सत्यमेव जयते

# भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)
# National Highways Authority of India
(Ministry of Road Transport and Highways, Government of India)
जी-5 एवं 6, सेक्टर-10, द्वारका, नई दिल्ली - 110 075 • G-5 & 6, Sector-10, Dwarka, New Delhi-110075
दूरभाष/Phone : 91-11-25074100 / 25074200

## NHAI /Policy Guidelines /Miscellaneous /2025
## Policy Circular No. 18.103/2025 dated 05th April, 2025
{Decision taken on E-Office File No. NHAI/BOTTollandRMD/2022/Policy (Comp. No. 169420)}

**Sub: Modifications in Standard Operating Procedure (SOP) for taking over the Project Highways completed under BOT/ HAM/ OMT/ TOT/ EPC Mode upon completion of Concession Period/ DLPs - reg.**

In supersession of Para 2.1 & Para 3 of NHAI Policy Guidelines Circular No. 18.83/2022 dated 01.10.2022 and in accordance to MORTH's Letter No. RW/G-23012/01/2019-W&A (Pt.III) dated 03.02.2025 (**Annexure-I**) regarding Contract Maintenance of NHs, the Para 2.1 & Para 3 has been modified as detailed below:

| Para No. of SOP | Existing Para | Modified Para |
|---|---|---|
| 2.1 | In addition to verification of the Project Assets, Records, 'as built' Drawings, Applicable Permits and other Documents by the Independent Engineer/ Authority Engineer at the time of taking over of the Project Highway, a Team shall inspect the Project Highway and submit a Report to Member concerned atleast 3 months prior to the likely taking over date. The Team shall comprise of a Team Leader selected by Member concerned out of the empanelled List for Quality Inspections of SRD&Q Division; GM(T)/ DGM(T) of Tech. Division at HQ; GM(T)/ DGM(T) of concerned RO; Technical Director of Consultancy Firm acting as IE/AE for the Project. | In addition to verification of the Project Assets, Records, 'as built' Drawings, Applicable Permits and other Documents by the Independent Engineer/ Authority Engineer at the time of taking over of the Project Highway, a Team shall inspect the Project Highway and submit a Report to Member concerned **atleast 6 months** prior to the likely taking over date. The Team shall comprise of a Team Leader selected by Member concerned out of the empanelled List for Quality Inspections of SRD&Q Division; GM(T)/ DGM(T) of Tech. Division at HQ; GM(T)/ DGM(T) of concerned RO; Technical Director of Consultancy Firm acting as IE/AE for the Project. |
| 3 | Planning of O&M/ Capacity Augmentation/ Tolling Contracts/ Agencies to be in Position by taking over date of the Project Highway by the Authority: Based on FWD/ NSV Test Reports & Road Safety Auditor's Reports and Future Plan/ Programme | Planning of O&M/ Capacity Augmentation/ Tolling Contracts/ Agencies to be in Position by taking over date of the Project Highway by the Authority: Based on FWD/ NSV Test Reports & Road Safety Auditor's Reports and Future Plan/ Programme of NHAI, |

Contd...2/-

| | | |
|---|---|---|
| | of NHAI, IE/ AE concerned shall submit an Estimate/ Bidding Documents atleast 6 months prior to the date of taking over so that PD/RO/Tech. Division at HQ complete the Procurement Process and keep the Agencies ready for O&M/ Capacity Augmentation/ Tolling of the Project Highway well before the taking over date. | IE/ AE concerned shall submit an Estimate/ Bidding Documents atleast 6 months prior to the date of taking over so that PD/RO/Tech. Division at HQ complete the Procurement Process and keep the Agencies ready for O&M/ Capacity Augmentation/ Tolling of the Project Highway well before the taking over date.<br><br>**Note:**<br><br>i. ***In addition to the Estimate/ Bidding Document, the Inspection Report of Committee with Defect Notices issued if any, must be provided alongwith the PBMC/ STMC Proposals in Stretches where DLP/ Concession Period is scheduled to expire. Also, LOA for such works shall only be issued after issuing of the Taking Over Certificate as per Schedule-R in EPC Projects, Schedule-Q in HAM Projects & Schedule-U in BOT Projects.***<br><br>ii. ***Further, the Defects & Deficiencies which are to be taken up by the Contractor/ Concessionaire and the defects which are beyond the scope of Contractor/ Concessionaire as per CA (to be taken up in PBMC/ STMC proposal) shall be clearly specified in the Inspection Report of Committee.*** |

2. Other provisions shall remain the same.

3. This issues with the approval of Competent Authority.

05/04/25

**Encl: As stated above**

**(CS. Sanjay Kumar Patel)**
**I/c Chief General Manager (Coord.)**

**To:**

**All Officers of NHAI HQ/ ROs/ PIUs/ CMUs/ Site Offices**

**Copy to:**

1. Hindi Division for translation in Hindi.
2. Library for hosting the circular on library site.
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Annexure-I

No.RW/G-23012/01/2019-W&A(Pt.III)
**Government of India**
**Ministry of Road Transport & Highways**
**(Planning Zone)**
Transport Bhawan, 1, Parliament Street, New Delhi – 110001

Dated: the 03rd February, 2025.

To

1. The Principal Secretaries/ Secretaries of all States/UTs Public Works Department dealing with National Highways, other centrally sponsored schemes.
2. All Engineers-in-Chief and Chief Engineers of Public Works Departments of States/ UTs dealing with National Highways and other centrally sponsored schemes.
3. The Chairman, National Highways Authority of India, G-5&6, Sector-10, Dwarka, New Delhi-110075.
4. The Managing Director, NHIDCL
5. The Director General (Border Roads), Seema Sadak Bhawan, Ring Road, New Delhi-110010.

**Sub: Contract Maintenance of NHs – Reg.**

**Ref: (i). Ministry's Letter of even no. dt 06.07.2023 – Contract maintenance guidelines for NHs**

**(ii) Ministry's Letter of even no. dt 14.12.2023 – Contract maintenance guidelines for NHs**

Sir,

Kind attention is drawn to the Ministry's letters of even number under ref. (i) & (ii) vide which Contract maintenance guidelines for **Short Term Maintenance Contract (STMC) or Performance Based Maintenance Contract (PBMC) alongwith SOPs and contract document (PBMC) was issued**. Basic principle for both the system is to have accountable maintenance agency for full contract period with monthly payment linked to the performance standards after initial rectification / rehabilitation.

2. It has been observed that wherever the STMC / PBMC works are to be started immediately after Defect Liability Period (DLP), Contractors/Concessionaires generally do not pay attention to rectify the defect & deficiency and also do not meet the maintenance requirement as per provision of the contract/concession agreement & its Schedules towards the end of the DLP/Concession period. In this situation, the Immediate Rectification (IR) provisions made under the PBMC either (i) does not suffice to cater for road

condition or (ii) it requires more additional items & quantities.

It is therefore required that the provisions of rectification of defect and maintenance requirements during the DLP/Concession Agreement of the previous strengthening/up-gradation work done on the stretch are enforced effectively. To do so, following provisions are made for strict adherence.

( i ) **EPC Contracts**:- Thorough inspection of the stretches under DLP is carried out by a team of RO, CE(NH) (CGM/ED HQ in case of NHAI / NHIDCL) along-with AE officials 6 months prior to expiry of the DLP Period in accordance with Article 14 of the Contract Agreement. Detailed report of defect in accordance with Schedule Q may be prepared. Notice may be issued to the Contractor for deficiency if any, and its compliance as per Schedule-E must be ensured. Further Taking over certificate in accordance with schedule R of the Contract Agreement must be ensured.

The Inspection Report with Defect Notice issued if any, must be provided along-with the PBMC / STMC proposal in stretches where DLP is scheduled to expire. Also, LOA for the such work shall only be issued after issue of the Taking Over Certificate as per Schedule-R.

(ii) **HAM Contracts**:- Thorough inspection of the stretches under Concession Period is carried out by a team of RO, CE(NH) (CGM/ED HQ in case of NHAI / NHIDCL) along-with IE officials 6 months prior to expiry of the Concession Period in accordance with maintenance manual as defined in Article 17.3 and maintenance program as defined in Article 17.4. Detailed report of defects and deficiencies may be prepared and notice may be issued to the Concessionaire/Contractor regarding the defects and deficiencies and its compliance as per Schedule-K must be ensured. Further Taking over certificate in accordance with Article 32.4 and schedule Q of the Concession Agreement must be ensured.

The Inspection Report with Defect Notice issued if any, must be provided along-with the PBMC / STMC proposal in stretches where concession period is scheduled to expire. Also, LOA for the work shall only be issued after issue of the Taking Over Certificate as per Schedule Q in case of HAM projects.

3. This issues with the approval of the Secretary (RT&H).

Enclosure: As above

Yours faithfully,

Digitally signed by
Sanjay Kumar
Date: 03-02-2025 12:11:46

(Sanjay Kumar)
Under Secretary (P&M)
Telephone No. 011-23714001
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Copy to:

1. All CEs in the Ministry of Road Transport & Highways
2. All ROs of the Ministry of Road Transport & Highways
3. The Secretary General, Indian Roads Congress
4. Technical circular file of S&R (P&B) Section
5. NIC-for uploading on Ministry's website under "What's New"

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3. Sr. PPS to Secretary (RT&H)
4. Sr. PPS to DG (RD) & SS
5. Sr. PPS to AS&FA
6. Sr. PPS to AS (Highways) / AS (NHIDCL, RT & MVL, RS)
7. Sr. PPS to Pr. CCA, MoRT&H
8. Sr. PPS / PPS / PS to ADGs
9. Sr. PPS / PPS / PS to JS (EAP) / JS (Logistics)

*****

No.RW/G-23012/01/2019-W&A(Pt.III)
**Government of India**
**Ministry of Road Transport & Highways**
**(Planning Zone)**
Transport Bhawan, 1, Parliament Street, New Delhi - 110001

Dated the 14th December, 2023

To

1. The Principal Secretaries/ Secretaries of all States/UTs Public Works Department dealing with National Highways, other centrally sponsored schemes
2. All Engineers-in-Chief and Chief Engineers of Public Works Departments of States/ UTs dealing with National Highways and other centrally sponsored schemes
3. The Chairman, National Highways Authority of India, G-5&6, Sector-10, Dwarka, New Delhi-110075
4. The Managing Director, NHIDCL, PTI Building, New Delhi-110001
5. The Director General (Border Roads), Seema Sadak Bhawan, Ring Road, New Delhi-110010

**Sub: Contract Maintenance of NHs - Reg.**

**Ref: (i). Ministry's Letter of even no. dt 06.07.2023 - Contract maintenance guidelines for NHs**

Sir,

Kind attention is drawn to the Ministry's letters of even number under ref. (i) vide which Contract maintenance guidelines for **Short Term Maintenance Contract (STMC) or Performance Based Maintenance Contract (PBMC) alongwith SOPs and contract document (PBMC)** was issued. Basic principle for both the system is to have accountable maintenance agency for full contract period with monthly payment linked to the performance standards after initial rectification / rehabilitation.

2. Based on the various feedbacks received from NHAI & other agencies, following clarification is brought out:

(i) Present circular provides that of DBM (strengthening) / replacement of PQC panels is required in more than 10% of area then PBMC should be avoided and rather fresh strengthening proposal be got approved. This was on the assumption that stretches should not be in very bad condition just after DLP. However if it is felt necessary that there is justifiable increase in DBM / replacement of PQC panels from 10%, then the same may also be considered under PBMC with due approval of Competent Authority (Chairman in case of NHAI, MD in case of NHIDCL and DG(RD)&SS in case of works being executed through State Government & BRO)on case to case basis with due justification.

(ii) If there is any difficulty in in-house preparation of estimates under PBMC then such estimates may be got prepared through consultants following the due procedure of procurement and payment may be done from the contingency of any ongoing work in that state.

(iii) In all PBMC contracts, essential Incident Management System be made part and parcel of the estimates and cost towards this may be added in the estimate.

(iv) No item rate contract for maintenance of NHs be allowed without approval of competent authority (Chairman in case of NHAI, MD in case of NHIDCL and DG(RD)&SS in case of works being executed through State Government & BRO).

4. This issues with the approval of the Secretary (RT&H).

Yours faithfully,

(Sanjay Kumar)
Under Secretary to the Government of India
Telephone No. 011-23718816
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Enclosure: As above

Copy to:-

1. All CEs in the Ministry of Road Transport & Highways
2. All ROs of the Ministry of Road Transport & Highways
3. The Secretary General, Indian Roads Congress
4. Technical circular file of S&R (P&B) Section
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6. Sr. PPS to JS (Highways) / AS (NHIDCL, RT & MVL, RS)
7. Sr. PPS to Pr. CCA, MoRT&H
8. Sr. PPS / PPS / PS to ADGs
9. Sr. PPS / PPS / PS to JS (EAP) / JS (Logistics)

No.RW/G-23012/01/2019-W&A(Pt.III)

**Government of India**
**Ministry of Road Transport & Highways**
**(Planning Zone)**
Transport Bhawan, 1, Parliament Street, New Delhi - 110001

Dated the 6th July, 2023.

To

1. The Principal Secretaries/ Secretaries of all States/UTs Public Works Department dealing with National Highways, other centrally sponsored schemes.
2. All Engineers-in-Chief and Chief Engineers of Public Works Departments of States/ UTs dealing with National Highways and other centrally sponsored schemes.
3. The Chairman, National Highways Authority of India, G-5&6, Sector-10, Dwarka, New Delhi-110075.
4. The Managing Director, NHIDCL, PTI Building, New Delhi-110001
5. The Director General (Border Roads), Seema Sadak Bhawan, Ring Road, New Delhi-110010.

**Sub: Contract Maintenance of NHs - Reg.**

**Ref: (i). Ministry's Letter of even no. dt 23.11.2020 - SOP for M&R of NHs**

**(ii). Ministry's Letters of even no. dt 15.01.2021 - Contract Documents for Short & Medium Term maintenance of NHs**

**(iii) Ministry's Letters of even no. dt 13.01.2023 - Standard Operating Procedure (SOP) for Maintenance & Repair (M&R) of NHs**

Sir,

Kind attention is drawn to the Ministry's letters of even number under ref. (i) and (ii) above vide which Standard Operating Procedure (SOP) for PR / IRQP works and OR works for Maintenance & Repair (M&R) of NHs as well as Contract Documents for Short Term (1 year) and Medium Term maintenance (3 years or more) of NHs were issued. Vide letter of even no. under ref. (iii) above, the Ministry also issued PBMC guidelines and withdrew the provisions for medium term maintenance contract issued vide OM under ref. (ii) above.

2. Based on the various feedback received from all sections of the construction industry, It has now been decided that, Maintenance and Repair (M&R) of NHs shall be carried out either under **Short Term Maintenance Contract (STMC) or Performance Based Maintenance Contract (PBMC).** Accordingly it has also been decided that SOP issued vide OM of even no. dated 13.01.2023 stands withdrawn.

3. Accordingly, following broad guidelines / Action Plans may be adopted for taking up effective M&R of NHs stretches through the Short Term maintenance contract and Performance based maintenance contract as applicable:-

(i) **Short Term Maintenance Contract (STMC):** These will be undertaken where DPR has been completed / in advanced stages of completion / not required and development work is planned to be commenced after a year or so with due consideration of the prospective appointed date for such projects; for avoidance of doubt, it is clarified that the duration of commencement shall also include likely period of issuing appointed dates. Contract period shall be generally one year. If development work has been sanctioned and there is delay in giving the appointed date then in such cases also short term maintenance contract may be undertaken however such contracts need to be foreclosed at the time of appointed date. Multiple stretches may be combined under a single contract depending upon geographical proximity and operational convenience so as to have a minimum length of about 25 km or so.

(ii) **Performance Based Maintenance Contract (PBMC):** Such contract will be undertaken on those NHs stretches including newly declared NHs where road condition is generally good and structurally sound and no deficiencies exist and either no further expansion has been planned in next five to seven years or development work is likely to start after 3 to 4 years. Implementation of PBMC shall be generally avoided in cases where the existing pavements are in moderate to severely distressed condition necessitating significant amount of initial rectification works; in all such cases separate contracts for undertaking extensive rehabilitation of distressed sections of roads may be undertaken based on detailed investigation instead of PBMC. All NHs stretches wherein implementation of one renewal layer would by and large suffice traffic worthiness of such sections along with modest initial rehabilitation interventions and where no capacity augmentations are required to be done shall also be covered under Performance based maintenance contract. Such stretches may be either tollable or non-tollable. Such contract will generally include one cycle of renewal layer; renewal layer may be implemented in phases in project length in a staggered timeline; however, entire length under contract shall have to be covered by renewal layer latest within second year of contract period which may be either 5 years, 7 years or more; for contract period of 7 years (and above, if any), two cycles of renewal may be allowed and second cycle shall be implemented before handing over the section at the end of contract period; in all such cases adequate time lag shall be ensured between two cycles of renewal in due consideration of Contractors' obligations under Defects Liability Period (DLP) as per extant policy of the Ministry. Such contract to be done preferably in a length of 50 km. If any single stretch is less than 50 km, then multiple stretches may be clubbed together.

Development plan if necessitated in such stretches may be initiated before expiry of the PBMC and the existing PBMC may be foreclosed at the time of Appointed Date.

For stretches being considered for award of PBMC just after completion of DLP of any development project, it shall be mandatorily ensured that all structures and pavements are in serviceable conditions as per contract provisions. Accordingly all executing agencies and Project Zones of the Ministry / ROs shall ensure that all necessary rectification works (if any) are fully completed under all such projects before completion of DLP of PBMC and taking over of project section.

Stretches requiring significant strengthening or adding new facilities may be avoided under PBMC and a separate contract may be done after proper survey and investigations.

For any avoidance of doubt, If cost of Initial rectification is more than 25% of Periodic maintenance works, or DBM layer is required in excess of the 10% of the project length or Concrete panel replacement requirement is more than 10% then PBMC contract may be avoided and rather other improvement contracts like strengthening may be carried out.

2. It may be ensured that all the NH stretches in a particular State/UT are either covered under development work, DLP or any of the above maintenance contracts. **All maintenance contracts of developed stretches should be initiated well before the closure of the DLP period so that just after DLP, one maintenance contract is ready and the stretch is not left unattended.**

3. All new routine maintenance activities under **OR(N) / FDR (N) are targeted to be discontinued** and all such activities are to be essentially covered under performance based / short term maintenance contracts. All Project Zones and ROs of Roads Wing may accordingly take advance action to develop and finalise the plan for implementation of these maintenance works and such finalised plans duly approved by the Project Chief Engineer need to be sent to the Planning Zone for conveying the appropriate sanction ceiling. For 2023-24, such exercise may be concluded on priority and details may be sent by 15.07.2023. For the Year 2024-25, such exercise may be concluded by 31st January, 2024

4. While preparing the estimates by the field units, it may be ensured that GST may be added in the estimate. Tender may be invited excluding GST and the same may be reimbursed to the contractor based on the actual payment by the contractor.

5. In general, entire contract maintenance requirement shall be prepared well in advance between October to December of the preceding year. Based on the requirement projected by the State Governments/Regional Officers/Project zones, Planning Zone will convey the sanction ceiling for the particular category of maintenance contract based on the approved list by the Project Zone Chief Engineer. Estimates may be got prepared parallelly and submitted to Ministry for approval. Estimates must be accompanied with Maps, bar chart, lane configuration, condition of the road, DLP status, future development plans etc. The entire sanctioning process should be completed by the end of the preceding financial year. Bids for maintenance contracts may be simultaneously invited after the technical approval of the estimates and contracts should be desirably awarded by 15th April so that maintenance interventions of urgent nature can be completed before onset of monsoon and damages during monsoon period are minimized. NHAI, NHIDCL and BRO are requested to define similar timeline for stretches entrusted with them.

6. Executive Agencies (Roads Wing, NHAI, NHIDCL & BRO) to give feedback on regular basis based on experiences gained over next one year or so for further refinement of the document and policy.

7. A detailed SOP has been prepared regarding the **preparation of estimate and implementation of performance based maintenance works** and attached at Annexure-I

8. This issues with the concurrence of Finance Wing vide Note #211 and approval of the Secretary (RT&H).

Enclosure: As above

Yours faithfully,

(A. Maulik)
Executive Engineer (Planning)
planningmorth@gmail.com

Copy to:

1. All CEs in the Ministry of Road Transport & Highways
2. All ROs of the Ministry of Road Transport & Highways
3. The Secretary General, Indian Roads Congress
4. Technical circular file of S&R (P&B) Section
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9. Sr. PPS / PPS / PS to JS (EAP) / JS (Logistics)

Enclosure to Planning Zone letter of even no. dated 06.07.2023

**Sub: SOP for preparation of estimate and implementation of performance based maintenance works.**

**1. Broad framework of Performance Based Maintenance Contracts (PBMC) document.**

Implementation of PBMC shall be generally avoided in cases where the existing pavements are in moderate to severely distressed condition necessitating significant amount of initial rectification works; in all such cases separate contracts for undertaking extensive rehabilitation of distressed sections of roads may be undertaken based on detailed investigation instead of PBMC. The maintenance and repair under PBMC has been categorised in three groups:

(i) Initial rectification (IR)
(ii) Periodic Maintenance (PM) and
(iii) Routine Maintenance (RM)

(a) **Initial rectification works:** Such works shall be undertaken at the initial stage within ___ months of the appointed date of PBMC so as to make the section traffic worthy. Following items may be considered under initial rectification works under PBMC:

(i) For flexible pavement: Repair to bituminous carriage way wherever required to bring the specified service level for the damage for potholes, ruts, cracks, edge cracking etc.
(ii) For rigid pavement: Repair of localized failed areas of PQC, Full depth repair of PQC slab, Sealing of crack/porous concrete, Repair of Joint Grooves, Repair Involving Removal of Old Joint Sealant and Sealing with Fresh Sealant, Repair of transverse joints, Repair of longitudinal cracks through Cross-stitching/Stapling, Repair of honey combed and spalled concrete surface, Improvement of Pavement Surface texture through Diamond Grinding/Grooving etc.
(iii) Repair to shoulders
(iv) Jungle clearance on shoulders, medians and embankment slopes
(v) Repair and cleaning of cross drainage works including culverts and minor bridges and side drains
(vi) Providing mandatory road signs as per the site condition, km stones including minor repair for existing road signs and km stones

(vii) Providing road markings as per the requirement

(viii) Repair and painting of median/curves/railing/parapet

(ix) Missing crash barriers

(x) Repair/replacement of expansion joints if required

(xi) Cleaning and greasing of bearings

(xii) Any other item required to bring the carriage way/structure in serviceable condition

Care has to be taken to keep the quantities under IR to be minimum which may be essential for bringing the carriageway upto service level. No major work like construction of new bridges/converts, flyovers /underpasses, service roads, pavement reconstruction of length more than one km, continuous crash barriers at new locations. Items identified under initial rectification should be such that it must get executed within six months of the start date of the work.

If cost of IR is more than 25% cost of the PM works or DBM requirement is more than 10% of the project length then instead of PBMC, normal strengthening / improvement work may be carried out separately after due survey and investigation.

**Note for IR for PQC works:**

(i) This will generally include repair of cracks, spalls, joint sealed effects corner racks, levelling, potholes, polished surface, faulting in cracks and joints, heal and bump, blow up or buckling, drop off, pumping and ponding. Estimate for such defects may be included in the IR if slab condition becomes poor and very poor with distress rating of 4 and 5 as defined in clause 4.6 and 4.7 of IRC SP 83-2018. However, it may be seen that panel replacement should not be more than 10% of the total panel area of the entire project section.

(ii) If there is requirement of substantial panel replacement (>10%) of the entire project section, then a separate contract other than PBMC may be done specifically suited for cement concrete pavement. Generally rectification of defects with degree of severity ranging from 0 to 3 (degree of severity as defined in Table 4.5 of IRC SP: 83-2018 Table 4.5) are to be considered as scope of routine maintenance itself.

(iii) Distresses with degree of severity of 5 (like wide cracks with spalling and/or scaling) exceeding 50% area and/or faulting exceeding 12 mm or broken slabs exhibiting rocking effect may be considered for slab replacement.

Indicative BOQ for the IR are given in the Para 2.2 part-I of the ROAD MAINTENANCE STANDARDS AND PERFORMANCE MEASURES

(b) **Periodic Maintenance:** PM shall be considered for entire project length. However, phasing of the sections for PM may be planned if required as per site. Works under periodic maintenance shall include following:

(i) Profile correction course with WMM/DBM/BC
(ii) Patch work with DBM/BC as required
(iii) Prime coat /tack coat as per the requirement
(iv) 40mm/50mm BC
(v) Patchwork of shoulders and road markings
(vi) Installation of road sings / studs.
(vii) Wearing coat over Cross drainage works, if required
(viii) Replacement Bearings / expansion joints in structures

**Note:** In case of flexible pavement, provision of DBM should be avoided as far as possible and may be restricted upto 5% of total length.

**PM for PQC works:** In case of cement concrete pavement, an overlay may be considered either as partially bonded overlay or fully bonded overlay subject to fulfilment of overlays requirement as per para 11.6 of IRC: SP:83-2018. Further, if the road condition is such that even after PM works the roughness cannot be brought lower than 2400mm/Km for PQC, then extensive rehabilitation of such roads may be explored based on detailed investigation and project report and such roads should not be taken up under PBMC.

Indicative BOQ for the PM are given in the Para 2.3 part-I of the ROAD MAINTENANCE STANDARDS AND PERFORMANCE MEASURES

(c) **Routine Maintenance (RM):** Under Routine maintenance contractor has to carry out all necessary works to keep the road in appropriate service level condition as defined in the document. This is a fixed lump- sum payment to be made to the contract per month in lieu of the work executed by contractor under RM. For estimation purpose, Rs. 5.13 lakhs per km per year may be considered for two lane with paved shoulders NHs for FY 2023-24 and the same may be escalated for every succeeding financial year based on the methodology given in clause 17 of Contract data of PBMC document. For other carriageway configuration following multiplication factors should be taken into consideration for estimate purposes as under:

| Lane Configuration | | Multiplication factor |
|---|---|---|
| Two lane without shoulder | | 0.9 |
| Single lane | without paved shoulders | 0.56 |
| | paved shoulder | 0.625 |
| Intermediate lane | without paved shoulders | 0.68 |
| | paved shoulder | 0.75 |
| Four lane with divided carriageway | without paved shoulders | 1.53 |
| | paved shoulder | 1.7 |
| Four lane with divided carriageway and service road on either side | without paved shoulders | 2 |
| | paved shoulder | 2.2 |
| Six lane with divided carriageway | without paved shoulders | 2.53 |
| | paved shoulder | 2.7 |
| Six lane with divided carriageway and service road on either side | without paved shoulders | 3 |
| | paved shoulder | 3.2 |

Above indicated cost does not include the payment of electricity charges for Highway lighting works, AMC charges for ATMS facilities. Accordingly the field officers are requested to include costs towards such items separately while getting the estimate sanctioned depending upon the existing facilities. Contractor are supposed to maintain the Highways assets in serviceable condition however electricity charges / AMC charges need to be paid by the Authority.

2. Emergency Works: In the PBMC document provision has also been made for carrying out emergent nature of works required during flood/earthquake etc. for temporary restoration of the traffic. For this a provisional sum with fixed rate has been defined in the document. Quantities may be executed for temporary restoration as per site requirement. Payment to the contractor shall be made as per the actual quantity executed by them as per the rates defined in the contracts. Concerned EEs/PDs/ROs may also add any other item under provisional sums which may be required in their geographical locations and rates may also be provided in the document accordingly.

3. **Preparation of Estimates:** Estimate may be got prepared either by Field Officers (ROs/ PDs / EEs) or through the consultants based on the broad scope of the work as defined above. All field officers are required to do the necessary due diligence while preparing the estimates and suggested to deploy NSV for preparing the cost estimates. In case of rigid pavements, estimate must be got prepared through consultants based on adequate investigations. For such preparation of estimates consultant with team leader-cum senior bridge engineer, pavement specialist and site engineer may be engaged for a short assignment of say about one month period or so.

The rates as available in the latest applicable SOR of NH works issued by state PWD for corresponding circle shall be used. Further for items not available in applicable SOR, rates as provided in SOR of other circle/states may be used. In case rates of some items are not available, rates as discovered in the past tenders or actual market rates may be adopted. However such items may be reported to the Central HQ unit responsible for updating the SOR so that the same may be added in the SOR subsequently.

Due care should be taken so as to plan the procurement timeline to correspond with availability of maximum working season for initial rectification works, after deployment of contractor.

4. **Supervision & Monitoring:** The defects are to be captured on NHAI One Application (TATPAR) which would also be used for monitoring of timelines, generation of penalties and submission of ATRs by the contractor for closing of defects. As on date, NHAI One Application (TATPAR) is functional for NHAI primarily for flexible pavements; NHAI is in the process of suitably upgrading it also for application of rigid pavements; eventually TATPAR shall have to be universally made applicable for all NHs irrespective of the agencies with whom such NHs are entrusted. It would be desirable to engage services of Supervision Consultants for implementation of PBMC with duly assigned roles and responsibilities for reporting of defects and service levels periodically as per requirements of PBMC and also utilizing NHAI One (TATPAR) or any other platform as decided by the Employer/ as per extant policy from time to time.

सत्यमेव जयते

# भारतीय राष्ट्रीय राजमार्ग प्राधिकरण
(सड़क परिवहन और राजमार्ग मंत्रालय, भारत सरकार)
# National Highways Authority of India
(Ministry of Road Transport and Highways, Government of India)
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## NHAI/ Policy Guidelines/Miscellaneous/2022
## Policy Circular No 18.83/2022 dated 01st October, 2022

[Decision taken on File No. NHAI/BOTTollandRMD/2022/Policy (Computer No: 169420)]

**Sub: Standard Operating Procedure (SOP) for taking over the Project Highways completed under BOT/ HAM/ OMT/ TOT/ EPC Mode upon completion of Concession Periods/ DLPs- reg.**

NHAI has been taking over the Project Highways from the Concessionaires/ Contractors under BOT/ HAM/ OMT/ TOT/ EPC Mode on either termination or completion of the Concession Period/ DLP for which stipulated contract provisions are as under:

1.1 **BOT/HAM/ OMT/ TOT Projects:** As per Model Concession Agreement (MCA) vide Article 38 of BOT Projects; Article 32 of HAM Projects; Article 30 of OMT Projects & Article 31 of TOT Projects, the divestment of rights & interest upon termination of Concession Agreement have been prescribed. it is provided that Concessionaire on Termination/ Deemed Completion shall deliver forthwith the actual or constructive possession of the Project Highway, free and clear of all Encumbrances, cure all Project Assets of all defects and deficiencies in compliance of Maintenance Requirements and deliver/ transfer relevant records, Reports, Intellectual Property and other licenses, all applicable permits pertaining to the Project Highway, Complete 'as built' drawings and comply with all requirements as may be prescribed under applicable laws for completing the divestment and assignment of all Rights, Title and Interest of the Concessionaire in the Project Highway free from all encumbrances, absolutely unto the Authority. The Authority shall also issue a Vesting Certificate in the prescribed format.

1.2 **EPC Projects:** In case of EPC Projects, Article 17 of Standard EPC Contract Agreement provides that Contractor is responsible for all defects and deficiencies except usual wear and tear in the Project Highway till the Expiry of the specified Defect Liability Period (DLP) from the date of Completion Certificate for delivery of the actual or constructive possession of the Project, free and clear from all encumbrances. The Project completed on EPC Mode is subsequently taken over only after curing of all defects and deficiencies may be with extended DLP if required.

2. Henceforth, at the stage of transfer/ taking over of the Project Highway on Termination/ Completion of Concession Period or DLP, the following SOP shall be adhered to by all Concerned to ensure that the Project Highway is free of defects and deficiencies. The road should have been maintained during the concession/ DLP period according to prescribed Service Level Agreement viz. maintenance requirements.

2.1 In addition to verification of the project assets, records, 'as built' drawings, applicable permits and other documents by the Independent Engineer/ Authority Engineer at the time of taking over of the Project Highway, a team shall inspect the project highway and submit a report to Member concerned atleast 3 months prior to the likely taking over date. The team shall comprise of a Team Leader selected by Member concerned out of the empaneled list for Quality Inspections of SRD&Q Division; GM(T)/ DGM(T) of Tech. Division at HQ; GM(T)/ DGM(T) of concerned RO; Technical Director of Consultancy Firm acting as IE/AE for the project.

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2.2 The above team shall study various test reports including FWD/NSV test reports, reports of IE/ AE on divestment requirements, safety audit reports, etc. and carryout a detailed inspection of the Project Highway to ensure completion of all works of the Project Highway as per provisions of Contract free from all defects & deficiencies and will submit a comprehensive report to Member concerned duly pointing out the condition of Pavement, Structures, Road Furniture and other Project Assets along with the defects & deficiencies found out during such inspection of the Project Highway.

2.3 In case, as per above report of the team, the condition of the pavement and structures of the Project Highway are not found conforming to the Standards & Specifications/ Maintenance Requirements or certain works as per Contractual Scope are pending, RO/PD shall ensure that the same are either cured by the Concessionaire/ Contractor or executed by NHAI at risk & cost Concessionaire/ Contractor and/ or recovered the resultant costs from the Concessionaire/ Contractor along with damages as per provisions of the Contract, before taking over of the Project Highway.

2.4 The above team shall also examine the report of IE/ AE on all relevant Records, Reports, Intellectual Property and other Licenses, all Applicable Permits pertaining to the Project Highway, complete 'As-built' Drawings and point out in their report whether the same are in order.

3. **Planning of O&M/ Capacity Augmentation/ Tolling Contracts/ Agencies to be in position by taking over date of the project highway by the Authority :** Based on FWD/ NSV test reports & Road Safety Auditor's reports and future plan/ programme of NHAI, IE/ AE concerned shall submit an estimate/ bidding documents atleast 6 months prior to the date of taking over so that PD/RO/Tech. Division at HQ complete the procurement process and keep the agencies ready for O&M/ Capacity Augmentation/ Tolling of the project highway well before the taking over date.

4. The above SOP shall be applicable to all the projects whose taking over date of the project highway by the Authority is pending and the SOP shall be diligently followed without fail from the date of issue of these Policy Guidelines for taking over of the Project Highways from the Concessionaires/ Contractors.

5. This issues with the approval of Competent Authority.

01/10/22

(Sanjay Kumar Patel)
General Manager (Coord.)

To:

All Officers of NHAI HQ/ ROs/ PIUs/ CMUs/ Site Offices

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