



ABSTRACT

Highways Department – Construction and Maintenance wing – Madurai Circle – Madurai Division – Administrative Sanction to carry out the remedial – measures to Road Over Bridge (Mayor Muthu Bridge) in Km 443/8 – 444/2 of Varanasi – Kanyakumari Road (Abandoned NH-7) (SHU-73) for an amount Rs.11.73 Crore under 18.01 Periodical Maintenance – orders – Issued.

Highways and Minor Ports (HS1) Department

G.O.(Ms) No:23

Dated :04.02.2021

சார்வரி, தை 22, திருவள்ளூர் ஆண்டு 2052

Read :

From the Chief Engineer (Construction and Maintenance) Highways Department, Letter. No.4522(Thittam) 2020, dated.12.06.2020.

ORDER:

The Chief Engineer (Construction and Maintenance) Highways Department in her letter read above has stated that the Mayor Muthu Road Over Bridge is located at Km 443/8 – 444/2 of Varanasi – Kanyakumari Road (Abandoned NH-7) (SHU-73) and this road is the gateway to Madurai city from southern districts. This bridge is the major connectivity between Central Business District (CBD) and southern part of the city. The Road Over Bridge is in damaged condition and the traffic is restricted since 25.12.2019 and a proposal for remedial measures to enhance the life of the bridge is prepared as per the technical report prepared by the IIT, Chennai.

2) The Chief Engineer (Construction and Maintenance) Highways Department has stated that the bridge was constructed in the year 1976. There are 23 spans of 13m length and 2 railway spans of 16m length with 12m wide carriageway without foot path. The sub-structure consists of RCC pillar with RCC tie beams. The sub-structure consists of RCC beams. The bearings are of Elastomeric pad which were installed in the year 2004 by replacing old damaged bearings. Now most of the bearings are damaged due to age factor and requires to be replaced. Because of the reduced functionality of bearing, the pillars are subjected to additional forces. Hence, all the pillars in the vicinity of bearing have suffered damages and bulging seen in some of the pillars. The tie beams are also deteriorated upto exposure of reinforcement roads. The rapid deterioration of bridge structures is leading to the structural deficiency and will become a technical complexity in remedial action.

3) The Chief Engineer (Construction and Maintenance) Highways Department has further stated that the existing expansion joint gap has been filled with stones and other waste particles which partially restrict the bridge deck expansive movement. The existing hand railing is perforated parapet wall. The parapet hand railing has been damaged at several places and rectified by constructing solid brick

wall parapet which subdued the aesthetic appearance of bridge. As per the request made for investigating the condition of bridge on 31.08.2019, a team of engineers from HRS, Chennai visited the site and examined the condition of bridge and observed that the Road Over Bridge is in advance stage of damage and in safety point of view, traffic shall be restricted immediately in terms of speed as well as load and the condition of bridge shall be carefully monitored. Further, the HRS, Chennai has also observed to consult experts like IIT or SERC to workout appropriate option for extensive rehabilitation of partial replacement or reconstruction of bridge. The IIT(M), Chennai structural consultancy services was requested to take up the work of condition assessment of Mayor Muthu Bridge vide the Divisional Engineer(H), Construction and Maintenance Madurai RoC.No.1525/2019/JDO2/ dt.02.01.2020. A team of engineers from IIT(M), Chennai visited the site and carried out site investigation during 07.01.2020 to 13.01.2020. Based on site investigation, Professor Thiru.B.N.Rao, Structural Engineering Division, Department of Civil Engineering, IIT(M), Chennai prepared the report which outlines the details of the site investigation carried out to assess the quality of concrete, the analysis of the data obtained during investigation, the rehabilitation methodology for the distressed RC structural elements. The rehabilitation measures recommended for the bridge includes polymer modified mortar for cracked and reinforcement exposed deck portions, Micro concrete jacketing for distressed RC Cross Beams and RC Tie Beams, replacement of damaged bearings, reconstruction of expansion joints, damaged hand rails, replacement of rain water spouts. The IIT Chennai have recommended for remedial actions of repair, replacement, rehabilitation and strengthening to the sub structure and superstructure immediately in order to restore the functionality of bridge and the remedial measure will enhance the life span of the bridge and serve the public.

4) The Chief Engineer (Construction and Maintenance) Highways Department has therefore requested the orders of Government to accord administrative sanction for an amount of Rs.12.00 Crore to carry out the remedial measures to Road Over Bridge (Mayor Muthu Bridge) in Km 443/8 – 444/2 of Varanasi – Kanyakumari Road (Abandoned NH-7) (SHU-73) to prevent further deterioration of the ROB structure and to ensure safe movement of the public.

5) The Government after careful examination, accept the proposal of the Chief Engineer (Construction and Maintenance), Highways Department and accord administrative sanction for an amount of Rs.11.73 Crores (Rupees Eleven Crore and Seventy Three Lakh only) to carry out remedial measures to Road Over Bridge (Mayor Muthu Bridge) in Km 443/8 – 444/2 of Varanasi – Kanyakumari Road (Abandoned NH-7) (SHU-73) with a condition that the financial commitment should be met within the budget provision available under 18.01 Periodical Maintenance under the relevant head of account.

6) The expenditure sanctioned in para 5 above shall be met from the existing budget provision under the following head of account:-

“3054. Roads and Bridges – 03. State Highways –
337. Road Works – State’s Expenditure – AA. State
Highways – Road Maintenance (Core Segment) –
318.Maintenance – 01.Periodical Maintenance”.
(Old DPC: 3054-03-337-AA-1816)
(IFHRMS DPC: 3054-03-337-AA-31801)

7) The Chief Engineer (Construction and Maintenance), Highways Department is authorized to incur the expenditure sanctioned in para 5 above.

8) This order issues with the concurrence of Finance Department vide its U.O.No.29/DS(SA)/PW-I/2021, dated.04.02.2021.

(By Order of the Governor)

**A.Karthik,
Principal Secretary to Government**

To
The Chief Engineers(Construction and Maintenance), Highways Department,
Chennai-25.
The Accountant General, Chennai-18.
The Pay and Accounts Officer (South), Chennai-35.

Copy to:-

Office of the Hon'ble Chief Minister, Secretariat, Chennai-9.
The Additional Special Personal Assistant to Hon'ble Chief Minister,
Secretariat, Chennai-9.
The Private Secretary to Principal Secretary,
Highways and Minor Ports Department, Chennai-9.
The Personal Assistant to Deputy Secretary to Government
(Schemes), Highways and Minor Ports Department, Chennai-9.
The Finance (PW I/BG I/BG II)(W&M-I) Department, Chennai-9.
The Resident Audit Officer, O/o Principal Accountant General,
(General and Social Sector Audit) Tamil Nadu Secretariat, Chennai-9.

C.No.6041/HS1/2020
SF/SC.

// Forwarded by Order //

K. Sitaashmi
Section Officer 4/2/2021
SRM
04/02/2021