

No. NHIII/P/31/77

Dated the 31st May, 1978

To, All the Chief Engineers and Addl. Chief Engineers
concerned with NHs in the States and Union Territories.

Subject : Survey, investigation, project preparation etc. for National Highway (Road) Works

Brig. Gobindar Singh, Additional Director General (Roads) has in his D.O. letter No. PL-86 (1)/74-NHVI dated the 18th March, 1978, suggested that the survey-cum-investigation etc.

for National Highway (Road) Projects may be to the guidelines given in the Indian Roads Congress Special Publication No. 19 : "Manual for Survey, Investigation and Preparation of Road Projects". After completing the survey and investigations to the above guidelines etc. the next requirement would be of designing, estimating and preparing the project. Those stages in finalisation of a project are also comprehensively covered by various IRC Standards and/or by this Ministry's letters. It is, therefore, requested that the National Highway (Road) Projects, surveyed and investigated to the IRC guidelines (Special Publication No. 19) should further be designed, estimated, prepared and presented taking help of and giving due attention to the IRC Standards and this Ministry's circular letters given in the list enclosed and of any other IRC Standard and Roads Wing's Circular in the knowledge of the State Chief Engineers.

PUBLICATIONS OF THE INDIAN ROADS CONGRESS AND LETTERS OF THE MINISTRY OF SHIPPING & TRANSPORT (ROADS WING) COVERING SURVEY, INVESTIGATION, DESIGNING, ESTIMATING AND PROJECT PREPARATION OF NH ROAD WORKS

A. SURVEY, INVESTIGATION AND PROJECT PREPARATION

IRC Special Publication No. 19 of 1977 : Manual for Survey, Investigation and Preparation of Road Projects

B. DESIGNS AND ESTIMATES

I. IRC Publications :

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| (i) | IRC 73-1980. | Geometric design Standards for Rural Highways (under preparation). |
| (ii) | IRC : 32-1969 | Standards for vertical and Horizontal Clearances of Overhead Electric Power and Telecommunication lines as Related to Roads (in Metric Units). |
| (iii) | IRC : 34-1970 | Recommendations for Road Construction in Water-Logged Areas. |
| (iv) | IRC : 38-1970 | Design Tables for Horizontal Curves for Highways. |
| (v) | IRC : 39-1970 | Standards for Road-Rail Level Crossings. |
| (vi) | IRC : 41-1972 | Type Designs for Check Barriers |
| (vii) | IRC : 54-1974 | Lateral and Vertical Clearances. |
| (viii) | IRC : 52-1973 | Recommendations about the Alignment, Survey and Geometric Design of Hill Roads. |
| (ix) | IRC : 62-1976 | Guidelines for Control of Access on Highways. |
| (x) | IRC : 64-1976 | Tentative Guidelines on Capacity of Roads in Rural Areas. |
| (xi) | IRC : 65-1976 | Recommended Practice for Traffic Rotaries. |
| (xii) | IRC : 66-1976 | Recommended Practice for Sight Distance on Rural Highways. |
| (xiii) | Special Publication :
13-1973 | Guidelines for the Design of Small Bridges & Culverts. |
| (xiv) | IRC : 37-1970 | Guidelines for the Design of Flexible Pavements.
(Since published as IRC : 73-1980) |
| (xv) | IRC : 58-1974 | Guidelines for the Design of Rigid Pavements for Highways |
| (xvi) | IRC : 10-1961 | Recommended Practice for Borrowpits for Road Embankments Constructed by Manual Operation (First Reprint). |
| (xvii) | IRC : 36-1970 | Recommended Practice for the Construction of Earth Embankments for Road Works. |
| (xviii) | IRC : 56-1974 | Recommended Practice for Treatment of Embankment Slopes for Erosion Control. |
| (xix) | Specification for Road and Bridge Works. Ministry of Shipping & Transport (Roads Wing) | |
| (xx) | IRC : 2-1968 : | Route Marker Signs for National Highways. |
| (xxi) | IRC : 8-1969 : | Type Design for Highway Kilometre Stones. |
| (xxii) | IRC : 26-1967 : | Type Designs for 200 Metre Stones. |
| (xxiii) | IRC : 35-1970 : | Code of Practice for Road Markings.
(with paints) |
| (xxiv) | IRC : 67-1977 : | Code of Practice for Road Signs |
| (xxv) | Manual for Landscaping of highways including Arboriculture (under preparation). | |
| (xxvi) | Special publication : 15-1974 Ribbon Development Along Highways and its Prevention. | |
| (xxvii) | IRC : 25-1967 : Type Design for Boundary Stones. | |
| (xxviii) | Road Drainage Practice Around the World Special Publication No. 5-1967. | |
| (xxix) | IRC : 49-1973 : Recommended Practice for the Pulverization of Black Cotton Soils for Lime-Stabilization. | |

*Since revised IRC : 37-1984

(xxx) IRC : 50-1973 : Recommended Design Criteria for the Use of Cement Modified Soil in Road Construction.

(xxxi) IRC : 51-1973 : Recommended Design Criteria for the Use of Soil-Lime Mixes in Road Construction.

CIRCULAR LETTERS OF THE MINISTRY OF SHIPPING AND TRANSPORT (ROADS WING) COVERING SURVEY, INVESTIGATION DESIGNING, ESTIMATING AND PROJECT PREPARATION OF NATIONAL HIGHWAY ROAD WORKS

No. & date of Ministry's circular letter. Subject in brief

A. STANDARDS, DESIGNS AND ESTIMATES :

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| (i) | NHI-37(2)/70 dt. 2.4.70 | Development Plan of National Highways during 1970-77. |
| (ii) | NHI-40(3)/71 dt. 29.1.71 | Siting of bridges and fixing alignment of approaches thereto. |
| (iii) | NHIII/Misc/95/75
dt. 30.10.75 | Providing guard stones on high embankments. |
| (iv) | PL-67(5)/76
dt. 17.5.76 & 31.5.77 | Camber for road surfaces for N Hs in rural locations. |
| (v) | PL-30(147)/74 dt. 26.7.76 | Treatment of cut sections in road formation. |
| (vi) | PL-67(12)/76 dt. 10.9.76 | Fixing grade lines for new roads/existing roads proposed to be raised. |
| (vii) | PL-67(4)/76 dt. 21.3.77 | Fixing top level of guide bunds and immediate approaches to bridges. |
| (viii) | NHIV-50 (20)/77
dt. 27.9.77 | Fixing deck level of Bridges and culverts. |
| (ix) | NHIII/P/35/77
dt. 24.12.77 | Ensuring fluent grade lines at culvert locations. |
| (x) | PL-30(20)/77 dt. 21.2.78 | Gradients for approaches to railway overbridges. |
| (xi) | NHIII/P/30/77
dt. 25.2.78 | Integrated project planning for bridges and their approaches. |
| (xii) | PL-86(41)/72 dt. 13.8.73 | Soil investigations and design procedures for high embankments. |
| (xiii) | NHIII/P/3/76 dt. 26.7.76 | Collections and presentations of soil investigations data for pavement design. |
| (xiv) | PL-50(13)/74 dt. 10.9.74 | Treatment of slipping, sliding and unstable stretches of road formation. |

B. AMENITIES AND ARBORICULTURE

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| (i) | NHIII/P/15/75
dt. 20.5.76 | Plantations, maintenance and cutting of trees. |
| (ii) | PL-30(41)/76
dt. 7.7.76 | Wayside amenities and landscaping etc. |

C. REVISED ESTIMATES, CHECK LISTS ETC

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| (i) | NHIII/P/50/76
dt. 1.7.76 | Check lists for revised estimates for road and bridge works. |
| (ii) | NHIII/P/31/77
dt. 28.10.77 | Preparation of detailed project estimates for road and bridge works-avoidance of revision. |
| (iii) | NHIII/P/31/77
dt. 28.12.77 | Preparation of detailed project estimates for road and bridge works-avoidance of revision. |