



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/ Contract Administration/2024

Policy Circular No. 9.2.40/ 2024 dated 24th May, 2024

{Decision taken on E-Office File No. NHAI/ChecklistPCODCOD/2024/1 (Comp. No. 248421)}

Sub: Guidelines for monitoring of Projects and issuance of Provisional Certificate of Completion (PCC)/Completion Certificate (CC) - reg.

- Ref.: (i) NHAI/Policy Guidelines/Consultancy/2024 Policy Circular No. 10.2.34/.2024 dated 10.01.2024
- (ii) NHAI Policy No. 9.2.22/2018 dated 02.08.2018
- (iii) NHAI Circular No. NHAI/CGM (CMC)/2015/75902 dated 21.12.2015
- (iv) NHAI Circular No. NHAI/CGM (CMC)/2015/36 dated 22.05.2015
- (v) NHAI Circular No. NHAI/CGM (CMC)/2015/1628 dated 24.04.2015
- (vi) MoRTH Circular No. RW/NH-37011/20/2014-PPP dated 20.04.2015
- (vii) NHAI Circular No. 11041/218/2007-Admn dated 18.11.2014

As per provisions of EPC / HAM / BOT Contract, the Contractors / Concessionaires make request for PCC/CC with notice to carry out Tests as per provision of respective contract provisions. The Authority's Engineer (AE) / Independent Engineer (IE) informs Project Director (PD) / Regional Officer (RO) have to witness test being carried out and PD / RO shall appoint representatives to witness the test.

2. The Test on Completion and other compliances are being reported in different formats based by Contractors / Concessionaires and AE / IE. It is observed that, in many cases, AE, NHAI Officials from the PIU/RO are not supervising the work and the tests on completion, which ultimately leads to the erroneous issuance of Provisional Certificate of Completion or Completion Certificate. In order to overcome these problems, a checklist is enclosed for reference (**Annexure-A**). Following shall be ensured:

- (i) AE/IE shall prepare a detailed check list based on check list enclosed at **Annexure-A** & Contract Agreement. The same shall be firmed at the time of kick off meeting (as per Circular cited above at Ref. (i)) in consultation with RO/PD. The check list shall be dynamic and is to be updated from time to time based on the approval of various drawings/design and progress of work.
- (ii) During site visits, RO/PD shall review the check list along with routine test to be conducted at site and laboratory.
- (iii) A meeting and site visit shall be carried out by RO/PD, Three (3) months prior to probable issuance of PCC/CC to assess the preparedness of site for PCC/CC.


Contd...2/-

3. The details mentioned in the checklist may vary from contract to contract and is therefore indicative only. The AE/IE, PD and RO shall refer the individual project agreements and finalize the same.

4. Upon successful compliance of all items of checklist, contractual requirements and successful tests on completion, the PCC/CC shall be issued as per the format mentioned in the Contract Agreement to the Contractor/Concessionaire.

5. This issues with the approval of Competent Authority.

Encl.: As stated above



24/05/24

(CS. Sanjay Kumar Patel)
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.
3. Web Admin for circulation.

Annexure-A

Checklist for Monitoring of Projects and Issuance of Provisional Certificate of Completion (PCC) / Completion Certificate (CC)

A. Highway and Structure Inventory

S. No.	Description	Provisions as per Contract Agreement	As per site	Remarks/ Comments
1.	<p>Carriageway as per Schedule B (For each TCS)</p> <p>a) Main Carriageway width b) Earthen Shoulder width c) Cross Fall of MCW and Shoulder d) Maximum Superelevation e) Tapering of carriageway at changes of width in 1:50 f) Finished Road Level (FRL) as per design; g) Earthen Shoulder top shall be covered with 150 mm Granular Material h) Toe Wall provision</p>			
2.	<p>Grade Separated Structure Approach (For each Structure)</p> <p>a) Width of Carriageway b) Paved Carriageway c) Approach with Free Slope or with RE / RCC Wall d) RCC Crash Barrier e) Metal Beam Crash Barrier f) End treatment of MBCB g) Acceleration / Deceleration Lane length (if exit is provided)</p>			
3.	<p>Design Speed adopted as per Schedule B (For each TCS)</p> <p>a) Minimum Radius provided. b) Speed Limit Section as per Schedule B c) Any deviation of location as per Schedule D</p>			
4.	<p>Median as per Schedule B (For each TCS)</p> <p>a) Width of Median b) Plantation c) Antiglare Measure d) Crash Barrier at Median e) Paving in Median at narrow median f) Tapering of median at changes location 1:50 g) Median drainage at super elevation location</p>			
5.	<p>Development of Junction as per IRC SP: 84 – 2019 / SP: 87 – 2019 (All Junctions)</p> <p>a) Acceleration and Deceleration Lane</p>			

Checklist for Monitoring of Projects and Issuance of PCC/CC

S. No.	Description	Provisions as per Contract Agreement	As per site	Remarks/ Comments
	<ul style="list-style-type: none"> b) Set back distance. c) Cross Road connectivity and pavement condition of crossroad d) Length of cross road on either side of junction e) Signage, Road Marking, Road Studs, channelizing islands and/or ghost islands (if any) f) Lighting Provision if any 			
6.	Type of Pavement and crust thickness as per Schedule B – Flexible / Rigid			
7.	Pavement Thickness as per approved design by AE/IE.			
8.	Sight Distance for hog (summit) curve is as per Schedule B (Check ISD or SSD)			
9.	Sight Distance for sag (valley) curve is as per Schedule B (Check ISD or SSD) during nighttime			
10.	<p>Median opening</p> <ul style="list-style-type: none"> a. Location as per Schedule-B b. Length of Median Opening c. Shelter lane d. Road signage, marking, road studs. e. Blinkers f. Plantations g. Plantation / objects upto 120 m from tip of opening h. Detachable barrier in case of access control i. Parapet on either side along MBCB arrangement in flaring zone 			
11.	<p>Service / Slip Road provided as per location specified in Schedule B (For each TCS)</p> <ul style="list-style-type: none"> a) Width of service road and continuity of service road above structure (Minor Bridge / Major Bridge / Box / Pipe Culvert) b) Entry & Exit from / to or from Main Carriageway with acceleration / deceleration lane as per Manual c) Provision of U – Turn at ROB d) Footpath e) Pedestrian Guard Rail f) Attenuator at gore area of slip road g) Signages 			
12.	<p>Reinforced Earth Wall (RE Wall) locations as per design / Schedule B (For each location)</p> <ul style="list-style-type: none"> a) Height of RE Wall upto top of FRL b) Crash Barrier with Friction Slab above RE Wall c) Bulging of RE Wall d) Cracks in RE Wall Panel e) Protection Beam in RE Wall 			

Checklist for Monitoring of Projects and Issuance of PCC/CC

S. No.	Description	Provisions as per Contract Agreement	As per site	Remarks/ Comments
	<ul style="list-style-type: none"> f) Down-take pipes g) Flushing of end portion h) View Shelter in RE Wall 			
13.	<p>Numbers and type of Culverts / Cross Drainage Structures are as per Schedule B. (Rehabilitation/Widening of existing structure and construction of new structures)</p> <ul style="list-style-type: none"> a) Span arrangement / Vent Size (In case of any variation vis-à-vis Schedule-B; passing on of the savings is done or not to be checked) b) Width of structure shall not be less than width of approach carriageway. c) Crash barrier shall not be obstructing traffic d) Protection work e) Water way cleaning 			
14.	<p>Minor and Major Bridge as per Schedule B / Approved Drawing (Rehabilitation/Widening of existing bridge and construction of new bridge)</p> <ul style="list-style-type: none"> a) Type of Bridge, Span arrangement, length and Skew Angle (In case of any variation vis-à-vis Schedule-B; passing on of the savings is done or not to be checked) b) Width of carriageway c) Footpath d) Settlement in Approach Slab e) Taper at Start and End (1:20 at outer side) of structure. f) Bearing g) Expansion Joint h) Drainage Spout and connectivity to proper drainage system i) RCC Crash Barrier j) Cracks / honeycombing k) Expose reinforcement. l) Wearing coat m) Protection Work at Abutment, Piers as applicable. n) Clearance of Waterway o) Removal of shuttering / staging material at the time of construction p) Lighting on major bridges & approaches 			
15.	<p>Grade Separated Structures (Elevated Corridor/ Flyover / Underpass / LVUP/ SVUP) are provided as per Schedule B</p> <ul style="list-style-type: none"> a) Span arrangement and length b) Vertical Clearance c) Width of carriageway d) Footpath and railing / crash barrier e) Settlement in Approach Slab f) Taper at Start and End (1:20 at outer side) of structure. g) Bearing h) Expansion Joint 			

Checklist for Monitoring of Projects and Issuance of PCC/CC

S. No.	Description	Provisions as per Contract Agreement	As per site	Remarks/ Comments
	<ul style="list-style-type: none"> i) Drainage Spout and connectivity to proper drainage system j) RCC Crash Barrier k) Wearing coat l) Approach lighting (Upto 50m beyond end of entry/exit ramp on NH and 200m on Expressway) m) Lighting underside of structure n) Development of Junction below Structure o) Pedestrian footpath p) Road Signage, Marking, Road Studs q) Removal of shuttering / staging material at the time of construction r) Cracks / honeycombing / other defects if any s) Expose reinforcement. t) Drainage arrangement on the cross-roads of underpass 			
16.	<p>ROB / RUB are provided as per Schedule B</p> <ul style="list-style-type: none"> a) Span arrangement and length b) Vertical Clearance c) Width of carriageway d) Footpath e) Settlement in Approach Slab f) Taper of MCW at Bridge Start and End (1:20 at outer side) g) Bearing h) Expansion Joint i) Drainage Spout and connectivity to proper drainage system j) Crash Barrier k) Wearing coat l) Approach lighting m) Staircase n) Pedestrian footpath o) Road Signage, Marking, Road Studs p) Removal of shuttering / staging material at the time of construction q) Cracks / honeycombing / other defects if any r) Expose reinforcement. s) Railway ROW clearance 			
17.	<p>Toll Plaza construction as per Schedule C</p> <ul style="list-style-type: none"> a) Type of Pavement (start of taper to end of taper) b) Damage/cracked RCC panels (if any) marked in grid along with status; c) Number of Toll Lanes d) Width of regular Toll Lanes and extra width lanes e) Width and length of Toll islands f) Toll Booth, Ventilation, AC in all Toll Booths g) Crash Barrier on both sides h) Attenuator at each lane in front of crash barrier 			

Checklist for Monitoring of Projects and Issuance of PCC/CC

S. No.	Description	Provisions as per Contract Agreement	As per site	Remarks/ Comments
	<ul style="list-style-type: none"> i) TMS System j) Functional of WIM, SWB and integration / calibration k) Approach Lighting and High Mast l) Toilet Facility (size of toilet, No. of urinals) with disposal system (RHS & LHS) m) Drainage system n) Sign board o) Rainwater harvesting p) Toll building furniture/Toll building area/AC's in toll building q) Land scaping r) Line drain s) Fire fighting system along with fire alarm in toll building and toll booths. 			
18.	<p>Truck Laybys construction as per Schedule C</p> <ul style="list-style-type: none"> a) Location and Length of Laybys and tapering with main carriageway b) Pavement Crust c) Rest Area with toilets and waste disposal system d) Drinking water e) Telephone f) Lighting upto 50 m beyond start and end of laybys. g) Sign Board, road marking h) Toilet block (size) 			
19.	<p>Bus bays construction as per Schedule C</p> <ul style="list-style-type: none"> a) Location and Length of Bus bays and tapering with main carriageway b) Pavement Crust c) Footpath from 50m beyond start of taper to end of taper d) Bus shelter with sitting arrangement, ensure useful during all weather, footpath, e) Pedestrian crossing with provision of footpath at median f) Lighting from start of taper to end of taper. g) Sign Board and Road Marking h) Plantation of shady tree i) Drainage system j) Ramps/Railings 			
20.	<p>Street Lighting as per Schedule C</p> <ul style="list-style-type: none"> a) Location of lighting to be checked for <ul style="list-style-type: none"> - built-up - approach of grade separated structure including additional 50 m before and start of approach. - Truck laybys - Bus bays - Toll Plaza - Other locations as specified in Schedule C 			



Checklist for Monitoring of Projects and Issuance of PCC/CC

S. No.	Description	Provisions as per Contract Agreement	As per site	Remarks/ Comments
	<ul style="list-style-type: none"> - At service road b) Lux Level (Shall be checked in night) c) All poles shall be at safe distance and in case of being hazardous to traffic same shall be protected by Metal Beam Crash Barrier along with pole numbering and chainage on poles. d) Standby arrangement such as DG Sets e) Solar Lighting f) Lighting pole shall be painted with black and white strip of 100 mm upto 1.25 m height 			
21.	<p>Metal Beam Crash Barrier (MBCB) Location as per Schedule C.</p> <ul style="list-style-type: none"> a) Location required MBCB. <ul style="list-style-type: none"> - Median - Embankment height more than 3m - At curve location up to 450 m radius - Cut slope. - Roadside obstacles such lighting support, traffic signs, signal support, trees and utility poles - On separators between main carriageway and service road b) Height of MBCB 730±25 mm in case of W Beam and 825±20 mm in case of Thrie Beam c) Thickness of Beam shall be 3 mm and Post/ spacer shall be 5 mm d) Post spacing shall be at 2 m in general e) Offset between W Beam and Road kerb shall not be more than 100 mm. No kerb shall be fixed inline/ before MBCB beam f) End connection with RCC Crash barrier (5 post adjacent to RCC Barrier shall be 600 mm and 5 post thereafter shall be 900 mm) and shall be grouted in concrete. g) Double layer of MBCB in 7.5m length close to concrete crash barrier. h) Flaring of MBCB at approach side and departure side i) One Way hazard marker to be provided at face of W Beam on Approach side j) Splicing shall be towards traffic direction k) fixing of End terminals on start/ end of MBCB <p><i>Note: In case of other type of crash barrier, the check list shall be modified as per the specifications.</i></p>			
22.	<p>Road Signs as provided confirm IRC 67 – 2023</p> <ul style="list-style-type: none"> a) Number of sign as per design / approved signage plan b) Size of signage is as per Design Speed c) Placing of sign board (height and clearance) d) Sign board color (Mandatory, Warning and Information) 			

Checklist for Monitoring of Projects and Issuance of PCC/CC

S. No.	Description	Provisions as per Contract Agreement	As per site	Remarks/ Comments
	<ul style="list-style-type: none"> e) Special Signs: Pedestrian crossing, Gateway signs at entrance of Town / Village, School Ahead, shall having backing board with Fluorescent Yellow color f) Visibility of signs day and night g) Size of letter shall be as per design speed h) Spacing between two successive signboard 0.6 x Design Speed i) Chevron sign shall be placed at outer side of curve and two chevron should be always in view j) QR Code with an indelible ink at back of signboard k) Signboard provided during construction shall be removed l) Foundation of signage shall have more than 2 Sqm area m) All sign boards/gantry shall be galvanized. 			
23.	<p>Hazard Marker</p> <ul style="list-style-type: none"> a) Roadside hazard shall be marked with Hazard Marker b) Slanting Yellow and Black Strip shall be towards carriageway c) Hazard Marker shall be immediately ahead of obstruction 			
24.	<p>Roadside Drainage</p> <ul style="list-style-type: none"> a) Availability of drainage system along highway b) Depth of drainage as per design c) Flow direction d) Connection of roadside drainage with cross drainage / bridge / outfall treatment e) In case of covered drain with footpath, check cover are placed safely and useable for pedestrian as footpath f) Median drain at superelevation location (water from one carriageway to another carriageway should not be allowed) g) Median cross drain 			
25.	<p>Rainwater harvesting</p> <ul style="list-style-type: none"> a) Spacing b) Connection of drainage system 			
26.	<p>Slope Protection</p> <ul style="list-style-type: none"> a) Slope protection type for height less than 3 m, 3 m to 6 m and 6 m above b) Chutes spacing, size and design c) Energy dissipation basin and outfall protection d) Channel Kerb along embankment for heigh of embankment above 3 m 			
27.	<p>Road Marking</p> <ul style="list-style-type: none"> a) Edge Line marking and width b) Lane marking width, spacing c) Arrow marking 			

Checklist for Monitoring of Projects and Issuance of PCC/CC

S. No.	Description	Provisions as per Contract Agreement	As per site	Remarks/ Comments
	d) Road Marking at Median, Junction, Bus Bays, Truck Laybys e) Chevron at gore area. chevron length provided confirming to 100kmph f) Pedestrian crossing marking and continuity at median g) Objects within carriageway shall be painted with 6 strips of yellow and black h) Objects away from paved shoulder shall be painted with 6 strips of black and white band with 45 degrees inclined towards carriageway i) lane balancing markings to be provided j) Raised profile edge line to be provided			
28.	Road Studs a) Studs color along edge line (yellow median side, Red on outer edge), lane marking (white), exit / entry (green unidirectional), Pedestrian crossing b) Studs shall not be over marking c) Unidirectional for divided carriageway along edge and lane marking d) Bi-directional road studs at chevron e) Solar studs at highly hazardous area			
29.	Road Kerb and RCC Crash Barrier a) Location of Kerb & Crash barriers b) painting of road kerb and RCC Crash barrier shall be black and white strip c) yellow continuous painting on hazardous area			
30.	Rest Area / Wayside Amenities a) Boundary wall b) Development of area c) Access Road			
31.	Median Plantation and Avenue Plantation a) Spacing of plantation b) Types of plant c) Geotagging of plants d) Type of soil			
32.	Utility duct and Utility Corridor			
33.	Shifting of Utilities as per Contract provisions			
34.	Highway Patrol			
35.	Crane Service, Capacity of crane			
36.	Ambulance			

Checklist for Monitoring of Projects and Issuance of PCC/CC

S. No.	Description	Provisions as per Contract Agreement	As per site	Remarks/ Comments
37.	Advanced Traffic Management Systems (ATMS)			
38.	Operation and Maintenance Centre			
39.	Boundary Wall / ROW Pillar			
40.	5 th KM / KM / Hecto Stone			
41.	Pedestrian Guard Rail			
42.	First Aid Facility			

B. Test on Completion

Sl. No.	Description	Yes	No	Comment
1.	Comparison of Schedule B & C with respect to what executed at site, and it shall clearly state all work as specified in Schedule B and C has executed and if any deviation same shall be clearly mentioned. RO and PD shall verify statement at site random basis for all types of work.			
2.	Physical Test and Visual Test: Test report submitted by AE / IE along with recommendation letter is to be verified by RO / PD at project road in 1 % and 5 % (As per HAM: Schedule I / EPC: Schedule Q)			
3.	NSV Survey (Riding Quality Test): PD / RO shall ensure representative from PIU / RO office shall mandatorily present during survey and ensure representative from PIU and IE / AE shall physically present during data processing at testing agency office. (As per HAM: Schedule I / EPC: Schedule K)			
4.	Pavement Composition (Test Pit and Core Cutting): RO / PD shall ensure presence of representative at the time if testing. At least two sample of core shall be measured by RO / PD and sample be kept at PIU Office. (As per HAM: Schedule I / EPC: Schedule K)			
5.	Cross Section Test			
6.	Mobile Bridge Investigation Unit (MBIU) (As per HAM: Schedule I / EPC: Schedule K)			
7.	Ultrasonic Pulse Velocity Test (As per HAM: Schedule I / EPC: Schedule K)			
8.	Load test (As per HAM: Schedule I / EPC: Schedule K)			
9.	Rebound Hammer test (As per HAM: Schedule I / EPC: Schedule K)			

Checklist for Monitoring of Projects and Issuance of PCC/CC

Sl. No.	Description	Yes	No	Comment
10.	Retro Reflective Test on Sign Board and Marking (As per HAM: Schedule I / EPC: Schedule K)			
11.	Drone Videography (As per HAM: Schedule I / EPC: Article 11)			
12.	Environmental Audit (As per HAM: Schedule I / EPC: Schedule K)			
13.	Safety Audit (As per HAM: Schedule I / EPC: Schedule K)			
14.	Test Drive (As per HAM: Schedule I / EPC: Schedule Q) (a) Day time (b) Night time			

Note: Test listed above are indicative, AE/IE shall finalize the test required for issuance of PCC/CC as per the specifications/Contract Agreement.

C. Other Documentation

Sl. No.	Description	Yes	No	Comment
1.	Status of COS: RO / PD to ensure all negative COS as well as descoping of items are approved (As per HAM: Article 16 / EPC: Article 13) and BPC has been revised for de-scoped portion, if any (in case of HAM).			
2.	EOT and Milestone: Status of EOT and Milestone with respect to contract requirement (As per HAM: Schedule G / EPC: Schedule J). Decision of LD and recovery, if any, shall be taken before issue of PCC/CC.			
3.	Compliance of conditions stipulated in the environmental, forest, wildlife, CRZ clearance and Railway approval (As per HAM: Schedule E / EPC: Schedule F)			
4.	Compliance of court order (like District/Session Court, High Court, Supreme Court, NGT etc.), if any, related to scope of the project (As per HAM: Schedule E / EPC: Schedule F)			
5.	NCR: All NCR issued during construction are successfully closed or not			
6.	Warranty Certificate of proprietary items such as a) Bearing b) RE Wall c) Expansion Joint d) Cable Strands e) Retro-Reflective Sheeting/Lettering f) Instrumentation, g) RE/RS/Gabion Wall Support System h) Any Other Proprietary Item used in the Project Highway			



Checklist for Monitoring of Projects and Issuance of PCC/CC

Sl. No.	Description	Yes	No	Comment
7.	Bank Guarantee: a. Performance Bank Guarantee b. Additional Performance Bank Guarantee (If any) c. Bank Guarantee provided for releasing amount towards Retention money (if applicable) <i>(As per HAM: Schedule F / EPC: Schedule G)</i>			
8.	Maintenance Manual (As per HAM: Article 17 / EPC: Article 10)			
9.	Status of de-scoped work			
10.	Procurement details of all electrical connections			

Note: AE/IE in consultation with PD/RO shall decide the necessity of above documents before issue of PCC/CC.

