

Section 7 - Terms of Reference

GOVERNMENT OF GUJARAT ROADS & BUILDINGS DEPARTMENT [R&BD]

CONSULTANCY SERVICES REQUIREMENT

“Consultancy Services for Independent Consultant for Mehsana-Himatnagar four laning on DBFOMT Annuity Contract under GSHP-II

SECOND GUJARAT STATE HIGHWAY PROJECT (GSHP-II)

TERMS OF REFERENCE

1. Scope and standards of performance

- 1.1. These Terms of Reference for the Independent Consultant (“IC”) relate to the Concession Agreement (“CA”) of the Design, Engineering, Construction, Finance, Operation and Maintenance of Existing State Highway 55 from Mehasana to Himatnagar on DBFOMT (Annuity) Basis. The Concession will be awarded competitively by the Government of Gujarat, Roads and Buildings Department (“Authority”) to the lowest evaluated bidder (subsequently referred to as “Concessionaire”), in accordance with the “World Bank Procurement Guidelines, Selection and Employment of Consultants-January 2011”. The term “Concessionaire” refers collectively to the design, construction and Operations and Maintenance contractors, subcontractors, suppliers, designers, consultants, etc. employed by the Concessionaire in fulfillment of its obligations provided under the CA. The IC will be selected competitively in accordance with the “World Bank Procurement Guidelines, Selection and Employment of Consultants-January 2011”.
- 1.2. In taking actions and making decisions, the IC shall be guided by professional values of project management, encompassing responsibility, respect, fairness and honesty. The IC shall exercise its responsibility by taking ownership for decisions made, actions taken and the consequences that may result. The IC’s decisions and actions shall be based on the best interests of the parties to the CA, as well as public safety and the environment. If necessary, the IC shall be ready to take ownership for errors and omissions, promptly communicate them to the affected parties and make corrections. The IC shall be fully familiar with and uphold the agreed policies, rules and the respective rights and obligations of the Authority and the Concessionaire under the CA. The IC shall demonstrate respect by listening to and understanding the

views of others, negotiating in good faith and not acting in an abusive and arbitral manner. It shall always remain the duty of the IC to apply fairness through conduct which is conducive to consistent impartiality and objectivity. Transparency, truthfulness and avoidance and/ or disclosure of real or potential conflicts of interest shall complement the IC's reputation for honesty.

2. The key objectives of the IC are as follows:

- 2.1. to ensure high quality construction and maintenance of all works; this is achieved by compliance with the CA, and developing and implementing an engineering plans and design, which conforms with applicable standards and technical specifications;
- 2.2. to promote technology transfer either through joint ventures between expatriate and local firms or by employment of local staff;

3. General duties and functions

- 3.1. The IC shall be responsible for the review of designs prepared by the Concessionaire, including drawings and specifications, superintendence of the Concessionaire's performance under the CA, progress monitoring, technical and quality control, evaluations of construction, certification and completion of the works by the Concessionaire , and duties related to taking over and the defects liability period. The IC shall be present at all times during the day-to-day implementation of the Design and Construction Periods and as required for the fulfilment of its assignment during the Operation and Maintenance Period. Having been appointed by the Authority, in consultation with the Concessionaire, and delegated specific authorities in the CA, the IC shall be fully responsible for superintendence of the Concessionaire's performance in all phases of the CA. The IC shall at all times, be adequately staffed, in terms of numbers and professional skills, to carry out its responsibilities with the competence and diligence required for this assignment.
- 3.2. The Independent Consultant may organize his staff and activities as he wants, provided that he satisfies the requirements of these TOR and the contract between the Authority and the Concessionaire.
- 3.3. The IC shall exercise the authority delegated to it by the Authority, within the parameters established in the CA. The following is a summary of the delegated authorities, roles and functions of the IC:
 - (i) Review of the Drawings (working and as-built), Specifications and related Documents including detailed engineering and design documents, design and construction progress reports prepared by the Concessionaire;
 - (ii) Review, inspection, and superintendence of the Construction Works including environmental management plan, resettlement action and Social safeguard plan, traffic management program, work zone safety plan and other special

- management programs as set forth in the CA; work with the Concessionaire to ensure timely and on budget execution of the road works;
- (iii) Ensure the Concessionaire's fulfilment of his quality assurance plan by visual observation, random measurements and laboratory tests. Conducting tests and inspections on completion of construction and issuing Completion/ Provisional Completion Certificate as set forth in the CA;
 - (iv) Co-ordination with stake holders including, performing related duties and functions, as necessary for the Concessionaire's successful and timely completion of the Highway Project under the CA;
 - (v) Certification of payments;
 - (vi) Review, inspection and superintendence of O&M as set forth in the CA;
 - (vii) Contract administration;
 - (viii) Review, inspection and monitoring of divestment requirements as set forth in the CA;
 - (ix) Assisting the Parties to the CA in resolving disputes, differences or controversies in accordance with the applicable provisions of the CA and Dispute Resolution Clause of the CA;
 - (x) Determining the costs of any works or services and/or their reasonableness, as required under the CA;
 - (xi) Determining the period or any extension thereof, for performing any duty or obligation as required under the CA;
 - (xii) Reporting progress of the works on a monthly basis;
 - (xiii) Cooperating with the Third Party Quality Monitoring Team appointed by the Authority to carry out its tasks;
 - (xiv) Undertaking all other duties and functions in accordance with the CA
- 3.4. DELEGATION OF IC DUTIES: The IC may from time to time, assign duties and further delegate authority to Key Personnel consisting of Senior Highway Engineer, Senior Bridge Design Engineer, etc., and may also revoke such assignments and delegations. These assignments, delegations and revocations shall not take effect until they have been duly notified to the Authority and the Concessionaire. Each Key expert shall only be authorized to issue instructions to the Concessionaire to the extent defined in the notice of delegation. Any approval, instruction, notice, request or similar act by key expert, in accordance with this delegation, shall have the same effect as though the act had been an act of the IC. The IC will appoint the "Senior Highway Engineer", to act as Team Leader (TL) as mentioned in the contract documents, and who will reside full-time at the project site. TL will interact with the designated Authority's representative at the Project Implementation Unit (PIU). The Team leader shall delegate some of his authority to other key experts, who will act as "the IC's Representative" in the construction site supervision teams. Each supervision team will be composed of several professionals. The IC shall define in its technical proposal the number of supervision teams and the overall supervision approach for the

- project. The proposals shall describe how the IC will establish a mechanism, which will ensure coordination of the supervision teams, so that each team is all times fully aware of the remedies to problems used by the other teams. This will ensure that the full experience of the IC can be applied in all works.
- 3.5. The IC shall arrange training for the Authority's staff to improve their ability to supervise and manage the road and bridge works and the environmental impacts of construction.
- 3.6. **AUTHORITY TO AMEND THE CA:** The IC shall have no authority to amend, suspend or terminate the CA with regard to the Concessionaire's rights and obligations, without written instructions from the Authority.
- 3.7. **MEETINGS WITH AUTHORITY:** The IC shall interact with the Authority's designated officers and staff on a regular basis and attend the Authority's monthly meeting to review the Concessionaire's progress during the preceding month. The IC shall make available its assistants and other key staff, as required for these monthly meetings. The issues discussed between the IC and the Authority shall be recorded in the minutes of the meeting and remain on the agenda of subsequent meetings, until they are fully resolved.
- 3.8. The IC shall chair monthly meetings with the Concessionaire. During these meetings, formal minutes will be taken by the IC and distributed to the Concessionaire and Authority.
- 3.9. **MEETINGS WITH WORLD BANK:** The IC shall be available to attend meetings with World Bank missions during their visits to the Authority and on field trips.
- 3.10. **MANAGEMENT INFORMATION SYSTEMS:** The IC shall make use of Management Information Systems (MIS) in carrying out its assignment and provide read-only remote access to its MIS records and reports to the Authority and the Concessionaire. Confidential records and reports shall be exempted from this requirement for remote access to the IC's MIS.
- 3.11. **RECORD OF DIGITISED INVENTORY, DRAWINGS AND SPECIFICATIONS AND OTHER DOCUMENTS:** Upon completion of its assignment, the IC shall obtain, sort and prepare a digitized inventory of all Drawings, Specifications, other Documents, test reports, certificates and similar records related the pursuit of the CA. The IC's digitized inventory shall be turned over to the Authority for safekeeping.
- 3.12. Maintain the Deviation Report and send it monthly to the Authority and the Concessionaire in a format attached – Annexure – I.
- 3.13. Maintain digital color photographs throughout the duration of the Contract for photographic record (available for inspection) of monthly progress at set locations, especially of any construction of technical or contractual interest. Each photograph should be captioned with: reference number, time, date, precise location, subject, and

points of particular note. All digital data with captions should be stored on diskette in a record system;

3.14. The IC shall keep a daily log of the progress and issues on the construction sites.

4. Duties and functions during the Development Period:

4.1 REVIEW OF DESIGNS, DRAWINGS, SPECIFICATIONS AND CONSTRUCTION METHODOLOGY : During the Development Period, the IC shall undertake a detailed review of the construction methodology together with Drawings, quality assurance procedures, the procurement, engineering construction time schedule and deviation in designs drawings and specification, if any, to be furnished by the Concessionaire along with supporting data, including the geo-technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites, mix designs, traffic operations and safety arrangements, traffic surveys, topographical/subsurface surveys and review of supplemental EIA/EMP for possible impact owing to design changes. This review shall verify that the safety measures specified in the CA are included in the detailed designs. The IC shall complete such review and send its comments/observations with particular reference to their conformity or otherwise with the Scope of the Project and the Specifications and Standards defined in CA, to the Authority and the Concessionaire within 15 (fifteen) days of receipt of such Drawings and Specifications. In particular, such comments/observations shall specify the conformity or otherwise of such Drawings and Specifications with the CA.

4.2 After reconciling further comments received from the Authority and the Concessionaire with its own, the IC shall make a final determination of its findings and advise the Concessionaire accordingly. Subsequently, the IC shall review any modified Drawings, Specifications or supporting Documents sent to it by the Concessionaire and shall give its clearance or observations if any within 7 (seven) days of receiving such modified Drawings, Specifications or Documents.

4.3 CONSTRUCTION SAFETY and Environmental Management: The IC shall review the Concessionaire's Construction Zone Safety Checklist and Environment Management Plan (EMP) in accordance with the relevant requirements of the CA and furnish its comments thereon to the Authority and the Concessionaire within 7 (seven) days of receiving such Checklist. The IC shall subsequently monitor the Concessionaire's compliance with the Traffic Management Plan, Construction Zone Safety Checklist, Environmental Management Plan, Social Safeguard Plan and if necessary, enforce the relevant provisions of the CA in this regard. In particular, the IC will confirm that the Concessionaire's management plan complies with the conditions of the EIA Clearance granted by the SEIAA or the NEIAA, as the case may be. In case of divergence of the plan from the conditions of the said Clearance,

the IC shall bring the same to the attention of the Authority and the Concessionaire.

4.4 REVIEW OF THE CONCESSIONAIRE'S QUALITY ASSURANCE PROCEDURES: The IC shall periodically review the Concessionaire's quality assurance procedures and furnish its comments to the Authority and the Concessionaire within 15 (fifteen) days of receipt thereof. The IC shall subsequently monitor the Concessionaire's compliance with the quality assurance procedures.

4.5 REVIEW OF PROJECT AGREEMENTS: Upon reference by the Authority, the Independent Consultant shall review and comment on the EPC Contract or any other contract for construction, operation and maintenance of the Project Highway, proposals from the concessionaire or agreements entered by the concessionaire with any contractors on such works and furnish its comments within 7 (seven) days from receipt of such reference from the Authority.

5 Duties and functions during the Construction Period:

5.1 REVIEW OF DRAWINGS AND SPECIFICATIONS: In respect of the Drawings, documents and report on compliance with Safety Requirements received by the Independent Consultant for its review and comments during the Construction Period, the provisions of Paragraph 4.1 shall apply, mutatis mutandis.

5.2 QUALITY AND SAFETY ASSURANCE: The duties and functions of the IC during the Construction Period shall be all-encompassing, including superintendence of the Concessionaire's performance of the Works on a day-to-day basis, particularly with regard to the deployment of labor, materials, equipment & standards of materials & workmanship and safety arrangements and environmental management in accordance with the EMP at the site. The IC shall have no authority to relieve the concessionaire of any of their duties under the CA or to impose additional obligations. The IC shall ensure the Resettlement Action and Social Safeguard Plan is implemented as designed and update the mitigation measures if required.

5.3 QUALITY TESTING: The IC shall provide sufficient staff to carry out inspections and tests in the field to the extent of a minimum of 25% of the 100 % Concessionaire's Requests for Inspection (RFI) pertaining to various items of works. The 25 % of representative RFIs have to be selected in such a way by the IC that, those RFIs will fairly represent the quality and quantity of work being carried out. The IC shall either issue written clearances or require the Concessionaire, within 7 (seven) days of such inspections, to rectify and remedy identified defects or deficiencies. Furthermore, with regard to pavement sub-base and bituminous courses, the IC shall field-check 100% of RFIs. The inspection procedures to be observed by

the IC, the Concessionaire, and the Authority shall be governed by the corresponding CA requirements. The inspections, submission of such inspection reports and clearance of RFI by the IC shall not relieve or absolve the concessionaire of its obligations and liability. Consultant shall also have access to the concessionaire's laboratory facilities for independent testing of materials.

- 5.4 INSPECTION REPORT: At least, once a month, the IC shall summarize such inspections in its Inspection Report and submit to the Authority and the Concessionaire setting forth an overview of the status, progress, quality and safety of construction including the work methodology adopted, the materials used and their sources, including development and rehabilitation and conformity of construction works with the scope of project and specification standards.
- 5.5 RECTIFICATION OF DEFECTS & DEFICIENCY: In the event that the Concessionaire is required to carry out any remedial works for removal or rectification of any defects or deficiencies, the IC shall require the Concessionaire to prove through appropriate tests that such remedial works have brought the Works into conformity with the CA. The IC shall take all necessary measures to achieve closure of non-conformances through the Concessionaire's actions in the shortest possible time, but in no case later than Provisional Completion. The IC shall maintain complete records of all remedial works from their identification to rectification.
- 5.6 REVIEW OF ACHIVEMENT OF MILESTONES PRESCRIBED: In the event that the Concessionaire fails to achieve any of the CA Milestones, the IC shall undertake a review of the progress of construction and identify the causes of delays, if any. If the IC determines that the rate of progress of the Works is not likely to achieve the CA Milestones, including the Construction Completion Date, it shall notify and require the Concessionaire to indicate within 15 (fifteen) days of its notice to the Concessionaire, the steps proposed to be taken to expedite progress, and the period within which the CA Milestones, including the Construction Completion Date shall be achieved. This notice to the Concessionaire shall be copied to the Authority. Upon receipt of the Concessionaire's response, the IC shall review the steps proposed by the Concessionaire and send its final determination concerning the likely achievement of the CA Milestones to the Concessionaire and the Authority.
- 5.7 REVIEW AND MONITORING OF SAFETY ARRANGMENT AND SUSPENSION OF WORKS ON SAFETY REASONS: If at any time during the Construction Period, the IC determines that the Concessionaire has not made adequate arrangements for the safety of workers and users in the zone of construction or that any work is being carried out in a manner that threatens the safety of the workers and the users, it shall notify the Concessionaire forthwith and may further recommend to the Authority that the whole or part of the Works be suspended for ensuring safety thereof. The

Authority's notice of suspension for reasons of safety shall be promptly communicated to the Concessionaire and the IC. The suspension may be lifted by Authority only upon the IC's determination and follow-up inspection that the conditions which caused the suspension have been removed or remedied sufficiently. In emergency cases the IC will take such actions and steps to ensure the safety pending clearance from the authority.

- 5.8 REVIEW AND MONITORING OF ENVIRONMENTAL ARRANGMENT AND SUSPENSION OF WORKS ON ENVIRONMENTAL REASONS: If at any time during the construction period, the IC determines that the environmental management measures are inadequate and can cause harm to the environment beyond permissible limits laid down in the EMP or the Clearance issued for the project, it shall notify the Concessionaire forthwith and may recommend to the Authority that whole or part of the Work be suspended. The Authority's notice of suspension for reasons of higher than allowable risk to the environment shall be promptly communicated to the Concessionaire and the IC. The suspension may be lifted by Authority only upon the IC's determination and follow-up inspection that the conditions which caused the suspension have been removed or remedied sufficiently. In emergency cases the IC will take such actions and steps to ensure avoidance or at least minimization of damage to the environment, pending clearance from the Authority.
- 5.9 EXTENSION OF TIME DETERMINATION: If the Works are suspended by the Authority for reasons not attributable to the Concessionaire, the IC shall determine any extension of dates set forth in the Construction Completion Schedule and compensation, if any, to which the Concessionaire may be reasonably entitled. The IC shall notify Authority of its determination and the Authority shall extend the Construction Completion Schedule accordingly through notice to the Concessionaire. When the reasons for the suspension have subsided and the Works can be resumed, the Authority shall lift the extension through follow-up notice to the Concessionaire, in coordination with the IC.
- 5.10 TESTS TO BE CARRIED OUT: The IC shall require the Concessionaire to carry out, or cause to be carried out, all Tests specified in the related schedules of the CA, from time to time and in accordance with Good Industry Practice for quality assurance. The Concessionaire shall carry out these tests in accordance with the instructions of the IC and furnish the test results to the IC. In the event that the results of any tests establish any defects or deficiencies in the Works, the IC shall require the Concessionaire to carry out remedial measures and furnish a report to the IC in this regard. These IC's functions related to tests shall be carried out and communicated to the Authority and the Concessionaire in conformance with the related provisions of the CA.
- 5.11 CERTIFICATION OF LUMP SUM PAYMENTS: The Concessionaire shall submit

requests for Lump Sum Payments to the IC, in accordance with the applicable requirements of the CA and the IC shall make fair and reasonable assessments of such payment requests and the associated documentation submitted by the Concessionaire. The IC shall verify and certify the amount claimed in the Concessionaire's invoice, along with the necessary adjustments and recommend to the Authority for payment as provided in CA. The IC's recommendations with regard to the Concessionaire's payment requests shall reach the Authority within 14 days from the date of such claim by the Concessionaire after satisfactory fulfillment of conditions prescribed in the CA

- 5.12 **REVIEW OF PROGRESS REPORTS:** The IC shall review the monthly progress report furnished by the Concessionaire and provide its comments to the Authority and the Concessionaire within 7 (seven) days of receipt of such report. The IC shall provide its concurrence in the Concessionaire's monthly progress report or its reservations, as the case may be, to the Concessionaire and copy this communication to the Authority. If necessary, the IC shall require the Concessionaire to submit additional information related to the monthly progress report.
- 5.13 **ISSUE OF COMPLETION AND PROVISIONAL COMPLETION CERTIFICATE:** Upon completion of the Works, as notified by the Concessionaire and the successful completion all inspections and tests required by the CA, the IC shall issue to the Concessionaire and the Authority the Completion Certificate set forth in the CA. At the Request of the Concessionaire and with the concurrence of the Authority, the IC may issue instead, the Provisional Certificate, also set forth in the CA. The Provisional Certificate may be used, when the Project Highway can be safely and reliably placed in operation, even though certain parts of the Works are not yet fully completed. In such event, the IC shall append to its Provisional Certificate, a list of outstanding items and their agreed completion dates. This list, which is referred to in the CA as Punch List, shall be signed jointly by the Concessionaire and the IC. In cases where certain parts of the Works are not yet completed due to delays in completion attributable to the Authority, the IC shall not withhold the Provisional Certificate.
- 5.14 **REVIEW OF AS BUILT DRAWINGS:** Within 90 (ninety) days of the Project Completion Date, the IC shall require the Concessionaire to furnish the as-Built drawings in a manner acceptable to the Authority. The IC shall review the 'As Built' drawings for each component of the works prepared by the Concessionaire and determine their acceptability under the terms of the CA. The IC shall communicate its determination to the Authority and the Concessionaire.
- 5.15 **PERIODIC REPORTING REQUIREMENTS OF IC:**

A. Inception Reports

The Inception Report shall outline how the IC will implement the project. It shall illustrate the planning that the IC has done for the assignment, staffing and comments as deemed appropriate. The Authority will comment on the Report.

The Inception Report must be submitted within three (3) weeks after mobilization and should also describe the final format the IC propose to use for the Monthly Technical Reports:

B. Monthly Technical Reports

C. The IC shall no later than the 7th of each month, deliver a brief progress report summarizing the work accomplished by each of the supervision teams for the preceding month. The Monthly Technical Report shall report on the health and safety, physical progress, status of payment of the contractor's monthly payment certificates, all claims for cost or time extensions, and actions required by the Authority to permit unconstrained works implementation. It shall include problems encountered and recommended solutions and a summary of the log from the meetings with the Concessionaire. The draft outline for the monthly report is below.

- a) Health and safety in the work sites (the Concessionaire must keep a log of accidents by category)
- b) Physical progress vis-à-vis the planned progress, including time and costs; Also, weekly progress log and issues on the construction sites;
- c) Explanations for variances to the above;
- d) Expenditures vis-à-vis the cash flow forecast and budget; Further IC shall prepare a detailed report on draw down of equity and debt from the Escrow Account.
- e) Explanations for variances to the above;
- f) Status of Concessionaire claims and disputes, including Concessionaire claims for time extension and compensation, Variation order (Change of Scope) proposed and approved.
- g) Human resources, mechanical equipment and materials;
- h) Testing and quality control and inspections carried;
- i) Stakeholder issues;
- j) Environmental management plan;
- k) Summary of problems encountered (administrative, technical, financial, etc) and actions already taken or expected to be taken by the IC, or requested from the Concessionaire to overcome these problems;
- l) Other relevant material and discussions, and
- m) Annexes: The Deviation Report, and other supporting information as necessary
- n) Summary of existing encumbrances like trees, electrical poles, water lines, underground utilities, public buildings etc. The time programme commensurate with Concessionaire work programme to relocate these encumbrances.

- o) Status of land acquisition.

D. Quarterly Reports

The IC will prepare a report summarizing all supervision activities at the end of each quarter no later than the 15th of each quarter month. It should have roughly the same format as the monthly report, supplemented by the Third Party Quality Monitoring team's key findings and the IC's responses to them.

The IC's quarterly report needs to contain quarterly cash flow projections in a format acceptable to the Authority (PIU). It should also identify updated budget estimates for all outstanding work.

The Quarterly Report shall also include the matrix of the Concessionaire's deviation report and results on the quality assurance program, showing both the recent performance and overall trends. The IC shall submit a draft format for this report in the inception report.

The IC shall prepare a separate bi-annual Environmental Social Safeguard Monitoring and Supervision Report, which includes changes in the environmental parameters supported by laboratory tests result as set out in the Environmental Management Plan (EMP). The report shall also quantify and assess the efficacy of the environmental impact mitigation measures and recommendation of the best practices.

E. Additional Technical Reports

The IC shall prepare design reviews and other technical reports during the project from time to time. In particular technical reports are necessary for each major design change from the (preliminary engineering design. Approvals prior to the issuance of substantial changes need to be included.

F. Draft Completion Report

The IC will prepare the Draft Completion Report within 3 weeks of the completion of the construction works and issue of completion certificate in terms of provisions of CA clause 14.2. The Draft Completion Report will provide an overview of the project and whether the project has been successful. The Report will include, but not limited to:

- (a) Overall review of the project, including safety and health data during project execution;
- (b) Project time line for completion; physical progress vs. the original program;
- (c) Project costs vs. the original budget;
- (d) Key issues in the design and explanations for variances to the preliminary design;
- (e) Description of additional work, and claims and their disposition;
- (f) The final Quality Deviation Matrix;
- (g) Other information that is requested by the Authority during project implementation;

- (h) The Third party Quality Monitoring team's Final Report as an Annex
- 5.16 MAINTENANCE MANUAL: Not later than 180 (one hundred and eighty) days prior to the completion of works, the IC shall require the Concessionaire to submit a repair and maintenance manual (the "Maintenance Manual") for the regular and preventive maintenance of the Project Highway in conformity with the Maintenance Requirements, Safety Requirements and Good Industry Practice. The Independent Consultant shall aid and advise the Concessionaire in preparing the Maintenance Manual.
- 5.17 DETERMINATION OF COSTS: Upon reference from the Authority, the Independent Consultant shall make a fair and reasonable assessment of the costs of providing information, works and services as set forth in Article 16 and certify the reasonableness of such costs for payment by the Authority to the Concessionaire.
- 6** Duties and functions during the Operation Period:
- 6.1 REVIEW OF DRAWINGS, DOCUMENTS, REPORTS, ETC.: In respect of drawings, documents and report on compliance with Safety Requirements received by the IC for its review and comments during the operation period, the provisions in Para 4 shall apply mutatis mutandis.
- 6.2 REVIEW OF ANNUAL MAINTAINANCE PROGRAM: The IC shall review the annual Maintenance Programme furnished by the Concessionaire in conformance with the CA and convey its comments to the Concessionaire within 15 (fifteen) days of its receipt with particular reference to its conformity with the Maintenance Requirements, Maintenance Manual and Safety Requirements as well as relevant provisions of the EMP for the Operation Phase, with copies to the Authority. In case of reservations with the initial annual Maintenance Programme, the IC shall subsequently review the Concessionaire's follow-up response and communicate its final determination regarding the conformance of the annual Maintenance Programme with the CA to the Concessionaire, copied to the Authority.
- 6.3 MONTHLY PROGRES REPORT DURING O&M PERIOD: The IC shall review the monthly progress report on Operation and Maintenance furnished by the Concessionaire and provide its comments to the Concessionaire within 7 (seven) days of its receipt, copied to the Authority. In case of reservations with the initial monthly progress report on Operations and Maintenance, the IC shall subsequently review the Concessionaire's follow-up response and communicate its final determination regarding the conformance of the progress on Operations and Maintenance with the

CA and the Maintenance Manual to the Concessionaire, copied to the Authority.

- 6.4 **MONITORING OF MAINTENANCE WORKS:** During the Operation Period, the IC shall inspect the Project Highway once every month, preferably following receipt of the Concessionaire's monthly progress report on Operations and Maintenance. The IC shall provide the Authority and the Concessionaire with its O&M Inspection Report within 7 (seven) days of its monthly inspection. The IC's O&M Inspection Report shall cover an overview of the status, timeliness and quality of the Concessionaire's performance of the Operations and Maintenance requirements in conformance with the CA and the Maintenance Manual. The IC's Inspection Report shall specify the remedial actions that are being taken or have been agreed but not yet taken by the Concessionaire with regard to reported lapses, defects, deficiencies, etc. The IC's Inspection Report may also specify deadlines for remedial actions and additional tests and traffic sampling to be carried out by the Concessionaire for the purpose of assuring that the Project Highway remains in the condition that underlies the Operations and Maintenance obligations of the Concessionaire in the CA. The IC may inspect the project highway more than once in a month, if any lapses, defects or deficiencies require such inspections.
- 6.5 **CLOSURE OF LANES:** The IC shall examine requests submitted by the Concessionaire for closure of lanes of the carriageway for maintenance and repair purposes, as well as related modifications of the Highway. Within 3 (three) days of receiving such requests, the IC shall determine the reasonableness of the Concessionaire's request, including provisions for minimizing traffic disruptions, ascertain the views of the Authority on closures and disruptions and notify the Concessionaire, copied to the Authority. In case of reservations with the Concessionaire's request, the IC shall subsequently review the Concessionaire's revised request and communicate its final determination regarding the reasonableness of the revised request to the Concessionaire, copied to the Authority.
- 6.6 **ANNUITY PAYMENTS:** The Concessionaire shall submit requests for Annuity Payments to the IC, in accordance with the applicable requirements of the CA and the IC shall make fair and reasonable assessments of such payment requests, including any bonus or reduction in Annuity based on the monthly progress report on Operations and Maintenance. The IC shall adjust the Concessionaire's invoice, as necessary and forward it with the associated documentation to the Authority for payment. While forwarding the invoice to the Authority, the IC may recommend payment in full or part thereof. The IC's recommendation shall reach the Authority within 15days prior to the relevant Annuity Payment Date.
- 6.7 **REPAIR/RECTIFICATION:** In respect of any defect or deficiency referred to in Paragraph 3 of Schedule-K, the Independent Consultant shall, in conformity with

- Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Specifications and Standards and shall also specify the time limit for repair or rectification of any deviation or deterioration beyond the permissible limit.
- 6.8 DELAY DAMAGES: The Independent Consultant shall determine if any delay has occurred in completion of repair or remedial works in accordance with the Agreement, and shall also determine the Damages, if any, payable by the Concessionaire to the Authority for such delay.
- 6.9 The Independent Consultant shall monitor and review the curing of defects and deficiencies by the Concessionaire as set forth in Clause 19.4.
- 6.10 The Independent Consultant shall undertake traffic sampling, as and when required by the Authority, under and in accordance with Article 22 and Schedule-O.
- 6.11 The IC shall initiate necessary action to undertake the maintenance obligations of the Concessionaire at risk and cost of the Concessionaire in the event of its failure to carryout O & M, as per the provisions in the CA
- 6.12 The IC shall review the accident record of the highway and suggest remedial measures.
- 6.13 The IC shall submit the monthly progress report on O & M covering the maintenance requirements provided in CA.
7. Duties and Functions related to Divestment Requirements
- 7.1 Not earlier than 90 (ninety) days before Termination of the CA but not later than 15 (fifteen) days before the effective date of such Termination and the initiation of the Concessionaire's Divestment Requirements, the IC shall verify, after giving notice to the Concessionaire of the time, date and venue of such verification, compliance by the Concessionaire with the Maintenance Requirements, and if required, cause appropriate tests to be carried out at the Concessionaire's costs for this purpose. If the IC determines that the status of the Highway requires repairs and other rectifications, in order to meet the Divestment Requirements, the IC shall assess the amount to be set aside for these repairs and rectifications and communicate its determination forthwith to the Authority and the Concessionaire. The source of funds to cover the amount to be set aside and the method of retention shall be agreed between the Authority and the Concessionaire, based on the IC's determination.
- 7.2 The Independent Consultant shall ensure that all materials, tools, plant, equipment, facilities, etc, which have to be handed over to the Authority upon termination of

concession contract. These are properly dismantled, packed, stored and maintained until the official handing over to the Authority as provided in the CA.

- 7.3 The Independent Consultant shall inspect the Project Highway once in every 15 (fifteen) days during a period of 120 (one twenty) days after Termination for determining the liability of the Concessionaire under Article 39, in respect of the defects or deficiencies specified therein. If any such defect or deficiency is found by the Independent Consultant, it shall make a report in reasonable detail and send it forthwith to the Authority and the Concessionaire.

8. Determination of costs and time

- 8.1 The Independent Consultant shall determine the costs, and/or their reasonableness, that are required to be determined by it under the CA.

9 Duties and functions related to dispute resolution

- 9.1 In the event of any disagreement between the Concessionaire and the Authority regarding any provision of the CA or issues of Good Industry Practice, the IC shall determine and communicate to them its independent interpretation of such provisions and issues and the parties shall take the IC's interpretation into account in settling their disagreement.

- 9.2 When called upon by either the Concessionaire or the Authority or both to mediate and assist them in arriving at an amicable settlement of any dispute under the CA, the IC shall make itself available and use its best efforts to accommodate their mediation request and reach an amicable settlement.

- 9.3 If a dispute arises between the Concessionaire and the Authority in connection with any certificate, determination, instruction, opinion or valuation of the IC, either of them may refer the dispute to the Dispute Review Board, as provided in the CA. In such event, the IC shall cooperate with requests from the Dispute Review Board for additional information and meetings. The party referring the dispute to the Dispute Review Board shall notify the other party and the IC.

10. Miscellaneous

- 10.1 A copy of all communications, comments, instructions, Drawings or Documents sent by the Independent Consultant to the Concessionaire pursuant to this TOR, and a copy of all the test results with comments of the Independent Consultant thereon shall be furnished by the Independent Consultant to the Authority forthwith.

- 10.2 The Independent Consultant shall obtain, and the Concessionaire shall furnish in two

copies thereof, all communications and reports required to be submitted, under this Agreement, by the Concessionaire to the Independent Consultant, whereupon the Independent Consultant shall send one of the copies to the Authority along with its comments thereon.

- 10.3 The Independent Consultant shall retain at least one copy each of all Drawings and Documents received by it, including 'as-built' Drawings, and keep them in its safe custody.
- 10.4 Upon completion of its assignment hereunder, the Independent Consultant shall duly classify and list all Drawings, Documents, results of tests and other relevant records, and hand them over to the Authority or such other person as the Authority may specify, and obtain written receipt thereof. Two copies of the said documents shall also be furnished in micro film form or in such other medium as may be acceptable to the Authority.
- 10.5 The IC shall assist the Authority and the Concessionaire in utility shifting, land acquisition and rehabilitation & resettlement issues which will affect the progress of works.
- 10.6 The IC shall assist the Authority during the Dispute Board meetings, Arbitration proceedings and any other hearing held by the statutory/legal body.
- 10.7 The IC will ensure effective coordination with the railways supervising staff during the construction of ROB/RUB and advise the Authority regarding the status of ROB/RUB construction.