



राज्यीय
महान् प्रबन्धक/इंजीन
पूर्वोत्तर रेलवे, गोरखपुर
OFFICE OF THE GENERAL MANAGER/Engg.
N.E.RAILWAY, GORAKHPUR

No. CE/NER/Track/Circular/2001/275/Pt.II

Dated: 20.02.2001

CE's Circular No. 84 of 2001 (P.Way)

All Sr. DEs/L,
North Eastern Railway,
IZN, LJN, BSB, SEE & SPJ.

Sub: Project Report for Track Renewal Works.

1. Preamble:

There should be a separate detailed project report to cover each sanctioned work of track renewal covering complete track renewals, through sleeper renewals, through rail renewals, deep screening, through bridge timber renewals, through rail ends cropping and welding etc.

2. Details of sanctioned work:

This should cover the name and scope of work. PWP/FWP/Pink Book references, locational details, cost as per Pink Book, allocation of cost to various heads, outlay, Estimate number, Estimated cost & details of sanctioning authority, etc.

3. Existing and Proposed track structure: ✓

Inventory of existing track structure including rails, type and density of sleepers, fittings, ballast quantity/cushion, type/width of formation should be indicated in detail as prescribed in P.Way diagram. (This inventory is to be taken jointly by PWI/OL & PWI/Renewal as per extant instructions.) The classification of released material must be got approved by competent authority so as to take advance appropriate action for disposal of released material. The action plan drawn for stacking / storage and disposal of released material should form a part of report.

4. Methods of execution:

It has to be kept in view that the work has to be executed 'bottom upwards' i.e. the sequence of execution of work will be in the following order :-

Formation → Ballast → Sleepers → Rails.

4.1 Formation :

i) Repair and widening of cess:

With the adoption of concrete sleepers which need more ballast cushion, the minimum required width of formation is now 6.85 metres for single line and 11.58 metres for double line. Project report should therefore indicate clearly the requirement and plan of widening of formation in both bank and cuttings. Provision of pucca drains in cutting should be planned as per existing instructions.

ii) Formation treatment:

In case area covered under CTR needs formation treatment in some stretch(es), details regarding availability of solution, method for execution the formation-treatment and also planning of calling tenders etc. should be highlighted in the Project Report.

4.2 Ballast:

The complete requirement against the track renewal work should be worked out indication mode of procurement and mode of training out/spreading.

4.3 Transportation of Rails & Sleepers:

Mode of transportation of rails and sleepers to site and mode of transportation of release material back to PWI's depot should be included in the Project Report apart from the method of agency of renewal.

4.4 Welding requirement, renewal of turnouts, bridges:

The details of welding requirement, its quantity, mode and agency should be furnished. If renewal of turnouts or bridges is also covered by the estimate, the complete details regarding their mode and agency of renewal should be indicated.

For AT welding, the arrangements made to put certified welders on job should be highlighted indicating whether AT welding would be done department or through contract.

4.5 Use of machines:

The Project Report shall indicate for each activity, the agency whether Contractor or Departmental team and extent of mechanization to be adopted keeping in view the various types of machines available on the Railway and their deployment which shall be decided in consultation with the Headquarters office. In case of track renewal works, it should be mentioned whether the work will be done by deploying

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PQRS or manually. Similarly for renewal of points and crossings, specific mention should be made if the work would be done manually or by using T-28 machine.

For mechanized renewal, the requirement & proposed action for additional traffic facilities (PQRS, Yd. Etc.) should be covered in detail.

4.6 **List of contracts:**

List of contracts required to be finalised for execution of works, should be highlighted.

5.0 **Material planning:**

The material requirement should clearly indicate separately the materials to be arranged by the Headquarter office and by the Division. Details of the materials, rail section & its quality (such as 90 UTS), type of sleepers (PRC, 60/52 Kg), rail to rail and rail to sleeper fittings, material for turnouts & level crossings and material for any other features on the section e.g. SEJs, glued joints etc. should be indicated. Divisions will take advance action for procurement of different type of materials and to fix up agencies for welding work and other activities related to the Project to ensure that all materials and executing agencies are available as and when the same are required. The strategy should be evolved for accountal, stocking and movements of materials/consumables/tools/safety equipment, lighting arrangements etc. should be covered in details with objective of ensuring economy in movement and transit time.

6.0 **Manpower planning:**

Requirement of manpower including the officers, supervisors, artisan staff should be worked out including the grade, number of persons and duration for each group of persons. The manpower requirement should take into account the mechanized working such as use of PQRS and tie tamping machines etc. Proposed Headquarters of different supervisors should also be indicated in the Project Report. The camping and mobilization planned for manpower deployment should be highlighted.

7.0 **LWR/CWR plans & Cushioning plans:**

For welding of track into long welded rails or continuous welded rails. The LWR plans should be included in the project report which should indicate the position of SEJs and critical locations such as level crossing, bridges, sharp curves, points and crossings etc. Similarly for Deep screening works, cushioning plans should be prepared indicating the existing levels & proposed levels. Approval of the competent authority should be obtained well in advance on the plans.

8.0 Requirement of speed restriction, traffic blocks and material train:

8.1 The project report should indicate the requirement of speed restrictions and traffic blocks and the same should be done in consultation with the Operating officers of the Division and should have the approval of the DRM. Effort should be made to plan works in such a way that most of the activities which can be done without traffic blocks, must be completed without traffic blocks.

8.2 Requirement of other wagons for material transportations by DMT should be worked out clearly indicating the requirement of stock(s), period of requirement, availability of power & crew.

8.3 Requirement of captive blocks for other work & their availability vis-à-vis corridor blocks provided in the working time table should be indicated in the Project Report.

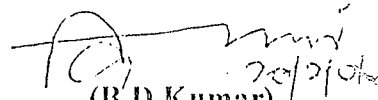
9.0 Bar charts and network analysis:

The list of all activities involved in track renewal work should be prepared. The time estimates for each of the activities should be made based on the previous experience of similar works, local conditions, resource planning etc. These activities should be sequenced and co-related in logical manner and network diagram should be prepared using CPM method. The critical activities should thus be identified. The above details should also be included in the Project Report.

Therefore, after identification of critical path and critical activities, bar charts on time scale should be prepared for use and guidance by the field staff. These bar charts also be included in the Project Report.

10.0 Preparation of Project Report:

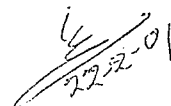
The project report should be prepared soon after the work is approved in track renewal programme. The project report must be thoroughly scrutinized by DEN/Sr.DEN concerned, approved by Sr.DEN-I (Coord.) and then sent to the territorial HOD.


(B.D.Kumar)
Chief Track Engineer

g/c

c.c.:

- Secy. to CE for information of CE.
- CBE, CPDE and CE/TSP&TMC for information.


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