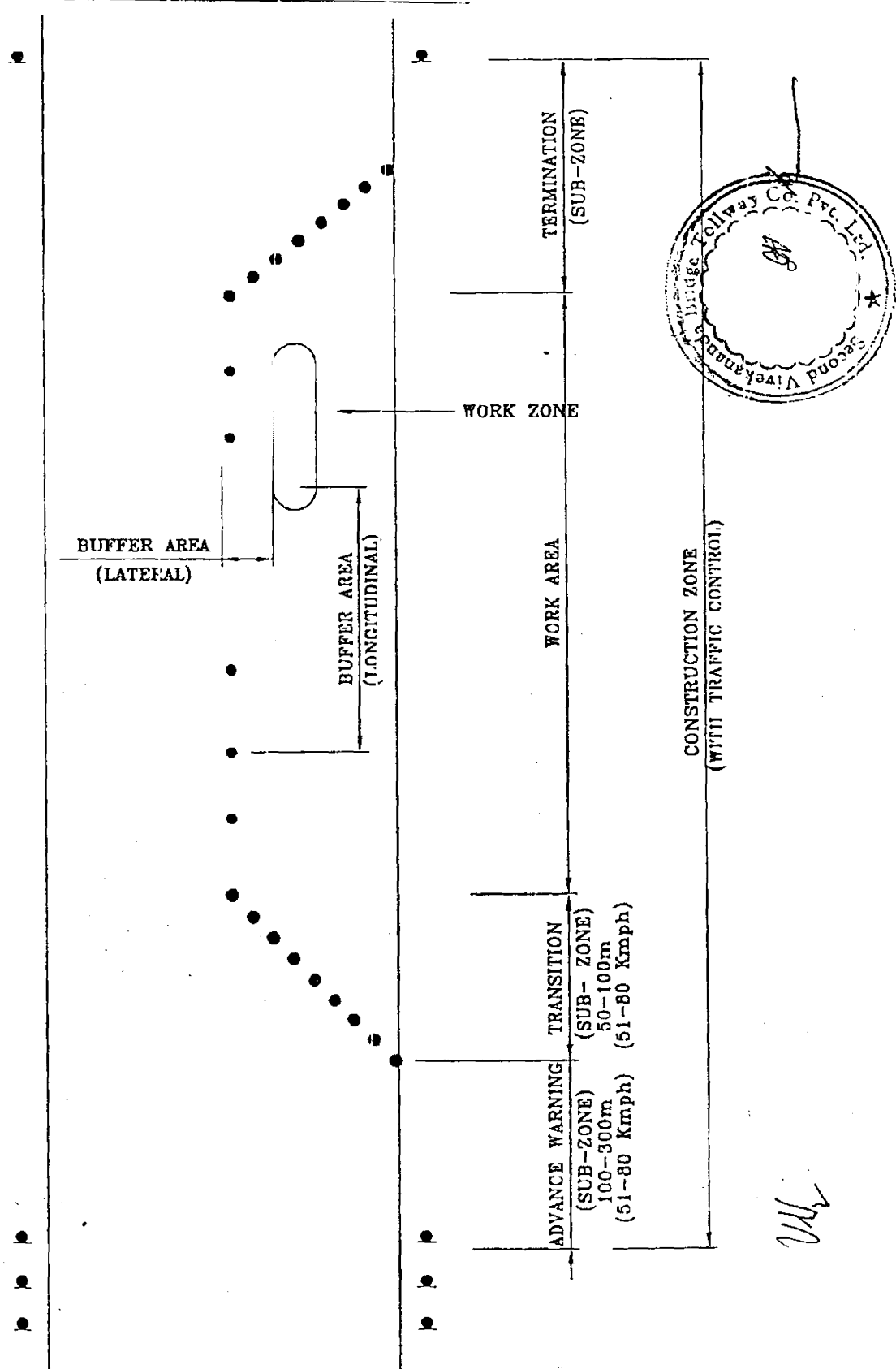


FIG. SI-COMPONENTS OF CONSTRUCTION ZONE
(One direction traffic lane)

CRITERIA FOR LIST OF CHARTERED ACCOUNTANTS

Selection of the Chartered Accountants for a mutually agreed list shall consist of the following steps :

1. Shortlisting of Chartered Accountants by the NHA
2. Issue of Letter of Invitation (LoI) along with Terms of Reference to shortlisted Chartered Accountants.
3. Evaluation of Technical Proposal and selection of maximum of 15 (fifteen) Chartered Accountants.
4. Forwarding list of 15 (fifteen) Chartered Accountants to Concessionaire to select a maximum of 10 (ten).

SELECTION COMMITTEE

The selection shall be done by a Selection Committee. The members of this committee shall be nominated by the NHA.

1. Shortlisting by NHA

For shortlisting, NHA shall advertise for Expression of Interest (EoI) to serve as Statutory Auditors/ Chartered Accountants for the ongoing National Highway improvement projects. The EoI will ask for summary information on

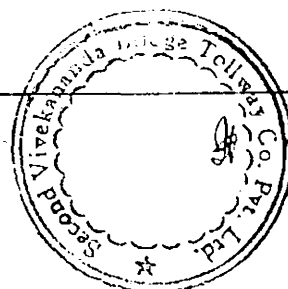
- Number of Partners and Professional Staff
- Experience of the firm on roads projects
- Presence in India and in the region
- Experience of the firm on other similar work in other sectors.

2. Request for Technical Proposal

The request for technical proposals shall be sent to the shortlisted firms. This shall include a ToR besides information (Data Sheet) to the firms. It shall contain the guidelines for the preparation of technical proposals by the firms and submission.

The ToR shall include the following details :

1. Project background
2. Objectives
3. Scope of services
4. Interaction with NHA
5. Reporting requirement



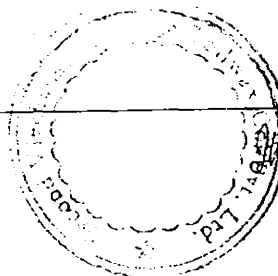
6. Performance clause
7. Consultant's Proposal
8. Period of Services

3. **Evaluation of Technical Proposal**

The technical proposals received from shortlisted firms shall be evaluated based on the following :

- Specific experience of the firm related to the assignment
- Adequacy of the proposed work plan and methodology in response to the ToR
- Qualifications and competence of the key staff for the assignment.

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Schedule U

Subject to Financing Documents between Senior Lenders and the Concessionaire
However, any amendment suggested should not increase or impose any additional contractual obligation and or financial liability on NHAI. A draft of this Agreement shall be provided to NHAI in accordance with Concession Agreement.

SUBSTITUTION AGREEMENT

THIS SUBSTITUTION AGREEMENT is made at New Delhi on this the _____ day of _____ 2002.

BETWEEN

1. THE NATIONAL HIGHWAYS AUTHORITY OF INDIA, a statutory body constituted under the provisions of the National Highways Authority of India Act, 1988 and having its principal offices at G-5&G-6, Sector 10, Dwarka, New Delhi - 110 045 (hereinafter referred to as "NHAI" which expression shall unless repugnant to the context or meaning thereof include its successors and assigns),
2. SECOND VIVEKANANDA BRIDGE TOLLWAY COMPANY PRIVATE LIMITED, a company incorporated under the provisions of the Companies Act, 1956 and having its Registered Office at C/o Consulting Engineering Services (India) Private Limited, 41-A, Maker Tower 'E' 4 th Floor, Cuffe Parade, Mumbai - 400 005 (hereinafter referred to as the "Concessionaire" which expression shall unless repugnant to the context or meaning thereof include its successors and assigns),

AND

3. _____ and _____ having its registered office at _____ acting for itself and for and on behalf of the Senior Lenders listed in Schedule 1 hereto (hereinafter referred to as the "Senior Lenders").

(NHAI, the Concessionaire and the Senior Lenders are hereinafter collectively referred to as the "Parties" and individually are hereinafter referred to as "Party").

WHEREAS

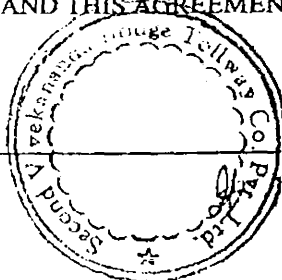
- A. By the Concession Agreement dated _____ entered into between the NHAI and the Concessionaire, NHAI has granted to the Concessionaire the Concession for construction of the Second Vivekananda Bridge across the river Hooghly along with its approaches from Howrah and Kolkata sides, i.e. the Project Bridge in the state of West Bengal, India on Build, Operate and Transfer (BOT) basis subject to and on the terms, conditions and covenants set forth in the said Concession Agreement or forming part thereof.
- B. With a view to help facilitate obtaining of financing for the said Project by the Concessionaire so as to enable the Concessionaire to build, operate and maintain the same pursuant to and in accordance with the Concession Agreement, the Parties have agreed subject to the terms and conditions of the Concession Agreement and the Financing Documents, that the Senior Lenders shall have the right to substitute the Concessionaire by a Selectee for the residual period of the Concession on the terms, conditions and covenants mentioned hereinbelow.
- C. As a condition to making any disbursement pursuant to the Financing Documents, the Senior Lenders have required and it is deemed necessary and expedient to record the terms, conditions and covenants of the above agreement between the Parties.

NOW THEREFORE THE PARTIES HERETO HEREBY AGREE AND THIS AGREEMENT WITNESSETH AS FOLLOWS:

ARTICLE 1

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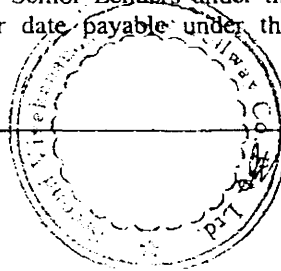


Schedule U

Subject to Financing Documents between Senior Lenders and the Concessionaire
any amendment suggested should not increase or impose any additional contractual obligation at or
imposed liability on NHAI. A draft of this Agreement shall be provided to NHAI in accordance with
Concession Agreement.

DEFINITIONS

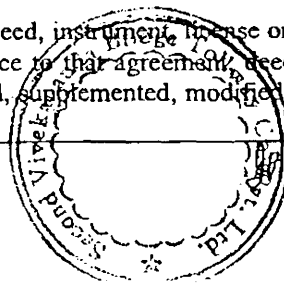
- 1.1 For the purpose of this Agreement, the following terms shall have the meaning hereinafter respectively assigned to them :
- 1.1.1 "Concession" means the bundle of rights, obligations and covenants of the Concessionaire under and as set forth in the Concession Agreement.
- 1.1.2 "Concession Agreement" means the Concession Agreement dated entered into between NHAI and the Concessionaire granting the Concession to the Concessionaire in respect of the Project Bridge and includes without limitation any amendments thereto made in accordance with the provisions contained in this behalf therein.
- 1.1.3 "Event of Default" means occurrence of any of the following events :
- (i) A Material Breach by the Concessionaire of the Concession Agreement, or the occurrence of a Concessionaire Event of Default as defined in the Concession Agreement.
 - (ii) A material default in payment by the Concessionaire to all or any of the Senior Lenders under the Financing Documents of any two installments, either of principal or interest or both, due and payable by it on account of Lenders Dues.
 - (iii) Any event of default under or breach of any of the terms of any of the Financing Documents or Project Agreements concerning the Project Bridge which in the sole opinion of the Lenders Agent is material or major and which may seriously affect the ability of the Concessionaire to meet its payment obligations to the Senior Lenders under the Financing Documents or to design engineer, construct, complete, operate and maintain the Project Bridge pursuant to and in accordance with the Concession Agreement.
- 1.1.4 "Financial Assistance" means the loans, advances and other funding assistance including any syndicated/ participation facility provided by the Senior Lenders as set forth in Schedule II hereto for financing the whole or any part of the Project Cost,
- 1.1.5 "Financing Documents" means the documents executed/ to be executed by the Concessionaire or entered/to be entered into by the Concessionaire with the Senior Lenders and/or the Lenders Agent in respect of the Financial Assistance and include loan agreements, guarantees, notes, debenture, bonds and other security agreements and other documents relating to the Financial Assistance and brief particulars whereof are set forth in Schedule II hereto in relation to each Senior Lender.
- 1.1.6 "Lenders Agent" means [] and having its principal office at and any replacement thereof appointed by all the Senior Lenders, inter alia, on the condition that as security for the Financial Assistance they shall have the right to seek transfer and assignment of the Concession Agreement including the Concession in accordance with the provisions of this Agreement.
- 1.1.7 "Lenders Certificate" shall have the meaning ascribed thereto in Clause 2.2(b).
- 1.1.8 "Lenders Dues" means the aggregate of all monies owned by the Concessionaire to the Senior Lenders under the Financing Documents on account of principal thereunder for funding the Project Cost, and all accrued interest, additional interest, liquidated damages, commitment fees, commission, prepayment premium, costs, charges and other monies including financing charges and fees owed by the Concessionaire to the Senior Lenders under the Financing Documents for the Project Bridge upto the transfer date payable under the Financing Documents.



Schedule U

Subject to Financing Documents between Senior Lenders and the Concessionaire
However, any amendment suggested should not increase or impose any additional contractual obligation and/or financial liability on NHAI. A draft of this Agreement shall be provided to NHAI in accordance with Concession Agreement.

- 1.1.9 "Notice of Default" shall have the meaning ascribed thereto in Clause 2.2(a).
- 1.1.10 "Proposal" shall have the meaning ascribed thereto in Clause 3.1(iii).
- 1.1.11 "Project Agreements" means this Agreement, the Concession Agreement, the Escrow Agreement, the State Support Agreement, the Financing Documents, the EPC Contract and the O&M Contract, if any, and shall include amendments thereto made hereafter with the prior consent of the NHAI.
- 1.1.12 "Project Cost" means the total capital cost of the Project Bridge upto the COD as approved by the Senior Lenders.
- 1.1.13 "Senior Lenders" means the financial institutions, banks, funds and agents or trustees of debenture holders, including their successors and assignees, who have agreed to guarantee or provide finance to the Concessionaire under any of the Financing Documents for meeting costs of all or any part of the Project and who hold pari passu charge on the Concession granted by this Agreement and have a right of substitution of the Concessionaire pursuant to the Substitution Agreement.
- 1.1.14 "Selectee" means a new Concessionaire proposed by the Senior Lenders pursuant to this Agreement and approved by NHAI for substituting the Concessionaire for the residual period of the original Concession by amendment of the Concession Agreement or by execution of a fresh Concession Agreement.
- 1.1.15 "Substitution Notice" means the notice given by the Lenders Agent pursuant to Clause 2.2 (c) of this Agreement.
- 1.2 The words and expressions beginning with or in capital letters used in this Agreement not defined in the Concession Agreement, shall have, unless repugnant to the context, the meaning respectively assigned to them in the Concession Agreement.
- 1.3 In this agreement unless the context otherwise requires :
- a) any reference to a statutory provision shall include such provision as is from time to time modified or re-enacted or consolidated so far as such modification or re-enactment or consolidation applies or is capable of applying to any transactions entered into hereunder;
 - b) the words importing singular shall include plural and vice versa, and words denoting natural persons shall include partnerships, firms, companies, corporations, joint ventures, trusts, associations, organisations or other entities (whether or not having a separate legal entity);
 - c) the headings are for convenience of reference only and shall not be used in and shall not affect the construction or interpretation of this Agreement;
 - d) terms beginning with capital letters and defined in this Agreement shall have the meaning ascribed thereto herein;
 - e) the words "include" and "including" are to be construed without limitation;
 - f) any reference to a "day" shall mean reference to a calendar day;
 - g) any reference to "month" shall mean reference to a calendar month;
 - h) the Schedules to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement;
 - i) any reference at any time to any agreement, deed, instrument, license or document of any description shall be construed as reference to that agreement, deed, instrument, license or other document as amended, varied, supplemented, modified or suspended



Schedule U

Subject to Financing Documents between Senior Lenders and the Concessionaire
However, any amendment suggested should not increase or impose any additional contractual obligation and or
financial liability on NHAI. A draft of this Agreement shall be provided to NHAI in accordance with
Concession Agreement.

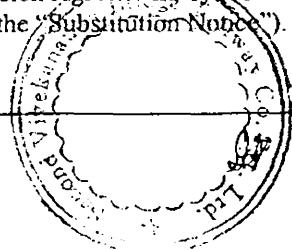
at the time of such reference provided that this clause shall not operate so as to increase liabilities or obligations of NHAI hereunder or pursuant hereto in any manner whatsoever;

- j) references to Recitals, clauses, sub-clauses, paragraphs, or schedules in this Agreement shall, except where the context otherwise requires, be deemed to be references to Recitals, Articles, clauses, sub-clauses, paragraphs, Annexures, appendices of this Agreement.
- k) any agreement, consent, approval, authorisation, proposal, notice, communication, information or report required under or pursuant to this Agreement from or by any Party or Senior Lender(s) shall be valid and effectual only if it is in writing under the hands of duly authorised representative of such Party or the Senior Lender(s), as the case may be, in this behalf and not otherwise; and
- l) any reference to any period commencing "from" a specified day or date and "till" or "until" a specified day or date shall include both days or dates.

ARTICLE 2

SUBSTITUTION OF THE CONCESSIONAIRE BY A SELECTEE

- 2.1 NHAI hereby irrevocably agrees to substitute the Concessionaire by a Selectee (selected by the Senior Lenders in accordance with the provisions of this Agreement and approved by NHAI) by amendment of the Concession Agreement or by execution of a fresh Concession Agreement in favour of the Selectee for the purpose of securing the payments of the Lenders Dues, provided that nothing contained herein shall entitle the Senior Lenders to operate the Concession themselves as a Concessionaire under and in accordance with Concession Agreement either individually or collectively.
- 2.2 (a) The Lenders Agent shall notify by a notice in writing to the Concessionaire, with a copy thereof simultaneously to NHAI, about the occurrence of an Event of Default and requiring the Concessionaire to remedy and cure such default within 30 (thirty) days from the date of delivery of such notice to the Concessionaire (the "Notice of Default"). The Notice of Default shall be accompanied by the Lenders Certificate.
- (b) A certificate under the hands of an authorised officer of the Lenders Agent annexed to the Notice of Default certifying –
 - (i) the occurrence of an Event of Default, and
 - (ii) the Lenders Dues.(the "Lenders Certificate") shall be conclusive evidence of occurrence of such Event of Default and of such Lenders Dues. Such Lenders Certificate shall be final, conclusive and binding upon the Concessionaire for the purposes of this Agreement and the Financing Documents.
- (c) NHAI and the Concessionaire hereby irrevocably agree that the Lenders Agent may within 30 (thirty) days of the date of delivery of the Notice of Default of the Concessionaire and without prejudice to any other right or remedy available to the Senior Lenders under the Financing Document, notify NHAI and the Concessionaire on behalf of all the Senior Lenders about the Senior Lenders decision to invite, negotiate and procure offers, either through private negotiations or public auction or process of tendering for the residual period of the Concession and the rights and obligations of the Concessionaire under the Concession Agreement, by a Selectee, subject to the approval of such Selectee by NHAI (the "Substitution Notice").



Schedule U

Subject to Financing Documents between Senior Lenders and the Concessionaire
However, any amendment suggested should not increase or impose any additional contractual obligation and/or financial liability on NHAI. A draft of this Agreement shall be provided to NHAI in accordance with Concession Agreement.

- (d) Upon assumption by the Selectee of the liability and obligations of the Concessionaire under the Financing Documents and the Concession Agreement including obligation to pay any sums then due and payable to NHAI under the Concession Agreement, NHAI shall grant the Concession to the Selectee on the same terms and conditions for the residual period of the original Concession, by amendment of Concession Agreement or, if required by the Lenders Agent by a separate agreement with the Selectee.

2.3 The Lenders Agent shall apply in the selection of the following criteria :

- (i) the Selectee shall be capable of properly discharging the duties, obligations and liabilities of the Concessionaire under the Concession Agreement;
- (ii) the Selectee shall provide security to the satisfaction of Senior Lenders for repayment of the Lenders Dues;
- (iii) the Selectee shall have the capability and shall unconditionally consent to assume the liability for the payment and discharge of dues of the Concessionaire to NHAI under and in accordance with the Concession Agreement and of Lender's Dues upon terms and conditions as agreed to with the Senior Lenders ;
- (iv) the Selectee shall have the network, experience and technical equity parameters as setforth in the Concession Agreement or prescribed by NHAI thereunder in respect of the Concessionaire or as relaxed subsequently by NHAI;
- (v) the Selectee shall have not been in breach of any agreement between the Selectee and NHAI ; and
- (vi) any other appropriate circumstance, whereby continuity in the performance of the Concessionaire's obligations under the Concession Agreement is maintained and the security in favour of Senior Lenders under the Financing Documents is preserved.

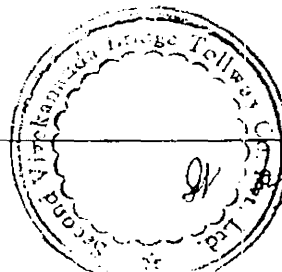
2.4 At any time prior to the acceptance of the Selectee by NHAI pursuant to this Agreement, the NHAI may require the Lenders Agent to satisfy NHAI as to the eligibility of the Selectee and the decision of the NHAI in this behalf (which shall be reasonable), shall be final, conclusive and binding on the Senior Lenders and the Selectee.

ARTICLE 3

MODALITY FOR SUBSTITUTION

3.1 The following modalities shall be applicable to any substitution of the Concessionaire by the Selectee pursuant to this Agreement :

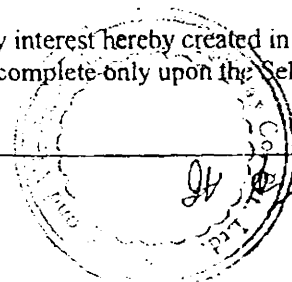
- (i) The Lenders Agent may invite, negotiate or procure offers either through private negotiations or public auction or process of tender or otherwise for the substitution of the Concessionaire by the Selectee;
- (ii) The Lenders Agent shall on behalf of the Senior Lenders propose to NHAI pursuant to sub-clause (iii) below, the name of the Selectee for acceptance and shall apply as necessary to NHAI for :
 - a) grant to the Selectee (as substitute for the Concessionaire) the right to build, construct, complete, maintain, and operate the Project Bridge under and in accordance with and subject to and on the terms and conditions setforth in the Concession Agreement,



Schedule U

Subject to Financing Documents between Senior Lenders and the Concessionaire
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Concession Agreement.

- b) amendment of the Concession Agreement so as to grant to the Selectee on the same terms and conditions, the residual period of the Concession under original Concession Agreement,
 - c) the execution of a new Substitution Agreement with the proposed Selectee for the residual period of Concession on the same terms and conditions, and
- (iii) The Lenders Agent on behalf of the Senior Lenders shall be entitled, within a period of 120 (one hundred twenty) days from the date of delivery to NHAI of the Substitution Notice pursuant to Clause 2.2 (c) above, to select and propose to NHAI for its approval a Selectee (the "Proposal"). The Proposal of the Lenders Agent pursuant to this sub-clause (iii) shall contain the particulars and information in respect of the Selectee, the Lenders Dues and other data and information, all as prescribed in Schedule IV hereto. Without prejudice to the foregoing the Lenders Agent agrees and undertakes to provide to NHAI such further and other information and such clarifications in respect of any data, particulars or information furnished pursuant hereto by the Lenders Agent as NHAI may reasonably require. NHAI shall convey its approval or otherwise of such Proposal, including of Selectee, in its sole discretion within 60 (sixty) days of (a) the date of receipt of the Proposal by NHAI, or (b) the date when last of further and other information and such clarifications in respect of any data, particulars or information comprised in the Proposal, as have been provided in the Lenders Agent to NHAI, whichever is later. It is expressly agreed that the Proposal shall be accompanied by an unconditional undertaking of the Selectee that it shall upon approval by NHAI of the Proposal including the Selectee, observe, comply, perform and fulfill the terms, conditions and covenants of the Concession Agreement which according to its terms are required to be observed, complied with, performed and fulfilled by Concessionaire thereunder on the footing as if such Selectee were the concessionaire under the Concession Agreement and shall be liable for and shall assume, discharge and pay the Lenders Dues to the Senior Lenders under and in accordance with the Financing Documents. Upon approval of the Proposal including of the Selectee by NHAI, such Selectee shall become the Selectee hereunder.
- (iv) NHAI shall, upon its satisfaction of the eligibility of the Selectee and in accordance with the provisions of this Agreement and subject to the provisions of Sub-clause (v) below proceed to substitute the Concessionaire or the Selectee by amendment of the Concession Agreement or by execution of fresh agreement or such other writing as NHAI may reasonably require on the same terms and conditions for the residual period of the Concession in favour of the Selectee.
- (v) The substitution as aforesaid shall be subject to the Selectee, obtaining requisite Indian Government approvals, clearances and permission necessary for operating the Concession under and in accordance with the Concession Agreement.
- (vi) The objection if any of NHAI to the substitution as aforesaid shall be reasoned and be made after hearing the Lenders Agent, provided however, that in the event of a refusal as stated above, the Lenders Agent may propose another Selectee. In the event that no objection is raised with respect to the Selectee by NHAI within the period set forth in sub-clause (iii) above, the Selectee shall be deemed to have been accepted by NHAI. NHAI shall, subject to the provisions of Sub-clause (v) above, grant the Concession for the residual period within 15 days of its acceptance/deemed acceptance of the Selectee.
- (vii) The substitution as aforesaid, pursuant to the security interest hereby created in favour of the Senior Lenders, shall be deemed to be complete only upon the Selectee



Schedule U

Subject to Financing Documents between Senior Lenders and the Concessionaire
However, any amendment suggested should not increase or impose any additional contractual obligation and/or financial liability on NHAI. A draft of this Agreement shall be provided to NHAI in accordance with Concession Agreement.

as Concessionaire accepting and complying with the terms and conditions stipulated in the Concession Agreement.

- (viii) The decision of the Senior Lenders and NHAI in the selection of the Selectee shall be final and binding on the Concessionaire and shall be deemed to have been made with the concurrence of the Concessionaire and the Concessionaire hereby expressly waives all rights to object to or challenge such selection of the Selectee on any ground whatsoever. No third party shall have the right to question the decision of the Senior Lenders/Lenders Agent and NHAI.
- (ix) All actions of the Lenders Agent hereunder shall be deemed to be on behalf of the Senior Lenders, and be binding upon them. The Lenders Agent is authorised to receive payment of compensation, payment to cure default and any other payments, consideration for transfer in accordance with the Substitution Notice and the Financing Documents and give valid discharge on behalf of all Senior Lenders.

3.2 The terms and conditions for substitution of the Concessionaire by the Selectee shall be proposed by the Senior Lenders through the Lenders Agent to the NHAI, on the occurrence of an Event of Default and continuance thereof for six months but atleast 2 months prior to the anticipated date of substitution as aforesaid for the residual period of the Concession.

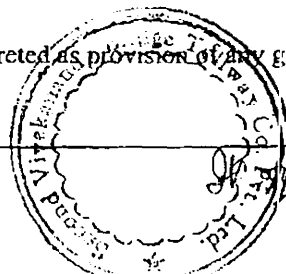
3.3 The Concessionaire hereby irrevocably agrees and waives any right to challenge the Senior Lender's decision to apply to NHAI for substitution as aforesaid and neither the Concessionaire nor NHAI shall be entitled to prevent the Lenders Agent from proceeding to seek such a substitution of the Concessionaire by Selectee as hereinbefore provided. The Concessionaire agrees and confirms that the Concessionaire shall not have any right to seek re-valuation of the Concessionaire's assets and the Concession Agreement including the Concession, otherwise than as contracted in the Financing Documents while the NHAI permits substitution as hereinbefore provided, pursuant to the Lenders Agent's request. The Parties acknowledge that the rights of the Senior Lenders hereunder are irrevocable and shall not be contested in any proceedings before any court of authority and the Concessionaire shall have no right or remedy to prevent, obstruct, injunct or restrain NHAI and/or the Senior Lenders from effecting or causing the substitution as aforesaid.

3.4 Where no suitable Selectee can be found by the Lenders Agent and NHAI shall decide to take over the concession then NHAI shall advise the Lenders Agent of all steps it proposes to take under the Concession Agreement for determination of Termination Payments thereof.

3.5.1 (i) If NHAI decides to substitute the Concessionaire by any other person (NHAJ Nominee), it shall take into account the Senior Lender's Dues while considering offers from such persons and shall include a suitable condition as agreed to by the Lenders Agent on behalf of the Senior Lenders for payment or take over of such dues by such NHAI nominee to the extent agreed by the Lenders Agent while substituting the Concessionaire by the NHAI nominee. The NHAI nominee shall similarly be bound to execute a supplementary/fresh substitution agreement on the same terms and conditions as provided herein.

(ii) Notwithstanding anything contained in Clause 3.4 and this Clause 3.5, NHAI shall not be required to take over, upon Termination of the Concession Agreement including the Concession, the liabilities representing the Lender's Dues save and except to the extent of Termination Payments due and payable upon such Termination under the Concession Agreement. In such an event NHAI's obligation shall be limited to assumption of such liabilities and payments of dues as NHAI has agreed to bear under the Concession Agreement.

3.6 Nothing contained in these presents shall mean or be interpreted as provision of any guarantee



Schedule U

subject to Financing Documents between Senior Lenders and the Concessionaire. No amendment suggested should not increase or impose any additional contractual obligation and/or financial liability on NHAI. A draft of this Agreement shall be provided to NHAI in accordance with Concession Agreement.

or surety by NHAI and it is expressly agreed that NHAI has not provided any surety, guarantee or counter guarantee whether directly or indirectly for the recovery of amount of Financial Assistance advanced by the Senior Lenders to the Concessionaire.

- 3.7 The person substituting the Concessionaire shall be deemed to be the Concessionaire under Concession Agreement and shall enjoy all rights and be responsible for all obligations under Concession Agreement as if it were the Concessionaire. Further, in the event of such step-in or substitution, an additional Cure Period of 90 (ninety) days shall be provided by NHAI to enable the Concessionaire to cure any breach or default subsisting on the day of such step-in or substitution. Provided further that if the Senior Lenders step in to operate and manage the Concession for a period not exceeding 90 (ninety) days, their liabilities shall be restricted to the obligations relating to and arising during such 90 (ninety) days period.

ARTICLE 4

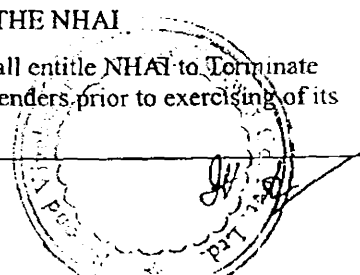
INTERIM PROTECTION OF SERVICE AND PRESERVATION OF SECURITY

- 4.1 In the event of the Senior Lenders notify NHAI and the Concessionaire of the Event of Default (and the Concessionaire has not cured the default for a period of 30 days) or in special circumstances affecting the security of the Senior Lenders, the Senior Lenders shall be entitled to institute protective legal proceedings for a receivership (the "Receiver") to maintain, preserve and protect the assets (other than the Concession Agreement including the Concession) held as security by the Senior Lenders provided always that such receiver shall be NHAI if such assets are in the opinion of NHAI necessary and required for the operation and maintenance of the Project Bridge and the Parties hereby consent and agree to the same. The Lenders Agent shall in such an event notify NHAI to assume receivership of the assets held as security and NHAI shall operate and maintain the same pending the substitution of the Concessionaire by the Selectee. In the event NHAI does not assume receivership and declines the request of the Lenders Agent, the Lenders Agent shall for itself and each of the Senior Lenders, be entitled to seek the appointment of a Court Receiver for the Concessionaire's assets held as security and NHAI shall operate and maintain the same pending substitution as aforesaid and/or the takeover of the Concession Agreement including the Concession and the Project Bridge in accordance with the Concession Agreement or this Agreement by the NHAI. All the receivables shall be deposited by the Receiver in the Escrow Account and shall be dealt with in accordance with the Concession Agreement. The Receiver shall be responsible for protecting the assets in receivership and shall render a true and proper account of the receivership to the Senior Lenders in accordance with the terms of its appointment. The Receiver shall make best efforts to operate and maintain the Project Bridge, in accordance with the obligations of the Concessionaire under the Concession Agreement. Any person other than NHAI may be appointed as Receiver only with the prior consent of NHAI. In a declaratory suit for appointment of a Receiver, notwithstanding that no recovery or mortgage suit or any suit or proceeding for enforcement of the Senior Lenders' security under the Financing Documents is instituted by the Lenders Agent for itself or the Senior Lenders, any action for appointment of NHAI as Receiver or appointment of an Independent Court Receiver shall be without prejudice to the other rights and remedies of NHAI, and of the Senior Lenders under the Financing Documents.

ARTICLE 5

TERMINATION OF THE CONCESSION BY THE NHAI

- 5.1 If under the Concession Agreement an event occurs which shall entitle NHAI to Terminate the Concession Agreement, NHAI shall intimate the Senior Lenders prior to exercising of its



Subject to Financing Documents between Senior Lenders and the Concessionaire
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decision to Terminate the Concession and advise the Senior Lenders to ensure the cure of the
 event which otherwise can result in termination of the Concession and the Concession
 Agreement. Such a notice shall entitle the Senior Lenders to cure any financial or other
 default of the Concessionaire within a period of two months from the date of the notice
 received from the NHAI failing which NHAI without any further notice to either the
 Concessionaire or the Lenders Agent/Senior Lenders, shall be entitled to Terminate the
 Concession Agreement.

- 5.2 Upon receipt of the Notice as referred to in Clause 5.1, intimating occurrence of an event
 which can entail Termination of the Concession Agreement including the Concession, the
 Senior Lenders shall be entitled to consider such notice as an Event of Default and may
 initiate steps to invite, negotiate and procure offers for the substitution of the Concessionaire
 by a Selectee in accordance with the procedure set forth in this Agreement.

ARTICLE 6

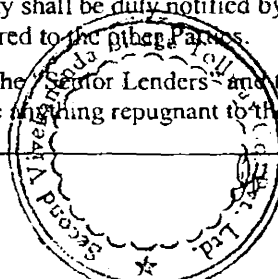
SENIOR LENDERS RIGHT TO RECEIVE TERMINATION PAYMENTS

- 6.1 NHAI and Concessionaire hereby agree, and confirm that without prejudice to any other right
 or remedy, NHAI shall be entitled to deposit the Termination Payments into Escrow Account
 and the Senior Lenders shall be entitled to receive the same without any further reference to
 or consent of the Concessionaire under and in accordance with the Concession Agreement
 towards the satisfaction of the Senior Lenders Dues out of and limited to the sum of
 Termination Payments worked out under and in accordance with the Concession Agreement.
 The Senior Lenders shall be entitled to appropriate any consideration received for the
 substitution as hereinabove provided from the Selectee towards the payment of their and
 NHAI's respective dues to the exclusion of the Concessionaire.
- 6.2 The Concessionaire hereby nominates, constitutes and appoints the Lenders Agent as its
 constituted attorney for doing all acts, deeds and things as may be required to be done for the
 substitution of the Concessionaire by the Selectee pursuant hereto and for receiving
 consideration for discharge of the Lenders' Dues pursuant to Clause 6.1.
- 6.3 The Concessionaire hereby expressly authorises payment of sums by NHAI on account of
 Termination Payments into Escrow Account and the Lenders Agent to draw the same
 therefrom for and on behalf of the account of the Senior Lenders notwithstanding the
 pendency of any dispute or objection or claim that the Concessionaire may have against the
 Senior Lenders and/or NHAI. The deposit by NHAI into the Escrow Account and payment to
 the Senior Lenders directly or through the Lenders Agent in accordance with this Agreement,
 made or caused to be made by NHAI shall constitute a valid discharge of its obligation of the
 payment thereof to the Concessionaire. All such payments shall stand charged to the Senior
 Lenders under the Financing Documents and shall be receivable by the Lenders Agent from
 the Escrow Account on behalf of the Senior Lenders to the exclusion of any receiver or
 liquidator appointed.

ARTICLE 7

GENERAL

- 7.1 The Parties hereto expressly represent and warrant that they are duly empowered to
 sign and execute this Agreement and the Lenders Agent is duly and fully authorised
 by each of the Senior Lenders to enter into this Agreement on their behalf.
- 7.2 Notices under this Agreement shall be sent to the Addresses first hereinabove
 mentioned. Any change in the address of any Party shall be duly notified by a
 Registered post acknowledgement due and delivered to the other Parties.
- 7.3 The expressions "NHAH", the "Concessionaire", the "Senior Lenders" and the
 "Lenders Agent" herein used shall unless there be anything repugnant to the subject



Schedule U

Subject to Financing Documents between Senior Lenders and the Concessionaire
However, any amendment suggested should not increase or impose any additional contractual obligation and/or financial liability on NHAI. A draft of this Agreement shall be provided to NHAI in accordance with Concession Agreement.

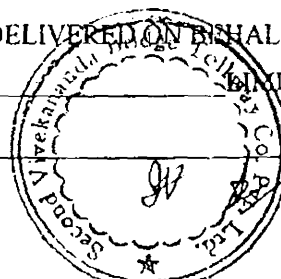
or context include their respective successors, legal representatives, administrators and permitted assigns.

- 7.4 This Agreement shall not be affected by reorganisation of any Senior Lender, Lenders Agent or NHAI and the successor – in interest of such Senior Lender, Lenders Agent or NHAI shall have the benefit of this Agreement.
- 7.5 No amendment, variation or modification to this Agreement shall be valid and effectual unless made in writing and executed by the duly authorised representatives of all the Parties hereto.
- 7.6 All stamp duties or other imposts and charges as are applicable on this Agreement or on amendment of the Concession Agreement or execution of fresh Concession Agreement for the purpose of substitution as aforesaid shall be borne by and be to the account of the Concessionaire. In the event of the Senior Lenders making such payment for the time being, it shall be deemed to be a part of the Lenders Dues.
- 7.7 The Parties hereby expressly agree that for the purpose of giving full and proper effect to this Agreement, the Concession Agreement and this Agreement shall be read together and construed harmoniously. The terms of this Agreement shall prevail in the event of any inconsistency with the Concession Agreement.
- 7.8 The consultation, recommendation or approval of the Lenders Agent under this Agreement shall always be taken as consultation, recommendation or approval of every concerned Senior Lender and each such Senior Lender shall be bound by the same and hereby waives its right to question or dispute the same.
- 7.9 This Agreement shall be in addition to and shall not be in derogation of the terms of the Financing Documents.
- 7.10 It shall not be necessary for the Senior Lenders or the Lenders Agent to enforce or exhaust any other remedy available to them before invoking the provisions of this Agreement.
- 7.11 This Agreement shall be governed by and construed in accordance with Indian law and, subject to Clause 7.12 below, the courts at New Delhi shall have jurisdiction over all matters arising out of or relating to this Agreement.
- 7.12 Any dispute, difference or claim arising out of or in connection with or in relation to this Agreement which is not resolved amicably shall be decided finally by reference to arbitration to a Board of Arbitrators comprising of one nominee of each party to the dispute. Such arbitration shall be held in accordance with the UNCTRAL rules of arbitration and shall be subject to the provisions of Arbitration Act. The Arbitrators shall issue a reasoned award and the venue of such arbitration shall be New Delhi, India. The Award shall be final and binding on the Parties. The Parties agree and undertake to carry out the award of the arbitrators (the "Award") without delay.

This Agreement and rights and obligations of the Parties shall remain in full force and effect pending the Award in any arbitration proceeding hereunder.

IN WITNESS WHEREOF THE PARTIES HERETO HAVE SET THEIR HANDS HEREUNTO ON THE DAY, MONTH AND YEAR HEREINABOVE MENTIONED.

SIGNED AND DELIVERED ON BEHALF OF
_____ LIMITED



Schedule U

Subject to Financing Documents between Senior Lenders and the Concessionaire
However, any amendment suggested should not increase or impose any additional contractual obligation and/or
financial liability on NHAI. A draft of this Agreement shall be provided to NHAI in accordance with
Concession Agreement.

BY: _____

Name :

Title :

SIGNED AND DELIVERED ON BEHALF OF
THE NATIONAL HIGHWAY AUTHORITY OF INDIA

BY: _____

Name :

Title :

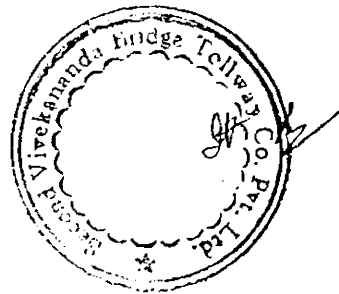
SIGNED AND DELIVERED ON BEHALF OF
SENIOR LENDERS

BY: _____

Name :

Title :

VS



VESTING CERTIFICATE

National Highway Authority of India ("NHAI") hereby acknowledges:

1. Compliance and fulfillment by the Concessionaire of the Divestment Requirements set forth in Clause 33.2 of the Concession Agreement in respect of the Project Highway;
2. Receipt of actual possession of the Project Highway from the Concessionaire; and
3. Receipt from the Concessionaire of a certificate confirming that there are no liens or encumbrances whatsoever on the Project Highway including Project Assets;

on the basis that upon the issue of this Vesting Certificate, NHAI shall be deemed to have acquired, and all title and interest of the Concessionaire in or about the Project Highway shall be deemed to have vested, unto NHAI free from all encumbrances, charges and liens whatsoever.

Notwithstanding anything to the contrary contained hereinabove it shall be a condition of this Vesting Certificate that in the event of any defect or deficiency in any of the Divestment Requirements set forth in Clause 33.2 of the Concession Agreement being found or discovered at any time hereafter, nothing contained in this Vesting Certificate shall be construed or interpreted as waiving the obligation of the Concessionaire to rectify and remedy the same and/or relieving the Concessionaire in any manner of the same.

Agreed and accepted

For National Highway Authority of India

For the Concessionaire

By:.....

By:.....

Name:

Name:

Title:

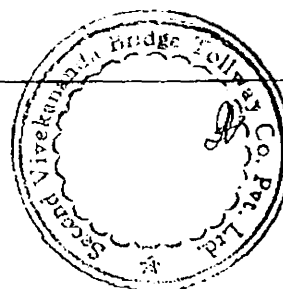
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V-1



PASSENGER CAR UNIT FACTORS

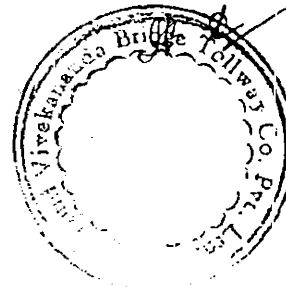
The equivalency factor for the conversion of different types of vehicles into equivalent Passenger Car Units (PCUs) based on their relative interference value shall be as per the following table:

Sl.No.	Vehicle Type	Equivalency Factor*
1.	Passenger Car, Pick-up Van, taxi, Jeep	1.00
2.	Light Goods Vehicle	1.50
3.	2 or 3 axle Truck or Bus	2.00
4.	Truck-trailer and other Multi-Axle Vehicles and Earth moving equipment and Heavy construction machinery including, without limitation, oversized vehicles carrying boilers, turbines, generators	3.00

* *Recommended PCU factors for various types of vehicles in accordance with Traffic & Tariff Validation Report submitted to NHAI by SVBTG and using combined IRC and Highway Capacity Manual (TRB 209) guidelines.*

Note: The saturation capacity of the bridge is determined as 145,000 PCUs per day.

VU



REPORTING AND RECORD REQUIREMENTS

The reporting and records requirements below have been provided in terms of the type of information required. The Concessionaire and Independent Consultants shall determine the format, media, records and the number of copies required.

Part I

Reporting Requirements

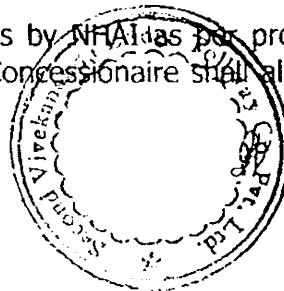
From the date of this Agreement until the end of the Concession Period, the Concessionaire shall prepare and submit to the NHAI and Independent Consultants one copy each of the following Reports/Documents/Drawings.

Design & Construction Stage

1. Monthly Construction Report:

Within 7 Days of end of each month or a part thereof, which falls within the Construction Period, the Concessionaire shall provide to the NHAI and the Independent Consultants one copy each of the report, which shall identify the following, at the minimum:

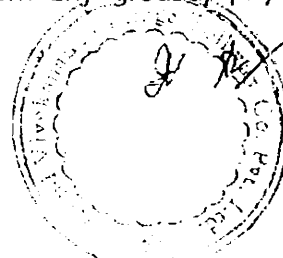
- Drawings submitted/resubmitted to NHAI/Independent Consultants during the month ended
- NHAI/Independent Consultants' comments thereon, if any
- Concessionaire's compliance with NHAI/Independent Consultants' comments on the drawings submitted to NHAI/Independent Consultants during the month ended.
- "As Built" drawings submitted to NHAI/Independent Consultants during the month ended.
- Concessionaire's compliance with the Inspection Report during the month ended, if any.
- Construction Constraints.
- Tests carried out during the month ended, if any; results of these Tests furnished to the NHAI/Independent Consultants during the month ended, if any.
- Remedial measures taken by the Concessionaire on the basis of these Tests, if any.
- Traffic management steps undertaken by the Concessionaire during the month.
- Achievement of a Project milestone during the month, if any. The Concessionaire shall also provide information on delay in achievement of such milestone, if any.
- Any suspension of the Construction Works by NHAI as per provisions of the Concession Agreement, if any. The Concessionaire shall also provide



REPORTING AND RECORD REQUIREMENTS

- information on reason of such suspension, duration of such suspension and the steps undertaken by it to revoke such suspension.
- Status on any Change of Scope Notice issued by NHAI
 - All actual or potential departures from the Project Completion Schedule.
 - All substantial disagreements between the Concessionaire and the NHAI and/or Independent Consultants to the design/construction of the Project.
 - All ground for Deviations which have occurred or which may reasonably be foreseen as likely to occur.
 - The proposed measures to be taken by the Concessionaire to overcome such departures or to resolve such grounds for a Dispute.
 - The date on which the Concessionaire expects the Project to be completed.
 - Monthly Weather Report to include daily max./min. temperature, Rainfall and other significant events
2. Video Recording as per Clause 44.1 of the Concession Agreement.
3. Monthly Escrow Account Report within 7 Days of end of each month which falls within the Operations Period, the Concessionaire shall provide to the NHAI and the Independent Consultants a copy of the report containing the summary of the receipts in and payments from the Escrow Account for the month ended.
4. The Concessionaire shall supply to NHAI free of charge the following prior to requesting the issue of the Completion Certificate.
- Detailed, scaled and sequentially numbered plans of the Project as built covering all relevant engineering features, which in relation to structures shall also include cross sections in each plane; and
 - Copies of all geo-technical and borehole reports obtained by the Concessionaire in preparation for and during the construction of the Project.
5. All other reports in accordance with the provisions of the Concession Agreement.
6. Such other reports as may be reasonably required by NHAI/Independent Consultants.
7. Additional Reports: The Concessionaire shall supply to the NHAI free of charge copies of all information, records and test results (including any interpretation of such test results) resulting from any ground, physical or

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REPORTING AND RECORD REQUIREMENTS

geophysical investigation or archaeological or ecological survey of the Site or Adjacent Areas.

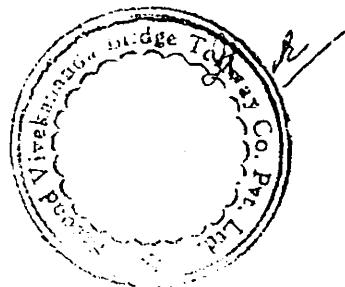
Operation Phase

1. Monthly Traffic Report: Within 7 Days of end of each month which falls within the Operations Period the Concessionaire shall provide to the NHAI and the Independent Consultants a copy of the report containing the following information:
 - Total Traffic count by mode for each day of the month; and
 - Tollable traffic count by mode for each day of the month
2. Monthly Escrow Account Report Within 7 Days of end of each month which falls within the Operation Period, the Concessionaire shall provide to the NHAI and the Independent Consultants a copy of the report containing the summary of the receipts in and payments from the Escrow Account for the month ended.
3. Monthly Operations Report: Within 7 Days of end of each month which falls within the Operations Period, the Concessionaire shall provide to the NHAI and the Independent Consultants a copy of the report, which shall identify the following, at the minimum:
 - Inspections undertaken by the Concessionaire during the month ended, if any.
 - Maintenance Reports submitted to the Independent Consultants during the month ended, if any.
 - O&M Inspection Compliance Report submitted to NHAI/Independent Consultants during the month ended, if any.
 - Preventive/Periodic maintenance undertaken during the month ended, if any.
 - Any material modifications made to the Project during the month ended, if any.
 - All the accidents or incidents on the Project during such month (including all accidents on which a report has previously been made pursuant to this schedule)

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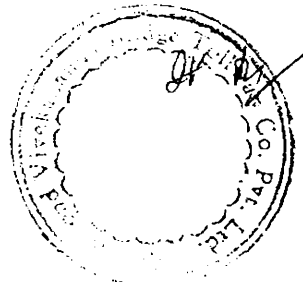
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REPORTING AND RECORD REQUIREMENTS

- Tests performed during operation and maintenance stage along with the defects identified on the Project, if any
 - Number and type of the complaints received from Users and others in respect of the Project and the conduct of Operations.
 - Incidents of emergency de-commissioning of the Project during the month ended, if any.
 - Incidents of lane-closure on the Project during the month ended, if any. The Concessionaire shall provide information on reason, period of such lane-closure.
 - All actual or potential departures from the O&M Requirements as specified in 'Schedule L'.
 - All grounds for substantial Dispute which have occurred or may reasonably be foreseen as likely to occur.
 - The proposed measures to be taken by the Concessionaire to overcome such departures or to resolve such grounds for a Dispute
4. An annual report on the working of the toll collection system. This report will provide information on method of toll collection (manual, semi-automatic, automatic, etc.), usage of pass system (manual, electronic, etc.), average time taken in toll-collection, concessionaires suggestions on improvements in the toll-collection system, which would be considered by NHAH appropriately.
5. Accident Reports: As soon as practicable and in any event no later than 7 days following the occurrence of any accident on the Project involving a fatality or serious personal injury or substantial property damage, the Concessionaire shall investigate the circumstances of such accident and submit to the NHAH and Independent Consultants a report setting out details of such accident and, to the extent they are known, the causes of such accident, and the Concessionaire shall thereafter promptly report to the NHAH and/or Independent Consultants any additional details of such accident or its causes which become known to it.
6. Concessionaire shall submit a copy of the audited accounts within 120 days of the close of each Accounting Year after the Appointed Date.
7. All other reports in accordance with the provisions of the Concession Agreement.

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REPORTING AND RECORD REQUIREMENTS

8. Such other reports as may be reasonably required by NHAI/Independent Consultants.
9. Additional Reports: The Concessionaire shall supply to the NHAI free of charge copies of all information, records and test results (including any interpretation of such test results) resulting from any ground, physical or geophysical investigation or archaeological or ecological survey of the site or adjacent areas.

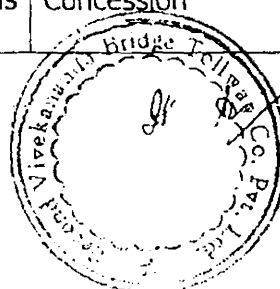
Part II**Record Requirements**

1.	Design	Retention Period of the Concessionaire
1.1	Design standards containing all relevant design assumptions, codes or practice, design loadings, design parameters and product data sheets for all components of Project.	Till handover to NHAI at Termination of the Concession
1.2	Full set of final design calculations for all parts of the Project including details of the influence on design of actual construction methods, and any changes or any remedial works during construction.	Till handover to NHAI at Termination of the Concession
1.3	Full set of working drawings	Till handover to NHAI at Termination of the Concession
1.4	Full specification for construction and revisions made thereto	Till handover to NHAI at Termination of the Concession
1.5	Change of Scope Order(s)	Till handover to NHAI at Termination of the Concession
2.	Construction	
2.1	Video recording submitted to NHAI	Until 2 years after the issue of Completion Certificate
2.2	Full set of construction site records relating to progress, testing of materials, monitoring of standards of workmanship, instructions issued and other site correspondence.	Till handover to NHAI at Termination of the Concession

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REPORTING AND RECORD REQUIREMENTS

2.3	Full set of in-built drawings and schedules incorporating all changes to the design and all remedial measures taken in the project during construction, and all final as-built details and dimensions of the Project. These drawings shall include permanent modifications made to suit the construction method.	Till handover to NHAI at Termination of the Concession
2.4	Full set of Tests results	Till handover to NHAI at Termination of the Concession
2.5	The appropriate proprietary rights, licenses, agreements and permissions for materials, methods, processes and systems used or incorporated into the Project.	Till handover to NHAI at Termination of the Concession.
3.	Operation and Maintenance	
3.1	Full records of all incidents which affect the operation and/or maintenance of the Project including traffic accidents	Till handover to NHAI at Termination of the Concession
3.2	Full records of inspections and surveys and results of such inspections and surveys (including photographs where applicable)	Till handover to NHAI at Termination of the Concession
3.3	Details of all Project of repair and/or replacement, including photographs, in-built drawings and other documentary records.	Till handover to NHAI at Termination of the Concession
3.4	Full sets of all Monthly Reports	Till handover to NHAI at Termination of the Concession
3.5	Record of all permanent traffic signs on the Project .	Till handover to NHAI at Termination of the Concession
3.6	All traffic both total and tollable count for each day of the Operations Period	Till handover to NHAI at Termination of the Concession
3.7	Record of daily toll collection at each toll plaza	Till handover to NHAI at Termination of the Concession
3.8	All financial and accounting records to be maintained as per Applicable Laws	Till handover to NHAI at Termination of the Concession

4. All other records in accordance with the provisions of the Concession Agreement.

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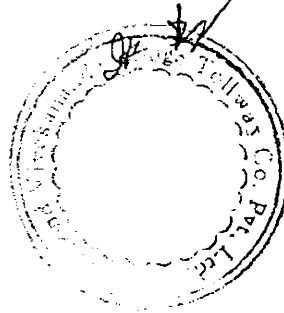


REPORTING AND RECORD REQUIREMENTS

5. Additional Requirements

- 5.1 When there is a conflict between Records Requirement of Schedule 'X' and a requirement stated elsewhere in this Agreement, the latter shall take precedence.
- 5.2 The requirements set out in Schedule 'X' indicate the minimum requirements to be complied with.
- 5.3 Records shall be retained as follows:
 - 5.3.1 All records of operational aspects of the record keeping system shall be retained. They shall be systematically and periodically up-dated and filed so as to be readily retrievable.
 - 5.3.2 All records which have been superseded but are still of historical, contractual or legal importance shall be retained and filed systematically.

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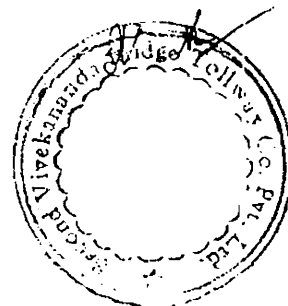
Schedule Y Revenue Projections

This Schedule Y includes information from financial projections submitted by the Consortium and agreed to by NHAI for use for specific purposes detailed in the Concession Agreement. It is agreed that nothing in this schedule implies any guarantee or warranty on the part of NHAI to compensate the Concessionaire if the projections in this schedule are not achieved for any reason whatsoever. In particular, no guaranteed returns to shareholders is offered or implied

Financial Year ending Mar 31	Year of Revenue Operation	Notes	Revenue Rs. million
2007	1	a	721.82
2008	2		888.11
2009	3		1,010.28
2010	4		1,146.72
2011	5		1,303.41
2012	6		1,477.24
2013	7		1,679.21
2014	8		1,903.29
2015	9		2,166.05
2016	10		2,455.05
2017	11		2,775.12
2018	12		3,133.85
2019	13		3,538.37
2020	14		3,998.63
2021	15		4,505.48
2022	16		5,093.38
2023	17		5,752.08
2024	18		6,498.67
2025	19		7,342.00
2026	20		8,287.51
2027	21		9,186.42
2028	22		9,746.25
2029	23		10,340.04
2030	24		10,973.77
2031	25		11,646.71
2032	26		12,358.22
2033	27		13,103.36
2034	28	b	1,130.61

Notes:

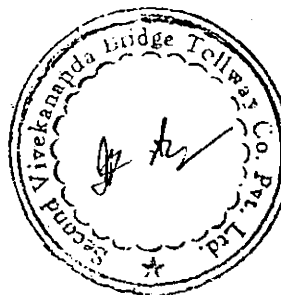
- a -- Partial year; revenue to begin 3 years after appointed date
b -- Partial year; to end 30 years after appointed date



NHAI Letter

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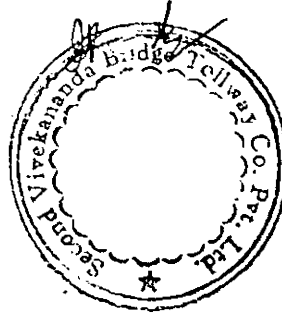
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Schedule ZB

Cash flows

This Schedule ZB includes information from financial projections submitted by the Consortium and agreed to by NHAI for use for specific purposes detailed in the Concession Agreement. It is agreed that nothing in this schedule implies any guarantee or warrantee on the part of NHAI to compensate the Concessionaire if the projections in this schedule are not achieved for any reason whatsoever. In particular, no guaranteed returns to shareholders is offered or implied

Financial Year ending March 31	2003	2004	2005	2006	2007	2008	2009	2010
O&M EXPENDITURE CEILINGS	0.00	0.00	0.00	0.00	68.06	81.11	89.15	98.00
	2003	2004	2005	2006	2007	2008	2009	2010
PROJECTED CASH BALANCES	0.00	0.00	0.00	0.00	215.28	429.94	532.27	434.86
PROJECTED EQUITY CASH FLOWS	2003	2004	2005	2006	2007	2008	2009	2010
Projected Equity Contribution	0.00	1007.33	169.20	312.70	115.33	0.00	0.00	0.00
Projected Dividends	0.00	0.00	0.00	0.00	82.08	89.10	187.32	292.11

TPC (Rupee million)	6414.0
Domestic debt (Rs. million)	2330.0
Foreign debt (Rs. million)	1283.7
NHAI Grant (Rs. million)	1200.0
Equity (Rupee million)	1600.3

Note

1. TPC mentioned above is as per the project cost agreed prior to Concession Signing. The final TPC, Equity and Debt will be determined as per the Concession Agreement.

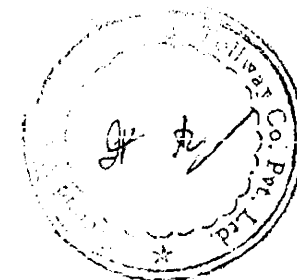


Schedule ZB Cash flows

This Schedule ZB includes information from financial projections submitted by the Consortium and agreed to by NHA for use for specific purposes detailed in the Concession Agreement. It is agreed that nothing in this schedule implies any guarantee or warranty on the part of NHA to compensate the Concessionaire if the projections in this schedule are not achieved for any reason whatsoever. In particular, no guaranteed returns to shareholders is offered or implied.

Financial Year ending March 31	2011	2012	2013	2014	2015	2016	2017	2018	2019
O&M EXPENDITURE CEILINGS	247.47	118.90	131.37	145.08	160.62	349.21	196.93	217.92	241.36
PROJECTED CASH BALANCES	2011	2012	2013	2014	2015	2016	2017	2018	2019
	180.06	0.00	0.00	0.00	0.00	0.00	338.66	988.63	1518.17
PROJECTED EQUITY CASH FLOWS	2011	2012	2013	2014	2015	2016	2017	2018	2019
Projected Equity Contribution	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Projected Dividends	331.75	559.93	648.82	896.81	1179.89	1329.48	1923.64	2211.44	2527.41

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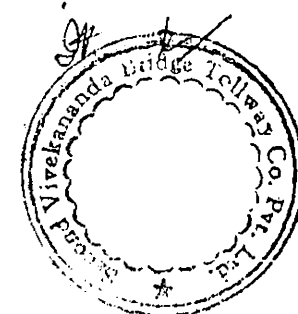
Schedule ZB

Cash flows

This Schedule ZB includes information from financial projections submitted by the Consortium and agreed to by NHA for use for specific purposes detailed in the Concession Agreement. It is agreed that nothing in this schedule implies any guarantee or warrantee on the part of NHA to compensate the Concessionaire if the projections in this schedule are not achieved for any reason whatsoever. In particular, no guaranteed returns to shareholders is offered or implied

Financial Year ending March 31	2020	2021	2022	2023	2024	2025	2026	2027
O&M EXPENDITURE CEILINGS	267.76	517.75	329.80	366.66	408.17	454.70	792.13	556.36
	2020	2021	2022	2023	2024	2025	2026	2027
PROJECTED CASH BALANCES	2087.69	2680.86	3211.18	3780.32	4393.58	5056.83	5758.15	6530.91
PROJECTED EQUITY CASH FLOWS	2020	2021	2022	2023	2024	2025	2026	2027
Projected Equity Contribution	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Projected Dividends	2887.14	3100.11	2534.39	2883.71	3280.90	3730.70	4073.46	4716.31

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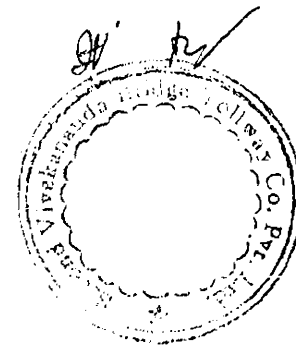
Schedule ZB

Cash flows

This Schedule ZB includes information from financial projections submitted by the Consortium and agreed to by NHA1 for use for specific purposes detailed in the Concession Agreement. It is agreed that nothing in this schedule implies any guarantee or warrantee on the part of NHA1 to compensate the Concessionaire if the projections in this schedule are not achieved for any reason whatsoever. In particular, no guaranteed return to shareholders is offered or implied.

Financial Year ending March 31	2028	2029	2030	2031	2032	2033	2034
O&M EXPENDITURE CEILINGS	599.45	624.50	661.83	1070.22	743.24	787.08	68.10
PROJECTED CASH BALANCES	7336.68	8177.51	9055.82	9950.63	10910.94	11915.41	11998.09
PROJECTED EQUITY CASH FLOWS	2028	2029	2030	2031	2032	2033	2034
Projected Equity Contribution	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Projected Dividends	5013.41	5329.00	5666.27	5814.86	6404.22	6801.81	12139.75

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TERMINATION PAYMENT CEILINGS

1. The Termination Payment payable by NHAI would be determined following the provisions of the Concession Agreement. Notwithstanding anything to the contrary contained in the Concession Agreement, the total Termination Payments payable by NHAI under the Concession Agreement shall never exceed the ceilings on Termination Payments as per this Schedule ZC.
2. The ceilings specified in this Schedule are for Termination Payments relating to Debt Due and Equity and do not include adjustments on account of Insurance claims and receipts, in accordance with the Concession Agreement.
3. Termination Payment ceiling during Construction Period shall be computed prior to making Termination Payments by NHAI with reference to the Financing Documents and Total Project Cost.
4. Termination Payment ceilings during Operations Period under Concessionaire Event of Default and Non Political Force Majeure Events would be computed using maximum Debt Due as per the Financing Documents.
5. Absolute Termination Payment ceilings (in Rs. Millions) during Operations Period under events of NHAI Event of Default, Political Force Majeure and Indirect Political Force Majeure shall be determined as follows :
 - 5.1 Termination Payment ceiling under Events of NHAI Event of Default/ Political Force Majeure: 1.5 times (Total Project Cost – Grant ie Rs1200million)
 - 5.2 Termination Payment ceiling under Indirect Political Event of Default: 1.125 times (Total Project Cost – Rs1200million)
 - 5.3 Termination Payment ceilings in each Operations year in the events covered by Clause 5 of this Schedule will be determined with reference to Total Project Cost, Debt Due and Equity as per the Concession Agreement. Termination payment ceiling in the event TPC is Rs 6414 million are provided below:

Financial Year Ending March 31	2007	2008	2009	2010 onwards
Termination Event				
Termination Payment ceiling under events of NHAI Event of Default / Direct political Force Majeure (Rs in Million)	6381.7	6829.08	7338.42	7821.00

Financial Year Ending March 31	2007	2008 onwards
Termination Event		
Termination Payment ceiling under events of Indirect Political Force Majeure(Rs in Million)	5707.62	5865.75

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