



FOREWORD



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1. There was need to bridge the gap between the requirements of Army and other agencies vis a vis BRO's capacity for departmental execution by adopting new construction philosophy i.e Engineering Procurement Construction (EPC). Execution of works through EPC mode in addition to departmental execution is the new way ahead for BRO. Hence, there is need to publish a Works Manual for EPC works which will serve as a guide for executives.
2. This manual will serve as a ready reference for policy instructions and guidelines pertaining to all facets of tendering, contract administration, disputes and other parameters connected with the subject of contract management during execution through EPC mode. I am confident that this Manual will be immensely useful in having uniformity in procedures across the BRO and will be of immense help in taking right decisions at a faster pace.
3. All efforts have been made to ensure that the Manual is user friendly by arranging the chapters as per the sequence of tendering process and it reflects the essence of latest instructions in true spirit. I compliment the entire editorial team for doing a thorough job in preparing this Manual.
4. This Works Manual for EPC works shall be effective from 01 Apr 2022.

Station : New Delhi

Dated : Apr 2022

(Rajeev Chaudhry)

Lt Gen

Director General Border Roads

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Chapter 1

INTRODUCTION

1.1 General

- 1.1.1 Border Roads Organization (BRO) was established in 1960 for ensuring expeditious execution of Road infrastructure projects in North and North Eastern States. BRO is entrusted with works of MoD and other agencies such as MoRT&H, MHA, MEA etc for development of infrastructure on strategically important roads / National Highways with the objective to ensure that works are completed as per timelines identified by the Army and Other agencies. There is need to bridge the gap between requirement of Army and other agencies and BRO's own capacity of departmental execution by adopting new construction philosophy according to present requirement of construction industry to fast pace construction and enhance work potential of organization to meet stipulated time lines for completion of roads.

1.2 Road map to implement New Construction philosophy

- 1.2.1 MoD vide letter No BRDB/02/85/BEA/2015/D (BR1) dated 13 Apr 2017 directed for outsourcing and contract management for undertaking works in DPR mode in BRO and take following actions:-
- (a) Review of LTROWP to restrict the number of roads so as to enable BRO to channelize its energy and resources towards operationally critical and strategically important roads.
 - (b) Prioritise the list of roads under Priority-I and Priority-II, based on the availability of budget and absorption capacity of BRO.
 - (c) Identification of viable road projects from Priority-I for outsourcing and bundling of road projects to attract big construction companies.
 - (d) Identification of roads from Priority-I for departmental execution and rational deployment of manpower, equipment and resources within BRO to ensure that BRO's own departmental capacity is utilised to the optimum.
 - (e) Adoption of DPR mode of execution.
 - (f) Adoption of uniform standards/nomenclature for classification of roads in consonance with IRC codes and MORTH specifications.

1.3 Change in construction philosophy

1.3.1 Adoption of Engineering Procurement Construction (EPC) mode of execution as default mode approved by GoI (MoD) vide letter no BRDB/02/85/BEA/2016/D(BR-I) dated 29 Aug 2017

1.3.2 Delegation of power cover under above policy letter have been revised vide letter no. MoD(BR) F.No4/696/2015/D&P(BR-I) dated 03 Feb2022 as mentioned below:-

(a) All Projects of Value more than 25 Crore (Ten Crore) (excluding land acquisition cost) will be taken up only after preparation of DPR. This will apply to both the Engineering Procurement Construction (EPC) projects and departmentally executed projects.

(b) All projects for which the value as per the DPR is above 150 Crore will be mandatorily executed as an EPC project.

1.3.3 MoD Directed to make a dedicated cell functional within the available authorized strength at HQ DGBR for outsourcing and Contract Management for the followings :-

(a) Formulation of model Request For Proposal (RFP) for preparation of DPR for construction of roads.

(b) Floating of RFP for DPR Preparation through professional agencies and accepting of contract.

(c) Floating of RFP for construction of Roads and accepting of Contract.

(d) Capacity building in contract management, both Pre-tendering and post tendering.

(e) Preparing of data base for equipment and outsourcing the maintenance and upkeep of equipment.

(f) Outsourcing feasibility studies for identified tunnel projects.

(g) The existing E8 Directorate will continue to work for the remaining outsourcing works required to be done in the case of departmental execution.

1.3.4 A dedicated EPC Cell at HQ DGBR was established at HQ DGBR in Aug 2017 to Implement EPC mode of execution in BRO with the following objectives:-

(a) To issue policy guidelines for fast tracking and standardization of works procedure for implementation of EPC works in BRO.

- (b) To outsource works of DPR preparation through consultancy.
- (c) To liaise with Ministry officials for MoRT&H/MoD funded Projects for sanction of works.
- (d) To issue guidelines to implement EPC works in existing set up by creating EPC Cell at HQ ADGBR, Project HQs and redefining roles of Task Forces & RCCs.
- (e) To issue policy guidelines for fast tracking pre-construction activities like Land Acquisition & Forest / Environmental clearances.
- (f) To monitor progress & preparation of DPRs.
- (g) To assist office of ADGBR & Projects in pre-tendering stage.
- (h) To monitor progress of timely completion of EPC works.

1.4 Standardization of Procedure

- 1.4.1 Execution of works through EPC mode is a new assignment for BRO. Hence, there is need of dedicated team of officials at various levels to deal with various pre-construction activities like DPR preparation & Approval, Sanction of works, Pre tender stages of awarding of works and post tender management of contract as per frame work of EPC agreements, Monitoring progress of works, Implementation of quality assurance plan, fund & expenditure pattern and road safety audit etc. There is need to formulate standard policy guidelines for effective implementation of EPC concept in BRO for proper and timely completion of works and achieving organizational goal.
- 1.4.2 The procedures given in this Manual are to guide BRO officers & personnel to handle activities and issues relating to EPC works in BRO. At places some description has been given to define the context of the procedures. They should be uniformly followed by all the units of the organisation. Modification, if any, may be done with the approval of competent authority, duly recording reasons.
- 1.4.3 The extant guidelines/ instructions / policies on various aspects issued till date have been incorporated in this Manual. In case subsequent guidelines /instructions /policies are issued modifying any provision of the Manual then existing reference shall stand superseded by such guidelines issued.

Chapter 2

EPC WORKS IMPLEMENTATION SET UP

2.1 EPC Contracts

EPC stands for Engineering Procurement and Construction. EPC Contract is a type of construction contracts between parties where the contractor is responsible for all engineering, procurement and construction activities to deliver the completed projects to client or employer.

2.2 Role of an EPC Contractor

2.2.1 The EPC contractor is responsible for:-

- (a) Detail engineering of design involved with the project.
- (b) Procurement of All the necessary equipment and material require to build the project.
- (c) Construction of the facility.
- (d) Making it 'ready to use' and hand over to client.

2.2.2 EPC contractor must deliver the project within a given guaranteed time. Project must perform at a specified efficiency level as per prescribed specifications of the contract.

2.3 Basic feature of an EPC Contact

The Key feature of an EPC contract is

- (a) Single point responsibility.
- (b) Fixed contract Price.
- (c) Fixed Completion date.
- (d) Performance Guarantee.
- (e) Caps on Liability.
- (f) Security.

- (g) Liquidated Damage.
- (h) Defect Liability Period.
- (j) Force majeure etc.

2.4 Stage of EPC work planning

2.4.1 There are three stages in a project planned through execution in EPC mode.

- (a) Preparation of DPR and tender documents either through consultancy contact or through Department.
- (b) Conclusion of EPC Contact.
- (c) Appointment of team of authority engineer either through Contract or departmentally.

2.4.2 It has been decided to adopt the standard EPC documents, model tender/RFP and EPC procedure in toto as being adopted in MoRT&H. EPC Cell/HQ DGBR issued a policy letter vide 24006/DGBR/Policy/03/EPC Cell dated 29 May 2018. The following standard model documents and subsequent amendments incorporated by MoRT&H shall be followed for tendering action.

- (a) RFP for preparation of DPR consultancy.
- (b) RFP for Authority Engineer.
- (c) RFP for civil Works on EPC mode.
- (d) Contact agreement for civil works for EPC contact.

2.5 Contract and EPC Dte at HQ DGBR

2.5.1 Contract and EPC Dte has been created at HQ DGBR for effective implementation and monitoring of EPC works in Projects of BRO. This Dte has following set up.

- (a) DDG (EPC & Contract).
- (b) Director (EPC Cell) & Director (Contract).
- (c) Joint Directors.

2.5.2 EPC Cell is responsible for monitoring progress of preparation of DPRs by Projects, Scrutiny of DPRs, liaison at Ministry, obtaining sanction of works, tendering action of works falling under delegated power of DGBR, Monitoring progress of ongoing EPC works, framing & issuing policy guidelines and assisting Projects in pre & post tendering management of EPC works.

2.6 Establishment of EPC Section/Cell at HQ ADGBRs and Role of HQ Projects and Task Forces

2.6.1 Enhanced delegation of administrative and financial powers are accorded right up to CE (P) level vide MoD letter No 01/496/2015/D&P (BR-I) dated 11 Aug 2017 to bring transformational change in BRO and expedite pace of construction in border areas. Delegation administrative and financial power further revised by MoD vide letter no MoD(BR) F.No 4/696/2015/D&P (BR-I) dated 03 Feb 2022. There is need to create EPC Cell at Hq ADGBR & Implementation Cell at Project Headquarters and Task Forces for effectively implementing DPR mode of Construction in BRO.

2.6.2 HQ DGBR vide letter No. 24006/DGBR/Policy/89/EPC Cell Dated 03 Mar 2020 has directed ADGBR offices for following:-

(a) Make a dedicated EPC Cell within available posted strength for invitation of bids for civil works costing more than Rs. 300 Crs based on model EPC documents and necessary amendments carried out by MORT&H from time to time.

(b) Make digital signature for uploading of tender on CPP Portal.

(c) Make adequate No of digital signature of posted Officers for opening of tender.

(d) Approach BIMS help desk to get the login ID and password on E-Mail ID etenderhelpdesk@nhai.org.

2.6.3 EPC Cell at ADGBR HQ can be headed either by Chief Engineer or Director level officers. ADGBR shall notify officers and set up EPC Cell as per work load in respective sector. EPC Cell at HQ ADGBR is responsible for effective implementation of work plan & monitor progress of EPC Works and also take tendering action as per delegated financial powers.

2.6.4 Standard operating procedures for Establishing Project Implementation Cell for BRO Projects was issued vide Hq DGBR letter No. 24006/DGBR/Policy/23/EPC Cell Dated 12 Jul 2018. Chief engineer Projects will create a Project Implementation cell for EPC works within the authorized strength of man power.

2.6.5 Role and Responsibilities of Project Implementation cell are as follows:-

- (a) Shall Coordinate with DPR consultant & State Govt authorities wherever required to expedite finalization of DPRs.
- (b) Shall be interface between contractor, Authority's Engineer and implementing Agency/ Deptt and also assist in administering the contract as per CA conditions / provisions.
- (c) Shall also ensure that Authority's Engineer Supervise the work as per provisions of the CA and employment of key personals as per CA provisions.
- (d) Shall also liaise with Govt agencies for removal of bottlenecks (if any), and will work as enabler for consultancy contractor & Authority's Engineer to function and deliver the project on schedule.

2.6.6 Commander Task force will be nominated as Project Director for EPC works by Chief engineer Projects for EPC Work. Project Director has pivotal role in EPC Contract management and successful completion of EPC works. Role and Responsibilities of Project Directors are as follows:-

- (a) Project Director will be overall in-charge of the project at site within his jurisdiction. He will also associate himself in the preparation of the Detailed Project Reports.
- (b) He will ensure timely acquisition of land, shifting of utilities and removal of obstructions, obtaining environment clearances and permission for tree cutting. He will liaise with other agencies and groups to ensure that all the local issues are satisfactorily dealt with. He will interact with the State Governments and other departments of the Central Government for resolving issues holding up the progress of the work and preparation of DPR.
- (c) To provide inputs for formulation of tender, to ensure that the project land is made available free of all encumbrances and handed over to the contractor within the stipulated time as given in Contract Agreement for civil works and co-ordination in removal of bottlenecks, if any.
- (d) To be enabler for DPR consultant & Authority Engineer to function and deliver the project on schedule by taking required steps.
- (e) To ensure that the works are executed in accordance with the CA provisions in the supervision of the Authority Engineer.
- (f) To ensure proper supervision & quality assurance of the executed works by making proper check and balances without hindering the stipulated time period as given in the CA provisions.

- (g) To progress bills to ensure timely payment of dues.
- (h) To monitor physical & financial progress of works and report to higher HQs as required.
- (i) To direct Authority Engineer to update CPM chart on weekly basis.
- (k) He will attend meetings called by the State Nodal Officers for review of progress of works and removal of bottlenecks, if any.
- (l) He will hold regular progress review meetings with the contractors and the consultants.
- (m) He will supervise and monitor the performance of the Construction Supervision Consultant and through him of the Contractor.
- (n) He will monitor that the original pre-qualified contractor is actually working and that there is no un-official sub-letting or back-to-back arrangement by the contractor to perform the contract or any part thereof. If the contract provides for a Joint Venture or a sub- contractor, PD should independently watch that they perform within accepted conditions and framework of the contract. He will also check up that the machinery and equipment as originally promised are actually working on the project site. If there is any deviation from the agreed/ approved arrangements, he will take appropriate action as per condition of contract and will send his findings to the Headquarters.
- (o) He will ensure that the personnel of the Supervision Consultant are deployed at site as per the manning schedule agreed in the contract. He will give directions to the Supervision Consultant for any laxity in respect of inadequate deployment and poor quality level of supervision during execution of the work.
- (p) PD will report to the Authority on critical issues in the implementation of the project. He will provide the necessary inputs to the Headquarters as and when required. He will examine the proposals of variations, time extension, disputes and claims etc. and furnish comments/recommendations and present the case before appropriate authority/ tribunal. He will ensure proper maintenance of all relevant record that may be needed at any time in the future to defend cases before the arbitrators or in the courts. On transfer, he will leave complete handing over notes, with reference to records, about all differences, disputes, claims and other matters to enable the successor effectively watch the interest of Government.
- (q) He will submit monthly progress report to Headquarters in the

prescribed format.

2.6.7 OC RCC/BCC will assist Project Director in effective implementation of defined duties and responsibilities and will verify all reports of Authority Engineer.

2.6.8 Budget Control and Accounting Procedure

(a) On receipt of allotment of funds for civil works from Ministry by HQ DGBR, the funds will be further allotted to Chief Engineer (Project) being Authority/ Employer/ CLIENT in consultation with PCDA (BR). Demand of Cash assignment will be placed by CE (P) after vetting by ACDA/ AO (P) to HQ DGBR (E5B) for further forwarding to PCDA (BR) with a request to allot the sub-heads/ code heads and minor heads to be operated by ACDA/ AOs (Project) and place either the cash assignment to the authorized bankers or make necessary provision through SBI -CMP. The budget & expenditure of EPC works shall be controlled centrally at HQ CE (P). ACDA/AO (P) & HQ CE will open the construction account for this purpose for all the sanctioned jobs under EPC mode of execution.

(b) All bills including Project contingencies shall be cleared by Chief Engineer (Project) after the financial concurrence/vetting by ACDA/AO (P) of HQ CE (P).

2.7 Powers regarding works

2.7.1 Officers shall exercise such powers as may, from time to time delegated in respect of works sanctioned by MoD and other central agencies as per circular & policies / guidelines of MoD and in respect of works sanctioned by MoRTH as per circular & guidelines issued by MoRTH. The existing powers vested with various officers are mentioned at appropriate places in Manual. These circulars & policies are also available at bro.gov.in and morth.nic.in for ready reference.

Chapter 3

DPR PREPERATION

3.1 General

- 3.1.1 EPC mode of execution has been adopted as default mode of execution and all works / Projects of value more than 25 Crore (Twenty five Crore) (excluding land acquisition cost) will be taken up only after preparation of DPR. This is applicable for EPC mode and departmentally executed works. Units are involved in preparation of DPRs / Feasibility Report for development / improvement of various sections of National Highways / Other than National Highways / Bridges / Structures etc funded by MoD / MORTH and Other Ministries. The DPR is required for identifying improvement works required based on concept, best feasibility & economical design meeting codal requirement and removing various deficiencies/ improving road safety aspects.

3.2 Preparation of DPR

- 3.2.1 DPRs can be either prepared departmentally or through outsourcing by a consultancy firm for roads/ works included in LTRoWP.

3.3 Costing of DPRs

- 3.3.1 Costing of works shall be done as per followings:-

(a) Work proposed to be executed departmentally. Costing of DPR is to be done based on departmental Schedule of Rates (SSR) 2016. The items of work, which are not available in SSR-2016, the rate for the same may be worked out based on MoRT&H standard data book (Road & Bridge) by taking input data from SSR 2016 and if not available in SSR then as per prevailing market rate of materials, Labour etc in the AoR of project.

(b) Works proposed to be executed through EPC mode. Costing of DPR is to be done based on latest state PWD Schedule of Rates (SoR). The item of work, which is not available in state PWD SoR, the rate for the same may be worked out Based on MoRT&H standard data book (Road & Bridge) by taking input data given in SoR and if not available in SoR then as per prevailing market rate of material, Labour etc in the AoR of project.

3.4 Sanction of Estimates of DPRs

- 3.4.1 MoD vide Note No BRDB/04/696/2015/DP/D (BR-I) dt 11 Aug 2017 has delegated following financial powers for according administrative approval of consultancy services for DPR preparation.

DGBR : Beyond Rs 5 Cr per case for works included in LTRoWP

ADGBR : Beyond Rs 2 Cr and Upto Rs 5 Cr per case for works included in LTRoWP

CE (P) : Upto Rs 2 Cr per case for works included in LTRoWP

3.5 Invitation of Bids

- 3.5.1 Chief Engineer (Projects) has been delegated full financial power for acceptance of contract for outsourcing of consultancy services of preparation of DPRs. The HQ DGBR vide letter No. 24006/DGBR/ Policy /22/ EPC cell of 19 Mar 2021 has issued following directions:-

(a) Bids be initiated by concerned Projects as per delegated financial power at S/No. 18 (a) of Annexure II of MoD (BR) letter No. F/No. 04/696/2015/D&P (BR-I) dated 11 Aug 2017 for delegation of Administrative & Financial powers in BRO.

(b) RFP may be prepared based on the terms and conditions stipulated in model RFP of MoRT&H with admissible relevant changes.

(c) Evaluation/recommendation of committee for technical evaluation and financial evaluation will be approved by concerned CE (P). LOA shall be issued by concerned CE (P).

(d) Consultancy services for selection of Authority's Engineer will be dealt with the same manner.

- 3.5.2 Bids shall be invited based on sanctioned estimate and inclusion of road in LTRoWP / BRDB Programme / AWP. Standard Model Contract documents of MoRT&H shall be used for tendering action.

3.6 Opening and Evaluation of Bids

- 3.6.1 The technical evaluation of bids shall be done as per the procedure given in tender documents through QCBS (Quality and Cost Based Selection) method. Opening of proposals will be done through both online and manually for Technical Proposal and only online for Financial Proposal.

3.7 Proposal Evaluation

- 3.7.1 The proposals would be evaluated by a Committee detailed by Chief engineer (Project). A three-stage procedure will be adopted in evaluating the proposal. In the first stage-Proof of Eligibility, it will be examined as to whether :-
- (a) The proposal is accompanied by a Document fee.
 - (b) The Proposal is accompanied by Bid Security of required value/ Bid declaration and of validity equal or more than the minimum required validity.
 - (c) The firm(s) have required experience.
 - (d) The firm(s) have required turnover.
 - (e) The documents are properly signed by the authorized signatories and whether the proposal contains proper Power of Attorney (POA).
 - (f) The proposals have been received on or before the dead line of submission.
 - (g) In case a Joint Venture / Association of firms, the proposal shall be accompanied by a certified copy of legally binding memorandum of Understanding (MOU) on a stamp paper of appropriate value, signed by all firms to the joint venture / Association.
- 3.7.2 In case answers to any of the above items is 'No; the bid shall be declared non-responsive and shall not be evaluated further. However Committee may give maximum upto 7 days to submit clarification / additional documents in support of their eligibility.
- 3.7.3 A Consultant satisfying the minimum Eligibility Criteria as mentioned in the Data sheet and who had submitted the above mentioned documents shall be declared "pass" in Proof of Eligibility. Technical Proposals of only those consultants shall be opened and evaluated further.

3.8 Technical Proposal

- 3.8.1 In the second stage, Technical proposal shall be evaluated as per the detailed evaluation criteria given in Data Sheet. Technical proposal will be evaluated by Committee headed by at least Dir/JD level officer along with a rep of IFA/ Finance. In case of any deficiency, committee may give maximum upto 10 days to submit clarification / additional documents. The marks obtained by technical evaluation from INFRACON Portal will be cross verified and in case of any variation, the same will be brought to the knowledge of the INRFACON Authorities.

- 3.8.2 A proposal securing 75 points shall be declared pass in the evaluation of Technical Proposal. The technical proposal should score at least 75 points out of 100 to be considered for financial evaluation. The CV of the proposed Team Leader should score at least 75 % marks otherwise the entire proposal shall be considered to have failed in the evaluation of Technical Proposals and shall not be considered for opening of Financial Proposals. Evaluation / Recommendation of Committee will be approved by Chief Engineer (Project).

3.9 Financial Proposal

- 3.9.1 After the evaluation of Technical Proposals and the short listing of firms is finalized, Tendering authority may notify those consultants whose proposals were not considered as per conditions of Bid. The Tendering authority shall simultaneously notify the shortlisted firms indicating the date and time set for opening of the Financial Proposals.
- 3.9.2 The Financial Proposals shall be opened on CPP Portal publicly in the presence of the firm's representatives who choose to attend. The name of the consultant, the technical scores, and the proposed prices shall be read aloud and recorded when the Financial Proposals are opened.
- 3.9.3 The Evaluation Committee headed by at least Dir/JD Level Officer along with rep of finance will determine whether the submitted Financial Proposals are complete (i.e. whether they have included cost of all items of the corresponding proposals; if not, then the cost towards such missing items will be considered as NIL but the bidder shall, however, be required to carry out such obligations without any additional compensation) and without computational error.
- 3.9.4 Based on the technical & financial evaluation, the documents & the list of selected consultants will be forwarded to ACDA (Project) along with justification for concurrence of accounts office before acceptance of tender.

3.10 Acceptance of Bid

The acceptance of bids will be done by the CFA as per Srl No. 18 (a) of delegation of power of MoD issued vide MoD letter No. MoD (BR) F.No. 04/696/2015 D&P (BR-I) dated 11 Aug 2017.

3.11 Preparation of DPR, Review and Approval of DPR/ FS

Six sub-stages have been defined for DPR preparation, each with designated deliverables, reviewing and accepting authority. The following table shall be followed:-

<u>S No</u>	<u>Sub Stage</u>	<u>Key Deliverables</u>	<u>Reviewing and Accepting Authority</u>
(i)	Draft/Final Inception Report	Project appreciation, Detailed approach and methodology, Work programme, Proforma for data collection, Design standard and proposed cross section, Key plan and Linear plan, Development plans, Quality assurance plan, Draft design standards.	CE Project
(ii)	Draft/Final Feasibility Report	Project description including possible alternatives, Finalized alignment plan, methodology, socio-economic profile, indicative design standards and Technical specification, traffic survey and analysis, environmental screening and preliminary assessment, initial social assessment and preliminary land acquisition/re-settlement plan, cost estimates based on preliminary rate analysis and bill of quantities, economic and financial analysis.	CE Project <ul style="list-style-type: none"> • Alignment plan shall be approved by ADGBR (East)/ ADGBR (NW) for MoD & other central ministry with concurrence of local formation / agency. • In Case of MoRTH works then Alignment plan shall be approved by AS/ADG/CE-Coordinator, MoRTH
(iii)	Draft/Final LA & Clearance-1 Report	Strip plan along with land acquisition plan, utility relocation plan, details of properties and estimated costs of acquisition.	CE Project
(iv)	Draft/Final Detailed Project Report	Main Report, Design Report, Materials Report, Environmental Assessment Report, Technical Specification, Rate Analysis, Cost Estimate, Bill of Quantities, Drawing Volume.	CFA
(v)	Draft/Final Technical Schedules	Civil Work Contract Agreement.	Competent Engineering Authority (CEA)
(vi)	Draft/Final LA	Land Acquisition Report including final 3a, 3A, 3D notifications,	CE Project

	Clearance- ll Report	Clearance Report with final approvals from agencies for all Project related clearances.	
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For each of the six sub-stages above, quality checklists (as per HQ DGBR policy letter No 24006/DGBR/Policy/04/EPC Cell dated 29 May 2018) have been defined to ensure that all necessary activities pertaining to the sub-stage are completed. Compliance to checklists shall be reviewed by corresponding review and accepting authority, as mentioned in the above tables. Payments shall be linked to successful completion of the various sub-stages.

3.12 Time required for preparation of DPR

3.12.1 Preparation of DPR and its approval thereof is a time consuming process and hence there is an urgent need to resort to cut down sequential activities so that DPR gets processed in time by taking parallel actions at various HQs. For example, preliminary design work should commence by the consultant without waiting for the approval of feasibility report/alignment plan. Similarly stage (iii), (v) & (vi) shall run in tandem with stage (ii) & (iv). Consultant shall be required to complete all the different stages of study within the time frame as indicated in the schedule of submission to the satisfaction of the Client.

3.12.2 Consultant should be asked to submit the copy of Draft DPR to RCC with a copy to HQ DGBR, HQ ADGBR (E/ NW), HQ CE (P) and HQ BRTF for comments/ observations. Comments/observation of all formations shall be submitted to HQ DGBR within one month & consolidated observations will be communicated to the consultant with a copy to all stakeholder by HQ DGBR. Consultant will submit the amended DPR to TF/Project Headquarter and same will be processed through stipulated channel.

3.13 Stage wise time plan

Stage wise time required for preparation of DPR of Highways in Stipulated time periods of 08 months and 04 months are tabulated below:

<u>Ser No</u>	<u>Stage</u>	<u>Time required (in days) from date of commencement</u>		<u>Remarks</u>
		<u>Time period (08 months)</u>	<u>Time period (04 months)</u>	
(a)	Inception report	30	25	Preliminary

(b)	Feasibility report including Approval of Alignment	105	60	design work should commence without waiting for feasibility study to be completed
(c)	LA & Clearance - I Report	120	70	
(d)	DPR	210	105	
(e)	Technical Schedule	165	105	
(f)	LA & Clearance - II Report	240	120	

The timeline for preparation of DPR shall be as per scope of work normally 8/4 months. Timeline for scrutiny and approval of DPR shall take 2 months.

3.14 Payment Schedule

The standard form of payment schedule to be followed in RFP document for consultancy services for preparation of Detailed Project Report (DPR) for development of Highways. Following Payment Schedule shall be followed.

Ser No	Item	Payment %
(a)	Submission of final QAP and Inception Report	10%
(b)	Approval of final Alignment Report	5%
(c)	Submission of final feasibility Report	5%
(d)	Submission Of 3a Notification, Draft 3 A And Approval Of Final Land Acquisition Report containing details of 3a, 3A	5%
(e)	Submission of all utilities shifting proposals to user agencies and submission of utilities relocation plan to Executing Authority	2.5%
(f)	Submission of all stage I clearance proposals and submission of clearances report to Executing Authority	5%
(g)	Approval of final DPR report, documents and drawings	10%
(h)	Approval of bid documents and draft civil works contract agreement along with technical schedules.	5%

(j)	3D publication for all land parcels identified in item 4 above and submission of Land Acquisition II report	10%
(k)	Stage II clearance approval and submission of final clearances II report	5%
(l)	Final approval of utilities shifting estimates and submission of Utilities II report	2.5%
(m)	Completion of award declaration (3G) for 90% of land parcels identified in item 9 and submission of Land Award report	10%
(n)	Earlier of award of package to contractor/concessionaire or 6 months from launch of tender process	10%
(o)	Receipt of land possession certificates (3E) for 90% of all land parcels identified in LA II report and submission of Land Possession report	10%
(p)	Amount to be released at earlier of projects COD or 3 years from start of civil work	5%
	Total:	100%
(i)	Bonus on submission of draft 3A within 15 days of alignment finalization	1% bonus
(ii)	Bonus on submission of draft 3D within 60 days of draft 3 A.	2.5% bonus
(iii)	Bonus on receipt of possession certificate (3E) for more than 90% of land identified in item 9 above within 165 days of draft 3 A.	5% bonus
(iv)	Bonus on submission of utility shifting proposal including clearance within 60 days of alignment finalization.	1% bonus

3.15 Contents & Approval of various stages of DPRs

3.15.1 Stage-1: Inception Report (IR)

(a) The completion of Inception Report (Stage 1), within stipulated period becomes vital for timely preparation of DPR, hence it needs sub-activity wise elaboration. IR should be prepared on the basis of preliminary survey i.e. Reconnaissance. The sub activity involved in IR are as under:-

- (i) Topographical features of the area including its soil and drainage conditions.

- (ii) Typical physical features along the existing alignment within and outside of ROW.
 - (iii) Traffic pattern and preliminary identification of traffic as well as congested areas on the existing alignment.
 - (iv) Possible alignment alternatives (if required), however efforts to be taken to minimize the land acquisition.
 - (v) Realignment requirements including provisions of Bypasses, ROBS, Bridge locations etc. with possible alternatives.
- (b) After analyzing the data and information obtained from preliminary survey the following major aspects to be submitted with IR:-
- (i) Project appreciation.
 - (ii) Detailed methodology to meet the requirements of Terms of Reference (TOR).
 - (iii) Task Assignment and Manning Schedule.
 - (iv) Work Programme.
 - (v) Proforma for data Collection for Inventory of Road/Bridges, Traffic Census, Sub-Soil investigation etc.
 - (vi) Design standards and proposed Cross-sections.
 - (vii) Key plan and Linear plan.
 - (viii) Development plans and impact thereof on the Highway Project.
 - (ix) Quality Assurance Plan (QAP).
 - (x) Draft Design Standards.

3.15.2 Stage-2: Feasibility Report

The feasibility study of the Highway Project should commence after acceptance of IR and shall be encapsulated in the following sub-report:-

- (a) Executive summary.
- (b) Project description including possible alternative alignments/ bypasses and technical /engineering alternatives.
- (c) Methodology adopted for the feasibility study.
- (d) Socio-economic profile of the project areas.

- (e) Indicative design standards, methodologies and specifications.
- (f) Traffic surveys and analysis.
- (g) Environmental screening and preliminary environmental assessment.
- (h) Initial social assessment and preliminary land acquisition /resettlement plan.
- (j) Cost estimates based on preliminary rate analysis and bill of quantities.
- (k) Economic and financial analysis.
- (l) Conclusions and recommendations.

3.15.3 It has been noticed that an inordinate delay is repeatedly occurring in finalization of Stage-1 & approval of alignment since detailed survey is being carried out without finalization of alignment which leads to infructuous effort. However, the requirement of Green field alignment or Bypasses should be projected as per the data derived from the Reconnaissance and preliminary traffic study. Following steps are to be followed to squeeze the time line:-

- (a) A minimum 03 (three) suitable alignments options should be worked out on the basis of Carto-Sat images or Google images and rough anticipated cost estimate thereof.
- (b) The presentation for finalization of alignment should be carried out at HQ Project Level under Chairmanship of Chief Engineer Project in presence of respective Cdr Task Force & OCs RCC. Sequential presentations at RCC & TF level will not be held. The most suitable/appropriate alignment should be identified and finalized on the basis of Site conditions, Techno-economic consideration & User requirement. In normal circumstances 5 to 6 Week time is sufficient for finalization of Alignment by the Chief Engineer Project.
- (c) The selected alignment to be forwarded for formal approval of respective ADGBR for road works to be funded by MoD as per HQ DGBR letter No. 24006/DGBR/Policy/04/EPC Cell dated 29 May 2018. However, case for Alignment approval to be forwarded to respective RO/CE of MoRT&H and HQ DGBR for works which are to be funded by MoRT&H.

3.15.4. For preparation of Feasibility Report, Detailed Field Survey has to be carried out on the finalized/approved alignment only and it would essentially include the Topographic survey, Field Investigations/studies etc.

3.15.5 Topographic Survey. The main objective of this survey would be to capture essential ground features along the alignment in order to consider

improvements, rehabilitation and upgrading of Highway with respect to user requirement and assessment of cost thereof.

(a) Topographic Surveys along the existing Right of Way (ROW) to be carried out by using LIDAR or equivalent technology with stipulated accuracy along the existing road and realignments wherever required and properly referencing the same with reference pillars fixed on either side of centre line at safe places within the ROW. The surveyed alignment shall be transferred on the ground by providing Reference Pillar and Bench Mark of Size 15cmX15cmX45cm, made of RCC with M15 grade of Cement Concrete. It should be placed on ground with spacing of 250m c/c.

(b) Wherever there is a proposal of realignment of the existing Highway and/or Construction of New Bypasses then Consultant shall fix Boundary Pillars along the proposed alignment on the extreme boundary on either side of the Highway at 50m Interval. However the details of Topographic Survey are also itemized at Para 4.11.2 of Terms of Reference (TOR) for Consultancy Services in RFP.

3.15.6 Field Investigation/Studies: In addition to the topographic survey following Investigations/assessments have to be carried out for Detailed Design of Road and Pavements, Bridges, Structures etc.

- (a) Road inventory survey.
- (b) Pavement investigation.
- (c) investigations for bridges and structures.
- (d) Hydraulic and Hydrological investigations.
- (e) Geo-technical Investigation and Sub soil Investigation.
- (f) Material Investigations.
- (g) Environment and Social Impact Assessment.

3.15.7. It shall be required to complete the balance stages of preparation of DPRs within given time frame as indicated above as being an independent/partially independent stages, which can be progressed without waiting for approval of Alignment Plan.

3.15.8 The followings Circular and policy letters of BRO and MoRTH shall be adhered for guidelines for procurement, preparation, review and approval of DPRs.

- (a) MoRT&H No. H-39011/30/2015-P&P(Pt-I) dated 12.03.2019.

- (b) MoRT&H No. H-39011/30/2015-P&P(Pt-I) dated 15.02.2019.
- (c) MoRT&H No. RW/NH-24035/4/2008-P&M/PIC (VolIII) dated 23.02.2018.
- (d) Dte GBR letter No 24006/DGBR/Policy/04/EPC Cell dated 29.05.2018.
- (e) Dte GBR letter No 24006/DGBR/Policy/21/EPC Cell dated 10.07.2018.
- (f) Dte GBR letter No 24006/DGBR/Policy/66/EPC Cell dated 31.10.2018.

3.16 Deliverable by consultant

(a) DPR consultant shall be responsible for sharing the findings from DPR preparation stages during the bid process. During the bid process for a project, the DPR consultant shall support the Authority in responding to all technical queries, and shall ensure active participation of senior team members of the consultant during all interaction with potential bidders including pre bid conference, meetings, site visits etc. In addition, the DPR consultant shall also support preparation of detailed responses to the written queries raised by the bidders. Also, the deliverables of the DPR consultant shall include editable soft copies of the final versions of all documents, including but not limited to the strip plan, plan & profile drawings, cross sections of right of way and details of structures as well as any cost workings.

(b) DPR Consultant shall also prepare the complete utility shifting estimates using the latest Schedule of Rates and obtain a sign-off from the corresponding utility agencies. For preparation of estimate, consultant shall use technologies for detection of sub-surface utilities.

3.17 Extension of Time and Variation/ Change of Scope

In case Extension of Time is required for carrying out the DPR/feasibility report, it shall be granted at the level of Chief Engineer (Project) with approval of Authority issued LOA. The matter of variation /change of scope upto 10% of consultancy contract amount for DPR/feasibility study shall be approved at the level of Chief Engineer(Project) . In case, the variation/change of scope exceeds the 10% of consultancy contract amount, revised approval shall be obtained.

Chapter 4

EPC CONTRACT

4.1 Standard document for bidding

Standard EPC documents, model RFP and EPC procedure as per MoRT&H shall be adopted in BRO for MoD and MoRT&H funded works. EPC Cell / HQ DGBR issued a policy letter vide 24006/DGBR/Policy/03/EPC Cell dated 29 May 2018. The following standard model tender documents and subsequent amendments incorporated by MoRT&H shall be followed for tendering action.

- (a) RFP for civil works on EPC mode.
- (b) Contract Agreement for civil works for EPC Contract.

4.2 Guidelines regarding Bid Documents

(a) The bidding documents shall clearly define the scope of works to be performed, by Contractor, and the functions, role and responsibility of Authority Engineer employed by the Authority in the Supervision and administration of the contract.

(b) The bidding documents shall furnish all information necessary for a prospective bidder to prepare a bid for the goods and works to be provided. They shall be so worded as to encourage competition and shall set forth clearly and precisely the work to be carried out, the location of the work, the goods to be supplied, the place of delivery, the schedule for delivery for completion, minimum performance requirements, and the warranty and maintenance requirements, as well as any other pertinent terms and conditions. In addition, the bidding documents shall define the tests, the standards, and methods that will be employed to judge the conformity of equipment as delivered or works as performed, with the specifications. Drawings shall be consistent with text of the specifications.

(c) Any ambiguity, discrepancy or conflict between various documents forming the Contract will be settled by prescribing the priority of document, viz.

- (i) Contract Agreement.
- (ii) Letter of Acceptance.

- (iii) Contractor's accepted Bid.
- (iv) Conditions of Particular Application.
- (v) General Conditions of Contract.
- (vi) Technical Specifications.
- (vii) Drawings.
- (viii) Priced Bill of Quantities.
- (ix) Any other documents forming part of the Contract.

(d) The basis for bid evaluation and selection of the lowest evaluated bid shall be clearly outlined. The bidding documents shall specify any factors, in addition to price, which will be taken into account in evaluating bids, and how such factors shall be quantified or otherwise evaluated.

(e) Fee to be charged for the bidding documents shall be nominal, to cover only printing and advertisement charges. The cost of RFP document may be determined at the rate of Rs. 10,000 for every Rs. 100 crore of the Estimated Project Cost.

(f) Bidders shall be required to submit bids valid for a period specified in the bidding documents, which shall be sufficient to complete the comparison and evaluation of bids and obtain all the necessary approvals so that the contract can be awarded within that time. Normally, this period should be 120 days after the date specified for opening of the bids.

(g) Bidders shall be assured of equal opportunity to obtain additional information. They shall be given access to project sites for visits, at their own cost. Where considered necessary, a pre-bid conference with the Employer's representatives, led by the Chief Engineer, shall be arranged to enable potential bidders to seek clarifications. After issue of minutes and of any clarifications or any addenda/ corrigenda, sufficient period shall be given for preparation and submission of bids.

(h) Standards and technical specifications shall be of those of the Ministry of Shipping, Road Transport & Highways, Indian Roads Congress, or Bureau of Indian Standards. Where these standards are not available or are found inadequate, those of internationally accepted organizations, with suitable adaptation to Indian conditions

shall be accepted, reference to brand names, catalogue numbers, or similar classifications shall be avoided. Should this become inevitable, the words 'or approved equivalent' shall be added after such reference. All materials, plant and other supplies to be incorporated in the Works shall be new, preferably of the most recent current models, and incorporate all recent Improvements.

(j) Bidding documents shall clearly specify the following elements:-

(i) Amount and form of bid security and its validity period.

(ii) Amount and form of performance security to be provided by the Contractor on award of work, as also the period of its validity.

(iii) Amount and terms of advances for mobilisation, and equipment and materials.

(iv) Method and periodicity of regular progress payments.

(v) Retention amounts and their release.

(vi) Liability and amount of liquidated damages.

(vii) Bonus, if any, with conditions of eligibility.

(viii) Circumstances, necessity and the consequences of suspension/termination, and the procedure of final payment.

(k) There shall be provisions for the settlement of disputes.

(l) Provision shall be made that at all times, during the continuance of the Contract, the Contractor shall comply with all existing Acts, regulations and byelaws including statutory amendments and re-enactments of State and Central Governments and any other enactments, notifications and Acts that may be passed in future by the State or the Central Government or local authority. Model Rules for Labour Welfare and Statutory Rules shall also be added.

(m) Bid documents should call upon the bidder to, prior to submitting the bid, visit and examine the site of works and its surroundings at his own expense, and obtain and ascertain for himself, on his own responsibility, all information that might be necessary for preparing his bid and entering into a contract. This would, inter alia, include the actual conditions of the site and area, availability of materials, labour and probable sites for labour camps

and stores etc. He should take into consideration local conditions, traffic restrictions, any possible obstructions to work, and allow in his Contract Price for all such extras likely to be incurred as a result thereof. It should further be added that a bidder is deemed to have knowledge of the site and area, whether he inspects it or not, and no extra charges consequent upon any misunderstanding or otherwise shall be allowed.

(n) A stipulation should also be made that the bidder shall bear all costs associated with the preparation and submission of bids and that the Employer will, in no case, be responsible for any such cost regardless of the conduct or outcome of the bidding process.

4.3 Invitation of Bids for Civil works

4.3.1 The following powers are delegated for invitation of Bids for MoD and other centrally sponsored works (Except MoRTH Works). (Refer MoD(BR) note No. 04/696/2015/D & P(BR-I) Dt 11 Aug 2017.

(a) Sanctioned works with cost of contract for Civil works up to Rs 300 Cr : Tenders will be invited by CE(P).

(b) Sanctioned works with cost of contract for Civil works more than Rs 300 Crs : Tenders will be invited by ADGBR.

4.3.2 The following powers shall be exercised in respect of sanctioned works funded by MoRTH. Refer MoRTH Circular No. RW/NH-24035/4/2008- P & M/PIC Vol II Dated 17 Sep 2018.

(a) Sanctioned works with cost of contract for Civil works up to Rs 300 Cr : Tenders will be invited by CE(P) BRO.

(b) Sanctioned works with cost of contract for Civil works more than Rs 300 Cr : Tenders will be invited by Chief engineer-Regional officer (CE-RO)/ Chief Engineer- Project Zone at HQ of MoRTH.

4.4 Opening of Bids

(a) Bids will be opened by designated officers on e-procurement & BIMS portals and Bid documents will be downloaded and documents duly listed will be handed over to respective contract / EPC section.

(b) All bid documents duly arranged will be handed over to designated Technical evaluation committee for evaluation.

4.5 Evaluation of Bids

4.5.1 For Works Sanctioned and funded by MoD (Other than MoRTH)

(a) Opening and Evaluation of bids with cost of contract of Civil works upto Rs 100 Cr will be done by the Evaluation Committee with rep of finance as a member and CE (P) as Chairman.

(b) Opening and Evaluation of bids with cost of contract of Civil works beyond Rs 100 Cr and upto Rs 300 Cr will be done by the Evaluation Committee with rep of finance and CE (P) as Chairman. The evaluated bids shall be examined by a Screening Committee with ADGBR as the Chairman.

(c) Opening and Evaluation of bids with cost of contract of Civil works beyond Rs 300 Crs will be done by the Evaluation Committee with rep of finance and ADGBR as Chairman. The evaluated bids shall be examined by a Screening Committee with DGBR as the Chairman.

(d) The Composition of Technical and Price bid evaluation committee shall be as per HQ DGBR letters No 24228/DGBR/Policy/Instr-2010/118/E8 dt 28 Dec 2018 as Tabulated.

(i) For MoD and other Central Ministry up to 100 Cr:-

Type of Bid	Evaluation Committee
Technical Bids	Chairman: CE concerned Project Members : 1. Director 2. Jt Dir/ Dy Dir/ Asst Dir 3. Rep of Finance
Price Bid	Chairman: CE concerned Project Members : 1. Director 2. Jt Dir/ Dy Dir/ Asst Dir 3. Rep of Finance

(ii) For Estimated Values of Bids Above Rs.100 Cr and Upto Rs 300 Cr:-

Type of Bid	Evaluation committee
Technical Bids	<p>Chairman: CE concerned Project</p> <p>Members :</p> <ol style="list-style-type: none"> 1. Director 2. Jt Dir/ Dy Dir/ Asst Dir 3. Rep of Finance <p>(To be convened by concerned ADGBR)</p>
Price Bid	<p>Justification supporting reasonability of rates quoted by L1 shall be submitted by CE of concerned Project to the Evaluation Committee</p> <p>Chairman: Concerned ADGBR</p> <p>Members :</p> <ol style="list-style-type: none"> 1. DDG / Senior most Dir 2. Director (Contracts) 3. Jt Dir/ Dy Dir/ Asst Dir 4. Rep of Finance

(iii) For Estimated Values of Bids Above Rs.300 Cr & for Estimated values of Bids above 100 Cr for Project Dantak:-

Type of Bid	Evaluation committee
Technical Bids	<p>Chairman: ADGBR</p> <p>Members :</p> <ol style="list-style-type: none"> 1. DDG 2. Jt Director (Contracts) 3. Jt Dir (EPC) 4. Rep of Finance <p>(To be convened by DGBR)</p>

Price Bid	<p>Justification supporting reasonability of rates quoted by L1 shall be submitted by ADGBR to the Evaluation Committee</p> <p>Chairman: DGBR</p> <p>Members : 1. ADGBR</p> <p>2. IFA (BR)</p> <p>3. DDG</p> <p>4. Dir (Contracts)</p> <p>5. Dir (EPC)</p>
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(e) Screening committee will be formulated to screen bids and re-evaluate technical bids. Composition of Screening committee will be as follows:-

(i) For Estimated Values of Bids Above Rs.100 Cr and Upto Rs.300 Cr :-

Type of Bid	Screening committee
Technical Bids	<p>Chairman: Concerned ADGBR</p> <p>Members : 1. DDG / Senior most Dir</p> <p>2. Director (Contracts)</p> <p>3. Jt Dir/ Dy Dir/ Asst Dir</p> <p>4. Rep of Finance</p>

(ii) For Estimated Values of Bids Above Rs.300 Cr & for Estimated values of Bids above 100 Cr for Project Dantak:-

Type of Bid	Screening committee
Technical Bids	<p>Chairman: DGBR</p> <p>Members : 1. ADGBR</p> <p>2. IFA (BR)</p> <p>3. DDG</p> <p>4. Dir (Contracts)</p> <p>5. Dir (EPC)</p>

(f) Proceedings of screening committee will be uploaded on e-procurement system for transparency and information of bidders.

(g) Price bids will be opened after seven days of uploading of proceedings of screening committee.

4.5.2 Technical evaluation/ Screening committee proceeding will be approved by respective ADGBR & DGBR for committee convened by ADGBR & DGBR. Approved proceedings will be uploaded on e-procurement portal for transparency and informing bidders.

4.5.3 For Works Sanctioned and funded by MoRTH

(a) Works with sanctioned cost of civil works up to Rs. 5 crore. The BRO shall evaluate the bids and finalize tender as per MoRTH's extant guidelines.

(b) Works having sanctioned cost of civil works more than Rs. 5 crore and up to Rs. 100 crores: Opening and evaluation of bids shall be done by the Evaluation Committee with the composition as mentioned in the following table.

Table: 1		
Sr.	Composition of the Committee	Role
	Chief Engineer from BRO	Chairman
	DCDA/ACDA level officer of Finance Wing posted with BRO	Member
	Officer nominated by the CE-RO/SE-RO of MORTH	Member
	Superintending Engineer from BRO	Member
	Executive Engineer from BRO	Member Secretary

(c) Work having sanctioned cost of civil works more than Rs. 100 Cr and up to Rs. 300 Cr. Opening and evaluation shall be at the Regional Office by the Evaluation committee with the composition as mentioned in Table 2. In this case, there will be no Screening Committee.

Table: 2		
Sr.	Composition of the Committee	Role
	CE-RO dealing with the State	Chairman

	Chief Engineer from BRO	Member
	Superintending Engineer from BRO	Member
	Representative of Finance Wing (MORT&H)	Member
	Executive Engineer from BRO	Member Secretary

(d) In case of Regional Officers headed by SE-RO, the opening and evaluation of bids shall be done by the Evaluation Committee with the composition as mentioned in Table-1, then the evaluated bids shall be further examined by the screening Committee at MORTH Headquarters with composition as mentioned in Table-3

Table: 3		
Sr.No	Composition of the Committee	Role
	Chief Engineer Project Zone	Chairman
	Chief Engineer from BRO	Member
	Superintending Engineer (MORT&H) from any other Regional office or MORT&H headquarters nominated by DGRO&SS ADG/Coordinator	Member
	Representative of Finance Wing (MORT&H)	Member
	Superintending Engineer Executive Engineer of Regional Office MoRT&H	Member Secretary

(e) Works having sanctioned cost of civil works more than Rs. 300 Cr: Opening and evaluation of bids shall be done by the Evaluation Committee with the same composition as mentioned in Table 3. In this case, there will be no Screening Committee.

4.6 Acceptance of Bids

4.6.1 For Works Sanctioned and funded by MoD (Other than MoRTH)

(a) Acceptance of bids with cost of contract of Civil works (sanctioned in AA) upto Rs 100 Cr will be done by CE (P) with concurrence of ACDA/AO (P).

- (b) Acceptance of bids with cost of contract of Civil works beyond Rs 100 Cr and upto Rs 300 Cr will be done by ADGBR with concurrence of Financial Adviser.
- (c) Acceptance of bids with cost of contract of Civil works beyond Rs 300 Cr and upto Rs 500 Cr will be done by DGBR with concurrence of IFA (BR).
- (d) Acceptance of bids with cost of contract of Civil works beyond Rs 500 Cr, based on the recommendations of the Evaluation Committee and concurrence of MOD (Fin/BR), shall be RM.

4.6.2 For Works Sanctioned and funded by MoRTH

- (a) Works with sanctioned cost of civil works up to Rs. 5 Cr: BRO shall finalize and accept the bids up to 5% tender premium. In case the tender premium is more than 5% of sanctioned cost (cost put to tender), the revised sanction shall be obtained from MoRT&H before acceptance of tender.
- (b) Works with sanctioned cost of civil works of more than Rs. 5 Cr upto Rs. 100 Cr: The Authority to accept bids having tender premium within 5% of sanctioned cost of works (cost put to tender), based on recommendations of the Evaluation Committee mentioned in Table 1, and for carrying out all the necessary contractual formalities leading up to signing of the contract agreement in a time bound manner shall be CE Project.
- (c) Works with sanctioned cost of civil works of more than Rs. 100 Cr to Rs. 300 Cr: For Regional Offices headed by CE-RO, the Authority to accept bids shall be the CE-RO, For Regional Offices headed by SE-RO, in case there are five more qualified bidders, or in case the Screening Committee agrees with the recommendation of the Evaluation Committee, then the Authority to accept bids shall be the Chief Engineer-Project Zone, MoRTH. In cases of difference between the Evaluation Committee and the Screening Committee or there are less than five qualified bidders, the Competent Authority in the Ministry to accept the bids based on the recommendations of Screening Committee will be the DG(RD)/J&SS/ADG/Coordinator, as the case may be.
- (d) Works with sanctioned cost of civil works of more than Rs. 300 Cr to Rs. 500 Cr: The Competent Authority in the Ministry to accept the bids based on the recommendations of the Evaluation Committee as mentioned in Table 3, shall be DG(RD)/J&SS/ADG/Coordinator, as the case may be.
- (e) Works with sanctioned cost of civil works of more than Rs. 500 Cr: The Competent Authority in the Ministry to accept the bids based on the recommendations of the Evaluation Committee as mentioned in Table 3 will be the Hon'ble Minister (RT&H).

(f) For Project mentioned in Para (d) and (e) above, the file for acceptance of the bid shall be sent by the CE-RO to the concerned ADG / Coordinator Headquarters.

4.7 Issue of Letter of Acceptance (LOA)/Award for Civil Works

4.7.1 For Works Sanctioned and funded by MoD (Other than MoRTH)

(a) Sanctioned works with cost of contract of civil works upto Rs 100 Cr: The LOA shall be issued by the CE (P) and signing of contract agreement shall be done by CE (P).

(b) Sanctioned works with cost of contract of civil works more than Rs 100 Cr and up to Rs 300 Cr: ADGBR shall issue the LOA and signing of contract agreement shall be done by CE (P).

(c) Sanctioned works with cost of contract of civil works more than Rs 300 Cr: DGBR shall issue LOA and signing of contract agreement shall be done by CE (P).

4.7.2 For Works Sanctioned and funded by MoRTH

(a) Works with sanctioned cost of civil works up to Rs. 5 Cr: The BRO shall finalize and accept the bids up to 5% tender premium. In case the tender premium is more than 5% of sanctioned cost (cost put to tender), the revised sanction shall be obtained from the Ministry before acceptance of tender.

(b) Works with sanctioned cost of civil works of more than Rs. 5 Cr to Rs. 100 Cr: The LOA shall be issued by the appropriate Authority not below the rank of Superintending Engineer (BRO), Thereafter, the Contract Agreement shall be signed by the appropriate Authority in the BRO, but not below the rank of Superintending Engineer within the prescribed period mentioned in the RFP,

(c) Works with sanctioned cost of civil works of more than Rs. 100 Cr to Rs. 300 Cr: The LOA shall be issued by the appropriate Authority not below the rank of Chief Engineer (BRO). Thereafter, the Contract Agreement shall be signed by the appropriate Authority in the BRO, but not below the rank of Superintending Engineer within the prescribed period mentioned in the RFP.

(d) Works with sanctioned cost of civil works of more than Rs. 300 Cr:- The LOA shall be issued by the CE-RO/Chief Engineer-Project Zone, and signing of Contract Agreement shall be done by the appropriate Authority in the BRO, but not below the rank of Superintending Engineer.

- (e) In case of the issue of LOA and signing of contract, as mentioned above, is not executed by the BRO, the Ministry reserves the right to do the same through its CE RO/Chief Engineer-Project Zone.
- (f) If the work is not awarded within 6 months from the date of sanction:-
- (i) CE-RO/SE-RO shall have the power to extend the validity of the Sanction for a further period of 3 months.
 - (ii) CE-RO/ CE-Project Zone shall have the power to extend the validity for a further period of 3 months.
 - (iii) In cases when the work is not awarded within 12 months of the date of sanction, the work would automatically stand de-sanctioned.
 - (iv) In special cases where extension of validity is required beyond one year, the Competent Authority to accord approval will be the Secretary (RT&H) with the concurrence of IFD.

Chapter 5

EPC CONTRACT MANAGEMENT

5.1 There are three main stakeholders in EPC contract:-

- (a) Authority / Client/ Employer.
- (b) Contractor.
- (c) Authority Engineer.

5.1.1 Authority / Client/ Employer

Authority/Client/Employer is responsible for defining scope of work, setting Standard & specifications of works, providing possession of site to the contractor, making payments. Article 3 of EPC agreement has detailed description of obligations of Authority. Chief engineer and team of officers assigned by him are Authority / client. Authority will appoint a Project Director to assist Authority in management of contract.

5.1.2 Contractor

Contractor is responsible for:-

- (a) Engineering & preparation of design & drawings as per specifications of Project.
- (b) Maintenance of road during construction & defect liability period.

Article 4 of EPC agreement have detailed description of obligation of contractor.

5.1.3 Authority Engineer

Authority Engineer is a team of officers who works as a Project Monitoring Committee. Authority Engineer is responsible for:-

- (a) Day to day monitoring of Project.
- (b) Implementation of quality assurance plan during execution of works.

- (c) Maintain record of Projects.
- (d) Making measurements of quantities of works and taking engineering decisions where ambiguities or unforeseen circumstance occur.
- (e) To ensure Project to get completed successfully within approved cost and stipulated time.

5.1.3.1 Authority Engineer team

(a) Authority Engineer team for projects costing more than Rs 300 Cr is hired through outsourcing. Departmental officers can be appointed as Authority Engineers team for work costing less than Rs 300 Cr. Article 18 and Annexure-I of Schedule-N of EPC agreement and Section 6 of RFP for appointment of Authority Engineer has detailed description of role, responsibilities, duties and terms of reference of Authority Engineers.

(b) Authority shall appoint a team of Authority Engineer for day to day monitoring supervision of works before reasonable declaration of appointed date. The functioning and duties are specified in EPC agreement as mentioned above. HQ DGBR vide letter No. 24006/DGBR/Policy/59/EPC Cell dated 10 Dec 2019 has issued guidelines for constitution of team of key personnel for departmental team of Authority engineer.

5.2 EPC contract shall be strictly managed as per details mentioned in Articles and Schedules of EPC Agreement.

5.3 In case of any ambiguities or discrepancies within EPC agreement, the following shall apply:-

(a) Between two or more Clauses of this Agreement, the provisions of a specific Clause relevant to the issue under consideration shall prevail over those in other Clauses.

(b) Between the Clauses of this Agreement and the Schedules, the Clauses shall prevail and between Schedules and Annexes, the Schedules shall prevail.

(c) Between any two Schedules, the Schedule relevant to the issue shall prevail.

(d) Between the written description on the Drawings and the Specifications and Standards, the latter shall prevail.

(e) Between the dimension scaled from the Drawing and its specific written dimension, the latter shall prevail.

(f) Between any value written in numerals and that in words, the latter shall prevail

5.4 Appointed Date

(a) Appointed Date is date declared by Authority as Project commencement date as per process described in Article 3 of EPC agreement.

(b) The contractor and Authority Engineer shall within 10 days of signing of EPC agreement prepare a handover memorandum as per Article 8.2 (i) of EPC Agreement. Authority will declare appointed date after hand over memorandum is signed by all parties.

5.5 Obligation of contractor

Actions to be taken by contractor:-

(a) To appoint its representative duly authorized to deal with the Authority.

(b) Appoint a Design director to lead design unit of contractor.

(c) Obtain all statutory permissions & permits as per applicable laws.

(d) Make arrangements for quarrying of materials.

(e) To submit a programme for the works, developed using networking techniques comprising

(i) Contractor organization, drawings constructions methodology, design, QAP traffic management & safety plan.

(ii) Programme for completion of all steps to meet Project milestones.

(iii) Timing of inspection and tests as per standard and specifications.

(iv) Monthly cash flow.

(f) Appoint a safety consultant.

(g) Appoint a Proof check consultant.

(h) To open a Project related Bank account.

(j) Insurance as per EPC agreement.

5.6 Construction of Project Highways

5.6.1 The Contractor shall construct the Project Highway as specified in Schedule-B and Schedule-C, and in conformity with the Specifications and Standards set forth in Schedule-D of EPC agreement. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works. The Contractor agrees and undertakes that the construction shall be completed on or before the Scheduled Completion Date, including any extension thereof.

5.6.2 In the event that the Contractor fails to achieve any Project Milestone or the Scheduled Completion Date within a period of 30 (thirty) days from the date set forth in Schedule-J of EPC agreement, unless such failure has occurred due to Force Majeure or for reasons solely attributable to the Authority, it shall pay Damages to the Authority of a sum calculated at the rate of 0.05% (zero point zero five percent) of the Contract Price for delay of each day reckoned from the date specified in Schedule -J of EPC agreement and until such Project Milestone is achieved or the Project Highway is completed; provided that if the period for any or all Project Milestones or the Scheduled Completion Date is extended in accordance with the provisions of EPC Agreement, the dates set forth in Schedule-J of EPC agreement shall be deemed to be modified accordingly and the provisions of EPC Agreement shall apply as if Schedule-J of EPC agreement has been amended; provided further that in the event the Project Highway is completed within or before the Scheduled Completion Date including any Time Extension, applicable for that work or section, the Damages paid under Clause 10.3 (ii) of EPC agreement shall be refunded by the Authority to the Contractor, but without any interest thereon.

5.7 Procedures for estimating the payment of works

The Authority shall make interim payments to the Contractor as certified by the Authority's Engineer on completion of a stage, in a length, number or area as specified and valued in accordance with the proportion of the Contract Price assigned to each item and its stage in Schedule-H of EPC agreement.

5.8 Stage Payment Statement (SPS) for works

The Contractor shall submit a statement (the "Stage Payment Statement"),

in 3 (three) copies, by the 7th (seventh) day of the month to the Authority's Engineer in the form set forth in Schedule-0, showing the amount calculated in accordance with Clause 19.3 of EPC agreement to which the Contractor considers himself entitled for completed stage(s) of the Works. The Stage Payment Statement shall be accompanied with the progress reports and any other supporting documents. The Contractor shall not submit any claim for payment of incomplete stages of work.

5.8.1 Stage Payment for Works

(a) Within 10 (ten) days of receipt of the Stage Payment Statement from the Contractor, the Authority Engineer shall broadly determine the amount due to the Contractor and recommend the release of 90 (ninety) percent of the amount so determined as part payment against the Stage Payment Statement, pending issue of the Interim Payment Certificate (IPC) by the Authority's Engineer. Within 10 (ten) days of the receipt of recommendation of the Authority's Engineer, the Authority shall make electronic payment directly to the Contractor's bank account.

(b) Within 15 (fifteen) days of the receipt of the Stage Payment Statement, the Authority Engineer shall determine and shall deliver to the Authority and the Contractor an IPC certifying the amount due and payable to the Contractor, after adjusting the payments already released to the Contractor against the said statement. For the avoidance of doubt, the IPC shall specify all the amounts that have been deducted from the Stage Payment Statement and the reasons thereof.

(c) In cases where there is a difference of opinion as to the value of any stage, the Authority Engineer view shall prevail and interim payments shall be made to the Contractor on this modes; provided that the foregoing shall be without prejudice to the Contractor's right to raise a Dispute.

(d) The Authority Engineer may, for reasons to be recorded in writing, withhold payment:-

(i) The estimated value of work or obligation that the Contractor has failed to perform in accordance with this Agreement and the Authority's Engineer had notified the Contractor; and

(ii) The estimated cost of rectification of work done being not in accordance with this Agreement.

- (e) Payment by the Authority shall not be deemed to indicate the Authority's acceptance, approval, consent or satisfaction with the work done.

All payment statement shall be authenticated in all pages by contractors authorized representative, Team Leader and Resident Engineer of AEs and Project Director.

5.9 Construction Work Programme

5.9.1 Work Programme

The Contractor will, within the specified period, prepare construction programme for submission to and approval of the Engineer. The programme should show the proposed order of work and dates for commencement and completion of various stages. The programme should include:-

- (a) Bar Chart showing proposed month-wise execution of quantities of principal items of work; and
- (b) Critical Path Method/PERT analysis of various activities from start to completion. The programme shall be:-
 - (i) Complete (i.e. include all activities).
 - (ii) Accurate (activities are properly sequenced).
 - (iii) Based on the resources and equipment deployed and their efficiency.
 - (iv) Related to the site conditions.
 - (v) Able to show realistic reductions of output of relevant activities during the monsoon period.
 - (vi) Not structured in a manner as to exploit any pending action on the part of the Employer.
 - (vii) Designed to provide for periodic updating.

5.9.2 Revised Programme

If the progress of work is falling significantly behind schedule or the Contractor is not following the programme, the Contractor shall produce, at the request of the Engineer, a revised programme showing modifications to ensure completion of the Works within the Time for Completion. Impliedly,

the revised programme will contain all the supporting details of revised resources.

5.9.3 Methods Statement

5.9.3.1 The Contractor shall provide a general description of the arrangements and methods he proposes to adopt for the execution of the works for approval of Engineer beforehand. These would include environment management plan during construction stage and traffic diversion/opening of roads as temporary measures.

5.9.3.2 These methods statement shall be written in the form of various steps in the required sequence, supplemented by sketches where necessary, and shall be self-explanatory. No change shall be made by the Contractor from the approved procedures without obtaining the approval of the engineer to the proposed changes.

5.9.4 Traffic Safety

The maintenance of existing road as well as safety during construction has to be maintained by the contractor with utmost sincerity. Only because some of these items are not part of BOQ but incidental to main work, the contractors should not shirk their responsibility for maintenance and safety. The Authority Engineer has to satisfy himself as well as Authority about compliance of the safety and maintenance requirement. In case, adequate traffic safety measures are not taken by the Contractor, appropriate action may be initiated as per the contract.

5.10 Milestones

Programme for construction and completion of all stages of construction is given in Schedule 'H' and Project milestones are set forth Schedule 'I' of EPC agreement.

5.11 Appointment of quarries, Borrow Areas and materials

5.11.1 Quarries and Borrow Areas

5.11.1.1 The Contractor will obtain approval of the Engineer for each quarry and borrow area to be used in the Project prior to commencement of quarrying and/or borrow area excavation activities. The Engineer should consider, inter alia, the following aspects before granting approval:-

- (a) The Contractor has legal approval by the owner to excavate/remove materials from the proposed quarry/borrow area.

(b) Any statutory permission required from the Government has been obtained.

(c) The proposed materials meet specification requirements.

(d) The Contractor submits an acceptable 'Environment Management Plan' for development, use and closing down of the proposed quarry/borrow area, together with any other approvals or documents that may be required from the concerned authorities.

(e) The Contractor gives an undertaking that he will pay all royalty and other levies/dues.

5.11.1.2 Based on the proposal of the Contractor, and receipt of site inspection report of the Engineer's team, the Engineer will: (i) approve the proposed quarry/borrow area, or (ii) give approval subject to one or more required changes, or (iii) ask for a revised proposal, giving details of required changes, and additional requirements, or (iv) reject the proposed quarry/borrow area.

5.11.2 Materials

5.11.2.1 All materials (whether natural, processed, manufactured, or designed) proposed by the Contractor to be used on the Works shall be got approved from the Engineer to comply with the requirements of Specifications.

5.11.2.2 Approval of natural materials will be done initially by approving the quarry or borrow area, and finally on the basis of test results meeting the specifications and trial results.

5.11.2.3 Approval of processed materials will be done after they meet the specified test results and have evidence of satisfactory production and storage conditions.

5.11.2.4 Source of manufactured materials shall be mentioned alongwith appropriate test results by the manufacturers for approval.

5.11.2.5 Approval of the designed materials (like, concrete mix, bituminous mix) shall be done stage-wise, involving approval of: the source of quarries; the individual processed material; laboratory-based mix design; plant mix design; trial section and finally, successful laying in accordance with the approved methodology, conformance to quality control requirements and tests as per provisions of the Specifications.

5.11.2.6 Subsequent to initial approval of the quarries, borrow areas and materials, quality of materials shall be continuously monitored by the Engineer to

ensure continued adherence with the design Specifications. If and when the materials fall outside the acceptance criteria the situation may call for: (i) changes in the quarries/borrow areas; (ii) modifications of the process and/or design in the case of processed or designed materials, and (iii) change of source of procurement in the case of manufactured materials.

5.12 Subcontracting

The EPC Contract have provision under clauses 4.2 of EPC agreement for the Contractor to get specified works executed from subcontractors. Responsibility for all subcontract works rests with the prime Contractor. A policy letter No. 24006/DGBR/Policy/57/EPC Cell dated 25 Jun 2021 has been issued by HQ DGBR for subcontracting of EPC works. Subcontracting by the Contractor without the approval of the Authority shall be a breach of Contract.

5.12.1 Subcontractor Assessment Procedures and Guidelines

Subcontractor has got to be approved before being allowed to come to the site.

(a) The contractor shall promptly intimate to Authority Engineer about the deployment of any sub-contractor with details of nature and quantum of work assigned, percentage with respect to contract amount, agreement between other parties if any, credential of subcontractor similar to that of contractor conducted during prequalification, details of manpower & resources planned to be inducted by subcontractor. Authority Engineer shall provide assessment of sub-contracting proposal submitted by contractor to Authority with his recommendation.

(b) At any point of time if the Engineer discovers that unauthorized subcontractor is working at the site, he shall notify the Contractor, in writing, of the breach of Contract. A copy of this correspondence shall be forwarded to the Employer.

(c) Upon receipt of such notice from the Engineer, the Contractor shall immediately take steps to remove the subcontractor from the site. Failure by the Contractor to do so will constitute breach of Contract on his part.

5.12.2 Responsibilities

If a Contractor continues with the engagement of a non-approved subcontractor, despite a notice from the Engineer for his removal, then the work done by such a subcontractor shall not qualify for payment, besides its constituting, as mentioned above, a breach of Contract, and non-compliance

of directions on the part of the Contractor, entailing action as provided in the Contract.

5.12.3 Powers to grant approval to subcontracting

All proposals for subcontracting shall be got approved from the Authority/ Client.

5.13 Delay and Extension of Time

Contractor may experience delay or disruption in execution of works due to his own actions or inactions or failure of subcontractor or other suppliers, Authority or Authority Engineers or any other causes. Such delays expose the non performing party to various sanctions under the contract. These sanctions include extensions of time, damages or determination of contract. The Contractor shall be entitled to extension of time in the Project Completion Schedule (the "Time Extension") to the extent that completion of any Project Milestone is or will be delayed by any of the following, namely:-

(a) Delay in providing the Right of Way of Construction Zone, environmental clearances or approval of railway authorities, specified in Clause 3.1 (iv) of EPC agreement.

(b) Change of Scope (unless an adjustment to the Scheduled Completion Date has been agreed under Article 13).

(c) Occurrence of a Force Majeure Event.

(d) Any delay, impediment or prevention caused by or attributable to the Authority, the Authority's personnel or the Authority's other contractors on the Site.

(e) Any other causes of delay which entitles the Contractor to Time Extension in accordance with the provisions of this Agreement.

5.14 Delay Administration

(a) Authority Engineer shall expeditiously take action and give clear recommendations with detailed reasoning & supporting documents and events leading to delay in work activity to Project Director. Project Director shall examine the recommendations of Authority Engineer and endorse detailed remarks and recommendations and forward EOT notice to the Authority for final consideration. HQ DGBR vide letter No. 24006/DGBR/Policy/04/EPC Cell dated 29 May 2018 has delegated full power to Chief Engineer (P) / Authority for taking decision on grant of extension of

time for MoD funded Projects. Time limit for communication of decision of authority on notice of contractor shall be strictly adhered.

(b) Procedure and grant of extension of time for MoRT&H funded works shall be dealt as per Para 7 of MoRT&H circular No. RW/NH-24035/4/2008-P & M / PIC Vol II dated 17 Sep 2018.

5.15 Variations/Change of Scope

(a) Article 13 of EPC agreement deals with reason & procedure for change of scope. Final Authority for approving of change of scope for EPC works funded by MoD is Chief Engineer (Projects).

(b) Authority of change of scope for MoRT&H shall be as per Para 6 of MoRT&H circular No RW/NH-24035/2008-P&M/PIC- Vol II of 17 Sep 2018.

5.16 Completion of Construction works

(a) Contractor shall notify in Advance to Authority Engineer of completion of works of project Highway or a section thereof. Detailed guidelines are mentioned in Article 12 of EPC agreement for issue of completion certificate and schedule-K of EPC agreement has detail of tests to be conducted on completion of works.

(b) The completion certificate is to be issued by the Authority Engineer with prior approval of Authority, as per Schedule-N of EPC Agreement. Therefore, Authority should ensure that the completion certificate is approved after verifying/ confirming that all works/ items including ancillary items forming part of the project Highway are completed in all respect confirming to the Standard & Specifications of the agreement. A video of completed work on the date of completion should invariably be prepared and furnished as an authentic documentary evidence of completion of works within 15 days of completion without which completion certificate should not be issued. Authority Engineer, apart from furnishing a certificate of completion of all tests as per specifications in accordance with contract, would also certify that all NCRs issued during the contract have been closed after successful rectification of defects within the completion date.

Chapter 6

DISPUTE RESOLUTION

6.1 Dispute

A 'dispute' implies an assertion of a right or a claim by one party and repudiation thereof by the other party, either expressed or implied, and may be by words or by conduct. A mere 'difference' is not necessarily a dispute; when the parties fail to resolve it, the difference culminates in dispute.

- 6.1.1 Any dispute arising shall be notified by either party (The 'Dispute'). Parties shall make their best effort for resolving all Disputes promptly, equitably and in good faith through mutual conciliation. A guideline for dispute resolution mechanism is described in Article 26 of EPC Agreement.

6.2 Guidelines to minimize disputes

Following guidelines shall be followed to avoid/minimize the incidence of disputes and their adverse consequences.

- (a) It is necessary to carry out proper pre-planning, investigations and detailing to obtain sound design and realistic specification and drawings, including land acquisition. Inconsistencies/ contradictions between various documents should be avoided.
- (b) Access to land should be provided as per schedule given in the Contract.
- (c) In the case of consultancy assignments, the TOR and output expected should be clearly specified.
- (d) Decision making should be quick. Objectives of the project, considering quality, time and cost should be the guiding criteria.

Chapter 7

LAND ACQUISITION METHODOLOGY

7.1 INTRODUCTION

7.1.1 Up-gradation/Development of any Highway involves:-

- (a) Acquisition of additional land.
- (b) Shifting of utilities.
- (c) Felling of trees, and Wildlife corridor.
- (d) Removal of existing structures which fall in the Right of Way (ROW).

7.1.2 Meeting these pre-requisites not only entails heavy cost but also involves a lot of time and effort. Determination of the most optimal alignment of a Highway artery is the basic requirement for efficient implementation of a Highway project. This is the first step based on which the proposals for land acquisition are drawn up. As such, it is critical that the alignments are determined/ finalized after undertaking due diligence, this will reduce time and cost of Land Acquisition.

7.2 Applicable Land Acquisition Act

7.2.1 The land acquisition for development of National Highways is done under the under Section 3 of the NH Act, 1956. Land acquisition of other roads are still undertaken on Land acquisition acts of respective states. Land acquisition is an important exercise and shall be dealt with due diligence otherwise it is seen as main reasons in delay in finalization of DPRs.

7.2.2 This chapter broadly describe NH Act 1956 and procedure of land acquisition with role and responsibility of stakeholders.

7.3 Role and responsibilities of Stakeholders at different stages of Land Acquisition

The roles and responsibilities of the three main stakeholders, namely, (i) the DPR Consultants, (ii) the officers of the project executing agencies (i.e. CE Project & Task Force Commander), and (iii) the Competent Authorities for Land Acquisition (CALAs)/State Revenue Authority. The roles and responsibilities of stakeholders is briefly described in the following paragraphs:-

7.3.1 Role and responsibility of DPR Consultants

The DPR Consultants, in the process of deliverables, discharge a pro-active role in providing support system and assistance to the Competent authority for Land Acquisition (CALA) for acquisition of land for the highway project. Brief details of roles and responsibility of DPR consultants are:-

- (a) To delineate and propose the most optimal alignment and take care of geometrics of the road to meet safety parameters while finalizing the DPR.
- (b) Identify and avoid (to the extent feasible) all such structures (religious structures, public utilities, cremation grounds, private structures) in the RoW of the road project that could become major hindrances at the time of project execution.
- (c) Procure or create digitized, geo-referenced cadastral/ land revenue maps for the purposes of land acquisition activities. Where state governments or local agencies have already digitized cadastral maps, the consultant shall arrange to procure such maps. The digitized map should exactly match the original map so that the dimensions and area of plots can be extracted from the map itself.
- (d) Co-ordinate collection of all relevant land revenue records (including Khasra maps, Khatiyani, Jamabandi etc.) from the local land revenue administration office required for preparation of Draft notification under Section 3A of the NH Act.
- (e) Identify and list all land parcels that need to be acquired as part of project road. Conduct Joint measurement survey in conjunction with CALA, the Executing Agency and the Land Revenue Department to verify land records.
- (f) Assist the CALA and the Project Executing agency in preparation of statutory notification under Sections 3A, the CALA during hearing of objections received under Section 3C, recording of hearings and completion of this process, preparation of draft notification under Section 3D and completion of the LA process at every stage, timely publication of notifications and public notices in newspapers at every stage.
- (g) Clear identification and preparation of an inventory of the assets attached to the land under acquisition (e.g. structures, trees, crops or any such assets which should be valued for payment of compensation).
- (h) Co-ordination with offices of various departments like Land Revenue Office (or Tehsil), Registrar office and other State departments (public works

department, horticulture department, forest department etc.) for valuation of assets (Structures, trees, crops etc.) attached to the land and liaison with respective State authority for authentication of the valuation.

(i) Prepare an inventory of all the utilities (electrical/ water supply lines/ gas pipelines etc. – both linear and cross-overs) and all such structures (religious structure, public utilities, cremation grounds, private structures) in the RoW of the road project that could become major hindrances at the time of project execution.

(j) Carefully avoid location of any Flyover/ Vehicular Under Pass/ elevated structure where a high tension electricity line (66/132/220/400 KV etc.) is crossing over so as to avoid raising of such line at such point, while designing the road projects.

(k) Assist in demarcation of the acquired land and installation of the boundary stones/ pillars/ peg-markings along the RoW of the alignment.

(l) Identification of land parcels missed out from acquisition in the first round and assist the Authority and the CALA in preparation of Draft Notifications for acquisition of the land under missing plots.

7.3.2 Role and responsibility of the officer of the Project Executing Agency i.e. CE Project & Task Force Commander

The officer-in-charge of the project executing agency is expected to discharge his role as the owner of the project at every stage of completion of the LA process and establish his project ownership by taking the lead at every stage. Brief roles and responsibility of officer in charge of Project i.e. CE Project, Task force Commander are:-

(a) Active coordination and collaboration with the DPR Consultants regarding all aspects of land acquisition right from the stage of preparation of DPR/ Feasibility Report.

(b) At the first level, call on the concerned Deputy Commissioner/ District Collector and the CALA to brief them about the road project and the need for timely acquisition of land for the said project. Keep this contact on a continuing basis.

(c) At the next level, coordinate with and liaise with the concerned field officers from the Departments of PWD, Forest, Horticulture, Electricity and other Utility owning departments and brief them about the importance of the project and their support.

- (d) Request the Deputy Commissioner/ District Collector to convene periodical review meetings of all concerned.
- (e) Ensure timely issue of Notifications under Sections 3(a), 3(A) & 3(D) of the National Highways Act, 1956.
- (f) Ensuring timely conduct of Joint measurement survey, wherever required.
- (g) Coordination with the CALA and officers of other concerned departments, i.e. Forest, Horticulture, PWD for valuation of assets attached to the land and for seeking pre-project statutory clearances.
- (h) To assist the CALA in determination of market value of land as per the provisions of the Act, while observing the guidelines issued by the Ministry of Road Transport & Highways in furtherance of the Act in this behalf.
- (i) To bring any deviation from legal provisions/ guidelines to the Notice of the CALA for necessary correction at the draft stage of the Award, correct positioning of the nature/ category of land in the Award, assist the CALA in correctness of mathematical calculations, and to ensure that compensation for Government land is not included in the Award.
- (k) Expeditious settlement of compensation claims/ declaration of award.
- (l) Identification of missing plots and expediting the LA process for the same.
- (m) Expediting appointment of Arbitrators, as and when required.
- (n) Challenging Arbitral Awards, in event of their being unreasonable.
- (o) Mutation of acquired land in favour of Central Government in the Record of Rights.
- (p) To ensure strict compliance of Guidelines issued by Government from time to time.

7.3.3 Role and responsibility of the Competent Authority (Land Acquisition)

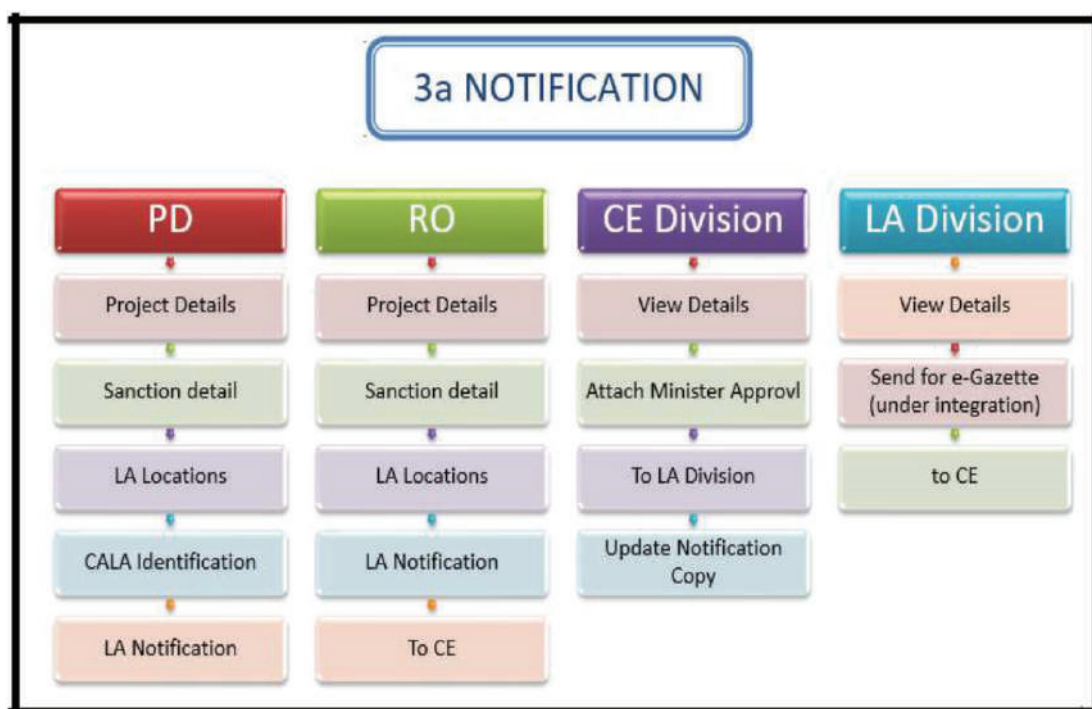
- (a) To devise an action plan for completion of the land acquisition proceedings in a time-bound manner.
- (b) To ensure that the land acquisition proceedings are undertaken in accordance with the provisions of the NH Act, 1956 read with the applicable provisions of RFCTLARR Act, 2013, and the guidelines issued by the Ministry in furtherance thereof.

- (c) To check that the nature of land reflected in the 3A notification is as per Revenue Records and to get the joint measurement survey conducted.
- (d) To hear and settle the objections received from the landowners/ persons interested in the land under Section 3C of the NH Act.
- (e) Critical examination of documents submitted by landowners regarding their claims for change in nature/ category of land.
- (f) Make all efforts to collect the details of Bank Accounts of landowners/ persons interested therein while inviting claims, using the formats as per policy for the purpose so as to ensure that the compensation amount is immediately credited to the accounts of the landowners.
- (g) Publication of the two Public Notices in newspapers for speedy disbursement of compensation amount to the landowners, crediting the compensation amount to the bank accounts of the landowners and taking possession of land/ its handing over to the executing agency.
- (h) If any dispute arises as to the apportionment of the amount for any part thereof or to any person to whom the same or any part thereof is payable, the case shall be referred to the Principal Civil Court of original jurisdiction for its decision in the matter.
- (i) To facilitate the mutation of land in the name of Central Government.

7.4 Process of Land Acquisition under the NH Act, 1956

Appointment of Competent Authority for land Acquisition (CALA) under Section 3(a) of the NH Act, 1956.

- 7.4.1 The first step in the process of Land Acquisition for National Highways under the National Highways Act, 1956 relates to the appointment of Competent Authority for Land Acquisition (CALA) under Section 3(a) of the NH Act, 1956. Project officials shall approach State revenue authorities with details of works and NH involved for appointment of CALA. The CALA is invariably an officer dealing with the land administration in the area and is the custodian of all revenue/ land records, and so appointed by the Central Government on the recommendations of the State Government.



7.4.2 Notification under Section 3A of the NH Act, 1956

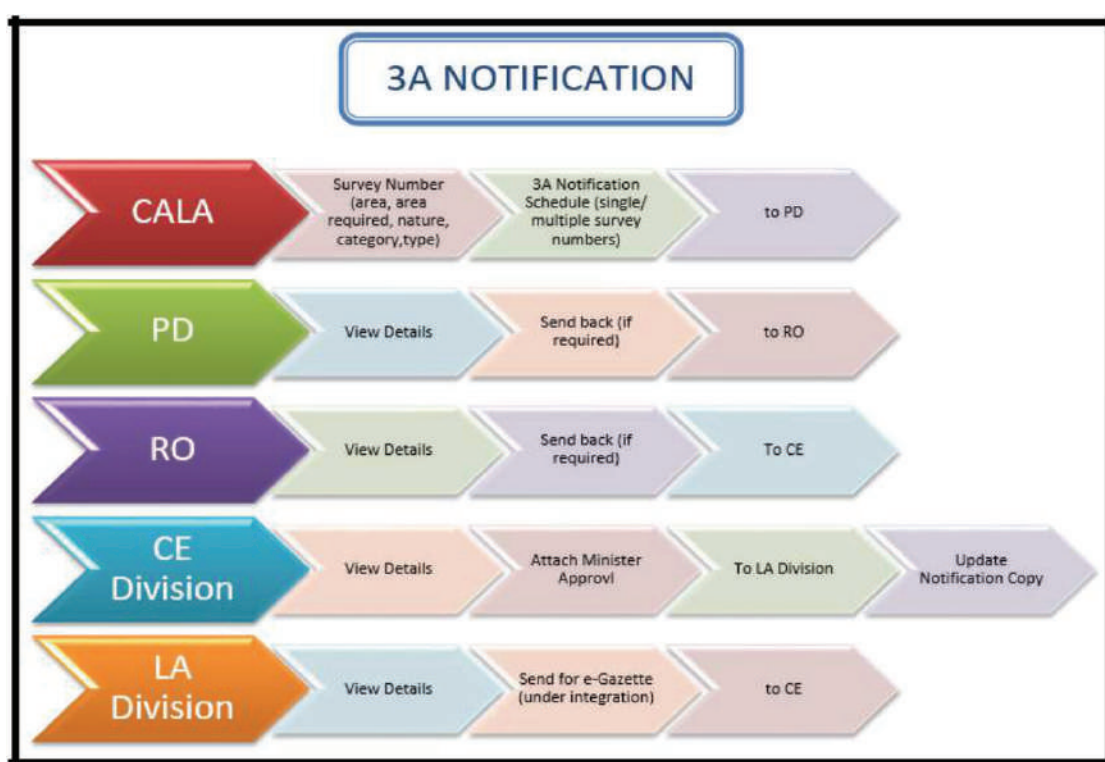
(a) 3A. Power to acquire land, etc. Where the Central Government is satisfied that for a public purpose any land is required for the building, maintenance, management or operation of a national highway or part thereof, it may, by notification in the Official Gazette, declare its intention to acquire such land.

(b) The competent authority shall cause the substance of the notification to be published in two local newspapers one of which will be in vernacular (local) language.

(c) Once the CALA is appointed under Section 3(a), representative of the land acquiring agency/ PD concerned approaches the CALA for issue of Preliminary Notification under Section 3A of the NH Act, 1956. This draft Notification is invariably prepared by the DPR consultant based on revenue records obtained from the office of CALA. Preparation of Notification under Section 3A is a demanding job, especially in a linear project, as the possibility of missing out certain small revenue/ Khata numbers cannot be ruled out. This draft notification thus, as submitted to the CALA, must pass through a two or three eye-check so as to ensure that the incidence of missing numbers/ plots is minimized. This draft is then vetted by the CALA before he signs and uploads the same on Bhoomi Rashi portal for approval of the competent authority and its publication in the Gazette.

(d) Publication of Notification under Section 3A is now much easier and faster with the development, roll-out and implementation of Bhoomi Rashi software. The chances of any mistakes creeping in are also minimised in the process.

(e) Besides publication of Notification under Section 3A in the Official Gazette, it is equally important that the Notification is also immediately published in two newspapers circulating in the area, of which one must be in vernacular. It has to be noted that the subsequent Notifications under Section 3D and other public notices are also got published in the same set of newspapers.



7.4.3 Publication of Notification under Section 3A enables the land acquiring agency to undertake the activities specified under Section 3B, which is reproduced below:

3B. Power to enter for survey, etc. On the issue of a notification under subsection (1) of section 3A, it shall be lawful for any person, authorised by the Central Government in this behalf, to make any inspection, survey, measurement, valuation or enquiry; take levels; dig or bore into sub-soil; set out boundaries and intended lines of work; mark such levels, boundaries and lines placing marks and cutting trenches; or do such other acts or things as may be laid down by rules made in this behalf by that Government.

7.4.4 Hearing of Objections (filed under Section 3C and settlement thereof:-

(a) 3C. Hearing of objections. Any person interested in the land may, within twenty-one days from the date of publication of the notification under sub-section of section 3A, object to the use of the land for the purpose or purposes mentioned in that sub-section.

(b) Every objection under sub-section (1) shall be made to the competent authority in writing and shall set out the grounds thereof and the competent authority shall give the objector and may, after hearing all such objections and after making such further enquiry, if any, as the competent authority thinks necessary, by order, either allow or disallow the objections.

(c) It is clear from the above that the landowners are given an opportunity by law to file objections before the concerned CALA in respect of the proposed acquisition of their land, be it with respect to the Khata numbers, the area under such field number, the nature of land shown in the preliminary notification or any other issue. The landowner is required to file his/ her objection within a period 21 days of the publication of preliminary notification under Section 3A of the NH Act, 1956.

(d) The period of 21 days for filing objections under Section 3C is to be counted from the date of publication of the Notification under Section 3A in the newspapers. It is also for these reasons that the publication of Section 3A Notification in the locally circulating newspapers should be an immediate action.

7.4.5 Notification under Section 3D of the NH Act, 1956 – Declaration.

(a) 3D. Declaration of acquisition. Where no objection under sub-section (1) of section 3C has been made to the competent authority within the period specified therein or where the competent authority has disallowed the objection under sub-section (2) of that section, the competent authority shall, as soon as may be, submit a report accordingly to the Central Government and on receipt of such report, the Central Government shall declare, by notification in the Official Gazette, that the land should be acquired for the purpose or purposes mentioned in sub-section (1) of section 3A. On the publication of the declaration under sub-section (1), the land shall vest absolutely in the Central Government free from all encumbrances.

(b) Where in respect of any land, a notification has been published under sub-section (1) of section 3A for its acquisition but no declaration under sub-section(1) has been published within a period of one year from the date of publication of that notification, the said notification shall cease to have any effect.

(c) Provided that in computing the said period of one year, the period or periods during which any action or proceedings to be taken in pursuance of the notification issued under sub-section (1) of section 3 A is stayed by an order of court shall be excluded.

(d) A declaration made by the Central Government under sub-section (1) shall not be called in question in any court or by any other authority.

(e) It may be noted that while the Notification under Section 3A of the NH Act reflects the intent of the Government to acquire land, the Notification under Section 3D is the declaration by the Government that such land is required. As such, there is every possibility that certain land parcels, which may have been included in the Notification issued under Section 3A, are excluded from the Notification under Section 3D.

(f) The draft Notification under Section 3D should duly take into account the corrections that may have been pointed out to the CALA in due course or accepted/ allowed by him in the process of settlement of objections filed under Section 3C.

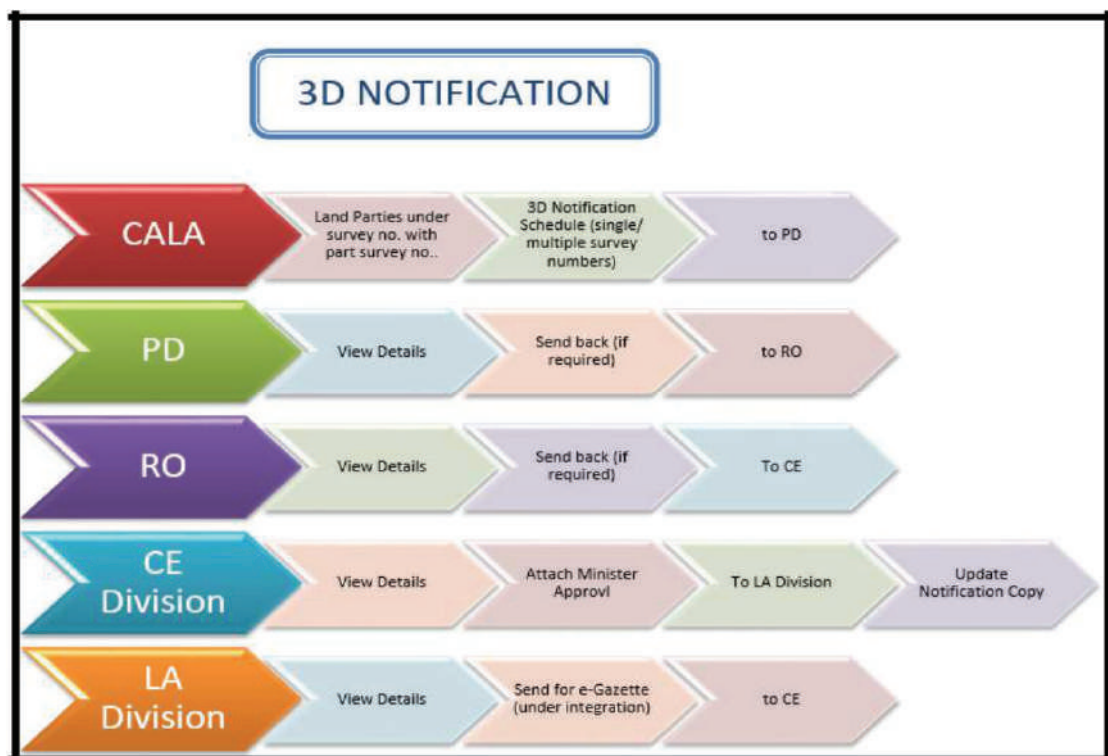
(g) Further, it has also been observed that the nature of land (agricultural/ non-agricultural) might have been changed in the revenue records inadvertently in a few cases, say from agricultural to non-agricultural or vice-versa, when examined in relation to the corresponding particulars in the notifications published under Sections 3A or 3D. Such inadvertent mistakes/ situations can be remedied by issuing a corrigendum by MoRTH. Therefore, any such inconsistencies need to be urgently brought to the notice of the Ministry by CALA through the concerned officers of implementing agencies for issuing the required corrigendum in time but certainly before the CALA determines at the market value.

(h) Once the CALA has done due diligence about the contents of draft Notification under Section 3D, it has to be uploaded on the Bhoomi Rashi portal, whereupon, after approval of the competent authority in the Ministry, it is electronically transmitted to the Government Press for publication of the Notification in the Government Gazette. Accordingly, the notification under Section 3D is published in the Gazette.

(i) Though the Award in respect of the land acquisition under NH Act, 1956 is announced under Section 3G, it is important to comply with the process stipulated under sub-section (3) of Section 3G before determination of the amount of Award. The said sub-section (3) of Section 3G is reproduced below:-

Before proceeding to determine the amount under sub-section (1) or sub-section (2) [of Section 3G], the competent authority shall give a public notice published in two local newspapers, one of which will be in a vernacular language inviting claims from all persons interested in the land to be acquired.

(j) It is at this stage that the Notification under Section 3D is also published in two newspapers circulating in the local area, one of which has to be in vernacular, for information of the landowners and for inviting claims from such landowners or persons interested in such land which is included in the Notification published under Section 3D. The CALA has to ensure that the said Notification is published immediately in the same set of locally circulated newspapers in which the Notification under Section 3A was published.



7.4.6 3E. Power to take possession

(a) Where any land has been vested with the Central Government under sub-section (2) of section 3D, and the amount determined by the competent authority under section 3G with respect to such land has been deposited under the sub-section (1) of section 3H, with the competent authority by the Central Government, the competent authority may by notice in writing direct the owner as well as any other person who may be in possession of such land to surrender or deliver possession thereof to the competent authority or

any person duly authorised by on his behalf within sixty days of the serving of the notice.

(b) If any person refuses or fails to comply with any direction made under sub-section (1), the competent authority shall apply – in the case of any land situated in any area falling within the metropolitan area, to the Commissioner of Police; in the case of any land situated in any area other than the area referred to in clause (a), to the Collector of a District, and such Commissioner or Collector, as the case may be, shall enforce the surrender of the land to the competent authority or to the person duly authorized by it.

7.4.7 3F. Right to enter into the land where land has vested in the Central Government – Where the land has vested with the Central Government under section 3D, it shall be lawful for any person authorised by the Central Government on this behalf, to enter and do other act necessary upon the land for carrying out the building, maintenance, management or operation of a national highway or a part thereof, or any other work connected therewith.

7.4.8 3G. Determination of amount payable as compensation

(a) The competent authority for Land Acquisition (CALA) to announce the Award under Section 3 G. The CALA has to carefully apply himself to the issues and guidelines enunciated in the foregoing paragraphs and applicable Land acquisition Acts while finalizing Award.

(b) Before proceeding to determine the amount, the competent authority shall give a public notice published in two local newspapers, one of which will be in a local language inviting claims from all persons interested in the land to be acquired. Such notice shall state the particulars of the land and shall require all persons interested in such land to appear in person or by an agent or by a legal practitioner, before the competent authority, at a time and place and to state the nature of their respective interest in such land. If the amount determined by the competent authority is not acceptable to either of the parties, the amount shall, on an application by either of the parties, be determined by the arbitrator to be appointed by the Central Government. Subject to the provisions of this Act, the provisions of the Arbitration and Conciliation Act, 1996 (26 of 1996) shall apply to every arbitration under this Act.

(c) The competent authority or the arbitrator while determining the amount, as the case may be, shall take into consideration- the market value of the land on the date of publication of the notification under section 3A; the damage, if any, sustained by the person interested at the time of taking possession of the land, by reason of the severing of such land from other

land; if, in consequences of the acquisition of the land, the person interested is compelled to change his residence or place of business, the reasonable expenses, if any, incidental to such change.

7.4.9 3H. Deposit and payment of amount

(a) The amount determined under section 3G shall be deposited by the Central Government in such manner as may be laid down by rules made in this behalf by that Government, with the competent authority before taking possession of the land.

(b) As soon as may be after the amount has been deposited under sub-section (1), the competent authority shall on behalf of the Central Government pay the amount to the person or persons entitled there to.

(c) Where several persons claim to be interested in the amount deposited under sub-section (1), the competent authority shall determine the persons who in its opinion are entitled to receive the amount payable to each of them.

(d) If any dispute arises as to the apportionment of the amount or any part thereof or to any person to whom the same or any part thereof is payable, the competent authority shall refer the dispute to the decision of the principal civil court of original jurisdiction within the limits of whose jurisdiction the land is situated.

7.5 RFCTLARR Act 2013

It may be noted that Section 3 of the NH Act, 1956 did not contain any provisions for payment of solatium and the interest. The provisions of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 (came into force on 01.01.2014), This Act has been made applicable to acquisitions under the National Highways Act, 1956 by virtue of notification/order issued under the provisions of the Act of 2013. it is also a settled position that the First, Second and Third Schedules of the RFCTLARR Act, 2013 are applicable to the NH Act, 1956 with effect from 01.01.2015. The compensation would be payable in accordance with the First Schedule of the RFCTLARR Act, 2013.

7.6 Determination of the amount of Compensation in respect of land by the CALA

7.6.1 Determination of market value of land:

(a) A number of issues have come to notice regarding the acquisition of land, especially those relating to determination of the market value of land, treatment of the nature of land and its impact on the market value of land

and the total compensation amount awarded in respect of land acquisition for the National Highways. These are discussed and elaborated in the following sub-paras.

(b) It is re-iterated in the first instance that the CALAs, though officers from the State Governments, are appointed as such by the Central Government under the NH Act, 1956 and, accordingly, the CALAs are obliged to act in accordance with the provisions contained in the NH Act, 1956 and the guidelines issued by this Ministry in furtherance thereof in discharge of their quasi-judicial functions.

(c) Further, it has been observed that the officers of Project Implementing Agencies (BRO) do not undertake any due diligence on the amount of Award and leave it entirely to the CALAs on the ground that it is not their domain to question the CALAs in this regard. This has been the practice followed so far. It may be noted that, as representatives of the land acquiring agency (i.e. the Central Government), they cannot entirely distance themselves in this process. They have to watch the financial interests of the Central Government as representatives of the land acquiring agency. As such, the concerned field officers may request the concerned CALA to share the Draft Award with them for furnishing their comments, if any. They would generally oversee that the compensation being awarded and paid for land acquisition is in accordance with the law and that any extraneous factors or considerations are not built therein. Any such inconsistencies, timely rectification of which is necessary in the interests of the landowners as well as the Central Government, must be pointed out to the CALA immediately in writing for reconciliation and correction.

(d) Provisions of RFCTLARR Act, 2013 relating to the determination of compensation in accordance with the First Schedule and rehabilitation and resettlement specified in the Second and Third Schedules are applicable to the land acquisition under the National Highways Act, 1956. Determination of compensation, as prescribed under the First Schedule, is governed under Sections 26 to Section 30 of the RFCTLARR Act, 2013. Total compensation amount includes various components in the following order:-

Step 1:	Determination of market value of land in accordance with Sub-section (1) of Section 26, read with sub-section (3) of Section 26 of the RFCTLARR Act 2013
Step 2:	Apply the Multiplication Factor to the amount determined in accordance with step 1 in terms of sub-section (2) of Section 26 of the RFCTLARR Act 2013

Step 3:	Calculate the value of assets (buildings, trees etc.) attached to the land under acquisition in terms of Section 29 of the RFCTLARR Act, 2013
Step 4:	Add the amount determined under Step 2 and Step 3 and then provide for 100% solatium on the amount so arrived
Step 5:	Calculate the amount @ 12% per annum on the market value determined under Step 1 in terms of Section 30(3) of the Act
Step 6:	Total Compensation amount = Step 4 + Step 5.

7.6.2 Determination of Compensation for the Structures and other assets

(a) Apart from determination of the basic market value of the land under acquisition, the CALA has to take into account the value of assets attached to such land. These assets may be in the form of built-up structures, fruit trees, normal trees, any other such assets. Generally, the CALA is required to get the valuation of such assets carried out from the respective competent authorities e.g. from the PWD or approved valuers in respect of structures, from an Horticulture Officer in respect of fruit trees, from the Forest Officer in respect of general trees etc.

(b) Once Central Government has notified any land for acquisition for a road project or associated facilities, the CALA is duty-bound under law to determine the compensation for the subject land and the structures, trees or any other assets attached to such lands or standing thereon as on the date of issue of notification under Section 3A of the NH Act, 1956. However, creation of any such asset or change in the nature of any such asset including value addition therein on or after the issue of Section 3A Notification is not taken into account for payment of any compensation. As such, it is in the interest of the acquiring agency that the status of any such assets is captured, as early as possible, upon issue of the Notification, through photographs/ videography so as to ensure the genuineness of determination of compensation.

7.6.3 Compensation for structures on Government Land/ Public Assets: General Principles

It should be ensured that no amount of compensation is paid for the government land and also for the land where relocation of structures is proposed. The valuation of the structures should be done either by the appropriate State Government Agency. The proposal should have been received from the CALA/ concerned Government agency.

7.7 Unit of measurement

Another issue pertains to the Unit of measurement of the land. The standard unit used for acquisition of land for the National Highways is "Hectare". It has been observed that the CALAs announce the Award using different standard Units e.g. Marlas/ Sq. Meter/ Sq. Yard. It is in sync with the process that the same Standard Unit of measurement of land is used in the Awards i.e. "Hectare" rather than using any other units of measurement of land.

7.8 Announcement of the Award under Section 3G by the CALA

The Competent Authority for Land Acquisition (CALA) is required to announce the Award under Section 3G. CALAs should follow the standard template for publication of award with such changes or variations, as may be found necessary on case-to-case basis.

7.9 Disbursement of Compensation amount:

It has been observed that the process of disbursement of compensation amount to the landowners or the persons interested therein goes on for a long period for a variety of reasons, which leads to delays in taking possession of the land acquired and required for construction of the Highway. Some of the most common reasons could be stated as under:-

- (a) A number of landowners do not come to know about the Award having been announced by the CALA.
- (b) The landowners do not furnish the details of their Bank Accounts to the CALA in time, for whatsoever reasons. As a result, the compensation amount cannot be deposited in the accounts of the concerned landowners using the PFMS and the RTGS system of Banking.
- (c) There are certain landowners who do not maintain their usual residence where the land is situated and can be called as absentee landowners. These absentee landowners visit the CALA offices for collection of compensation amount as per their convenience.
- (d) The land records are not updated and the successors-in-interest are not clearly identified with their respective shares.

7.10 Possession of Land for the Highway Project

- (a) It has been observed in a number of cases that the CALAs give paper possession of the acquired land to the officers of the Authority (BRO), with or without payment of compensation to the landowners. Once the amount

determined by CALA u/s 3G has been deposited by the acquiring agency as per Section 3H(1), the CALA has to issue the Public Notices, in addition to individual notices to the landowners, calling upon them to surrender land or deliver possession within 60 days of service of such notice, as prescribed under Section 3E(1) of the National Highways Act, 1956.

(b) As per the laid down procedure, the DPR consultant undertakes the job of installation of boundary pillars of the acquired land. It has been observed that the landowners, more so in respect of agricultural land, remove the boundary pillars and sow the next crop in the acquired land as they are tempted to use the land since the actual construction/ development of land has not taken off in such areas. Therefore, BRO Authorities should immediately upon announcement of the Award proceed to take physical possession of land, followed by clearing & grubbing of such acquired land including trenching at the edges of RoW, by mechanical means using the graders, dozers, excavators, etc. The landowners are expected to recognize that such lands no longer belongs to them and do not undertake to cultivate such area for the next crop. This practice has to be adopted and put in place without exception forthwith.

(c) The DPR consultants, as a part of their obligations prescribed in the RFPs, are required to undertake DRONE/ LiDAR survey in the process of determination of alignment/ preparation of details for Section 3A notification. As such, the photographs/ maps from such DRONE/ LiDAR survey have to be taken and archived as part of the records as an evidence of the land use/ any structure existing on such land on the date of preliminary notification, i.e. under Section 3A of the National Highway Act, 1956. This is important because any change in the land use/ improvement on nature of land made by the landowner after the issue of preliminary notification under Section 3A, does not qualify to be taken into account for determination of compensation for the land.

7.11 Transfer of Land Compensation Amount

The funds out of which Compensation is to be paid in lieu of land acquired under the National Highways (NHs) Act, 1956, are placed solely at the disposal of the Competent Authority for Land Acquisition (CALA) but these funds are placed in a joint account held in the name of CALA and Project Director (PD). Funds are disbursed by CALA after declaration and finalization of land acquisition awards. Since Land Acquisition involves huge amounts of Compensation and the whole process takes place over a prolonged period.

7.12 Mutations/ Sale Deeds of the land acquired/ procured for National Highways

(a) All National Highways vest in the Union as per Section 4 of the National Highways Act, 1956. All agencies, entrusted with the NH Projects for development and maintenance thereof, are required to maintain an inventory of all assets created in the process, including the land acquired under the Act and the land procured or purchased through negotiations, (more relevant to procurement of land under the missing plots).

(b) The process requires sanction of mutations in respect of the land acquired under law, and execution of sale deeds in respect of land purchased/ procured through negotiations. It is extremely important to ensure that the mutations for the land acquired are got sanctioned from the revenue authorities in the name of "President of India through the Ministry of Road Transport & Highways" simultaneously with the possession thereof.

(c) Similarly, as regards the land procured/ purchased through negotiations, sale- purchase deeds are to be got executed in favour of "President of India through the Ministry of Road Transport & Highways" simultaneously with the payment of consideration amount.

7.13 Bhoomi Rashi - Ministry's e-initiative to fast track the Land Acquisition Process

7.13.1 Introduction:

(a) Given the time taken in completion of various processes involved in Land Acquisition for the National Highways, the Ministry has taken an e-initiative known as Bhoomi Rashi, with the help of NIC, for transforming the complete landscape. The portal has been developed and successfully implemented. The internal movement of files for issuance various Notifications under different Sections of the NH Act, 1956 used to take anywhere between three to six months earlier. Now, it happens within a maximum of 15 days.

(b) It was observed that the process of issuing various Notifications for Land Acquisition was beset with delays. Hence, it was decided to develop a Land Acquisition (LA) system which would provide linkage across authorities, eliminate the need of physical copy, reduce the formatting errors/ clerical mistakes and enable easy tracking of the draft notifications. The concept, once decided, was then given shape by the Ministry's Land Acquisition Wing, and NIC was mandated in November 2016 to design a complete web utility that would bring in required efficiencies.

7.13.2 Major features of Bhoomi Rashi portal

Bhoomi Rashi portal has integrated Land Acquisition System with 7 major features:-

(a) System Access. There are 3 different type of access viz. Drafting access, Reviewing access, and the Publishing access. Drafting access is provided to CALA office for preparing the draft notification on the system and for award calculation; reviewing access is provided to the corresponding authority to review the draft notification and publishing access has been provided to the official printing press for publication in the Official Gazette.

(b) Pre-defined Format. The system provides a pre-defined format for preparation of 3a, 3A and 3D draft notifications to be utilized by CALA. Apart from this, the Land Acquisition system can also provide a pre-defined format for preparation of award (3G). The Land Acquisition system also provides pre-defined format for submission of documents like ROW details, strip-plan required for legal vetting of the draft notification.

(c) Award Calculator. Greater transparency to the current award calculation method and facilitation of award calculation by CALA through linkage to the 3D notification is another outcome. CALA can input additional data like sale deeds, circle rates, structure valuation etc. and the final award can be calculated based on the pre-defined formula specified under RFCTLARR ACT, 2013.

(d) Document Upload. The Land Acquisition system has provision for upload of documents. The documents to be uploaded would depend on the type of notification and only additional document would be required to be uploaded.

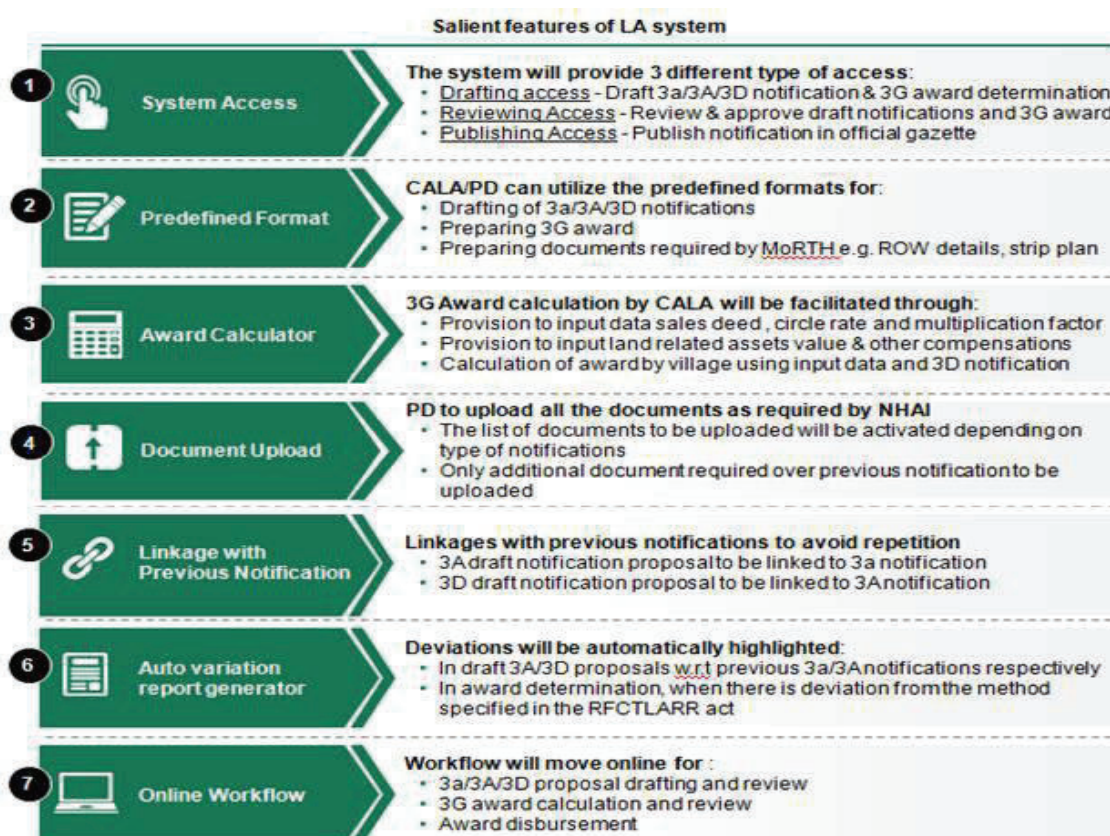
(e) Linkage with previous notification. The new structure provides linkage between draft notification and previous Gazette notification. 3A draft notification would be linked to 3a notification and 3D notification would be linked to previous 3a and 3A notification. However, the system would also allow the user with drafting access to modify the information linked from previous notification for selected field including nature of Land, area of land and the beneficiary.

(f) Auto variation report generator. The system enables highlighting of variations between the draft notification and previous gazette notification i.e. variation between draft 3A notification and 3a notification or 3D draft notification and 3a/3A notification. The system also has provision to highlight variations in method of Award calculation against the one prescribed under RFCTLARR Act, 2013.

(g) Complete online workflow. All the draft notification review process is now online. This has ensured that there is no physical movement of draft notifications. The online workflow also allows for a transparent tracking of the draft notifications.

7.13.3 Flow diagram of Land Acquisition System on Bhoomi Rashi portal

It stands to reason that a workflow-based automation of the extant Land Acquisition process for NH projects through development and operationalization of a comprehensive web-based portal would enhance efficiency of the entire process. The benefits of such a portal would be faster process completion, transparent fund transfer to the land owners/beneficiaries and reduction of procedural errors.



Chapter 8

QUALITY CONTROL

8.1 General

- 8.1.1 The construction of quality roads is not only essential for efficient utilization of national resources and capital cost but also to provide safe and comfortable journey to the road users with minimum operating cost.
- 8.1.2 Engineering Procurement and Construction (EPC) mode has defined roles and responsibilities of various stakeholders regarding fund/resource mobilization, planning, designing, construction and maintenance of Highway facility. Though the contractor is primarily responsible for construction of quality road yet the role of other stakeholders is also equally important to ensure quality control/assurance.
- 8.1.3 The guidelines have been compiled from various BIS and IRC standards and also from latest MoRT&H instructions. The above instruction will be considered modified to the extent of revised guidelines issued by these institutions or DGBR.

8.2 Points of attention for Quality Control

- 8.2.1 The Highways are constructed as per the standards and specifications laid down in various IRC standards and MoRTH Specifications for Road and Bridge works. To ensure quality, field laboratory is to be established and manned by qualified engineers/technician. The quality of natural materials, factory manufactured materials, specialized items, mix items are important for construction of quality roads. The various quality control tests on various ingredients and mixes and their frequencies are stipulated in MoRTH specifications for road and bridge works. As such it is important for all the stakeholders to ensure that all the quality test at the specified frequencies are conducted.
- 8.2.2 In case quality control/assurance is not ensured as per codal provision of MORTH/IRC, various deficiencies to the finished product may occur. Some of these deficiencies and areas of concern, where attention of all the stakeholders is required, may be as under:-

- (a) Inadequacy in thickness of granular/bituminous/concrete layers.

- (b) Quantity of bitumen as per design mix.
- (c) Not using specified grade of bitumen.
- (d) Bitumen is to be purchased from oil refineries rather than private agencies.
- (e) Bituminous mix not conforming to acceptance criteria.
- (f) All the tests specified in the IRC code/ MoRTH specification for the materials i.e. Bitumen, Cement, Steel, Aggregate etc. and propriety items i.e. expansion joints, bearings etc. must be carried out at site laboratory or by third party, which are most often left out.
- (g) All the tests required for soil and aggregates.
- (h) Test on various ingredients and mixes at the specified frequency.
- (j) Depression/cracks in concrete slabs.
- (k) Providing proper slope and compaction of earthen shoulder and embankments / embankment slopes.
- (l) Shifting of utilities are to be done at the extreme boundary of ROW.
- (m) Deployment of adequate personnel by the contractor and Engineer to ensure quality control/assurance
- (n) The quality checks and tests, as specified in contract agreement, are to be witnessed by the Authority/Independent Engineer.

8.3 Role and Responsibility for Quality Control

8.3.1 Various aspects of quality control/assurance have been specified in IRC: SP: 112-2017 "Manual for Quality Control in Road and Bridge works" which has to be referred in conjunction with MoRTH specification for road and bridge works. Some of the important requirements for implementation of quality assurance system efficiently and role/responsibility of various stakeholders has been highlighted as under:-

8.3.2 Contractor

- (a) The quality assurance plan incorporating organizational duties, responsibility, procedure, inspection, tests frequencies, acceptance criteria, internal audit etc. shall be submitted by the Contractor for the approval of Authority's/Independent Engineer.

(b) The field laboratory shall be set up with adequate equipment and facilities not limited to the provisions as stipulated in clause 120 of MoRTH specification for Road and Bridge works.

(c) The field laboratory shall be adequately lit, ventilated, with proper water supply and sanitary arrangements. Separate room shall be arranged for test that uses inflammable substances. The quality control engineer shall regularly ensure about the proper maintenance and upkeep of field laboratory.

(d) The personnel responsible for the quality control i.e. Material Engineer, Quality Control Engineer, Lab Technician etc. shall be in possession of specified qualification, experience and expertise. The contractor shall engage adequate number of these personnel for quality control/assurance during the construction as well as maintenance period.

(e) Normally most of the tests on factory manufactured materials such as Steel, Bitumen, Cement, Geo-synthetic etc. and specialized items such as bridge bearing, expansion joints, crash barriers etc. are conducted in the manufacturer's laboratory or specialized laboratory. However, certain tests are also to be conducted by the contractor on such materials in the field laboratory as indicated in IRC: SP: 112-2017 to ascertain the quality.

(f) Most of the equipment used in the field laboratory involves measuring devices such as proving rings, dial gauges, load cell, temperature gauges, weighing pads etc. whose accuracy degrade with the passage of time, due to their wear and tear. As such calibration of these devices should be carried out as specified in the IRC:SP:112 2017 to ensure reliability of the material/mix.

(g) All the inspection, measuring and testing equipment shall be calibrated with the help of NABL accredited laboratory and verified prior to their use and also at specific interval as specified by the equipment manufacturer and/or other standards available in this regard including IRC:SP:112-2017.

(h) All the Plant, Equipment and Machinery deployed in the project are to be regularly calibrated and maintained for their intended use by the contractor. Some of the calibrations can be done at site by an external agency which is qualified and accredited to perform specific calibration. For details including frequency of calibration IRC: SP: 112-2017 may be referred.

(i) The performance of the paver and grader etc. in producing the desired workmanship and finished properties shall be verified in the field and suitable corrections shall be made to the equipment/processes. The plant or

equipment, which is unable to produce the desirable quality at site shall be removed and replaced with the approved equipment as per contract.

(j) All the ingredients of GSB, WMM, Bituminous layers, concrete etc. shall be tested on day to day basis at various stages including in stock piles, bins, dry mix, final mix loaded in the truck and at field as applicable and relevant.

(k) Samples shall be collected from the pavement layers prior to compaction and after compaction to verify the properties of mix including its density etc.

(l) Process parameters viz. moisture, temperature, line and level shall be checked prior to compacting the layers so that the end product fulfils the requirements of the specifications.

(m) Some of the tests may have to be conducted in the third party laboratories in case of special tests and also if the contractor does not have the test equipment and expertise to carry out the tests which include special tests on Cement, Bitumen, Steel Bearings, Aggregate, Geo-synthetic, Reinforced Earth fill, stone polishing value of aggregate etc.

(n) The Contractor shall maintain all the records/documents for quality control/assurance and handover a copy of it to the Authority's/Independent Engineer before the completion certificate is issued.

8.4 Authority/Independent Engineer

(a) The quality assurance plan submitted by the contractor shall be approved by the Authority/Independent Engineer.

(b) The Authority /Independent Engineer shall approve the field laboratory of the contractor and ensure its proper maintenance/upkeep.

(c) The personnel responsible for the quality control i.e. Material Engineer, Quality Control Engineer, Lab Technician etc. shall have required knowledge, experience and expertise. The Independent/Authority's Engineer shall engage adequate number of these personnel for quality control/assurance.

(d) The Authority/Independent Engineer shall witness certain percentage of in-house tests conducted by the manufacturer/supplier and check the test reports for all the factory manufactured materials such as Steel, Bitumen, Cement, Geo synthetic etc. and specialized items such as bridge bearing, expansion joints, crash barriers etc.

- (e) The Authority/Independent Engineer based on quality assurance plan and certain test report/test conducted on the factory manufactured items shall approve the source of supply for such factory made items. The manufactured material shall be tested at field laboratory and in the accredited laboratory as relevant, as determined by the Authority's/Independent Engineer.
- (f) The Authority/Independent engineer shall ensure and certify about the calibration of measuring devices such as proving rings, dial gauges, load cell, temperature gauges, weighing pads etc. used in the field laboratory.
- (g) The Authority/Independent Engineer shall regularly ensure that the contractor carry out the calibration of all the Plants, Equipment and Machinery deployed in the projects on regular basis for their intended use.
- (h) The Authority/Independent Engineer shall verify and check the performance of the paver and grader etc. in producing the desired workmanship and finished properties. If required, suitable corrections shall be got made to the equipment/processes or equipment replaced so that desired quality is achieved at site.
- (i) The Authority/Independent Engineer shall ensure that all the ingredients of GSB, WMM, Bitumen layer, concrete etc. are tested on day to day basis at various stages including in stock piles, bins, dry mix, final mix loaded in the truck and at field as applicable and relevant and also witness requisite test and issue his acceptance before laying next layer.
- (j) Road geometric should be maintained while executing the formation works under EPC mode and same shall be checked by Competent Authority and ensured checks shall also be conducted at interval as specified in all the contract/extant guidelines of Ministry so as to ensure the road geometrics meets all the performance parameters as defined in the schedules/contract agreements.
- (k) The Authority/Independent Engineer shall ensure collection of samples from the pavement layers prior to compaction and after compaction to verify the properties of the mix including its density etc.
- (l) Process parameters viz. moisture, temperature, line and level shall be checked by the Authority's/Independent Engineer, prior to compacting the layers so that the end product fulfils the requirements of the specifications.
- (m) The Authority Engineer shall inform the Authority and the contractor of any event of contractor's default within one week of its occurrence.

(n) In-process inspection and final inspection against a standard checklist given in MoRTH specification should be ensured by the Authority/Independent Engineer for proper quality of work as per specifications and standards.

(o) The Authority/Independent Engineer shall also witness certain percentage of quality tests as specified in the Contract Agreement of the respective works. In case of EPC mode, the recently issued documents specify test checks by the Authority Engineer at least 50% of the quantity or number of tests described for each category or types of test for quality control.

(p) The Authority/Independent Engineer shall submit a monthly inspection report to the Authority and the contractor, bringing out the result of inspection along with Non Conformance Report (NCR), if any, such monthly inspection report including details of non conformance shall be forwarded to Authority. Whenever a material/work does not pass acceptance criteria as per MoRT&H specification for road and bridge work and additional quality characteristic for factory manufactured and specialized items, the Authority/Independent Engineer has to decide following options in accordance with the condition of contract/specification.

(i) The work be carried out again to meet acceptance criteria

(ii) The material may be regraded for the alternate use

(iii) The work may be rejected and replaced.

(q) Some of the tests may have to be conducted in the third party laboratories in case special tests and also if the contractor does not have the test equipment and expertise to carry out the tests which include special tests on Cement, Bitumen, Steel bearings, Aggregate, Geo-synthetic, RE-fill, Stone polishing value of aggregate etc. Authority /Independent Engineer can also order confirmatory test in external laboratory, even though the contractor has the test faculty at site laboratory.

(r) Authority/Independent Engineer shall perform as per obligations under Terms of Reference (TOR) with respect to inspection on daily, weekly and monthly basis and report to the Authority.

(s) The Authority/Independent Engineer shall ensure that the Contractor submits all the records/documents for quality control/assurance and handover a copy of it to the Authority before the completion certificate is issued.

(t) The completion certificate is to be issued by the Authority/Independent Engineer with the prior approval of Authority, as per provision of the Contract Agreement. The Authority's/Independent Engineer should ensure that a video of completed work on the date of completion should invariably be prepared and furnished as an authentic documentary evidence of completion of works within 15 days of completion without which completion certificate should not be issued. Authority's Engineer, apart from furnishing a certificate of completion and all tests as per specifications in accordance with contract, would also certify that all NCRs issued during the contract have been closed after successful rectification of defects within the completion date.

(u) The Authority Engineer shall carry out all the requisite tests on completion of the work using equipments such as Network Survey Vehicle (NSV), Falling Weight Deflectometer (FWD), Mobile Bridge Inspection Unit (MBIU), Retro-reflectometer etc. Further these tests shall also be conducted at interval as specified in the all the contract/extant guidelines of Ministry so as to ensure the road components meets all the performance parameters as defined in the schedules/ contract agreement. The frequency of such tests may be as under:-

- (i) Network Survey Vehicle (NSV). For testing of surface defects and roughness of pavement- As per contract/extant guidelines.
- (ii) Falling Weight Deflectometer (FWD). For testing of strength of pavement – As per contract/At least once a year.
- (iii) Mobile Bridge Inspection Unit (MBIU). For assessment of bridge conditions- As per contract/ At least twice a year.
- (iv) Retro-reflectometer. For testing of road signs- As per contract/ At least twice a year.

8.5 Project Director/ TF Commander & Chief Engineer Project

(a) The Project Director/TF Commander and other department officers shall devote time for inspection of the works and shall also ensure that certain quality tests, during execution of the work and also on completion of the work, are performed in their presence.

(b) The Chief Engineer (Project) and its officers shall also visit during the construction and during Operation & Maintenance period of the projects, preferably during the stage when bituminous work/concrete work is being carried out by the contractor. During the visit, some tests shall also be performed during his/her presence. Chief Engineer and TF Commander may also depute his officer for such inspection, however, the overall

responsibilities of monitoring of quality assurance shall lie with the Chief Engineer (Authority) and PD/TF Commander. Inspection reports of officers covering comments on quality of works shall be kept in record. A suggestive format of inspection report is attached at Annexure-I.

(c) The inspecting officer have to ensure that all works are being executed strictly in accordance with the requirement of the MoRTH specifications. He/she shall ensure that the contractor has setup a field laboratory with adequate equipment and personnel in order to carry out quality control tests for works as per specification of MoRTH. A certificate in this regard shall be issued by the Project Directors/TF Cdr while countersigning the very first bill of the contractor.

(d) The details of such tests performed by the Project Director or officers shall be indicated in the bills to be countersigned/signed by the Project Director before releasing the final bill.

(e) The officers shall not delay in releasing/counter signing the bill of the contractor. The time limit prescribed in the contract agreement for making the payment to the contractors is to be adhered by the Officers.

(f) The completion certificate is to be issued by the Authority/Independent Engineer with the prior approval of Authority, as per provision of the Contract Agreement. Therefore, all should ensure that the completion certificate is approved after verifying/confirming that all works/items including ancillary items forming part of the project Highway are completed in all respect conforming to the Standards & Specifications of the Ministry. A video of completed work on the date of completion should be invariably be prepared and submitted as an authentic documentary evidence of completion of work.

(g) The Authority should also verify/confirm that the work has been completed in all respects, before considering the payment of final bill/bonus etc. as per extant Guidelines.

8.6 Quality Control Zone

(a) HQ DGBR and HQ ADGBR may ask to submit the documents related to the quality control/assurance and their inspection report of any works under their jurisdiction. Based on such documents, further instructions may be issued for necessary compliance including non-acceptance of some of the work completed without following the due procedure as stipulated in the quality assurance plan or not meeting the quality standards as stipulated in the IRC Codes/MoRTH specifications.

(b) HQ DGBR and HQ ADGBR may select any of the works on random basis and may inspect the records /documents related to quality control/assurance. The detailed inspecting officer or a team may carry out certain tests in their presence of Project Director to check the quality of the ingredients & mix and acceptance properties of finished work etc. Office of HQ DGBR and ADGBR may issue further instructions for further compliance based on inspection report of such inspection.

8.7 An indicative checklist consisting the role and responsibilities of various stakeholders for quality control/assurance is also attached at Annexure-II.

FORMAT OF INSPECTION

Name of Inspecting Officers:- Date of Inspection:- Name of work:- Contractor/ Concessionaire:- Consultant/ Authority Engineer Firm:- Team Leader:- Project Director:-					
Project Particulars (Km)					
Length (Km)					
Major Bridge/Structure No.					
Minor Bridge/Structure No.					
Sanctioned Cost					
Tendered Amount					
Date of Start					
Scheduled Date of Completion					
Status of LA	Date of handing over LA (if given a different date, please mention each date & area)				
	Chainage		Length in (Km)	Area in (hec)	Date of Handing over
	From	To			
	If LA not done give details CALA wise				
	Length affected due to LA				
	No of patches				
	Status 3A/3D/ 3G/3H				

	Authority with which pending and since when	
Status of Forest clearance/wildlife	Length affected due to Forest	
	Date of handing over	
	If pending	
	Stage where pending	
	Authority with which pending	
	Since pending	
Physical Progress (%)		
Length Completed up to DBM/BC		
Major bridge completed		
Minor bridge completed		
CDs completed		
Financial progress : % & expenditure incurred in Rs Cr		
Quality of work (General Report).		
Specific Observation on Quality/Specification		
(i)	Work under progress on date of Inspection	
(ii)	Field Test conducted	
(iii)	Offrs should visit during formation cutting/embankment filling for inspection about road geometries like gradient, curves, sight distances, etc besides quality test of materials.	
Non compliance of System/ Quality		
(i)	Compliances by AE/PD on MPR & Observations	

(ii)	NCR issued	
(iii)	NCR closed	
(iv)	Approval of Design/Drawing	
(v)	Compliance by AE of supervision quality test at required frequency and registered duly signed by TL/PD	

ANNEXURE-II

ROLE AND RESPONSIBILITIES OF VARIOUS STAKEHOLDERS FOR QUALITY CONTROL / ASSURANCE

S/No.	Activity	Roles/Responsibilities of Contractor	Roles/Responsibilities of AE/IE	Roles/Responsibilities of PD/TF Cdr/CE(Projects)
1	Field Laboratory with adequate equipment	To setup	To approve	To ensure
2	Upkeep and maintenance of laboratory	Responsible for upkeep & maintenance	To ensure	To ensure
3	Quality Control Personnel	Material Engineer, QC Engineer, Lab Technician etc.	Ensure the deployment of Contractor's personnel and to deploy team of Material Engineer, QC Engineer Lab Technician etc.	Approve the personnel of AE/IE and designate at least one officer for Quality Control
4	Quality Assurance Plan	To be submitted	Review and Approval	To ensure
5	Source of man-made materials	To indicate	To approve	To ensure
6	Calibration of measuring devices such as proving rings, dial gauges, load cell, temperature gauges, weighing pads etc.	Responsible	Ensure and certify	To ensure
7	Calibration of plant Equipment and Machinery such as batching plant, hot mix plant etc. on regular basis	Responsible	To ensure	To ensure
8	Tests on factory made materials such as cement steel, bitumen, geo-	Most of the tests to be conducted in manufacture's lab, some tests in field lab	Witness and ensure tests	To ensure

	synthetics etc.	and/or in third party laboratory		
9	Specialized items such as bridge bearing, expansion joints, crash barriers etc.	Most of the tests to be conducted in manufacture's lab	Witness and ensure tests	To ensure
10	Testing of Ingredients of GSB, WMM, concrete etc.	Responsible	To ensure	To ensure
11	Third party laboratory	Responsible for third party lab testing in absence of adequate expertise and/or equipment	Ensure testing by contractor can also order confirmatory test even in presence of test facility at site	To ensure
12	Performance of Paver and grader	To ensure	To check and verify	To ensure
13	Collection of samples from pavement layers for verification	Responsible	To ensure	To ensure
14	All tests for raw material, finished layers as per MoRT&H specifications	Responsible for performing tests with frequency as per MoRT&H specifications	To ensure	To ensure
15	Percentage of Tests	Conduct 100% tests	Witness tests as per the contract agreement (At least 50% of the tests as per recent EPC Document & 10% of the tests for HAM	Visit during the construction period and some tests shall also be performed during his/her presence

			projects)	
16	Monthly inspection Report	To comply	To submit	To ensure
17	Acceptance/rectification	To comply	Based on test results, decision to be made for acceptance/rectification	To ensure
18	Documentation	Maintain all records and provide a copy to AE/IE	To ensure	To ensure
19	Completion certificate	Request	Issue	Approve

Chapter 9

COMPILATION OF EXISTING POLICES

9.1 Policies issued by MoD

Date	Policy Number	Subject
13 Apr 2017	BRDB/02/85/BEA/2016/D (BR-I)	Policy Guidelines for change in construction philosophy in BRO
11 Aug 2017	F. No. 04/696/2015/D&P (BR-I)	Delegation of Administrative & Financial powers in BRO
29 Aug 2017	BRDB/02/85/BEA/2016/D (BR-I)	Adoption of Engineering Procurement contract (EPC) mode of execution as a default mode
11 May 2018	4/696/2015/D&P(BR-I)	Amendment in Delegation of Administrative & Financial powers in BRO
27 Aug 2018	C-31024/10/2017-D (Vig)	Fixing of ceiling relating to the value of contracts for monitoring by IEMs
27 Aug 2018	C-31024/10/2017-D(Vig)	Fixing of ceiling relating to the value of contracts for monitoring by IEMs
14 Feb 2019	C-31024/1/2019-D (Vig/MES&BRO)	Reflecting the contact number of IEM on the tender
05 Mar 2019	24006/DGBR/88/EPC Cell	Submission of proposal at HQ DGBR & Projects for processing DPR Proposal to issue Administrative approval

9.2 Policies issued by HQ DGBR

Date	Policy No	Subject
29 May 2018	24006/DGBR/Policy/03/EPC Cell	Forwarding of Model EPC Contract documents
29 May 2018	24006/DGBR/Policy/04/EPC Cell	Guidelines for Procurement ,Preparation, Review and Approval of DPR
10 Jul 2018	24006/DGBR/Policy/21/EPC Cell	Preparation and Approval of DPR's for Civil works on EPC

Date	Policy Number	Subject
12 Jul 2018	24006/DGBR/Policy/23/EPC Cell	Standard Operating Procedure for establishing Project Implementation cell in BRO projects to Monitor EPC Contract
27 Aug 2018	24006/DGBR/Policy/42/EPC Cell	Opening of Price Bid of Resultant Single tender during repeated retendering in consultancy contract for preparation of DPR
31 Oct 2018	24006/DGBR/Policy/66/EPC Cell	Guidelines for Procurement, Preparation, Review and approval of DPR
20 Dec 2018	24228/DGBR/Policy/Instr-2018/118/E8	Evaluation of BIDS for Civil Work
02 Apr 2019	24059/DGBR/MPR/01/EPC Cell	Monthly Progress Report on EPC Contract of Civil Works
12 Sep 2019	24006/DGBR/Policy/32/EPC Cell	Provision of Name and details of official of authority in NIT/RFP
10 Dec 2019	24006/DGBR/Policy/59/EPC Cell	Constitution of Team of Key personnel by the authority engineer to supervision/execute the Work through EPC mode of contract
10 Dec 2019	24006/DGBR/Policy/58/EPC Cell	Surveying with Network Survey Vehicle (NSV) for all the projects involving development of 2/4/6/8- Lane expressway, strengthening
19 Dec 2019	24006/DGBR/Policy/69/EPC Cell	Interest breaking working capital advance against unbilled executed work to mitigate the cash flow problems of HAM Concessionaire & EPC Contractors and modification in Schedule-H of EPC Contract
12 Feb 2020	24006/DGBR/Policy/83/EPC Cell	MODE of costing of detailed project report
03 Mar 2020	24006/DGBR/Policy/89/EPC Cell	Invitation, Evaluation and Acceptance of BIDS for Civil works
23 Nov 2020	24006/DGBR/Policy/74/EPC Cell	Latest Instruction of Ministry of Finance Department of Expenditure regarding (I),(II) and (III) BIDs security
30 Mar 2021	24006/DGBR/Policy/02/EPC Policy	Guidelines for Procurement, Preparation, Review and approval of DPR
10 May 2021	24016/DGBR/WP/04/EPC Cell	Monthly Progress Report of EPC Works & Authority Engineer
19 Mar 2021	24006/DGBR/Pol/121/EPC Cell	Amendment of policy of guidelines for procurement, preparation review and approval of DPR

Date	Policy No	Subject
24 May 2021	24006/DGBR/Pol/24/EPC Cell	Amendment of RFP m(Work Load Return) for consultancy services for preparation of DPR and feasibility study
25 Jun 2021	24006/DGBR/Policy/57/EPC Cell	Guidelines for Tendering action in EPC mode
05 Jul 2021	24006/DGBR/Policy/61/EPC Cell	Enforcement of Quality Assurance and Quality Control Measure in construction of Road and Bridges works on NH and Centrally sponsored Schemes by authority's representative
02 Aug 2021	24006/DGBR/Policy/78/EPC Cell	Abnormally Low bids
19 Jul 2021	24006/DGBR/Policy/70/EPC Cell	Processing of DPRs
17 Aug 2021	24006/DGBR/Policy/82/EPC Cell	Model RFP Documents

9.3 Policies issued by MoRT&H

9.3.1 Civil works

Date	Policy No	Subject
11 Sep 2013	RW-NH-34048/5/2013-S&R(B)	Requirement of Technical Manpower for Authority's Engineer
01 Jul 2013	RW-NH-35048/5/2013-S&R(B)	Requirement of Techl Manpower for Authority's Engineer
14 Aug 2013	11014/7/2013-P&M	Centages for NH works to be implemented on EPC Mode
16 Sep 2013	RW/NH-34048/7/2013-S&R(B)	Standard RFP document for selection of Authority's Engineer
19 Nov 2013	RW-MH-34048/7/2013-S&R(B)	Standard RFP document for appointment of stage wise/financial year wise Authority Engineer
11 Dec 2014	RW/NH-34048/7/2013-S&R (R)	Standard RFP documents for selection of Authority Engineer of works to be implemented on Engineering procurement and construction (EPC) mode.
24 Jun 2015	RW/NH-24035/4/2008/P&M/ PIC - EAP	Request for Proposal for Road and Bridges works to be implemented on Engineering, procurement& Construction (EPC)

15 Jul 2015	RW/NH-33044/38/2015/S&R (R)	Acceptance and confirmation of Bank Guarantee (S)
16 Nov 2015	RW-NH-34048/7/2013-S&R (B)	Standard RFP document for selection of Authority's Engineer for works to be implemented on Engineering Procurement and Construction (EPC) mode
01 Jan 2016	RW-NH-34048/7/2013-S&R (B)	Procurement of consultants for independent Engineer/Authority Engineer/Preparation of DPR
01 Jan 2016	RW-NH-34048/7/2013-S&R (B)	Standard RFP documents for selection of Authority Engineer for works to be implemented on Engineering Procurement and construction (EPC) mode
04 Jan 2016	RW/NH-37010/4/2010/PIC-EAP (Printing)	Amendment to EPC Model agreement document
06 May 2016	NH-H-11014/7/2013-P&M(P)	Expenditure on account of Authority Engineer for works to be implemented on Engineering procurement and construction (EPC Mode)
16 Jun 2016	NH-15017/17 (2)/2016-P&M	Project Contingencies quality control W.C Establishment and agency charges
10 Aug 2016	RW/NH-24036/27/2010-PPP	Updating of the cost norms in respect of NH Projects
02 Sep 2016	RW-NH-35075/9/2006-S&R (B)	Design and General Features for bridges structures to be constructed on National Highways
02 Sep 2016	NH-11055/1/2015/P&M (Mon) pt-II	Close on site – monitoring of NH projects
23 Sep 2016	NH-18011/1/2012-P&M	Delegation of powers for acceptance of variations
21 Nov 2016	15017/48/2016/P&M (Mon)	Implementation of e-procurement through CPP Portal of NIC
30 Nov 2016	RW/NH-334050/1/2015-S&R (B)	Vertical and horizontal clearances for the construction of Bridge structures on NH
06 Dec 2016	RW/NH-24035/4/2008-P&M / PIC -EAP	Guidelines regarding procedures to be adopted for invitation of tenders and qualification of contractors for execution of Road and Bridge works
11 Jan 2017	RW/NH-24035/4/2008-P&M / PIC -EAP	Guidelines regarding procedures to be adopted for invitation of tenders and qualification of contractors for execution of Road and Bridge works

16 Jan 2017	RW/NH-37010/4/2010/PIC-EAP (Printing)	Guidelines for Evaluation of Bids
16 Jan 2017	RW/NH-37010/4/2010/PIC-EAP (Printing)	Fixation of timelines for e-tendering
16 Jan 2017	RW/NH-37010/4/2010/PIC-EAP (Printing)	Modified Document for RFP for NH and centrally sponsored Road works
17 Apr 2017	RW/NH-37010/4/2010/PIC-EAP (Printing)	Request for Proposal(RFP) for NH and centrally sponsored road works proposed to be implemented on EPC Mode
25 Apr 2017	RW/NH-24035/4/2008-P&M / PIC-EAP	Guidelines regarding procedures to be adopted for invitation of tenders and qualification of contractors for execution of Road & Bridge works
03 May 2017	RO/UK/Misc/01	Skill Development of workmen in the Highway Construction sector
25 May 2017	H-39011/30/2015-P&P (VII)	Guidelines on sharing of Extract of detailed project report along with the request for proposal for the works on EPC mode
01 Jun 2017	H-39011/30/2010-P&P (VII)	Guidelines on sharing of DPR alongwith the NIT/RFP
27 Jun 2017	RW/NH-37010/4/2010/PIC-EAP (Printing)	Amendment to Model document for RFP single stage two Part binding for Road & Bridge works
16 Aug 2017	RW/NH-39013/23/2015/NHDP-IVA	Clarification on schedule 'H' and Schedule 'J' of model EPC agreement due to non handing over of entire encumbrance free project stretch
22 Aug 2017	RW/NH-37010/4/2010/PIC-EAP	Amendment to Standard EPC Agreement for NH and centrally Sponsored Road & Bridges
29 Aug 2017	RW/NH-37010/42010/PIC-EAP (Printing)	Clarifications to the Bank Rate mentioned in Cl 19.2.1 of Standard EPC Agreement for NH
20 Dec 2017	RW/NH-37010/4/2010/PIC-EAP (Printing)	Request for proposal (RFP single stage two part binding) for NH and centrally sponsored Road & Bridge works to be implemented on Engineering, Procurement & Construction (EPC) Mode
08 Feb 2018	NH-3501/34/2017-H	Use of BIMS portal for procurement of Highway contracts on EPC/HAM/BOT mode

23 Feb 2018	RW/NH-24035/4/2008-P&M/PIC Vol-II	Delegation of powers to Chief Engineer – Regional Officer
23 Mar 2018	NH-15017/28/2018-P&M	Standard for Lane width of National Highway and Roads developed under central sector schemes in Hilly and Mountainous terrains
25 Apr 2018	RW/NH-24036/27/2010-PPP	Revision of Normative cost Norms for the NH
07 Jun 2018	RW/NH-37010/4/2010/PIC-EAP (Printing)	Request for Proposal (RFP single stage two part bidding) for NH and centrally sponsored Road and Bridge works
19 Jun 2018	RW/NH-35014/34/2017-H (Part-II)	Use of BIMS Portal for procurement of Highway contracts on EPC mode
21 Jun 2018	RW-NH-35079/01/2018-S&R (P&B)	Change from Rigid to Flexible pavement in on-going contracts
03 Aug 2018	RW/NH-RW/NH-12037/1/2018-EAP	Linking factor to be adopted due to change in base year of wholesale price index
06 Aug 2018	NH-15017/40/2018-P&M (Pt2)	Revalidation of sanctions of ongoing works
08 Aug 2018	RW/NH-37010/4/2010-PIC-Printing/Vol-V	Request for Proposal (Single stage two part bidding) for NH and centrally sponsored Road & Bridges works
08 Aug 2018	RW/NH-37010/4/2010-PIC-Printing/Vol-V	Standard EPC Agreement for NH and centrally sponsored Road & Bridge works
21 Aug 2018	RW/NH-33044/10/2002-S&R (P&B)	Defect Liability/Maintenance period for the NH and centrally sponsored Road & Bridge works to be implemented on EPC mode
17 Sep 2018	RW/NH-24035/4/2008-P&M/PIC Vol II	Guidelines regarding procedures to be adopted for Roads & Bridge works on NH and centrally financed schemes
29 Oct 2018	RW-NH-34048/7/2013-S&R (B)	Standard RFP document for selection of Authority's Engineers
16 Nov 2018		Model EPC Agreement
16 Nov 2018		Model RFP for EPC Works
16 Nov 2018		RFP for Authority Engineer
05 Mar 2019	RW/NH-37010/4/2010-EAP	Standard EPC Agreement for National Highway

07 Mar 2019	RW-NH/33044/10/2019-S&R (P&B)	Cost of Construction for work on EPC Mode
15 Mar 2019	RW-NH-33048/07/2013-S&R (P&B)	Selection of Authority's Engineer
22 Mar 2019	RW-NH-33048 /07/2013-S&R (P&B)	Issue of Completion Certificate
20 Nov 2018	RW-NH-33010 / 04/2010-EAP (Printing) Vol-IV	Standard EPC Agreement
28 Nov 2018	RW/NH-37010/4/2010-EAP (Printing)	Modified EPC document
07 Mar 2019	33044/10/2019-S&R (P&B)	Cost of construction for work on EPC mode-reg.
15 Feb 2019	39011/30/2015-P&P (Pt-1)	Modified document for RFP for appointment of authority engineer in respect of NH and Centrally sponsored Road wks proposed to be implemented on EPC mode of contract
15 Feb 2019	39011/30/2015-P&P (Pt-1)	Modified document for RFP for appointment of authority engineer in respect of NH and Centrally sponsored Road wks
05 Mar 2019	RW/NH-37010/2010-EAP (Printing) Vol-IV	Standard Request for Proposal (RFP) for National Highways and centrally sponsored road works proposed to be implemented on EPC mode of Contracts
15 Mar 2019	RW/NH/34048/7/2013-S&R (P&B)	Selection of Authority's Engineer for Works to be implemented on Engineering Procurement and Construction (EPC) mod-reg
22 Mar 2019	RW/NH/34048/7/2013-S&R (P&B)	Issue of completion certificate for NH works taken up EPC mode-reg
07 Oct 2019	RW/NH-37010/4/2010-EAP (Printing) Vol-IV	Standard RFP for National Highway and centrally sponsored road works proposed to be implemented on EPC mode contract
13 Nov 2019	RW/NH-33044/32/2019-S&R (P&B)	Policy guidelines on surveying with Network Survey Vehicle (NSV)
30.04.2020	RW/NH-37010/4/2010-EAP (Printing) Vol-IV	Standard request for proposal (RFP)
02.06.2020	RW/NH-37010/4/2010-EAP (Printing) Vol-V	Standard request for proposal (RFP)

Oct 2020	COVID_19/Pool MAP/JS(H)/2020	Atmainrbhar Bharat Relief for contractors/developers of Road Sector reg
22.10.2020	RW/NH-24024/02/2019- S&R(P&P)	Request for proposal (RFP) documents for project management consultancy (PMC)
02.11.2020	NH-35014/35/2020-H	Charger in Bidder Eligibility criteria for EPC Projects
23.11.2020	24006/DGBR/Policy/74/EP C Cell	Latest Instruction of Ministry of Finance Department of expenditure regarding (I)(II) and (III) BIDs
09.04.2021	NH/24024/02/2019-S&R (P&B)	Request for proposal (RFP) document for Project Management Consultancy (PMC)

9.3.2 DPRs

Date	Policy No	Subject
24 Jul 2015	A-12024/1/2015-NHIDCL Cell	Procedure for sanction of works release of funds ,procurement of consultants for preparation of DPRs
20 Aug 2015	RW-NH-36066/39/2015-S&R (B)	Bid documents for procurement of consultancy services
28 Oct 2015	RW-NH-35075/1/2010-S&R(R)	Infracon Portal for Procurement of consultants
22 Aug 2016	H-39011/30/2015-P&P(Pt-I)	Guidelines for procurement, preparation. review and approval of DPR
16 Nov 2016		RFP for DPR Consultancy Services
04 Jul 2018	RW/NH-29011/11/2015-P&M (SCE)	Road safety audit at the stage of Engineering Designs of New Roads
04 Apr 2019	RW/NH-34066/25/2018-S&R (P&B)	Deployment of key personel of various consultancy assignment inter-alia during feasibility/DPR
15 Feb 2019	H-39011/30/2015-P&P (Pt-I)	Modified document for Request for proposal (RFP) for appointment of consultancy services for preparation of detailed project report (DPR) in respect on national Highway and Centrally sponsored road works
12 Mar 2019	NH-39011/30/2015-P&P (Pt-1)	Guidelines for procurement, preparation review and approval of DPR-reg
04 Apr 2019	RW/NH-34066/25/2018-S&R (P&B)	Deployment of key personnel of various consultancy assignment inter-alia during feasibility/DPR
23 Nov 20	24006/DGBR/Policy/74/EPC Cell	Latest Instruction of Ministrry of Finance regarding (i),(II), and (III) BIDs

06 Jan 2021	RW/NH-33044/24/2020 S&R (P&B)	Policy guidelines on action against the consultancy firm and key personnel
06 Jan 2021	NH-24024/02/2019-S&R	Request for proposal (RFP) documents for Project Management Consultancy (PMC) - Modified documents
09 Apr 2021	NH/24024/02/2019-S&R (P&B)	Request for proposal (RFP) documents -for Project Management Consultancy (PMC) - Modified documents

9.3.3 Authority Engineer

Date	Policy No	Subject
15.02.2019	RW/NH-39011/30/2015-P&P(PT-II)	Modified documents for request for proposal (RFP)
15.02.2019	H-39011/30/2015-P&P(PT-I)	Modified documents for request for proposal (RFP)
15.03.2019	RW/NH/34048/7/2013-S&R(P&B)	Selection of Auth Engineer for works to be implemented on Eng procurement and construction (EPC)Mode
06 Jan 2021	RW/NH-33044/24/2020 S&R (P&B)	Policy guidelines on action against the consultancy firm and key personnel
06 Jan 2021	NH-24024/02/2019-S&R	Request for proposal (RDP) documents for Project Management Consultancy (PMC) - Modified documents

9.3.4 Misc EPC works

Date	Policy No	Subject
10 Jul 2014	H-15017/110/ 2014-P&M	Sourcing of Bitumen, Modified Bitumen, etc
10 Jul 2014	H-15017/110/2014-P&M	Sourcing of Bitumen, Modified Bitumen, etc (Corrigendum)
04 Aug 2014	RW/NH-33044/31/2014/S&R (R) (Pt.)	Usage of Rigid Pavement as an alternative option of NH
Date	Policy No	Subject
06 Aug 2014	RW/NH-35075/1/2010-S&R (R)	Use of emerging new materials and techniques in construction NH
11 Feb 2015	RW-NH-35075/1/2010-S&R (R)	Usage of alternative/new materials technologies in construction of NH
17 Apr 2015	RW/NH-37011/39/2012-PPP (Pt)	Introduction of new technology /alternative design in the projects on EPC/BOT basis

02 Jun 2015	RW-N-34054/1/2013-S&R (B)	Empanelment of manufactures firms/ authorised suppliers of expansion joint for bridges of NH
14 Jul 2015	RW/NH-37013/03/2012/PPP (Part)	Effective date for implementation of Gazette Notification
12 Oct 2015	RW-NH-37011/39/2015/S&R (R)	Introduction of alternative materials / technologies/design in the NH project on EPC /BOT basis
23 Feb 2016	RW/NH-33044/35/2015/S&R (R)	The issue of applying Tack Coat over the Prime Coat
15 Mar 2016	RW/NH-33044/35/2015/S&R (R)	The issue of applying tack coat over prime coat
31 Mar 2016	11011/30/2015-LA	Applicability of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013 to land acquisition under the National Highway Act, 1956
28 Mar 2016	RW/NH-33044/05/2016/S&R (R)	Use of polymer/rubber modified bitumen on NHs and other centrally sponsored schemes
19 Apr 2016	NH-11011/14/2016-LA	Guidelines for monitoring of Land Acquisition for NH Projects.
26 May 2016	RW/NH-33044/37/2015/S&R(R)	Capacity augmentation of National Highways from two lane to four lane
08 Aug 2016	NH-11011/30/2015-LA	Applicability of RFCTLARR Act, 2013 to land acquisition under the NH Act, 1956
29 Aug 2016	RW/NH-33037/01/2016/S&R (R)	Removal of Speed Breakers on National Highways
02 Sep 2016	RW/CH/Land Acquisition/2016/1567	Guidelines for monitoring of Land Acquisition for NH project
05 Sep 2016	RW/NH-33044/05/2016/S&R (R)	Use of polymer/rubber modified bitumen on NHs and other centrally sponsored schemes
07 Sep 2016	RW/NH-33044/18/2016/S&R (R)	Removal of Advertisement hording on National Highways within the Right of way
14 Sep 2016	NH-11011/45/2015-LA	Check points for smooth processing of LA notification
20 Sep 2016	NH-11065/2/2007-P&M	Procedure for sanction of NH (O) works and monitoring systems
26 Sep 2016	RW/NH-33044/131/2016/S&R (R)	Removal of illegal encroachment and unauthorized access/cuts on National Highways

28 Sep 2016	RW/NH-33044/68/2016 /S&R (R)	Use of Micro- surfacing for the renewal course, maintenance and repair of NH
10 Nov 2016	RW/NH-33044/10/2023-S&R (R)	Inauguration /BhoomiPujan /Foundation Stone laying /any other ceremony in respect of National Highway/Bridge works
22 Nov 2016	RW/NH-33044/29/2015/S&R (R)	Accommodation of Public and Industrial Utility Service along and across National Highways
27 Dec 2016	RW/NH-33044/24/2015/S&R (R)	Use of plastic waste in bituminous mixes in construction of NH
20 Feb 2017	NH-11065/2/2007-P&M	Procedure for sanction of NH (O) works and monitoring systems
12 May 2017	H-39011/30/2015-P&P (Pt)	Delegation of power to Chief Engineer-Regional Officer (CE-RO) at MoRT&H Regional offices
07 Aug 2018	RT11028/11/2017-MVL	Revision of sale Axle weights for transport vehicles and enforcement thereof
27 Aug 2018	24028/14/2018-H	Use of Fly ash in road/flyover embankment constriction
22 Oct 2010	NH-15017/90/2018-P&M	Policy for release of Bank Gurantee
14 Aug 2018	RW/NH-34054/2/2011-S&R (B)	Discontinuation of Empanelment of Consultants for Highways, Bridges and Tunnel Projects on National Highways
26 Dec 2018	35079/01/2015/S&R (P&B)	Option of type of Pavements to the Concessionaire in PPP Projects
26 Dec 2018	35079/01/2015/S&R (P&B) dated 26 Dec 2018	Option of type of Pavements to the Concessionaire in PPP Projects
14 Aug 2018	RW/NH-34054/ 2/2011-S&R (B)	Discontinuation of Empanelment of Consultants for Highways, Bridges and Tunnel Projects on national Highways and Other Centrally sponsored Schemes
07 Mar 2019	NH-15017/5/2019-P&M	Guidelines/Standard Operating Procedure (SOP) for Toll Notification and mandatory ETC infrastructure in all Toll Lanes
13 Mar 2019	03/CoRS/2019	Engagement of Consultants in the Supreme Court Committee on Road Safety-extension of date
22 Apr 2019	RT-25035/110/2015-RS	Engagement of Technical Consultant (Road Safety & Enforcement) in the Ministry of Road Transport & Highways)

26.11.2019	RW/NH-33044/24/2015-S&R(R)	Use of waste plastic in Hot Bituminous Mixer in wearing courses
18.12.2019	RW/NH-33044/35/2019	Conciliation & settlement Mechanism for contractual disputes in contract Agreements
24.12.2019	RO/HP/RFP-Black Spot/2019-20/422	Request for proposal
27.12.2020		Utilization of Utility duts along the National Highways in Urban Areas
01.01.2020	RW/NH-29023/02/2019-S&R(P&B)	Guidelines
31.01.2020	RW/NH-12037/81/2019-TS/Zone-III	Fixation for revised timeline for e-tendering for strengthening/IRQP/PR works
26.06.2020	RW-NH-33032/01/2017-S&R(R)	Guidelines/Norms
18.03.2020	RW/NH-33044/32/2019-S&R(P&B)	Inspection of National Highways/other centrally financed works procedure
30.06.2020	H-11013/02/2019-S&R(P&B)	Diversion of Forest Land for development of National Highways Project
17.07.2020	RW/NH-33044/22/2020-S&R(P&B)	Width of shoulder (paved and Exrthen) for two laning of National Highways
21.07.2020	RW/NH-33044/09/2017-S&R(B)	Use of Manufactured aggregates in National Highways works
11.08.2020	NH-12037/02/2019-Chardham	Formation of quick response Team by the contractors
25.09.2020	RO/UK/Chardham /HPC	Hon'ble Supreme Court's order dt 08.09.2020
01.10.2020	RW/NH-34066/01/2020/QCZ	Guidelines and standard operating procedure
01.10.2020	RW/NH-33066/05/2020-QCZ	Quality Control/Assuraned
06.10.2020	BRD/RD/92/2019/11	OFFICE MEMORANDUM
23.10.2020	RW/NH-33044/01/2019-S&R(P&B)	Use of Fly-ash in road/Flyover embankment construction on NH works
26.10.2020	NH-14013/9/2020-P&M	SOP for entrustment of National Highways
23.11.2020	24006/DGBR/Policy/74/EPC Cell	Latest Instruction of Ministry of Finance Dept of Expenditure regarding (IO(ii) and (III))

23.11.2020	RW/G-23012/01/2019/W&A(Pt-III)	SOP for PR/IRQP works and or works for maintenance & Repair (M&R) of NHs
16.04.2021	RW/NH-33044/15/2021-S&R (P&B)	Highway Rating Criterion and Methodology with detailed for un-divided carriageway upto 2 lane with paved shoulders on National Highway
07.04.2021	24098/DGBR/Monitoring/40/EPC Cell	Guidelines for processing Land Acquisition cases by Projects

Government of India
Ministry of Defence
(BR-I)

"B" Wing, 4th Floor,
Sena Bhawan, New Delhi-11

Dated: 13th April, 2017

No. BRDB/02/85/BE /2016/D (BR-I)

To,

The Director General Border Roads,
Seema Sadak Bhawan,
Ring Road, Delhi Cantt.,
New Delhi-11001

Subject : Policy Guidelines for change in construction philosophy in BRO

Sir,

I am directed to convey that the Competent Authority has approved the Policy Guidelines for change in construction philosophy in BRO as enclosed at Annexure-I.

2. This issues with the concurrence of Ministry of Defence (Fin/BR) vide their I.D. No. 10(1)/BRS/2017 (177/BRS/2017) dated 13.4.2017.

Yours faithfully,

(Dibakar Mishra)

Under Secretary to the Government of India

Encls : 06 Sheets

Copy to:-

1. PCDA (BR), New Delhi
2. MoD (Fin/BR) D
3. IFA (BR), New Delhi
4. Office copy

Policy guidelines for change in construction philosophy of BRO

1. Background

Border Roads Development Board (BRDB) was set up in 1960 to augment the road development plans of the underdeveloped areas leading to our borders, to enhance the defence preparedness and the economic development of the region. Under BRDB, Border Roads Organisation (BRO) was also set up in 1960 to ensure coordination and expeditious execution of road infrastructure projects in the North/North Eastern States.

In those times, there were not many big players in the road construction sector, who could undertake works in the border areas. As a result, BRO executed most of the works departmentally and has continued to function as a work charged organization with expenditure towards salaries booked in construction/maintenance works.

2. BRDB program/LTRoWP

Based on the requirements of the Army, a BRDB program consisting of 852 roads of length 30,118 km has been prepared to enable BRO to focus on these identified roads for construction/improvement/maintenance in a planned manner. Out of these 852 roads under the BRDB program, a five year Long Term Roll on Works Plan (LTRoWP) (2015-2020) consisting of 530 roads of strategic importance of length 22,803 km for construction/improvement has been prepared, based on the priorities of the Army. BRO gets funding from multiple sources such as MoRT&H, MEA, MHA besides the MoD. For the holistic development of roads in border areas, 485 roads of length 20,211 km are funded by MoD with an average requirement of Rs 6,700 Crs/year to be executed over a period of next five years.

Inp to
note

An analysis of works included in LTRoWP is as under:

- (i) Projects with cost of balance works less than Rs 100 Crs: 372 Roads of length 10,369 km with an approximate cost of Rs 10,479 Crs.
- (ii) Projects with cost of balance works between Rs 100 Crs and Rs 200 Crs: 59 Roads of length 3,655 km with an approximate cost of works Rs 8,537 Crs.
- (iii) Projects with cost of balance works between Rs 200 Crs and Rs 500 Crs: 37 Roads of length 3,436 km with an approximate cost of Rs 12,838 Crs.
- (iv) Projects with cost of balance works above Rs 500 Crs: 17 Roads of length 2,751 km with an approximate cost of Rs 15,795 Crs.

3. Capacity of BRO

At present, there are 18 Projects and 34 Task Forces in the BRO with a potential/capability to take up annual works of Rs 100 Crs (capital) per Task Force. In order to ensure that the potential of BRO is utilised to the optimum, a work load of Rs 3,400 Crs/year is required. At present, BRO's potential is sub-optimally utilised, as the average expenditure is stagnant over a period of time at Rs 3,000 Crs/year against the capacity/potential of Rs 3,400 Crs/year.

The sub-optimal utilization of BRO's potential may be attributable mainly to the following:

(i) Execution of works in small stretches: Being a Departmental construction agency, BRO does not outsource road projects and does only selective outsourcing of small stretches of works, mostly for supply of material for surfacing works. As a result, only small local contractors participate in the works of BRO, who may not be able to bring the requisite modernization/efficiency in the construction works executed by BRO.

(ii) Limited budgetary support to BRO: Over the last few years, the average allocation of budget to BRO by MoF is approximately Rs 3,000 Crs/year, as BRO has not been able to adhere to the pace of expenditure as stipulated by MoF from time to time. In fact, committed expenditure on salaries takes away a major chunk of the allocation, leaving very limited budget for execution of works. The budget allocation to BRO from MoD in the last three years has been Rs 2819 Cr for 2014-15, Rs 3316 Cr for 2015-16 and Rs 3526 Cr for 2016-17. Out of this allocation, about Rs 500 Cr is for maintenance works, Rs 450 Cr for salary of ground establishment and about Rs 1000 Cr is spent on work-charged establishment, leaving only about Rs 1500 Cr for actual construction works.

It is, therefore, clear that with the current budgetary allocation and the construction philosophy in BRO, it will not be able to increase its pace of progress and cannot certainly achieve the ambitious and unrealistic LTRoWP. There is a strong case for review of LTRoWP and a substantial increase in the budgetary allocation to BRO. However, it may also not bring about the desired outcome due to the limited absorption capacity of BRO. The LTRoWP may still be unachievable, unless there is a policy shift in BRO's construction philosophy to overcome its departmental capacity constraints through participation of big construction companies.

Need for review of LTRoWP and change in construction philosophy

While delinking of salaries has been approved in principle and is to take effect from FY 2017-18 and increase in annual budgetary allocation to BRO is under active consideration, there is a two-pronged policy change required to be brought about in BRO to improve its delivery and to achieve the desired outcomes.

(i) ~~With~~ ^{the} objective to ensure that the strategic road works are completed as per the timelines identified by the Army, there is a need to review the LTRoWP. Instead of making piecemeal efforts on so many different roads, BRO need to focus its attention on limited number of projects and ensure completion also in project mode. The number of roads included in LTRoWP is on the higher side with reference to budget available to BRO over the past few years and also to the absorption capacity of BRO. As a result, the resources of BRO are being spread out over a large number of roads and the priority roads get neglected in the process. There is a need to review and restrict the number of roads included in LTRoWP, which would enable BRO to channel its energy and resources towards tangible achievements in the operationally critical and strategically important roads. Further, all the roads included in LTRoWP also need to be prioritized with reference to absorption capacity of BRO and budget availability.

(ii) First of all, it should be ensured that BRO's own departmental capacity is utilized to the optimum. This may necessitate rational deployment of manpower, equipment and resources within the BRO. Further, in order to bridge the gap between the strategic requirements of the Army and BRO's own capacity constraints of departmental execution, there is a need for BRO to change its old construction philosophy and move towards outsourcing of projects. This would not only improve the pace of execution of projects, but would also enhance its absorption capacity to take up more projects than what BRO is capable of, following the departmental mode of execution. Instead of offering small stretches of roads for outsourcing, BRO should offer the entire road as a viable project on a turnkey basis, so as to attract big construction companies. Outsourcing would improve the output of BRO as an efficient construction agency and would put it in a better position to seek higher budget in future. Different construction organizations within the Ministry of Road Transport and Highways, which are handling a huge budget, are able to execute works with their capacity enhanced through outsourcing.

5. Enabling provisions in BR Regulations

As per the various provisions laid down in Para 545, 546, 549, 611 and 614 of BR Regulations, earlier BRO used to make separate estimates for different items of work and was not permitted to outsource the road works. Only selective outsourcing of small stretches of works, mostly for supply of material for surfacing works, was allowed.

An amendment to Para 546 and 549 of BR Regulations was made in 2010, so that estimates for construction of new roads and widening of existing roads could be sanctioned, incorporating formation cutting, permanent works, surfacing works and permanent bridges, instead of the earlier provision wherein separate estimates were to be prepared. An amendment to Para 546 and 549 of BR Regulations has been made in 2016 for adoption of DPR mode of execution.

Further, an amendment to Para 611 and 614 of BR Regulations had also been made earlier to enable BRO to outsource the execution of works for construction of roads, bridges, tunnels in totality or individually.

Enabling provisions are, therefore, now available to BRO to make DPRs for identified road works as projects, which can be offered for outsourcing to big construction companies as viable projects through competitive bidding. This is expected to attract big construction companies and improve the pace of execution of projects. BRO has also decided to adopt uniform standards for classification of roads (single lane/double lane) as prevailing in other agencies in this sector. BRO may need to improve its contract management capability and ensure effective monitoring of contracts.

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6. Roadmap to implement new construction philosophy

(i) With the enabling provision now available, BRO will carry out the following actions immediately:-

(a) Review of LTRoWP in consultation of Military Operation Directorate: The number of roads included in the present LTRoWP is on the higher side with reference to budget available to BRO over the past few years and also to the absorption capacity of BRO. Review of LTRoWP to restrict the number of roads so as to enable BRO to channelize its energy and resources towards operationally critical and strategically important roads.

(b) Prioritise the list of roads under Priority-I and Priority-II, based on the availability of budget and absorption capacity of BRO.

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(c) Identification of viable road projects from Priority-I for outsourcing and bundling of road projects to attract big construction companies. ✓

(d) Identification of roads from Priority-I for departmental execution and rational deployment of manpower, equipment and resources within BRO to ensure that BRO's own departmental capacity is utilised to the optimum. ✓

(e) Adoption of DPR mode of execution. ✓

(f) Adoption of uniform standards/nomenclature for classification of roads in consonance with IRC codes and MoRTH specifications. ✓

✓ (ii) Action for implementation of outsourcing from FY 2017-18: A dedicated Cell will be made functional within the available authorised strength at HQ DGBR for Outsourcing and Contract Management for the following:-

EPC
cell to
handle

(a) Formulation of model Request for Proposal (RFP) for preparation of DPR and for construction of roads. ✓

(b) Floating of RFP for DPR preparation through professional agencies and acceptance of contract. ✓

(c) Floating of RFP for construction of roads and acceptance of contract. ✓

(d) Capacity building in contract management, both pre-tendering and post-tendering. ✓

(e) Preparing a database for equipment and outsourcing the maintenance and upkeep of equipment. ✓

This needs
to be
studied
TB

(f) Outsourcing feasibility studies for identified tunnelling projects. ✓

(g) The existing ES Directorate will continue to work for the remaining outsourcing works required to be done in case of departmental execution. ✓

7. In accordance with these policy guidelines, projects amounting to at least 30% of works planned in LTRoWP will be identified by BRO for outsourcing for FY 2017-18 and the percentage of outsourcing will be increased to 40% for FY 2018-19. The percentage of outsourcing will be reviewed thereafter.

All project
to note

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8. The progress monitoring of the works will be done by a Steering Committee under the chairmanship of Additional Secretary with JS (BR), DGBR and IFA (BR) as members.

9. Third party inspection will be carried out on one identified road in each of the 18 projects every year.

New 17

10. After taking up works from LTRoWP and ensuring rational deployment of manpower, equipment and resources within the BRO, in case there is spare capacity left, it can be deployed on other MoD works including runway works for the IAF.

[Handwritten signature]

Govt of India
Ministry of Defence
D (BR-I)

'B' Wing, 4th Floor,
 Sena Bhawan, New Delhi-110 011

Dated: 24 August 2017

Subject: Adoption of Engineering Procurement Contract (EPC) mode of execution as a default mode

BRO has always functioned as a work charged organization, executing most of the road projects departmentally and contracting out only small stretches. As a result, only small local contractors participate in BRO works, who are not able to bring requisite modernization/efficiency. Policy Guidelines were issued vide this office letter of even No dt 13 April 2017 for change in BRO's construction philosophy, offering the entire road as a viable project through tendering to big construction companies, so as to improve the pace of construction.

BRO has also adopted Detailed Project Report (DPR) mode of execution. Further, enhanced delegation of Administrative and Financial Powers have also been accorded right up to CE (P) level vide this office letter No. 04/696/2015/D&P (BR-I) dt 11 August, 2017 to bring about a transformational change in BRO and expedite the pace of road construction in the border areas.

2. In this scenario, it has been decided that with immediate effect, BRO should adopt only EPC mode of execution as a default mode as mentioned below:-

- (i) All projects of value more than 10 Crores (Ten Crores) (excluding land acquisition cost) will be taken up only after preparation of DPR. This will apply to both the Engineering Procurement Contract (EPC) projects and departmentally executed projects.
- (ii) All projects for which the value as per the DPR is above 100 Crores will be mandatorily executed as an EPC project. For any exception, approval of Project Approval Board (PAB) will be obtained.

3. This issues with the approval of Hon'ble RM.

U.K. Tiwary

(U.K. Tiwary)

Director (BR-Works)

Ph: 2301 4862

EPC

To,

The Director General Border Roads,
 Seema Sadak Bhawan,
 New Delhi-110010

Copy to:

1. PCDA (BR)

2. MoD (Fin/BR)

3. IFA (BR)

4. Office copy

MoD (BR) F.No.C4/696/2015/D&P (BR-I)
Government of India
Ministry of Defence (BR Wing)
D (BR-I)

B' Wing, 4th Floor,
Sena Bhawan,
New Delhi-110011

Dated: 3rd February 2022

To

✓
The Director General Border Roads,
Seema Sadak Bhawan, Ring Road,
Delhi Cantt, New Delhi - 110010

Subject: Streamlining of procedures in BRO

Sir,

Reference is invited to the following letters issued by the Govt of India from time to time intended to improve the procedure and give impetus to Border Roads Organization (BRO) works:-

- (i) MoD (BR) F.No.F.16(10)(11)/BRDB/Wks/AIP/97 dated 13th July, 1998
- (ii) MoD (BR) F.No.BRDB/04/65/2006/BEA dated 6th Feb, 2009
- (iii) MoD (BR) F.No.04/696/2015/D&P (BR-I) dated 11th Aug, 2017
- (iv) MoD (BR) F.No.BRDB/02/85/BEA/2016 dated 29th Aug, 2017
- (v) MoD (BR) F.No.04/696/2015/D&P (BR-I) dated 2nd Feb, 2022

2. The proposal for further streamlining of procedure in BRO has been considered and approved by competent authority as per Annexure-I to this letter.

3. This issues with the concurrence of MoD (Fin/BR) vide their ID No.257/Fin/BRS/22 dated 3rd February, 2022.

Yours faithfully,



(Rahul Mahna)

Under Secretary to the Govt of India
Tel No.2301 1956

Copy to:-

1. Ministry of Defence
 2. CGDA, RK Puram, New Delhi
 3. PCDA (BR), Seema Sadak Bhawan, Ring Road, New Delhi-110010
 4. DGADS, L-II Block, Brassey Avenue, New Delhi
 5. IFA (BR), Seema Sadak Bhawan, Ring Road, New Delhi-110010
 6. Office copy
- ✓

Annexure-I to MoD (BR) letter No. 04/696/2015/D&P(BR-I) dated 3 Feb, 2022

Sr No	Subject	Existing powers	Revised powers
1.	Approval of AWP (Refer MoD (BR) letter dated 11 th Aug, 2017)	JS (BR)- Full powers	No change BRO to submit the AWP to MoD by November and approval of MoD to be accorded by 15 th Feb. AWP should be approved by February of preceding financial year.
2.	Limit for preparation of DPR, Execution of Works & Appraisal of Works through PAB (Refer MoD (BR) letter dated 29 th Aug, 2017)	Mandatory Preparation of DPR - Beyond Rs. 10 Cr Mandatory execution of works through EPC - Beyond Rs.100 Cr Appraisal of Works through PAB - Beyond Rs.100 Cr	Mandatory Preparation of DPR - Beyond <u>Rs.25 Cr</u> Mandatory execution of works through EPC - Beyond <u>Rs.150 Cr</u> Appraisal of Works through PAB - Beyond Rs.200 Crs
3.	Approval in Principal for Agency/Deposit Works (Refer MoD (BR) letter dated 6 th Feb, 2009)	AIP for deposit/agency works is granted after approval of MoD For restoration work DGBR - upto Rs.5 Cr	No AIP is required to be obtained from MoD for such projects/ works that are listed in LTRoWP and AIP is given for them. For works not listed in LTRoWP, BRO to obtain AIP from MoD, however, the AIP in such cases may be accorded within one month. However, administrative approval and expenditure sanction for civil works needs to be sought as applicable, to ensure that BRO has spare capacities to undertake that work without any impact on their mandate. For restoration work DGBR - upto Rs.25 Cr

*Min
DPR 25 cr
limit*

EE(Giv)

SE(Giv)

C. S. S.

Sr No	Subject	Existing powers	Revised powers
4.	Administrative Approval and Expenditure Sanction for Civil Works funded by MoD (Refer MoD (BR) letter dated 11 th Aug, 2017)	i) CCS: Beyond Rs. 1000 Crs after approval of RM. (ii) RM & FM : Beyond Rs.500 Cr upto Rs.1000 Cr. (iii) RM: Beyond Rs.100 Cr upto Rs.500 Cr. (iv) DGBR: Beyond Rs.75 Crs upto Rs.100 Cr. (v) ADGBR : Beyond Rs. 50 Cr upto Rs. 75 Cr. (vi) CE: Upto Rs. 50 Cr	(i) CCS: Beyond Rs. 1000 Crs after approval of RM. (ii) RM & FM : Beyond Rs.500 Cr upto Rs.1000 Cr. (iii) RM: Beyond Rs.300 Cr upto Rs.500 Cr. (iv) Def Secy : Beyond Rs.200 Cr upto Rs.300 Cr. (v) DGBR: Beyond Rs.100 Crs up to Rs. 200 Cr. (vi) ADGBR : Beyond Rs. 50 Cr upto Rs. 100 Cr. (vii) CE: Upto Rs. 50 Cr (viii) Cmdr TF: Upto Rs.10 cr
5.	Approval of Annual Procurement Plan for V/E/P (Refer MoD (BR) letter dated 11 th Aug, 2017)	JS (BR)	No Change APP must be submitted by Mid March for the next fiscal and to be approved by MoD by April. BRO to submit detailed paper on APP in order to facilitate the actual requirements vis-a-vis various works/projects.
6.	Financial powers for Shifting/Relocation/Move of Project HQs, HQ BRTFs and units (Refer MoD (BR) letter dated 13 th July, 1998)	Secretary BRDB : Project HQs and BRTFs DGBR: All other units below BRTFs	Power is delegated to DGBR for movement of units based on functional necessities. Approval of the Ministry is required for any movement of projects. <u>undertaken.</u>

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11-12-2017

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Sr No	Subject	Existing powers	Revised powers
7.	Enhanced wages of CPLs to include the cost of ration including arranging supply through Army on payment basis and procure CPL clothing and provision of necessary Accommodation and Medical facilities (Refer Para 504 of BR Regulations)	The Daily or monthly rates of wages will be fixed by the Chief Engineer in consultation with the local Civil authorities. Such wages shall not be less than the minimum wages fixed under the Minimum Wages Act 1948.	The Daily or monthly rates of wages will be fixed by the Chief Engineer in consultation with the local Civil authorities. Such wages shall not be less than the minimum wages fixed under the Minimum Wages Act 1948. In High altitude area and remote locations the CPL wages can be fixed including cost of ration, including arranging supply through Army on payment basis, CPL clothing, accommodation and medical facilities. The guidelines for fixing the wages in such areas may be approved by DGBR in consultation with IFA (BR).
8	Power for down gradation of V/E/P based on the mechanical condition assessed by a Technical BOO. Twin criteria would continue to exist. (Refer MoD (BR) letter dated 11 th Aug, 2017)	DGBR: Beyond Rs.10 lakh and up to Rs.20 lakh ADGBR: Beyond Rs.5 lakh and up to Rs.10 lakh CE : upto Rs.5 lakh	DGBR: Beyond Rs. 10 lakh and up to Rs.25 lakh ADGBR: Beyond Rs.5 lakh and up to Rs.10 lakh CE: upto Rs.5 lakh
9	Hiring of Critical Staff	No such power exists.	Hiring of critical staff on contractual basis, subject to the remuneration so fixed with the approval of MoD.

Ad
EE(Giv)

SE(Giv)

Chief

Phone: 011-25686846
Mob : 8415927181
Email ID : brc-direpc@bro.gov.in

Headquarter
Lte General Bureau
Seema Sadak Bhawan
Ring Road, Delhi Cantt.,
New Delhi -110 010

24025/DGBR/ *Policy 103* /EPC Cell

29 May 2018

HQ ADGBR (North-West)
Sec-48-C, Near Motor Market
Chandigarh-160047

HQ ADGBR (East)
C/o 99 APO
Pin - 900885

HQ CE (P) -----
C/o 56 APO

HQ CE (P) -----
C/o 99 APO

FORWARDING OF MODEL EPC CONTRACT DOCUMENTS

1. It has been decided to adopt the standard EPC documents and EPC procedure in toto as being adopted in MoRT&H. Necessary amendments carried out by MoRT&H from time to time be incorporated. A copy of following Model contract documents for EPC mode of execution contracts are enclosed herewith.

- a) RFP for preparation of DPR
- b) RFP for Authority Engineer
- c) RFP for civil work on EPC
- d) Contract agreement for civil work on EPC

2. The Committee for Extension of Time (EOT) cases for civil works will be as under:-

- i) Chief Engineer (Project)
- ii) AO (P) / ACDA (Project)
- iii) Cdr TF
- iv) Dir (Contract)

With approval of authority issuing Letter of Acceptance (LOA)

3. The other Committee such as Evaluation Committee, Screening Committee etc will be as per the delegation of Administrative & Financial powers in BRO vide MoD (BR) letter No. 04/696/2015/D&P (BR-I) dated 11 Aug 2017.

4. This has the approval of DGBR.

(Signature)
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For Dir en Border Roads

Encls : a) RFP for preparation of DPR.
b) RFP for Authority Engineer.
c) RFP for civil work on EPC.
d) Contract agreement for civil work on EPC.

(Enclosures And in Mail)

Phone: - 011-25686846
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Email ID:- bro-direpc@nic.in

Headquarters
Dte General Border Roads
Seema Sadak Bhawan
Ring Road, Delhi Cantt,
New Delhi -110 010

24006/DGBR/Policy/ 04/EPC Cell

24 May 2018

HQ ADGBR (North-West)
Sec-48-C, Near Motor Market
Chandigarh-160047

HQ ADGBR (East)
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Subject:- GUIDELINES FOR PROCUREMENT, PREPARATION, REVIEW AND APPROVAL OF DPR

1. The Border Roads Organization under the Ministry is involved in preparation of various DPRs / Feasibility Report for development / improvement of various sections of National Highways / other than National Highways/ bridges/ structures etc. funded by MoD, MoRT&H and other Ministries. The DPR/ Feasibility Reports are required before taking up construction / improvement of road Project for capacity augmentation and removing various deficiencies / improving road safety aspects etc. MoRT&H guidelines will be followed for the works funded by MoRT&H whereas following guidelines will be adopted for the works funded by other Ministries where specific guidelines are not issued.
2. **Sanction of Estimates for preparation of DPR:** Sanction of estimate for preparation of DPR will be done based on H-1 rates obtained through QCBS (Quality & Cost Based Selection) method. The rough cost of work will be based on MoRT&H letter No. H-39011/30/2015-P&P (Pt-I) dated 22 Aug 2016 & subsequent amendment thereof.
3. **Invitation of bids:** The requisition for preparation of DPR's would be initiated based on inclusion of road in LTRoWP /BRDB Programme/AWP and Project wise ceiling thereof. The bids proposal shall be invited centrally at HQ DGBR (EPC CELL) based on requisition forwarded by the concerned Project considering the rates on the basis of per Km cost as per MoRT&H guidelines on the subject. Standard Model Contract documents of MoRT&H shall be used.

Contd...P/2

4. **Opening and Evaluation of Bids:** The opening and evaluation of the Bid shall be done at HQ DGBR. The technical evaluation of bids shall be done as per the procedure given in tender documents through QCBS (Quality and Cost Based Selection) method. Opening of Proposals will be done through both online and manually for Technical Proposal and only online for Financial Proposal.

(a) **Proposal Evaluation**

The proposals would be evaluated by a Committee, headed by at least JD Level Officer constituted by the Employer on quarterly basis . A three-stage procedure will be adopted in evaluating the proposal. In the first stage- Proof of Eligibility, it will be examined as to whether:

- (i) The proposal is accompanied by Document fee
- (ii) The Proposal is accompanied by Bid Security of required value and of validity equal or more than the minimum required validity
- (iii) The firms(s) have required experience
- (iv) The firms(s) have required turnover
- (v) The documents are properly signed by the authorized signatories and whether the proposal contains proper POA .
- (vi) The proposals have been received on or before the dead line of submission.
- (vii) In case a Joint Venture/Association of firms, the proposal shall be accompanied by a certified copy of legally binding Memorandum of Understanding (MOU) on a stamp paper of Rs.100, signed by all firms to the joint venture/Association

In case answers to any of the above items is 'No' the bid shall be declared as non- responsive and shall not be evaluated further. However Committee may give maximum upto 07 days to submit clarification / additional documents in support of their eligibility, in case of non-submission of documents (if any).

A Consultant satisfying the minimum Eligibility Criteria as mentioned in the Data sheet and who had submitted the above mentioned documents shall be declared "pass" in Proof of Eligibility. Recommendation / evaluation of committee will be approved by ADGBR (HQ). Technical Proposals of only those consultants shall be opened and evaluated further.

(b) **Technical Proposal**

In the second stage the Technical proposal shall be evaluated as per the detailed evaluation criteria given in Data Sheet. Technical proposal will be evaluated by Committee headed by at least JD level officer alongwith a rep of IFA/ Finance. In case of any deficiency, committee may give maximum upto 10 days to submit clarification / additional documents. The marks obtained by technical evaluation from INFRACON Portal will be cross verified and in case of any variation, the same will be brought to the knowledge of the INFRACON Authorities.

A proposal securing 75 points shall be declared pass in the evaluation of Technical Proposal. The technical proposal should score at least 75 points out of 100 to be considered for financial evaluation. The CV of the proposed Team Leader should score at least 75 % marks otherwise the entire proposal shall be considered to have failed in the evaluation of Technical Proposals and shall not be considered for opening of Financial Proposals. Evaluation / Recommendation of Committee will be approved by ADGBR (HQ).

(c) **Financial Proposal**

(i) After the evaluation of Technical Proposals and the shortlisting of firms is finalized, the Employer may notify those consultants whose proposals were not considered as per conditions of Bid. The Employer shall simultaneously notify the shortlisted firms indicating the date and time set for opening of the Financial Proposals.

(ii) The Financial Proposals shall be opened on CPP Portal publicly in the presence of the consultants representatives who choose to attend. The name of the consultant, the technical scores, and the proposed prices shall be read aloud and recorded when the Financial Proposals are opened. The Client shall prepare minutes of the public opening.

(iii) The Evaluation Committee headed by at least JD Level Officer alongwith rep of finance will determine whether the submitted Financial Proposals are complete (i.e. whether they have included cost of all items of the corresponding proposals; if not, then the cost towards such missing items will be considered as NIL but the bidder shall, however, be required to carry out such obligations without any additional compensation.) and without computational error. In case under such circumstances, if Client feels that the work cannot be carried out within the overall cost as per the submitted financial proposal, such proposals shall be considered non responsive.

(iv) The lowest financial proposal (F_M) will be given a financial score (S_F) of 100 points. The financial scores of other proposals will be computed as follows :-

$$S_F = 100 \times F_M / F \quad (F = \text{amount of financial proposal by bidder})$$

(v) Proposals will finally be ranked according to their combined technical (S_T) and financial (S_F) scores as follows:-

$$S = S_T \times T_w + S_F \times F_w$$

Where S is the combined score, and T_w and F_w are weights assigned to Technical Proposal and Financial Proposal, which shall ordinarily be 0.80 and 0.20 respectively.

(vi) For a particular package, a consultant with "a particular team" having the maximum combined score(s) shall be declared as the most preferred bidder (H-1).

(vii) In case work has to be awarded for multiple packages, award of work to a consultant with "a particular team" either as sole or as in JV/Association shall be limited to one package only. At first, consultant who become H-1 in one package each shall be assigned the respective package. Then package in which a consultant with "a particular team" turns out to be the most preferred bidder (H-1) in more than one package shall be considered. In case a consultant with "a particular team" turns out to be most preferred bidder (H-1) in more than one package, the package which is to be awarded to this team of a consultant shall be determined on the basis of least cost after considering the Financial Quote of H-1 Bidder and H-2 Bidder limited to those packages. Procedure to be followed for awarding work based on QCBS including assessment of least cost, under special circumstances i.e when a consultant with "a particular Team" turns out to be the preferred bidder (H-1) in more than one package.

(viii) Based on the technical & financial evaluation, the documents & the list of selected consultants will be forwarded by EPC cell of HQ DGBR to IFA (BR) along with justification for acceptance of tender. On concurrence of IFA (BR), DGBR will approve in principal and approved proposal will be sent to concerned CFA for further action. Concurrence of respective IFA at lower formation is dispensed with, since proposal has already been concurred at HQ DGBR level.

5. **Approval of Tender Based Estimate:** On receipt of the tender documents from HQ DGBR, Tender based estimate for preparation of DPR/feasibility report shall be approved/sanctioned by Competent Authority as per Srl No. 18 of delegation of power of MoD issued vide MoD letter No. MoD (BR) F.No. 04/696/2015/D&P (BR-I) dated 11 Aug 2017.

6. **Acceptance of Bid :** The acceptance of bids will be done by the CFA as per Srl No. 18 (a) of delegation of power of MoD issued vide MoD letter No. MoD (BR) F.No. 04/696/2015 /D&P (BR-I) dated 11 Aug 2017.

7. **Preparation of DPR.** Review and Approval of DPR/ FS: Six sub-stages have been defined for DPR preparation, each with designated deliverables, reviewing and accepting authority.

(a) The following table shall be followed :-

S No	Sub Stage	Key Deliverables	Reviewing and Accepting Authority
(i)	Draft/Final Inception Report	Project appreciation , Detailed approach and methodology, Work programme, Proforma for data collection, Design standard and proposed cross section, Key plan and Linear plan, Development plans, Quality assurance plan, Draft design standards	CE Project

Contd...P/5

S No	Sub Stage	Key Deliverables	Reviewing and Accepting Authority
(ii)	Draft/Final Feasibility Report	Project description including possible alternatives, Finalized alignment plan, methodology, socio-economic profile, indicative design standards and Technical specification, traffic survey and analysis, environmental screening and preliminary assessment, initial social assessment and preliminary land acquisition/re-settlement plan, cost estimates based on preliminary rate analysis and bill of quantities, economic and financial analysis	CE Project Alignment plan shall be approved by ADGBR (East)/ ADGBR (NW)
(iii)	Draft/Final LA & Clearance-I Report	Strip plan along with land acquisition plan, utility relocation plan, details of properties and estimated costs of acquisition	CE Project
(iv)	Draft/Final Detailed Project Report	Main Report, Design Report, Materials Report, Environmental Assessment Report, Technical Specification, Rate Analysis, Cost Estimate, Bill of Quantities, Drawing Volume	CFA
(v)	Draft/Final Technical Schedules	Civil Work Contract Agreement	Competent Engineering Authority (CEA)
(vi)	Draft/Final LA & Clearance-II Report	Land Acquisition Report including final 3a,3 A,3D notifications, Clearance Report with final approvals from agencies for all Project related clearances	CE Project

(b) For each of the six sub-stages in 6 (a) above, quality checklists have been defined to ensure that all necessary activities pertaining to the sub-stage are completed. Compliance to checklists shall be reviewed by corresponding review and accepting authority, as mentioned in the above tables. Payments shall be linked to successful completion of the various sub-stages.

(c) The timeline for preparation of DPR shall be as per scope of work normally 8 months. Timeline for scrutiny and approval of DPR shall remain 2 months as per Standard Operating Procedures,

(d) DPR consultant shall be responsible for sharing the findings from the preparation stages during the bid process. During the bid process for a project, the DPR consultant shall support the Authority in responding to all technical queries, and shall ensure active participation of senior team members of the consultant during all interaction with potential bidders including pre-bid conference, meetings, site visits etc. In addition, the DPR consultant shall also support preparation of detailed responses to the written queries raised by the bidders. Also, the deliverables of the DPR consultant shall include editable soft copies of the final versions of all documents, including but not limited to the strip plan, plan & profile drawings, cross sections of right of way and details of structures as well as any cost workings.

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(e) DPR Consultant shall also prepare the complete draft utility shifting estimates using the latest Schedule of Rates and obtain a sign-off from the corresponding utility agencies. For preparation of estimate, consultant shall use technologies for detection of sub-surface utilities as per para 7.

8. **Technology for DPR/ FS Preparation:** The following are the areas where appropriate technology shall be introduced to reduce time for DPR/ FS preparation and improve quality:

(a) **Topographic Survey:-** To conduct topographic surveys, technologies which meet the following criteria shall be used.

- (i) **For land based surveys:**
 - (aa) Fundamental horizontal accuracy of 2 cm or better
 - (ab) Fundamental vertical accuracy of 2 cm or better
 - (ac) More than 50 points shall be measured per sq. m.
- (ii) **For aerial based surveys:**
 - (aa) Fundamental horizontal accuracy of 5 cm or better
 - (ab) Fundamental vertical accuracy of 5 cm or better
 - (ac) More than 10 points shall be measured per sq. m.

To establish accuracy, a check point survey using DGPS (for horizontal accuracy) and Auto Level (for vertical accuracy) shall be carried out to establish the fundamental horizontal and vertical accuracy. A minimum of 25 check points, or check points once every 4 km shall be established, and these shall be strictly different from any geo- referencing or control network points.

The following are the set of deliverables which shall be submitted after completion of survey:

- (a) Raw DGPS data for the entire highway length and adjoining areas of interest
- (b) Point cloud data/ Data of points captured for the entire highway length and adjoining areas of interest
- (c) Topographic map of scale 1:1000 of the entire highway length and adjoining areas of interest
- (d) Contour map of 50 cm of entire highway length and adjoining areas of interest
- (e) Cross section of the highway at every 1 m in dwg format

For land based surveys, Mobile LiDAR (Light Detection and Ranging) or equivalent technology that can meet above requirements shall be adopted. For aerial based surveys, Aerial Mobile LiDAR (Light Detection and Ranging) or equivalent technology that can meet above requirements shall be adopted. Land based surveys using Mobile LiDAR or equivalent technology shall be used for most highway projects, except in cases of hilly areas, major bypasses and realignments, where aerial based surveys using aerial LiDAR or equivalent technology shall be used. In shadow areas such as invert levels below culverts, where LiDAR or equivalent technologies cannot survey accurately, traditional methods of Total Station/ Auto Level shall be used to complete the study. In case of mobile LiDAR or equivalent technology, 360 degree panoramic images of the entire highway length and adjoining areas of interest shall be submitted. In case of aerial LiDAR or equivalent technology, ortho-images of the entire highway length and adjoining areas of interest shall be submitted. In case other equivalent technologies are identified at later stages, specifications for the same shall be put up for approval to the Competent Authority.

(b) Sub-Surface Utility Mapping: -The following criteria shall be met by the process of sub-surface utility mapping:

- (i) Coverage and mapping of all sub-surface utilities within project RoW, especially those under additional carriageway width
- (ii) Accurate mapping and resolution of all sub-surface utilities up to a depth of 4 m
- (iii) Differentiation between sub-surface utilities such as live electric cables, metallic utilities and other utilities
- (iv) Sub-surface utilities radargrams further processed into utility maps in formats such as PDF, JPEG and AutoCAD.

To meet the above criteria, sub-surface utility engineering (SUE) using technologies such as Ground Penetrating Radar (GPR), Induction Locator etc. or equivalent technologies shall be adopted. In case other equivalent technologies are identified at later stages, specifications for the same shall be put up for approval to the Competent Authority.

(c) Cadastral mapping:-

All DPR consultants shall digitize land cadastral maps before preparing the land acquisition plan. The digitized map shall exactly match the original map, like a contact print, since the dimensions and area of plots, or the whole village are to be extracted from the map itself. An accuracy of 1 mm or higher in a 1 : 1 000 scale map shall be ensured, as this translates into an accuracy of 1 m or higher on ground.

(d) Traffic Count Survey:-

DPR Consultants shall use the results of traffic count surveys being done by Indian Highway Management Company Limited (IHMCL). If required, specifically in cases where a particular stretch is not being covered by Indian Highway Management Company Limited (IHMCL), DPR consultants shall carry out traffic count surveys on their own using Automatic Traffic Counter and Classifier (ATCC) systems or equivalent technologies. The Automatic Traffic Counter and Classifier (ATCC) system shall meet the following accuracy levels after validation/ correction:

- (i) Classification of vehicles: better than 95%
- (ii) Counting of vehicles: better than 98%.

Before validation and correction, the Automatic Traffic Counter and Classifier (ATCC) system shall meet the following accuracy levels:

- (i) Classification of vehicles: better than 90%
- (ii) Counting of vehicles: better than 95%.

For verification of the above mentioned accuracy levels, audit of raw ATCC data shall be done on a sampling basis. Systems such as Pneumatic Tube Detector, Inductive Detector Loop, Video Image Detection and Infrared Sensor etc or any other equivalent technologies shall be adopted to meet the above accuracy levels. In case other equivalent technologies are identified at later stages, specifications for the same shall be put up for approval to the Competent Authority

9. Payment Schedule:


The standard form of payment schedule to be followed in RFP document has been developed for procuring consultancy services for 'preparation of Detailed Project Report (DPR) for development of Highways. Following Payment Schedule for uniformly using in RFP document for procurement consultancy service on Highway will be followed by BRO. The payment schedule has been included in Draft Contract for Consultant's Services as under:-

S.No	Item	Payment as% of contract value
1	Submission of final Inception Report	15%
2	Submission of final Alignment Plan	10%
3	Submission of final Feasibility Report	5%
4	Submission of Final Land Acquisition Report	10%
5	Submission of clearance proposals	5%
6	Submission of Draft DPR	10%
7	Approval of Final DPR	10%

S.No	Item	Payment as% of contract value
8	Approval of Technical Schedules	5%
9	3D publication	10%
10	Clearance - Stage I Approval	5%
11	Clearance - Stage II/Final Approval	5%
12	Retention to be released after 3 years	10%
	Total:	100%
13	Bonus on submission of draft 3A within 1 month of alignment finalization	2.5% bonus
14	Bonus on submission of draft clearance proposals within 1 month of alignment finalization	2.5% bonus

10. Extension of Time and Variation/ Change of Scope: In case Extension of Time is required for carrying out the DPR/feasibility report, it shall be granted at the level of Chief Engineer (Project) with approval of Authority issued LOA. The matter of variation /change of scope upto 10% of consultancy contract amount for DPR/feasibility study shall be approved at the level of Chief Engineer(Project) In case, the variation/change of scope exceeds the 10% of consultancy contract amount, revised approval shall be obtained.

11. This issues with the concurrence of IFA (BR) vide ID Note No IF/W/801/VII/Misc-177/146 (25/5) dated 25 May 2018 and approval of DGBR.


 (RK Garg)
 SE (Civ)
 Dir (EPC)
 For Dir Gen Border Roads

Copy to: -

HQ DGBR/DG's Sectt	-	For information, please.
HQ DGBR/TP Dte	-	-do-
HQ DGBR/East Dte	-	-do-
HQ DGBR/West Dte	-	-do-
HQ DGBR/B&T Dte	-	-do-
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24006/DGBR/Policy/ 24 /EPC Cell

16 Jul 2018

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PREPARATION AND APPROVAL OF DPR'S FOR CIVIL WORKS ON EPC

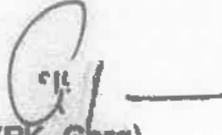
1. Consultancy contracts are being awarded to prepare feasibility study (FS) and Detailed Project Report (DPR) through contract. Works are being executed as per standard RFP and guidelines issued vide HQ DGBR letter No. 24006/DGBR/Policy/04/EPC Cell dated 29 May 2018. As per guidelines, six sub stages have been defined for DPR preparation as under:-

- Stage 1: Inception Report
- Stage 2 : Feasibility Report
- Stage 3: LA & Clearance-I Report
- Stage 4 : Draft & Final Details Project Report (DPR)
- Stage 5 : Technical Schedules
- Stage 6 : LA & Clearance -II Report.

2. Preparation of DPR and its approval thereof is a time consuming process and hence there is an urgent need to resort to cut down sequential activities so that DPR gets processed in time by taking parallel actions at various HQs. For example, preliminary design work should commence by the consultant without waiting for the approval of feasibility report/alignment plan. Similarly stage 3,5 & 6 shall run in tandem with stage 2 & 4. Consultant shall be required to complete all the different stages of study within the time frame as indicated in the schedule of submission to the satisfaction of the Client.

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3. Henceforth consultant should be asked to submit the copy of Draft DPR to RCC with a copy to HQ DGBR, HQ ADGBR (E/ NW) , HQ CE (P) and HQ BRTF for comments/ observations. Comments/observation of all formations shall be submitted to HQ DGBR within one month & consolidated observations will be communicated to the consultant with a copy to all stakeholder by HQ DGBR. Consultant will submit the amended DPR to RCC and same will be processed through stipulated channel as per guidelines issued on the subject. Sanction of DPR, having cost of civil works more than 100 Crs shall be processed by concerned Directorate for approval through Project Approval Board (PAB) at MoD.
4. The requisite draft of contract documents viz RFP for civil works, Contract Agreement for Civil works, RFP for Authority Engineers and Contract Agreement for Authority Engineer will be vetted with respect to DPR by EPC Cell at HQ DGBR.
5. This has been issued with the approval of DGBR.


(RK Garg)
SE (Civ)
Dir (EPC)
For Dir Gen Border Roads

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(Internal) :-

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12 Jul 2018

24006/DGBR/Policy/ 23 /EPC Cell

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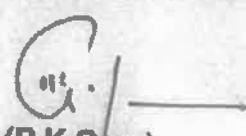
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HQ CE (P).....
C/o 56/99 APO

HQ CE (P) _____
C/o 56 APO

HQ CE (P) _____
C/o 99 APO

**STANDARD OPERATING PROCEDURE FOR ESTABLISHING PROJECT
IMPLEMENTATION CELL IN BRO PROJECTS TO MONITOR EPC
CONTRACT**

1. Standard operating procedure for establishing Project Implementation Cell (PIC) at CE (P), duly concurred by PCDA (BR) vide their ID No BR/Bud / 901 /Allot/2018-19 dated 04 Jul 2018 and consequent approval of DGBR is forwarded herewith for further action.


(R K Garg)
SE (Civ)
Dir (EPC)
For Dir Gen Border Roads

Encls: 5.7. Sheets

Copy to :-

PCDA (BR)

:- For information with respect to PCDA (BR) ID No. BR/Bud / 901 /Allot/2018-19 dated 04 Jul 2018.

IFA (BR)
(Internal)

:- For info Please.

DGBR/Pers Dte
DGBR/East Dte
DGBR/West Dte
DGBR/TP Dte
DGBR/TA Dte
DGBR/E8 Sec
DGBR/D&S Sec
DGBR/B&T Sec

✓

**STANDARD OPERATING PROCEDURE FOR ESTABLISHING PROJECT
IMPLEMENTATION CELL IN BRO PROJECTS TO MONITOR EPC
CONTRACT**

General

1. Border Road Organisation (BRO) was set up in 1960 to ensure coordination and expeditious execution of Road infrastructure projects in the North/North Eastern states. At present BRO is entrusted with work of MoD and other agencies such as MoRT&H, MHA, MEA etc. However presently the objective is to ensure that strategic road/other assigned road works are completed as per the timelines indentified by the Army/other agencies. There is need to bridge the gap between the requirements of the Army/other agencies and BRO's own capacity of departmental execution by adopting new construction philosophy according to present requirement of construction industries i.e. outsourcing the Road work through EPC mode of contract.
2. In accordance with the MoD (BR) policy guidelines, projects amounting to at least 40% of work planned in LTROWP is to be outsourced for Fy 2018-19. MoD (BR) vide No. BRDB/02/85/BEA/2016/D(BR-I) dated 29th Aug 2017 has directed that:
 - (a) All projects of value more than 10 Crores (excluding land acquisition cost) will be taken up only after preparation of DPR. This will apply to both the EPC projects and departmentally executed projects.
 - (b) All projects for which the value as per the DPR is above 100 Crs will be mandatorily executed as an EPC project. For any exception, approval of projects approval Board (PAB) will be obtained.
3. Execution of works through EPC mode is a new assignment for BRO, hence, there is a need of dedicated team of officials to resolve the issues on various occasions for pre constructional activities like monitoring / liaisoning for Land Acquisition & Forest Clearance shifting of utilities, Environment clearance etc with State Govt Officials. Pre-tender stage activities such as to provide input, formulation & acceptance of tenders for civil works contract and Authority's Engineer as well as regular interaction with Regional Office of MoRT&H for MoRT&H funded works. The post tendering action such as Monitoring of

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construction, supervision, quality control, progress of work, fund demand and monitoring expenditure pattern etc will also be required to be taken care of during the construction period. For effective contract management and proper monitoring of progress of work, Project Implementation Cell (PIC) at HQ CE (P) to assist Chief Engineer needs to be established and for this no additional/fresh sanction of manpower is required.

Aim

4. The aim of this Standard Operating Procedure (SOP) is to lay down guidelines for the efficient functioning of Project Implementation Cell (PIC).

Purpose

5. The purpose of this SOP is to carry out proper and efficient management of cell, laying down discrete responsibilities on behalf of CLIENT/Employer/Authority at each level for successful undertaking and completion of works assigned on EPC mode.

CLIENT and his obligation at different stages for work on EPC Mode

6. On behalf of the Authority, Chief Engineer project irrespective of who sign the letter of acceptance (LOA) will be termed as a CLIENT. The obligation assigned to CLIENT for preparation of DPR are given in succeeding paragraphs.

7. **DPR Consultancy**

(a) Unless otherwise specified in the SC, the CLIENT shall use its best effort to ensure that the following:-

- (i) provide the Consultants, Sub consultants and Personnel with work permits and such other documents as shall be necessary to enable the Consultants, Sub consultants or Personnel to perform the Services.
- (ii) assist for the Personnel and, if appropriate, their eligible dependents to be provided promptly with all supporting papers for necessary entry and exit visas, residence permits, exchange permits and any other documents required for their stay in India.
- (iii) facilitate prompt clearance through customs of any property required for the Services.

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(iv) issue all such instructions as may be necessary or appropriate for the prompt and effective implementation of the Services to official, agents and representatives of the Government.

(b) **Access to Land**

The CLIENT warrants that the Consultants shall have, free of charge, unimpeded access to all land in the Government's country in respect of which access is required for the performance of the Services. The CLIENT will be responsible for any damage to such land or any property thereon resulting from such access and will indemnify the Consultants and each of the Personnel in respect of liability for any such damage, unless such damage is caused by the default or negligence of the Consultants or any Sub consultants or the Personnel of either of them.

(c) **Change in the Applicable Law:**

If, after the date of this Contract, there is any change in the Applicable Law with respect to statutory taxes and duties which increases or decreases the cost or reimbursable expenses incurred by the Consultants in performing the Services, then the remuneration and reimbursable expenses otherwise payable to the Consultants under this Contract shall be increased or decreased accordingly by agreement between the Parties thereto, and corresponding adjustments shall be made to the ceiling amounts specified in the contract agreement.

(d) **Services, Facilities and Property of the CLIENT**

The CLIENT shall make available to the Consultants and the Personnel, for the purposes of the Services and free of any charge or otherwise, the services, facilities and property described in contract agreement at the time and in the manner specified in said Contract Agreement,

(e) **Payment**

In consideration of the Services performed by the Consultants under this Contract, the CLIENT shall make to the Consultants such payments and in such manner as is provided in the Contract Agreement.

Role and Responsibilities of Project Implementation Cell

8. The role and responsibilities of Projects Implementation Cell (PIC) on behalf of Chief Engineer is as under:-

- (a) Shall act as a co-ordinator between DPR consultant & state Govt authorities wherever required as per the terms & condition of contract.
- (b) Shall be interface between contractor, Authority's Engineer and implementing Agency/ Deptt and also assist in administering the contract as per CA conditions / provisions.
- (c) Shall also ensure that Authority's Engineer Supervise the work as per provisions of the CA and employment of key personals as per CA provisions.
- (d) Shall also liaise with Govt agencies for removal of bottlenecks (if any), and will work as enabler for consultancy contractor & Authority's Engineer to function and deliver the project on schedule.

9. **Budget Control and Accounting Procedure**

- (a) On receipt of allotment of funds for civil works from Ministry by HQ DGBR, the funds will be further allotted to Chief Engineer (Project) being Authority/ Employer/ CLIENT in consultation with PCDA (BR). Demand of Cash assignment will be placed by CE (P) after vetting by ACDA/ AO (P) to HQ DGBR (E5B) for their countersignature and further forwarding to PCDA (BR) with a request to allot the sub-heads/ code heads and minor heads to be operated by ACDA/ AO (P) HQ Chief Engineer (Project) and place either the cash assignment to the authorized bankers of the project or make necessary provision through SBI -CMP. The budget & expenditure of EPC works shall be controlled centrally at HQ CE (P) and

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ACDA/AO (P) & HQ CE will open the construction account for this purpose for all the sanctioned jobs under EPC mode of execution.

(b) All bills including Project contingencies shall be cleared by Chief Engineer (Project) after the financial concurrence/vetting by ACDA/AO (P) of HQ CE (P).

10. **Project Director (PD)**

Responsibility of Project Director i.e. Commander TF assisted by OC RCC/BCC is

(a) to provide ground data for implementation of the project such as assessment of land acquisition and forest clearance, co-ordination with State Govt authorities for disbursement of compensation & shifting of utilities.

(b) to provide inputs for formulation of tender, to ensure that the project land is made available free of all encumbrances and handed over to the contractor within the stipulated time as given in Contract Agreement for civil works and co-ordination in removal of bottlenecks in progress of works,

(c) to be enabler for DPR consultant & Authority Engineer to function and deliver the project on schedule by taking required steps.

(d) to ensure that the works are executed in accordance with the CA provisions in the supervision of the Authority Engineer.

(e) to ensure proper supervision & quality assurance of the executed works by making proper check and balances without hindering the stipulated time period as given in the CA provisions.

(f) to progress of bills to ensure timely payment of dues.

(g) to monitor physical & financial progress of works and report to higher HQs whenever required.

(h) to direct Authority Engineer to update CPM chart on weekly basis.

Contd...P/8

11. The OC RCC/BCC will verify report of Authority Engineer and the following documents as per schedule given below:-

(a)	Works Diary	:	Weekly
(b)	Material Testing and Approval Register	:	After every / Approval
(c)	Stage Passing Register	:	After every stage
(d)	Sample Testing and Approval Register	:	After every Approval
(e)	Maintain all the approved samples duly signed/authenticated at the site of work	:	Monthly
(f)	Stage payment statement	:	On occurrence

Notwithstanding above, Employer/CLIENT may assign any other duties to Project Director or OC RCC/BCC related to works on EPC mode.

Financial Responsibilities

12. The PD will check the correctness of all relevant documents attached with the bills, before sending to Employer/Authority with recommendation for release of payment duly affecting the recovery (ies), if any. However at any stage over payment is not be permitted by the Authority.

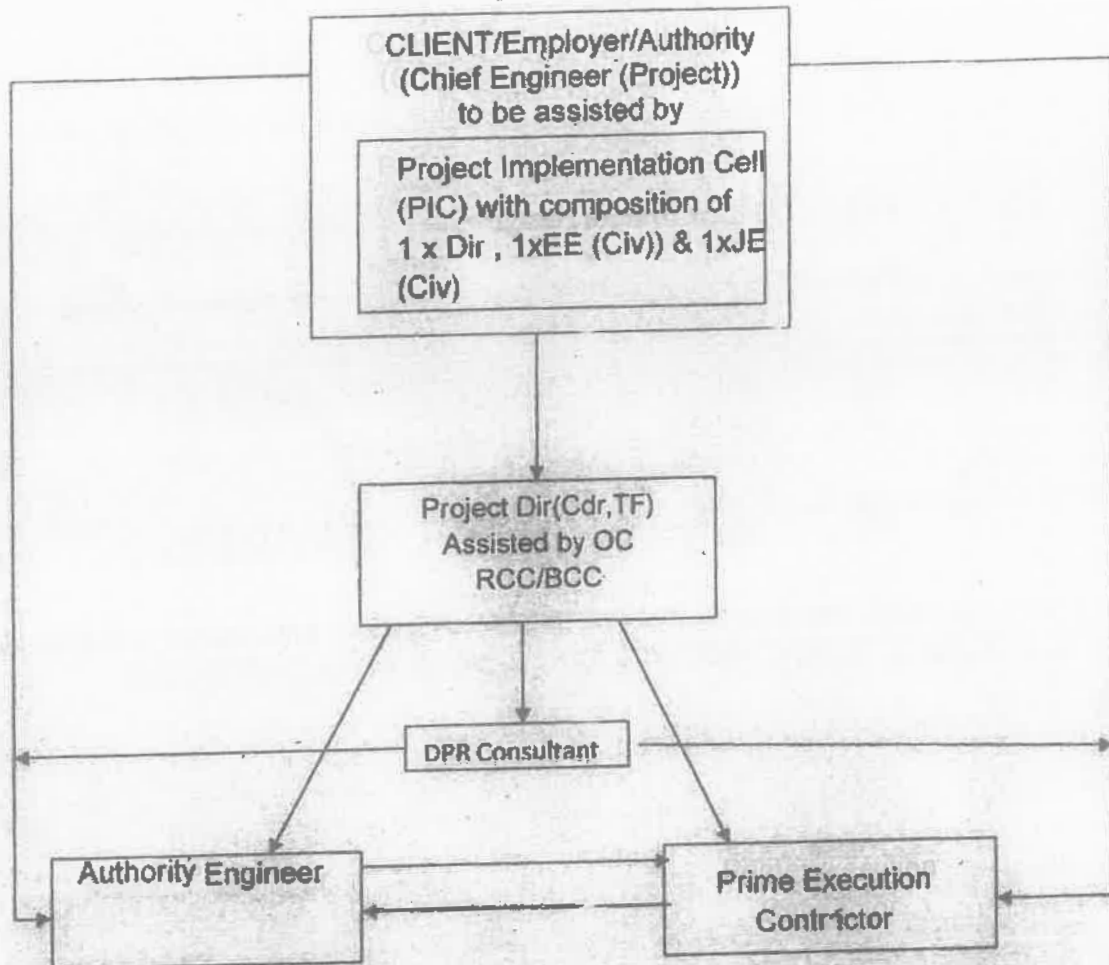
Financial effect

13. There is no financial effect of this proposal in establishing the Project Implementation Cell (PIC) at HQ Chief Engineer (Project) level as no additional fresh manpower is required.

Contd....P/7

Operation of Cell

14. The Cell will be made functional as per following structure:-



15. This SOP is issued with concurrence of PCDA (BR) vide their ID No. BR/Bud/901/Allot/2018-19 dated 04 Jul 2018 and consequent approval of DGBR

Station : New Delhi

Dated:- 12 Jul 2018

(R.K. Ga) (g)
SE (Civ)
Dir EPC
For DGBR

Phone: 011-25686842
Mob 0-9760566899

Headquarters
Dte General Border Road
Seema Sadak Bhawan
Ring Road, Delhi Cantt,
New Delhi -110 010

24006/DGBR/Policy/ 42 /EPC Cell

27- Aug 2018

HQ ADGBR (North-West)
Sec-48-C, Near Motor Market
Chandigarh-160047

HQ ADGBR (East)
C/o 99 APO
Pin - 900885

DCDA/ACDA
HQ CE (P).....
C/o 56/99 APO

HQ CE (P) -----
C/o 56 APO

HQ CE (P) -----
C/o 99 APO

OPENING OF PRICE BID OF RESULTANT SINGLE TENDER DURING REPEATED RETENDERING IN CONSULTANCY CONTRACT FOR PREPARATION OF DPR

1. It has been experienced in the recent past that Projects are facing difficulties for opening of Price Bids of single resultant bidder in repeated retendering in view provision contained in clause 5.3.1 of model RFP of MoRT&H for preparation of DPR.
2. The clause 5.3.1 of model RFP of MoRT&H for preparation of DPR stipulates that "in case for particular package only one firm is eligible for opening of financial proposals, the financial proposal shall not be opened, the bids for that package shall be cancelled and Agency shall invite fresh bids for the package".
3. Model RFP is silent about the action to be taken when single tender/ resultant single tender turned up even after repeated tendering.
4. BRO has been tasked with the construction of roads in difficult remote, inhospitable terrain and militant infested area where consultants do not prefer to work. Hence the situation of single tender/resultant single tender for preparation of DPR may arise at several occasions.

5. To deal with the case of single tender/ resultant single tender in repeated tendering, the following has been decided by the competent authority:-

(a) In case only one or nil tender is received even in second call with provision of model RFP documents in respect of consultancy tender for preparation of DPR, the terms and admissible criteria of model RFP may be reviewed /relaxed in third call with concurrence of their IFA and approval of concerned ADGBR.

(b) In case only one technically eligible tender is received even after relaxation of terms and admissible criteria in third call, the single tender/resultant single tender will be opened for further acceptance as per procedure given below:-

(i) If the quoted amount of highest preferred bidder (H1) is within 15% of estimated/ projected cost in NIT, SOC with detailed justification be forwarded to concerned ADGBR for according permission to accept tender.

(ii) If the quoted amount of highest preferred bidder (H1) beyond 15% of estimated / projected cost in NIT, SOC with detailed justification and recommendation of ADGBR be forwarded to HQ DGBR for according permission to accept tender.

6. This issue with concurrence of IFA (BR) vide their ID Note IF/W/801/VII/Misc-49 /304 (27/07) dated 20 Aug 2018.


(R K Garg)
SE (Civ)
Dir (EPC)
For DGBR

Copy to :-

PCDA (BR) :- For info please.

IFA (BR) :- For info with respect to their ID Note IF/W/801/VII/Misc-49 /304 (27/07) dated 20 Aug 2018

(Internal)

DGBR/Pers Dte

DGBR/East Dte

DGBR/West Dte

DGBR/TP Dte

DGBR/TA Dte

DGBR/E8 Sec

DGBR/D&S Sec

DGBR/B&T Sec

Phon . 011- 5686 2
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Mob

Headquarters
Dte General Border Roads
Seema Sadak Bhawan
Ring Road, Delhi Cantt,
New Delhi -110 010

24006/DGBR/Policy/ 66 /EPC Cell

31 Oct 2018

HQ ADGBR (North-West)
Sec-48-C, Near Motor Market
Chandigarh-160047

HQ ADGBR (East)
C/o 99 APO
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HQ CE (P) -----
C/o 56 APO

HQ CE (P) -----
C/o 99 APO

**GUIDELINES FOR PROCUREMENT, PREPARATION, REVIEW AND
APPROVAL OF DPR**

1. Reference:-

- a) 24006/DGBR/Policy/04/EPC Cell dated 29 May 2018.
- b) 24006/DGBR/Policy/21/EPC Cell dated 10 July 2018.

2. For preparation of DPR and approval thereof, referred policy letters were issued. However, it is felt that there is urgent need to further streamline the procedure for preparation of DPR so that quality DPR gets prepared in minimum possible time.

3. Stage wise time required for preparation of DPR of Highways in Stipulated time periods of 08 months and 04 months are tabulated below:-

S/No.	Stage	Time required (in days) from date of commencement		Remarks
		Time period (08 months)	Time period (04 months)	
1.	Inception report	30	25	(i) Preliminary design work should commence without waiting for feasibility study to be completed.
2.	Feasibility report including Approval of Alignment	105	60	
3.	LA & Clearance - I Report	120	70	
4.	DPR	210	105	
5.	Technical Schedule	165	105	(ii) Stage 3,5 and 6 shall run in parallel with stage 2 & 4.
6.	LA & Clearance - II Report	240	120	

Stage-1 : Inception Report (IR)

4. The completion of Inception Report (Stage 1), within stipulated period becomes vital for timely preparation of DPR, hence it needs sub-activities wise elaboration. IR should be prepared on the basis of preliminary survey i.e. Reconnaissance. The sub activity involved in IR are as under :-

- (i) Topographical features of the area including its soil and drainage conditions.
- (ii) Typical physical features along the existing alignment within and outside of ROW.
- (iii) Traffic pattern and preliminary identification of traffic homogeneous links as well as congested areas on the existing alignment.
- (iv) Possible alignment alternatives (If required) , however efforts to be taken to minimize the land acquisition .
- (v) Realignment requirements including provisions of Bypasses, ROB's, Bridge locations etc. with possible alternatives.

5. After analyzing the data and information obtained from preliminary survey the following major aspect to be submitted with IR :-

- (i) Project appreciation
- (ii) Detailed methodology to meet the requirements of Terms of Reference (TOR)
- (iii) Task Assignment and Manning Schedule .
- (iv) Work Programme
- (v) Proforma for data Collection for Inventory of Road/Bridges, Traffic Census, Sub-Soil investigation etc.
- (vi) Design standards and proposed Cross-sections
- (vii) Key plan and Linear plan
- (viii) Development plans and impact thereof on the Highway Project.
- (ix) Quality Assurance Plan (QAP)
- (x) Draft Design Standards

Stage-2 : Feasibility Report

The feasibility study of the Highway Project should commence after acceptance of IR and encapsulated in the following sub-report :-

- (i) Executive summary
- (ii) Project description including possible alternative alignments/bypasses and technical/engineering alternatives
- (iii) Methodology adopted for the feasibility study
- (iv) Socioeconomic profile of the project areas
- (v) Indicative design standards, methodologies and specifications
- (vi) Traffic surveys and analysis
- (vii) Environmental screening and preliminary environmental assessment
- (viii) Initial social assessment and preliminary land acquisition/resettlement plan
- (ix) Cost estimates based on preliminary rate analysis and bill of quantities
- (x) Economic and financial analysis
- (xi) Conclusions and recommendations

6. It has been noticed that an inordinate delay is repeatedly occurring in finalization of Stage-1 & approval of alignment since detailed survey is being carried out without finalization of alignment which leads to infructuous effort. However the requirement of Green field alignment or Bypasses should be projected as per the data derived from the Reconnaissance and preliminary traffic study. Following steps are to be followed to squeeze the time line :-

(i) A minimum 03 (three) suitable alignments options should be worked out on the basis of Carto-Sat images or Google images and rough anticipated cost estimate thereof.

(ii) The presentation for finalization of alignment should be carried out at HQ Project Level under Chairmanship of Chief Engineer Project in presence of respective Cdr Task Force & OCs RCC. Sequential presentations at RCC & TF level will not be held. The most suitable/appropriate alignment should be identified and finalized on the basis of Site conditions, Techno-economic consideration & User requirement. In normal circumstances 5 to 6 Week time is sufficient for finalization of Alignment by the Chief Engineer, Project.

(iii) The selected alignment to be forwarded for formal approval of respective ADGBR for road works to be funded by MoD as per HQ DGBR letter No. 24006/DGBR/Policy/04/EPC Cell dated 29 May 2018. However case for Approval of investment & Alignment approval to be forwarded to respective RO/CE of MoRT&H in case of works which are to be funded from MoRT&H.

7. Notwithstanding the above, the detailed survey on the finalized Alignment should be carried out to avoid sequential delays in preparation of DPRs. For preparation of Feasibility Report, Detailed Field Survey has to be carried out on the finalized/approved alignment only and it would essentially include the Topographic survey, Field Investigations/studies etc.

8. **Topographic Survey:-** The main objective of this survey would be to capture essential ground features along the alignment in order to consider improvements, rehabilitation and upgrading of Highway with respect to user requirement and assessment of cost thereof.

(i) Topographic Surveys along the existing Right of Way (ROW) to be carried out by using LiDAR or equivalent technology with stipulated accuracy along the existing road and realignments wherever required and properly referencing the same with reference pillars fixed on either side of centre line at safe places within the ROW. The surveyed alignment shall be transferred on the ground by providing Reference Pillar and Bench Mark of Size 15cmX15cmX45cm, made of RCC with M15 grade of Cement Concrete. It should be placed on ground with spacing of 250m c/c.

(ii) Wherever there is a proposal of realignment of the existing Highway and/or Construction of New Bypasses Consultant shall fix Boundary Pillars along the proposed alignment on the extreme boundary on either side of the Highway at 50m interval.

However the details & Topographic Survey are also itemized at para 4.11.2 of Terms of Reference (TOR) for Consultancy Services in RFP.

9. **Field Investigation/ Studies:** In addition to the topographic survey following investigations/assessments have to be carried out for Detailed Design of Road and Pavement, Bridges Structures etc


- (i) Road inventory survey
- (ii) Pavement investigation
- (iii) Investigations for bridges and structures
- (iv) Hydraulic and Hydrological investigations
- (v) Geo-technical Investigation and Sub soil Investigation
- (vi) Material Investigations
- (vii) Environment and Social Impact Assessment

10. The detailed field studies should be carried out as per latest revision of MoRT&H specifications in respect of road and pavement. The data collected through road inventory and pavement investigations should be sufficient to meet the input requirements of Highway Development and Maintenance Management System (HDM-IV). However the Economic Analysis / benefit and cost streams should be worked out for the project using HDM-IV or other internationally recognized life-cycle costing model. Based on the above ground survey and investigation, Feasibility Report will be processed for approval of Competent Authority.

11. It shall be required to complete the rest stages of preparation of DPRs within given time frame as indicated in para 3 above as being an independent/partially independent stages, which can be progressed without waiting for approval of Alignment Plan. However a Policy Guideline has already been issued vide letter under reference dated 10th July 2018 for finalization of draft DPRs & its approval thereof.

12. Chief Engineer Projects are requested to ensure strict compliance of the above instructions and content of this letter shall be brought to the notice of all stake holders for their implementation.

13. This issues with the approval of DGBR.


(R K Garg)
SE (Civ)
Dir (EPC)
For DGBR

Delhi Tele: 25686914/25686875
Email:bro-e8@nic.in
http://www.bro.gov.in

Recd/SDS/E-Mail
Headquarters
Dte General Border Roads
Seema Sadak Bhawan
Ring Road, Delhi Cantt
New Delhi - 110010

28 Dec 2018.

24228/DGBR/Policy/Instr-2018/118 / E8

HQ ADGBR (North-West)
Sector - 48-C, Chandigarh,
Pin :- 160047

HQ ADGBR (East)
C/o 99 APO

All CE(P)
C/o 56 / 99 APO

EVALUATION OF BIDS FOR CIVIL WORK

1. Please refer this HQ letter No 24228/DGBR/Policy/ Instr-2017/116/E8 dated 19/25 Sep 2017.

2. Consequent upon revision of delegation of Administrative & Financial powers in BRO vide MOD letter 04/ 696/ 2015/ D&P (BR-I) dated 11 Aug 2017, the following procedure and composition shall be adopted for bid evaluation:-

(a) For Estimated Value of Bids upto Rs 100 crores:-

Type of Bid	Evaluation committee	Screening committee
Technical Bids	Chairman : CE concerned Project Members : 1. Director 2. Jt Dir/ Dy Dir/ Asst Dir 3. Rep of Finance.	
Price Bid	Chairman : CE concerned Project Members : 1. Director 2. Jt Dir/ Dy Dir/ Asst Dir 3. Rep of Finance.	

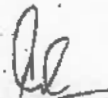
(b) For Estimated Values of Bids Above Rs.100 Crores and Upto Rs.300 Cr :-

Type of Bid	Evaluation committee	Screening committee
Technical Bids	Chairman : CE concerned Project Members : 1. Director 2. Jt Dir/ Dy Dir/ Asst Dir 3. Rep of Finance. (To be convened by concerned ADGBR)	Chairman : Concerned ADGBR Members : 1. DDG/Senior most Dir 2. Director 3. Jt Dir/ Dy Dir/ Asst Dir 4. Rep of Finance.
Price Bid	Justification supporting reasonability of rates quoted by L1 shall be submitted by CE of concerned Project to the Evaluation Committee. Chairman : Concerned ADGBR Members : 1. DDG/Senior most Dir 2. Director (Contracts) 3. Jt Dir/ Dy Dir/ Asst Dir 4. Rep of Finance	

For Estimated Value of Bids Above Rs.300 Crores & for Estimated Values of Bids Above Rs.100 Cr for Project Dantak:-

Type of Bid	Evaluation committee	Screening committee
Technical Bids	Chairman : ADGBR Members : 1. DDG 2. Jt Dir(Contracts) 3. Jt Dir (EPC) 4. Rep of Finance (To be convened by DGBR)	Chairman : DGBR Members : 1. ADGBR 2. IFA (BR) 3. DDG 4. Dir (Contracts) 5. Dir (EPC)
Price Bid	Justification supporting reasonability of rates quoted by L1 shall be submitted by ADGBR to the Evaluation Committee. Chairman : DGBR Members : 1. ADGBR 2. IFA (BR) 3. DDG 4. Dir (Contracts) 5. Dir (EPC)	

3. Acceptance of contract and issue of LOA shall be as per Para 3(d) & (e) of Annexure-I to MoD letter No.04/696/2015/D&P (BR-1) dated 11 Aug 2017 respectively.
4. This has the approval of DGBR.


 (S K Deota, IDCMS)
 Dir (Contracts)
 For Dir Gen Border Roads

Copy To:-

IFA(BR)
 TP Dte
 B & T Dte
 East Dte
 West Dte
 TA Dte
 EPC Cell

Government of India
Ministry of Defence
D (BR-I)

"B" WING, 4th Floor,
Sena Bhawan, New Delhi-11

No. 04 /957/2018/D(BR-I)

Dated: 14 Feb, 2019

To,
The Director General, Border Roads
Seema Sadak Bhawan
Ring Road, Delhi Cantt,
New Delhi -110 010

Subject: Formats for submitting the proposal for obtaining Administrative Approval from the Ministry based on DPR for all projects of value more than Rs 100 Cr.

Sir,

Reference DteGBR letter No. 24006/DGBR/Policy/29/EPC Cell dated 20th July 2018.

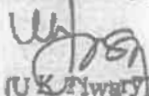
2. The ibid proposal has been examined and I am directed to convey that the Competent Authority has approved the formats for submitting the proposal for obtaining Administrative Approval from the Ministry based on DPR for all projects of value more than Rs 100 Cr, as mentioned below:-

S. No.	Description	Appendix
(i)	Salient Features of the Project	Appendix-A
(ii)	Technical Note/Approval	Appendix-B
(iii)	Check List	Appendix-C
(iv)	Project Memorandum as per MoF letter No. 24(35)/PF-II/2012 dated 05 th Aug 2016.	Appendix-D

3. DGBR shall ensure that the proposal will be submitted to the Ministry after vetting of IFA (BR).

4. This issues with the concurrence of Ministry of Defence (Fin/BR) vide their ID No. 19(1)/BRS/2018 dated 13th Feb, 2019.

Yours faithfully,


(U.K. Tiwari)
Director(BR-works)
Ph-2301 4862

Enclosure:- 03....Sheets

Copy to:-
MoD(Fin/BR)
IFA(BR)
Office Copy

SALIENT FEATURES OF THE PROJECT**1. Status in chronological order of the proposal**

(i)

(ii)

(iii)

2. Pavement type, Status of Land Acquisition, Forest Clearance and Utility Shifting:-(i) **Project Description:-**(ii) **Type of Pavement: -**(iii) **Status of Forest Clearance: -**(iv) **LA Status: -**(v) **Forest Clearances**(vi) **Utility Shifting****3. The Scope of work proposed in the above mentioned work is as under:-**

Item	Description
Design length	
Proposed ROW	
Civil Cost	
TPC (Total Project Cost)	
Construction period	
Defect liability period	
Proposed Carriageway	
Major Bridge	
Minor Bridge	
Culverts	
Junctions	
Bus Bays/ Lay Bye	
ROB	
Pavement Detail	

HEADQUARTER DIRECTORATE GENERAL BORDER ROADS

File No.

Dated

TECHNICAL APPROVAL

1.	Name of work	
2.	State	
3.	NH No.	
4.	Existing cost	
5.	Length (in Km)	
6.	Cost per Km (Rs. in Cr)	
7.	Reference	

COMMENTS

1. Scope of the project:2. Estimate Provisions:2.1. Pavement Design:2.1.2 Design Parameters:

Ser	Item	Mountainous / Steep Terrain
(a)	Design Speed (kmph)	
(b)	Right of Way	
(c)	Width of Carriageway (m)	
(d)	Paved Shoulders	
(e)	Shoulders	
(f)	Camber / Cross fall	
	(i) Carriageway	
	(ii) Earthen shoulders	
(g)	Maximum Super Elevation	
(h)	Min Radii of horizontal curves (m)	
(i)	Min length of vertical curves (m)	
(j)	Stopping Sight Distance	
(f)	Gradient	
	(i) Ruling Gradient	
	(ii) Limiting Gradient	

	(iii) Exceptional Gradient	
--	----------------------------	--

Crust composition

Design Chainage (New location)		Design Traffic (MSA)	New Pavement at re-alignments, raising and widened locations	
From	To		CBR (%)	Composition (Total- 590 mm)

2.3 Land acquisition:

2.4 Forest Clearance:

2.5 Utility Shifting:

2.6 Design specifications:

2.7 Geometric Design:

2.8 Tunnels:

2.9 New Major/ Minor Bridge:

2.10 Culverts:

2.11 Valley side river training works:

2.12 Vehicular underpass

2.13 Protection work:

(a) Slope protection work:

(b) Rock slope/ Land slide protection:

2.14 Road appurtenances:

(a) Lay Bye:

<u>Ser No.</u>	<u>Location</u>	<u>Size</u>
----------------	-----------------	-------------

(b) Major/Minor Junction:

(c) Gantry sign:

(d) Thermoplastic paint:

(e) Cat Eyes:

(f) Delineator:

(g) Crash Barrier:

(h) Road sign:

(i) Km stones:

(k) Boundary stones:

2.15 Road Side Drainage:

Ser No.	Element	Length (Km)	Type of Drain	Remarks
(a)	In open area on Hill side along the alignment : Lined drain in PCC M-15		V type	As per IRC SP-48
(b)	In open area on Hill side along the alignment: Unlined Drain		U type	As per IRC SP-48
(c)	In open area on Hill side along the alignment: Covered Drain in RCC M-20 with covered slab in RCC M-20		Box type	As per IRC SP-48

3. Execution & Construction Period:

4. Invitation of tenders and award of works:

5. General:

6. **Rates:** Rate analysis has been done as perdata book based market rates.

7. Cost:

8. Escalation:

9. Total Cost of Project (TPC):

S/ No	Item of work	Amount (Rs.)	Amount (Rs. in Cr)
	Road length		
A.	Road Works		
(a)	Site/Jungle clearance and dismantling		
(b)	Earth work		
(c)	Sub base/ base (non-Bituminous and shoulder)		
(d)	Bituminous works		
(e)	Construction of culverts		
	Total (A)		
B.	Misc items (Bra, Protections works, Road signs)		
(a)	Traffic/road marking and other appurtenances		
(b)	Protection works (Retaining walls/Breast walls/Toe Walls)		
(c)	Construction of Bridges		
	Total (B)		
	Total (A+B)		
C.	Escalation Charges @ 2.5% for FY 2017-18		
	Total (A+B+C)		
D.	GST @ 12% on (A+B+C)		
	Cost of Civil Works (A+B+C+D)		
E.	Centages on cost of Civil Works (A+B+C+D)		
(a)	Escalation charges @ 7.5% for 3 years		
(b)	Administrative Charges @ 1%		
(c)	Supervision charges/consultant (Authority Engineer) @ 2%		
(d)	Physical contingency @ 2.80%		
(e)	Road Safety Audit Charges @ 0.5%		
(f)	Quality Control Charges @ 1%		
(g)	Post Construction Maintenance @ 5 % for 04 Years		
	Total (E)		
F.	Land compensation		

Total Cost (A+B+C+D+E+F)			
G. Pre-construction activities			
(a) Cost of Forest Afforestation and NPV already paid by BRO			
(b) Cost of Utility Shifting already paid			
Total Project Cost (A+B+C+D+E+F+G)			

10. Phasing of expenditure:

Year	Physical Phasing (%)	Financial Phasing (Rs. in Cr)

11. Keeping in view, the issues as explained above, the subject DPR is hereby Technically Approved as per the delegation of powers conveyed vide MoD (BR) letter no. 04/696/2015/D&P (BR-I) dated 11 Aug 2017.

XXXXXXXXXX

Check list to be appended with each proposal**Name of Work:**

Sl. No.	Subject / Item	Comments
1	State / UT concerned	
2	Name of Work	
3	Existing carriageway (including width)	
4	Proposed carriageway (including width)	
5	Funding under Plan/Non-Plan	
6	Under which scheme	
7	Last work of original nature done on the stretch (on EPC mode)	
8	Defect liability period, up to what date/year	
9	Type of maintenance work done last	
10	Year during which the above maintenance work was completed	
11	Is the proposed work pre-matured	
12	If so, the reason for the same	
13	Defect liability period proposed for the instant work	
14	Traffic on stretch	
15	Whether being tolled or proposed to be tolled	
16	Linear/ Equivalent length of proposed stretch	
17	Major/minor structures being proposed for original work/repair on the stretch	
18	Total Cost of the Project	
19	Phasing of expenditure	
20	Per KM cost of the project as per linear /equivalent length	
21	Per KM cost for Road work with all structures projects per linear/equivalent length vis-à-vis normative cost	
22	Per KM cost / cost for other structures on the stretch	
23	Per KM cost without major structures	
24	If cost is on the higher side, the reason for the same	
25	Is LA/Utility involved, if so, the details	
26	Whether feasibility report/DPR available	
27	The status of the adjoining stretches (including last treatment thereof, length of the stretch, year of the completion of the project).	
28	BOS position (with all relevant details)	
29	Whether File seen by MoD(Fin/BR) earlier (Page No. of Note portion)	
30	If so, whether its queries / observations have been duly responded	
31	Whether included in approved Annual Plan of the Year	
32	Special features, if any, of the proposal	

Project Memorandum for consideration of Project Approval Board (PAB) to consider the proposal of Borde Roads Organisation

Name of work:

1.	Programme/Project Identification	
1.1	Title of the Programme/Project	
1.2	Name of the sponsoring agency (Ministry/Department/Autonomous Body/Central PSE)	
1.3	Proposed cost of the project	
1.4	Proposed timelines of the project	
1.5	Whether the project will be implemented as a scheme or standalone basis?	
1.6	Whether financial resources required for project have been tied up? If yes, details.	
1.7	Whether Feasibility Report and/or Detailed Project Report have been prepared?	
1.8	Whether the proposal is an Original Cost Estimate or Revised Cost Estimate?	
1.9	In case of Revised Cost estimate, whether the meeting of Revised Cost Committee has been held and its recommendation suitably addressed?	
1.10	Whether any land acquisition or pre-investment activity was under taken or is contemplated for this project? Whether the cost of such intervention has been included in the project proposal?	
2.		
2.1	Stated aim and objectives of the project	
2.2	Indicate year wise outputs/deliverables for the project in a tabular form	
2.3	Indicate final outcome for the project in the form of measurable indicators which can be used for impact assessment/evaluation after the project is complete. Baseline data or survey against which such outcomes would be benchmarked should also be mentioned.	
3.		
3.1	Cost estimate for the project along with scheduled duration (both year and activity wise). Also the basis for these cost estimates along with reference dates for normative costing (it should preferably not be more than a year old)	
3.2	In case land is to be acquired, the details of land cost, including cost of rehabilitation/resettlement needs to be provided.	
3.3	In case pre-investment activities are required, how much is proposed to be spent on these, with details activity wise?	
3.4	Whether price escalation during the project time cycle has been included in the cost estimates and at what rates?	
3.5	Whether the Project involves any foreign exchange element, the provision made, or likely in act of exchange rate risk?	

3.6	In case of Revised Cost Estimate, a variation analysis along with the Report of the Revised Cost Committee needs to be attached.	
4.		
4.1	Indicate the source of project finance, budgetary support, internal and external budgetary source, external aid, etc.	
4.2	Indicate the cost components, if any, which will be shared by the State Government, local bodies, user beneficiaries or private parties?	
4.3	In case of funding from internal and external budgetary resources, availability of internal resources may be supported by projections and their deployment of other projects?	
4.4	Please indicate funding tie-ups for the loan components, if any, both domestic and foreign along with long terms and conditions loan based on consent/comfort letters	
4.5	If government support/loan is intended, it may be indicated whether such funds have been tied up?	
4.6	Please provide the leveraging details, including debt-equity and interest coverage ratios, along with jurisdiction for the same.	
4.7	Mention the legacy arrangements after the project is complete, in particular, arrangement for its maintenance and upkeep of assets that will be created?	
5.		
5.1	For projects which have identifiable streams of financial returns, the financial internal rate of return maybe calculated. The hurdle rate will be considered at 10 percent.	
5.2	In case of projects with identifiable economic returns, the economic rate of return may be calculated. In such case project viability will be determined by taking both financial and economic returns together.	
5.3	In case proposals where both financial and economic returns are not readily quantifiable, the measurable benefits/outcomes simply maybe indicated.	
6.		
	Requirement of mandatory approvals /clearance of various local, state and national bodies and their availability may be indicate in a tabular form (Land acquisition, environment, forestry, wildlife etc). In case land is required, it may be clearly mentioned whether the land is in the possession of the agency free form encumbrances or encroached or stuck in legal processes?	
7		
7.1	Indicate the administrative structure for implementing the Project. Usually creation of new structures, entities etc should be avoided.	
7.2	Manpower requirement, if any. In case posts (Permanent/temporary) are intended to be created, a separate proposal may be sent on file	

	as Draft in Division. Such proposals may be submitted only after the main proposal is recommended by the appraised body.	
7.3	In case outsourcing of services or hiring of consultants is intended, brief details of the same may be provided.	
8.		
8.1	Indicate the Project Management/ Implementing Agency (s). What agency charges are payable, if any?	
8.2	Mode of implementation of individual works: Departmental/item rate/Turnkey/EPC/Public Private Partnership etc.	
8.3	Please indicate timelines of activities in PERT/Bar chart along with critical milestones.	
8.4	Please indicate the monitoring framework, including MIS and the arrangement for internal statutory audit.	
8.5	Please indicate what arrangements have been made for impact assessment after project is complete?	
9	Comments of the financial advisor, Niti Aayog, Department of Expenditure and other Ministries / Departments may be summarised in tabular form along with how they have been internalised and used to improve this proposal.	
10.	Approval sought	

Abstract of Cost

S/ No	Item of work	Amount (Rs.)	Amount (Rs in Cr)
	Road length		
A.	Road Works		
(a)	Site/ Jungle clearance and dismantling		
(b)	Earth work		
(c)	Sub base/ base/ non-Bituminous and shoulder		
(d)	Bituminous works		
(e)	Construction of culverts		
	Total (A)		
B.	Misc items/ Bns, Protections works, Road signs		
(a)	Traffic/ road marking and other up urtenances		
(b)	Protection works (Retaining walls/Breast walls/Toe Walls)		
(c)	Construction of Bridges		
	Total (B)		
	Total (A+B)		
C.	Escalation Charges @ 2.5% for FY 2017-18		
	Total (A+B+C)		
D.	GST @ 12% on (A+B+C)		
	Cost of Civil Works (A+B+C+D)		
E.	Centages on cost of civil Works (A+B+C+D)		
(a)	Escalation charges @ 7.5% for 3 years		
(b)	Administrative Charges @ 1%		
(c)	Supervision charges/consultant (Authority Engineer) @ 2%		
(d)	Physical contingency @ 2.80%		
(e)	Road Safety Audit Charges @ 0.5%		
(f)	Quality Control Charges @ 1%		
(g)	Post Construction Maintenance @ 5 % for 04 Years		
	Total (E)		
F.	Land compensation		
	Total Cost (A+B+C+D+E+F)		
G.	Pre-construction activities		
(a)	Cost of Forest Afforestation and NPV already paid by BRO		
(b)	Cost of Utility Shifting already paid		
	Total Project Cost (A+B+C+D+E+F+G)		

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24006/DGBR/Policy/  /EPC Cell

05 Mar 2019

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DCDA/ACDA
HQ CE (P).....
C/o 56/99 APO

HQ CE (P) -----
C/o 56 APO

HQ CE (P) -----
C/o 99 APO

**SUBMISSION OF PROPOSAL AT HQ DGBR, ADGBR & PROJECTS FOR PROCESSING
DPR PROPOSAL TO ISSUE ADMINISTRATIVE APPROVAL**

1. MoD(BR) vide their letter No. 04/957/2018/D(BR-I) dated 14 Feb 2019 (Copy enclosed) has approved the following formats for submission of proposal for obtaining Administrative Approval from Ministry based on DPR for all Project of value more than Rs. 100 Crs.:-

- | | | | |
|----|--------------------------------|---|--------------|
| a) | Salient feature of the Project | - | Appendix 'A' |
| b) | Technical Note/Approval | - | Appendix 'B' |
| c) | Check list | - | Appendix 'C' |
| d) | Project memorandum | - | Appendix 'D' |

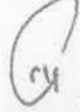
2. Competent authority on similar line has approved the following formats for submitting the proposal of civil works based on DPR costing upto Rs. 100 Crs. to respective IFA for issuing Adm approval:-

- | | | | |
|----|--------------------------------|---|--|
| a) | Salient feature of the Project | - | Appendix 'A' |
| b) | Technical Note/Approval | - | Appendix 'B' alongwith AE Part-I & Part-II |
| c) | Check list | - | Appendix 'C' |
| d) | Project memorandum | - | Appendix 'D' |

3. After submission of DPR proposal as per format mentioned at Para 2 above to respective IFA, a Colligate Meeting by CFA with respective IFA be held to process the DPR proposal.

Contd P/2

4. West Dte East Dte, HQ ADGBR (N/W), ADGBR (East) and Projects are requested to submit the DPR based proposal of Civil Works upto 100 Crs. to respective IFA accordingly.
5. This issues with the concurrence of IFA(BR) vide their ID No. IF/W/801/VII/M isc-136/869 [01/03] dated 01 Mar 2019.


(R K S rg)
SE (Ci)
Dir (E C)
For BR

Encls:11 Sheets

Copy to :-

- PCDA (BR) :- For info please.
- IFA (BR) :- For info with respect to their ID Note

(Internal)

DGBR/Pers Dte
DGBR/East Dte
DGBR/West Dte
DGBR/TP Dte
DGBR/TA Dte
DGBR/E8 Sec
DGBR/D&S Sec
DGBR/B&T Sec

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24059/DGBR/MPR/ O1 /EPC Cell

02 Apr 2019

HQ CE (P) -----
C/o 56 APO

HQ CE (P) -----
C/o 99 APO

MONTHLY PROGRESS REPORT ON EPC CONTRACT OF CIVIL WORKS

1. Presently construction/improvement of various Roads on Engineering, procurement and construction (EPC) mode is progressing in project Vartak and project Shivalik. Further Civil works contracts through EPC mode for construction/improvement of roads are likely to come in all projects.
2. Price weightages and its procedure of estimating the value of work done are elaborated in schedule-H of Contract Agreement of Civil works.
3. To streamline the process of reporting of progress report of EPC contract (Civil Works) in term of cost of work and CI-9 Eqvt with respect to schedule-H of Contract Agreement, a format duly approved by the Competent Authority is enclosed at Appx 'A' to this letter.
4. Project are requested to submit monthly progress report alongwith LPR of each month on prescribed format with copy to TP Dte, concerned Dte and EPC Cell. First report for month of Mar 2019 should reach this HQ by 10 Apr 2019 from project Vartak and Project Shivalik, where EPC contract (Civil work) are in progress.
5. Please ack receipt.

(RK Garg)
SE (Civ)
Dir (EPC)
For DGBR

Encls:01 Sheets

Copy to

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Sec-48-C, Near Motor Market
Chandigarh-160047

HQ ADGBR (East)
C/o 99 APO
Pin - 900885
(Internal)

DGBR/East Dte
DGBR/West Dte
DGBR/TP (PIg)Dte
DGBR/E8 Sec

For information alongwith a format approved by competent authority for submission of monthly progress report for Civil works being executed on EPC mode.

MONTHLY PROGRESS REPORT ON EPC CONTRACT : CIVIL WORKS

1. NAME OF WORK :
2. CA NO & DATE :

3. JOB No.
4. AA Amount

5. CONTRACT PRICE

S/NO	Details of Works as per Scheduled-'H'				Progress of Work (in Lakh)				Progress of Work (Cl-9 eqvt)				Financial Progress of Job (Rs In lakh)				Remarks
Item of work with weightage in % of the contract	Brief Details of works as per stage for payment	Percentage given in schedule 'H' (Stipulated %)	Cost of Work	During the Month		Up to date		Formation (Cl-9 eqvt)	PMT works (in lakh)	Surfacing (in Cl-9 eqvt)	Civil works	Authy Engineer	Others	Total			
				% Progress wrt Stipulated %	Cost	% Progress wrt Stipulated %	Cost										
Sample																	
1	Road works including approaches to minor bridges, underpasses, overpasses, approaches to ROE/ RUB /Major Bridges/ Structures (but excluding service roads).	i) Earthwork up to top of the sub-grade ii) Granular work (sub-base, base, shoulders) iii) Bituminous work	i) 45.04% ii) 15.84% iii) 13.28%	i) 1647.22* 0.1667* 0.4504 = 48.59 ii) 17.09 iii) 19.72													
16.67%																	
Note :- 1 Progress of work will be released only when items of work to be completed for																	

Note :- 1 Progress of work will be released only when items of work to be completed for payment as stipulated in Schedule 'H' i.e " procedure of estimating the value of work done "

2. Progress of work in Cl-9 eqvt to be released as per relevant instructions given in TI-18 & it will be as under:

- (a) FMN Wks: In improvement from SL to DL, initial width to be taken as 5.95m irrespective of the available width on ground. Cl-9 eqvt will be as under:-
- SL (Green Field) - 1.0 per Km linear.
 - SL to DL - 1.82 per Km linear.
 - DL (Green Field) - 2.82 per Km linear.
- (b) Surf Wks: Conventional surfacing layers is 15cm Sub-base, 22.5cm Non-bituminous base and 9-11.5cm Bituminous base. Hence eqvt surfacing will be as under:-
- SL - 2.0 per Km linear.
 - DL - 3.72 per Km linear.

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24006/DGBR/Policy/ 32 /EPC Cell

12 Sep 2019

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All CE (P) _____
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PROVISION OF NAME AND DETAILS OF OFFICIAL OF AUTHORITY IN NIT/RFP

1. It has been intimated by the IEMs that Name, telephone Nos, E-mail ID of officials of the authority inviting tenders are not being mentioned in the NIT/RFP in correct spirit. In some cases, though telephone numbers of authorities are mentioned in the NIT but they do not respond. In absence of these details in the NIT/RFP the intending bidders are approaching IEMs to seek clarification. This issue was also highlighted by the IEMs in the meeting with Defence Secretary in April 2019 and further brought out in two meetings held at this HQ.

2. Various instructions in this regard have already been issued to projects vide HQ DGBR letter No. 24228/DGBR/Policy-Instr/2019/19/E8 dated 14 May 2019, 24228/DGBR/PCIP/Policy/25/E8 dated 07 Jun 2019 and 24228/DGBR/Gen/52/E8 dated 17 Jun 2019. The same are not being followed by certain projects in true spirit resulting into unnecessary correspondence with IEMs from intending bidders and creating embarrassing situation for the organisation.


3. In view of the above, projects are requested to provide/ mention following details of authority inviting tenders in all future NIT/RFP:-

- a) Name, Mobile No, Landline Number(indicating office timing), E-Mail ID of SW and Director (Contract) of Authority/Accepting officer.
- b) Name & E-Mail ID of Nodal Officer of BRO as per direction issued vide HQ DGBR letter No. 24228/DGBR/Gen/52/E8 dated 17 Jun 2019.

Contd....P/2

c) Telephone Number of Exchange, which is manned 24x7 and same should be mentioned against the Exchange Tel No.

4. Please ack.



(R K Garg)
SE (Civ)
Dir (EPC)
For Dir Gen Border Roads

Copy to :-

(Internal)

HQ DGBR/E8 Sec

:- For info please.

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24006/DGBR/Policy/ 59 /EPC Cell

10 Dec 2019


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HQ CE (P) -----
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CONSTITUTION OF TEAM OF KEY PERSONNEL BY THE AUTHORITY ENGINEER TO SUPERVISION/ EXECUTE THE WORK THROUGH EPC MODE OF CONTRACT

1. As per prevailing guidelines Authority Engineer are responsible for supervision/execution/Quality control of Roads/Tunnel projects being executed through EPC mode of execution.
2. Authority Engineer has to perform their functions per the standard RFP documents. Department can act as Authority Engineer if cost of Civil works is less than 300 Crs as per MoRT&H letter RW/NH/34048/7/2013-S&R (P&B) dated 15 Mar 2019.
3. As per model RFP of Authority Engineer following key personnel are to be fielded for smooth execution of project:-
 - (i) Team Leader cum Senior Highway Engineer.
 - (ii) Resident cum Highway Engineer.
 - (iii) Bridge/Structural Engineer
 - (iv) Senior pavement Specialist
 - (v) Senior Quantity cum Material Expert
 - (vi) Road safety expert
4. All key personnel must be fielded in time in the interest of the project and they perform specific actions as per terms and conditions of RFP & contract agreement so that work gets completed in smooth manner & there is no contractual issue in respect of Authority Engineer. The qualification and experience of the key personal should be as per Enclosure 'B' of section 6 (Term of Reference) of RFP.
5. Few EPC works are being supervised by the departmental authority engineer. It is requested to send details in respect of to constitution of departmental team of key personnel of AE for ongoing projects as per enclosed Performa.


(R K Garg)
SE (Qv)
Dir (EPC
For DGBR

Encls:..2..Sheets

Copy to

END C/H/H 00/00 - For uploading on AEs website.

Particulars of Team of Key personal

APPX A

S/No	Name of Road	Name of Work	CA No	Appointed Date of civil Contract	Date of Appointment of Authority Engineer	Team of Key personal fielded for Authority Engineer with dates
				cost of civil work		
						Name, Rank, Designation
						i) Team leader cum senior Highway Engineer :-.....
						ii) Resident cum Highway Engineer :-.....
						(iii) Bridge/Structural Engineer :-.....
						(iv) Senior Pavement specialist :-.....
						(v) Senior Quality cum Material Expert :-.....
						(vi) Road safety Expert :-.....

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24006/DGBR/Policy/ 83 /EPC Cell

12 Feb 2020

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HQ CE (P) -----
C/o 56/99APO

MODE OF COSTING OF DETAILED PROJECT REPORT

1. It has come to the notice of this HQ that uniformity is not being maintained by projects for costing DPR for works proposed to be executed departmentally as well as through EPC mode.
2. To maintain uniformity for costing of DPRs, the following have been decided by the competent authority:-
 - (a) Work proposed to be executed departmentally Costing of DPR is to be done based on departmental Schedule of Rates (SSR) 2016. The items of work, which are not available in SSR-2016, the rate for the same may be worked out based on MoRT&H standard databook (Road & Bridge) by taking input data from SSR 2016 and if not available in SSR then as per prevailing market rate of materials, Labour etc in the AoR of project.
 - (b) Works proposed to be executed through EPC mode Costing of DPR is to be done based on latest state PWD Schedule of Rates (SoR). The item of work, which is not available in state PWD SoR, the rate for the same may be worked out based on MoRT&H standard data book (Road & Bridge) by taking input data given in SoR and if not available in SoR then as per prevailing market rate of material, Labour etc in the AoR of project.
3. Please ensure strict compliance of above instruction for costing of detailed Project report for all type of works.


(R K Garg)
SE (Civ)
Dir (EPC)
For Dir Gen Border Roads

Copy to :-
(Internal):-

DGBR/West Dte

DGBR/East Dte

DGBR /TP Dte

DGBR/B&T Dte

DGBR/ E8 Sec

DGBR/ D&S

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24006/DGBR/Policy/ 22/EPC Cell

03 Mar 2020

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**INVITATION, EVALUATION AND ACCEPTANCE OF BIDS FOR CIVIL WORKS
TO BE UNDERTAKEN THROUGH EPC MODE**

1. Execution of work through EPC mode was a new concept for BRO, hence there was a need of dedicated team of officials to resolve various issues related to preparation of RFP & DCA with latest amendment and various schedules in general and schedule 'H' in particular for formulation and acceptance of tenders for Civil work as being adopted in MoRT&H.

2. Based on the direction received from the MoD (BR), EPC Cell was opened at HQ DGBR during Apr 2017 with dedicated team of officials for outsourcing, framing of model RFP for preparation of DPR and construction of road. To streamline the procedure of EPC mode of execution in projects, various policy guidelines have already been prepared by the EPC Cell and circulated to ADG (NW), ADG (East) as well as Projects.

3. Further para 3 (b) of Annexure-I to MoD (BR) letter No. BRDB/04/696/2015/D&P/D (BR-I) dated 11 Aug 2017 regarding delegation of Administrative and financial powers in BRO, the powers of invitation of bids for Civil works was given as under:-

(a) Sanctioned works with cost of contract of Civil works upto Rs. 300 Crs tender may be invited by CE (P).

(b) Sanctioned works with cost of contract of civil works more than Rs. 300 Crs may be invited by ADGBR.

4. Accordingly tendering action for invitation of bids for civil works upto Rs. 300 Crs was initiated by the Chief Engineer Projects. However, tendering action for following two tenders having estimated projected cost more than Rs. 300 Crs was initiated at this HQ:-

a) DESIGN AND CONSTRUCTION OF BALIPARA -CHARDUAR-TAWANG ROAD SECTION OF NATIONAL HIGHWAY - 13 FROM EXISTING KM 229+000 AND KM 247+600 (DESIGN CH. 0.000 TO CH. 12.040) INCLUDING TWO NUMBER OF TUNNELS HAVING LENGTHS OF 1790 METER AND 475 METER INCLUDING GEOLOGICAL INVESTIGATION AND STUDIES, DESIGN AND CONSTRUCTION OF TUNNEL INCLUDING CIVIL AS WELL AS ELECTRICAL/MECHANICAL WORK ALONG WITH APPROACHES TO NHDL SPECIFICATION IN WEST KAMENG AND TAWANG DISTRICTS IN THE STATE OF ARUNACHAL PRADESH estimated project cost Rs. 647 Crs

b) IMPROVEMENT OF ROAD RAJOURI -THANAMANDI-SURANKOT FROM KM 3.90 TO KM 59.42 (NET LENGTH 55.52 KM) FROM EXISTING IW/CL-9 SPECIFICATION TO NHDL SPECIFICATION THROUGH EPC MODE OF EXECUTION IN 31 BRTF UNDER PROJECT SAMPARK IN UT OF J&K estimated project cost Rs. 330.10 Crs.


5. EPC execution mode is taking roots in the organisation & few tenders have been accepted by Projects and various formation are now well acquainted the procedures to be followed. Hence it has been decided by the competent authority that invitation of bids for civil works costing more than Rs. 300 Crs will be done by the ADG (NW) and ADG (East) pertaining to Projects in their AoR in future as per delegation of administrative and financial powers in BRO circulated by MoD (BR) on 11 Aug 2017.

6. Further as per MoRT&H guidelines vide letter No. RW/NH-37010/4/2010-EAP (Printing) Vol-IV dated 07 Oct 2019 (Copy available on BRO website), all technical bids of civil work should be submitted and their evaluation shall be carried out through BIMS Portal only from 01 Jan 2020.

7. In view of above, the following action are required to be taken by your offices on priority:-

- a) Make a dedicated EPC Cell within available posted strength for invitation of bids for civil works costing more than Rs. 300 Crs based on model EPC documents and necessary amendments carried out by MoRT&H from time to time.
- b) Make digital signature for uploading of tender on CPP Portal.
- c) Make adequate No of digital signature of posted Officers for opening of tender.
- d) Approach BIMS help desk to get the login ID and password on E-Mail ID etenderhelpdesk@nhai.org.

8. If any clarification/guidance is required by officials of ADG HQs in respect of EPC contracts, officials may contact/visit EPC cell of this HQ. Please ack & confirmation for action taken on para 7 above be sent by 20 Mar 2020.


(R K Garg)
SE (Civ)
Dir (EPC)
For Dir Gen Border Roads

Copy to :-

HQ CE (P) _____
C/o 56/99 APO

(Internal):-

DGBR/West Dte
DGBR/East Dte
DGBR /TP Dte
DGBR/B&T Dte
DGBR/ E8 Sec
DGBR/ D&S
DGBR/ EDP cell: -

Please upload this letter on BRO website under heading BRO Policy

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24006/DGBR/Policy/ 124 /EPC Cell

19 Mar 2021

HQ ADGBR (North-West)
C/o 56 APO

HQ ADGBR (East)
C/o 99 APO


All Projects
C/o 56 APO/99 APO

**AMENDMENT OF POLICY OF GUIDELINES FOR PROCUREMENT, PREPARATION
REVIEW AND APPROVAL OF DPR**

1. Reference this HQ letter No. 24006/DGBR/Policy/04/EPC Cell dated 29 May 2018.
2. Refere Para 3 of Policy guidelines issued in May 2018 which stipulates that '**invitation of Bids shall be invited centrally at HQ DGBR (EPC Cell) based on requisition forwarded by concerned Project considering the rates on the basis of per Km cost as per MoRT&H guidelines**'. The concept of EPC was new to BRO and it was thought that consultants will not be interested to participate in the Bids invited by Projects situated in far flung area of the Country. Now the scenario has drastically changed and consultants are available for bidding at all locations of Country.
3. Considering the present scenario following amendments are approved by the Competent Authority in the policy guidelines for preparation of DPR/Feasibility report issued vide HQ DGBR letter No. 24006/DGBR/Policy/04/EPC Cell dated 29 May 2018:-
 - (i) Bids be initiated by concerned Projects as per delegated financial power at S/No. 18 (a) of Annexure II of MoD (BR) letter No. F/No. 04/696/2015/D&P (BR-I) dated 11 Aug 2017 for delegation of Administrative & Financial powers in BRO.
 - (ii) RFP may be prepared based on the terms and condition stipulated in model RFP of MoRT&H with admissible relevant changes.
 - (iii) Evaluation/recommendation of committee for technical evaluation and financial evaluation will be approved by concerned CE (P)s and respective ADG(BR)s respectively. LOA shall be issued by concerned CE (P)s.
4. Consultancy services for selection of Authority's Engineer will be dealt with the same manner.
5. Projects can take assistance from office of ADGBR and HQ DGBR in case problem faced if any in tendering action.

Cont....P/2

6. This is issued with the approval of Competent Authority


(Pankaj Goyal)
SE (Civ)
Dir (EPC)
For DGBR

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24006/DGBR/Policy/2/EPC cell

30 Mar 2021

All Projects
C/o 99 APO
C/o 56 APO

GUIDELINES FOR PROCUREMENT, PREPERATION, REVIEW AND APPROVAL OF DPR

5. Consultant shall be instructed to submit Draft/Final DPRs of MoRT&H works with Appendix A, B, C & D duly filled.

6. Comments of CE (Project) shall be metioned in Appendix 'C' while submitting final DPR after rectification and compliance of observation raised by all offices in Draft DPR.


(Pankaj Goyal)
SE (Civ)
Dir (EPC)
For DGBR

Copy to

ADGBR (East)
Pin 900885
C/o 99 Apo

HQ ADGBR (North-West)
Sec-48-C, Near Motor Market
Chandigarh-160047

} For info please

1 Project Details

- (a) Name of work :-
- (b) State :-
- (c) NH No :-
- (d) Length :-
- (e) Existing and Design chainage :-
- (f) TPC (in Crs) :-
- (g) CWC (in Crs) :-
- (h) Name of Consultant
- (i) Alignment approving authority and date of approval of alignment :-
- (j) Number of Packages :-
- (k) SoR adopted with details of escalation :-
- (l) Type of Terrain :-
- (m) Availability if 90 % land in linear length of project. :-

2. Status of land Acquisition As per Applicable law :-

(a) Land details

Name of Package	Total land (in Hectare)	Revenue (in Hectare)	Forest (in Hectare)	Private land (in Hectare)

(b) Stages of land Acquisition with date of uploading *

- i) 3(a)
- ii) 3(A)
- iii) 3(B)
- iv) 3 (D)
- v) Any other issue.

3. Status of Forest Clearance

- (a) Type of forest :-
- (b) Date of uploading on Parivesh portal :-
- (c) Stage at which FC proposal progressed :-
- (d) Likely date of approval :-

Note: *Project can mention stages as per applicable law for land acquisition

4. Status of wildlife /Eco sensitive zone

- (a) Name of Approving Authority :-
(b) Status (in Brief) :-

5. Utility status

Sr No	Type of Utility	Agency	Amount (In Crs)	Estimate obtained/not

6. Muck disposal

- (a) Quantity of muck :-
(b) Quantity of earth in cutting :-
(c) Quantity of embankment :-
(d) Maximum lead considered for muck disposal :-

1. Technical Details

(Sr No)	Items	Description
(a)	Design Length	
(b)	Proposed Row	
(c)	Carriage way width/Nos of lane	
(d)	Shoulder width	(i) Earthen
		ii) Paved

(e) Major Bridges

Sr No	Locations	Span	New/Existing-Retained

(f) Minor Bridges

- (i) Number of new proposed :-
(ii) Numbers Existing retained :-

(g) Tunnel Proposed

- (i) Location :-
(ii) Length :-

(h) Culverts in Numbers

- (i) New :-
(ii) Existing widened/Retained :-

(i) Junctions in Numbers

- (i) Major :-
(ii) Minor :-

(j) Lay byes in Numbers :-

(k) Bus stand in Numbers :-

(l) RoB/Viaduct with details :-

DESIGN PARAMETER VARIATION STATEMENT

Sr No	Design Parameter	Codal Provision	Complied/Variation * (if any)
(a)	Design Speed		
(b)	Row		
(c)	Carriage way		
(d)	Pave shoulder		
(e)	Radius of Horizontal curve		
	(i) Ruling		
	(ii) Absolute		
(f)	Gradient		
	(i) Ruling		
	(ii) Limiting		
	(iii) Exceptional		
(g)	Super elevation		
(h)	Camber/Cross fall		
(i)	Vertical curves		

Note:- * In case of variation w.r.t. codal provision/MoRT&H specification then location wise variation statement with details reason of variation duly signed by consultant and with comments of CE (Project) shall be submitted separately.

- (m) Protection works with details
- (i) Slope protection works :-
 - (ii) Rock slope /Landslide protection works :-
- (n) Drains in length
- (i) Unlined :-
 - (ii) Lined :-
 - (iii) Lined covered :-
- (o) Retaining wall (in Length)
- (i) Up to 3 Mtr (in height) :-
 - (ii) More than 3 Mtr (in height) :-
- (p) Brest Wall in length
- (i) Up to 1.5 mtr :-
 - (ii) More than 1.5 mtr height :-
- (q) Pavement Details (Enclose TCS)
- (i) CBR range/adopted :-
 - (ii) MSA :-
 - (iii) PCU :-
- (r) Construction Period :-
- (s) Defect liability period :-
- (t) Any other details :-

Appendix 'D'

Sr No	Description	Normative Cost (in Cr)	As per Estimate (in Rs Cr)
1	Road work		
2	Bridges		
3	Total		

(% below above Normative)

Note :- *Refer MoRT&H circular No RW/NH-24036/27/2010-PPP dated 10 Aug 2016 and RW/NH-24036/27/2010/PPP dated 25 April 2018.

*Reasons for variation shall be mentioned in case variation is more than 10 %.

3

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24002/DGBR/Gen/ 108 /EPC Cell

13 Apr 2021

HQ ADGBR (NW)
C/o 56 APO

HQ ADGBR (West)
C/o 99 APO

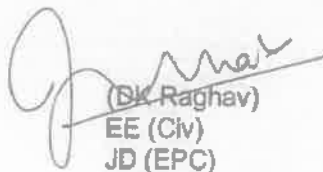
All Projects
C/o 56 APO/99 APO

**AMENDMENT OF POLICY OF GUIDELINES FOR PROCUREMENT, PREPARATION, REVIEW
AND APPROVAL OF DPR**

1. Please refer this HQ letter No.24006/DGBR/Policy/122/EPC Cell dated 19 Mar 2021 and No.24006/DGBR/Policy/125/EPC Cell dated 25 Mar 2021.
2. This HQ is receiving number of clarification relating to "policy of Guideline for procurement, preparation review and Approval of DPR".
3. In this connection following is clarified:-

(i) Bids be initiated by concerned projects as per delegated Financial power at S/No. 18 (a) of Annexure II of MoD (BR) letter No. F/No. 04/696/2015/D&P (BR-I) dated 11 Aug 2017 for delegation of Administrative & Financial powers in BRO. Since CE (Projects) are delegated with full financial power.

(ii) RFP may be prepared based on the terms and condition stipulated in model RFP of MoRT&H with admissible relevant changes.


(DK Raghav)
EE (Civ)
JD (EPC)

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24016/DGBRWP/04/EPC Cell

10 May 2021

HQ ADGBR (East)
C/o 99 APO

HQ ADGBR (NW)
C/o 56 APO

All Projects
C/o 56 APO/99 APO

MONTHLY PROGRESS REPORT OF EPC WORKS & AUTHORITY ENGINEER

1. Further to this office letter No. 24016/DGBR/WP/80/EPC Cell dated 19 Mar 2021.
2. EPC agreement under Clause 11.7 has provisions of submission of 'Monthly Progress Report' during the construction period by EPC contractor. Clause 11.7 has description of contents of MPR. EPC Cell has derived a standard format based on this provision for submission of MPRs by EPC contractor. Standard format is enclosed in Appendix 'A.' Project/Authority can direct EPC contractor to include additional information under heading of 'Any other issues' in case necessary.
3. Similarly, Authority engineer agreement also has provisions of submission of Monthly Progress Report by Authority Engineer under clause 5.7. A detail format is prescribed in Annexure V & VI. This MPR covers inspection report of Authority Engineer and details of lapses, defects or deficiencies observed during construction of Project Highways. Extract of Annexure-V & VI of contract agreement is enclosed for ready reference.
4. In view of above, Projects are advised to adhere to contractual obligations of EPC contractors and Authority Engineer and obtain Monthly Progress Reports as per provision of contract agreement.
5. A soft copy of MPRs of Contactor and Authority Engineer shall **by e-mailed to EPC Dte by 15th of each proceeding months.**
6. In addition to above, a summary progress reports as per format enclosed in **Annx-I & II of Appendix 'B' shall also be e-mailed 05th of each month.**


(Pankaj Goyal)

SE (Civ)

Dir (EPC)

For Dir Gen Border Roads

Encls: ^{as above} Sheets

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24006/DGBR/Policy/ 24 /EPC Cell

24 May 2021

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AMENDMENT OF RFP (WORK LOAD RETURN) FOR CONSULTANCY SERVICES FOR PREPARATION OF DPR AND FEASIBILITY STUDY

1. DPRs on various roads are under preparation through different consultancy contracts with various firms. It has been observed that few of consultants have been awarded multiple works of DPR preparation in the last two three years which is badly affecting performance of consultant to deliver work on time. Details of consultants who have been awarded more than three consultancy contracts for preparation of DPRs are as follows:-

S/N	Name of Firm	Nos consultancy Contract awarded	Schedule date of start	Schedule date of completion	Completed	DPR Balance
1	M/s Highway Engineering Consultant	10	Nov 2017 to Jan 2019	Jul 2018 to Feb 2020	03	07
2	M/s LN Malviya Infra Projects Pvt. Ltd	7	Apr 2018 to Aug 2019	Nov 2018 to Aug 2020	1	6

2. Above listed consultants have taken consultancy contracts more than capability therefore are not able to deliver as per timelines and failing to meet contractual obligation. Apropos these consultants have been downgraded in work load return (WLR) report and debarred from participating in further tendering action. Copy of WLR report for the month of March 2021 published on BRO website is enclosed at Appx 'A'. Other action against these defaulting consultants be taken as per provisions in contract agreement by accepting Authority.

3. Model RFP issued by MoRT&H is followed for tendering action. Model RFP does not have any provision in prequalification to limit the number of DPRs to be awarded to consultant to avoid taking works beyond capacity. Considering the issue of delay as brought out above, there is felt need to restrict bidders from taking number of works at a time beyond capacity and making such provisions in RFP accordingly for overall interest of state.

Cont....P/2

4 In view of above, following clause shall be inserted at S.No 1.11 under title "Letter of Invitation (LOI)" in prequalification criteria of RFP of consultancy contract for preparation of DPR in BRO.

"No Consultancy firm will be awarded more than 03 (three) projects of Consultancy services as DPR Consultant in BRO. If any consultancy firm either as a sole bidder or as JV partner/Associate has already been awarded or ongoing 03 consultancy projects as DPR Consultant in BRO, then that consultancy firm will not be eligible for bidding for this work. Consultancy firms who are H1 in any of the projects of DPR Consultant under BRO will be considered as awarded projects. Consultancy firms must submit an undertaking w.r.t the above details in the specified format as per Appendix-IX"

Note:- The work will be considered on going if it is not substantially completed (i.e. 90% completion).

6. The above aspect of limiting Award of work (03) shall be strictly monitored by the ADGBR to achieve the desired goal.

7. This has approval of DGBR.



(BP Misra)
Chief Engineer (Civ)
DDG (EPC & Contracts)
For Dir Gen Border Roads

Encls:- 09 Sheets

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06/DGBR/Policy/ ~~22~~⁵⁷ /EPC Cell

25 Jun 2021

ADGBR (N/W)
56 APO

ADGBR (East)
99 APO

Projects
16 APO/99 APO

GUIDELINES FOR TENDERING ACTION IN EPC MODE

All sanctioned works of value above Rs.100 Crs are mandatorily executed in EPC as per change in work philosophy envisaged to enhance financial capability of organization and for timely completion of strategic roads included in LTROWP. There are 23 PC works already under progress and few works are still in tendering stage.

Tendering action for EPC works are undertaken on standard RFP and EPC agreement by MoRT&H vide letter No. RW/NH-37010/4/2010-EAP (Printing).-Vol-IV dated 05 Mar Adm Approval issued by MoD & MoRT&H also mentioned that standard documents are followed for tendering action.

EPC mode of working is just 2 to 3 years old in our Organisation and still evolving. It is typically working in far flung, inhospitable terrain, high altitude & high rainfall area with adverse conditions and limited working season. Standard tender documents bid conditions may not suit to some Projects for successful completion of work due to difficult site conditions in a specific work zone.

In case, Chief Engineer Projects observe that any condition of standard Bid document is not suitable for successful completion of the work, then Project may prepare a detailed justification and reasoning for amendment in Bid conditions of standard Bid document and submit the same with DPR for approval by work sanctioning authority accordingly.

One of the Chief Engineer Project has encountered issues in Para 4.2 of EPC agreement of "Subletting of works by EPC contractor." The following guidelines are issued for the Project to deal with subletting clause of EPC agreement.

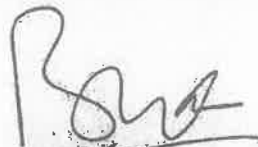
✓

(i) Standard bidding document have provisions for contractor to mandatorily take permission of authority i.e CE (Project) before subletting of any works beyond 5% of contract price. Chief Engineers Projects need to evaluate proposal of contractor & subletting based on following criteria: -

- (a) Public interest for completion of works.
- (b) National Security
- (c) Prequalification criteria work experience of sub-contractor.

(ii) Chief Engineers may consider to allow subletting of work of value more than 5% of contract price for specialized works after considering criteria mentioned in Para 'a' to 'c' above. Specialized works can be as follows:-

- (a) **Specialised works in roads contracts shall be** *"Other than core works of road construction such as Slope protection works, Tunnellings, Steel Superstructure Bridge etc."*
- (b) **Specialised works in tunnel contracts shall be** *"E&M works such as Security appliance system, Fire fighting, Ventilation works etc including Development of control room, Slope stabilization, Drainage works etc."*
- (c) **Specialised works in standalone bridge contracts shall be** *"Piling, Well sinking, Prestressings load testing, Approach road, Bridge launching etc."*



(B P Misra)

CE (Civ)

DDG (Contract& EPC)

For Dir Gen Border Roads

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24006/DGBR/Policy/ 59 /EPC Cell

29 Jun 2021

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HQ ADGBR (East)
C/o 99 APO

All Projects
C/o 56 APO/99 APO

GUIDELINES FOR TENDERING ACTION IN EPC MODE

1. Please refer this HQ letter No. 24006/DGBR/Policy/57/EPC Cell dated 25 Jun 2021.
2. It is submitted that, the following amended in ibid referred letter is as under:-

FOR :

Subletting

READ :

Subcontract



(Pankaj Goyal)
SE (Civ)
Dir (EPC)
For DGBR

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24006/DGBR/Policy/ 61 /EPC Cell

05 Jul 2021

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HQ ADGBR (East)
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**ENFORCEMENT OF QUALITY ASSURANCE AND QUALITY CONTROL
MEASURES IN CONSTRUCTION OF ROAD & BRIDGE WORKS ON NATIONAL
HIGHWAYS AND CENTRALLY SPONSORED SCHEMES BY AUTHORITY'S
REPRESENTATIVE**

1. There are numbers of guidelines for strict Quality Assurance and Quality Control in Road & Bridge Works. IRC SP:112 "Manual for Quality Control in Road & Bridge works" gives details of guidelines for Quality Assurance and Quality Control on Road & Bridge works starting from project preparation to construction including acceptance thereof. These guidelines clearly define the roles and responsibilities of Concessionaire/Contractor, Authority's Engineer/Independent Engineer/Supervision Consultant and Authority/Employer in achieving desired quality of works. Each item of work has several quality characteristics of input materials, mixes, processes and final product. Specification limits and applicable testing methods of different quality characteristics are given in "MoRTH specifications for Road & Bridge works" and applicable IRC standards/guidelines. Necessary laboratory/onsite testing has to be done as per said standard/guidelines and test results compared with specification limits and further statistical analysis done wherever specified to determine acceptance of particular item of work.
2. Lapses on the part of Concessionaire/ Contractor and Authority's Engineer/Independent Engineer/Supervision consultant to follow standard guidelines may lead to failure during construction or acceptance of sub-standard works leading to premature distress.
3. Standard EPC Contract document also provides for inspection and technical audit by Authority under Article 11.4 which relates as follows:

"The Authority or any representative authorized by the Authority in his behalf may inspect and review the progress and quality of the construction of Project Highway and issue appropriate directions to the Authority's Engineer and the Contractor for taking remedial action in the event the works are not in accordance with the provisions of this Agreement".

Cont.....P/2

4. Further Article 11.6 of EPC Contract provides for inspection of construction records which reads as follows:

"The Authority shall have the right to inspect the records of the Contractor relating to the works"

5. Further under Article 18.1 of EPC Contract, the concerned contract management authority have been made responsible for overall supervision, monitoring and execution of projects as the representative of the owner of the Project. The Article 18.1(II) reads as follows :

"The officer in-charge of the Authority (eg. Project Director or any other appointed representative) is responsible for the overall supervision and monitoring of the execution of project as the representative of the owner of the project. The Authority's Engineer is appointed to assist the Authority for carrying out the functions as detailed under clause 18.2. As such, an officer of the Authority is vested with all such powers and responsibilities as are enjoined upon the Authority's Engineer and is fully competent to issue any instructions for proper monitoring and supervision of the project, either by himself or through the Authority's Engineer. Instructions issued by the concerned officer of the Authority shall have the same effect as that of the Authority's Engineer in terms of this Agreement. Wherever such concerned officer issues any instructions or notice to the Contractor, he shall endorse a copy thereof to the Authority's Engineer".

6. From above provisions in the Contract, it may be seen that enabling provision have been made in the Contract for the Authority/Authority's Representative to carry out inspection and issue instruction for non-compliance in Quality and Specifications.

7. In order to prevent such violations of contract requirements, Competent authority has decided that the officer in-charge of the Authority at site i.e. Project Director /TF Commander (as the case may be) shall inspect the projects to ensure that (i) approved construction methodology of the works is being followed, (ii) approved quality assurance plan is being diligently followed by Concessionaire/ Contractor and Authority's Engineer/Independent Engineer/Supervision consultant and to see that Authority's Engineer performs his duties in accordance with contract and his TOR and invariably notifies Non compliance Report (NCR) to the Contractor in monthly progress report, and inform to higher authorities upto HQ DGBR and closes the same before accepting the work and recommending same for payment. The officer in-charge of the Authority may also carry out sample laboratory/on site test on important quality characteristics of materials/mixes/process/final product and observations would be notified through inspection Note under Article 18.1(II) or any other relevant Article. While carrying out the inspections, the officer in-charge of the Authority shall invariably follow the guidelines and Standard Operating Procedure for Quality Control/Assurance in construction of National Highways and other centrally sponsored projects issued vide letter No.RW/NH-34066/01/2020-QCZ dated 1st October 2020 .

8. The Minimum inspection frequency shall be as under:

S/No.	Designation of officer	Frequency of inspection
a)	Project Director /TF Cdr	Monthly
b)	Authority/CE (Project) himself or officer detailed by him	Quarterly

9. In case of proven negligence on the part of above officers in carrying out inspection as detailed in Para-8 above, following penal action will be taken against the officer concerned:

S/No.	Penal Action								
a)	<table> <tr> <th>Number of instances of failure</th><th>Action proposed</th></tr> <tr> <td>i) 1st instance</td><td>Advice</td></tr> <tr> <td>ii) 2nd instance</td><td>Non-recordable warning</td></tr> <tr> <td>iii) 3rd instance</td><td>Recordable warning</td></tr> </table>	Number of instances of failure	Action proposed	i) 1 st instance	Advice	ii) 2 nd instance	Non-recordable warning	iii) 3 rd instance	Recordable warning
Number of instances of failure	Action proposed								
i) 1 st instance	Advice								
ii) 2 nd instance	Non-recordable warning								
iii) 3 rd instance	Recordable warning								
b)	iv) Instances exceeding 3 times and/or failure of structure during construction or operation Penalty Major/Minor as deemed fit.								

10. In case the outcome of investigation is unclear or on the basis of conjectures, no action on penalty (Major/Minor) shall be taken and only suitable warning shall be issued which may be included in the ACR of the concerned Officer. Representation may be submitted if , any to the "Reviewing Authority" against action/ penalty imposed.

11. This has approval of DGBR.


(BP Misra)
CE (Civ)
DDG (C & EPC)
For Dir Gen Border Roads

Copy to:

- Joint Secretary (BR)**
4thFloor, 'B' Wing
Sena Bhawan
New Delhi-01 : for info please.
- MoRT&H, S&R (P&B) Section**
Ministry of Road Transport & Highway
Parivahan Bhawan,
1, Parliament Street
New Delhi-110001 : for info w.r.t. MoRT&H letter No.
RW/NH-34066/01/2020-QCZ dated
14 Jun 2021.

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24006/DGBR/Policy/ 70 /EPC Cell

19 Jul 2021

HQ ADGBR (N/W)
C/o 56 APO

HQ ADGBR (East)
C/o 99 APO

All Projects
C/o 56 APO/99 APO

PROCESSING OF DPRs AS PER AWP 2021-22 : EXPECTING LA & FC PROCEEDINGS

1. There are 74 Nos of DPRs (48 Nos MoRT&H + 26 Nos MoD) which are included in AWP for processing in current financial year. Till date, only 15 Nos of DPR (07 Nos MoRT&H + 08 Nos MoD) only could be processed for according sanction by competent authority.
2. Project wise and road wise pending DPRs and status of LA & FC in brief is enclosed at Appendix 'A'. It can be seen that progress of obtaining clearances of LA & FC is extremely slow inspite of consultancy contracts being 3 to 4 years old and scheduled contract period already completed. This can be a major hurdle in obtaining sanction of works from Ministry and may lead to slippage of Annual Works Plan. Therefore, **there is urgent need to take proactive measures and action at Chief Engineers Project level for expediting LA & FC proceedings to achieve substantial progress in next 2 to 3 months so that sanction of works can be obtained.**
3. HQ DGBR/ C & EPC Dte has issued advisory and guidelines vide letter No. 24098/DGBR/Monitoring/21/EPC Cell dated 30 Mar 2021 & 24098/DGBR/Monitoring/40/EPC Cell dated 07 Apr 2021 to expedite LA proceedings. Following actions are also suggested:-
 - (a) Project shall initiate case for approval of alignment of roads by Competent Authority i.e. ADGBR in case of MoD funded Projects & ADG, MoRT&H through RO, MoRT&H in case of MoRT&H funded works. The Alignment Approval cases of all roads included in AWP shall be initiated by **15 Aug 2021**. This shall fix the alignment/ Re alignment/ width of road Land required for the project thus giving clarity for LA & FC.
 - (b) Chief Engineer shall interact with Land Commissioner & Revenue Secy level to apprise importance of Road Development Project & get a nodal officer appointed from Revenue and Forest Deptt.

Cont....P/2

- (c) Task Force Commander & Project nodal officer shall interact with Competent Authority of Land Acquisition (CALA) and forest officials on fortnightly basis to review progress of LA & FC and if possible have a recorded minutes of meeting.
- (d) OC RCC & other officials shall interact with SDM & Patwari level officers for LA and Range office & DFO for forest matters on weekly basis or as per requirement and maintain a log record of such interactions.
- (e) DPR consultant shall depute separate dedicated team to deal with LA & FC matters and this team shall be in regular liaison with Revenue and Forest officials.
- (f) CE shall have a fortnightly meetings with Project nodal officer, TF Cdr, OC RCC, LA & FC team of DPR Consultant to review progress made so far and further actions needs to be taken.
- (g) ADGBR(NW)/ ADGBR(East) may have a monthly review meeting.

4. Projects are advised to follow instruction issued vide letter No 24006/DGBR/Policy/21/EPC Cell dated 10 Jul 2018 for scrutinizing of Draft DPRs submitted by consultant to cut down time in processing of DPRs. The point conveyed in Para 3 of ibid letter is reiterated for strict adherence:-

"Projects shall advise consultant to submit copy of Draft DPRs to HQ DGBR, HQ ADGBR (East/NW), HQ CE (Project) and HQ BRTF/RCC for comments/observations. Comments/observations of all formations shall be submitted to HQ DGBR within one month and consolidated observations will be communicated to the consultant with a copy to all stakeholder by HQ DGBR. Consultant will submit amended DPRs (complying all observations) BRTF/RCC and same will be processed through stipulated channel".

5. All stakeholders shall ensure to forward comments/observations within 7 to 15 days (since first quarter of current FY already lapsed) to HQ DGBR. Comments on MoRT&H funded works shall be forwarded to EPC Cell/HQ DGBR. Comments on MoD funded works shall be forwarded to East/West Dte for processing of DPRs through by East & West Dte for approval through Project Approval Board (PABs).

6. Projects are advised to plan a time schedule of all pending activities before processing of DPR and forwarded realistic time plan for record for monitoring.



(B. P. Misra)
CE (Civ)
DDG (C & EPC)
For DGBR

Copy to:-

Internal

HQ DGBR/East Dte

HQ DGBR/West Dte

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ई-मेल

मुख्यालय

सीमा सड़क महानिदेशालय

सीमा सड़क भवन

रिंग रोड दिल्ली कैंट

नई दिल्ली - 110010

24006 / डीजीबीआर / पॉलिसी / 78 / ई.पी.सी. सेल

02 अगस्त 2021

मुख्यालय

अपर महानिदेशालय (उत्तर-पश्चिम)

मार्फत 99 सेना डाकघर

मुख्यालय

अपर महानिदेशालय (पूर्व)मार्फत 99 सेना डाकघर

सभी प्ररियोजना

मार्फत 56/99 सेना डाकघर

ABNORMALLY LOW BIDS (ALBs)

1. It is observed that the number of bidders for Projects have increased significantly since the government has been away with compulsory deposit of additional performance security from contractors and consequently bidders are quoting low prices. Many of the work projects have been bid out at 20% to 30% less than the project estimated cost. There is need of closely monitoring the ALB Projects for ensuring good quality and timely completion of works as stipulated in contract agreement. List of Projects which are quoted ALBs is as follows:-

S/ No	Name of Road	PKG	Civil work Cost incl GST (In Crs)	Contract price (In Crs)	Variation between NIT cost vs Contract price (%)
1.	Ditte Dimme Migging	I	174.88	129.76	25.80% Below
2.	Ditte Dimme Migging	II	301.46	241.17	20.00% Below
3.	Ditte Dimme Migging	III	281.85	195.99	30.46% Below
4.	Ditte Dimme Migging	IV	256.13	178.90	30.15% Below
5.	Tato-Menchuka	I	234.66	195.51	16.69% Below
6.	Tato-Menchuka	II	100.97	80.55	20.30% Below
7.	Tato-Menchuka	III	86.21	67.83	21.20% Below
8.	Akhnoor-Poonch	II	709.64	476	32.92% Below
9.	Akhnoor-Poonch	III	119.06	88.95	25.29% Below
10.	Akhnoor-Poonch	IV	79.44	63.15	20.50% Below

2. Measures as proposed in policy guidelines issued vide letter No. 24006/DGBR/Policy/61/EPC Cell dated 05 Jul 2021 shall be further strengthened by taking additional measures as given below in order to ensure that contractors of ALBs complete the projects with good quality as envisaged in the contract agreement at the quoted price :-

Cont.....P/2

Sr No.	Measures to be taken for ALBs Projects	Bids 10% to 20% below	Bids more than 20% below
1.	Project to be identified separately and should be monitored by PD/Cdr TF & CE(P) and submit a monthly report on major issues (ALBs projects) for perusal of ADGBR/DGBR.	Yes	Yes
2.	Deployment of sufficient resources by the Contractor (Key Personnel, Plant & Equipment, material, etc.) matching with the construction programme	AE/PD/ CE(P) to monitor every month, issue notices and take timely actions to ensure quality and that there are no slippages in the Project.	
3.	Quality Inspection Team detailed by ADGBR, should visit the project site and submit the reports for perusal of DGBR with suggestive actions to be taken by CE(P) / PD/ Cdr to ensure quality of works	Every 06 months	Every 03 months
4.	Inspection of works by	(i) PD (Proj Dir)	Every fortnight
		(ii) CE(P)	Every 2 months

3. This has approval of DGBR.



(मानु प्रकाश मिश्र)

मुख्य अभि. (सिविल)

उपमहानिदेशक (सी. एवं ई.पी.सी.)

कृते सीमा सड़क महानिदेशक

फ़ोन : 011-25686846

ई-मेल

मुख्यालय

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24006 / डीजीबीआर / पॉलिसी / ४२ / ई.पी.सी. सेल

17 अगस्त 2021

मुख्यालय

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अपर महानिदेशालय (पूर्व)
मार्फत 99 सेना डाकघर

सभी परियोजना

मार्फत 56/99 सेना डाकघर

MODIFICATION IN MODEL RFP DOCUMENTS

1. Please refer to MoRT&H letter No. RW/NH-34066/25/2018-S&R (P&B) dated 31 Jul 2021 (copy enclosed).
2. The relevant pages of modified RFP documents of DPR consultancy, AE and PMC Agreement are enclosed in Appendix 'A' to 'C' for implementing following guidelines of CVC and CVO, MoRT&H:-
 - (i) On paper attendance be replaced with Aadhar based Biometric attendance or Geo-tagged selfie based attendance etc.
 - (ii) Salary of key personnel should not be paid in cash and paid in accounts of these personnel.
 - (iii) PD & RO be advised to carry out regular interactions with key personnel to ascertain their contribution in execution of project and surprise inspection be carried out at least once in a month to check their attendance at site.
3. Please note for implementation and ack.


(पंकज गोयल)

अधीक्षक अभियंता (सिविल)

निदेशक (ई.पी.सी.)

कृते सीमा सड़क महानिदेशक

Encs:- as above.