

**Report of the
Comptroller and Auditor General of India**

for the year ended 31 March 2016

on

**Performance Audit of
'Contract Management in Road Works'**

**Government of Uttar Pradesh
Report No 04 of the year 2017**

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Preface

This Report containing the observations arising out of Performance Audit on “CONTRACT MANAGEMENT IN ROAD WORKS” has been prepared for submission to the Governor of Uttar Pradesh under Article 151(2) of the Constitution.

The cases mentioned in the Report are among those which came to notice in the course of test audit of records of Public Works Department (PWD), Engineer-in-Chief (PWD) and selected Zones, Circles & divisions under Engineer-in-Chief (PWD). Performance Audit covered the period 2011-12 to 2015-16.

The Audit has been conducted in conformity with the Auditing Standards issued by the Comptroller and Auditor General of India.

Executive Summary

Chapter 1- Introduction

Uttar Pradesh is the most populous State in the country and has made massive investments in road sector in recent years to improve connectivity. Still the State stands at 25th position in road density per lakh population and at ninth place in road density per 100 square km area. The State has 2,03,457 km of various categories of roads such as National Highways, State Highways, Major District Roads, Other District Roads and Village Roads. The road works are executed by Public Works Department through contractors by award of works. During 2011-16, the State government incurred an expenditure of ₹ 40,854.63 crore on construction and maintenance of various types of roads in the State excluding *Pradhan Mantri Gram Sadak Yojana*. About 77 *per cent* funds were utilised on widening/strengthening of existing roads and remaining 23 *per cent* funds were utilised on construction of new roads. The State government in 2007 had introduced a number of reforms in tendering procedures to enhance transparency and competition and check involvement of anti-social elements in tendering process of public works. In view of huge investments made by the State Government on construction of roads during the last five years and significant amount of market borrowings made to finance capital expenditure, it was important to ascertain whether the expenditure had been incurred transparently in a prudent and efficient manner, to achieve the desired objectives of providing effective road connectivity in the State. Audit, therefore, decided to carry out a comprehensive performance audit of the system of tendering and contract management of road works by the department. Audit had also evaluated various stages of tendering/contract management to examine whether the entire tendering process and contract management had been managed in a transparent and efficient manner as per rules.

Audit observed serious irregularities in all the stages of tendering process and contract management. The basic norms for road design and cost estimation were not adhered to. The tendering process lacked transparency and competition. Large numbers of contractors not meeting the minimum technical requirements were qualified in technical evaluation and there were clear indications of collusive bidding in major contracts in most of the districts. Government instructions to check use of construction material from illegal mining were not complied with. Grant of concessions and undue benefits to contractors was rampant and there was complete neglect of the need to ensure road quality and protect government interests.

Major audit findings of the Performance Audit have been included in Chapter-2 to Chapter-11 of the Report as discussed below:

Chapter 2- Framework of Rules

The existing framework of rules and procedures have serious gaps and are not consistent with best practices in important areas such as single bid situations, giving wide publicity to tenders, assessment of bid capacity of contractors, review of performance of contractors, sanction of advances, negotiations with bidders etc. This not only affected Government's interest adversely but allowed exploitation of defective provisions to extend undue favours to private contractors.

(Paragraphs 2.2 and 2.3)

Chapter 3- Road Development Policy and Planning

PWD Research Institute, responsible for road design and quality testing, was not strengthened and it was found seriously lacking in both equipment and manpower.

(Paragraph 3.1.1)

Widening and strengthening of large number of roads was executed without proper need assessment as in 38 *per cent* of test-checked works in 17 districts, proposals for widening were not based on mandatory traffic census reports. Renewal of roads were also not carried out as per laid down policy norms.

(Paragraph 3.1.3)

Policy objective of ensuring environmental protection through extensive plantation along the roads was not achieved. Provision of ₹ 47.87 crore was not made for tree plantations in the estimates of 168 out of 170 works test-checked by audit.

(Paragraph 3.1.5)

Planning in construction of roads was found completely absent. Neither any five years Strategic Plan nor Annual Works Plan was prepared. Roads were selected and approved by government for construction on *ad-hoc* basis, without even indicating the date of completion of work in the sanctions.

(Paragraph 3.2.1)

Chapter 4 - Financial Management and Revision of SoR

An expenditure of ₹ 40,854.63 crore was incurred by the department on construction and maintenance of roads during 2011-16 and amount of ₹ 2,075.92 crore was surrendered.

(Paragraph 4.1)

Government sanctioned road works without any time-line for completion of projects and any definite commitment for release of funds in a specific time schedule. Government failed to release funds timely as per contracted schedule. As a result, 89 *per cent* selected works (out of 98 Contract Bonds) were delayed up to 57 months.

(Paragraphs 4.1.3 and 4.1.2)

Schedule of rates which forms the basis for determination of project cost were prepared irrationally by the Superintending Engineers (SEs), as different Circles of PWD were found adopting different basic rates for same construction materials procured from same quarries.

(Paragraph 4.3.1)

Chapter 5 – Cost Estimation and Sanction of Works

Large scale violations of Indian Road Congress (IRC) specifications and norms were noticed in designing of roads and their construction. In 78 works (88 *per cent*) costing ₹ 2,350.32 crore, soil testing was not carried out, pavement conditions were not assessed and no deflection tests were conducted. Further, in 51 works (81 *per cent*) costing ₹ 970.95 crore, road designs were prepared and widening planned without conducting traffic census in violation of IRC norms.

IRC norms were not adhered to which made the entire process of road design and cost estimation non-transparent with inherent risk of construction of sub-standard roads, incorrect cost estimation, loss to government and undue favour to the contractors. In test-check districts, audit noticed various deficiencies in execution of works.

(Paragraphs 5.1.4, 5.1.2 and 5.2)

Road safety audits were not conducted in any of the 49 road works, test-checked by audit. This implied that government instructions and rules regarding road safety requirements were completely ignored at the time of preparation of road designs and execution of works.

(Paragraph 5.1.8)

Executive Engineers (EEs) exceeded their delegated powers of ₹ 40 lakh per work and accorded technical sanctions to 215 works costing ₹ 217.23 crore in 14 test-checked districts during 2011-16 with cost of each work ranging between ₹ 40.22 lakh to ₹ 4.48 crore.

(Paragraph 5.4)

Chapter 6–Invitation of Tenders

No tender can be issued unless the scope of the work is firmed up and cost of the projects sanctioned by the government by issue of administrative approval/financial sanctions (AA/FS) and technical sanctions. Audit noticed in test-check that in 96 works (56 *per cent*) valuing ₹ 3,071.45 crore, tenders were issued by SEs before administrative approval/financial sanction of works by government.

Similarly, Notice Inviting Tenders (NITs) for 156 works (92 *per cent*) costing ₹ 4,184.74 crore were invited by SEs before (up to 872 days) issue of technical sanction. Further, in 105 works (62 *per cent*) costing ₹ 3,333.61 crore, financial bids were also opened before (up to 823 days) issue of technical sanction. This indicated brazen violation of basic tendering rules by SEs.

(Paragraphs 6.2.1 and 6.2.2)

Eighty one NITs amounting to ₹ 1,655.36 crore were not sent to Director, Information and Public Relations for publication in newspapers by SEs violating Government instructions for publication of tenders.

(Paragraph 6.2.4)

Chapter 7 – Evaluation of Bids and Selection of Contractor

Tendering in road works was largely not competitive and the number of such tenders (one or two bids) increased steeply from 63 *per cent* in 2011-12 to 77 *per cent* in 2015-16.

Despite large number of registered contractors in each district, Audit found that 598 contracts (75 *per cent*) costing ₹ 3,300.79 crore were awarded on the basis of one or two bids only during 2011-16, without resorting to retendering. Receipt of only one or two bids in majority of tenders in a district despite existence of many registered contractors indicates large scale collusive bidding all across the State.

(Paragraph 7.1)

Rules provide that negotiations would be held only in exceptional cases. Audit noticed that out of 331 contracts test-checked (executed by SEs), negotiations were held in 234 contracts costing ₹ 3,886.87 crore (71 *per cent*). This indicated that negotiations had become a rule rather than exception, which vitiates the sanctity of the tendering processes.

(Paragraph 7.2)

In 331 contracts test-checked, audit found that most of the contractors had either not submitted the necessary qualifying documents (such as solvency, character, experience, turnover and/or clearance certificate, bid capacity statement, proof of machinery and technical staff, registration with labour department etc.) or documents submitted by them were deficient. Despite this, they were declared technically qualified and contracts were awarded to them.

(Paragraph 7.3)

Cartel formation/collusive bidding were noticed in large number of cases. In 128 contracts worth ₹ 101.70 crore concluded by SE, Gorakhpur circle during 2011-16, only two bidders participated and quoted same rates in the tenders and even after negotiations. Similarly, in 62 contracts amounting to ₹ 22.41 crore finalised by SE, Basti circle, similar pattern of bidding was noticed and contracts were awarded to both bidders. In 22 contracts valuing ₹ 155.50 crore pertaining to seven districts, the bidders were related as partner(s) of firms.

(Paragraph 7.5)

Chapter 8 - Award of Contracts

As per instructions, tenders should be finalised within 15 days of opening of bids. PWD authorities however, took unduly long time and delays in finalisation of tenders in 461 contracts valuing ₹ 3,017.35 crore ranged from one to 6 months or more.

(Paragraph 8.1)

As government did not indicate time-schedule for completion of works while issuing AA/FS, SEs, at the time of signing contracts, decided project completion time arbitrarily, benefitting certain contractors by allowing excess completion time.

(Paragraph 8.4)

Contractors were to provide insurance cover of ₹ 7,535.78 crore for 2,953 contract bonds. However, insurance cover was not provided by any contractor in test-checked districts except one contractor. Therefore, contractors were benefitted to the tune of approximately ₹ 1.71 crore.

(Paragraph 8.11)

Chapter 9 – Advances, Recoveries and Payments

Test-check revealed that EEs paid ₹ 36.14 crore to 23 contractors during 2011-16 as interest-free secured advance against the material brought to site though, there was no provision of payment of such advance in the tender conditions.

(Paragraph 9.1)

During 2011-16, eleven divisions irregularly paid advance of ₹ 67.10 crore to contractors against 17 contracts on the grounds of collection of material and works done but not measured, though there was no provision in the contracts for making such advance payments.

(Paragraph 9.2)

Equipment advances of ₹ 204.97 crore were paid to contractors during 2011-16 without obtaining any proof of purchase of new equipment and their utilisation by the contractors for the awarded works.

(Paragraph 9.3)

Deduction of ₹ 55.11 crore on account of retention money (at the rate of five *per cent* of the amount due to the contractor), was not made from the bills thus giving undue aid to the contractors.

(Paragraph 9.5)

To check loss of revenue from sale of minor minerals and also control illegal mining, the contractors are required to submit copies of treasury challans to PWD divisions as proof of pre-payment of royalty and purchase of construction materials from authorised quarries. None of the divisions in test-checked districts ensured receipt of copies of treasury challans from contractors in support of royalty payments.

(Paragraph 9.7.1)

Divisions failed to recover penalty of ₹ 28.16 crore in cases of not submitting the MM-11 forms in support of payment of royalty and procurement of materials from authorised sources were not submitted.

(Paragraph 9.7.3)

Chapter 10 – Quality Control, Manpower and MIS

Quality testing in road works was not being carried out in most of the divisions as only one *per cent* of the prescribed samples were collected from construction sites by the divisions and sent to Quality Promotion Cell/Research Institute for testing. Divisions also did not ensure establishment of field laboratories by the contractors for testing at works site. Hence, there was no assurance of quality construction in road works.

PWD Research Institute, Quality Promotion Cell and district labs remained largely idle due to failure in receipt of samples from the divisions for testing.

(Paragraphs 10.1.2, 10.1.4 and 10.1.5)

Test-checked divisions paid bills (₹ 3,031.91 crore) of contractors for all selected works without insisting for submission of quality test-reports ignoring the orders of Engineer-in-Chief and therefore use of substandard material and execution of poor quality work could not be ruled out.

(Paragraph 10.1.7)

The department did not have an efficient MIS. Digitalisation of road information was also not completed. As a result, the system of collection and consolidation of information related to road works was very slow and unreliable which adversely affected functioning of the department.

(Paragraphs 10.4 and 10.7)

Chapter 11 – Contract Variations

Engineering authorities sanctioned time-extensions in 355 works costing ₹ 547.72 crore involving delays of 21 to 1928 days on ineligible grounds without levying liquidated damages of ₹ 52.24 crore which was irregular and amounted to extending undue favours to the contractors.

(Paragraph 11.1.1)

In 105 contracts costing ₹ 35.61 crore, variations ranging from 16 to 2,519 *per cent* of the contracted cost of specific items of works totaling ₹ 20.14 crore were sanctioned irregularly by Chief Engineers/Superintending Engineers beyond the maximum prescribed limit of 15 *per cent*.

(Paragraph 11.2)

Normal items of works such as Wet Mix Macadam, Dense Bituminous Macadam and Bituminous Concrete approved by government were excluded from tendering but subsequently executed by sanctioning extra-items amounting to ₹ 35.66 crore in 92 contracts (valuing ₹ 553.27 crore) during 2011-16. Further, 27 separate complete road works amounting to ₹ 6.53 crore were executed without tendering and payments were made as extra-items under the contracts executed for other works.

(Paragraphs 11.3.1 and 11.3.2)

Chapter-1

Introduction

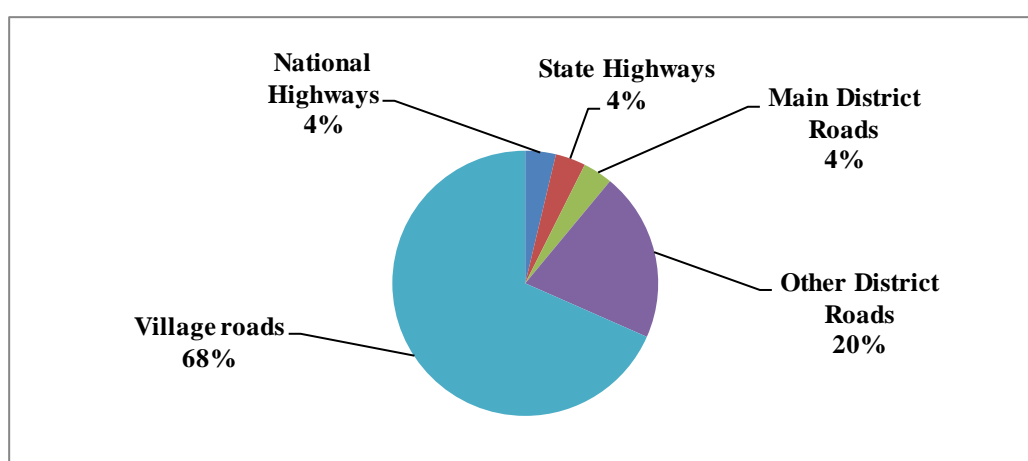
Chapter-1

Introduction

1.1 Background

Uttar Pradesh is the most populous State in the country and has made massive investments in road sector in recent years to improve connectivity. Still the State stands at 25th position in road density per lakh population and at 9th place in road density per 100 square km area. The State had 2,03,457¹ km of various category of roads such as National Highways (NH), State Highways (SH), Major District Roads (MDR), Other District Roads (ODR) and Village Roads (VR) as on 1 April, 2014 as shown in chart-1.1 below:

Chart-1.1: Composition of various types of roads in the State as on 1 April 2014 (percentage length in km.)



(Source: Performance budget 2015-16)

Public Works Department (PWD) is responsible for construction and maintenance of roads, buildings and bridges in the State. The department had established two public sector corporations namely Uttar Pradesh State Bridge Corporation Limited (UPSBC) in 1972 and Uttar Pradesh *Rajkiya Nirman Nigam* Limited (UPRNN) in 1976 for construction and maintenance of major² bridges and buildings respectively. The road works are executed by PWD by award of works to contractors.

1.1.1 Status of roads: The NHs are constructed by the National Highway Authority of India (NHAI) whereas SHs, MDRs, ODRs and VRs are constructed and maintained by the State Public Works Department. Position of existing length of roads under different categories during 2011-14³ was as given in Table-1.1 below:

¹ NH: 7,550 km, SH: 7,486 km, MDR: 7,358 km, ODR: 41,933 km and VR: 1,39,130 km as per Performance Budget of the department for the year 2015-16.

² Bridges of more than 60 metre span.

³ Figures for the years 2014-15 and 2015-16 did not furnish by the E-in-C.

Table 1.1: Cumulative position of different category of roads (2011-14)

(In km)

Sl. No.	Category of road	As on 31 March 2011	As on 31 March 2012	As on 31 March 2013	As on 31 March 2014
1	National Highways ⁴	6,684	6,684	7,550	7,550
2	State Highways ⁵	7,957	7,957	7,703	7,486
3	Main District Roads ⁶	7,548	7,548	7,548	7,358
4	Other District Roads ⁷	33,915	37,373	39,244	41,933
5	Village roads ⁸	1,27,668	1,34,539	1,39,046	1,39,130
	Total	1,83,772	1,94,101	2,01,091	2,03,457

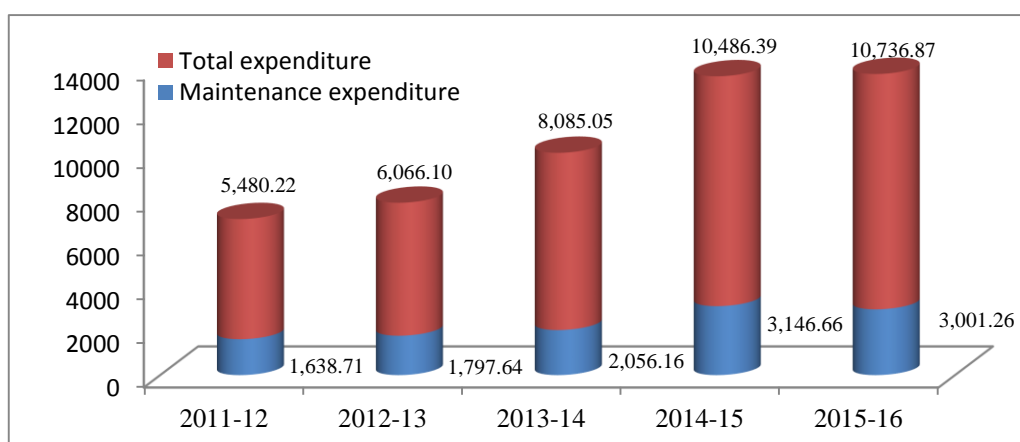
(Source: Performance Budgets furnished by E-in-C)

During 2011-14, 8,018 km of ODRs and 11,462 km of VRs were constructed in the State. There was no net increase in the length of SH and MDR in the State during this period.

1.1.2 Expenditure on road works: During 2011-16, the State government incurred an expenditure of ₹ 40,854.63 crore on construction and maintenance of various types of roads in the State excluding *Pradhan Mantri Gram Sadak Yojana*. This included expenditure of ₹ 11,640.43 crore (28.49 per cent) on maintenance of roads. Position of year-wise total expenditure and expenditure on maintenance works during 2011-16 is depicted in bar chart-1.2 below:

Chart 1.2: Total expenditure and maintenance expenditure (2011-16)

(₹ in crore)



As may be noticed from the above, the capital expenditure rose from ₹ 3,841.51 crore in 2011-12 to ₹ 7,735.61 crore in 2015-16 (101 per cent).

Position of expenditure on construction of new roads and widening/strengthening of existing roads during 2011-16 is given in Table-1.2:

⁴ NHs are main highways running through the length and breadth of the country connecting major ports, foreign highways, State capitals, large industrial and tourist centres, etc.

⁵ These are arterial routes of a State linking district headquarters and important cities within the State and connecting them with national highways or highways of the neighboring State.

⁶ These are important roads within a district serving areas of production and markets, and connecting these with each other or with the main highways.

⁷ These are roads serving rural areas of production and providing them with outlet with market centres, taluka/tehsil headquarters, block development headquarters, or other main roads.

⁸ These are roads connecting villages or group of villages with each other and to the nearest road of a higher category.

Table 1.2: Expenditure on new and existing roads(**₹ in crore**)

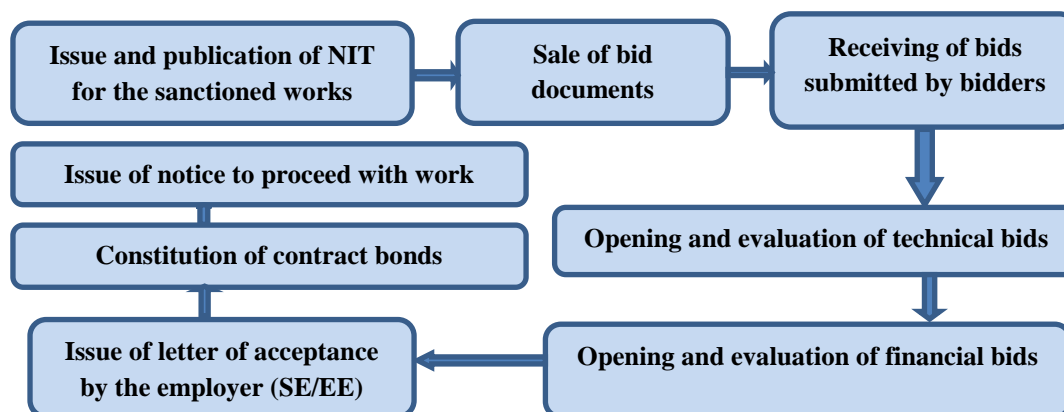
Year	New Roads		Widening/Strengthening	
	Length (km)	Expenditure	Length (km)	Expenditure
2011-12	8,147	1,444	2,234	2,397
2012-13	4,529	798	3,931	3,470
2013-14	4,338	1,760	2,743	4,269
2014-15	2,579	1,938	4,392	5,402
2015-16	1,943	871	7,899	6,865
Total	21,536	6,811	21,199	22,403

(Source: Information furnished by E-in-C)

Out of total capital expenditure of ₹ 29,214 crore, about 77 per cent funds were utilised on widening/strengthening of existing roads and remaining 23 per cent funds were utilised on construction of new roads.

Tendering process: A pictorial presentation of tendering process followed in the State is given below:

Pictorial presentation of tendering process



1.2 Organisational Structure

Principal Secretary, PWD represents the Department at the Government level while the Department is headed by Engineer-in-Chief (E-in-C), Development and Head of Department who is assisted by two Engineer-in-Chiefs⁹, Chief Engineers, Superintending Engineers and Executive Engineers. The Chief Engineers are responsible for the administrative control of the Department in their respective Zones and perform the functions related to according technical sanction to the detailed estimates, finalising contracts, sanctioning time-extension, etc. The Circles, headed by Superintending Engineers, are responsible for preparation and periodic revision of Schedule of Rates (SoR), finalisation of contracts, etc. Circles are further divided into Divisions, headed by Executive Engineers who are directly responsible for execution of works.

Apart from this, the department also has two other E-in-Cs: Design & Planning and Rural Roads. Presently, there are 12 zones, 32 circles and 178 divisions in PWD.

⁹ Engineer-in-Chief, Design & Planning and Engineer-in-Chief, Rural Roads.

1.3 Audit objective

The objectives of performance audit were to ascertain that:

- Planning for road works was comprehensive and sanction of works was based on prescribed technical and financial norms/standards;
- Tendering and contract management was fair, transparent and competitive, and consistent with prevailing best practices in the sector;
- Contract variations and payments were managed efficiently as per provisions of the agreements and financial rules;
- Prescribed quality control norms and timelines were adhered to; and
- There existed a sound management information system for effective planning, monitoring and decision making at all levels in the department.

1.4 Audit criteria

Audit criteria was drawn from Financial Hand Book volume-V, Public Works Account Rules (Financial Hand Book volume-VI), Budget Manual and Treasury Rules, Departmental Rules, Regulations and Manual, PWD Model Bidding Document 2007, PWD Schedule of Rates and IRC's specifications, Government Orders/E-in-C circulars issued from time to time; and best practices followed in Central Public Works Department, National Highways Authority of India, MORTH norms, *Pradhan Mantri Gram Sadak Yojna* and best practices drawn from other States.

1.5 Scope of Audit and methodology

Performance audit was conducted during the period March to July 2016 covering the period from 2011-12 to 2015-16 by scrutiny of records in the offices of the Principal Secretary, PWD, Engineer-in-Chief, PWD and seventeen¹⁰ out of 75 districts in the State. The districts were selected on the basis of Probability Proportionate to Size without Replacement sampling method from four economic regions (Eastern, Western, Central and *Bundelkhand*) of the State. Lucknow was selected being the capital city. On the request of Secretary, PWD, Saharanpur district was also included in the scope of audit.

In these 17 test-checked districts, records of Public Works divisions besides that of circles and zones of test-checked divisions were examined. An entry conference was held (March, 2016) with Secretary, PWD to discuss the audit objectives, criteria, scope and methodology etc. The scope of audit covered construction of new roads and widening & strengthening of existing roads under the jurisdiction of Public Works Department. Works related to maintenance of roads have not been covered in this performance audit.

¹⁰ 1. Agra 2. Basti 3. Budaun 4. Ghazipur 5. Gonda 6. Gorakhpur 7. Hapur 8. Hardoi 9. Jhansi 10. Lucknow 11. Mainpuri 12. Mirzapur 13. Moradabad 14. Saharanpur 15. Sambhal 16. Siddharthnagar 17. Unnao.

Audit methodology included collection and analysis of data/information through examination of records, issuing questionnaires/audit observations, obtaining replies, conducting joint physical inspection of works and gathering other evidence such as photographs of sites, etc. Audit test-checked 802 contracts pertaining to 2011-16 worth ₹ 4,857.60 crore in selected 17 districts.

The Performance Audit Report was issued to the Principal Secretary, PWD, Government of Uttar Pradesh and Principal Secretary, Finance Department, Government of Uttar Pradesh (October 2016). Reply of the Government (June 2017) has been suitably incorporated in the report. In the Exit conference held (June, 2017), the State Government assured to issue instructions to implement the recommendations made by the audit.

1.6 Acknowledgement

Audit wishes to acknowledge the co-operation extended by the Government, Engineer-in-Chief and Chief Engineers, Superintending Engineers & Executive Engineers of the selected districts of Public Works Department at various stages during the conduct of this Performance Audit.

Chapter-2

Framework of Rules

Chapter-2

Framework of Rules

2.1 Existing Framework

A comprehensive and well-defined framework of rules and procedures for tendering and contract management is essential for execution of works in an economic, efficient, effective and transparent manner. The rules and procedures for tendering and execution of works in the State are detailed in Public Works Account Rules (Financial Handbook Vol.VI) and Uttar Pradesh PWD Manual of orders and subsequent instructions issued from time to time.

The department adopted new Model Bidding Documents¹ (MBDs) in January 2007 for tendering of works. The MBDs were adopted to ensure uniformity in terms and conditions, eliminate arbitrariness and check the involvement of unscrupulous elements in tendering process and execution of works. E-tendering system was introduced in the State from August 2014 for contracts costing more than ₹ one crore.

Scrutiny of records revealed serious gaps in the existing rules, MBD and procedures in several areas. In some important areas, such as negotiation with bidders, system of calculation of bidding capacity of contractors, payment of advances, limit for e-tendering, etc., the procedures followed were not consistent with the best practices. This resulted in inconsistent/different actions taken by various divisions on similar issues. The gaps and ambiguities in rules left ample scope for providing undue favours to the contractors, manipulating price negotiations and qualifying ineligible contractors. Audit also noticed improper assessment of bidding capacities, lack of performance monitoring of contractors and absence of adequate deterrence against corrupt practices.

Important deficiencies noticed in the prevailing system are discussed in detail below:

2.2 Gaps in Framework of Rules

During scrutiny of records in test-checked districts, audit observed that on many important issues there were no specific orders of the Government or E-in-C which resulted in varied or deficient decision making by field officers as discussed below:

2.2.1 Disposal of single bids: Financial rules provide for award of contract on competitive basis. National Highways Authority of India (NHAI) mandates re-tendering, in cases of receipt of single bid in an open tender.

¹T1 for works costing upto ₹ 40 lakh, T2 for works costing more than ₹ 40 lakh and T3 for supply of material.

However, in UP PWD, the rules are silent about the manner in which single bid cases (where only one bid is received in an open tender) would be dealt with. It was noticed that no orders or instructions were issued by the Government or the E-in-C to establish a mechanism for disposal of single bids. As a result, the test-checked divisions awarded contracts to single bidders (paragraph 7.1) and did not carry out re-tendering in single bid cases to obtain competitive bids. This was despite the fact that large number of registered contractors existed in each district of the State. Further, Madhya Pradesh Government had ordered (January, 2011) that in case of receipt of single bids, financial bids would not be opened and fresh bids would be invited by the department.

In reply, the State Government stated (June 2017) that financial handbook does not restrict the acceptance of single bid.

Reply is not acceptable as the acceptance of single bid should not be encouraged as per NHAH guidelines. It can be only an exception and not as a general rule.

Recommendation: Department should issue clear guidelines to deal with single tender cases in line with prevailing best practices in road sector.

2.2.2 Publication of NITs in newspapers: The Department issued instructions (May 1999) directing that NITs would be published in newspapers with a minimum circulation of 50,000 copies. Audit observed that the department neither prescribed the minimum number of newspapers in which NITs were to be published nor prescribed the category of newspapers (national/State/regional) in which tenders of various financial value were to be published. This led to many deficiencies as discussed in paragraph 6.3. In this regard, audit noticed that NHAH and Madhya Pradesh Government have made specific provisions for publication of NITs.

The Government stated (June 2017) that the policy is already in place vide GO dated 12 May 1999 and that e-tendering has been adopted for all works with effect from April 2017.

Reply is not correct as the said GO does not prescribe the minimum number of newspapers and the category of newspapers (national/State/regional) in which NITs have to be published.

Recommendation: The department should issue detailed guidelines prescribing the number and the category of newspapers for publication of NITs of different financial value.

2.2.3 Review of performance of contractors: There was no system prevailing in the department for review of the performance of the existing contractors for safeguarding the interest of the Government by debarring or de-registering the persistent defaulters. Online data was also not available in this regard.

Government stated in reply (June 2017) that it proposed to issue administrative order based upon study report previously submitted by Lee International Pvt. Ltd.

2.3 Model Bidding Document

Scrutiny of new Model Bidding Documents² introduced in January 2007 revealed several deficiencies which adversely affected the interest of the Government or execution of works as detailed below:

2.3.1 Payment and recovery of advances: MBD included provision for payment of interest-free Mobilisation advance and Equipment advance to the contractor against submission of an unconditional bank guarantee by the contractor issued by a Commercial bank, for an amount equal to the advance payment.

Contrary to the MBD provisions, Public Works Accounts Rules (Financial Hand book Volume VI) issued by the Finance Department articulates that advances to contractors are as a rule prohibited and every endeavor should be made to maintain a system under which no payment are made except for work actually done. Exceptions for cases are also stated clearly in paragraph 456 and 457 of FHB Volume VI. Under these rules, mainly two types of advances are admissible viz., an advance (secured advance) on the security of materials brought to site and an advance payment for work actually executed. Thus, provisions of MBD issued by the PWD were not consistent with the Public Works Account Rules issued by the Department of Finance. Further, payment of interest-free advance by State PWD under provisions was not in consonance with prevailing best practices. Moreover, MBD provisions did not specify the number of installment for payment of mobilisation and equipment advances.

Out of 170 test-checked works, interest-free mobilisation advance in 74 works of ₹ 155.20 crore and equipment advances in 72 works of ₹ 204.97 crore were given to the contractors by the divisions. Further, these advances were paid in single installment only and were also not in consonance with the guidelines issued by the CVC and practice prevailing in other agencies such as CPWD, NHAI and Government of Bihar which adopted a system of payment of interest bearing mobilisation and equipment advances besides, payment of mobilisation advance in two installments.

Similarly, audit observed that no time limit was fixed in the MBD for recovery of these advances. Due to lack of this provision recoveries from contractors were awaited even after expiry of scheduled completion periods as the progress of works for which advances were granted was very slow. Thus, the department indirectly benefitted the contractors who were free to utilise the amount of advance payments at their will.

E-in-C, accepted (August 2016) that no guidelines were issued for contract management except MBD. Government in reply stated that these provisions

² T1: For works costing below ₹ 40 lakhs, T2: for works costing ₹ 40 lakhs and above and T3: for supply of materials.

were adopted in cases where the agreements were more than ₹100 crores and the matter is under consideration for all agreements less than ₹100 crore also.

Reply is not acceptable as the said “Standard Bidding Document” (SBD) did not contain specific provision in respect of number of installments in which advances would be provided and time limit for recovery of these advances.

Recommendation: Keeping in view the best practices prevailing in other departments/agencies of central and State government, advances paid to the contractors should be made interest bearing and paid in two installments with proper hypothecation in case of equipment advance. The issue of inconsistency between financial rules and model bid documents should be resolved. Further, MBD should include specific provision for fixing time-limit for recovery of these advances.

2.3.2 Assessment of bid capacity of the contractors: MBD prescribed that bid capacity of the contractors would be assessed on the basis of a formula- $A \times N \times M - B$ where A is maximum value of works executed in any one year during the last five years, N is number of years prescribed for completion of works, B is the value, at the current level, of existing commitments and on-going works and M is a constant whose value has been taken as 2.5. This implied that if a contractor had executed a work of maximum value of ₹ 10 crore in a year during last five years, he could be considered for award of work costing ₹ 25 crore for completion in a year.

Audit observed that the State PWD adopted liberal criteria for assessing the bid capacity of the contractors in MBD in comparison to other construction agencies. The bid documents of NHAI, CPWD and Bihar Government included the value of M as 1.5/2.0 in comparison to 2.5 used by UP PWD. Due to adoption of higher value of M in MBD, the bid capacity of the contractors was assessed 40/20 *per cent* higher for award of work and accordingly increased the risk of failure to perform by the contractors.

Further, for assessment of B, i.e., existing commitment and ongoing works of the contractor, the department was relying on the information provided by the contractor himself and did not independently verify the accuracy of claim made by the contractor. This has the risk of awarding large value contracts to contractors who are already overburdened with existing works. Audit noticed that work in progress by the existing contractors were not readily available on the departmental website. Audit also observed that the commitment of the contractors for works done outside the government was also not being assessed.

Thus, liberal assessment of bid capacity paves way for award of work to contractors who might be engaged elsewhere while the risk of failure to honour the contract terms by such contractors are not protected by the department.

The Government stated (June 2017) that adoption of “Standard Bidding Document” shall address the issue up to a large extent.

The reply is not convincing as the SBD does not provide for any mechanism to facilitate verification of the existing commitments of the contractors. In respect of assessment of bid capacity of the contractor, SBD prescribes value of M at 2.0. However, the SBD was adopted only in January 2016 that too for the works costing more than ₹ 100 crore.

Recommendations:

- *Department should put in place an effective mechanism to facilitate verification of the existing commitments of the contractors for proper assessment of their bid capacity; and*
- *The criteria used for evaluation of bid capacity of contractors should be reviewed to ensure that it is not too liberal and is in line with prevailing best practices in the road sector.*

2.3.3 Key equipment required for road works: As per MBD, Appendix to Invitation to bidder contains name and quantity of key equipment required for road works. Audit, however, noticed that though MBD prescribed two categories of key equipment (works costing up to ₹ two crore and costing more than ₹ two crore) and names of the required equipment, the quantity of equipment required was not mentioned in MBD. Audit observed that in the absence of prescription of quantity of equipment in the MBD, EEs/SEs prepared NITs containing different quantities of equipment for same types of works and it was noticed that in some cases even the relevant columns were left blank by SEs indicating that the provisions of MBD were deficient which are discussed in detail in paragraph 6.1.1.

2.3.4 Solvency certificate of contractors: Model Bidding Document prescribed that contractors would submit solvency certificate of required amount in prescribed form (T5) issued by District Magistrates. The form prescribed for solvency certificate envisaged the value of property held by the contractor along with the details of mortgage of the property. However, the certificates furnished by the bidders were accepted without ascertaining the above mandatory conditions. The certificates also did not consider other aspects of debt, liability, status of hypothecation, and cash in bank for correct assessment. Audit also noticed that solvency certificates attached were irregular as discussed in paragraph 7.3.1.4.

It was noticed that provisions of MBD have not been revised since 2007 and all the above mentioned deficiencies are persisting even today (September 2016).

2.4 Solvency limit of contractors

Scrutiny of records revealed that the Government fixed (July 2008) the minimum solvency limit of ₹ 50 lakh, ₹ 40 lakh, ₹ 20 lakh and ₹ five lakh for class A, B, C and D contractors respectively.

Audit observed that despite substantial increase in prices of construction material in recent years, the solvency limit of contractors as per Enlistment of

Contractors Rule, 1982 was not revised since 2008. Audit compared the Whole sale Price Index (WPI) of all items from 2007-08 till 2015-16, and observed that the WPI was 116.63 *per cent* point in 2007-08. It increased to 176.67 *per cent* point in 2015-16 as a result of increase of 60 *per cent* point basis. Further, Audit compared the WPI (construction machinery) from 2007-08 till 2015-16, and observed that the WPI was 117.33 point in 2007-08 and increased to 141.50 point in 2015-16. Thus, even after lapse of eight years, the solvency limit of contractors remains the same which directly affects the interest of the Government, in cases of default by the contractors. Even Lea International, Canada, a consultant engaged for review of existing system in PWD had also recommended (October, 2007) an upward revision of solvency limit to eliminate casual contractors and to reflect the increase in the value of contracts.

Not revising the solvency certificate in line with increase in price compromised the safeguard of government interest. In Roads and Buildings Department of Gujarat, minimum solvency limit for highest category of contractors was ₹ one crore and ₹ 1.5 crore in Maharashtra.

The Government accepted (June 2017) the recommendation and stated that a departmental committee would be formed to give suitable recommendations in this matter.

Recommendation: The Government should form the Committee at the earliest and revise the solvency limit of the contractors appropriately.

2.5 Integrity Pact not included in NITs of big contracts

For promoting integrity, transparency, equity and competitiveness in Government transactions, many departments of Central Government have adopted Integrity Pact in major contracts relating to procurement of goods as well as construction works. Central Vigilance Commission, New Delhi (CVC) also recommended (May 2009) the inclusion of Integrity Pact in big contracts and that the same be stipulated in NIT itself. Under this pact, bidders/contractors commit themselves to take all measures necessary to prevent corruption.

Scrutiny of records in test-checked districts revealed that though PWD had concluded large value contracts for construction of roads up to ₹ 400 crore, the department has not introduced the system of including Integrity Pact in its contracts. NHAI has adopted Integrity Pact for civil works contracts above ₹ 100 crore.

The Government stated (June 2017) that adoption of “Standard Bidding Document” shall address the issue.

The reply is not correct as SBD does not prescribe provision for signing of Integrity Pacts with contractors at the time of executing the agreement.

Recommendation: In view of huge investments being made by the government in road sector, PWD may examine feasibility of introducing the system of signing Integrity Pacts with contractors in major contracts for promoting integrity and transparency in such contracts.

2.6 Lack of system for Road Safety

India with 1, 05,725 fatalities per annum (in the year 2006) accounts for about 10 per cent of total world's road fatalities. As regards number of persons killed due to road accidents, Uttar Pradesh ranks first in India with 16,284 deaths in 2014, out of a total of 26,064 accidents.

As per Indian Road Congress (IRC) provision, Road Safety Audit is a formal procedure for assessing accident potential and safety performance in the provision of new road schemes and schemes for the improvement and maintenance of existing roads. Further, Tata Consultancy Engineers recommended (June, 2002) creation of a Road Safety Cell at the headquarters and district levels for collection and analysis of data relating to road accidents, spotting black spots and removing them, adoption of appropriate road safety measures in the estimates conducting road safety audit before approval of work and before technical sanction, etc. and the Government accepted these recommendations in September 2001.

Audit observed that the department neither created any road safety cell nor established any framework for monitoring the issues of road safety. The test-checked divisions also did not follow the road safety provisions in execution of works as discussed in paragraph 5.1.7 and 5.1.8. Thus, the department lacked an institutional framework for a sensitive issue dealing with the lives of the people of the State.

The Government did not furnish any specific reply.

2.7 Obsolescence of Manual of Orders

Uttar Pradesh PWD Manual of Orders Volume I and II which *inter-alia* contains procedure for preparation of design and estimates, execution of works and preparation of budget and accounts were published in 1933. Large numbers of government orders have been issued by the department from time to time on various aspects of departmental working. Not keeping on track with latest innovations and changing milieu of governance, the PWD Manual of Orders has not been revised and updated for the last more than eight decades. As the existing Manual is very old and most of its provisions have become redundant, there is no consolidated document available at present containing all the government and departmental instructions relating to public works for guidance and uniform application by the divisional officers.

On being asked, E-in-C replied (August 2016) that revision of the existing Manual of Orders was not proposed. The Government stated (June 2017) that revision and updating of Manual of Orders would be done.

Recommendation: The Department should revise and update its Manual of Orders at the earliest to incorporate extant instructions and best practices to improve its efficiency and ensuring transparency in execution of works.

Chapter-3

Road Development Policy and Planning

Chapter-3

Road Development Policy and Planning

3.1 Road Development Policy

The State Government issued Uttar Pradesh Road Development Policy in 1998 enumerating policy objectives and strategies for development of road network in the State. The emphasis of the policy was on construction of village roads, proper maintenance of roads and highways, improving quality of construction and introducing organisational and procedural reforms to ensure connectivity of all the habitations and promote all round development of the State. The policy mainly provided that PWD would be the nodal agency for road works and all funds for road construction would be transferred to it, Research Institute would be strengthened, widening & strengthening would be carried out on the basis of traffic density and existing road condition, computerised data bank of every road would be established and to ensure financial discipline sanctions and funds would be released in the first quarter of the financial year. Audit, however, observed that most of the Road Development Policy directives were not implemented/adhered to during 2011-16. Similarly, planning was absent in the department and it was noticed that individual works were sanctioned without fixing priorities and was done in an *ad-hoc* manner. Further, enlistment of contractors was also noticed deficient and contractors were registered without adhering to prescribed norms/instructions.

It was further noticed that though the performance budgets of the department (2011-16) stated that a revision in the Policy (1998) has been proposed (2010), it was noticed that revision of the policy was pending till date. In view of new emerging techniques in the field of road construction and to cope with current problems in road sector, revision of Road Development Policy, 1998 was essential which was still pending (September 2016).

Audit observed investments worth ₹ 40,854.63 crore by the government during 2011-16 for expansion of road network in the State. However, major objectives of Road Development Policy, 1998 still remain unachieved as discussed below:

In reply, the Government stated (June 2017) that the Road Development Policy is under consideration.

3.1.1 Strengthening of Research Institute: The policy envisaged strengthening of the Research Institute in the PWD and signing of Memorandum of Understanding by the Institute with the Central Road Research Institute, New Delhi to work more effectively and achieve the desired quality in road construction and maintenance. However, it was seen in audit that this was still to be done. Audit further observed that the Research Institute of PWD has not been strengthened and the institute lacked both

equipment and manpower. The institute was also not getting enough samples for testing from the divisions (paragraph 10.1.2). It was also noticed that despite considerable increase in construction of roads in the State, the number of samples received by the Institute substantially declined (paragraph 10.1.4). The public works divisions were not sending samples to the Research Institute for quality testing despite repeated instruction of the Government/E-in-C. Hence, quality of road construction was largely not verified/ensured in the State.

3.1.2 Nodal agency: Policy stated that PWD would be the nodal department for all the works related to roads in the State. Construction of roads would be the responsibility of only PWD and Rural Engineering Department. Road Development Policy also provided that funds available for construction of roads with *Mandi Parishad*, Cane Development Department, District Rural Development Agency and *Zila Panchayats* would be transferred to PWD for which necessary amendment in rules would be made. Further, PWD was to be entrusted with the work of maintenance of all the roads in the State. Audit, however, observed that no such amendment was carried out and these agencies were engaged in construction and maintenance of road works in the State during 2011-16.

3.1.3 Widening and strengthening of roads: The policy stated that widening and strengthening of roads would be undertaken on the basis of traffic density and present condition of roads. This work would be carried out in accordance with the norms. Audit, however, observed that in 38 *per cent* of the test-checked cases in 17 selected districts, the proposals for widening and strengthening of roads were not supported by traffic census reports (paragraph 5.1.2). Hence, widening and strengthening of large number of roads was conducted without proper need assessment.

3.1.4 Organisational and procedural reforms

3.1.4.1 Computerised MIS: Policy stated that a computerised data bank consisting of details of every road, its width, crust thickness, CVPD, PCU, number of road accidents etc. would be created to implement the construction and maintenance works in a planned manner. Further, computerised Management Information System (MIS) would be developed at Division, Circle, Zonal Chief Engineer, E-in-C and at Government level to facilitate development of data bank and help monitor expenditure progress etc. Audit observed that neither the data bank of roads nor MIS at the divisional and higher levels have been developed and implemented as of September 2016.

3.1.4.2 Funds release: Policy stated that with a view to implement the road development policy and ensuring financial discipline, sanctions and funds would be issued in the first quarter of the financial year.

Audit observed that there were considerable delays in release of funds and also rush of expenditure at the end of financial year as discussed in paragraph 4.1.1. Audit further observed that large numbers of projects were delayed and reasons for delay could be attributed mostly to not releasing or delayed

releasing of funds (paragraph 4.1.2). Hence, the procedural reforms envisaged in the policy of 1998 have still not been implemented.

3.1.5 Protection of Environment: Policy envisaged that while taking up new road construction projects particular attention will be paid to environment. It articulated extensive plantation alongside the roads through social forestry. Audit, however, noticed that in 17 test-checked districts no provision was made in estimate for tree plantation along roads despite E-in-C instructions of 2008 to make provision of one *per cent* (of the total cost of the project costing more than ₹ one crore) in the project estimates for such work. Thus, provision of ₹ 47.87 crore for tree plantation was not made in the estimates of 168, out of 170 test-checked works, during 2011-16 as discussed in Paragraph 5.1.6. Audit further observed that E-in-C also did not ensure compliance of the 2008 instructions at the time of approval of estimates.

Thus, the aims and objectives of Uttar Pradesh Road Development Policy, 1998 remained largely unachieved even after 17 years of issue of the policy declaration.

In reply, the Government stated that the proposal is under consideration.

Recommendation: Government should prepare a clear road map to achieve the policy objectives enumerated in its Road Development Policy, 1998.

3.2 Planning

A comprehensive planning for expansion and upgradation of road network is essential for speedy development of road infrastructure and for providing connectivity to all habitations. It stipulates assessment of future requirement of roads in the State keeping in view the growth of traffic and existing status of different categories of roads.

3.2.1 Absence of Planning: For providing adequate road infrastructure in the State especially in rural sector, it was imperative that the department prepares long term, medium and short term plans to achieve the goals of providing connectivity to all habitations as per declared policy of the government. Scrutiny of records revealed the absence of systematic and comprehensive planning for construction of roads under the State plan budget. Neither any long, medium or short term plans were prepared nor any Core Network developed to comprehensively identify road connectivity and upgradation requirements. Works Manual of the Government of Kerala¹ specifically includes provisions of preparing 20 Year Master Plan, 5 Year Plan and Annual Plans for construction of roads. However, in the State of Uttar Pradesh, Audit did not find even Annual Plans for any of the years during 2011-16. Audit observed that the proposals for road construction and upgradation were sanctioned by the Government in an *ad-hoc* manner on a case to case basis. Neither any prioritisation of roads was carried out nor traffic surveys conducted periodically in majority of cases to support project proposals. The

¹ Paragraph 702 of Kerala Public Works Department Manual, 2012.

department also did not have any complete database of roads to facilitate systematic and objective planning. Hence, in the absence of a proper planning process the entire system of submission of proposals by divisional officers and sanction of road works by the government lacked transparency.

3.2.2 Habitation connectivity: Uttar Pradesh Road Development Policy, 1998 mandates that all the villages having a population of more than 1000 would be connected by road by the year 2005 and all villages having population less than 1000 would be connected by link roads by the year 2010. Audit noticed that the department did not prepare plans to achieve the policy objectives envisaged in Road Development Policy, 1998. At the time of declaration of Policy in 1998, 54,228 habitations were unconnected in the State. Despite introduction of *Pradhan Mantri Gram Sadak Yojana* (PMGSY) in December, 2000 and substantial amount of spending by both central and State governments to improve rural connectivity, 40,024 habitations in the State still remain unconnected as of March 2016.

Position of unconnected habitations during 2011-16 was as given in the Table-3.1 below:

Table 3.1: Position of unconnected habitations during 2011-16

Sl. No.	Total number of habitation	Year	Unconnected habitations			Total Unconnected habitations
			500-999	250-499	Zero-249	
1	2,15,097	2011-12	Information not available with E-in-C			
2	2,15,097	2012-13	29	17,815	25,206	43,050
3	2,15,097	2013-14	9	16,804	25,203	42,016
4	2,15,097	2014-15	9	15,814	25,203	41,026
5	2,15,097	2015-16	9	14,812	25,203	40,024

(Source: Information furnished by E-in-C)

Thus, during 2012-16, the department could connect only 3,026 habitations. The rate of providing connectivity was only 1.76 per cent per year during last four years. At this rate, it would take another 50 years to connect the remaining unconnected habitations.

The Government in its reply stated that proposal for preparation of comprehensive Five Year and Annual Plans are under consideration.

Recommendation: *The government should ensure preparation of comprehensive Five Year and Annual Plans for road development to achieve desired objective of providing habitation connectivity, improved maintenance and upgradation of different types of roads and enhance road safety and environmental protection.*

3.2.3 Identification of habitations: The total number of habitations in the State as per the information provided by the E-in-C was 2,15,097 during 2011-16. Audit, however, observed that as per Project Management Information System of *Sarva Shiksha Abhiyan* (SSA), number of total habitations in the State was 2, 27,404; 2, 27,444; 2, 27,952 and 2, 28,894 during 2012-13, 2013-14, 2014-15 and 2015-16 respectively. Thus, there was

a difference of around 12,000 to 13,000 habitations between figures of PWD and SSA. This implied that Department was not totally aware of the number of habitations in the State and if all of these had been connected so far.

E-in-C stated (August 2016) that budget provision was being made according to requirement for current works and lump sum provision was made in the budget for new works. This confirmed that no plans were prepared during 2011-16 by the department.

3.3 Enlistment of contractors

For participating in bidding process in PWD, it is essential that the contractor is registered with the department. Registration of contractors in the State is governed by UP Classification and Enlistment of Contractors Rule, 1982 (Rule). Contractors in the State are registered under five categories-‘A’, ‘B’, ‘C’, ‘D’ and ‘E’ on the basis of tender limit.

For registration, contractors are required to apply to the concerned officers and have to furnish valid solvency and character certificate issued by District Magistrate and experience certificate issued by Executive Engineer and affidavit regarding proof of possession of required plant and machinery along with their application. Further, as per check-list issued by Chief Engineer (Headquarter-2), solvency certificate, character certificate, general security, experience certificate should be verified from the issuing authority. In addition, it should be ensured that the property mentioned in solvency certificate is free from mortgage and no dues certificate from trade tax department is enclosed.

Scrutiny of 328 registration cases pertaining to 2011-16 in E-in-C/CE/SE offices and test-checked districts revealed that authorities registered contractors without adhering to the norms/check-list (*Appendix 3.1*) prescribed by the Government/department as discussed below:

- In 174 cases, security furnished by contractors was not verified from issuing authorities while in four cases, securities were not pledged in favour of concerned authorities. In two cases, short securities were accepted by the registering authorities.
- Verification of 185 solvency certificates furnished by contractors were not ensured by registering authorities while nine verification certificates relating to solvency certificates had no seal of the office of district magistrates.
- Similarly, verification of 162 character certificates furnished by contractors were not ensured by registering authorities while four verification certificates relating to character certificates had no seal of the office of district magistrates.
- Experience certificates were not furnished by 225 contractors while verification of 16 experience certificates was not carried out. Further, 10 contractors submitted experience certificates of other contractors and

experience certificates of last five years were not furnished by three contractors.

- Balance sheets were not submitted by 17 contractors along with application forms.
- Twenty one contractors did not furnish required PAN cards while six firms did not submit PAN cards in the name of the firm.
- Similarly, 25 contractors did not furnish clearance certificates from trade tax department while in 20 cases, contractors did not submit TIN.
- In cases of firms, eight contractors did not submit power of attorney while three contractors did not provide partnership deeds.
- CEs failed to forward four cases of registration of contractors to E-in-C within stipulated one month's time.

Thus, the registering authorities in test-checked districts did not ensure adherence with prescribed norms and check-list issued by the E-in-C which could result in registration of ineligible contractors.

Solvency certificate in case of firms: Inspector General, Registration ordered (February 2003) that property of partners cannot be treated as the property of the firm unless that property has been transferred in the name of the firm. Similarly, Officer on Special duty, Office of Commissioner and Secretary, Revenue Board also instructed (July 2012)² that property of partner would be treated as the property of the firm only when a legal bond is registered in favour of the firm by the partner. In view of the above facts, E-in-C (Project/Planning) ordered (June 2013) to ensure, before registration of partnership firms, that the solvency certificate enclosed by the firm is in the name of the firm and if the solvency certificate is not in the name of the firm, such firm should not be registered. If such registrations have been done in the past, it should be ensured during opening of bids that the solvency certificate is in the name of the firm. If the solvency certificate is in the name of the partner of the firm, his bid should not be accepted. However, this order was cancelled (July 2013) by E-in-C (Project/Planning) with retrospective effect from June 2013 without giving any reason.

Audit observed that, out of 166 test-checked contract bonds executed with the firms costing ₹ 3517.48 crore, only six firms³ furnished solvency certificates in the name of the firm for 20 contract bonds costing ₹ 497.05 crore during 2011-16. Thus, only six firms submitted solvency certificates in the name of the firms.

² Number: 664/4-77A/2012 dated 25.07.2012.

³ RCC Developers Ltd, Meerut; S & P Infrastructure Developers Pvt Ltd, New Delhi; M/s A K Chhabra Constructions Pvt Ltd, New Delhi, M/s Sobti Infratech Ltd., M/s GS Express Pvt. Ltd. and M/S Valecha Engineering Ltd, Mumbai.

Further, during scrutiny of records in PD, Gonda, it was observed that a contractor⁴ furnished a solvency certificate issued (December 2014) by DM, Bahraich which specifically stated that the certificate was issued with reference to the order of Revenue Board dated July 25, 2012 on the basis of individual solvency and was not permissible for calculation of the solvency of the firm. This clearly indicated that the order of the Revenue Board, mentioned in the beginning of the paragraph, was still effective. In view of this, order of E-in-C regarding cancellation of previous order, was not proper and was against the interest of the department/Government.

The Government stated that committee would be formed to give suitable recommendations in this respect.

Recommendation: Keeping in view the instructions of Inspector General, Registration and Revenue Board, the Government should issue specific guidelines for submission of proper solvency certificates by firms to safeguard the interest of the department.

3.4 Lack of database of contractors

The road works in the State are being executed through contractors and issues of solvency of contractors, availability of required technical staff and plant and machinery, experience of works executed in last five years, etc. are assessed during technical evaluation. It is imperative that a database of contractors is maintained at the State level to verify the correctness of various certificates furnished by the contractors.

Audit, however, noticed that no such database was maintained during 2011-16 which resulted in wrong calculation of bid capacity, same technical staff found executing works for many contractors, contractors furnishing documents of machinery pertaining to other contractors, etc. as discussed in paragraph 7.3.1.

In reply, the Government stated that process to evolve a system of online registration is in process. Government also stated that complete online database would be subsequently prepared.

Recommendation: Complete database of registered contractors including registration status of firms, partnership deed, solvency limit, and character certificates, detail of available equipment & technical staff, balance sheets, works executed, etc. should be maintained by the department.

⁴ Sri Nazmul Hasan, S/O Sri Safaqt Ali, Bahraich.

Chapter-4

Financial Management and Revision of SoR

Chapter-4

Financial Management and Revision of SoR

Financial Management involves efficient and effective use of financial resources to achieve the objectives of the organisation. In the context of a Public Works organisation dealing with construction of roads, it involves ensuring timely availability of funds to fulfill contractual commitments, optimising cost, allocating resources in a fair and transparent manner and ensuring utilisation of funds and proper record keeping. Audit observed that lack of adequate planning as discussed in Chapter-3, had adverse implications on financial management resulting in delayed release of funds and consequential time over run in most of the road projects as discussed in the following paragraphs:

4.1 Budget provision and expenditure

During 2011-16, expenditure of ₹ 40,854.63 crore (Capital expenditure: ₹ 29,214.20 crore and Revenue Expenditure: ₹ 11,640.43 crore) was incurred by PWD on construction and maintenance of roads (excluding PMGSY). Position of budget allocation and expenditure during this period is given in Table 4.1 below:

Table 4.1: Position of budget provision, expenditure and surrender

(₹ in crore)

Sl. No.	Year	Budget provision	Release	Expenditure	Surrender
1	2011-12	6,403.88	5,480.22	5,480.22	923.66
2	2012-13	6,148.78	6,066.10	6,066.10	82.68
3	2013-14	8,190.56	8,085.05	8,085.05	105.51
4	2014-15	11,267.69	10,486.39	10,486.39	781.30
5	2015-16	10,919.64	10,736.87	10,736.87	182.77
Total		42,930.55	40,854.63	40,854.63	2,075.92

(Source: Information furnished by E-in-C)

The department could not utilise ₹ 2,075.92 crore (4.84 per cent) out of allocated budget of ₹ 42,930.55 crore during 2011-16. The short utilisation was on account of less release of funds.

4.1.1 Late issue of Cash Credit Limits¹: As a part of financial control, the State Government follows the system of Cash Credit Limits (CCL) for PWD under which the finance department issues CCL on the request of head of the department. Finance Controller should issue CCL directly to the divisions in the first week of every quarter of the year in the ratio of 35, 15, 35 and 15 per cent respectively.

¹ Authorisation letter sent by Finance Controller to the divisions and the Treasury Officer who sends it to the bank for honouring the cheques issued by the divisions.

Scrutiny of records in test-checked divisions revealed that the instruction of the Government was not being followed as 22, 20, 28 and 30 *per cent* CCL was issued in first, second, third and fourth quarters during 2011-16 against the prescribed norm of 35, 15, 35 and 15 *per cent* respectively.

Late release of CCL adversely impacted execution of works. It also impacted the accuracy of public works accounts as the divisions diverted funds to avoid surrender of money and resorted to irregular accounting practices. Audit noticed that in 17 divisions, advance payment amounting to ₹ 179.83 crore (*Appendix 4.1*) was made to Indian Oil Corporation (IOC), Mathura during 2011-16 for supply of bitumen and expenditure was irregularly charged directly to the works. As per financial rule², advance payments made to IOC should be first debited to miscellaneous advance head and when bitumen is issued from the store to the work, expenditure should be charged to the work. Thus, expenditure was booked against these works irregularly without constitution of contract bonds with a view to utilise the CCL.

In reply, the divisions accepted (June 2016) that due to late receipt of CCL, it was not possible to utilise the funds on the works concerned and therefore the expenditure was directly debited to works by making payment to IOC instead of following the prescribed accounting procedure.

This indicated poor financial management in the government as PWD failed to provide funds timely to the executing authorities as per approval accorded by the legislature and in accordance with broad norms laid down for release of CCL.

Case study 4.1

Widening of Bilgram-Unnao-Allahabad road was sanctioned for ₹11.91 crore on 30 March 2016 and a sum of ₹3.57 crore was released by the Government. Audit noticed that the fund was released only one day before the closing of the financial year and as such it was not feasible to finalise the contract bond. The Executive Engineer, CD-1, Unnao diverted ₹ 3.57 crore received for widening of Bilgram-Unnao-Allahabad road to make payment for another work on 31 March 2016 and booked the expenditure in accounts against widening of Bilgram-Unnao-Allahabad road. Thus, the late release of funds not only resulted in diversion of funds but also led to inaccurate accounting through wrong booking of expenditure.

4.1.2 Delayed release of funds: Test-check of records revealed that funds for road works were not released timely by the department during 2011-16. In 106 test-checked works (110 contract bonds) in selected districts sanctioned during 2011-14 by the Government, there were delays in release of fund by one to five years. This adversely affected the pace of execution of works and resulted in delay of up to 57 months in completion of 98 contract bonds (89 *per cent*). The position of delay is given in the Table 4.2 below:

² Paragraph 567 of FHB Vol VI.

Table 4.2: Position of delay in completion of works

Sl. No.	No. of contract bonds	Cost of contract bonds (₹ in crore)	Delay in completion (in months)
1	17	226.27	Upto 6 months
2	28	689.29	6 to 12 months
3	32	813.89	12 to 24 months
4	21	403.63	24 to 57 months

Further, out of the test-checked 106 works, NITs for 59 works were published before AA/FS (ranging up to 565 days) while in case of 95 works, NITs were published before TS (ranging up to 872 days) for stated speedy execution of works. Despite such advance action taken to tender out the works much before the administrative approvals/technical sanctions (in violation of rules) on the grounds of urgency, audit noticed that the professed urgency was not shown at the time of release of funds.

The problem of delayed release of funds was primarily on account of deficient planning and improper sanction procedures as discussed below:

4.1.3 Deficiency in government sanction: Audit examined the issue and noticed following serious deficiencies in the entire system of planning, sanction of works and release of funds by the government.

- The government sanctions never mentioned the time-schedules for completion of works.
- The sanctions also did not indicate the proposed fund flow matching with the project completion schedule.

In the absence of any time-schedule approved by the government for the specific works, engineering authorities decided project completion schedule after issue of government sanction, at the time of award of work. The divisional/circle authorities never took government approval for the time-schedule for completion of works and adopted *ad-hoc* and arbitrary approach in deciding the time-schedule for completion as discussed in paragraph 8.4.

The above practice adopted by the government was deficient as it neither provided timelines for completion of projects nor gave any definite commitment for release of funds as per a specified time-schedule.

4.1.4 Deficiency in planning: Audit observed that the above problem of poor financial management arose mainly on account of poor planning and deficient project management. As already discussed in the paragraph 3.2.1, long term as well as annual planning was absent in PWD.

Audit observed that the State government prepared annual works plan in majority of the schemes such as PMGSY, NRHM, RTE etc., clearly specifying the total number of projects (new and ongoing) to be executed during the year and approving estimated amount of funds required. The execution of works during the year was made as per the approved Annual Action Plan. In contrary, no Annual Works Plan was prepared by the PWD for

construction of roads and works were sanctioned in an *ad-hoc* manner on case to case basis, based on proposals submitted by the divisions. As a result, the cost of projects sanctioned was much more than the annual financing capacity (budget) of the department. This resulted in delay in release of funds much beyond the contracted time-schedule for completion as shown in the Table-4.3 below:

Table 4.3: Position of schedule completion period and fund release

Sl. No.	Number of CBs	Schedule completion period (in months)	Fund release period (in months)
1	27	Up to six months	12 to 60
2	50	7 to 12	12 to 60
3	25	13 to 18	12 to 60
4	08	19 to 26	24 to 72

In reply, the Government stated (June 2017) that the issues have been noted and steps would be taken up for proper implementation.

Recommendations:

- **Government must introduce a system of preparation of annual works plan to ensure systematic selection of projects based on clearly laid down priorities and provision of adequate funds for their timely completion;**
- **The works proposals should be prepared and sanctioned as per the approved annual work plan; and**
- **Rush of expenditure towards the end of financial year should be avoided by releasing CCL timely.**

Case study 4.2

Scrutiny of records (June 2016) of Executive Engineer, Provincial Division, Gorakhpur revealed that the administrative approval and financial sanction for widening and strengthening of Gorakhpur-Khajni-Sikariganj was accorded by the Government (October 2011) for ₹23 crore. CE, Gorakhpur zone accorded technical sanction for the same amount in December 2011. SE, Gorakhpur Circle entered into a contract³ for ₹ 17.65 crore with M/s Kandarp Construction, Lucknow at 18 per cent below the departmental rates.

It was observed that due to delay in allotment of fund, the contractor refused to execute the work. As such, the contract was terminated and the contractor was paid (November 2015) ₹ 12.73 crore for work executed for the cost of ₹ 15.52 crore. Further, for completion of left over work of ₹ 4.92 crore⁴, a contract bond (71/SE/15-16) amounting to ₹ 6.61 crore was executed with M/s Prabha Construction company, Gorakhpur at 0.50 per cent below the departmental rates.

³ 106/SE/2011-12.

⁴ ₹ 17.65 crore - ₹ 12.73 crore = ₹ 4.92 crore.

Thus, the department had to incur excess expenditure of ₹ 1.69 crore to complete the left over work due to delay in allotment of fund by the Government. The work was still in progress even after more than five years of sanction.

In reply, EE accepted (June 2016) that due to delay in allotment of fund, contractor refused to execute work.

4.2 Deduction of labour welfare cess

For regulating the conditions of service, particularly health and safety, and providing the benefits of welfares scheme for Building and other construction workers of the unorganised sector, the Government of India (GoI) enacted the Building and other construction workers (Regulation of employment and conditions of service) Act, 1996. Pursuant to the Act, the Government of Uttar Pradesh (GoUP) framed U.P. Building and other construction workers (Regulation of employment and conditions of service) Rules, 2009. The rules provide⁵ for deduction of labour cess by employer at the rate of one *per cent* of the total cost of works from the bills of the contractor. Engineer-in-Chief directed (April 2010) all the divisions to ensure deduction of labour cess accordingly.

Scrutiny revealed that the system of deduction of cess was not uniform and varied from district to district and division to division and also from contract to contract within the division as discussed below:

- In 66 cases under 17 test checked divisions, labour cess amounting to ₹ 10.24 crore was deducted from the bills of the contractors and labour cess was borne by the contractors. However, in another 33 cases under 10 divisions, one *per cent* amount on account of labour cess was firstly added to the total amount payable to the contractors and then the same or lower amount was deducted from the bills as labour cess. Thus, in these cases, labour cess amounting to ₹ 5.22 crore was paid by the Government instead of the contractors. This was irregular, as the bidders were asked to quote all-inclusive⁶ rate in their bid at the time of tendering.

- In 77 cases involving 20 divisions, labour cess amounting to ₹ 14.90 crore was not deducted from the bills but was directly transferred by the divisions to the Welfare Board from the allotment received for the works. As the contracts concluded were all inclusive, payment of labour cess by the divisions led to overpayment of ₹ 14.90 crore to the contractors which need to be recovered (**Appendix 4.2**).

In reply, the Government accepted the recommendation and stated that notification in this regard is loud and clear which shall be re-circulated to the field.

⁵ Rule 4 (3) of the U.P. Building and other construction workers Welfare Cess Rules, 2009.

⁶ Para 41.1 of General Condition of Contract of Model Bidding Document.

Recommendation: *The Government should issue instructions immediately to all the divisions that labour cess should be deducted from the contractors' bills but the burden of paying labour cess should be borne by the contractors in all-inclusive contracts.*

4.3 Revision of Schedule of Rates

Schedule of Rates (SoR) is a basic document which provides rates of different material and items of works for construction of roads and buildings, for preparation of estimates. SoRs of PWD are also used by other departments in preparation of estimates. Superintending Engineers are responsible for regular revision of SoRs pertaining to their circle. Government ordered (January 2013) that SEs would revise SoRs every six month. There are 32 SoRs⁷ prevalent in State PWD under 32 circles in the State.

Audit examined the system of preparation of SoRs in circles and compared rates of various items of material adopted in SoRs by SEs for their circles and observed serious deficiencies and irregularities which are discussed below:

4.3.1 Variation in SoR rates: The SoRs prescribed quarry rates of various construction materials in respect of different approved quarries located within the State and also in the neighbouring States from where the construction material is procured by the contractors for construction of roads. The quarry rates of construction material in respect of specific quarries should be same for all the circles. Audit observed variations in rates of construction material adopted by different circles for the same quarries as indicated in Table 4.4 below:

**Table 4.4: Detail of rate of quarry material in the SoRs of
Agra and Mainpuri circles**

Name of Quarry	Crushed stone ballast	2011-12		2014-15		2015-16	
		Agra circle	Mainpuri circle	Agra circle	Mainpuri circle	Agra circle	Mainpuri circle
		Rate (In ₹)					
Khera Thakur	45-63 mm	500	415	-	-	-	-
	22.4-53 mm	600	500	-	-	-	-
	2.36 mm and below	400	320	-	-	-	-
	45-90 mm	-	-	525	400	-	-
Ghatri	45-63 mm	-	-	600	500	625	600
	22.4-53 mm	-	-	700	600	725	700
	40 mm	-	-	850	750	875	850
	2.36 mm and below	-	-	600	500	625	600

Audit further noticed that rate of crushed stone ballast (45-90 mm gauge) of Haridwar quarry was fixed ₹ 559 per cum by SE, Bulandshahr which was inclusive of loading and unloading charges while rate of this item for the same

⁷ There are 32 SEs for civil divisions in the State.

quarry was fixed at ₹ 650 per cum by SE, Moradabad excluding loading and unloading charges in the SoR as given in **Appendix 4.3**.

The variations in quarry rates in SoRs of different Circles implied that undue favour was given to the contractors by adopting inflated query rates by Agra Circle in comparison to Mainpuri Circle. Further, it also puts a question mark on the system of preparation of SoRs by the circles and the need to maintain 32 SoRs in the State when the quarry rates in respect of specific items from specific quarries have to be necessarily the same.

4.3.2 Lack of transparency: Test-check of records of Superintending Engineers⁸ revealed that though the Committees formed for revision of SoRs did revise the SoRs regularly, they did not maintain any documentation to justify increase in the rates of various items. In none of the circles, documents relating to obtaining rates from quarries were furnished to audit. Thus, the process of revising SoRs by SEs lacked transparency.

4.3.3 Multiple SoRs without government approval: Audit also observed that in Uttar Pradesh, though SoR revision had huge financial implications in terms of increasing the project costs, the SEs concerned approved the revision of SoRs in respect of their Circles and no Government approval is required. On the other hand, in some States such as Kerala, the SoR revision is approved by the State government and there is only one SoR for the whole State. Similarly, in Bihar also only one SoR is applicable for the entire State.

Government stated in reply (June 2017) that administrative orders would be issued so that single SoR for different quarries of the State is issued from Lucknow circle only.

Recommendation: *There should be a single SoR for the entire State prescribing uniform quarry rate for the whole State.*

4.4 Functioning of ‘U P State Road Fund Management Committee’

With a view to arrange financial resources for planned construction of new roads, widening/strengthening, renewal and maintenance of existing roads, the Government established (January 2000) ‘Uttar Pradesh State Road Fund’ (SRF). Essential resources for this fund are arranged from the taxes collected on sale of motor spirits/diesel oil. Operation of this fund is managed by ‘Uttar Pradesh State Road Fund Management Committee⁹’ headed by Hon’ble PWD Minister as per provisions of Uttar Pradesh State Road Fund Rules, 2000 (revised in 2013). All rights relating to utilisation of this fund and determination of policy have been vested in the Committee.

Year-wise position of allotment received and expenditure incurred from Uttar Pradesh State Road Fund during 2011-16 is given in Table 4.5 below:

⁸ Budaun-Pilibhit circle, Moradabad circle, Bulandshahr circle, Agra circle, Mainpuri circle, Gorakhpur circle, Basti circle, Jhansi circle and Unnao circle.

⁹ Constituted in May 2002 by the Government.

Table 4.5: Year-wise position of Uttar Pradesh State Road Fund

(₹ in crore)

Sl. No.	Year	Expenditure
1	2011-12	1,470.17
2	2012-13	1,703.91
3	2013-14	2,295.96
4	2014-15	3,032.91
5	2015-16	2,654.67
Total		11,087.62

(Source: Information furnished by E-in-C)

Uttar Pradesh State Road Fund Rules provided that determination of criteria/work plan for expenditure would be approved by the Committee. Administrative and Financial sanction to the works would be issued by administrative department after approval of works by the Committee. Examination of records relating to SRF in the offices of the Principal Secretary, PWD and E-in-C disclosed the following:

- At the start of every financial year, the Committee approved the work plan for that year and authorised the Chairman, Uttar Pradesh State Road Fund Management Committee to issue financial sanction for the specific projects. Audit observed that the details of works to be sanctioned from this fund were not defined. Proposals approved by the Committee contained only total amount of funds & revenue heads and issue of financial sanction on work-wise plans was left to the discretion of the Chairman. This indicated that the sanction of works from this Fund was not systematic and lacked a planned approach. No Annual Works Plan for execution of works from this fund was prepared and discussed by the management committee. Further, it was against the Rules which stated the AA/FS would be issued after the approval of works by the Committee.
- Though, expenditure to the tune of ₹ 1,470.17 crore to ₹ 3,032.91 crore was incurred annually from SRF, there was complete absence of planning and projects were approved purely in an *ad-hoc* manner.

Department did not furnish any specific reply.

4.5 Maintenance of records

Regular maintenance of records prescribed by Financial Handbook Vol VI is vital for smooth functioning of the divisions and it helps the higher officers in having a control over the working of the divisions. During scrutiny in test-checked divisions audit observed that divisions were not maintaining following three important records:

4.5.1 Works Abstract: According to paragraph 485 of FHB Vol VI, an account of all the transactions relating to a work during a month whether in respect of cash, stock or other charges should be prepared by the sub-

divisional officer in one of the Works Abstract forms¹⁰. It was also provided¹¹ that the monthly examination of the Works Abstract is an important part of the duty of the divisional officer and must not be omitted. He must initial and date them in token of the performance of this duty.

It was observed during performance audit that Works Abstract was not prepared in any test-checked district during 2011-16. In absence of this important record, it was very difficult to calculate the monthly expenditure of any work on account of cash, stock or other charges. Thus, the divisional officers failed to perform one of the major duty assigned to them.

4.5.2 Register of Works: The permanent and collective record of the expenditure incurred in the division during a year, on each work, is the register of Works¹². This record is maintained in the divisional office. The Register of works is posted monthly from the Works Abstracts. On completion of works, a mention is made in this register against that work.

Test-check of records revealed that this important record was also not maintained by divisions in any test-checked districts during 2011-16. As this register was to be prepared from the Works Abstract, absence of maintenance of Works Abstract made the preparation of Register of Works impossible.

4.5.3 Contractor's Ledger: Paragraph 524 of FHB Vol VI prescribes that the accounts relating to contractor should be kept in Contractor's Ledger, Form no. 43, a separate folio or set of folios being reserved for all transactions with each contractor for whom a personal account is maintained. Contractor's Ledger should be written up in the divisional office¹³.

Scrutiny revealed that this important record was also not maintained by divisions in test-checked districts during 2011-16.

Thus, the divisions in all test-checked districts did not maintain these important records during 2011-16. Higher officers also failed to ensure the maintenance of these basic records. It is important to mention here that the issue of not maintaining these records was consistently highlighted in previous years through Audit Inspection Reports sent to EE/SE/CE/E-in-C and the Government. But, despite repeated reference to this irregularity, no action was taken at any level to comply with the rules.

The department did not furnish any specific reply.

¹⁰ Form 33: for major estimates and form 34: for minor estimates.

¹¹ Paragraph 510 of FHB Vol VI.

¹² Paragraph 511 of FHB Vol VI.

¹³ Paragraph 526 of FHB Vol VI.

Chapter-5

Cost Estimation and Sanction of Works

Chapter-5

Cost Estimation and Sanction of Works

No work can commence without obtaining administrative approval of the competent authority and sanction to incur the expenditure proposed. The rules also require that preparation of detailed design and preliminary estimates should precede sanction of work by the administrative authority.

Preparation of cost estimates and issue of sanctions has a direct bearing on the total project cost, quality of works executed and timeliness of completion of road works. It is essential that laid down provisions of rules and standards/norms prescribed are strictly adhered to in preparing cost estimates and according administrative and technical sanctions. Audit, however, observed serious deficiencies in preparation of cost estimates and issue of administrative and technical sanctions, weakness in internal control mechanism and monitoring as elaborated in succeeding paragraphs:

5.1 Irregularities in preparation and sanction of estimates

For accurate preparation of preliminary estimate/ detailed estimates of a road work, it is essential that the department has reliable information on traffic density of the existing road, soil strength of the area where the road is being constructed and the status of the existing road in term of the crust thickness. Audit observed that maximum expenditure (77 *per cent*) during 2011-16 was incurred on the works of widening and strengthening of existing roads. For assessing the need for widening and strengthening of existing roads, calculation of values of Passenger Car Unit (PCU)¹ and Million Standard Axle (MSA)² based on traffic census data, California Bearing Ratio (CBR)³ for determining soil strength and Characteristic Deflection (CD) were required for arriving at the crust thickness required as per IRC guidelines.

Audit, however, noticed that the department either did not conduct traffic surveys on roads which were being proposed for widening or did not maintain proper records to monitor the status of existing road. Further, the department also did not conduct required soil tests to prepare road design and cost estimates. Audit also observed that required tests needed for designing the crust of the road such as BBDT⁴ and CBR⁵ were also not conducted properly in test-checked cases. Divisional authorities also did not comply with Project Formulation and Appraisal Division (PFAD)⁶ of Planning Department

¹ Passenger Car Unit-is calculated in terms of load of different vehicles i.e. Motorcycle, Car, Bus, Truck etc. with their corresponding value as 0.5, 1, 3 and 3.

² Million Standard Axle is an indicator of traffic load on a road.

³ California Bearing Ratio is a measure of load bearing of soil.

⁴ Benkelman Beam Deflection Test.

⁵ California Bearing Ratio.

⁶ Of planning department.

approvals. As a result, the estimates prepared and approved by the competent authorities were either inflated or faulty leading to avoidable expenditure or defective design of road works.

During scrutiny of records of 170 works costing ₹ 4,789.06 crore which were executed during 2011-16 in test-checked districts, audit observed serious deficiencies in estimates/designs as discussed in the succeeding paragraphs:

5.1.1 PFAD approval not attached with estimates: The E-in-C ordered (November 2010) that copy of approval accorded by PFAD would invariably be enclosed with every detailed estimate to ensure that the items and quantities of works included with every detailed estimate are approved by the Government and there was no irregular inclusion or deletion.

During test-check of records audit observed that out of 126 test-checked works costing ₹ 4,472.85 crore wherein PFAD approval was required, in 111 detailed estimates (88 *per cent*) costing ₹ 3,419.14 crore, copies of approval of PFAD were not found enclosed with detailed estimates. This implied that competent authorities granted technical sanctions without verifying whether the detailed estimates conformed to PFAD approvals. In 15 cases where PFAD approvals were enclosed with detailed estimates, audit noticed that divisional authorities did not comply with the PFAD approvals and changes in the scope of work were made in violation of PFAD approvals which were also irregularly sanctioned by the authorities according technical sanction. The cost of the irregular changes in the scope of work on account of reduction in approved length of roads, addition of new unapproved items of work, deletion of approved items, and alteration in the quantities was estimated to be ₹ 6.50 crore in three test-checked cases.

5.1.2 Traffic Census: The width of the road is decided on the basis of traffic density of a road. The traffic density is calculated in terms of Passenger Car Unit⁷ (PCU) per day. IRC-09: 1972 norm provides that traffic census should be conducted 24 hours a day for seven days, in presence of AEs at least on three days. The rules provide for conducting traffic census every year for every road and this report of traffic census with Form-3 was to be sent to Zonal Chief Engineers for onward submission to Chief Engineer, Headquarter-1 and Director, Research Institute.

Audit noticed that in 51 out of 63 test-checked works (81 *per cent*) costing ₹ 970.95 crore, where traffic census was required, detailed estimates were not supported by traffic census reports. However, the competent authorities accorded technical sanction ignoring this basic requirement.

In another 12 works, audit noticed that traffic census was not conducted for full seven days as per IRC norms (*Appendix 5.1*).

Further, none of the 33 divisions test-checked in 17 districts could produce records to audit in support of selection of census points by EEs, conducting

⁷ Traffic density is calculated in terms of load of car (value taken as one) and values of other vehicles like cycle, motor cycle, truck, bus are calculated with reference to car by taking their values as 0.50, 0.50, 3, 3 etc.

census in supervision of AEs for three days and deployment of staff for census. In all 63 cases, traffic census reports were not sent to E-in-C office through concerned SEs as ordered by E-in-C.

In reply, E-in-C stated (August 2016) that detail of traffic census is kept in divisions in road register which confirmed that traffic census data was not sent to E-in-C office.

Case Study 5.1

In Jhansi district (PD), traffic census data were enclosed with preliminary and detailed estimate for Jhansi-Mavai-Gird road. Audit noticed that traffic census reports attached with preliminary and detailed estimates were of the same dates but, the number of overloaded trucks and buses were different which established that the actual traffic census was not carried out.

Similarly, in Budaun district (CD), traffic census report enclosed with the detailed estimate of Bilsa-Wazirganj road was also enclosed with the detailed estimate of Bilsa-Sirasaul-Sanjarpur-Harganpur-Ujhani road. Dates of conducting traffic census were same for both the roads and number of buses, trucks and cycles recorded during census was also same and even name of road and census point was also same of Bilsa-Wazirganj road which indicated that data of one road was copied for the second road. Thus, in these circumstances, reliability of the traffic census reports enclosed with the detailed estimates was doubtful.

5.1.3 Calculation of MSA⁸: An important factor on which crust design is dependent is the Million Standard Axle (MSA) which is an indicator of traffic load on the road.

As the value of MSA depends, among other things, on number of commercial vehicles per day (CVPD), higher is the MSA (traffic load) of a road, greater will be the thickness of the crust required. Since, the traffic census is not regularly and properly carried out by the public works divisions in the State, the computation of MSA factor based on unreliable traffic data adversely impact the designing of the road crust as discussed in earlier paragraph.

5.1.4 Assessing CBR value of soil: California Bearing Ratio (CBR) is a measure of load bearing strength of the soil and also is an important factor in determining the crust design of the road. IRC-37: 2001 prescribes that at least three samples should be taken from each site for each type of soil at the same density and moisture content and tested for CBR value. As per pavement thickness design of IRC 37: 2001, increase and decrease in CBR values impacts directly on the assessment of required crust thickness e.g. if, value of CBR varies from 4 to 5 or 5 to 4, the required crust thickness also varies from

⁸ $N_s = [365 \times A \{(1 + r)^x - 1\} / r] \times F$ where N_s = cumulative number of standard axle, A = traffic in the year of completion of construction, r = annual traffic growth, x = design life in years, F = vehicle damage factor. Value of MSA⁸ depends on number of commercial vehicle per day (CVPD), year of construction period, design life, vehicle damage factor, lane distribution factor and annual traffic growth. While values of year of construction period, vehicle damage factor, lane distribution factor, design life and annual traffic growth rate are fixed and need no further calculation, value of CVPD is derived from the traffic census conducted on a road.

660 mm to 700 mm and vice versa which increases or decreases the cost of work as crust thickness is major component of expenditure.

Audit observed that in 78 out of 89 test-checked works costing ₹ 2,350.32 crore (88 *per cent*), CBR test reports were not enclosed with the detailed estimates although tests were required to be carried out and annexed with the estimates. Further, in none of the 78 cases, three samples of soil were taken as prescribed in IRC. It implied that either requisite CBR tests of soil were not conducted by the divisions as required in the IRC norms or the CEs/SEs accorded technical sanctions without examining the CBR test results. Hence, failure to conduct required soil test as per IRC norms indicates highly casual attitude of the engineering authorities in designing the road crust and preparing estimates. This may adversely impact the designing of the road crust.

5.1.5 Assessment of Characteristic Deflection: To assess the required overlay (in terms of Bituminous Macadam) for strengthening of different stretches of the roads, IRC-81: 1997 prescribes Benkelman Beam Deflection Technique test (BBDT) by categorising the road (good, fair, poor, etc.) on the basis of pavement conditions. This requires a road survey to be conducted before the test is actually carried out so that the road stretches are correctly categorised as good, fair and poor sections depending on the pavement conditions. Further, in each such category, minimum 10 points at the interval of not more than 50 metres should be marked for deflection observation.

Audit observed that out of 170 cases test-checked by audit, though this test was required in 42 cases, the BBDT test-reports were not enclosed in 27 detailed estimates. Audit, further, observed that even in the remaining 15 cases, though the BBDT test was done, the pavement condition survey reports were not enclosed. Thus, technical sanction was accorded by the competent authorities without the requisite test- reports prescribed by IRC.

Audit also observed that BBDT tests were conducted on the roads on a single day as per the test-reports forming part of the detailed estimates. Since, the number of points and the tests to be conducted on a road was quite large, it was not practically feasible to conduct so many tests on a single day. For example, on Budaun-Bijnor road (PD, Budaun), BBDT tests at 701 points were stated to have been carried out on a single day on 35 km reach, which seems doubtful.

Government had from time to time directed that BBDT test should be conducted by Research Institute or Quality Promotion Cell of PWD. Audit, however, noticed that out of the 15 cases, in only two cases, BBDT tests were conducted by Research Institute/Quality Promotion Cell of PWD and out of remaining 13 cases, BBDT tests for six works were conducted by private institutes and by Aligarh Muslim University, Harcourt Butler Technological Institute, Govind Ballabh Pant University and Central Road Research Institute in seven cases. Conducting of BBDT test from agencies other than Research Institute/Quality Promotion Cell was improper.

Thus, it may be concluded that the divisional officers as well as SEs/CEs who were responsible for preparation of preliminary and detailed estimates and according technical sanction did not adhere to the basic engineering requirements prescribed under IRC norms for designing of road crust and preparation of estimates. The traffic census, soil testing and other necessary tests were either not carried out or had serious deficiencies in large number of projects test-checked by audit. The CEs/SEs accorded technical sanctions to the estimates without insisting that the estimates are supported by all necessary tests and survey reports. Even PFAD approvals were overlooked. As a result, the quality of road design and cost estimates was questionable on the grounds of reliability, accuracy and sustainability. Due to not following the norms and instructions in preparation of estimates also raises the risk of over estimation of cost, misappropriation of funds, irregular changes in the scope of works and execution of substandard works increases. Such cases are discussed in paragraph 5.2.

In reply, the Government stated (June 2017) that administrative orders have been issued to prepare all estimates in accordance to relevant guidelines issued by IRC.

The reply is not convincing as various deficiencies have been noticed in the execution of contracts which indicated that the administrative orders issued earlier have not been enforced effectively.

Recommendation: Since, preliminary/detailed estimates define the cost, scope and quality of works to be executed; these should be prepared strictly as per IRC norms and government instructions, duly supported by prescribed tests and survey results.

5.1.6 Plantation works: Engineer-in-Chief directed (September 2008) that while preparing estimates for construction works, public works divisions should include one *per cent* of the cost of work on account of plantation work.

Scrutiny of 168 out of 170 test-checked works revealed that provision of one *per cent* for plantation required for the work costing ₹ one crore, was not made in any of the estimates during 2011-16 and therefore the requisite funds amounting ₹ 47.87 crore were not sanctioned for plantation work. Thus, plantation work could not be undertaken in these districts. This showed that divisional authorities who prepared the estimates and the administrative authorities who accorded administrative and financial sanctions failed to ensure that the norms and instructions relating to environmental protection are adhered to, in road project works in the State.

The Government stated (June 2017) that presently all the plantation and maintenance of roadside trees is under the scope of forest department. However, the State Government did not make available documentary evidence in respect of plantation of trees done along the road side.

Recommendation: Government should ensure that road construction projects in the State effectively incorporate and implement sustainable

development requirements in comprehensive manner in all aspects of road construction activities and subsequent maintenance.

5.1.7 Road Safety items: Road safety items of works such as road signage, road marking and Raised Reflective Pavement Markers etc. are essential for ensuring road safety and therefore should be included in works estimates as per IRC norms. Engineer-in-Chief instructed (October 2014) all Zonal Chief Engineers to submit estimates in two parts-Part-1 showing cost of work, contingency, establishment, etc., and Part-2 showing cost of road safety provisions, contingency, establishment, etc.

Scrutiny of estimates in test-checked districts, however, revealed that in none of the 52 works estimates test-checked by audit, the cost of road safety items was shown separately during 2014-16. Thus, expenditure on road safety items and their provision as per IRC norms in road works could not be monitored by the E-in-C and Government. This revealed that the divisions were lax towards adhering to the E-in-C directions despite high incidence of road accidents in the State.

5.1.8 Road Safety Audit: Government issued instructions in December 2014 directing that provision for road safety items should be made in estimates by the PWD before issue of technical sanction, after conducting road safety audit as per IRC specifications. Test-check of records in selected districts revealed that in none of the 49 test-checked works, any reference of conducting road safety audit was available in the estimates. The divisions also could not produce any evidence of road safety audit having been conducted in these works.

Government had further ordered that, out of total completed works in a year, road safety audit of 10 *per cent* works would be conducted by third party and in remaining 90 *per cent* works road safety audit would be conducted by the concerned Superintending Engineers. Selection of 10 *per cent* works for road safety audit by third party was to be done by concerned Zonal Chief Engineers.

Audit noticed that road safety audits in 90 *per cent* completed road works were not conducted by the concerned Superintending Engineers of test-checked districts during 2014-16. Chief Engineers also did not ensure road safety audit of works by third party in 10 *per cent* cases during 2014-16.

Thus, despite increasing number of road accidents/causalities in the State, SEs/CEs did not accord due importance to the requirement of conducting road safety audits and making State roads safer and compliant to road safety norms.

The Government stated (June 2017) that MORTH and IRC guidelines have been adopted by department which takes care of road safety audit.

The reply is not acceptable as no road safety audit has been conducted in the test checked districts.

Recommendation: In view of high incidence of road accidents/casualties in the State, the department should ensure that road safety audits are conducted and necessary road safety provisions, as per norms, are included and executed in all road construction projects.

5.2 Inaccurate estimates

Cost estimates for road works are not being prepared properly and accurately as per IRC norms and government instructions as discussed in paragraph 5.1 above. As a result, estimates contained serious deficiencies which led to avoidable excess expenditure, loss to the Government, execution of sub-standard works etc., amounting to ₹ 142.57 crore in 19 out of 170 works test-checked by audit. Some important issues are discussed below:

5.2.1 Excess provision in estimates: Test-check of estimates of 11 road works under 10 test-checked divisions revealed excess provision of crust thickness, crust design without traffic census, etc., in contravention of IRC specifications and/or departmental orders. This resulted in excess or avoidable expenditure of ₹ 58.33 crore as detailed in ***Appendix-5.2***.

5.2.2 Deficient/wrong provision in estimates: Scrutiny of records revealed that in eight cases, eight divisions included provision of lesser or deficient quantity/wrong provision against what was required as per IRC specifications/departmental orders. This resulted in execution of sub-standard works, infructuous expenditure/excess/avoidable expenditure or loss to the Government, etc., amounting to ₹ 84.24 crore during 2011-16 as detailed in ***Appendix-5.3***.

Despite repeated instructions (April 2006 and September 2008) of E-in-C for improving quality of estimates, Audit observed that estimates had major deficiencies and were not based on authentic and reliable data. SEs/CEs also accorded technical sanction to such estimates without ensuring adherence to important norms and instructions of Government and IRC. PFAD also failed to detect these deficiencies at the time of appraising the projects.

In reply, Government stated that the administrative orders have been issued to prepare all estimates in accordance to relevant guidelines issued by IRC.

Reply is not acceptable as the IRC norms were not followed.

5.3 Proposals for Government sanction

Audit noticed that Manual of orders of PWD prescribed that a register of preliminary proposals (PPs), prepared for obtaining administrative approval, would be maintained in divisions in approved format.

During scrutiny of records in test-checked districts it was, however, observed that no record of road work proposals (PPs) submitted to Government were maintained in any of the 33 divisions in 17 districts and there was no data available with the divisions regarding number of preliminary estimates or proposals of road works sent to circle offices for onward submission to

Engineer-in-Chief office for approval during a year. Audit noticed that circle and zonal offices as well as E-in-C office also did not maintain any such data.

On being asked, only eight preliminary estimates were furnished to audit. All the divisions replied that PEs/proposals were being prepared on the basis of requests of stakeholders and instructions from Government. This implied that system of initiation of proposals and preparation of PEs was highly *ad-hoc* and was not based on any systematic planning and proper assessment of requirement. The divisions were also not monitoring the progress of proposals after their submission.

In reply, E-in-C accepted (August 2016) that no register was maintained in this regard in his office. The reply of E-in-C indicated that the number of proposals for construction/upgradation of roads was pending with government and duration of their pendency was not known.

5.4 Irregular technical sanction by Executive Engineers

The Government delegated powers (June 1995) to EEs to accord technical sanction to the works costing up to ₹ 40 lakh. Audit observed that EEs exceeded their delegated powers and accorded technical sanction to 215 works costing ₹ 217.23 crore in 14 test-checked districts during 2011-16 with individual cost of each work ranging between ₹ 40.22 lakh to ₹ 4.48 crore (**Appendix-5.4**). Thus, EEs were not competent to issue technical sanction to these 215 works. Maximum irregular TS were issued by EEs in Saharanpur, Unnao, Gorakhpur, and Mainpuri districts. This requires investigation for fixing responsibility.

5.5 Delay in issuing technical sanction

Engineer-in-Chief ordered (January 2002) all the CEs/SEs/EEs to ensure that technical sanction to the detailed estimates were issued within 15, 30 and 45 days by EEs, SEs and CEs respectively from the date of receipt of administrative and financial sanction in the division. E-in-C, further, directed that if technical sanction was not issued by the competent authority within prescribed time schedule, he would be held liable for the delay.

A total of 20,697 technical sanctions were issued by CEs/SEs/EEs of selected districts during 2011-16. Position of delay by CEs, SEs and EEs in issuing TS to the detailed estimates during 2011-16 was as given in the **Appendix-5.5 A, B & C**.

Audit observed that:

- During 2011-16, CEs delayed grant of TS in 498 out of 2,872 cases received by them. SEs delayed TS in 1,587 out of 8,347 cases and EEs delayed TS in 1,942 out of 9,478 cases.
- Maximum delay in issuing technical sanction was at the level of Zonal Chief Engineers. Of the six test-checked Chief Engineers who were involved

in granting TS, maximum delay was noticed in Gorakhpur zone (maximum average delay: 1670 days). In 71 cases of TS granted by Chief Engineer, Gorakhpur zone, Gorakhpur during 2014-15 delay ranged between 122 to 2553 days.

- Out of 10 test-checked SEs, maximum delay was noticed in Basti Circle where average delay was 950 days during 2011-16. In 272 works the delay was as high as 24 to 1890 days. Technical sanction register for 2011-16 was not furnished by SE, Jhansi and this restricted audit scrutiny of the delays by SE Jhansi.
- Similarly, out of 33 divisions of test-checked districts, maximum delay in sanctioning detailed estimates during 2011-16 was noticed in divisions of Basti and Siddharth Nagar districts.

Thus, cases of maximum delay in sanctioning detailed estimates at Zone, Circle and Division levels were noticed in Gorakhpur zone.

Case Study 5.2

Government accorded (February 2014) administrative approval and financial sanction of ₹ 45.96 crore for widening and strengthening of Basti-Mahso-Mahuli road. But, technical sanction to the detailed estimate of this work was issued in March 2015 by Chief Engineer, Gorakhpur zone. Audit, however, observed that a contract bond (159/SE/13-14) was constituted for ₹ 42.81 crore on 1 March 2014 and full released funds were spent on the work without any technical sanction to the detailed estimate. Thus, contract bond was awarded and payment was made to the contractor irregularly one year before the issue of technical sanction.

Further, it was noticed that the execution of GSB and WMM layer was sanctioned by the Government in seven metre width which was increased to 7.30 metre and 7.15 metre by CE on the request of the contractor. This resulted in increase in cost of ₹ 1.12 crore. Thus, width for execution of GSB and WMM was changed without approval of the Government. Secondly, increase of width on request of contractor indicated that estimate was not prepared properly. On this being pointed out, EE replied that the width was increased as per requirement and not on the request of the contractor. Reply was not acceptable because EE while informing the contractor about increase in the width for execution of GSB and WMM specifically stated that it was decided on the request of the contractor.

The department did not furnish reply.

Chapter-6

Invitation of Tenders

Chapter-6

Invitation of Tenders

To prevent fraud, waste of public money, corruption or manipulation, the law in most of the countries regulates government procurement closely. In India as well as in the State of Uttar Pradesh there are comprehensive rules and detailed guidelines prescribing norms and procedures for public procurement of goods, works and services. These rules and government instructions require that public contracting should be conducted in a transparent manner to bring competition, fairness and elimination of arbitrariness in the system. The first stage in the process of public procurement after assessment of requirement is to issue tender to obtain bids from all prospective bidders in a fair, open and transparent and competitive manner. Rules require that the tender document should be comprehensive, unambiguous and relevant to the objectives of the purchase. Adequate publicity to notice inviting tender for ensuring maximum possible participation of bidders and sufficient time to be allowed to tenderers to prepare and submit their bids, are the basic and mandatory requirements of a fair and transparent tendering system. Any system not conforming to the above basic principles and rules is prone to fraud, corruption, favoritism, manipulation, waste of public resources, and several other malpractices.

Audit however, observed that in large number of cases, the system of inviting bids for road works in the State did not comply with the above mandatory requirements and, therefore, the tendering system in the State lacked transparency and fairness and was prone to manipulation, favoritism and other malpractices, as discussed below:

6.1 Notices Inviting Tender (NIT) and bid document

In Uttar Pradesh, after issue of administrative and expenditure sanction by the government, and technical sanction by the competent authorities, engineering authorities (EEs, SEs and CEs) have been delegated powers to issue tenders inviting bids for all road works irrespective of the financial value.

Government in 2007 notified Model Bid Documents (MBDs) for issue of tenders by the public works authorities. There are three separate MBDs viz. T1 for works costing up to ₹ 40 lakh, T2 for works costing more than ₹ 40 lakh and T3 for supply of material. The MBDs lay down detail terms and conditions of tender. The PWD while notifying these MBDs in January 2007 directed all CEs/SEs/EEs and other concerned officers to strictly adhere to the MBDs so that developmental activities and construction works in the State are not adversely affected.

Test-check of records in 17 selected districts disclosed many flaws in the tendering process as discussed in subsequent paragraphs:

6.1.1 Change in the conditions of NITs: NIT was approved by the Government in January 2007. It was ordered (November 2010) by E-in-C that conditions of NITs would not be changed in any case under any circumstances. E-in-C further directed that if any officer makes any changes in the clauses of model bid document (MBD), it would be treated as financial misconduct and the officer would be held personally liable for such financial indiscipline. Audit, however, observed that EEs/SEs changed the conditions of NITs/MBDs and violated financial rules giving undue advantage to certain bidders or category of bidders as discussed below:

Restrictive condition imposed: Audit noticed that in 62 NITs a condition was included stating that the bidder should own a Hot Mix Plant (HMP). It was further noticed that five NITs out of the 62 included another condition also that HMP should have been installed within 50 km of the work site. However, it was observed that no such condition was stipulated in the MBD regarding the location of the equipment or that the equipment should only be owned by the bidder. The MBD only prescribed that each bidder must demonstrate availability of the owned/hired or leased key equipment. Thus, the NIT condition of owning a Hot Mix Plant in 62 cases and a further condition of having it installed within 50 km of the district implied that only local or nearby bidders could participate in these tenders. This restricted the scope of the competition and favored local/nearby contractors.

Ineligible contractors allowed to bid: NITs should include the correct category of contractors who were eligible to submit bids according to cost of work. During test-check of records in the selected districts it was noticed that Superintending Engineers allowed ineligible contractors to participate in the NITs for 54 works amounting to ₹ 94.88 crore. For example, in NITs for eight works for which 'A' category contractors were eligible, in five NITs both A and B category contractors were shown eligible and for three works, A, B and C category contractors were shown eligible for bidding. Similar was the case with other works also. Thus, the deficient NITs made lower category contractors eligible for works of higher value. Detail of such cases is given in *Appendix-6.1*.

Bids for road works invited from bridge contractors only: SE, Basti Circle, Basti invited (February 2013) bids through NITs for construction of two approach roads (₹ 2.76 crore) but the NITs included the condition that contractors should be registered for bridge works. Surprisingly, the bids were not invited from road contractors for road works. As a result, these works for construction of roads were awarded to contractors registered for bridge works. This was against the prescribed provisions and deprived contractors registered for road works from bidding for the work.

Sale of bid documents: The government order of January 2007 issued in compliance of Hon'ble High Court order to check/prevent *Mafia* activities in tendering process had directed that sale of bid documents would be done at four places (offices of concerned EEs, SEs, CEs and DMs) in the district. Subsequently, E-in-C, PWD issued instructions in November, 2009 directing that sale of bid documents should also be made from all branches of Punjab

National Bank in the respective districts to enhance transparency and competitiveness and check involvement of anti-social elements in tendering process. In test-check of 331 contract bonds in selected districts, audit noticed that in 65 cases (costing ₹ 1136.69 crore), condition of sale of bid documents through bank branches was not included in NIT. This could have limited the sale/availability of bid documents to the potential bidders and thus could have defeated the objective of issue of instructions by E-in-C.

Pre-bid meeting: In 40 NITs (₹ 621.04 crore), condition relating to holding of pre-bid meeting was not mentioned though, the same was clearly stipulated in paragraph 8 of the standard NIT notified by the government. Audit noticed that no pre-bid meeting with potential bidders was held in these cases. Hence, the process of providing clarifications to all potential bidders in a fair and transparent manner, before submission of bid, as prescribed in MBD was not being followed.

Deficient Tender Documents: Model Bid Document included General conditions of contracts, Special conditions of contracts, Instructions to Bidders (ITB), Bid Form, Specifications, Bill of Quantities etc. The bid issuing authorities were required to indicate the basic information such as specification, Bill of quantities, number of key equipment and technical personnel for road works and field testing laboratory etc. in the bid document before sale to the prospective bidders. During test-check of records in selected districts, audit observed that bid documents were sold to bidders without filling relevant data in appendix to ITB which were very significant for the finalisation of bids by the bidders as detailed below:

- Out of 331 contract bonds test-checked by audit, in 62 contracts costing ₹ 892.01 crore, number of key equipment required for road works was not mentioned in bid document and the relevant column was left blank. This implied that condition of possessing specified number of equipment by the bidder to be qualified to participate in the tender was waived off. This diluted the requirement as prescribed in MBD and could favor ineligible contractors.
- Further, it was noticed that in the bid documents, different divisions showed the requirement of different quantity of machinery for similar types of works as detailed in *Appendix 6.2*. Since the E-in-C has not issued any guideline for assessing the requirement of equipment and indicating in MBD, the divisions are mentioning the requirement in NITs as per their discretion without any justification. It was noticed that MBD of the Bihar Government clearly mentions the minimum number of 15 equipment and also maximum age of these equipment required for contractors.
- Similarly, number of technical personnel, their qualification and experience required for construction works was indicated insufficiently in 16 bid documents (costing ₹ 297.36 crore). Further, number of technical personnel required for field testing laboratory was not indicated by divisions in any of the bid documents during 2011-16.

Thus, bid documents sold to bidders were incomplete and lacked important information which was necessary for proper finalisation of bids and for protecting government interest.

6.1.2 Approval of contract documents: Paragraph 357 of the FHB Vol VI prescribes that if the tender cost is beyond the EE's power of acceptance, prior approval of SE or CE, as the case may be, should be obtained to the contract documents before inviting tenders by divisional officers. During the scrutiny of records in test-checked districts, audit observed that tenders in the financial power of Chief Engineers (more than ₹ one crore) were invited by SEs during 2011-16. As such, SEs were required to take prior approval of CEs on the contract documents before inviting tenders. However, audit noticed that approval of CEs on the contract documents were not taken by SEs for all 170 test-checked works costing ₹ 4,789.06 crore. Thus, NITs for these works were published without approval of CEs.

6.2 Irregular Publication of NITs

Notice Inviting Tenders were published in newspapers and hoisted on departmental websites for wide publicity and getting most competitive bids for execution of work. Audit, however, noticed several irregularities in publication of NITs which are described below:

6.2.1 NITs issued before Administrative/Technical Approval: As per Financial Rules¹, no work should commence before Administrative Approval/Financial Sanction/Technical Sanction has been received from the Competent Authority. E-in-C also instructed (April 2004) that NIT should not be published without finalisation of bill of quantity.

However, it was observed that out of 170 test-checked works costing ₹ 4,789.06 crore, in 96 works (56 *per cent*) costing ₹ 3,071.45 crore, tenders were issued by SEs before administrative approval/financial sanction of works by the Government which ranged up to 565 days prior to the issue of AA/FS. Similarly, EEs also invited bids through publication of NITs in newspapers for 66 works costing ₹ 20.07 crore before (up to 420 days) issue of AA/FS by the government (*Appendix 6.3*).

It was further noticed that out of the 170 works, NITs for 156 works (92 *per cent*) costing ₹ 4,184.74 crore were invited by SEs before technical sanction of detailed estimates which ranged up to 872 days. Similarly, EEs also invited NITs for 103 works costing ₹ 33.86 crore before technical sanction of detailed estimates which ranged up to 520 days (*Appendix 6.4*).

Audit noticed that AA/FS/TS were accorded in all these cases whose tenders were invited in advance. Such system of tendering is flawed as tenders have to be based on detailed estimates prepared on the basis of scope of work approved by the government through administrative approval and cost of the project sanctioned through expenditure sanction. Tendering before issue of

¹ Article 375 (a) of FHB Vol. VI and E-in-C circular dated 27.11.1999.

AA/FS/TS could lead to change in the scope of work after issue of tender as changes suggested in the AA/FS/TS have to be incorporated in bill of quantities subsequently. This violates a fundamental principle of tendering that there should not be any significant change in the scope of work after issue of tender/competitive bidding. Invitation of tenders before approval of estimated costs, specifications and quantities by the Government and preparation of detailed estimates in such a large number of cases raises the question of due diligence in according government approvals by competent authority.

6.2.2 Opening of financial bids before TS: Audit scrutiny revealed that in 105 works costing ₹ 3,333.61 crore, even financial bids were opened before issue of technical sanction as detailed in *Appendix 6.5*.

Thus, financial bids were opened up to 823 days before issue of technical sanction. As bill of quantity was still not approved in these cases, opening of technical and financial bids without technical sanction was questionable.

6.2.3 Contractors deprived from bidding: During scrutiny of records it was noticed that bids for 11 works amounting to ₹ 15.08 crore were invited from contractors of different categories as per NIT cost. Audit observed that cost of works was changed (estimated cost ₹ 17.64 crore) after receipt of bids. As a result, category of eligible contractors also changed. Thus, publication of fresh NITs was required to be published to provide opportunity to all eligible contractors. But, fresh NITs were not published and contract bonds were finalised on the basis of original NITs. This could have resulted in depriving eligible contractors from bidding, thus limiting the scope of competition for works costing ₹ 17.64 crore (*Appendix 6.6*).

6.2.4 Sending of NITs to Director, I&PR: As per orders of the Government (May 1991), all NITs were to be published in newspapers through Director, Information and Public Relations (I&PR) only and payment for the same was also to be made by the Director. Scrutiny of records in test-checked districts, however, revealed that in 81 test-checked cases amounting to ₹ 1,655.36 crore, SEs did not send NITs to Director, I&PR for publication in newspapers. Further, 54 revised NITs amounting to ₹ 521.81 crore were also not sent to Director, I&PR. The executing agencies failed to show any record which could give an assurance that the NITs were widely published in newspapers. Thus, scope of publicity of these works could not be verified.

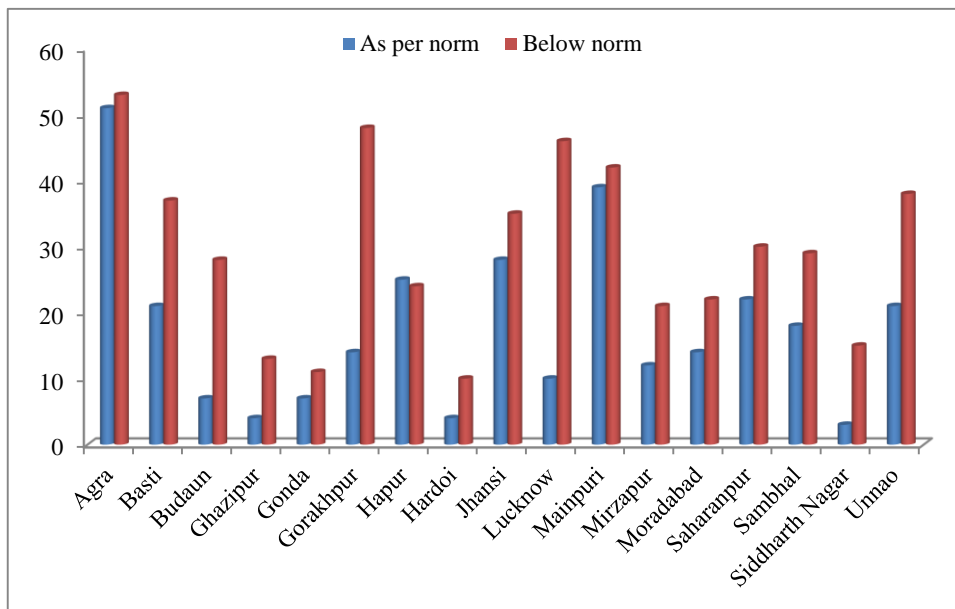
In 32 cases of NIT at EE level, amounting to ₹ 6.87 crore, letters sent to Director, I&PR for publication of NITs were not found in the contract bonds and so it could not be verified that NITs in these cases were sent to Director for publication in newspapers.

Further, during test-check of records in test-checked districts, it was noticed that all NITs were not sent to Director, I&PR for publication by EEs and were being published in local newspapers by directly sending NITs to the editor of local newspapers. Payments were also made by EEs for the same though no funds were received for this purpose. Audit observed in scrutiny of records

that 23 NITs worth ₹ 4.14 crore² were published in local newspapers directly by EEs in eight divisions which was against the orders of the Government (*Appendix 6.7*).

6.2.5 Inadequate time for submission of bids: Paragraph 360 (2) of the FHB Vol VI prescribes that the time for submission of tenders should be at least one month after the date of first advertisement. Government directed (December 2000) that generally bids would be invited giving minimum 30 days' notice and in special circumstances, tenders may be invited after giving minimum 15 days' notice.

Scrutiny of records in test-checked districts revealed that generally bids were invited by EEs/SEs giving short-term notices. Audit noticed that out of 802 test-checked NITs (SE: 331 CBs and EE: 471 CBs) in test-checked districts, bids for 502 NITs (63 per cent) costing ₹ 3,392.37 crore were invited by giving tender notices of short periods ranging between one to 29 days only (*Appendix 6.8*). In only, 300 cases (37 per cent), proper 30 days' notice was given. District-wise position of short-term NITs published in newspapers was as given in Chart below:



Thus, tenders were open for a very limited period. The situation was prevalent in all districts where large numbers of tenders/NITs (49 to 83 per cent), were issued for shorter periods.

This was in violation of tendering norms and financial rules. Giving very short notices for tender implies that bidders were not given adequate time to make their assessments and prepare their technical and financial bids. This limited the competition in the tendering process as all the eligible bidders may not be

² Agra, Budaun, Gorakhpur, Ghazipur, Jhansi, Mirzapur and Mainpuri.

in a position to respond and submit their bids in such a short time. Also, competitive procurements were not viable as only very few bidders participated in the tendering process as discussed in the paragraph 7.1. It could also result in loss to government as there was no proper price discovery in view of limited competition.

6.3 Limited publicity of NITs in newspapers

Due to lack of specific provision about the minimum number of newspapers in which NITs of different value are to be published, while some EEs/SEs of test-checked districts arbitrarily decided the number and names of newspapers for publication of NITs, others left it to Director, Information & Public Relation (I&PR) to decide the same.

Further, during test-check of records, audit observed that divisions made different requests while sending NITs to Director, Information for publication as given below:

- Twelve divisions³ wrote that NITs be published in two to four newspapers and mentioned the name of newspapers also while others did not mention the names of newspapers.
- Some divisions mentioned the name of English national newspapers also where some divisions requested to publish in Urdu newspapers also.
- In one case⁴, EE wrote Director, Information & Public Relation to publish NIT in regional newspapers only though the cost of NIT was ₹ 35 crore.

Thus, due to lack of specific policy for publication of NITs, there was no uniformity in sending of NITs to the Director, Information and their publication in newspapers.

Information furnished by Director, Information revealed that during 2011-16, NITs were also published in 141 newspapers whose circulation was less than 50,000 copies though the department had instructed (May 1999) that NITs would be published in such newspapers whose circulation was of minimum 50,000 copies. It was further observed that NITs were also published in 39 newspapers whose circulation was less than even 10,000 copies.

Thus, due to lack of a well-defined guideline for publication of NITs in PWD, different divisions have been following different procedures. This led to publication of NITs mostly in local newspapers and in many cases, not in the leading newspaper of that district or region thereby limiting the scope of wide publicity of NITs and ultimately in limited receipt of bids as discussed in paragraph 7.1.

³ CD-Budaun, CD-1 & 2 Agra, CD-1 Basti, CD-1 Siddharthnagar, CD-1 Unnao, PD Gonda, PD Gorakhpur, PD Hapur, PD Jhansi, PD Mainpuri & PD Sambhal.

⁴ CD-3, Jhansi for NIT of Airach-Gursarai-Mauranipur road costing ₹ 35 crore.

6.4 Publication of NITs

Director, Information and Public Relations informed audit (August 2016) that NITs were published in 873 newspapers. Audit however observed that in 802 contract bonds examined in audit, news clippings of only five⁵ newspapers were found enclosed with contract bonds constituted by divisions in test-checked districts. In each contract bond there was only one news clipping out of the above five newspapers and in 271 contract bonds (SE: 126 CBs and EE: 145 CBs) no news clipping were found attached.

Thus, it could not be verified in audit if NIT were indeed published in 873 newspapers.

The Government did not furnish reply to any of the points in this Chapter.

⁵ Dainik Jagran, Amar Ujala, Hindustan, Times of India and Hindustan Times.

Chapter-7

Evaluation of bids and Selection of contractor

Chapter-7

Evaluation of bids and Selection of contractor

Financial rules prescribe for evaluation of bids strictly in accordance with the criteria laid down in the terms and conditions of tender. Further, public procurements have to be transparent and competitive to ensure that most efficient and competitive bidders are selected for award of contract.

Audit examined 802 contract bonds¹ costing ₹ 4,857.57 crore executed by SEs and EEs, PWD in selected districts and found large scale deviations from laid down criteria in technical evaluation of bidders with majority of tenders (73 per cent) were not competitive where only one or two bids were received, despite the existence of large number of registered contractors in each district. Cartel formation/collusive bidding was also noticed in many cases.

The detailed audit findings are given in succeeding paragraphs.

7.1 Lack of competition

During test-check of records in test-checked districts, it was observed that number of bids received against NITs was low during 2011-16 and contracts were finalized by EEs/SEs/CEs on the basis of limited bids received. Position of number of bids received against test-checked works of EE/SE/CE level during 2011-16 in test-checked districts is given in Table-7.1 below:

Table 7.1: District-wise number of bids received during 2011-16

(₹ in crore)

Sl. No.	Name of District	One bid		Two bids		Three & above bids	
		No. of CBs	Cost of CBs	No. of CBs	Cost of CBs	No. of CBs	Cost of CBs
1	Agra	1	0.37	83	277.02	20	153.12
2	Basti	23	21.15	19	237.69	16	38.77
3	Budaun	5	0.41	21	183.39	9	181.48
4	Ghazipur	4	26.40	6	36.56	7	20.69
5	Gonda	4	6.74	11	160.96	3	2.08
6	Gorakhpur	13	47.94	32	146.83	17	74.92
7	Hapur	4	0.04	38	104.57	7	47.98
8	Hardoi	1	4.35	9	72.84	4	1.07
9	Jhansi	2	0.36	41	315.33	20	37.80
10	Lucknow	1	0.28	26	255.19	29	299.96
11	Mainpuri	16	55.97	49	333.51	16	201.49
12	Mirzapur	16	93.34	12	139.57	5	85.46
13	Moradabad	6	1.18	15	153.99	15	145.99
14	Saharanpur	7	2.17	24	90.09	21	173.25
15	Sambhal	1	0.01	44	180.49	2	0.85
16	Siddharth Nagar	5	31.07	9	93.29	4	4.05
17	Unnao	1	11.86	49	215.83	9	87.82
Total		110	303.64	488	2997.15	204	1,556.78

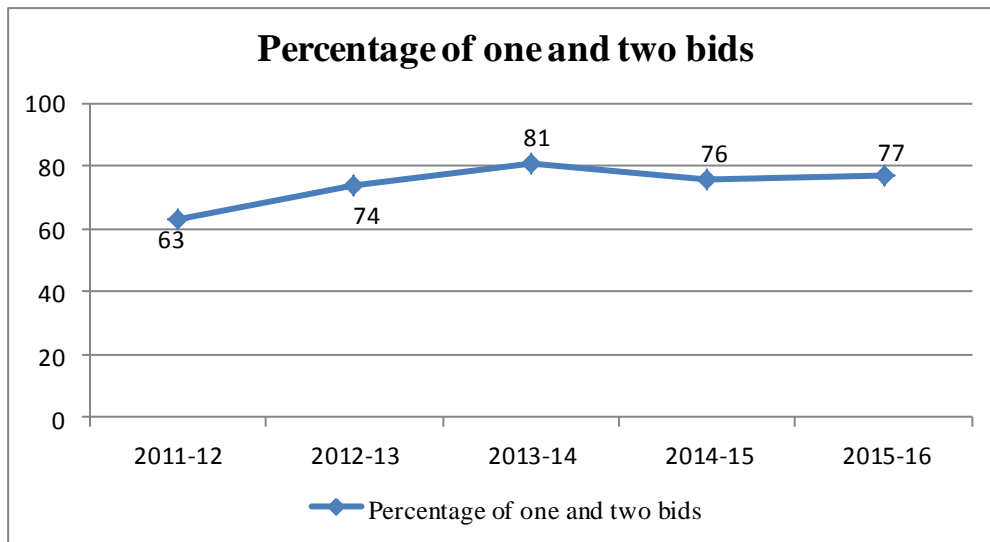
(Source: Information furnished by division/circle)

¹ SE: 331 CBs costing ₹ 4,777.50 crore and EE: 471 CBs costing ₹ 80.07 crore.

Analysis of data relating to number of bids received during 2011-16 revealed the following issues:

- Out of total 802 test-checked contract bonds executed during 2011-16, 110 contract bonds amounting to ₹ 303.64 crore (14 *per cent*) were awarded on the basis of single bid. In none of these cases, retendering was done. Thus, none of these circles/divisions made any effort for obtaining competitive rates.
- During 2011-16, 488 contract bonds amounting to ₹ 2,997.15 crore (61 *per cent* of total cost of test-checked contract bonds) were awarded in test-checked districts to bidders on the basis of two bids only. In all these cases re-tendering was also not done in any test-checked districts.
- Audit observed that, out of total 802 cases, three or more bids were received in only 204 cases costing ₹ 1556.78 crore (25 *per cent*), Thus, only for a small fraction of bonds, competitive bids were received (*Appendix 7.1*).
- Analysis of data furnished by divisions/circles pertaining to 2011-16 revealed that there was an increasing trend in percentage of only two bids received against works during 2011-16 as shown in Chart-7.1 below:

Chart-7.1: Percentage of one and two bids received during 2011-16



Scrutiny also revealed that in addition to receipt of limited number of bids, out of total 331 test-checked contracts, bids were received for 136 works costing ₹ 2,711.64 crore at rates higher by up to 45.50 *per cent* above the estimated rates. But, it was noticed that EEs/SEs did not resort to re-tendering in any case and contract bonds were entered into at higher rates. This indicated that there could be large scale cartelisation in contracts on an increasing scale during 2011-16 to limit the competition. Audit also observed irregularities like invitation of tender even before administrative sanction and technical approvals, (paragraph-6.2.1) giving very short time to bidders to submit their bids (paragraph-6.2.5), receipt of only limited bids and finally award of works

at rates considerably higher than estimated rates. Thus, the officers were failing in discharging their duties to safeguard the government interest.

7.2 Negotiation with bidders

Central Vigilance Commission instructed (March 2007) that generally there would be no negotiation with bidders. In special circumstances, if it is to be done, it should be done with the lowest bidder only. The State Government ordered (April 2001) that generally negotiation would not be carried out with bidders. If negotiation is essential for finalisation of contracts it should be done with all eligible bidders. Further, Chief Engineer, PWD had ordered (November 1965) that negotiation would be done after fixing the cost of the work. But, audit observed that in no case, cost of work was fixed before negotiation. Thus, order of the Chief Engineer was not adhered to by the EEs/SEs/CEs during 2011-16.

Scrutiny of records revealed that, out of 331 contract bonds (executed by SEs) in test-checked districts, negotiations in violation of CVC guidelines were held in 234 cases costing ₹ 3,886.87 crore (71 per cent) (*Appendix 7.2*).

In reply, the State Government stated (June 2017) that “Standard Bidding Document” has been adopted for agreements more than ₹ 100 crores. Adoption of “Standard Bidding Document” for agreement less than ₹ 100 crore is under consideration in which all the mentioned issues are properly addressed.

Reply is not acceptable as the said “Standard Bidding Document” (SBD) did not contain specific provision in respect of disposal of single bid, short term tender notices, publication of NIT in newspapers, negotiation etc.

Recommendations:

- *Government should improve competitiveness of the tendering process by removing deficiencies such as disposal of single bid, short term tender notices, publication of NIT in newspapers, etc.; and*
- *The Government should finalise a policy for holding negotiations which is in consonance with CVC guidelines.*

7.3 Deficient technical evaluation

7.3.1 Technical evaluation of bids costing more than ₹ 40 lakhs

Technical evaluation of bids was important in large works costing more than ₹ 40 lakhs. MBD provided for financial bids of only those bidders to be opened who were technically qualified in technical evaluation.

During test-check of records, audit observed that the process of technical evaluation was not properly carried out by EEs/SEs of test-checked districts. Following major irregularities were noticed in technical evaluation of bids:

7.3.1.1 Balance sheets of last five years were not submitted by bidders in 110 cases (costing ₹ 1,771.04 crore) while in 37 cases (costing ₹ 355.77 crore)

balance sheets of only one to four years were submitted. Audit noticed that in 11 cases (costing ₹ 87.49 crore), bidders attached balance sheets of other contractors. So, 158 bidders (48 *per cent*), out of 331 bidders, were declared technically qualified though they had not submitted or submitted incorrect balance sheets which were required to establish financial viability of the bidding firms.

7.3.1.2 Turnover certificate: Similarly, in 81 cases (24 *per cent*) (costing ₹ 1,368.88 crore), bidders did not submit turnover certificate of last five years from Chartered Accountant and in 27 cases (costing ₹ 139.27 crore) turnover certificates were attached for only one to four years. In nine cases (costing ₹ 80.10 crore), though the turnover certificates of five years were attached but these were of some other firm or were insufficient against the required work. Character certificates of all partners of the firms were not submitted by bidders in seven cases costing ₹ 256.18 crore.

7.3.1.3 In 24 cases (costing ₹ 181.24 crore), experience certificates were either insufficient compared to the requirement as per MBD² or were of some firms other than the bidder and in 43 cases (costing ₹ 620.43 crore) the experience certificates were not attached at all. Even such deficient experience certificates were accepted by the department and bidders were declared successful irregularly.

7.3.1.4 Furnishing of Solvency certificates: Model Bidding Document prescribed that every bidder would furnish solvency certificate issued by the competent authority (District Magistrate) in original with bid documents along with other documents. Engineer-in-Chief instructed (December 2002) that cognizance of the fact that property is free from pledge and undisputed, should also be taken into consideration in solvency certificate. The Government also directed (December 2008) that one solvency certificate should not be used for more than one work. Scrutiny of contract bonds and solvency certificates furnished by bidders in test-checked districts revealed following irregularities:

- In 142 contracts, out of 166 test-checked contracts, firms submitted solvency certificates in the name of partners of the firms and not in the name of firms, for works costing ₹ 2,801.90 crore. Only six bidders³ submitted solvency certificates in the name of firms. Audit examination disclosed that that for 86 contracts costing ₹ 532.12 crore, 37 bidders submitted same solvency certificates and one solvency certificate was used for two to seven works. In four cases, solvency certificates were not attached by bidders. Even one case of manipulated solvency certificate was also found during audit scrutiny as discussed in the case study 7.1 on next page.
- Analysis revealed that solvency certificates furnished by bidders simply stated the value of immovable property (mainly land and building) and there was no mention of the fact that the property was free from all encumbrances.

² Satisfactorily completed, as prime contractor, at least one similar work equal in value to one-third of the estimated cost of work for which the bid is invited, or such higher amount as may be specified in the appendix to ITB.

³ M/S Valecha Engineering Ltd, Mumbai; M/S Ashok Kumar Chhabra Constructions Pvt Ltd, New Delhi; RCC Developers, M/s G S Express Pvt. Ltd. Lucknow, M/s Sobti Infratech Ltd. Bareilly and S&P Infrastructure Developers.

The fact that the property was not pledged anywhere was also not mentioned in any of the solvency certificates in test-checked districts. Thus, interest of the Government was not sufficiently safeguarded.

The State Government while accepting the recommendation stated (June 2017) that a departmental committee will be formed under the chairmanship of Engineer-in-Chief (Design and Planning) to give suitable recommendations in this matter.

Recommendation: The government should revise the format of solvency certificate which should indicate that the property is free from encumbrances and not already pledged, and should also include the name of work for which it is issued.

Case study 7.1

Scrutiny of records in Provincial Division, Mainpuri revealed that a contractor⁴ furnished solvency certificate for two contract bonds⁵ which was valid up to two years i.e. 12.09.2014. It was noticed that the same solvency certificate which had expired, was furnished by the contractor for two more contract bonds⁶ in 2015-16 also by manipulating the date of issue. Audit observed that the solvency certificate was not sent to the District Magistrate, Mainpuri for verification. Thus, solvency certificates were not verified, manipulated certificate was accepted and the interest of the Government was put at risk.

7.3.1.5 Bid capacity of bidders: Proper assessment of bid capacity of bidders is essential for timely completion of works. Audit observed that bid capacity of bidders was not assessed correctly; as a result, the contractors were awarded high value contracts though they did not qualify for the same.

MBD prescribed⁷ the formula for assessing the bid capacity as under:

Assessed bid capacity = $A \times N \times M - B$ where A is maximum value of civil engineering works executed in any one year during the last five years, N is number of years prescribed for completion of the works (period up to 6 months to be taken as half-year and more than 6 months as one year), M is taken as 2.5 and B is the value, at the current price level, of existing commitments and on-going works of the bidder.

Audit observed that in 44 cases costing ₹ 263.37 crore, multiplication factor N was taken as one instead of 0.5 time for duration up to six months. Further, value of ongoing works was not deducted which increased the bid capacity of bidders. In another 63 cases, the contractors did not provide information on their bid capacity. Despite this, work costing ₹ 535.30 crore were awarded to these contractors.

⁴ Satish Chandra.

⁵ Number 18/SE/14-15 (₹ 92.62 lakh) and 19/SE/14-15 (₹ 1.84 crore).

⁶ Number 15/SE/15-16 (₹ 57.11 lakh) and 16/SE/15-16 (₹ 61.47 crore).

⁷ Clause 4.6 of ITB.

7.3.1.6 Evidence of machinery: Clause 4.2 (d) of MBD prescribed that all bidders shall provide the evidence of ownership of major items of construction equipment. Audit, however, noticed that evidence in support of owning required machinery were not attached by 58 bidders for works costing ₹ 1056.56 crore. In 138 cases costing ₹ 1244.51 crore, only affidavits were attached while in 21 works costing ₹ 95.34 crore, bidders attached invoices of machinery pertaining to other contractors, their relatives, etc. Hence, in 217 cases proper assessment of equipment/machinery was not done which was critical for execution of works. The fact that invoices of other contractors were accepted for qualification of bidders was in violation of rules and indicated extension of undue favours to contractors by the public works officers.

7.3.1.7 Employment of Technical staff: MBD provided that each bidder would demonstrate availability of technical personnel as detailed in Appendix to ITB. The ITB stated that to ensure employment of technical personnel, the contractor would be required to give proof of payment of the salary/wages to such personnel by cheque or demand draft. Audit noticed that proof of payment of salary/wages to technical personnel by cheque or demand draft was not furnished by bidders except in only nine cases⁸, out of 331 contract bonds test-checked. Thus, EEs/SEs of test-checked districts failed to ensure the provisions of MBD which resulted in furnishing incorrect information by bidders. Further, Scrutiny of contract bonds in test-checked districts revealed that same technical staff was shown to be employed by many bidders at the same time. Audit observed that 40 technical staff were shown to have been engaged by two to five bidders in their affidavits during 2011-16 for execution of 57 works costing ₹ 637.96 crore.

7.3.1.8 MBD prescribed that an undertaking be taken that the bidder would be able to invest a minimum of cash up to 10 *per cent* of the contract price and would also furnish an evidence of access to line of credit and availability of other financial resources/facilities (10 *per cent* of the contract value) duly certified by a banker. Audit, however, observed that credit letters from banks were not attached to bids by 42 bidders for works costing ₹ 569.41 crore. Similarly, affidavit regarding investment by bidders was not furnished by 49 bidders for works costing ₹ 604.48 crore. However, despite these deficiencies in their bids and not ascertaining their credit worthiness, the contractors were declared qualified.

7.3.1.9 Work programme: Bidders in 171 cases costing ₹ 1,697.51 crore attached only bar charts while 63 bidders did not attach work programme and methodology for works costing ₹ 801.62 crore. Hence, their planning for timely completion of works was not assessed by the department.

7.3.1.10 Registration/Partnership deed: Out of 166 contracts who were awarded contracts costing ₹ 3,517.47 crore, certificate of registration was not attached by 38 bidders for works costing ₹ 636.09 crore, partnership deed was

⁸ CBs no 32/SE/12-13 of CD-1, Siddhartha Nagar; 19/SE/12-13 of PD, Budaun; 13/SE/14-15 of PD, Ghazipur and 25/SE/12-13 of PD, Hardoi; 65/SE/11-12, 50/SE/14-15, 04/SE/16-17 and 03/SE/16-17 of PD, Saharanpur and 29/SE/13-14 of PD, Mirzapur.

not attached by 45 bidders for works costing ₹ 918.18 crore and power of attorney was not attached by 67 bidders for works costing ₹ 1,353.78 crore.

7.3.1.11 Registration and PAN: Audit noticed that in 270 cases (82 per cent) costing ₹ 3,582.07 crore, out of 331 cases, bidders did not attach their registration certificate with labour department. Trade tax clearance certificate was not attached by 201 bidders (61 per cent) for works costing ₹ 2,307.17 crore. TIN was not enclosed by 25 bidders for works costing ₹ 188.83 crore and PAN was not enclosed by 19 bidders for works costing ₹ 258.98 crore.

Such lapses in technical evaluation of major tenders of high value indicated that either the PWD officers dealing with technical evaluation and finalisation of tenders were casual in discharging their responsibilities or had connived with the contractors to overlook these important qualifying requirements and declared them technically eligible.

The Government did not reply on other issues related to deficient technical evaluation.

7.3.2 Technical evaluation of bids costing up to ₹ 40 lakhs

Model Bidding Document (T1) prescribed that for works costing between ₹ 10 and 40 lakhs, bidders would furnish prescribed documents/information along with their financial bids.

Audit examined 230 contracts costing ₹ 75.15 crore and noticed that PWD divisions qualified private contractors and awarded contracts despite many of them not submitting the basic qualifying documents with their bids as shown in the Table 7.2 below:

Table 7.2: Status of technical evaluation by EEs during 2011-16

Sl. No.	Documents not furnished/verified	No. of contract bonds	Value of works (₹ in crore)
1	Turn over certificates	104	31.91
2	Experience certificate	89	27.00
3	Evidence of ownership of equipment	101	32.54
4	Financial statements	120	38.19
5	Character certificate	230	75.15
6	Solvency certificate	226	74.37
7	Existing commitments	125	39.82
8	Bid capacity	205	67.74
9	Proposed work programme	216	71.57
10	Registration certificate with labour department	127	40.46
11	Trade tax clearance certificates	93	28.21

As per tender conditions, the financial bids of only those bidders were to be opened who qualified in technical evaluation. However, the above contractors who did not furnish the qualifying documents were declared technically qualified.

Case study 7.2

During test-check of records in Construction Division, Unnao, it was noticed that Mohd. Ashlam Malik was stated to be working as Engineer for the firms of three contractors⁹ by furnishing affidavits in this regard. All the three contractors also claimed to have paid remuneration to the concerned junior engineer. Thus, it appeared that two contractors furnished incorrect affidavits and the EE/SE failed to detect this anomaly.

The Government did not furnish reply.

7.4 Fresh NITs not invited despite revision in Bill of Quantity

Scrutiny of records revealed that out of 331 contract bonds test-checked, in 214 cases (65 *per cent*) amounting to ₹ 3,449.20 crore, bill of quantity was revised downwards/upwards after opening of bids. In such cases, fresh NITs should have been invited as per rules as no major deviation in the terms and conditions or quantity is permissible after opening of tenders. But, audit observed that in none of these cases fresh NITs were invited and contracts were awarded on the basis of original tender.

Thus, despite change in the bill of quantity/scope of work, awarding the works without inviting fresh NITs was not proper and deprived the bidders of the opportunity to submit bids according to the changed scope of work.

The Government did not furnish reply.

7.5 Cartel formation

Scrutiny of contract bonds, agreement registers and other related records in test-checked districts pertaining to 2011-16 revealed that award of contract bonds by EEs/SEs was not carried out in a fair and transparent manner. There was indication of large scale cartel formation in PWD works by bidders thus the whole tendering process was not transparent and seriously lacking in fairness and competition as discussed below:

- Scrutiny revealed that 482 contract bonds of five divisions worth ₹ 600.90 crore were finalised by SE, Gorakhpur circle, Gorakhpur during 2011-16. Out of these, in 128 (27 *per cent*) contract bonds worth ₹ 101.70 crore, there were only two bidders and in all these 128 cases, same rates were quoted by the two bidders. Negotiations were held with both bidders and even after negotiation, their rates were equal. In all these cases, contract bonds were awarded to both the contractors by splitting the work equally. Submission of only two bids in all these 128 cases indicates inability of departmental officers to generate sufficient competition. Further, submission of same rate in 27 *per cent* works at the time of tender and after negotiation also indicates a possible nexus which needs to be investigated.
- Similarly, audit observed that Superintending Engineer, Basti Circle, Basti constituted 62 contract bonds amounting to ₹ 22.41 crore by splitting

⁹ 1. Mohd Umar Khan 2. Ram Dayal and 3. Gyanendra Kumar Mishra.

31 works during 2011-16. In these cases also, rates tendered by both the bidders were same and after negotiation also same rates were quoted by the bidders.

- In test-check of records in Provincial Division, Unnao, Audit observed that during 2011-16, EE awarded 18 and 20 contracts to Sri Kuldeep Singh and Sri Ram Dayal amounting to ₹ 5.44 crore¹⁰ and ₹ 4.02 crore¹¹ respectively. Scrutiny revealed that for all these 38 NITs, bids from only these two bidders were received during 2011-16. Bids were submitted by these bidders between 0.10 *per cent* below estimated rate to 12 *per cent* above estimated rates. It was interesting to note that in 12 cases, contract bonds were finalised at 0.10 *per cent* below estimated rates with both the bidders. This clearly showed that these two bidders had formed a cartel and were submitting bids in a pre-determined manner to circumvent the process of bidding in their favour.
- Similarly, it was observed that in 22 cases costing ₹ 155.50 crore pertaining to seven districts¹², all the bidders submitting bids for a work were related with one another as partner of a firm was also partner in the other firm (*Appendix 7.3*).
- During scrutiny of records of Construction division, Mainpuri, it was noticed that during 2015-16, for 12 works costing ₹ 31.35 lakh, tenders were purchased by only two contractors-Girish Chandra Pandey and Bheekham Singh. Audit noticed that in all these 12 cases, bids of Girish Chandra Pandey were lower (rates quoted between 0.01 *per cent* to 0.25 *per cent* below estimated rate in nine bids and at par in three bids) and all 12 contracts were awarded to Girish Chandra Pandey. This could be abnormal indicating a cartel formation and needs investigation.
- NITs for 33 works costing ₹ 7.39 crore were invited in August 2012 by EE, Provincial division, Basti. Audit observed that only one bid was received for all these 33 NITs and contract bonds were executed with single bidders in all cases without going for retendering. The rate quoted in all the bids was between 0.01 *per cent* and 1.11 *per cent* below estimated rate except one bid which was at par with the estimated rate. Further, eight bidders quoted rate of 0.01 *per cent* below estimated rate while 12 bidders quoted rate of 0.10 *per cent* below estimated rate. It was also noticed that in all these cases, none of the bidder quoted rate for more than one work. All these circumstances indicate that the bidding system was not fair & transparent and works were awarded to accommodate all the bidders instead of getting competitive rates for these works. These cases need investigation.

The Government did not furnish reply.

7.6 E-tendering

With a view to ensure fair and transparent bidding process, the Government decided (2014) that from August 2014, tenders for works costing more than

¹⁰Contract bond no 19, 26, 50, 80, 102, 103/EE/15-16; 50, 51, 53, 54, 60, 63, 65, 68, 74, 75, 76, 77/EE/14-15.

¹¹Contract bond no 18, 24, 25, 77, 78, 79/EE/15-16; 30, 52, 55, 59, 61, 64, 66, 67, 70, 71, 72, 73, 83, 105/EE/14-15.

¹²Budaun, Sambhal, Agra, Mainpuri, Jhansi, Saharanpur and Basti.

₹ one crore would be received only through e-tendering. Scrutiny of records in test-checked districts revealed following irregularities in the process of e-tendering:

- Scrutiny of records pertaining to e-tendering carried out during August 2014 to March 2016 revealed that single bids were received in 18 cases (15 per cent) against NITs in 124 test-checked contracts while two bids were received in 75 cases (60 per cent). Three or more bids were received in only 31 cases.

Thus, the number of bids received against NITs in 75 per cent cases was only one or two, clearly indicating that the tendering process was not fully competitive.

- Scrutiny of records in CD-1, Moradabad disclosed that a tender summary report was generated which contained the total number of bids uploaded by the contractors. Analysis of number of bids received and number of bids found technically eligible could indicate the number of bids which were not found technically eligible and also the probable reasons for disqualification like failure to deposit proof of bid security or bid document. However, this report was not available in any other district. As such, position of number of bids originally received and number of technically eligible bids could not be analysed. Audit asked (September 2016) UP Electronics Corporation, which manages the e-tendering system for PWD, whether this format was discontinued and reasons thereof which was awaited.

- Audit observed while adopting e-tendering for the works costing more than ₹ one crore, the department limited the transparency by adopting the manual verification system of papers regarding security deposit, solvency etc. at one place only i.e. EE/SE/CE office. Thus, the ultimate goal of ensuring transparency in works through e-tendering was not achieved.

- Audit noticed that minimum tender value limit was ₹ 10 lakh for procurement of goods, services and work contracts in all central ministries, departments, Central Public Sector Enterprises, and autonomous/statutory bodies like CPWD, NHAI, etc. which was lowered to ₹ five lakh from April 2015 and further lowered to ₹ two lakh from April 2016. However, audit observed that minimum tender value for e-tendering in UP PWD was ₹ one crore which was much higher in comparison to CPWD and NHAI.

The State Government while accepting the recommendation stated (June 2017) that the order has already been issued by G.O. dated 31.03.2017. The State Government also stated that detail process for e-tendering is under formulation by IT & Electronic department UP Government, subsequently the procedure will be followed.

Recommendations:

- ***Government should revise the minimum value of e-tenders downwards in line with CPWD and NHAI; and***
- ***Government should make provision for submission of original copy of bid security at many places like offices of CE, SE, DM and EE.***

Chapter-8

Award of Contracts

Chapter – 8

Award of Contracts

8.1 Delay in finalisation of contracts

Engineer-in-Chief directed (December 2005) that tenders would be finalised within seven, ten and fifteen days of bid opening dates by EEs/SEs/CEs respectively. Contractors would get their contract bonds registered within seven days of award of works or dates given in acceptance letters, otherwise, tenders would be cancelled and security would be forfeited. It was further directed that divisions would maintain a separate register for recording receipt and approval of tenders. Position of tenders pending for more than 15 days would be informed to SEs concerned on 1st and 16th of every month. Test-check of 234 out of 331 contract bonds finalised by CE/SEs and 227 out of 471 contracts bonds finalised by EEs disclosed that there were significant delays in finalisation of tenders as shown in the Table 8.1 below:

Table 8.1: Position of delay in finalisation of tenders by CE/SE/EE

Range of delay (in days)	No. of contract bonds	Cost of CBs (₹ in crore)	Maximum delay (in days)
CE/SE level			
Up to 30	97	1,126.52	30
31 to 90	86	1,098.01	90
91 to 180	35	456.20	177
More than 180	16	282.80	717
Total	234	2,963.53	
EE level			
Up to 30	97	17.59	30
31 to 90	77	22.12	85
91 to 180	36	10.92	180
More than 180	17	3.19	1,731
Total	227	53.82	

Audit also noticed that in two cases¹ costing ₹ 4.01 crore, negotiation with bidders was carried out after 12 to 15 months of opening of technical bids in SE/CE level contract bonds.

Further, neither registers for recording receipt and approval of tenders were maintained by any division in test-checked districts nor position of tenders pending for more than 15 days was intimated to concerned SEs on 1st and 16th of every month.

Thus, EEs/SEs/CEs failed to follow the instructions of E-in-C in test-checked districts and there were delays of up to 1731 days in finalisation of tenders

¹ Contract bond no 17/SE/15-16 of CD-1, Agra (delay of more than 15 months) and 61/SE/15-16 of CD-1, Unnao.

which ultimately led to delay in completion of works. Further, such extraordinary delays, in finalisation of tenders and award of works to contractors might increase the risk of manipulation of the process of evaluation of bids and award of contract. On one hand, in most of the cases, NITs were invited before AA/FS/TS for stated purpose of speedy execution of works as discussed in paragraph 6.2.1 & 6.2.2 of chapter 6, on the other hand, divisions/circles took inordinately long time in finalising tenders. Further, execution of these highly delayed works by the contractors on old quoted rates, despite revision of SoRs in some cases, indicated that either the estimates could have been considerably inflated by the divisions/circles or the contractors were executing sub-standard works.

Case study 8.1

Construction division-1, Basti invited bids for three works in February 2008 and these bids were opened in March 2008. But, the tenders were finalised and contract bonds were executed with the contractors in December 2012, i.e., after a delay of four years and nine months. For all these three works, same two contractors submitted bids and M/S Pragati Construction Company was awarded all the three² contracts. Audit observed that against a contract bond costing ₹ 97,663 only, the contractor was paid ₹ 14.07 lakh (1440 per cent). Payment details in respect of other two works were not furnished by the division.

The Government did not furnish any specific reply.

8.2 Loss due to less stamp duty charged on Bank guarantee

According to Indian Stamp Act³, stamp duty at the rate of ₹ five per thousand amounts would be payable on the Bank Guarantee.

During scrutiny of records in test-checked districts, audit noticed that in eight districts, stamp duty was not taken as prescribed, in 29 cases, out of 331 test-checked contract bonds and instead stamp paper of only ₹ 100 was taken. This resulted in loss of ₹ 2.09 lakh (*Appendix 8.1*) to the Government.

The Government did not furnish any specific reply.

8.3 Contract bonds not signed

For a contract to be legally binding, it should be signed by both the parties to the contract.

During test-check of records audit observed that in 32 contract bonds costing ₹ 239.78 crore, signatures of Superintending Engineers or contractors or both were missing on the agreement form. In 11 contract bonds (₹ 88.17 crore), SEs had not signed form of agreement and in 11 contract bonds (₹ 110.57 crore), contractors had not signed form of agreement while in ten contract bonds (₹ 41.03 crore) signatures of both SEs and contractors were not

² CBs no 163/12-13 for ₹ 97,663, 164/12-13 for ₹ 97,367 and 167/12-13 for ₹ 97,505.

³ Article 12-ka of Schedule-1-B.

found on the agreement form. Thus, SEs did not perform their responsibilities with due care and did not ensure signing of agreement form by both the parties before awarding the work.

In the absence of signatures in the specified format, authenticity of contract bond was doubtful. Also, the agreements would not be binding and legal in case of default by contractors which could put Government interest at risk.

The Government did not furnish a specific reply.

8.4 Scheduled completion time of works

SE level: Audit observed that there was no instruction or guideline available with the department for fixation of time for completion of works by contractors. As a result, different period of time was fixed by Superintending Engineers for completion of similar nature/quantity of works, as given in Table 8.2 below:

Table 8.2: Detail of time allowed by SEs for completion of works

Sl. No.	Range of cost (In crore)	Number of CBs	Cost of CBs (In crore)	Minimum time allowed (Months)	Maximum time allowed (Months)
1	Less than 1	1874	1,073.31	1	24
2	1 to 5	855	1,592.36	1	24
3	5 to 15	120	1,139.64	1	24
4	15 to 30	64	1,332.16	6	24
5	30 to 50	23	848.67	6	24
6	50 to 100	13	937.64	9	24
7	More than 100	04	612.00	18	30
Total		2,953	7,535.78		

(Source: Records furnished by divisions)

The table indicated that the time allowed for execution of works of similar value varied widely. Audit noticed, works costing ₹ 30 to 50 crore were given 6 months to 24 months for completion. For instance, for widening/strengthening of Basti-Kante⁴ road (in 24 km length) costing ₹ 31.26 crore, two years completion time was allowed while for widening/strengthening of MDR-60 road⁵ (in 22.90 km length) costing ₹ 31.96 crore, only six months completion time was allowed. This indicated that works completion period was decided arbitrarily.

Ministry of Road Transport and Highways fixed (July 2001) five months time for works costing less than ₹ five crore and six months for works costing ₹ five crore to 20 crore. But, audit observed in test-checked districts that UP PWD allowed time for completion of works arbitrarily without following any norms or principle.

EE level: Similarly, position of time allowed by EEs for completion of works during 2011-16 was as given in Table 8.3:

⁴ CB no 158/SE/13-14 of CD-1, Basti.

⁵ CB no. 86/SE/15-16 of PD Unnao.

Table 8.3: Detail of time allowed by EEs for completion of works

Sl. No.	Range of cost (In lakh)	Number of CBs	Cost of CBs (In crore)	Minimum time allowed (Days)	Maximum time allowed (Months)
1	Up to 01	183	1.72	06	12
2	01 to 10	31	1.29	04	06
3	10 to 25	71	13.57	27	18
4	25 to 40	186	69.58	13	13
Total		471	86.16		

(Source: Information furnished by divisions)

It is important to note that completion time has a direct bearing on the calculation of bid capacity of the contractors. While calculating bid capacity of a contractor, completion time up to six months is taken as 0.5 and completion time of more than six months is taken as one. As such, increase in completion of time for less than six months to more than six months doubles the bid capacity of the contractors which helps them to get higher value contracts as their bid capacity is increased and possible collusion could not be ruled out.

Government stated in reply (June 2017) that the observations made by audit has been noted for compliance.

Recommendation: *The Government should prescribe well-defined criteria for fixing time schedule for completion of works in a transparent and objective manner.*

8.5 Utilisation of departmental Plants and Machineries

With a view to ensure optimum utilisation of departmental plants and machineries⁶ available in various divisions in the State, Engineer-in-Chief directed (August 2001) that condition of utilisation of departmental plant and machinery by the contractors, on hire charge basis, should be included in Schedule-C of tenders.

Scrutiny of records of 2011-16 in test-checked districts revealed that these instructions of E-in-C were not followed by EEs/SEs. As a result, optimum utilisation of departmental plants and machineries available in divisions could not be ensured as discussed in the Table 8.4 below:

Table 8.4: Under-utilisation of departmental plant and machinery

Sl. No.	Name of Machinery	Number	Percentage utilisation	Period	Districts
1.	Hot Mix Plant	21 to 28	43 to 62	2011-16	17 test-checked districts
2.	Road Rollers	159	0		
		71	1 to 25		
		53	25 to 50		
3.	Wet Mix Plant	02	0		
4.	CC/ Mixing Plant	12	0 to 30		

⁶ Hot Mix Plant, Road Roller, Tipper, Truck, Water Tanker, Pump set, etc.

Hence, due to the failure of the SEs/EEs to include in the contract the condition of utilisation of departmental Plant & Machinery on hire charges by the contractors, large number of plant and machinery was lying idle in many Public Works divisions/ Circles. This also resulted in loss of potential revenue to government on account of hire charges.

Creation of Depreciation Reserve Fund: The Government created (March 2005) Depreciation Reserve Fund (DRF) to purchase plant and machineries for renewal and replacement of unserviceable plant and machinery, carrying out special repair of plant and machineries and purchase of plant and machineries with latest technology. The Government prescribed that 1.5 *per cent* amount on account of DRF would be added on the total cost of work in every estimate and that the amount would be transferred to the Depreciation Reserve Fund (DRF) for intended purposes. The DRF had a balance of ₹ 38.14 crore in the year 2011-12 which increased to ₹ 62.58 crore in 2015-16.

In the analysis of data relating to DRF and other information furnished by E-in-C pertaining to 2004-16, following issues were noticed:

- During 2013-16, the department incurred expenditure of ₹ 65.40 crore, out of DRF for purchase of Hot Mix Plants (17), Mechanical Paver (23), Loader (27), Roller (34), Tipper (176), Water Tanker (25), Tractor with compressor (51), Bitumen Sprayer (51), etc.
- Audit noticed that department had 21 HMPs in 2012-13 which were not being utilised as per norm. Thus, in these circumstances, purchase of 17 new HMPs without ensuring full utilisation of already existing HMPs, was unjustified. Analysis of utilisation of 11 Hot Mix Plants purchased during 2013-16 revealed that against the departmental norm of 800 hours per year, the performance of these HMPs ranged between 40 hours to 988 hours. Out of 11 HMPs, performance of nine HMPs was below norm and it was below 300 hours for six HMPs. Thus, purchase of these new HMPs and associated machines was unwarranted and resulted in avoidable expenditure of ₹ 65.40 crore. Further, salary paid to staff engaged on these HMPs was also proving to be unfruitful.

Government stated in reply (June 2017) that the observations made by audit has been noted for compliance.

Recommendation: The Government should review the working of existing plants and machineries and staff of Electrical & Mechanical cadre and should take appropriate decision for optimum utilisation of departmental resources.

8.6 Splitting of works

While delegating financial powers for technical sanction of estimates and finalisation of contract bonds, the Government ordered (June 1995) that technical sanction of estimates would be issued and contracts would be

awarded by EE, SE and CE for works costing up to ₹ 40 lakh, ₹ one crore and more than ₹ one crore amount respectively.

During scrutiny of records pertaining to 2011-16 in test-checked districts, audit noticed that divisional officers of 15 divisions⁷ in 11 districts awarded 967 contract bonds amounting to ₹ 61.15 crore by splitting 397 works in parts. Out of these works, two works costing more than ₹ 40 lakh were split in four parts by EEs to bring these works within their financial power and to avoid sanction of higher authorities. The details of splitting of works during 2011-16 are given in *Appendix 8.2*.

The Government did not furnish a specific reply.

8.7 Works awarded without tendering by EEs

E-in-C, Uttar Pradesh ordered (September 1999 and December 2000) that NITs for works of more than ₹ two lakh shall necessarily be published in newspapers for publicity of the works.

Scrutiny revealed that 183 contract bonds amounting to ₹ 1.72 crore were executed by EEs (cost of each contract bond less than ₹ two lakh) without publishing NITs in newspapers.

Detailed scrutiny of the 183 contract bonds revealed that in 134 cases, the actual payments for the works were more than ₹ two lakh. It was noticed that in nine test-checked districts⁸, the payment of ₹ 11.74 crore was made against 134 contract bonds costing ₹ 1.23 crore which ranged up to 6,015 *per cent*⁹ more than the value of executed contracts. Since the value of executed contracts in these cases were more than ₹ two lakh, the bids for these contracts should have been invited by publishing NITs in newspapers as envisaged in the order which was not done and in violation of the orders and was irregular.

The Government did not furnish any specific reply.

8.8 Road signage works

For execution of Road Signage and Raised Reflective Pavement Marker (RRPM) works, Engineer-in-Chief directed (July 2006) that road signage works costing more than ₹ two lakh would be executed through contractors registered for road signage works. Category and criteria for registration of contractors for supply and fixing of RRPM would be similar to that for road signage works.

On scrutiny of records in test-checked districts, audit observed that in five works costing ₹ 187.93 crore, works relating to road signage and supply and fixing of RRPM amounting to ₹ 1.25 crore were executed during 2011-16 and

⁷ PD, Budaun ; CD (B), Gorakhpur ; CD-3, Jhansi; PD, Basti; PD, Unnao; CD-2, Agra; PD, Gorakhpur; CD-1, Basti; PD, Ghazipur; PD, Gonda; PD, Hardoi; PD, Lucknow; CD-1, Lucknow; CD-2, Lucknow and CD-2 Mirzapur.

⁸ Budaun, Basti, Ghazipur, Gorakhpur, Mainpuri, Mirzapur, Moradabad, Saharanpur and Unnao.

⁹ 100 to 200 *per cent*: 11 CBs, 200 to 500 *per cent*: 52 CBs, 500 to 1000 *per cent*: 37 CBs and 1000 to 6015 *per cent*: 34 CBs.

these works were awarded to contractors who were registered for civil works and not for signage works in violation of E-in-C's instructions. Further, provision of road safety works was not included in the estimates of other four works costing ₹ 84.06 crore. As such, quality of works being compromised cannot be ruled out.

The Government did not furnish any specific reply.

8.9 Works executed without sanction of works and allotment of funds

Financial Rules¹⁰ provide that no work shall commence unless a properly detailed design and estimate have been sanctioned; allotment of funds made, and orders for its commencement issued by competent authority.

- Scrutiny of records in test-checked districts revealed that works relating to VIP visits like construction of helipad, barricading, preparation of stage, etc., were executed by Public Works divisions during 2011-16 under the instruction of District Magistrates (DM) or Senior Superintendent of Police (SSP) or Superintendent of Police (SP). Audit noticed that the divisions were still demanding payments for these works from concerned DM or SSP or SP but no funds were provided. Consequently, ₹ 10.93 crore was being shown outstanding against these district authorities for eight months to 29 years as detailed in *Appendix 8.3*.

- Visits of high dignitaries take place frequently in various districts of the State which require execution of some works. But, no system has been devised for funding of such works.

The State Government accepted (June 2017) the observations and stated that proper procedure would be formulated.

Recommendation: Government should put in place a proper system to ensure that expenditure incurred by the Public Works divisions on VIP visits is timely paid and properly accounted for. A time limit should be fixed for sanction of such expenditure after proper verification based on well-defined norms.

8.10 Preparation of incomplete contract bonds

Clause 8.1 under Section 2 of MBD prescribes that bidding documents comprises of NIT, Instruction to Bidders, Qualification Information, conditions of contract, etc. Further, Standard Form of Agreement under Section 8 of MBD lists the documents which form the part of agreement like letter of acceptance, notice to proceed with the works, contractor's bids, contract data, etc. Thus, it was essential for the divisions to include all these documents in the contract bond before signing and sealing the contract bond.

Scrutiny of records, however, revealed that in all the divisions, documents relating to technical qualification of contractors submitted along with technical bids, were not enclosed with the signed and sealed contract bonds. Audit

¹⁰ Paragraph 375 of Financial Handbook Vol VI.

observed that some of these documents like details of equipment, personnel, on-going projects, executed works, experience certificates, etc. were kept in another loose file.

Thus, divisions did not adhere to the provisions of the MBD which adversely affected transparency in contract management.

The Government did not furnish any specific reply.

8.11 Insurance cover not provided by contractors

Clause 13 of General Conditions of contract included in Model Bidding Document (T2) prescribed that the contractor at his cost shall provide, in the joint names of the Employer and the Contractor, insurance cover from the start date to the date of completion, in the amounts and deductibles stated in the Contract Data for the events which are due to the Contractor's risk like loss of or damage to the Works, Plant and Materials; loss of or damage to Equipment; loss of or damage to property and personal injury or death. Insurance cover was also required to be provided from the date of completion to the end of defect liability period for personal injury or death. Insurance policies and certificates were required to be delivered to the Engineer for approval before the completion/start date.

During scrutiny of records in test-checked districts, audit noticed that contractors were required to provide insurance cover of ₹ 7535.78 crore for 2953 contract bonds executed during 2011-16. However, audit observed that insurance cover was not provided by any contractor in test-checked districts except M/S Manisha Projects Pvt. Ltd, Ghaziabad who provided insurance cover of ₹ 47.30 crore for one work¹¹ in Provincial Division, Sambhal. Therefore, due to failure of higher officers to ensure providing insurance cover to works executed in test-checked districts, contractors were benefitted to the tune of approximately ₹ 1.71 crore¹² during 2011-16 (*Appendix 8.4*).

Thus, due to failure of engineers to ensure insurance cover for works, the Government's interest was at risk during this period. Further, it also led to unauthorised aid to the contractors.

The Government did not furnish any specific reply.

8.12 Provisions for purchase of material not adopted

The Government ordered (January 2007) that contract bond, for supply of material, would be constituted on Model Bidding Document-T3.

Audit observed during performance audit that all the divisions in test-checked districts did not constitute contract bonds in the prescribed model contract document T-3. Instead, these divisions placed supply orders for supply of material on the basis of quotations. Test-check of records in test-checked

¹¹ Contract bond no 56/SE/13-14 for estimated cost of ₹ 47.30 crore of PD, Sambhal, premium paid: ₹ 1.08 lakh.

¹² Calculated on the basis of premium paid by M/S Manisha Projects Pvt. Ltd, Ghaziabad.

districts revealed that 274 supply orders amounting to ₹ 2.60 crore were issued for supply of grit and stone dust during 2011-16 (*Appendix 8.5*).

This resulted in lack of competitive rates and loss to the Government on account of stamp duty.

The Government did not furnish any specific reply.

8.13 Deficient maintenance of Contract bond register

It was prescribed that contract bond register would include the information of agreement number and date, name of contractor, name of work, estimated cost, amount of agreement, amount, number and date of security, amount of stamp duty, date of start and completion, voucher number and date of payment.

Audit observed during scrutiny of records that contract bond register was not maintained by divisions in prescribed format. It was noticed that many important columns like estimated cost of work, detail of security deposited by the contractors, and position of final payment were not opened and thus no information regarding these columns were filled. Due to this, audit could not verify the correctness of such information.

The Government did not furnish any specific reply.

Chapter-9

Advances, Recoveries and Payments

Chapter-9

Advances, Recoveries and Payments

Construction activities impact environment on account of mining and other construction related activities. As mining activities pollute environment directly, it is desirable to ensure that mining activities are carried out strictly in accordance with prescribed rules and government instructions. The unregulated activities of illegal mining may result in severe damage to the environment. Thus, it needs to be ensured that such activities are not encouraged and all the construction material is procured from authorised legal sources. Besides, illegal mining also impacts the exchequer of the State on account of less or no recovery of royalty and cost of minerals. Audit, however, noticed serious irregularities in enforcement of government instructions in this regard.

Further, Model Bidding Document prescribed by the department contained the provision of only two interest-free advances-Mobilisation advance and Equipment advance as discussed in paragraph 2.3.1. Scrutiny of records revealed that the provisions of MBD were not scrupulously followed by Executive Engineers. In addition to these advances, the contractors were also paid other advances which were not admissible in the MBD as discussed in the succeeding paragraphs:

9.1 Unwarranted payment of secured advance

During test-check of records in test-checked districts, audit noticed that EEs paid ₹ 36.14 crore to 23 contractors during 2011-16 as interest-free secured advance against the material brought to site though there was no provision of payment of such advance in the MBD. Secured advance was paid in addition to Mobilisation and Equipment advances given in *Appendix 9.1*.

9.2 Unauthorised advance payment

Scrutiny of records in test-checked districts revealed that in addition to payment of mobilisation and equipment advance prescribed in MBD, divisions unauthorisedly paid ₹ 67.10 crore against 17 contract bonds during 2011-16 as advance payment in the name of collection of material and work done but not measured. This resulted in undue aid to the contractors as detailed in *Appendix 9.2*.

9.3 Payment of Equipment advance

Scrutiny of records in sampled districts for 2011-16 revealed the following:

- MBD prescribed for payment of equipment advance up to 90 per cent of the cost of equipment brought to the site, subject to a maximum of 10 per cent

of the contract price. The contractor was to use the advance payment to pay for equipment required specifically for execution of work. The contractor was to demonstrate that the advance payment has been used by supplying copies of invoices or other documents to the engineer.

During scrutiny of records in test-checked districts, audit noticed that though equipment advances of ₹ 204.97 crore were paid to contractors in test-checked districts during 2011-16, no document/evidence was taken by divisional officers from contractors to demonstrate that equipment for which advance payments were made were actually purchased and utilised for the specific works.

Further, scrutiny of balance sheets of concerned contractors for 2011-16 revealed that the contractors had mentioned value of Plant and Machinery under assets column as ranging between ₹ 0.70 lakh to ₹ 9.85 lakh only. This indicated that the contractors did not actually purchase required equipment from the equipment advance taken by them and the advances paid by Public works divisions were utilised somewhere else by the contractors. Thus, divisional officers failed to ensure that advances were utilised for the intended purposes and on the works for which advances were paid. As a result, equipment advance had become a source of interest-free fund during 2011-16 available to the contractors for use as they desire.

- Audit further observed that against the provision of furnishing the bank guarantee of schedule commercial bank, in 35 cases amounting to ₹ 296.70 crore, contractors submitted bank guarantees of ₹ 17.99 crore of Co-operative banks, Prathama Bank, Chartered Mercantile Bank etc., which were accepted by the divisional officers though these banks are not scheduled commercial banks. It is important to note that NHAI Works Manual specifically provided¹ that the bank guarantee issued by a Cooperative Bank shall not be accepted. Thus, the provisions of MBD were not followed and interest of the Government was not protected by the divisional officers.

9.4 Short performance security taken from contractors

Model Bidding Document² prescribed that the successful bidder shall deliver to the employer a performance security of five *per cent* of the contract price plus additional security for unbalanced bids within 10 days after receipt of letter of acceptance.

Scrutiny of records revealed that contractors in 120 cases did not submit required performance security for these works costing ₹ 269.03 crore. Short securities deposited by contractors amounted to ₹ 2.03 crore.

Audit also noticed that performance security in the form of Fixed Deposit Receipts and Bank Guarantees amounting to ₹ 17.99 crore, submitted by 35 contractors, were not proper as these were not issued by Scheduled Commercial Banks as prescribed in MBD. Thus, divisional officers violated

¹ Clause 4.38.2 (b).

² Clause 32 of ITB.

financial rules and contractual provisions and did not secure government interests adequately.

As regards performance security taken in case of contract bonds of EEs, audit observed that a sum of ₹ 2.46 crore on account of additional performance security for 148 unbalanced bids was taken short by EEs.

9.5 Deduction of retention money

Model Bidding Document³ prescribed that the employer shall retain security deposit of five *per cent* of the amount from each payment due to the contractor until completion of the whole of the construction work.

During test-check of the records in test-checked districts, audit noticed that in violation of provision of contract bonds in 57 works⁴ pertaining to 11 districts deduction on account of security deposit at the rate of five *per cent* of the amount due to the contractor, amounting to ₹ 55.11 crore was not made from the bills during 2011-16. This resulted in un-authorized aid to the contractors and consequent exposure of risk on the part of the Government.

Case study 9.1

During scrutiny of records in PD, Gorakhpur audit noticed for widening and strengthening of Sri Ram Janki road (SH-72), a contract bond was constituted by SE, Gorakhpur Circle in November 2011 for ₹ 13.07 crore. Schedule date of completion was December 2012. Audit observed that the contractor was paid ₹ 7.13 crore but required retention money (₹ 36.97 lakh) was not deducted. Due to slow progress of work by contractor, contract bond was terminated in January 2015 after two years of scheduled completion time. Recovery of ₹ 3.43 crore was calculated against the contractor which was still (August 2016) pending. Had the division deducted retention money from the bills of the contractor at least ₹ 36.97 lakh could have been recovered.

9.6 Diarisation of bills of contractors

Audit observed that public works divisions/circles have no system of properly recording receipt of bills of contractors in a diary. As a result, it was not possible to verify the delay in payment of bills or undue favour extended to some contractors by divisional officers in payment of their bills.

9.7 Royalty payment and transportation of material

Use of construction material procured from only authorised quarries is permitted in execution of road works. The contractors are therefore required to procure the construction material such as stone ballast, grit, stone dust etc. from government authorised quarries only and as a proof of such procurement

³ Clause 43.1 of Conditions of contract (Section 4).

⁴ PD, Budaun: 04, PD, Agra: 02, PD, Basti: 02, PD, Unnao: 04, CD, Budaun: 5, CD-1 Agra: 3, PD, Mainpuri: 2, PD, Gorakhpur: 4, CD-1, Basti: 7, PD, Jhansi: 1, CD-1, Unnao: 6, PD, Sambhal: 3, CD-1, Sidharthnagar: 5, PD, Gonda: 5, CD-3, Saharanpur: 3 and CD, Saharanpur: 1.

are required to obtain copy of treasury *challan* for royalty payment and transit pass (MM-11 form⁵) from the quarry for submission to the PWD divisions. Failure to submit treasury *challan* for royalty payment and transit pass (MM-11 form) would raise questions not only about the quality of construction material supplied but also about the genuineness of the source from where the material has been procured. Given the problem of illegal mining of construction material all across the country, it becomes absolutely essential for the PWD divisions to closely monitor and ensure that royalty is paid and MM-11 forms are submitted in respect of all the construction material used for the construction of roads.

The UP Mineral (Prevention of Illegal Mining, Transportation and Storage) Rules 2002 provide that transportation of minerals without a valid Transit Pass (MM-11) is irregular. Further, as per the orders of the Government issued in February 2001, August 2002 and October 2006, the works executing agencies are required to accept MM-11 forms only after verifying their validity from the concerned District Mining Officers (DMO). Each Drawing and Disbursing Officer (DDO) is responsible for realisation of royalty. If the contractors do not produce royalty receipt in form MM-11, the DDO will deduct the royalty from the contractor's bill and deposit the same into the treasury.

Scrutiny of records in test-checked districts revealed that all divisions have been ignoring repeated orders of the Government (February 2001, August 2002 and October 2015) regarding payment of royalty on minor minerals used in construction works for which they had to take certified copies of treasury *challans*, deduct royalty and deduct cost of minor mineral in cases of failure in submission of MM-11 forms. Audit observed several major deficiencies in deduction of royalty, furnishing of MM-11 forms and payment for works by the divisions. Thus, failure in adherence to the rules in this regard not only resulted in loss to the Government, but also abetted illegal mining and adversely affected the environment as discussed below:

9.7.1 Certified copies of treasury *challans* not submitted: With a view to check the loss of revenue received from sale of minor minerals, the Government ordered (February 2001) that suppliers would submit copy of treasury *challan* as proof of pre-payment of royalty while submitting their bills of payment. It was again reiterated by the Government in August 2002 and October 2015. Audit, however, observed that in gross violation of these repeated orders of the Government, none of the divisions in test-checked districts ensured receipt of certified copies of treasury *challans* from contractors for any work, in support of payment of royalty.

9.7.2 MM-11 forms: Scrutiny revealed that MM-11 forms were not taken by the divisions in Agra (CD-1 & 2), Basti (CD-1)⁶, Gonda (PD)⁷, Jhansi (PD and CD-3) and Mirzapur (CD)⁸. During test-check of 16 works pertaining to 11

⁵ Transit pass issued by the Mining department for valid transportation of minor minerals in the State.

⁶ EE stated that MM-11 forms are taken at the time of final payment.

⁷ EE stated that MM-11 forms are taken at the time of final payment.

⁸ EE stated that MM-11 forms, in original, are sent to DMO for verification and furnished list of verified MM-11 forms.

districts it was noticed that 2,66,673 cum stone ballast; 5,74,945 cum grit and 1,82,315 cum course sand/stone dust was utilised in construction works. However, only 4,842 MM-11 forms in support of 1,24,469 cum grit and 7,820 cum course sand/stone dust were furnished by 16 divisions to audit in evidence of the minerals having been transported on valid forms. Further, scrutiny of these 4,842 number of MM-11 forms revealed the following shortcomings:

- Destination written on 2,464 MM-11 forms (51 *per cent*) was other than the district of execution, out of 4,842 MM-11 forms (02 to 94 *per cent*) as detailed in **Appendix 9.3 A**.
- In 369 cases (8 *per cent*), destination was not mentioned. This indicated that irregular MM-11 forms were accepted in large cases for transport of material. Thus, fake execution or illegal mining cannot be ruled out.
- Name of work was not mentioned in all the cases. Thus, it could not be ensured that the MM-11 forms furnished by the divisions against a particular work to audit actually pertained to that very work. It was also possible that same forms could be utilised against any work during that period.
- Audit noticed that all divisions did not cancel the MM-11 forms enclosed with bills after payment to avoid reuse in other works by the contractors.
- Work-wise detail of quantity of material required and position of MM-11 forms furnished by the contractor was also not worked out in any case. As such, it was not possible to verify whether the contractor submitted MM-11 forms for the required quantity against a particular work.

In all these cases, EEs failed to detect these deficiencies and accepted all these deficient MM-11 forms.

9.7.3 Recovery of value of minor mineral along with royalty: Section 21 (5) of Uttar Pradesh Minor Mineral Act, 1957 prescribes that in case of consumption of minerals from illegal mining, cost of mineral (generally five times of royalty) would also be recovered along with royalty. The Government also issued (October 2015) specific order in this regard. Audit, however, noticed that none of the divisions, in test-checked districts, deducted amount of royalty and also cost of mineral in 16 cases though not submitting the MM-11 forms during 2011-16. This resulted in loss to the Government and undue aid to the contractors amounting to ₹ 28.16 crore (**Appendix 9.3 B**). It also encouraged illegal mining in the State and adversely impacted the environment.

During scrutiny of records in CD (Building) and CD-2, Agra, audit noticed that MM-11 forms were not furnished by contractors in any case during 2011-16. But, the divisions neither deducted royalty nor the cost of minor mineral from the contractors which led to loss to the Government. Audit observed that against ten test-checked works of these divisions, this loss amounted to ₹ 2.29 crore. In reply, EEs stated that royalty was deducted as per order of mining department. Reply was not acceptable as the provisions of the

Act which was also reiterated by GoUP (October 2015) was not followed by these divisions.

9.7.4 Use of road construction material from unapproved quarries:

During scrutiny of records of PD, Mainpuri it was noticed that Jhansi quarry was approved for bituminous works (BM, DBM, SDBC and BC) while Ghatari and Khera Thakur quarries of Rajasthan were approved for granular works of Mainpuri by Superintending Engineer, Mainpuri circle. However, Audit observed that instead of use of material from approved quarries, contractor used material from unapproved quarries (Bhind, Muraina, Teekamgarh and Gwalior of Madhya Pradesh) for test-checked Lakhaura-Ochha road. Transit passes (Proforma-9) forms in support thereof were accepted by EE and no royalty was deducted. This resulted in loss to the Government on account of royalty (₹ 35.61 lakh) and excess cartage as discussed in succeeding paragraph.

9.7.5 Irregular payment of cartage: Rates of different items of work (GSB, WBM, WMM, BM, DBM, SDBC & BC) taken in estimates included cost of material (stone ballast/grit, dust, etc.) and cost of cartage from approved quarries to the site of works. In cases where valid MM-11 forms were not furnished or were not valid, possibility of use of material from other nearby places cannot be ruled out. Audit observed that in 170 test-checked works costing ₹ 4,787.33 crore of 17 districts, irregular payment of cartage amounting to ₹ 673.91 crore (14.08 per cent of total cost) (*Appendix 9.3 C*) was made during 2011-16. Thus, illegal mining was promoted by not adhering to the rules.

9.7.6 MM-11 forms not sent to District Mining Officers for verification:

Audit observed in test-check of records in selected districts that 33 divisions in 17 districts did not send any MM-11 forms to concerned DMOs for verification. However, PD, Gorakhpur and PD, Jhansi sent some MM-11 forms for verification to DMOs. It was noticed that, out of 123 MM-11 forms (2,561 cum grit) which were verified by DMO, 89 (72 per cent) were found genuine (1,724 cum) while 34 (28 per cent) MM-11 forms (837 cum) were found fake/tampered. Further, out of 89 forms which were found genuine, against 18 MM-11 (20 per cent) excess quantity (67 cum) was transported by overloading. EE recovered ₹ 2.73 lakh from the contractors against the recommended recovery of ₹ 5.04 lakh by DMO, Sonebhadra.

Audit sent (August 2016) five transit passes (form J) submitted in Budaun⁹ for verification to Deputy Director, Mining, Udham Singh Nagar, Uttarakhand. It was informed by Deputy Director that two transit passes (30 cum grit) were not issued by his office though these transit passes had the seal of his office. This indicated that these passes were fake.

Therefore, these 33 divisions failed to perform their tasks of verification as was their responsibility and, as a result, genuineness and validity of MM-11 forms furnished by contractors could not be verified. Failure of the divisional

⁹ CD-1, Budaun.

officers in ensuring the genuineness of the furnished MM-11 forms, resulted in aiding the contractors in furnishing irregular MM-11 forms and ultimately resulting in loss to the Government due to use of construction material from illegal mining.

9.8 Security not credited to 'Public Works Deposit'

Paragraph 617 of Financial Handbook Vol VI prescribes that percentage deductions on account of security, made from contractor's bills, should be credited to the head 'Public Works Deposits'. Model Bidding Document¹⁰ prescribed that the employer would retain security deposit of five *per cent* of the amount from each payment due to the contractor until completion of the whole of the construction work. On full completion of the construction work, half of the total retained amount would be paid to the contractor and remaining half would be paid when the defect liability period had passed and the Engineer had certified that all defects notified by the Engineer to the contractor before the end of this period had been corrected.

Audit observed that divisions in test-checked districts utilised the amount of Cash Credit Limit amounting to ₹ 108.82 crore equal to amounts deducted on account of security from contractor's bills and did not surrender it during 2011-16. Similarly, ₹ 87.88 crore was paid, out of 'Public Works Deposits' from Deposit Cash Limit or Cash Credit Limit received for other works during 2011-16 (*Appendix 9.4*).

Thus, the system of crediting amount of security deducted from contractor's bills to 'Public Works Deposits' was not followed by any division in test-checked districts during 2011-16.

The Government did not furnish reply to any of the points in this Chapter.

¹⁰ Clause 43.1 of Conditions of contract (Section 4).

Chapter-10

Quality control, Manpower and MIS

Chapter-10

Quality control, Manpower and MIS

Quality control which involves testing and inspection of material and workmanship is extremely important in public works projects in view of their vast and complex network and involvement of huge amount of public funds. Our detailed findings are given in the succeeding paragraphs:

10.1 Quality Control issues

Government issued detailed instructions (August 1996 and July 1997) for ensuring quality control in works executed by PWD. Audit noticed that the government directions have not been adhered to by the divisions, thus compromising the road quality as well as road safety as discussed below:

10.1.1 Mandatory tests not included in the estimates: Important decisions regarding the quality of a road are taken at the design and planning stage itself. The government therefore had directed (August 1996 and July 1997) that in future, type of item-wise tests and their numbers according to Indian Standard/Departmental/ IRC specifications would be mentioned in all estimates. Officers sanctioning estimates would be fully responsible for ensuring that it has been done as per norms. No estimates would be sanctioned unless the above quality requirements have been fully incorporated.

In PWD, estimates for road works are sanctioned by EEs, SEs and CEs depending on the financial value of the work proposed to be executed. Audit observed during the scrutiny of estimates in test-checked districts that the engineering authorities were disregarding the instructions of the Government. Details of quality tests and their numbers in respect of various items of works were not mentioned in any estimate during 2011-16. Thus, the orders of the Government regarding quality control at the stage of preparation and sanction of estimates were ignored.

10.1.2 Submission of test-samples to RI, QPC and district labs: Government instructions required that out of total test-samples, 25 per cent test samples would be sent to Research Development and Quality Promotion Cell (QPC) and Research Institute (RI) Lucknow. 25 per cent would be sent to Regional laboratory, Meerut. In regions where regional laboratories are not available, these 25 per cent test samples would also be sent to QPC and RI. Remaining 50 per cent test samples would be sent to district laboratories for testing.

In addition, SEs/EEs would also send two samples every month from all works being executed in their circles/divisions to QPC/RI.

Scrutiny of records in test-checked districts revealed that divisions were not sending the required 50 per cent (25 per cent for divisions located in Meerut region) test samples to QPC/RI during 2011-16. The number of test-samples sent to QPC/RI was less than even one per cent as discussed in paragraph 10.1.4.

Further, EEs/SEs also did not send test samples from two works being executed in the division/circle during 2011-16.

Scrutiny of records in test-checked districts pertaining to 2011-16 also revealed that divisions failed to follow the orders of the Government and did not send the mandatory 50 per cent test samples from the works being executed by divisions. Though district labs were established in every district of the State, these were not being utilised for testing regularly.

10.1.3 Monthly progress reports of test-samples not sent: Zonal Chief Engineers were required to send division-wise progress reports on test samples to E-in-C for review at E-in-C and Government level.

In contravention of Government order, divisions/circles/zones did not send monthly progress reports during 2011-16 of testing of samples to E-in-C/Government for review. In absence of these reports, it was not possible for the E-in-C and Government to review the position of testing of samples in the State and monitor the quality of road construction.

10.1.4 Quality testing of construction material: Quality testing of construction material is an essential requirement to ensure that the construction work is being executed as per prescribed quality standard/norms. Audit observed that in PWD there are two organisations namely Research Institute (RI) and Research Development and Quality Promotion Cell (QPC) entrusted with the same work and both are working independently.

Audit observed that the number of tests conducted by RI/QPC during 2011-16 was very few as given in the Table 10.1 below:

Table 10.1: Number of tests conducted by RI/QPC for road works

Sl. No.	Year	Number of samples tested	Number of divisions
1	2011-12	484	88
2	2012-13	838	116
3	2013-14	1,390	161
4	2014-15	981	133
5	2015-16	694	108
Total		4,387	606

(Source: Information furnished by Research Institute and Quality Promotion Cell, PWD)

As there are 178 divisions in the State dealing with road works, the information in the table above shows that 17 to 90 divisions had not submitted any sample to RI/QPC during last five years.

Further, the number of samples submitted to RI/QPC was also negligible. On an average, 7 samples were submitted to RI/QPC annually by each division. Audit however, observed that each division was concluding nearly 124 to 147 contracts per year costing ₹ 66 to ₹ 75 crore. For a work costing ₹ 40 lakh, 575 tests were required to be conducted as per IRC norms. Out of these tests, 287 tests were to be conducted by RI/QPC (except Meerut region). Similarly, for a work costing approximately ₹ 20 crore, more than 2675 tests were required to be conducted as per IRC norms. Out of this, 1333 tests were to be conducted by RI/QPC (except Meerut region). This implied that in almost all the road works no quality testing had been carried out.

In reply, Director, RI accepted (August 2016) that there was shortage in the number of samples sent from Zonal Chief Engineers. Further, it was seen that E-in-C was consistently instructing CEs for sending samples to RI/QPC which was not being followed/complied with.

10.1.5 Field laboratories not established by contractors: Every contract bond included the provision that the contractor shall establish field laboratory for carrying out mandatory tests as prescribed in the specification. The field laboratory will have equipment as specified in the Contract.

During test-check of records in selected divisions audit observed that the divisions did not ensure establishment of field laboratories for every work. Audit noticed that the minimum number of equipment and technical staff required for field laboratories was not indicated by the divisions in bid document. Audit also noticed that no test reports were enclosed with bills by the contractors. Test-registers of field laboratories were also not available in divisions except PD, Hapur. This indicated that no field labs were established by the contractors in violation of contract terms.

The divisions also released payments for test-checked 170 works of ₹ 3,031.91 crore to the contractors without insisting on the submission of test reports by the contractors.

10.1.6 Test-reports of field laboratories not sent to SE/CE: For ensuring quality of construction works, the Government instructed (August 2008) that registers of quality test-reports conducted in field laboratories should be preserved in divisions and copies of test-reports should be sent to SEs and CEs. This was also reiterated by Chief Engineers while issuing technical sanction to the detailed estimates.

Audit, however, observed during scrutiny of records of SEs/CEs that in violation of the Government order, divisions in test-checked districts did not send copies of quality tests conducted in field laboratories to SEs and CEs. Thus, SEs/CEs could not ensure that quality tests were conducted as per IRC provisions and that test-reports were satisfactory. Further, SEs and CEs also failed to ensure adherence to the Government order as they did not insist on the submission of such test reports by the divisions.

10.1.7 Payment of bills without test-reports: E-in-C directed (February 2011) that contractors would mandatorily enclose test-reports of samples with bills and until the test-reports are as per norms, payments should not be made.

During scrutiny of records in test-checked districts, audit observed that the divisions paid bills (₹ 3,031.91 crore) of contractors in all 170 test-checked works without quality test reports being submitted by the contractors. Hence, the orders of Engineer-in-Chief were disregarded by EEs which benefited the contractors. Further, use of substandard material and execution of poor quality work could not be ruled out.

10.1.8 Inspection of divisions by SEs: Paragraph 71 of FHB Vol. VI prescribed that Superintending Engineers would carry out inspection of all divisions in their jurisdiction every year to ensure that all required records/registers are being maintained and the divisions are following the instructions of the Government/E-in-C/higher officers, etc.

Scrutiny of records relating to inspection of divisions revealed that during 2011-16, Superintending Engineers did not carry out inspection of divisions under their jurisdiction annually. Out of 33 test-checked divisions, only one division (PD, Hapur) was inspected in November 2014 by SE, Bulandshahr Circle, Bulandshahr during 2011-16 and all other 32 divisions (97 per cent) were not inspected at all during 2011-16.

The only inspection carried out by SE, Bulandshahr (out of 33 test-checked divisions) during 2011-16, brought out significant lapses, malpractices and irregularities in the functioning of the division including failure in submission of quality test reports as discussed in the Case study 10.1 below.

Case study 10.1

SE, Bulandshahr Circle noted in his inspection report of PD, Hapur that (a) Important records like Work register, Works Abstract, Contractors Ledger, Road chart, Court cases register, Incumbency register, Payment register of bills, etc. were not maintained; (b) Register of extra-items, variation and time-extension cases sent for approval was not maintained; (c) Original CRCs, quality certificate of JE/AE/EE, quality test-reports, certificate of compliance of labour laws and Environment were not enclosed with bills for payment; (d) CBR Register was not maintained; (e) Agreement register was not maintained in prescribed format; (f) Condition of use of departmental machines was not included in schedule-C of contract bonds; (g) Supply of construction material was obtained through supply orders and not through contract bonds after tender; and (h) Construction of roads without conducting CBR test of soil after soaking of sub-grade for four days. EE, PD, Hapur agreed to ensure compliance of instructions of SE. However, it was noticed that compliance was not carried out as all the discrepancies pointed out by SE still (August 2016) persists.

The Government stated that provision to take action against the contractor for non-establishment of field lab already exists in the bidding document and further added that instructions are being issued to adhere to such provisions. In respect of non-submission of test samples it did not furnish specific reply and stated that system has been derived to review test reports at HQ level.

Recommendations:

- ***Performance bank guarantee of contractors, who do not establish field labs and submit requisite test reports, should be forfeited; and***
- ***Action should be taken against the divisional officers who failed to submit the test samples especially in large value projects.***

10.2 Functioning of Technical Audit Cell

For introducing an internal, concurrent and continuous administrative and technical audit of the State Public Works Department with a view to securing good quality in works, economy in expenditure and ensuring better technical and financial control of the works in PWD, the Government created (December 1958) the office of Chief Technical Examiner. Technical Audit Cell (TAC) was entrusted *inter-alia* with the responsibilities of inspection of works carried out by contractors, examination of a percentage of contract bonds, audit of a percentage of final bills after payment including quality of works at site etc.

Chief Technical Examiner was to prepare half yearly report showing the total number of bills checked and works inspected and amount of over-payments recovered from contractors and shall point out any serious errors or omissions on the part of executive staff.

Scrutiny of information furnished by TAC revealed following:

- No Annual Technical Audit Plan was prepared during 2011-16.
- No divisions were inspected during 2011-12 and 2012-13 while number of divisions inspected during 2013-14, 2014-15 and 2015-16 was 57, 83 and 81 respectively.
- TAC also did not submit any inspection report to Audit due to which the assessment of the technical examiner with regard to quality of works executed could not be verified.
- No half yearly report showing the total number of bills checked and works inspected and amount of over-payments recovered from contractors was prepared by TAC.
- Against the sanctioned strength of 29, only nine personnel were posted in TAC. Acute shortage of staff affected the performance of TAC adversely.

Thus, TAC failed to fulfill its responsibilities during 2011-16.

Government stated in reply (June 2017) that the observation has been noted for implementation.

Recommendation: Government should strengthen TAC for making it competent in discharging its responsibilities.

10.3 Irrational deployment of Manpower

In Public Works Department, Junior Engineers, Assistant Engineers and Executive Engineers are responsible for ensuring quality in works being executed by contractors under their jurisdiction. Superintending Engineers and Chief Engineers were entrusted responsibility of supervision of construction works being executed in their circles or zones. The engineers are also responsible for carrying out regular traffic census of roads, preparation of preliminary estimates, detailed estimates, finalisation of contract bonds, progress reports, measurement of executed works, preparation of bills, etc.

The position of workload and person-in-position in respect of engineering cadres in test-checked divisions is given in **Appendix 10.1**.

There were significant shortages in the cadre of Assistant Engineers (31 to 32 per cent) during 2013-16. Despite these shortages, audit noticed that there was irrational deployment of manpower in the divisions as discussed below:

- The number of JEs supervised by an AE varied significantly from three to nine in the test-checked divisions (**Appendix 10.1**). For example, against average available three posts of AE, 20 posts of JE were available in CD, Budaun while in CD-1, Basti against the average available four posts of AE, only 11 posts of JE were available. Further, in PD, Sambhal 17 posts of JE were available while number of average available posts of AE was five.

Thus, there was complete lack of systematic deployment of manpower in divisions which is bound to adversely impact the progress as well as quality of execution of work.

Government stated in reply (June 2017) that the observation has been noted for implementation.

Recommendation: Department should utilise the available manpower effectively and efficiently keeping in view the workload of the divisions.

10.4 Management Information System

A comprehensive management information system is essential for an organisation like PWD which deals with large number of small, medium and large projects spread all across the State involving huge amount of public funds. Smooth flow of information/data from divisions to apex level of E-in-C and department and vice versa would lead to speedy implementation of project, efficient utilisation of funds, better monitoring and closer technical supervision of works executed.

Scrutiny of records of EEs, SEs and CEs in test-checked districts and E-in-C office revealed that divisions/circles did not have an efficient MIS and therefore the system of information collection and consolidation was very slow, inefficient and this made it difficult for the department to provide some basic information called for by audit. Following deficiencies were noticed in this regard:

10.4.1 All details of contract bonds not available on website

With a view to make people aware of the amount of funds released for projects, details of specifications, completion schedule, names of contractors and for speedy disposal of complaints regarding execution and quality of construction works, the State Government ordered (November 2006) that important information relating to all construction projects costing more than ₹ one crore like name of project, month/year of sanction, allotment received, date of start and completion of work as per contract bond, name and address of contractor, technical specifications of work, etc., should be exhibited on departmental website 'upwd.up.nic.in'. It was also ordered that website of the department should be widely publicised. Further, EEs were made responsible for putting the required information on departmental website and concerned SEs/CEs were to ensure that these instructions were followed by EEs.

During test-check of records of E-in-C/EEs/SEs/CEs and departmental website, audit observed that the instructions of the Government were not followed by any EE and required information on construction works was not uploaded on departmental website during 2011-16. Further, concerned Superintending Engineers and Zonal Chief Engineers also failed to ensure that the instructions of the Government were followed.

10.5 Electronic database of contracts and contractors not maintained

The government ordered (December 2008) the maintenance of electronic database of all contracts and financial position of contractors at one place so that its verification and cross checking may be done by all departments and tenders executed easily.

Scrutiny of records, however, revealed that no such electronic database of all contracts and financial position of contractors was maintained by the department during 2011-16. Due to this, the divisions could not cross check the status of solvency certificates of contractors enclosed in other contract bonds. This resulted in contractors enclosing same solvency certificate in multiple contract bonds during same period as discussed in paragraph 7.3.1.4. This increased the risk of default by the contractors.

In reply, E-in-C accepted (August 2016) that no such database was available.

10.6 Lack of data on number of PEs

Scrutiny of records revealed that no formats were prescribed by the Government/E-in-C for sending of information relating to number of preliminary estimates sent to SE for onward submission to E-in-C/

Government for approval of road projects relating to construction of new roads, widening & strengthening of existing roads etc. Audit noticed that no documents were maintained at any level (EEs/SEs/CEs) in this regard. Thus, it was not possible to analyse the number of PEs sent to the Government for approval and number of PEs actually approved and rejected. It was also not known what proposals/estimates were sent to Government/higher authorities. Thus, failure to maintain proposals/PEs which were submitted by the divisions for road works and form basis for administrative approval and expenditure sanction by the higher authorities/Government, is fraught with the risk of lack of transparency and corruption.

10.7 Digitalisation of road data

Audit observed that data of division-wise length, width, crust thickness of granular and bituminous layers, PCU, CVPD, etc., of different category of roads was digitised (2015-16) and is available on the departmental website (uppwd.up.nic.in) known as *Srishti*. Divisions can update the data of their division by logging to the *Srishti*. Scrutiny of data uploaded on the website revealed that digitalisation process has not been completed as of June 2017. It was observed that six¹ types of reports were being generated. Out of these six reports, data for five reports was either incomplete or not available.

10.8 Computerisation of system not carried out

During test-check of records (March 2016) in E-in-C office, audit observed that Tata Consultancy Engineers had recommended (2002) the computerisation of the various functions of the department.

It was, however, noticed that the computerisation process was very slow. Out of six modules² being developed by the department, none of the modules were complete (August 2016) and functional. Thus, even after lapse of 14 years after the recommendation by Tata Consultancy Engineers, the work of computerisation was not complete which indicated that it was not given proper priority by the department.

Government stated (June 2017) that computerisation is under way. Budget and monitoring module, Complaint redressal module and Establishment module have already been put on trial and that other modules shall be prepared in due course of time.

Recommendation: Government should ensure early computerisation of all the important functions of the department for making the system transparent, efficient and fast.

¹ Division-wise Inventory report, Division & Km wise Inventory report, Division wise Condition report, Division & Km wise Condition report, Division wise Traffic report and Road & District wise report.

² Division-wise inventory Report Module, Division-wise and Kilometer-wise inventory Module, Division-wise condition Report, Division-wise Kilometer-wise condition Report, Division-wise Traffic Report and Road & District-wise Report.

Chapter-11

Contract Variations

Chapter-11

Contract Variations

The contract bond is a legal agreement between the contractor and the employer, which defines the scope of the work, cost, timeline and terms and conditions for execution of the work. Any change in the contract scope, cost, timeline and the terms and conditions are not permissible except with the approval of the competent administrative/financial authority and within the ceiling limits laid down under rules. Such post-tender modifications may provide undue benefits to the contractors and therefore, should be restricted to the limits as laid down in the rules, regulation and as per the terms and conditions stipulated in the tender.

Audit, however, noticed large number of such cases while scrutinising records of PWD which are discussed in succeeding paragraphs:

11.1 Irregularities in sanction of time-extension

Scrutiny revealed the following issues relating to sanction of time-extension in test-checked districts:

11.1.1 Time-extension without levy of penalty: The contract conditions specifically clarified that the period of completion also included rainy season. Further, instructions also provide that no time-extension was to be given on the grounds of sickness of contractor even if supported by medical certificate.

Audit observed during test-check of records in selected districts that public works authorities sanctioned time-extension in 355 works costing ₹ 547.72 crore involving delay of 21 to 1,928 days on grounds such as sickness of contractors, extreme cold, unavailability of labour, heavy rain, damage in Hot Mix Plants, etc. (*Appendix-11.1*) without levying liquidated damages. As the delays in these cases were attributable to the contractors and not to the department, failure to levy liquidated damages of ₹ 52.24 crore in these cases was irregular and amounts to extending undue favour to the contractors.

11.1.2 Delay in sanction of time-extension: Contract provides that the Engineer shall decide the extension of completion date within 21 days of the contractor asking for it.

Audit, however, noticed that time-extension was not decided within the stipulated time limit. Delay in deciding on time-extension ranged between 44 to 2,650 days after the scheduled date of completion in 438 contract bonds whose monetary value amounted to ₹ 903.41 crore (*Appendix 11.2*).

11.1.3 Imposition of insignificant penalty: MBD prescribes that the contractor shall pay Liquidated Damages (LD) to the employer at the rate of one *per cent* of the contract value per week for delay in completion of work subject to the maximum 10 *per cent* of the contract value.

Test-check of records in selected districts revealed 442 cases of time-extension being granted during 2011-16. Further, examination disclosed that in contravention of stipulated rate of liquidated damages, the divisions in test-checked districts imposed very insignificant amount of liquidated damages in 205 cases (46 per cent) which ranged from 0.008 per cent to two per cent only though the delay was more than 10 weeks and full LD amount of 10 per cent (at the rate of one per cent per week of delay) was chargeable. Hence the contractors were given undue benefit of ₹ 26.54 crore. Further, in 237 contracts valued at ₹ 697.36 crore, no liquidated damages (₹ 68.91 crore) were imposed even though the contractor was responsible for delay exceeding 10 weeks (*Appendix 11.3*). Thus, the contractors were favoured to the extent of ₹ 95.45 crore on account of liquidated damages not being charged.

11.1.4 Time-extension due to paucity of funds: Scrutiny of records in test-checked districts revealed that in 119 cases costing ₹ 564.67 crore, delay in completion of works was due to paucity of funds which resulted in sanction of time-extension of up to 761 days as detailed in *Appendix 11.4*. This indicated poor financial management on the part of the department.

11.1.5 Maintenance of important records

- **Hindrance Register:** In CPWD, stoppage of work due to any hindrance is required to be recorded in a hindrance register maintained by the division. Audit, however, noticed that there was no similar provision in State PWD rules and therefore divisions are not systematically documenting the hindrances caused to the contractor in execution of works. On the other hand, departmental instruction required that the contractor should indicate hindrances in the application form while seeking time extension. As hindrance register was not maintained by the divisions, it was not possible to verify the correctness of hindrances claimed by the contractors in their application seeking extension of time.
- **Application Register:** Audit, further, noticed that applications of contractors for extension of time in most cases were undated and their receipt not recorded by the divisions in any register. In absence of this, it was not possible to examine whether the contractor applied for time extension timely or submitted hindrance claim much later.

11.2 Irregularities in sanction of variation

Engineer-in-Chief instructed (November 2010) that against any contract bond, excess expenditure in various items should not be sanctioned beyond the financial limit of five per cent, 7.5 per cent and 15 per cent by EEs, SEs and CEs respectively. Thus, variation against an item of a contract bond should be limited to maximum 15 per cent.

Scrutiny of records in test-checked districts revealed that in violation of above mentioned order, variations were sanctioned by CEs/SEs beyond their financial limits. Audit observed that during 2011-16, in 105 cases costing ₹ 35.61 crore, variations amounting to ₹ 20.14 crore (*Appendix 11.5*) were sanctioned irregularly by CEs/SEs beyond the maximum limit of 15 per cent by exceeding their delegated powers. The variation approved by CEs/SEs ranged from 16 per cent to 2,519 per cent of the contracted cost of the item.

Thus, the orders of E-in-C were not being followed by the CEs/SEs during 2011-16. Further, such excessive variations over bill of quantities included in the contracts indicated that either the estimates/bill of quantities prepared before tenders were inaccurate or the authorities inflated the item quantities at the time of execution of works.

11.3 Irregularities in sanction of extra-items

Engineer-in-Chief directed (November 2010) that extra-items should be executed in unavoidable circumstances only and it should be limited to 15 per cent of the work cost otherwise concerned EEs and SEs would be held personally responsible for loss of stamp duty and security deposit.

Following major issues were noticed regarding sanction of extra-items:

11.3.1 Normal items of works executed as extra-items: Audit observed in test-checked districts that normal items of works such as Wet Mix Macadam (WMM), Dense-graded Bituminous Macadam (DBM) and Bituminous Concrete (BC) which were included in estimates approved by the government, were, however, not included in 92 NITs and so were not included in contract bonds. Later, these items were executed by sanctioning extra-items amounting to ₹ 35.66 crore (*Appendix-11.6*) during 2011-16. Further, in 71 test-checked works costing ₹ 1,898.39 crore, extra-items costing ₹ 138.47 crore were sanctioned during 2011-16. Execution of normal items, which were included in estimates sanctioned by the competent authority, as extra-items, was not proper as:

- Not including these items in tender implies that there was no price discovery of such items through a competitive bidding. These items were got executed by the department as extra item at estimated rates only.
- No reasons were recorded at the time of tendering for exclusion of such items from the tender despite these items being part of the estimated cost approved by government. Hence, there was complete lack of transparency in this practice adopted by the divisions.
- Not including approved items in the tender also results in short deposit of performance security by the contractors. As no extra performance security was taken at the time of execution of these items as extra items, this extended undue favour to the contractors.

Case Study 11.1

The Government approved (November 2014) strengthening work of Sirsaganj-Kishni road km 12 to km 47.400 pertaining to PD, Mainpuri for ₹ 51.21 crore. Technical sanction was issued by CE, Agra zone in December 2014. However, NIT was published in June 2014 by dividing the road in two parts¹. Two bids of M/S Raj Corporation and M/S Rishiraj Construction were received for both the works. It was seen that rates quoted by both the bidders were 10 per cent & 15 per cent for first part and 15 per

¹ Km 12 to km 33 and km 33 to 58.400.

cent & 10 per cent above estimated rate respectively for the second part of the road. Contracts² were signed for ₹ 15.96 crore and ₹ 16.55 crore at 3.05 per cent and 3.39 per cent respectively below estimated rates after negotiation. Audit observed that extra-items amounting to ₹ 16.04 crore was (50 per cent) sanctioned and executed on this road against the total contract cost of ₹ 32.51 crore. Extra-items which constituted as high as 50.42 per cent of the contract cost were for scrapping of bituminous surface and laying of WMM. These items were normal items of road construction without which road could not have been started. This not only highlights irrational approach of the engineering authorities but also resulted in short deposit of performance security of ₹ 80.20 lakh.

Case study-11.2

Government sanctioned (January 2016) construction of 8.25 km long bypass of SH-33 in district Budaun for ₹ 110.02 crore including land acquisition. SE, Budaun-Pilibhit Circle invited bids in September 2015 for ₹ 43.16 crore. Technical and financial bids were opened even before administrative and financial sanction. Contract bond was executed costing ₹ 22.90 crore only due to change in specifications during technical sanction. However, CE, Bareilly Zone sanctioned extra-items (DBM and BC) of ₹ 21.87 crore (96 per cent) on the day of executing contract bond. Thus, the performance security deposited against the CB was reduced by ₹ 1.09 crore. This also resulted in failure in discovery of competitive rates for works costing ₹ 21.87 crore and undue favour to contractor on account of short deposit of performance security (₹ 1.09 crore).

11.3.2 Complete works being carried out through extra-items: Scrutiny of records in test-checked districts revealed that for 27 road works of ₹ 6.53 crore (**Appendix-11.7**), tenders were not invited and these works were executed as extra-items under the contracts for other works. This implied that these 27 works were awarded directly to specific contractors thus extending them undue favours. Further, performance security was not taken in respect of these works and therefore government interest was not protected.

11.3.3 Excess payment for shifting of material: During scrutiny of records in Gorakhpur and Basti districts, audit observed that divisions paid ₹ 5.81 crore as extra-items against 53 contract bonds (**Appendix-11.8**) during 2011-16 on account of shifting of stone ballast, etc. As the rate in these contract bonds was on the basis of finished items of works, payment for shifting of material to contractors was inclusive and therefore not permissible. Thus, these divisions incurred avoidable excess expenditure of ₹ 5.81 crore.

11.3.4 Scrutiny of records also revealed that 20 EEs paid ₹ 128.63 crore on account of extra-items for 846 contract bonds (**Appendix-11.9**) during 2011-16 but sanction of competent authority was not attached with vouchers. Audit noticed that percentage of extra-items was 0.20 per cent to 5,281 per cent of the cost of contract bonds. Thus, in absence of approval of extra-items, payment of ₹ 128.63 crore was irregular.

² 30/SE/14-15 for ₹ 15.96 crore with M/S Raj Corporation and 29/SE/14-15 for ₹ 16.55 crore with M/S Rishiraj Construction.

11.4 Delay in completion of works

Every contract bond stipulated a scheduled date for completion of work. Scrutiny of records during performance audit revealed that, out of total 170 test-checked works, only 36 works (28 *per cent*) were completed as per the scheduled completion date and remaining 91 works (72 *per cent*) were completed with a delay of up to 1,739 days.

Audit observed that reasons attributed for delay in completion of works were illness of contractors, excessive rain, extreme cold, protest by villagers, unavailability of labour, land dispute, shortage of funds, etc. It was noticed that time-extension was approved by competent authorities routinely in violation of contract conditions which was not justified and led to unauthorised aid to contractors as discussed in paragraph 11.1.1.

11.5 Completion reports not sent

Engineer-in-Chief directed (November 2010) that after completion of works, divisions would send completion reports to the Government and E-in-C immediately.

Test-check of records of selected works revealed that no completion reports were sent to the Government and E-in-C by any division during 2011-16.

Thus, E-in-C's order was not complied with. As a result, Government did not get up to date position of completion of roads in the State which was essential for monitoring the progress of execution of works.

The Government did not furnish any specific reply to any of the points in this Chapter.

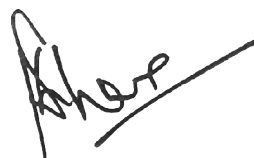


(P K KATARIA)

Principal Accountant General (G&SSA)
Uttar Pradesh

ALLAHABAD
THE **16 JULY 2017**

COUNTERSIGNED



(SHASHI KANT SHARMA)

Comptroller and Auditor General of India

NEW DELHI
THE **17 JUL 2017**

Appendices

Appendix 3.1

Details of irregularities noticed in enlistment of contractors at E-in-C/CE/SE/EE level

(Reference: Paragraph no. 3.3)

Sl. No.	Issue	Item	E-in-C	CE	SE	EE	Total
1	Security	Short security accepted			2		2
		Security furnished by Contractor not verified from issuing authorities		7	8	159	174
		Security furnished by Contractor not pledged in favour of concerned authorities	1	1	2		4
2	Solvency certificate	No seal and stamp of DM office on verification of Solvency certificates	3	6			9
		Verification of solvency certificate not carried out from the issuing authorities			3		3
		Verification of solvency certificate not ensured				185	185
3	Character certificate	No seal and stamp of DM office on verification of character certificates		4			4
		Verification of character certificate not ensured				162	162
		Character certificate of all partners not furnished			1		1
4	Experience certificate	Experience certificate attached belonged to other contractor		10			10
		Verification of experience certificate not done		14	2		16
		Experience certificate not furnished				225	225
		Experience certificate of previous five works not enclosed			3		3
5	PAN	Furnishing of PAN in the name of firm not ensured		6			6
		PAN not attached				21	21
6	Clearance/TIN	TIN not attached				20	20
		Clearance certificate from Trade Tax department was not attached		20	5		25
7	Balance Sheet	Contractors' did not furnish copies of balance sheet of last five years with their applications	3	9	5		17
8	Partnership/Power of attorney	Partnership deeds were not furnished		3			3
		Power of attorney not enclosed		3	5		8
9	Time limit	CE failed to forward cases to E-in-C in stipulated one month time		4			4

Appendix 4.1**Advance payment to Indian Oil Corporation
(Direct debit to works)***(Reference: Paragraph no. 4.1.1)***(₹ in crore)**

Sl. No	Name of Division	Period	Amount
1	PD, Basti	09/2014 to 03/2016	15.64
2	CD(B), Gorakhpur	03/2016	2.00
3	CD-3, Gorakhpur	03/2015 and 03/2016	6.94
4	CD, Mainpuri	03/2012, 03/2013, 03/2014, and 03/2015	20.17
5	PD, Moradabad	03/2016	5.08
6	PD, Unnao	03/2015	0.96
7	CD-1 Basti	03/2014	1.50
8	PD, Gazipur	10/2014, 02/2015, 10/2015	13.14
9	PD, Hardoi	03/2015 and 03/2016	2.30
10	PD, Gonda	03/2012, 03/2013, 03/2014, 03/2015, 03/2016	20.17
11	PD, Lucknow	03/2012	1.96
12	CD-1, Lucknow	03/2012, 03/2013, 03/2014, 03/2015, 03/2016	18.24
13	CD-2, Lucknow	03/2012, 03/2013, 03/2014, 03/2015, 03/2016	23.15
14	CD-2, Mirzapur	03/2012, 03/2013, 03/2014, 03/2015, 03/2016	25.41
15	CD, Saharanpur	03/2015 and 03/2016	2.85
16	PD, Saharanpur	03/2016	8.72
17	CD-3, Saharanpur	03/2016	11.60
Total			179.83

Appendix 4.2

Details of labour cess deducted

(Reference: Paragraph no. 4.2)

(₹ in lakh)

Division	Added and deducted from bill				Deducted from bill of contractor				Deemed to be direct credited			
	No. of CBs	Cost of CBs	Value of work done	Labour cess	No. of CBs	Cost of CBs	Value of work done	Labour cess	No. of CBs	Cost of CBs	Value of work done	Labour cess
CD-1, Lucknow	-	-	-	-	5	4,218.82	3,517.88	35.18	-	-	-	-
CD-2, Lucknow	-	-	-	-	5	26,771.61	5,161.98	51.62	-	-	-	-
CD-2, Mirzapur	-	-	-	-	-	-	-	-	6	13,936.01	11,179.99	163.09
CD-3, Jhansi	-	-	-	-	1	2,140.62	2,133.31	21.33				
CD-3 Mainpuri	-	-	-	-					4	25,276.51	27,322.44	273.22
CD, Mainpuri	-	-	-	-					5	7,210.73	6,334.16	63.34
CD, Saharanpur	-	-	-	-	2	1,771.09	1,714.81	17.15	2	3,238.82	3,082.33	30.83
CD, Budaun	-	-	-	-					6	18,586.35	16,815.46	168.15
CD-1, Moradabad	-	-	-	-	5	10,615.55	10,234.37	102.35				
CD-1, Agra	1	311.99	105.26	0.90	-	-	-	-	5	5,401.85	9,884.83	98.84
CD-1, Basti	4	6,846.27	5,905.31	29.02	-	-	-	-	3	4,139.92	2,696.97	24.01
CD-1, Siddharth Nagar	-	-	-	-	-	-	-	-	5	10,906.66	8,780.65	87.82
CD-1, Unnao	4	4019.39	4,254.94	41.19	2	1,827.34	1,614.75	16.14	-	-	-	-
CD-2, Agra	5	14068.39	8,457.63	72.43	-	-	-	-	-	-	-	-
CD-3, Gorakhpur	3	1765.64	1,717.79	17.18	-	-	-	-	1	364.11	424.04	4.24
CD-3, Jhansi	-	-	-	-	3	4,352.87	4,260.11	42.60				
CD-3, Saharanpur	-	-	-	-	2	1,884.53	2,363.97	23.64	5	4,884.38	4,816.50	48.16
CD (Building), Gorakhpur	1	1,611.28	1,653.17	16.53	-	-	-	-	3	4,835.32	4,240.62	42.41
PD, Agra	5	16,882.16	19,964.16	199.65	-	-	-	-				
PD, Basti	5	12,729.53	8,545.86	85.46	-	-	-	-				
PD, Budaun	-	-	-	-	-	-	-	-	5	17,202.11	15,238.51	152.39
PD, Ghazipur	-	-	-	-	-	-	-	-	5	6,472.96	3,587.44	35.87
PD, Hardoi	1	435.30	403.76	4.49	5	7,167.26	6,658.95	66.59	-	-	-	-
PD, Lucknow	-	-	-	-	6	13,143.95	11,472.96	114.74	-	-	-	-
PD, Mirzapur	-	-	-	-	4	836.40	585.82	5.85	-	-	-	-
PD, Moradabad	-	-	-	-	5	9,196.06	9,045.97	90.47	-	-	-	-
PD, Saharanpur	-	-	-	-	1	946.06	286.15	2.86	4	2,538.59	3,823.27	38.23
PD, Unnao	1	2,484.20	2,388.58	23.89	4	15,799.08	12,412.69	124.13	-	-	-	-
PD, Gonda	3	9,849.97	3,222.87	31.43	2	595.56	523.08	5.23	-	-	-	-
PD, Gorakhpur	-	-	-	-	-	-	-	-	9	17,162.47	9,926.14	99.29
PD, Hapur	-	-	-	-	4	7,276.65	7,020.61	70.20	1	872.44	841.43	8.41
PD, Jhansi	-	-	-	-	6	14,060.13	12,772.74	127.72	-	-	-	-
PD, Mainpuri	-	-	-	-	-	-	-	-	6	12,559.38	12,396.34	123.97
PD, Sambhal	-	-	-	-	4	11,618.71	10,653.18	106.54	2	2,650.28	2,747.64	27.47
Grand Total	33	71,004.12	56,619.33	522.17	66	1,34,222.29	1,02,433.33	1,024.34	77	1,58,238.89	1,44,138.76	1,489.74

Appendix 4.3**Different rates for same item in Schedule of Rates***(Reference: Paragraph no. 4.3.1)***2011-12****(in ₹)**

Name of Material	Name of District (Rate per cum)	
	Agra	Mainpuri
Stone ballast (Ghata Bakoli Quarry Hand broken) 45-90 mm gauge	300	200
Crushed Stone ballast (at Khera Thakur) 45-63 mm gauge	500	415
Crushed Stone ballast (at Khera Thakur) 22.4-53 mm gauge	600	500
Crushed Stone dust 2.36 mm and below	400	320

2012-13**(in ₹)**

Name of Material	Name of District (Rate per cum)	
	Bareilly	Mainpuri
Crushed Stone Ballast and Grit (At Crusher in km. 93 of Bareilly Bageshwar Road:		
45-90mm gauge Stone Ballast	735	520
45-63mm gauge Stone Ballast	735	555
22.4-53mm gauge Stone Ballast	735	585
All size stone grit	800	700
Crushed Stone Dust 2.36 mm and below	960	700
Stone Boulder 5-20 kg in weight	440	450

2014-15**(in ₹)**

Name of Material	Name of District (Rate per cum)	
	Agra	Mainpuri
Stone Ballast (From Khera Thakur Quarry) 45-90 mm gauge	525	400
Crushed Stone Ballast (from Ghatri Quarry) 45-63 mm gauge	600	500
22.4-53 mm gauge	700	600
40mm gauge stone ballast	850	750
Crushed Stone Dust 2.36mm and below	600	500
Crushed Stone Grit (from Ghatri Quarry)		
For Non bituminous work		
13.20mm gauge	825	725
11.20mm gauge	815	715
6.7mm gauge and below	800	700
Stone Boulders (from Khera Thakur Quarry)		
25-40 kg.	450	325
40-60 kg.	470	340
Stone Bricks Dressed	5 each	4.25 each

2015-16

(in ₹)

Name of Material	Name of District (Rate per cum)	
	Agra	Mainpuri
Crushed Stone Ballast (from Ghatri quarry)		
45-63 mm gauge stone ballast	625	600
22.4-53mm gauge stone ballast	725	700
40mm gauge stone ballast	875	850
Crushed Stone Dust 2.36mm and below	625	600
Crushed Stone Grit (from Ghatri quarry)		
Non bituminous work		
13.20mm gauge	850	825
11.20mm gauge	840	815
6.7mm gauge and below	825	800

(in ₹)

Name of Material (Haridwar Quarry)	Name of District (Rate per cum)	
	Bulandshahr	Sambhal/ Moradabad
Crushed Stone Ballast 45-90mm	559	650
Crushed Stone Ballast 45-63mm	607	700
Crushed Stone Ballast 22.4-53mm	655	750
Crushed Stone Ballast 20-40mm	559	750
All size Stone Grit	847	900
Crushed Stone Dust 2.36 mm and below	847	900

Appendix 5.1**Inadequate traffic census***(Reference: Paragraph no. 5.1.2)*

Sl. No.	Division	Year	Name of work	AA_Date	AA Cost (₹ in lakh)	TS_Date	TS Cost (₹ in lakh)	Census in number of days
1	PD, Gonda	2012-13	W/s of Babaganj Rehra road	4-Jan-13	237.62	23-Feb-13	237.62	3
2	PD, Gorakhpur	2011-12	Widening and strengthening of Shri Ram Janki Marg NH-72 km. 136 to 151	23-May-11	2891.98	05-Sep-11	2891.98	3
3	PD, Hapur	2012-13	Strengthening of Masoori Dhaulana Gulawati road in Km 1 to 27.200	12-Oct-12	3712.92	22-Oct-12	3712.92	5
4	PD, Jhansi	2013-14	Widening/strengthening of Arech-Gursarai-Mauranipur (MDR-31) km. 01 to 71 (180)	10-Jan-14	10220	28-Jan-14	10220	3
5	PD, Jhansi	2015-16	Widening and strengthening work (ODR) of partial portion of main Urban Marg Shivpuri Bypass to Divisional Commandant Homeguard office via Badhwa Petrol Pump in Jhansi	25-Aug-15	1879.54	16-Sep-15	1879.54	3
6	PD, Sambhal	2013-14	W/S of Moradabad Sambhal road to connect district headquarter of Sambhal under four lane connectivity of district headquarters scheme, length 35.71 km	4-Jul-13	13632.92	08-Aug-13	13632.9	3
7	CD-1, Unnao	2015-16	Construction of Approach, Additional approach and Protection work on Ganga river bridge near Bithoor-Pariyar-Chakalwansi road	30-Jun-15	2136.12	13-Aug-15	2136.12	4
8	CD-1 Moradabad	2013-14	W/s of MBD-Sambhal (MDR-69W) (13-14)	04.07.2013	7666.66	08-Aug-13	7666.66	3
9	PD Unnao	2012-13	W/S of Kalukheda-Kantha-Musanna (12-13)	07.02.2013	3096.31	13-Mar-13	3096.31	3
10	PD Unnao	2012-13	W/S of Vikrampur-Unchgaon (ODR) Road (12-13)	29.03.2013	3528.82	18-May-13	3528.82	3
11	PD Unnao	2014-15	Construction of Cycle track/service road and 4 laning of Unnao-Kanpur (SH-58) (14-15)	24.03.2015	10269.92	27-Mar-15	10269.92	3
12	PD Unnao	2015-16	W/S of Bihar-Bhagwantnagar-Buxar (BBB)(MDR-60) (15-16)	18.03.2016	4028.28	22-Mar-16	4028.28	3

Appendix 5.2

Excess provision against IRC norms

(Reference: Paragraph no. 5.2.1)

1. The Government declared (December 2003) the policy for widening of roads and ordered that roads having PCU less than 5,000 would be of single lane. E-in-C also instructed (October 2007) that roads having PCU of 5,000 to 10,000 would be widened to intermediate lane (5.50 metre).

Scrutiny of records of PD, Hapur revealed that a village road¹ was widened from three metre to 5.50 metre through contract bond no 29/SE/15-16 for ₹ 4.39 crore. We observed that the PCU of this road was only 2675. As such, this road was eligible for widening up to 3.75 metre only. Thus, due to irregular sanction of widening work against the orders of the Government and E-in-C, division incurred avoidable expenditure of ₹ 74.45 lakh as of April 2016 which would increase further with the progress of work.

2. Scrutiny of records in CD-1 (TTZ), Agra revealed that the Government accorded (December 2012) administrative approval and financial sanction of ₹ 44.01 crore for widening and strengthening of Dakshini bypass road connecting SH-2 to SH-3 (24.100 km). Non-bituminous crust thickness of the road was 38 cm. A contract bond² for ₹ 36.94 crore was constituted for this work.

As per IRC:37-2012, for the roads having CBR of six and msa of 50, provision of 26 cm GSB, 25 cm WMM, 11 cm DBM and 4 cm BC was admissible. We observed that CBR and msa of this road was 5.4 and 35.2 respectively. But, the division proposed provision of laying 15 cm GSB, 23 cm WMM, 10 cm BM, 15 cm DBM and 4 cm BC which was approved by the Government. It was executed also by the division. Thus, unwarranted provision and execution of GSB, WMM, BM, DBM and BC against IRC specifications resulted in avoidable excess expenditure of ₹ 2.36 crore as detailed below:

Item	Execution (cum)	Rate (₹)	Amount (₹)	Provision as per IRC 37				Rate (₹)	Amount (₹)
				L	B	H	Total (Cum)		
GSB	3,508.99	1,800	63,16,182.00	3,215	3.3	0.26	2,758.47	1,800	49,65,246
WMM	4,112.22	1,950	80,18,829.00	3,215	3.3	0.25	2,652.37	1,950	51,72,131.25
BM	1,733.50	6,500	1,12,67,750.00	0	0	0	0	0	0
DBM 3,215*3*0.15	1,446.75	7,700	1,11,39,975.00	3,215	3	0.11	1,060.95	7,700	81,69,315
BC 3,215*3*.04	385.80	8,800	33,95,040.00	3,215	3	0.04	385.80	8,800	33,95,040
			4,01,37,776.00 (A)						2,17,01,732.25 (B)
									(A)-(B) = ₹ 1,84,36,043.75 Add 27.8% premium + ₹ 51,25,220.16 = ₹ 2,35,61,263.91 Say ₹ 2.36 crore

3. During test-check of records of PD, Budaun it was noticed that the Government accorded (June 2013) administrative approval and financial sanction of ₹ 54.71 crore for widening and strengthening of Pilibhit-Bareilly-Budaun-Bharatpur road (SH-33) (length: 38.800 km).

¹ Pilkhua to Shamli road.

² Contract bond no 15/SE/12-13 with M/S Santosh Kumar Sharma.

Audit observed that, out of total length of 38.800 km, 36 km length was seven metre wide and the remaining portion of 2.800 km (*Ujhani kasba*) was only 3.70 metre wide which was to be widened to seven metre and strengthening was to be carried out in the entire length. Existing crust of the road was 360 mm with SDBC layer except in *Ujhani kasba* where it was 200 mm only. Sanctioned provision included increasing the crust thickness to 500 mm by laying 100 mm DBM and 40 mm BC in 36 km length. This provision was not consistent with the IRC-37 specifications as none of the crust composition suggested by IRC-37 recommend laying of 200 mm thick bituminous layer over 300 mm thick granular crust. Secondly, BBDT test report attached with the estimate was not authentic as the frequency of test at 10 m interval was not possible because the initial, intermediate and final readings required minimum 11.7 m. Further, number of tests claimed to have been carried out was not possible in a single day. Besides, no authentic traffic census report was attached to authenticate the msa, key factor to ascertain the required overlay.

It was also observed that in the 2.800 km length of the road, provision of 200 mm granular crust in existing portion and 400 mm in widened portion, 50 mm DBM and 40 mm BC was included. Thus, in this portion 90 mm bituminous crust was provided over 400 mm granular crust. Thus, had the division proposed the option of providing sufficient granular crust by laying 150 mm WMM after scrapping the existing bituminous surface followed by laying of 60 mm DBM and 40 mm BC, total pavement designed crust could have been achieved consistent with IRC specifications. In addition, the department would have saved ₹ 2.97 crore as detailed below:

Details of execution

Item	Executed Qty	Rate	Amount (in ₹)
Scarifying the existing surface	9,250 sqm	3.80	35,150.00
DBM 100 mm	27,497.72 cum	9,658.20	26,55,78,479.30
BC 40 mm	11,188.38 cum	11,784.50	13,18,49,464.11
		Total	39,74,63,093.41
		Premium 1.09 %	43,32,347.71
		Grand Total (A)	40,17,95,441.12

Details of suggested execution

Item	Required Qty	Rate	Amount (in ₹)
Scrapping the existing surface	$36,000*7 = 2,52,000$ sqm	19.00	47,88,000.00
WMM 150 mm	$36,000*7*0.150 = 37,800$ cum	2,368.40	8,95,25,520.00
10 % undulation	3,780 cum	2,368.40	89,52,552.00
DBM 60 mm	$36,000*7*0.06 = 15,120$ cum	9,658.20	14,60,31,984.00
BC 40 mm	$36,000*7*0.04 = 10,080$ cum	11,784.50	11,87,87,760.00
		Total	36,80,85,816.00
		Premium 1.09 %	40,12,135.39
		Grand Total (B)	37,20,97,951.39
Avoidable Expenditure		(A-B)	2,96,97,489.72
Say			296.97 lakh

4. Engineer-in-Chief directed (October 2007) that widening of the different category of roads as per their existing ply of Passenger Car Unit (PCU). Accordingly, the intermediate lane (5.5 m) roads were to be widened in two lanes (7 m) if the PCU of the road was more than 10000.

Scrutiny of the records (April 2016) of PD, Moradabad revealed that the Government accorded (January 2013) administrative and financial sanction for widening and strengthening of Doraha-Dilari-Karanpur-Surjannagar-Jaspur road categorised as Other District Road (ODR) in district Moradabad at a cost of ₹ 17.70 crore. Chief Engineer, Moradabad Zone accorded (January 2013) technical sanction for the same amount. Superintending Engineer, Moradabad Circle executed a contract bond³ to execute the work.

³ M/s Royal Const & developers, Moradabad, CB No. 14/SE-MBD Circle/12-13 dated 12.2.2013 at a cost of ₹ 161355185.16 with premium @ 11.10 per cent with DOS 12.2.2013 and SDOC as 11.2.2014.

Audit observed that the total length of the road was 40.500 kms and the road was to be widened in two lanes (7 m) from km 0.000 to 17 km. However, it was observed that no specific reason was recorded in detailed estimate regarding selection of length only up to 17 km as compared to the total length of 40.500 km. Further, no traffic census was conducted which was a mandatory pre-requisite for decision of widening of the road up to two lanes. Therefore, the decision of widening of the road up to two lanes and that too only in a stretch of 17 km, was against the directives of E-in-C and thus was not justified. Further, execution of strengthening work on this section of the road was also not justified as no authentic data regarding calculation of msa⁴, a key component to ascertain the required overlay, was attached with the detailed estimate.

Thus, in absence of required data regarding traffic census and msa, sanction of widening and strengthening work on this road was against norms and therefore was unjustified. The contract bond was finalised⁵ (March 2016) after incurring an unjustified expenditure of ₹ 15.76 crore on the widening and strengthening of road.

5. Scrutiny of records (May 2016) of Construction Division-1 and Construction Division-2 Agra revealed that the Administrative Approval and Financial Sanction for Widening of Agra-Shamshabad in four lane was accorded by the Government (March 2013) for ₹ 103.27 crore. Chief Engineer, Agra Zone, Agra accorded Technical Sanction for the same amount in March 2013. Superintending Engineer, Agra Circle entered into a contract (51SE 30-03-2013) amounting to ₹ 89.30 crore with M/s PNC Infratech Ltd Agra. It was observed that the existing crust of the road was 63 cm. As per curst design (IRC-37-2001) total required crust of the road was 71.04 cm. According to the sanctioned estimate, proposed crust was to be achieved by laying 25 cm of GSB, 30 cm of WMM and 7.50 cm of BM in widening portion and 7.5 cm of DBM and 4 cm of BC in strengthening of the road.

Further, scrutiny revealed that the total required crust of the road was 71.04 cm and existing crust of the road was 63 cm. Thus, the required crust of 71.04 cm in strengthening could have been achieved by laying only 5 cm of DBM and 4 cm of BC over the existing crust of 63 cm. Thus, excess provision of laying of DBM in 2.5 cm was included in the detailed estimate and work was executed accordingly which led to excess expenditure of ₹ 8.40 crore as detailed below:

Part-A : Provision of DBM made in chainage 4.650 to 17.000

In strengthening - $2 \times 11650 \times 7 \times 0.075 = 12232.50$ cum
 Add 1.5% for improvement of curves & junctions – 183.49 cum
 Total – $12232.50 + 183.49$ cum = 12415.99 cum

Part-B : Provision DBM made in chainage 17.000 to 30.250

In strengthening - $2 \times 12,600 \times 7 \times 0.075 = 13,230$ cum
 Add 1.5% for improvement of curves & junctions – 198.45 cum
 Total – $13,230 + 198.45$ cum = 13,428.45 cum

I) As per Detailed Estimate Total Quantity of DBM (A+B) = $12,415.99 + 13,428.45 = 25,844.44$ cum

II) As per Contract Total Quantity of DBM = 25844 cum

Executed quantity in part-A (Construction Division-1): 13,190.238 cum

Executed quantity in Part-B (Construction Division-2): 12,262.555 cum

III) Total executed quantity = $13,190.238 + 12,262.555 = 25,452.793$ cum (7.5 cm of DBM)

IV) Excess quantity executed = $25,452.793/3 = 8,484.26$ cum (2.5 cm of DBM)

V) Excess expenditure = $8,484.26$ cum x ₹ 8,720 = ₹ 7,39,82,747.00

Add premium 13.60 % above = ₹ 1,00,61,654.00

Total excess expenditure = ₹ 7,39,82,747 + ₹ 1,00,61,654 = ₹ 8,40,44,401.00 say ₹ 8.40 crore

6. Scrutiny of records (July 2016) of Construction Division-I, Unnao revealed that the Administrative Approval and Financial Sanction for re-construction of Sandila-Rasoolabad-Chakalwansi (MDR-31) in Km 20 to 30 was accorded (August 2010) by the Government for ₹ 18.67 crore. Chief Engineer, Central Zone, Lucknow accorded the technical sanction for the same amount in September 2010. Superintending Engineer, Unnao Circle entered into a contract (56SE 03-02-2011) amounting to ₹ 16.15 crore with M/s Arun Construction, Unnao.

⁴ Million Standard axle

⁵ 15th /F bill paid vide voucher No. 311 dated 31.3.2016.

It was observed that the existing width of the road was 3.75 m with a crust of 7.5 cm on which PCU and CVPD were 18889 and 3290 respectively. Total required crust of 70.50 cm was designed as per IRC-37 on the basis of CBR value of 3.9 and the required crust of 70.50 cm was proposed to be achieved by laying of first layer of GSB in 15 cm thickness in 9 m width (7.50 cm thick layer where 7.50 cm crust exists), second layer of GSB in 18 cm thickness in 7 meter width and WMM, DBM and BC in 26 cm, 7.5 cm and 4 cm respectively.

Further, scrutiny revealed that as per Marg Palilekh (Road History Register) the existing crust of road was between 16 and 20 cm whereas the crust was proposed and laid on the basis of existing crust of 7.5 cm. It was also observed that the first layer of GSB was laid in 9 m width which was to be provided in 7.30 m width on 7 m wide road. Thus, the design and laying of crust by taking deficient existing crust and laying in excess width resulted in excess and doubtful expenditure of ₹ 1.23 crore as detailed below:

Excess expenditure of ₹ 1.23 crore due to consideration of less crust than actual existing crust

A) Quantity of GSB as per Detailed Estimate – 24,332 cum
B) Quantity of GSB as per execution – 23,873.33 cum
C) Quantity of GSB to be laid by taking existing crust of 15 cm:
In widened portion : $10,000 \times 2 \times 1.80 \times 0.15 = 5400$ cum
In whole width of road : $10,000 \times 7 \times 0.18 = 12600$ cum
Total : $5,400 + 12,600 = 18,000$ cum
Excess Quantity (B-C) $23,873.33 - 18,000 = 5,873.33$ cum
D) Excess expenditure – $5,873.33$ cum $\times 2,152 = ₹ 1,26,38,696.00$
E) Less premium of contract 2.4% below= ₹ 3,03,328.70
F) Net excess expenditure= ₹ 1,23,35,367 say ₹ 1.23 crore

7. Scrutiny of records (July 2016) of Executive Engineer, Construction Division-I, Unnao revealed that the Government accorded (June 2011) administrative and financial sanction of ₹ 21.22 crore for widening and strengthening of Sandila-Bangarmau road (ODR) from Km 20 to 35(600). Chief Engineer, Central Zone, Lucknow accorded technical sanction (TS) for the same amount in June 2011. Superintending Engineer, Unnao Circle entered into a contract⁶ with M/s Mahakaleshwar Construction in June 2011.

As per detailed estimate, the existing width of the road was 3.20 meter and average crust 10 cm. On the basis of PCU of 10332, 653 CVPD and 4 per cent CBR, the required crust of 48 cm was designed as per IRC-37, which was proposed to achieve with 10 cm WBM-I, 15 Cm WBM-II, 15 cm WBM-III, 5 cm BM and 2.5 cm SDBC.

Scrutiny revealed that as per Marg Palilekh Register the existing average crust of the road was 21 cm. However, the crust was proposed and laid on the basis of existing crust of 10 cm. Thus, consideration of less crust than actual existing crust led to excess and doubtful expenditure of ₹ 2.50 crore as detailed below:

Excess expenditure of ₹ 2.50 crore due to consideration of less crust than actual existing crust

Quantity of WBM as per Detailed Estimate – 10,920 cum
Quantity of WBM as per execution – 10,920 cum
Excess expenditure – $10,920$ cum $\times 2,261 = ₹ 2,46,90,120.00$ +premium 1.25%= ₹ 2,49,98,746.50 say ₹ 2.50 crore.

8. Similarly, in CD-1, Basti, existing crust of Pilibhit-Bahraich-Basti road (SH-26) was 37 cm as per road history register while it was taken as 25 cm in detailed estimate and accordingly provision of 54 cm crust was made. This resulted in avoidable excess expenditure of ₹ 1.25 crore as below:

⁶ 53/SE/2011-12 dated 27.06.2011 for ₹ 196864361/-.

Excess expenditure due to taking deficient existing crust : ₹ 1.25 crore

Name of work – W/s of Pilibhit-Bahraich-Basti road (SH-26) in km 415 to 424.700 and Strengthening in chainage 390 to 395

AA/FS – 09-12-2011, ₹ 14.14 crore

TS – 30-03-2012

Contract – 25/SE/23-12-2011, ₹ 8.97 crore, M/s Saket Nirman, Lucknow

Existing crust as per Marg Parilekh Register – 37 cm

Crust taken in design crust – 25 cm

Total crust required as per design – 54 cm

Provisions to achieve design crust – Widening: G-1: 10 cm, G-2: 7.5 cm, G-3: 7.5 cm (25 cm)

Strengthening : WMM 22.50 cm, BM 5 cm, SDBC 2.50 cm

Excess provision and laying of WMM in strengthening – $9,000 \times 7 \times 0.12 = 7,560 \text{ cum} @ 2,521.70 = 1,90,64,052$

Deduct less provision and laying in widening portion of GSB – $7,900 \times 2 \times 1.80 \times 0.10 = 2,844 \text{ cum} @ 2,521.70 = 71,71,715$

Excess provision amount – $1,90,64,052 - 71,71,715 = 1,18,92,337.00 + 4.90 \% \text{ premium } 5,82,725 = 1,24,75,062$ say ₹ 1.25 crore.

9. Scrutiny of records (June 2016) of Executive Engineer, Provincial Division, Gorakhpur revealed that the Administrative approval and Financial sanction for widening and strengthening of Gorakhpur-Khajni-Sikariganj was accorded by the Government (October 2011) for ₹ 23 crore. CE, Gorakhpur zone accorded technical sanction for the same amount in December 2011. SE, Gorakhpur Circle entered into a contract (106/SE/10-11) for ₹ 17.65 crore with M/s Kandarp Construction, Lucknow at 18 per cent below the departmental rates.

It was observed that due to delay in allotment of fund, the contractor refused to execute the work. As such, the contract was terminated and the contractor was paid (November 2015) ₹ 12.73 crore for work executed for the cost of ₹ 15.52 crore. Further, for completion of left over work of ₹ 4.92 crore⁷, a contract bond (71/SE/15-16) amounting to ₹ 6.61 crore was executed with M/s Prabha Construction company, Gorakhpur at the premium of 0.50 per cent below the departmental rates.

Thus, the department had to incur excess expenditure of ₹ 1.69 crore to complete the left over work due to delay in allotment of fund by the Government. The work was still in progress even after more than five years of sanction.

10. Scrutiny of records of Construction Division-I, Basti revealed that the Administrative approval and Financial sanction for widening and strengthening of Pilibhit-Bahraich-Basti (chainage 395 to 405 km) road in 10 km length was accorded by the Government (March 2010) for ₹ 11.13 crore. Chief Engineer, Gorakhpur zone had accorded the technical sanction for the same amount in March 2010.

Superintending Engineer, entered into a contract⁸ amounting ₹ 8.46 crore with M/s Saket Nirman, Lucknow.

It was observed that as Nepal quarry was closed and BOQ rates were based on Badhni/Butwal quarries, SE sanctioned higher rates for items given in the contract in the form of extra items on 28 April 2010 on the basis of rates of Shankargarh/Dala quarry.

Sanction of higher rates was not justified because Badhni/Butwal quarries were closed at the time of tender. As such, contractor tendered rates keeping this in view. Thus, there was no justification for sanction of higher rates. Thus, sanction of higher rates resulted in excess expenditure of ₹ 1.40 crore and undue aid to the contractor.

Details of excess payment on the basis of extra item on the basis of hiding of facts

Item of Work	Rate in CB (in ₹)	Rate in Extra item (in ₹)	Difference in rate (in ₹)	Quantity of work in Cum.	Extra Payment (in ₹)
GSB	1,407.10	2,100.00	692.90	2,891.48	20,03,506.49
Collection of 45-63	1,074.30	1,450.00	375.70	2,626.12	9,86,633.28
Collection of 22.4-53	1,129.30	1,500.00	370.70	2,629.60	9,74,792.72

⁷ ₹ 17.65 crore - ₹ 12.73 crore = ₹ 4.92 crore.

⁸ CB No. 14/SE dated 30.03.2010.

Screening Material	1,409.30	1,490.00	80.70	1,032.68	83,337.28
WMM	2,071.40	2,500.00	428.60	10,756.95	46,10,428.77
WMM	2,071.40	2,700.00	628.60	5,237.19	32,92,097.63
BM	3,202.00	3,728.00	526.00	3,552.83	18,68,788.58
SDBC	3,196.30	3,599.00	402.70	1,789.52	7,20,639.70
Total					1,40,35,721.89 Say ₹ 1.40 crore

11. The Government sanctioned (July 2013) widening and strengthening of Moradabad-Sambhal Road (MDR-69 W) length 35.710 km at a cost of ₹ 136.33 crore. CE, Moradabad Zone, accorded (August 2013) technical sanction for the same amount. SE, Moradabad Circle, executed two contract bonds⁹ for execution of work.

Audit scrutiny (April-May 2016) of CD-1, Moradabad and PD, Sambhal revealed that Km 0.000 to 1.520 of the road was city portion of NH-24 while Km 1.520 to 5.820 was portion of Moradabad-Farrukhabad (SH-43) road and Mordabad-Sambhal road (MDR-69W) originated from km 5.340 of SH-43. Thus, in the total length of 36.750 km, length of MDR was 31.410 km. The carriageway width in km 0.000 to 4.450 was 12 metre. Strengthening in km 2.100 to 4.450 and widening up to four lanes and strengthening in rest kms up to 36.750 was proposed in this estimate. The existing crust was 400 mm in km 2.100 to 3.100 (SH-43 portion), 475 mm in km 3.100 to 5.820 (SH- 43 portion) and 525 mm in km 5.340 to 36.750 (MDR portion) which were to be strengthened as 540 mm, 615 mm and 665 mm, respectively by laying 50 mm BM, 50 mm DBM and 40 mm BC.

Further, scrutiny revealed that as per traffic census data attached with detailed estimate, three day count¹⁰ was taken into account for design purpose without assigning any reason for not counting seven-day-twenty-four hour traffic data. Besides, BBDT test was conducted in September 2011 in km 3-4 of the road and the characteristic deflection was measured as 1.463 mm and accordingly 164 mm of BM overlay was proposed. The recommendation and adoption of uniform 164 mm BM overlay in the entire stretch of the road based on BBDT test conducted in only one km of the road was against the IRC norms and thus was not acceptable. Further, scrutiny also revealed that renewal works were executed in the stretch of 11.600 km, out of 16.630 km stretch in Moradabad district after incurring an expenditure of ₹ 1.87 crore¹¹ in the year 2011-12 and 2012-13 and ₹ 39.89 lakh in Sambhal portion in the year 2012-13. As such, characteristic deflection of 1.463 mm on the basis of test conducted in km 3-4 in September 2011 was against the IRC norms and adoption of 164 mm BM overlay was not be justified. In fact, divisions should have explored the actual requirement of overlay after a fresh BBDT in accordance with IRC guidelines on the existing surface after taking cognizance of renewal works executed in recent past. Moreover, by uniform laying of 50 mm BM, 50 mm DBM and 40 mm BC, the crust was achieved as 540 mm in km 2.100 to 3.100 (SH-43 portion), 615 mm in km 3.100 to 5.820 (SH- 43 portion) and 665 mm in km 5.340 to 36.750 (MDR portion). The actual ply of traffic volume up to km 5.340 of SH-43, from where the MDR originates could not be considered less than the ply of traffic in the portion of MDR. Hence, the laying of 665 mm crust in the MDR portion as compared to 540 mm and 615mm in the SH portion was not justified.

Thus, in absence of necessarily recent and authentic BBDT test, a pre-requisite to ascertain the actual required overlay on the road according to the present condition of the road and in view of achieved crust thickness in portion of SH-43 after the strengthening work, i.e., 615 mm, the expenditure of ₹ 20.03 crore¹², incurred on laying of 50 mm BM in the MDR portion of the road could have been avoided.

⁹ M/s Kasna Builders Pvt Ltd Noida, CB No 57/SE dated 30.8.2013 at a cost of ₹ 631666853.30 @ 0.08 per cent below for km 1.520 to 21.000 total 20.960 km (CD-1 MBD Portion) and M/s Manisha Projects Pvt. Ltd. Ghaziabad, CB No 56/SE dated 30.8.2013 at a cost of ₹ 46,64,62,248.00 @ 0.12 per cent below for km 22.000 to 36.750, total length 14.750 km (PD Sambhal Portion) 20.03.2013 to 22.03.2013 at Km 25.

¹⁰ 2011-12 ₹ 64.76 lakh Km 6(600), 7, 8 14, 15 and ₹ 122.13 lakh km 16-22 Total 11.600 Kms.

¹² CB No 57 (CD-1 MBD) 14,668.20*7,675 = ₹ 11,25,78,435 below 0.08% 90,062.74= ₹ 11,24,88,372.25+ CB No 56 (PD Sambhal) 11,449.294*7,680 = ₹ 8,79,30,577.92 below 0.12 % 1,05,516.69 = ₹ 8,78,25,061.22 = Total ₹ 20,03,13,433.47.

Appendix 5.3

Deficient/wrong provisions against the IRC norms

(Reference: Paragraph no. 5.2.2; page 39)

1. IRC-37-2001¹³ provided that from drainage considerations the granular sub-base should be extended over the entire formation width in case the sub-grade soil is of relatively low permeability. The thickness of sub-base should not be less than 150 mm for design traffic less than 10 msa and 200 mm for design traffic of 10 msa and above.

Test-check of records of PD and CD-3, Jhansi revealed that the Government sanctioned (January 2014) ₹ 142.25 crore for widening and strengthening of *Airach-Gursarai-Mauranipur* road. CE, Jhansi zone issued technical sanction for this work in January 2014 for ₹ 142.25 crore. Two contract bonds¹⁴ were executed by SE, Jhansi circle in February 2014. We observed that the design traffic of this road was 102 msa. As such, 200 mm thick drainage layer was required to be laid. But, it was noticed that the estimate included the provision of laying of drainage layer (Granular Sub Base) of 150 mm thickness only and accordingly contract bond also included laying of 150 mm thick drainage layer and the same was executed by the contractors. This resulted in execution of sub-standard work.

Thus, infructuous expenditure of ₹ 11.44 crore was incurred on laying of drainage layer of 150 mm thickness as detailed below:

Details of calculation of quantity of work (Airach-Gursarai-Mauranipur) executed against IRC Norms

Details of work executed chainage km. 01 to 20

Name of Division	Bond details	Chainages	Width	As per estimate Quantity in cum	Ad-missible Quantity in cum	Excess quantity cum	Rate per cum (in ₹)	Premium	Cost of excess quantity (in ₹)
CD-3 Jhansi	74/SE/ 13-14 dt. 3.02.14	Km-04 to 08=05 km; Km 10 to 20=11 km; Total 15.200 km	3.70 m	15.20x2x100x5.08x0.15=23,164.80	15.20x2x1.80x1000x0.15=8,208	1,49,56.80	1,650	11.25%	2,81,33,740.80
	Rishiraj construction	Km 01 to 03=03 km; Km 09 =01km Total 04 km	5.50 m	4x2x1,000x4.18x0.15=5,016	4x2x1,000x0.90x0.15=1080	3,936	1,650	11.25%	72,25,020.00
Grand Total									3,53,58,760.80

Details of work executed chainage km. 21 to 71 (180)

Name of Division	Bond details	Chainages	Width	As per estimate (Quantity) cum	Admissible Quantity (cum)	Excess quantity cum	Rate per cum (in ₹)	Premium	Cost of excess quantity (in ₹)
PD Jhansi	76/SE/ 13-14 dt.12.2.14	Km-21 to 27 =07 km; Km 31 to 52 =22 km; Km 55-56 =03 km; Km 59-62= 4 km; Km 64-66= 03 km. Total 38 km	3.70 m	38x5.15x2x1,000x0.15=5,8710	38x1.82x2x1,000x0.15=20,748	37,962	1,647	14%	7,12,76,691.96

¹³ Paragraph 4.2.1.3 and 4.2.1. 4.

¹⁴ Contract bond no 74/SE/13-14 dated 03.02.2014 for ₹ 35.64 crore with M/S Rishiraj Construction by CD-3, Jhansi and 76/SE/13-14 dated 12.02.2014 for ₹ 91.93 crore with M/S Varigate Project Pvt Ltd by PD, Jhansi.

Verigate project Pvt. Ltd. Hyderabad	Km 54	3.70 m	01x2x1000 x5.15x0.15 =1,545	01x2x1000 x1.80x0.15 =540	1,005	1,647	14%	18,86,967.90
	Km 29 (280); km 30; Km 69, 70, 71 (180)= 3.46 km	5.70 m	3.46x4.15x 2x1000x0. 15=4307.7 0	3.46x0.80x 2x1000x0. 15=830.40	3,477.30	1,647	14%	65,28,908.934
Grand Total								7,96,92,568.79

Total excess/infructuous expenditure-₹3,53,58,760.80+₹ 7,96,92,568.79=₹ 11,43,72,664.70 or say; **₹1,143.73 lakh.**

2. The Government accorded (August 2015) administrative and financial sanction of ₹ 18.80 crore for widening and strengthening of partial part of main city road in district Jhansi (old NH 25) from Shivpuri bypass to Divisional Commandant Home Guard Office via Vadhwa Petrol Pump (length 3.050 km) in district Agra. Technical sanction (TS) of the same amount was accorded (September 2015) by the Chief Engineer, Jhansi zone. Contract bond No.35/SE/15-16 was executed with M/s Ajay Prakash Associates for ₹ 13.05 crore.

Scrutiny of the records of EE, PD, Jhansi revealed that bituminous crust of 20.50 cm (7.5 cm BM, 9 cm DBM and 4 cm BC) was provided on widened portion on insufficient non-bituminous crust of only 32.5 cm (20 cm GSB and 12.50 WMM). As per IRC norms, 40 cm non-bituminous crust was required to be achieved before laying of BM, DBM and BC. Thus, laying of BM was not required and could have been replaced with WMM.

Thus, laying of BM, DBM and BC on non-bituminous crust of only 32.5 cm was not only against IRC norms but also led to avoidable excess expenditure of **₹ 1.04 crore** as detailed below:

Provision of BM as per estimate = 2,214.34 cum
Execution of BM as per 9 th RB = 1,909.68 cum
Rate of BM = ₹ 7,279 per cum
Rate of WMM = ₹ 1,685 per cum
Avoidable excess expenditure = (1,909.68*7,279) – 1,909.68*1,685) = ₹ 1,06,82,749.92
Less 2.80% as per agreement = ₹ 1,03,83,632.92 or ₹ 1.04 crore

3. Scrutiny of records of PD, Agra revealed that the Government accorded (November 2011) administrative approval and financial sanction of ₹ 8.60 crore for widening of Agra-Bah-Kachuraghat (SH-62) in 35.600 km length.

Audit observed (May 2016) that the existing 5.50 m width of the road was proposed to be widened up to seven metre in entire length. Detailed estimate included the provision of laying of 100 mm WBM Grade-I, 150 mm Grade-II, 150 mm Grade-III with P-1 and 25 mm SDBC. IRC specifications provide laying 25 mm SDBC only after laying of 50 mm BM as binder course. Thus, against the specific provision of IRC, division executed 25 mm SDBC over P-1. Consequently, the road got damaged and within two years the crust thickness was reduced to 350 mm. A new proposal was sanctioned in February 2014 by the Government for widening and strengthening of this road.

Thus, wrong provision and implementation¹⁵ of SDBC over P-1 surface resulted in infructuous expenditure of ₹ 2.60 crore.

4. Para 205 of Budget Manual stipulates that every public officer is expected to exercise the same vigilance in respect of expenditure incurred from public moneys as a person of ordinary prudence would exercise in respect of expenditure of his own money. Further, Engineer-in-Chief directed (September 2008) for adoption of MoRTH specifications in preparation of estimates.

Scrutiny of records (April 2016) of PD, Moradabad revealed that the Government accorded (July 2013) administrative and financial sanction for widening and strengthening of Moradabad-Haridwar-Dehradun (SH-49) from km 5.800 to 22.500 (total length 16.700 km) at a cost of ₹ 3,271.00 lakh. Chief Engineer, Moradabad Zone, PWD accorded (August 2013) technical sanction for the same amount. Superintending Engineer, Moradabad Circle, PWD, executed a contract bond¹⁶ to execute the work.

¹⁵ Contract bond numbers 26/SE/11-12 and 28/SE/11-12.

¹⁶ M/s JSP Projects Pvt Ltd., Ghaziabad, CB No. 53/SE-MBD Circle/13-14 dated 24.8.2013 at a cost of ₹ 280081035.00 with below @ 0.09 per cent with DOS 24.8.2013 and SDOC as 23.8.2014.

Audit observed that the width of the road in km 0.000 to 5.800 was 12 to 14 metres while in rest of the length it was 7 metre. The existing crust of the road was 600 mm including 75 mm as bituminous layer. Accordingly, 300 mm GSB, 225 mm WBM, 75 mm DBM in widening portion and laying of 40 mm BC over entire 12 metre carriageway was proposed. Thus, total 640 mm crust was to be achieved in 12 metres of carriageway. Scrutiny revealed that four months after the commencement of work, Chief Engineer sanctioned (December 2013) an extra-item of 20 mm thick Open Graded Premix Carpet with tack coat and Seal Coat type C for ₹ 91.22 lakh due to damaged condition of existing surface layer which made the execution of Bituminous Concrete (BC) impossible before executing PC Seal Coat work. The justification for sanction of PC with Seal Coat prior to laying of wearing course of BC was not acceptable as the commencement date of work was August 2013 and the work was actually completed in March 2015¹⁷. Further, there was no provision of this item in detailed estimate and execution of BC work was ultimate item to be executed. Moreover, thickness of existing bituminous layer was 75 mm as was provisioned in widening portion as DBM. Thus, it was clear that from the thickness of existing bituminous surface that it was not of PC with seal Coat. As such, laying of PC with Seal Coat on different bituminous layer and prior to BC was inconsistent to IRC specification and thus not required.

Thus, sanction of laying of PC with Seal Coat¹⁸ as extra item prior to executing it and inconsistent to the IRC specification led to infructuous expenditure of ₹ 91.36 lakh.

5. As per Conditions of contract under Section 4 of Model Bid Document (T 2) adopted by the Public Works Department, Contractor shall procure Bitumen and Modified Bitumen from Indian Oil Corporation, Hindustan Petroleum and shall produce the original CRC issued by the company at the time of claiming the payment for bitumen or Modified Bitumen along the with the bill.

Scrutiny of records (July 2016) of Executive Engineer (EE), Construction Division-I, Unnao revealed that the Administrative Approval and Financial Sanction for re-construction of Sandila-Rasoolabad-Chakalwansi (MDR-31) road was accorded by the Government (August 2010) for ₹ 18.67 crore. Chief Engineer, Central Zone, Lucknow had accorded the Technical Sanction (TS) for the same amount in September 2010. Superintending Engineer, Unnao Circle entered into a contract (56SE 03-02-2011) amounting to ₹ 16.15 crore with M/s Arun Construction, Unnao.

Further, scrutiny revealed that against the provision of MBD, EE added condition in schedule 'C' for supply of bitumen from departmental store to the contractor on the work with the condition that if Bulk bitumen BG-10 or Emulsion, BG-30, CRMB-55, MS grade was not available in central store, contractor would arrange it from local market with written permission of Engineer-in-Charge and payment on current CRC rate would be made. It was observed that the division did not issue bitumen from the central store and it was arranged by the contractor. As a result, contractor claimed ₹ 1.02 crore for difference in rate of bitumen mentioned in schedule-C and current purchase rate which was paid to the contractor. Thus, due to addition of unwarranted condition in schedule-C against the provision of model bid document, undue aid of ₹ 1.02 crore was provided to the contractor.

6. Public Works Department, Uttar Pradesh, adopted¹⁹ (October 2007) policy for widening of State Highways. Accordingly, four-lane divided highways were to be widened/constructed in the roads having 20000-30000 Passenger Car Units in both directions. Further, Para 205 of Budget Manual stipulates that every public officer is expected to exercise the same vigilance in respect of expenditure incurred from public moneys as a person of ordinary prudence would exercise in respect of expenditure of his own money.

Scrutiny of records (June 2016) of Executive Engineer (EE), Construction Division-3 (CD-3), Public Works department (PWD) Mainpuri revealed that the Etawah-Mainpuri road (SH-83) originates from National Highway-2 in Etawah city and terminates in km 240 of National Highway-91 in *Kuraoli Kasba* via Mainpuri-Kuraoli Road (SH-84A) in district Mainpuri. Audit further observed that the Government accorded (February 2013) administrative and financial sanction of ₹ 22,634.98 lakh for widening and strengthening of Etawah-Mainpuri-Kuraoli road (SH-83 and SH-84A) (length 52.000 km) under State Sector. Chief Engineer (CE), Agra Zone, PWD accorded (March 2013) technical sanction for the same amount for 49.800 kms. Superintending Engineer (SE), Mainpuri Circle executed a contract bond²⁰ for execution of work. Further, Government accorded (May 2014)

¹⁷ 14th/F bill paid vide voucher no. 08/18.5.2015.

¹⁸ 40,463.250 sqm * 226.00/Sqm = ₹ 91,44,694.50 – 0.09% (below rate) = ₹ 91,36,464.27.

¹⁹ Engineer-in-Chief's Circular No 7114 MT/60 MT/2007 dated 17.10.2007.

²⁰ M/s Valecha Engineering Ltd, Mumbai CB No 32 SE/12-13 dated 29.03.2013 at a cost of ₹ 1,95,73,77,745.14 with DOS and SDOC as 29.03.2013 and 28.03.2015, respectively.

revised administrative and financial sanction of ₹ 40291.37 lakh, on account of inclusion of proposed construction of 14 km²¹ long *Saifai-Karhal* bypass originating from the right flank of the existing SH-83 in district Etawah and was to terminate in Km 29 of the same in district Mainpuri, with other allied²² works. Chief Engineer (CE), Agra Zone, PWD accorded (March 2013) revised technical sanction for the same amount for 60.000 kms²³ including 8.000 km portion of bypass in Mainpuri portion. Superintending Engineer (SE), Mainpuri Circle executed a separate contract bond²⁴ for execution of 8.00 km long bypass work. Both the Contract bonds were in progress till June 2016.

Audit scrutiny revealed that in the alignment of the existing State highway (SH-83), a bypass was already in existence in the left flank of the road in *karhal Kasba* which already serves the purpose of diversion of traffic. Further, the entire section of existing road did not have the enough PCU²⁵ to be widened as four lanes. Consequently, the standard norm fixed for four laning of the road as per policy adopted previously, was relaxed²⁶ by the Government before the issuance of original administrative and financial sanction of the work, which, *inter-alia*, included the widening and strengthening of *karhal kasba* bypass portion of the road into four lanes.

As such, the sanction of 14 km long bypass which was to originate from right flank of SH-83 before *Saifai kasba* (Km 23) in district Etawah and to terminate in the same road after *Karhal Kasba* (Km 29) in district Mainpuri, involving habitation of neighbouring villages in its alignment could not be justified.

Thus, the expenditure of ₹ 6,427.57 lakh²⁷ incurred on construction of 8.00 km long bypass of Etawah-Mainpuri road (SH-83) in district Mainpuri was avoidable.

7. Government adopted (January 2007) Model Bidding Document (T-2) comprising detailed terms and conditions for execution of works in Public Works Department for the works costing more than ₹ 40 lakh. Section 4 of conditions of contract, *ibid*, states that Contractor shall procure bitumen and modified bitumen from Indian Oil Corporation, Hindustan Petroleum and shall produce the original Consignee Receipt Certificate (CRC) issued by the company at the time of claiming the payment for bitumen or modified bitumen along with the bill. Further, Para 205 of Budget Manual stipulates that every public officer is expected to exercise the same vigilance in respect of expenditure incurred from public moneys as a person of ordinary prudence would exercise in respect of expenditure of his own money.

Scrutiny of records (September 2016) of Executive Engineer (EE), Provincial Division (PD), Ghazipur revealed that the Government accorded (June 2011) administrative and financial sanction of ₹ 1033.73 lakh for widening and strengthening of Saidpur-Devchandpur-Dharwan to Chochakpur (length 19.750 km) under State Sector. Chief Engineer (CE), Varanasi Zone, PWD accorded (June 2012) technical sanction for the same amount. Superintending Engineer (SE), Varanasi Circle executed a contract bond²⁸ for execution of work. The contract bond was finalised²⁹ in November 2013.

Audit scrutiny revealed that the contract bond was executed with inclusive rate of emulsion and bitumen for items of primer coat, tack coat, premix carpeting and seal coat. Therefore, the responsibility of procurement of emulsion and bitumen required for execution of these items lies upon the contractor. However, at the time of execution of contract bond the department attached schedule C with contract bond, according to which, the emulsion and bitumen were to be charged at the rates of ₹ 40,734 and 47,585, respectively, if issued from the departmental store on the condition of availability.

Further scrutiny revealed that the division issued 85.200 MT of emulsion and 262.905MT of Bulk bitumen from the departmental store during March 2013 to August 2013 at the then prevailing issue rates for the execution of bituminous items. The total quantity of emulsion and bitumen issued, included 38.000 MT of emulsion, 132.120 MT of bulk bitumen at the issue rate of 51,000 per MT, 52,770 per MT and 47.200 MT of emulsion, 130.785 MT of

²¹ 6.000 kms in district Etawah and 8.000 kms in district Mainpuri.

²² Construction of bridges, shifting of electric cables and polls, hand pumps, fee for compensatory forestation etc.

²³ 52.000 km +8.000 km long bypass in district Mainpuri portion.

²⁴ M/s JSP Projects Pvt. Ltd, Ghaziabad CB No 27 SE/14-15 dated 27.11.2014 at a cost of ₹ 49,51,28,007.37 with DOS and SDOC as 27.11.2014 and 26.05.2016, respectively.

²⁵ 14,029 PCU as per traffic census report attached with detailed estimate.

²⁶ Vide GO No 260/E/23-11-1446(1)/2012 TC dated 10.02.2014.

²⁷ ₹ 39,67,16,358.00 paid vide Voucher no 01 dated 27.04.2016 against 11/R bill and ₹ 24,60,40,989.00 on land acquisition.

²⁸ M/s Raj Brothers, Varanasi CB No 39 SE/11-12 dated 24.12.2011 at a cost of ₹ 9,39,07,526.96 with DOS and SDOC as 24.12.2011 and 23.12.2012, respectively.

²⁹ 19/F bill paid vide voucher no 96/30.11.2013 with value of work done executed as 8,97,74,883.00

bulk bitumen at the issue rate 51,430 per MT, 56,965 per MT, respectively and charged on the work during the period of March 2013 to August 2013. But, against the provision contained in budget manual and fundamental financial rules, division deducted the cost of only 32.84 MT³⁰ of emulsion and 74.74 MT³¹ of Bulk bitumen at the rates of 40,734 and 47,585 as mentioned in schedule C from the contractors' bill. Moreover, the cost of 52.36 MT³² of emulsion and 188.165 MTs³³ of Bulk bitumen were not recovered from the contractors' bill though being issued from the departmental store and charged on the work. Thus, issue of emulsion and bulk bitumen against the conditions prescribed in model bidding document and less³⁴/non-recovery³⁵ thereof led to undue aid to contractor to the tune of ₹ 138.93³⁶ lakh.

8 Proposal for widening and strengthening of Basti-Menhdawal-Captanganj-Tamkuhi road (SH-64) costing ₹ 16.99 crore from km 06 to 14 was sent to the Government for sanction by CD-1, Basti. Existing non-bituminous crust thickness of this road was 30 cm and the bituminous layer was badly damaged. The proposal contained provision of widening of road from 3.70 m to 07 m and laying of 30 cm GSB in widened portion and strengthening by laying of 16.5 cm WMM in entire width of the road after scrapping of old bituminous surface, 5 cm DBM and 2.5 cm BC. However, the Government sanctioned (February 2016) only widening of the road for ₹ 7.78 crore.

Audit observed that improvement of surface work (BM and SDBC) in km 7 and 8 was carried out in 2014-15 for ₹ 82.18 lakh while renewal with repair work was carried out in km 9 to 14 in 2014-15 for ₹ 74.06 lakh. It was important to note that the next year widening and strengthening work was proposed in entire length of eight km on the ground that the road was badly damaged due to heavy traffic of trucks. This indicated that either strengthening and renewal works executed in 2014-15 were sub-standard which led to damaged condition of road within a year or the earlier proposal was not as per requirement. During physical verification of this road also, it was noticed that the condition of the road was very poor. Due to sanction of only widening work, the condition of this State Highway would deteriorate further which would make the movement of traffic on this road very difficult.

Audit found that other portions of this road (km 0.000 to km 6 and km 14 to km 57 were already 7 m wide. As such, in place of sending proposal for strengthening and renewal works in 2014-15, the division should have sent proposal for widening and strengthening of entire reach which would have saved ₹ 1.56 crore spent earlier and would have provided better riding experience to the public. This road is an example of faulty planning in PWD.

³⁰ 32.84 MT emulsion @ 40,734 = 13,37,704.56 from 19/F bill paid vide voucher No 96/30.11.2013.

³¹ 74.74 MT bulk bitumen @ 47,585 = 35,76,906.92 total ₹ 49,14,611.48 from 19/F bill paid vide voucher No 96/30.11.2013.

³² 38.00 MT @ 51,000 = 19,38,000 + 14.36 MT (85.20 - 32.84 = 52.36 - 38.00) @ 51,430 = 7,38,534.8 Total = 26,76,534.80

³³ 132.12 MT @ 52,770 = 69,71,972.40 + 56.045 MT (262.905 - 74.74 = 188.165 - 132.12) @ 56,965 = 31,92,603.43 Total = 1,01,64,575.83

³⁴ 74.74 MT (56,965 - 47,585) = 9,380 * 74.74 = 7,01,061.20 + 32.84 MT (51,430 - 40,734) = 10,696 * 32.84 = 3,51,256.64 total = 7,01,061.20 + 3,51,256.64 = 10,52,317.84.

³⁵ 1,01,64,575.83 + 26,76,534.80 = 1,28,41,110.63

³⁶ 1,28,41,110.63 + 10,52,317.84 = ₹ 1,38,93,428.47

Appendix 5.4**Irregular technical sanctions by EEs***(Reference: Paragraph no. 5.4)*

Sl. No.	Division	Total no. of works of more than ₹ 40.00 lakh	Total cost (₹ in crore)
1	PD, Gazipur	5	5.42
2	CD(B), Gorakhpur	29	25.99
3	PD, Hardoi	17	17.75
4	CD-3, Jhansi	5	4.67
5	CD, Mainpuri	11	13.14
6	CD-3, Mainpuri	3	1.75
7	PD, Unnao	8	6.78
8	CD-1 Basti	5	6.00
9	CD, Budaun	17	16.23
10	PD, Gonda	14	11.32
11	PD, Hapur	2	1.61
12	PD, Mainpuri	9	5.77
13	CD-1 Siddharthnagar	3	3.10
14	CD-1 Unnao	24	27.46
15	CD-1 Lucknow	10	7.99
16	EE, CD-2 Lucknow	2	1.71
17	CD-2 Mirzapur	6	4.20
18	PD, Mirzapur	6	5.15
19	PD, Saharanpur	15	18.08
20	CD, Saharanpur	6	8.60
21	CD-3, Saharanpur	18	24.51
Total		215	217.23

Appendix 5.5 (A)**Delayed TS (Zone-wise details of delay in issue of TS by CEs)***(Reference: Paragraph no. 5.5)*

Zone	Delay upto 90 days		Delay between 91 to 180 days		Delay of more than 180 days		Total cases of delay in issue of TS	Cost (₹ in crore)
	Cases of delay in issue of TS	Cost (₹ in lakh)	Cases of delay in issue of TS	Cost (₹ in lakh)	Cases of delay in issue of TS	Cost (₹ in lakh)		
CE, Agra	62	31,394.13	22	23,548.53	24	14,145.48	108	690.88
CE, Bareilly	25	92,32.31	3	589.29	0	0.00	28	98.22
CE, Gorakhpur	0	0.00	13	4,272.49	58	20,335.43	71	246.08
CE, Jhansi	23	3,803.05	22	9,089.45	20	6,389.97	65	192.82
CE, Meerut	41	12,177.43	20	9,538.71	7	1,760.48	68	234.77
CE, Moradabad	82	19,163.51	32	39,294.60	18	5,226.58	132	636.85
CE, Varanasi	2	379.02	10	23,689.57	14	3,800.68	26	278.69
Grand Total	235	76,149.45	122	1,10,022.64	141	51,658.62	498	2,378.31

Appendix 5.5 (B)**Delayed TS (Circle-wise details of delay in issue of TS by SEs)***(Reference: Paragraph no. 5.5)*

Circle	Delay upto 90 days		Delay between 91 to 180 days		Delay of more than 180 days		Total cases of delay in issue of TS	Cost (₹ in crore)
	Cases of delay in issue of TS	Cost (₹ in lakh)	Cases of delay in issue of TS	Cost (₹ in lakh)	Cases of delay in issue of TS	Cost (₹ in lakh)		
SE, Bulandshahr	99	4,695.92	6	329.49	4	221.85	109	52.47
SE, Gorakhpur	120	7,525.97	109	7,023.10	81	5,255.67	310	198.05
SE, Agra	147	7,194.37	31	1,304.73	12	663.26	190	91.62
SE, Badaun-Pilibhit	308	10,177.79	29	1,493.76	13	796.04	350	124.68
SE, Basti	97	6,472.74	104	6,572.65	71	4,309.87	272	173.55
SE, Mainpuri	38	1,750.82	8	388.29	5	305.14	51	24.44
SE, Moradabad	32	2,099.14	16	542.23	2	90.73	50	27.32
SE, Unnao	177	11,246.99	12	888.25	6	496.05	195	126.31
SE, Varanasi	16	748.30	26	1,338.18	18	769.03	60	28.56
Grand Total	1,034	51,912.04	341	19,880.68	212	12,907.64	1,587	847.00

Appendix 5.5 (C)**Delayed TS (District-wise details of delay in issue of TS by EEs)***(Reference: Paragraph no. 5.5)*

Division	Delay upto 90 days		Delay between 91 to 180 days		Delay of more than 180 days		Total cases of delay in issue of TS	Cost (₹ in crore)
	Cases of delay in issue of TS	Cost (₹ in lakh)	Cases of delay in issue of TS	Cost (₹ in lakh)	Cases of delay in issue of TS	Cost (₹ in lakh)		
Agra	155	2,942.73	19	288.30	4	70.32	178	33.01
Basti	123	3,281.01	44	1,235.96	29	693.63	196	52.11
Budaun	47	1,385.70	1	0.83	0	0.00	48	13.87
Ghazipur	35	716.66	21	767.63	21	318.30	77	18.03
Gonda	94	2,965.74	1	16.15	1	27.61	96	30.10
Gorakhpur	100	3,373.50	72	1,921.79	38	991.94	210	62.87
Hapur	34	446.82	2	18.89	0	0.00	36	4.66
Hardoi	27	1,214.47	11	212.71	13	508.13	51	19.35
Jhansi	18	437.52	11	147.39	3	55.97	32	6.41
Mainpuri	362	5,372.76	20	396.59	9	204.30	391	59.74
Moradabad	78	1,126.17	3	52.62	10	60.99	91	12.40
Sambhal	23	345.46	0	0.00	0	0.00	23	3.45
Siddharth Nagar	54	2,285.39	20	430.03	6	135.79	80	28.51
Unnao	55	1,247.10	2	121.94	14	379.98	71	17.49
Lucknow	60	1,343.05	19	220.36	5	113.42	84	16.77
Mirzapur	116	2,797.30	25	645.27	24	698.76	165	41.41
Saharanpur	103	3,064.03	7	129.99	3	100.38	113	32.94
Grand Total	1,484	34,345.41	278	6,606.45	180	4,359.52	1,942	453.11

Appendix 6.1

Ineligible contractors allowed to bid

(Reference: Paragraph no. 6.1.1)

Sl. No.	Division	NIT	No. of Works	Cost of Work (₹ in Lakh)	Category of Work	Category of Contractor invited
1	CD-1, Basti	530 02.02.16	1	650.00	A	A, B
2	CD-1, Basti	1516 30.04.15	2	634.15	A	A, B
4	CD-1, Unnao	226 13.01.15	1	1,081.00	A	A, B
5	CD-1, Unnao	4868 06.12.14	1	833.26	A	A, B
6	CD-1, Agra	780 05.02.14	1	210.00	A	A, B, C
7	CD-1, Basti	5564 25.10.11	2	2,198.00	A	A, B, C
8	PD, Hapur	3132 03.04.13	1	350.00	A	A, B, C
9	CD-2, Agra	1439 21.03.15	2	225.00	B	A
10	PD, Hapur	4667 10.06.13	3	365.00	B	A
11	PD, Jhansi	287 10.04.15	1	189.00	B	A
12	CD-1, Unnao	878 24.11.15	1	153.77	B	A
13	CD-1, Agra	780 05.02.14	3	364.00	B	A, B, C
14	PD, Hapur	3132 03.04.13	3	320.00	B	A, B, C
15	CD-1, Basti	552 06.02.13	2	276.00	B Approach road	A, B (Bridge)
16	CD-1, Basti	552 06.02.13	25	1,400.32	C	A, B
17	PD, Jhansi	283 18.04.12	2	118.06	C	A, B
18	CD-1, Basti	552 06.02.13	3	120.00	D	A, B
Total			54	9487.56		

Appendix 6.2

Different machinery mentioned in bid documents by the divisions

(Reference: Paragraph no. 6.1.1)

Sl. No.	Name of Machinery	PD, Budaun 56 SE/ 15-16 CB cost ₹ 23.32 crore	CD-3, Jhansi 34SE/ 12-13 CB cost ₹ 21.78 crore	CD, Mainpuri 36SE/ 15-16 CB cost ₹ 23.30 crore	CD-1, Moradabad 11SE/ 13-14 CB cost ₹ 19.72 crore
1.	Tar Boiler	2	0	0	0
2.	Mixture	0	0	0	1
3.	Concrete Mixture	2	0	0	1
4.	Water Tanker	2	0	1	5
5.	Diesel Road Roller (8-10 ton capacity)	3	0	2	2
6.	Vibratory Roller	1	0	1	1
7.	Tractor	2	0	2	2
8.	Truck	1	0	0	0
9.	Hot Mix Plant with sensor paver	2	0	1	1
10.	Air Compressor	2	0	1	1
11.	Mechnical Broom	2	0	1	1
12.	Bitumen Distributor/ machnical sprayer	2	0	1	1
13.	Tipper	6	0	8	5
14.	JCB	1	0	2	1
15.	Pocklank	1	0	0	0
16.	Generator 250 KV	0	0	0	0
17.	Wet Mix Plant	1	0	1	0
18.	Motor Grader	0	0		0
19.	Tandem Roller 6-8 ton	1	0	1	0
20.	Soil Compactor	0	0	1	0
21.	Concrete Vibrator Niddle Type	2	0	0	0
22.	Concrete Vibrator Surface Type	0	0	0	0
23.	Concrete Pump	0	0	1	0
24.	Prestressing Jack with Pump	0	0	0	0
25.	Gouting Pump with Agitator	0	0	0	0
26.	Field Density test apparatus - core cutter & other QA/QC field Appratus	0	0	0	0
27.	Front end loader	1	0	1	0
28.	batch mix plant	0	0	1	0
29.	Paver Finisher	1	0	1	0
30.	Dumper	0	0	0	0
31.	Grader	1	0	1	0
32.	Hydra	0	0	0	0
33.	Excavator	0	0	0	0
34.	Bar bending machine	0	0	0	0
35.	Bar cutting machine	0	0	0	0
36.	crane with cab	0	0	0	0
37.	Rotavator	0	0	0	0

Appendix 6.3**NIT before AA/FS (SE/EE level)***(Reference: Paragraph no. 6.2.1)***(₹ in crore)**

Division	SE level			EE level		
	No. of Contract Bonds	Cost of Contract Bonds	Number of days NITs invited before AA/FS	No. of Contract Bonds	Cost of Contract Bonds	Number of days NITs invited before AA/FS
CD, Mainpuri	2	26.77	67 to 146	1	0.16	Upto 45
CD, Saharanpur	5	93.88	9 to 114	0	0.00	-
CD, Budaun	5	215.61	5 to 66	0	0.00	-
CD-1, Lucknow	2	23.62	58 to 94	0	0.00	-
CD-1, Moradabad	4	121.89	49 to 132	0	0.00	-
CD-1, Agra	3	151.93	14 to 48	4	1.51	Upto 16
CD-1, Basti	4	79.02	1 to 101	1	0.34	Upto 20
CD-1, Siddharth Nagar	2	32.42	25 to 65	5	1.39	Upto 92
CD-1, Unnao	3	61.25	5 to 206	4	1.29	Upto 149
CD-2, Lucknow	3	273.24	14 to 139	4	1.24	Upto 104
CD-2, Agra	2	31.25	114 to 139	1	0.37	Upto 247
CD-3, Gorakhpur	1	7.34	197 to 197	5	1.24	Upto 203
CD-3, Jhansi	1	40.05	174 to 174	3	0.72	Upto 88
CD-3, Saharanpur	5	67.37	3 to 114	0	0.00	-
CD (Building), Gorakhpur	4	76.62	38 to 200	0	0.00	-
PD, Agra	5	198.80	16 to 565	0	0.00	-
PD, Basti	2	117.72	37 to 39	3	0.98	Upto 157
PD, Budaun	5	263.92	8 to 113	0	0.00	-
PD, Ghazipur	1	39.24	5 to 5	3	0.87	Upto 23
PD, Hardoi	2	5.94	165 to 205	4	1.22	Upto 217
PD, Lucknow	3	129.73	84 to 191	0	0.00	-
PD, Moradabad	5	108.30	11 to 178	0	0.00	-
PD, Saharanpur	2	34.36	12 to 24	2	0.66	Upto 139
PD, Unnao	3	173.95	3 to 67	2	0.75	Upto 59
PD, Gonda	3	114.09	7 to 85	4	1.45	Upto 84
PD, Gorakhpur	2	40.55	19 to 194	3	1.12	Upto 40
PD, Hapur	3	86.33	27 to 136	0	0.00	-
PD, Jhansi	4	151.36	62 to 251	7	1.78	Upto 420
PD, Mainpuri	4	130.93	7 to 79	0	0.00	-
PD, Sambhal	6	173.97	29 to 72	6	1.92	Upto 153
CD-2, Mirzapur	0	0.00	-	4	1.06	Upto 88
Grand Total	96	3,071.45		66	20.07	

Appendix 6.4**NIT before Technical Sanction (SE/EE level)***(Reference: paragraph no. 6.2.1)***(₹ in crore)**

Division	SE level			EE level		
	No. of works	Cost of work	NIT invited before TS (in days)	No. of works	Cost of work	NIT invited before TS (in days)
CD-2, Mirzapur	4	64.27	28 – 108	10	2.36	Upto 213
CD-3, Jhansi	1	32.89	71 – 71	0	0.00	-
CD-3, Mainpuri	3	235.45	42 – 52	1	0.39	Upto 26
CD, Mainpuri	5	87.76	49 – 154	2	0.27	Upto 54
CD, Saharanpur	5	93.88	41 – 148	0	0.00	-
CD, Budaun	5	215.61	48 – 75	0	0.00	-
CD-1, Lucknow	4	40.87	25 – 112	0	0.00	-
CD-1, Moradabad	5	130.03	30 – 158	0	0.00	-
CD-1, Agra	6	215.89	7 – 145	4	1.51	Upto 90
CD-1, Basti	7	127.07	39 – 872	4	1.33	Upto 292
CD-1, Siddharth Nagar	4	118.27	26 – 193	7	1.78	Upto 195
CD-1, Unnao	6	78.84	22 – 250	6	2.01	Upto 154
CD-2, Lucknow	5	325.34	34 – 162	4	1.24	Upto 107
CD-2, Agra	4	56.51	18 – 176	1	0.37	Upto 277
CD-3, Gorakhpur	4	39.65	2 – 132	14	4.14	Upto 520
CD-3, Jhansi	2	43.95	23 – 192	3	0.88	Upto 102
CD-3, Saharanpur	6	84.75	26 – 148	0	0.00	-
CD (Building), Gorakhpur	4	76.62	87 – 310	0	0.00	-
PD, Agra	5	198.80	80 – 601	3	0.44	Upto 43
PD, Basti	5	140.17	57 – 288	0	0.00	-
PD, Budaun	5	263.92	47 – 116	0	0.00	-
PD, Ghazipur	5	74.15	32 – 294	4	1.13	Upto 153
PD, Hardoi	5	57.52	31 – 219	6	1.74	Upto 310
PD, Lucknow	3	81.03	12 – 110	0	0.00	-
PD, Mirzapur	3	13.14	46 – 70	0	0.00	-
PD, Moradabad	5	108.30	28 – 181	0	0.00	-
PD, Saharanpur	3	47.56	11 – 32	2	0.66	Upto 140
PD, Unnao	5	237.02	17 – 70	4	1.41	Upto 59
PD, Gonda	4	119.80	51 – 300	5	1.73	Upto 145
PD, Gorakhpur	6	191.81	6 – 350	4	1.46	Upto 188
PD, Hapur	5	95.88	2 – 135	0	0.00	-
PD, Jhansi	6	163.59	41 – 269	9	2.58	Upto 431
PD, Mainpuri	5	150.43	19 – 92	4	4.47	Upto 170
PD, Sambhal	6	173.97	32 – 97	6	1.96	Upto 60
Total	156	4,184.74		103	33.86	

Appendix 6.5**Opening of financial bids before TS (SE level)***(Reference: paragraph no. 6.2.2)*

Division	No. of Contract bonds	Cost of CBs (₹ in crore)	Financial Bid opened before TS (range in days)
CD-2, Mirzapur	5	154.94	1 to 68
CD-3, Jhansi	1	32.89	30 to 30
CD-3, Mainpuri	2	234.23	1 to 2
CD, Mainpuri	2	26.77	2 to 40
CD, Saharanpur	5	93.88	2 to 69
CD, Budaun	4	207.52	6 to 17
CD-1, Lucknow	2	16.00	30 to 72
CD-1, Moradabad	1	26.27	20 to 20
CD-1, Agra	4	168.43	1 to 103
CD-1, Basti	7	127.07	3 to 823
CD-1, Siddharth Nagar	4	118.27	1 to 136
CD-1, Unnao	5	75.91	4 to 35
CD-2, Lucknow	5	325.34	6 to 131
CD-2, Agra	3	48.27	33 to 70
CD-3, Gorakhpur	3	29.24	20 to 39
CD-3, Jhansi	1	40.05	12 to 12
CD-3, Saharanpur	5	67.37	2 to 43
PD, Agra	3	185.41	5 to 173
PD, Basti	1	115.55	242 to 242
PD, Budaun	4	209.20	1 to 66
PD, Ghazipur	3	33.13	17 to 232
PD, Hardoi	3	10.63	8 to 139
PD, Lucknow	3	129.73	35 to 201
PD, Mirzapur	2	8.77	8 to 20
PD, Moradabad	1	24.19	upto 40
PD, Saharanpur	2	34.36	2 to 10
PD, Unnao	4	201.73	1 to 7
PD, Gonda	4	119.80	10 to 273
PD, Gorakhpur	3	116.67	2 to 230
PD, Hapur	1	10.46	upto 6
PD, Jhansi	6	163.59	10 to 106
PD, Mainpuri	4	146.85	6 to 33
PD, Sambhal	2	31.09	1 to 9
Total	105	3,333.61	

Appendix 6.6**Contractors deprived due to revision of cost of work***(Reference: Paragraph no. 6.2.3)*

Sl. No.	Division	Contract Bond No.	CB Date	CB Cost (₹ in lakh)	Reference of NIT	Estimated Cost (₹ in lakh)	Cost of work as per NIT (₹ in lakh)	Category of Contractor/ Work invited in NIT	Eligible Category of Contractor after revised cost of work
1	CD, Budaun	16SE	25.07.13	177.89	01.03.13	177.89	208.00	A	B
2	PD, Sambhal	51SE	17.03.15	72.05	09.02.15	74.44	83.00	B	C
3	CD-1, Agra	17SE	16.07.15	260.57	05.02.14	263.2	85.00	B	A
4	CD-1, Agra	10SE	31.05.14	314.36	05.02.14	318.98	180.00	B	A
5	CD-2, Agra	18SE	04.01.13	170.82	30.10.12	171.87	210.00	A	B
6	PD, Jhansi	08SE	25.05.12	59.57	01.11.11	72.64	81.25	B	C
7	CD-1, Unnao	82SE	21.03.15	176.01	29.12.14	178.70	215.00	A	B
8	CD-1, Siddharth Nagar	115SE	29.01.14	206.28	01.11.13	206.80	190.00	B	A
9	PD, Gonda	159SE	20.02.14	38.71	26.11.13	38.82	50.00	C	D
10	PD, Gonda	22SE	21.03.13	170.02	28.12.12	200.73	115.00	B	A
11	CD-3 Saharanpur	06SE	11.03.13	44.91	17.11.12	59.97	90.75	B	C
			11			1,764.04	1508.00		

Appendix 6.7**Details of NITs directly sent to press***(Reference: Paragraph no. 6.2.4)*

Sl. No.	Name of division	CB No.	Estimated cost (in ₹)	Cost of contract bond (in ₹)	Date of sending letter to director
1	CD, Budaun	112/EE13-14	18,62,250.00	12,06,738.00	30.11.13
2	CD-2, Agra	44/EE11-12	49,69,585.00	38,89,823.90	19.10.11
3	CD-2, Agra	94/EE14-15	37,00,958.00	36,36,639.00	19.03.15
4	CD-2, Agra	95/EE14-15	39,38,780.60	38,58,353.30	19.03.15
5	CD-2, Agra	85/EE15-16	39,48,085.00	38,93,520.00	10.03.16
6	PD, Gorakhpur	89/EE11-12	1,01,014.50	68,477.33	25.10.11
7	PD, Gorakhpur	98/EE11-12	3,46,547.00	1,00,498.00	25.10.11
8	PD, Gorakhpur	67/EE12-13	1,50,105.29	1,32,843.19	24.02.13
9	PD, Gorakhpur	68/EE12-13	1,50,026.17	1,32,773.17	08.02.13
10	PD, Gorakhpur	49/EE13-14	1,58,636.25	1,57,049.89	18.04.13
11	PD, Gorakhpur	52/EE13-14	1,58,636.25	1,57,049.89	18.04.13
12	PD, Gorakhpur	66/EE14-15	33,63,278.30	33,59,915.00	14.01.15
13	PD, Gorakhpur	17/EE15-16	1,75,576.36	1,75,400.79	06.04.15
14	PD, Gorakhpur	20/EE15-16	1,31,887.94	1,29,263.77	06.04.15
15	PD, Agra	45/EE14-15	4,15,192.00	4,15,192.00	07.02.15
16	PD, Ghazipur	05/EE13-14	17,23,009.00	17,22,147.00	16.03.13
17	PD, Ghazipur	11/EE12-13	27,51,900.00	24,24,424.00	19.12.11
18	CD-3, Jhansi	76/EE14-15	32,26,480.00	27,42,508.00	30.12.14
19	CD-3, Jhansi	22/EE15-16	31,45,559.00	3,62,380.00	03.08.15
20	CD, Mainpuri	42/EE14-15	8,98,900.00	8,98,720.00	02.06.14
21	CD, Mainpuri	45/EE15-16	3,24,885.00	3,24,885.00	11.03.16
22	CD-3, Mainpuri	60/EE11-12	5,16,600.00	4,28,778.00	15.10.11
23	PD, Mirzapur	92/EE15-16	51,94,267.00	39,47,643.00	25.08.15
Total			4,13,52,158.66	3,41,65,022.23	

Appendix 6.8**District-wise details of contract bonds executed
on short term tender basis (SE/EE level)***(Reference: Paragraph no. 6.2.5)*

Name of Division	SE level			EE level		
	No. of Contract Bonds	Cost of Contract Bonds (₹ in crore)	Short term NiT (range in days)	No. of Contract Bonds	Cost of Contract Bonds (₹ in crore)	Short term NiT (range in days)
CD (Building), Gorakhpur	3	42.16	7 to 18	5	0.52	09 to 27
CD-2, Mirzapur	4	137.71	7 to 26	7	1.71	15 to 25
CD, Saharanpur	7	91.09	10 to 21	4	1.41	12 to 27
CD, Budaun	12	191.42	9 to 27	8	1.08	12 to 26
CD-1, Lucknow	6	56.94	7 to 29	7	1.84	02 to 28
CD-1, Moradabad	4	35.60	8 to 23	5	1.36	06 to 12
CD-1, Agra	17	177.28	2 to 29	8	2.79	06 to 25
CD-1, Basti	12	119.07	8 to 29	5	1.68	13 to 17
CD-1, Siddharth Nagar	6	126.20	8 to 22	9	2.19	07 to 28
CD-1, Unnao	13	65.50	4 to 29	11	3.48	08 to 26
CD-2 Lucknow	8	299.77	6 to 20	6	1.96	09 to 29
CD-2, Agra	8	55.72	7 to 19	8	3.04	02 to 25
CD-3, Gorakhpur	4	21.30	8 to 28	9	2.23	08 to 18
CD-3, Jhansi	4	32.12	8 to 22	9	1.67	08 to 29
CD-3, Mainpuri	1	6.87	18 to 18	7	1.93	0 to 25
CD-3, Saharanpur	7	67.69	8 to 22	4	1.27	14 to 27
CD, Mainpuri	4	71.56	5 to 19	4	0.80	05 to 20
PD, Agra	4	63.11	6 to 22	8	1.02	03 to 28
PD, Basti	5	155.78	7 to 12	15	4.30	05 to 27
PD, Budaun	5	172.02	9 to 22	3	0.69	06 to 09
PD, Ghazipur	6	46.79	1 to 14	7	1.83	0 to 28
PD, Hardoi	4	34.48	12 to 27	6	1.66	11 to 29
PD, Lucknow	11	190.80	9 to 21	8	1.62	09 to 28
PD, Mirzapur	7	91.46	10 to 19	3	1.19	03 to 12
PD, Moradabad	4	60.38	6 to 27	9	1.73	08 to 19
PD, Saharanpur	7	77.44	6 to 22	1	0.31	Upto 26
PD, Unnao	4	88.48	9 to 28	10	3.27	04 to 12
PD, Gonda	6	104.84	7 to 26	5	1.87	09 to 18
PD, Gorakhpur	11	53.06	9 to 23	16	3.44	07 to 27
PD, Hapur	19	98.35	4 to 27	5	1.59	06 to 29
PD, Jhansi	14	130.98	11 to 29	8	2.32	01 to 27
PD, Mainpuri	24	222.88	11 to 25	2	0.68	17 to 19
PD, Sambhal	21	142.11	9 to 29	8	2.93	06 to 23
Total	272	3,330.96		230	61.41	

Appendix 7.1**No. of bids received***(Reference: Paragraph no. 7.1)***(₹ in crore)**

District	Single Bid				Two Bids				Three and above bids			
	SE		EE		SE		EE		SE		EE	
	No. of CBs	Cost of CBs	No. of CBs	Cost of CBs	No. of CBs	Cost of CBs	No. of CBs	Cost of CBs	No. of CBs	Cost of CBs	No. of CBs	Cost of CBs
Agra	0	0	1	0.37	22	269.89	61	7.13	11	151.55	9	1.57
Basti	6	18.26	17	2.90	7	236.59	12	1.10	5	36.05	11	2.73
Budaun	0	0	5	0.41	14	182.58	7	0.80	3	180.86	6	0.62
Ghazipur	3	26.20	1	0.20	2	35.61	4	0.94	2	19.18	5	1.51
Gonda	3	6.34	1	0.40	4	159.21	7	1.75	1	1.70	2	0.38
Gorakhpur	5	45.46	8	2.49	14	144.25	18	2.58	7	73.31	10	1.60
Hapur	0	0	4	0.04	17	102.80	21	1.77	5	47.31	2	0.66
Hardoi	1	4.35	0	0	5	71.67	4	1.17	0	0	4	1.07
Jhansi	0	0	2	0.36	18	314.20	23	1.14	5	34.39	15	3.40
Lucknow	0	0	1	0.28	17	252.34	9	2.85	8	295.16	21	4.81
Mainpuri	5	52.71	11	3.25	26	331.47	23	2.04	5	199.59	11	1.89
Mirzapur	5	90.43	11	2.91	6	138.75	6	0.83	2	84.61	3	0.85
Moradabad	0	0	6	1.18	7	152.68	8	1.31	11	145.24	4	0.75
Saharanpur	0	0	7	2.17	7	87.34	17	2.75	15	172.98	6	0.29
Sambhal	0	0	1	0.01	24	177.11	20	3.38	1	0.49	1	0.36
Siddharth Nagar	2	30.07	3	0.99	3	92.82	6	0.47	1	3.30	3	0.75
Unnao	1	11.86	0	0	18	209.63	31	6.20	7	87.15	2	0.67
Total	31	285.68	79	17.96	211	2,958.94	277	38.21	89	1,532.87	115	23.91

Appendix 7.2**Details of bids received and negotiation held***(Reference: Paragraph no. 7.2)***(₹ in crore)**

Division	Total No. of Contract Bonds	Cost of total contract Bonds	No. of contract bonds Negotiation held	Cost of negotiated contract bonds
CD (Building), Gorakhpur	7	68.46	3	42.51
CD, Saharanpur	7	91.09	6	90.69
CD, Budaun	12	191.42	8	187.78
CD-1, Lucknow	6	56.94	6	50.94
CD-1, Moradabad	7	130.25	6	110.86
CD-1, Agra	17	177.28	16	176.87
CD-1, Basti	12	119.07	7	109.86
CD-1, Siddharth Nagar	6	126.20	4	120.83
CD-1, Unnao	18	95.32	15	86.47
CD-2, Lucknow	8	299.77	8	299.77
CD-2, Mirzapur	5	138.89	1	80.43
CD-2, Agra	10	73.73	10	73.73
CD-3, Gorakhpur	4	21.30	3	17.66
CD-3, Jhansi	5	67.76	4	64.91
CD-3, Mainpuri	5	254.24	3	57.78
CD-3, Saharanpur	7	67.69	5	66.96
CD, Mainpuri	5	72.14	1	41.75
PD, Agra	6	170.44	5	166.33
PD, Basti	6	171.83	3	153.08
PD, Budaun	5	172.02	5	172.02
PD, Ghazipur	7	80.98	5	75.07
PD, Hardoi	6	76.03	4	69.93
PD, Lucknow	11	190.80	11	190.80
PD, Mirzapur	8	174.90	2	4.50
PD, Moradabad	11	167.66	2	49.70
PD, Saharanpur	8	101.54	5	60.84
PD, Unnao	8	213.32	6	136.45
PD, Gonda	8	167.25	6	164.17
PD, Gorakhpur	15	173.26	13	155.29
PD, Hapur	22	150.12	19	145.14
PD, Jhansi	18	280.82	9	260.13
PD, Mainpuri	26	257.39	13	231.59
PD, Sambhal	25	177.60	20	172.03
Total	331	4,777.51	234	3,886.87

Appendix 7.3**Cartel formation by the bidders***(Reference: Paragraph no. 7.5)*

Sl. No.	Name of division	Contract Number and date	Estimated cost ₹in lakh	Bonded cost ₹in lakh	Name of bidders	Comment
1	CD, Badaun	22/SE 26-07-13	98.15	98.15	1- Mohd Saleem	Mohd Saleem was also partner in M/s K K Builders
					2- M/s K K Builders	
2	CD, Badaun	17/SE 21-01-13	1,406.62	1643.78	1- M/s A B Infracore P Ltd	Smt Sazida Khan W/o Sri Arshad Ali and Smt Nuzhar Parveen W/o of Sri Mussarraf Ali were partners in both firms
					2- M/s Ankul Builders	
3	CD, Badaun	12/SE 01-07-15	46.18	46.14	1- M/s Sri Sai Construction	Sri Viresh Kumar Gupta S/o Sri Ram Bharose Lal was partner in both Firm
					2- M/s Gaur Builders	
4	PD, Sambhal	78/SE 28-10-13	50.48	49.54	1- M/s B P Construction	Partners of M/s B P Construction (Sri Bhupendra Singh and Smt Pushpa Devi) was son and wife of other bidder
					2- Sri Shri Pal Singh	
5	PD, Sambhal	79/SE 28-10-13	252.17	248.1	1- M/s B P Construction	Partners of M/s B P Construction (Sri Bhupendra Singh and Smt Pushpa Devi) was son and wife of other bidder
					2- Sri Shri Pal Singh	
6	PD, Sambhal	20/SE 20-09-14	840.83	794.68	1- M/s B P Construction	Partners of M/s B P Construction (Sri Bhupendra Singh and Smt Pushpa Devi) was son and wife of other bidder (Sri Shri Pal Singh)
					2- Sri Shri Pal Singh	
7	PD, Sambhal	55/SE 24-03-15	74.91	72.35	1- M/S Om Construction	Partner of M/s Om Construction (Sri Satyapal Singh) was father of other bidder (Prop Sri Amreesh Kumar of M/s SDS Construction)
					2- M/S SDS Construction	
8	PD, Sambhal	47/SE 17-03-15	42.55	41.21	1- M/S Om Construction	Partner of M/s Om Construction (Sri Satyapal Singh) was father of other bidder (Prop Sri Amreesh Kumar of M/s SDS Construction)
					2- M/S SDS Construction	
9	PD, Sambhal	98/SE 08-01-16	168.86	162.29	1- M/S Om Construction	Partner of M/s Om Construction (Sri Satyapal Singh) was father of other bidder (Prop Sri Amreesh Kumar of M/s SDS Construction)
					2- M/S SDS Construction	
10	CD-1, Agra	23/SE 18-11-11	98.15	41.00	1- TVK Company	Sri Sunil Kumar Garg was partner in M/s TVK Company and M/s Shriram Construction and his son Sri Tarun Garg was partner in M/s Mahashakti Enterprises
					2- M/s Mahashakti Enterprises	
					3- M/s Shriram Construction	
11	CD-2, Agra	19/SE 29-07-11	1,615.71	1,609.36	1- M/s Ideal Buildtech P Ltd	Sri Chakresh Kumar Jain was partner in both firm and Sri Abhinandan Jain was son of partner in other firm (Sri Pradeep Kumar Jain)
					2- M/s PNC Company	
12	CD-2, Agra	23/SE 25-08-15	1,079.11	1,076.19	1- M/s Dauji Construction	Sri Ram Sanahi Verma S/o Sri Chote Lal was pantner in M/s Dauni Construction
					2- Sri Ram Sanahi Verma	

Appendix

13	PD, Mainpuri	126/SE 24-12-13	1,091.21	1,090.67	1- M/s Om Construction	Sri Omveer Singh was partner in both firm and wife (Smt Chanchal Chaudhary) of other partner Sri Mukesh Chaudhari was partner in other firm
					2- M/s Motrth Infrastructure	
14	PD, Mainpuri	01/SE 13-04-15	2,044.16	2,032.01	1- M/s Morth Infrastructure	Sri Omveer Singh was partner in both firm and husband (Sri Mukesh Chaudhary) of other partner Smt Chanchal Chaudhari was partner in other firm
					2- M/s Om Construction	
15	PD, Mainpuri	21/SE 04-10-14	344.06	340.27	1- M/s Rishiraj Construction	Smt Vandana Yadav was partner in both firm
					2- M/s AV Developers	
16	PD, Mainpuri	40/SE 21-07-15	45.39	45.37	1- M/s Vinod Kumar	Sri Ram Lal S/o Sri Diwari Lal was partner in both firm
					2- M/s Ram Lal	
17	PD, Jhansi	35/SE 18-09-15	1,304.95	1,342.54	1- M/s Ajai Prakash Associates	Power of Attorney given to same person Sri Brijesh Singh Yadav S/o Sri Chandan Singh
					2- M/s Bihari Construction	
18	CD-1, Basti	25/SE 23-12-11	1,423.06	897.05	1- M/s Satet Nirman	Son and wife of Sri Ajant Kumar Agrawal (Abhydaya Housing & Const) is pantner in M/s Saket Nirman And both firms were working in Joint Venture
					2- M/s Abhyudaya Housing & Construction	
19	CD-1, Basti	24/SE 14.03.11	823.76	822.11	1- M/s Satet Nirman	Son and wife of Sri Ajant Kumar Agrawal (Abhydaya Housing & Const) is pantner in M/s Saket Nirman And both firms were working in Joint Venture
					2- M/s Abhyudaya Housing & Construction	
					3- M/s G S Express	
20	CD-1, Basti	14/SE 30.03.10	846.27	846.27	1- M/s Satet Nirman	Son and wife of Sri Ajant Kumar Agrawal (Abhydaya Housing & Const) is pantner in M/s Saket Nirman And both firms were working in Joint Venture
					2- M/s Abhyudaya Housing & Construction	
21	CD-3, Saharanpur	27/SE 04.11.11	895.82	863.82	1- M/s Ravi Construction	Sri Ravindra Singh S/o Sri Ram Mehar Singh propriter of M/s Ravi Construction is partner in M/s Vishal Construction
					2- M/s Vishal Construction	
22	CD, Saharanpur	51/SE 27.03.15	1402.55	1387.12	1- M/s Ravi Construction	Sri Ravindra Singh S/o Sri Ram Mehar Singh propriter of M/s Ravi Construction is partner in M/s Vishal Construction
					2-M/s Vishal Construction	
Total			₹15,550.02 lakh say ₹ 155.50 crore			

Appendix 8.1**Short stamp on Bank Guarantee***(Reference: Paragraph no. 8.2)*

Sl. No.	Year	Division	CB No.	Date of Contract	CB Cost in lakh	Security (in ₹)	Required Stamp on BG (in ₹)	Stamp limited to ₹10,000	Stamp for BG (in ₹)	Less Stamp on BG (in ₹)
1	2012-13	CD, Budaun	15/SE	19-Jan-13	1,678.55	85,92,800	42,965	10,000	100	9,900
2	2012-13	CD, Budaun	16/SE	21-Jan-13	4,513.02	2,27,77,000	113,885	10,000	100	9,900
3	2012-13	PD, Hapur	04/SE	5-Dec-12	3,307.99	1,83,94,000	91,970	10,000	100	9,900
4	2013-14	PD, Hapur	20/SE	17-Jul-13	88.15	9,20,000	4,600	4,600	100	4,500
5	2013-14	PD, Hapur	18/SE	3-Jul-13	363.11	23,31,600	11,660	10,000	100	9,900
6	2012-13	PD, Hapur	20/SE	13-Feb-13	942.06	49,20,250	24,600	10,000	100	9,900
7	2013-14	PD, Hapur	27/SE	26-Sep-13	1,077.04	73,62,500	36,815	10,000	100	9,900
8	2014-15	CD-2, Agra	28/SE	18-Mar-15	722.11	38,50,000	19,250	10,000	100	9,900
9	2014-15	PD, Mainpuri	24/SE	18-Nov-14	2,512.72	1,28,00,000	64,000	10,000	100	9,900
10	2013-14	PD, Mainpuri	125/SE	24-Dec-13	3,016.57	1,52,85,000	76,425	10,000	100	9,900
11	2015-16	PD, Mainpuri	41/SE	27-Jul-15	187.18	11,50,000	5,750	5,750	100	5,650
12	2015-16	PD, Mainpuri	42/SE	27-Jul-15	233.23	13,70,000	6,850	6,850	100	6,750
13	2013-14	PD, Mainpuri	65/SE	2-Aug-13	53.25	7,33,000	3,665	3,665	100	3,565
14	2013-14	PD, Mainpuri	66/SE	2-Aug-13	48.64	6,87,000	3,435	3,435	100	3,335
15	2013-14	PD, Jhansi	63/SE	10-Dec-13	1309	80,00,000	40,000	10,000	100	9,900
16	2012-13	PD, Jhansi	28/SE	24-Jan-13	2,145.19	1,09,00,000	54,500	10,000	100	9,900
17	2014-15	CD-1, Unnao	58/SE	24-Feb-15	702.68	37,15,000	18,575	10,000	100	9,900
18	2011-12	CD-1, Unnao	123/SE	22-Dec-11	723.57	40,00,000	20,000	10,000	100	9,900
19	2011-12	CD-1, Unnao	56/SE	3-Feb-11	1,614.92	83,00,000	41,500	10,000	100	9,900
20	2014-15	CD-1, Unnao	82/SE	21-Mar-15	176.01	12,50,000	6,250	6,250	100	6,150
21	2014-15	CD-1, Unnao	57/SE	24-Feb-15	66.24	6,50,000	3,250	3,250	150	3,100
22	2014-15	CD-1, Unnao	83/SE	21-Mar-15	207.32	14,46,000	7,230	7,230	100	7,130
23	2014-15	CD-1, Unnao	55/SE	21-Feb-15	59.1	4,96,000	2,480	2,480	100	2,380
24	2014-15	CD-1, Unnao	61/SE	10-Mar-15	42.89	4,15,000	2,075	2,075	100	1,975
25	2014-15	CD-1, Unnao	12/SE	29-May-14	187.56	11,50,000	5,750	5,750	100	5,650
26	2014-15	CD-1, Unnao	05/SE	16-May-14	171.13	10,60,000	5,300	5,300	100	5,200
27	2013-14	CD-1, Unnao	199/SE	24-Feb-14	94.8	6,74,000	3,370	3,370	100	3,270
28	2015-16	CD-1, Siddharth Nagar	52/SE	3-Nov-15	2,800.92	1,42,10,000	71,050	10,000	100	9,900
29	2011-12	PD, Mirzapur	43/SE	23-Dec-11	231.08	13,60,000	6,800	6,800	5,000	1,800
Total										2,08,955

Appendix 8.2
Splitting of works less than ₹ 40 lakh
(Reference: Paragraph no. 8.6)

(₹ in crore)

Sl. No.	Divisions	No of works	No. of contract bonds	Sum of estimated cost	Sum of bonded cost
1	EE, CD-2, Agra	2	4	1.64	1.52
2	EE, CD-1, Basti	1	2	0.56	0.55
3	EE, PD, Basti	35	72	7.20	6.96
4	EE, PD, Budaun	7	18	1.73	1.72
5	EE, PD, Gazipur	98	257	8.60	9.60
6	EE, PD, Gonda	3	7	0.43	0.43
7	EE, CD (Building), Gorakhpur	16	37	5.42	5.09
8	EE, PD, Gorakhpur	2	4	0.06	0.06
9	EE, PD, Hardoi	24	54	4.34	2.96
10	EE, CD-3, Jhansi	8	26	1.26	1.23
11	EE CD-I, Lucknow	40	79	6.00	5.82
12	EE CD-II, Lucknow	19	43	3.03	2.70
13	EE, PD, Lucknow	104	273	17.46	16.77
14	EE CD-II, Mirzapur	30	70	4.34	3.94
15	EE, PD, Unnao	8	21	1.74	1.80
Total		397	967	63.81	61.15

Appendix 8.3**Works executed without sanction and allotment of funds***(Reference: Paragraph no. 8.9)*

Sl. No.	Name of Div.	Item No. of Miscelenous Advance	Month from which transaction done	Amount (₹ in lakh)
1.	EE, PD, PWD, Budaun	24/48	07/1995, 10/1996, 11/1998 12/1998	30.59
2.	EE, CD, PWD, Budaun	-	06/1997 to 01/2007	33.46
3.	EE, PD, PWD, Moradabad	59/70	09/1998	18.73
4.	EE, CD-1, PWD, Moradabad	134	01/2004	4.61
5.	EE, CD-1, Agra	-	03/2004	6.06
6.	EE, CD, PWD, Mainpuri	2-Feb	11/2004 to 01/2014	41.07
7.	EE, CD-3, PWD, Mainpuri	1	09/2006	4.21
8.	EE, PD, Mainpuri	-	03/2000 to 03/2013	47.76
9.	EE, CD(B), PWD, Gorakhpur	88/88	03/1997 to 03/2015	112.93
10.	EE, PD, Gorakhpur	-	12/2001 to 11/2015 and 12/2015	130.07
11.	EE, PD, PWD, Basti	N/A	N/A	15.86
12.	EE, CD-1, Basti	-	8/2001 and 03/2015	157.15
13.	EE, CD-3, PWD, Jhansi	1,4 and 8	10/04, 03/08 and 06/14	20.97
14.	EE,PD, Jhansi	-	09/1987	97.87
15.	EE, PD, PWD, Unnao	52,113,129, 144 and 163	03/1989, 02/1989, 02/2002, 06/2004, 03/2013, 12/2013, 03/2014	47.3
16.	EE, CD-1, Unnao	-	12/2002 & 0/2003 and 02/2011 & 03/2011	44.17
17.	EE, PD, Hapur	-	07/2011	9.76
18.	EE, PD, Sambhal	-	04/2011	9.85
19.	EE, PD, PWD, Gazipur	156/157	05/2016	117.68
20.	EE, PD, PWD, Hardoi	159,208,230	11/1995,04/2014, 11/2015	11.6
21.	EE, CD-1, PWD, Siddharth Nagar	3	07/2007	9.13
22.	PD, Gonda	-	01/1993	49.33
23.	PD, Lucknow	157/266, 182/394, 185/403	2/2001, 3/2007, 6/2007	13.01
24.	EE, CD-2, PWD, Lucknow	56/65, 57/66, 58/67, 59/68, 60/69, 61/70	12/96, 03/97, 11/98, 11/98, 11/98, 10/03	9.19
25.	EE, PD, Saharanpur	-	10/90, 01/91, 05/91, 08/92, 93/93, 07/93, 12/93, 02/94, 02/95, 09/95, 10/95, 06/96, 07/96, 08/96, 12/96, 05/97, 08/97, 09/97, 11/97, 12/97, 3/98, 8/98, 12/98, 08/99, 09/99, 11/99, 12/99, 08/2000, 05/2001, 07/2001, 06/2003, 03/2005, 09/2006, 10/2006, 02/2008, 03/2014, 03/2016	50.33
Total				1,092.69

Appendix 8.4**Insurance not carried out by the contractor***(Reference: Paragraph no. 8.11)*

Sl. No.	District	No. of CBs	Cost of CBs (₹ in lakh)	Insurance Premium due (₹ in lakh)
1	Agra	171	57,916.90	13.23
2	Basti	256	48,108.23	10.99
3	Budaun	174	77,226.83	17.63
4	Ghazipur	146	23,872.69	5.45
5	Gonda	85	23,680.39	5.41
6	Gorakhpur	314	46,864.12	10.7
7	Hapur	61	18,372.53	4.2
8	Hardoi	118	18,975.24	4.33
9	Jhansi	85	26,948.04	6.15
10	Lucknow	307	10,5629.7	24.12
11	Mainpuri	227	80,554.46	18.39
12	Mirzapur	185	26,616.51	6.08
13	Moradabad	122	46,755.91	10.68
14	Saharanpur	167	3,8884.6	8.88
15	Sambhal	120	26,648.28	6.09
16	Siddharth Nagar	102	19,735.76	4.51
17	Unnao	312	62,121.64	14.19
Total		2,952		171.03 Say ₹ 1.71 crore

Appendix 8.5**Non-use of T3 for purchase of material***(Reference: Paragraph no. 8.12)*

Sl. No.	Name of division	Payment of month	No. of Voucher	Name of material	Amount (₹ in lakh)
1	CD (Building), Gorakhpur	03/2014	10	Grit	9.77
		03/2016	10	Grit/Stone dust	9.90
2	CD (Building), Gorakhpur	03/2015	10	Grit	9.89
		03/2016	10	Grit	9.81
3	CD-3, Jhansi	03/2013	02	Grit/Stone dust	1.82
		03/2014	09	Grit/Stone dust	8.87
		03/2015	11	Grit/Stone dust	10.96
		03/2016	08	Grit/Stone dust	7.93
4	CD-3, Mainpuri	03/2014	10	Grit/Stone dust	9.77
5	CD, Mainpuri	03/2012	09	Grit/Stone dust	3.06
		03/2013	10	Grit/Stone dust	8.83
		03/2014	12	Grit/Stone dust	11.64
		03/2016	10	Grit/Stone dust	9.75
6	PD, Unnao	03/2014	04	Grit/Stone dust	3.97
		03/2015	10	Grit/Stone dust	9.97
		03/2016	10	Grit/Stone dust	9.83
7	CD-1 Agra	03/2016	51	Grit/Stone dust	49.16
	PD, Gazipur	03/2012	10	Grit/Dala dust	9.69
		03/2013	10	Grit/Dala dust	9.71
		03/2014	09	Grit/Dala dust	8.77
		03/2015	10	Grit/Dala dust	9.58
		03/2016	07	Grit/Dala dust	6.91
8	PD, Hardoi	03/2012	09	Grit/ Stone dust/Balast	8.36
		03/2013	10	Grit/Stone dust	9.72
		03/2014	03	Grit/Stone dust	2.95
		03/2016	10	Grit/Stone dust	9.24
Total			274		259.86 or say ₹ 2.60 crore

Appendix 9.1**Secured advance paid to contractors***(Reference: Paragraph no. 9.1)*

Sl. No.	District	Name of Division	CB No.	CB Date	Cost of Contract (₹ in crore)	Voucher No. & date	Secured Advance (₹ in lakh)
1	Agra	CD-2, Agra	51/SE	30.03.2013	89.30	63, 31.10.15	275.00
2	Agra	CD-2, Agra	37/SE	07.10.2013	17.28	135, 31.03.14	20.00
3	Budaun	CD, Budaun	16/SE	21.01.2013	45.13	363, 31.03.13	163.00
4	Budaun	CD, Budaun	16/SE	21.01.2013	-do-	94, 30.09.13	68.36
5	Budaun	CD, Budaun	16/SE	21.01.2013	-do-	279, 30.03.14	137.00
6	Budaun	CD, Budaun	16/SE	21.01.2013	-do-	113, 31.12.14	228.00
7	Budaun	CD, Budaun	15/SE	19.01.2013	16.79	23, 12.09.13	110.40
8	Gorakhpur	PD, Gorakhpur	95/SE	19.12.2013	63.17	247, 26.5.14	349.86
9	Sambhal	PD, Sambhal	26/SE	22.12.2011	25.43	NA	40.50
10	Budaun	PD, Budaun	11/SE	14.01.2013	24.11	92, 28.1.13	118.55
11	Moradabad	PD, Moradabad	25/SE	21.12.2011	20.67	14, 10.7.12	123.50
12	Moradabad	CD-1, Moradabad	11/SE	11.05.2013	19.39	NA	191.54
13	Agra	PD, Agra	26/SE & 28/SE	15.12.2011	6.31	132, 28.12.11 142, 28.1.12	100.00
14	Agra	PD, Agra	12/SE	22.10.2012	3.01	112, 30.10.12	74.41
15	Agra	PD, Agra	38/SE	15.12.2015	51.12	207, 30.3.16 03, 25.4.16	291.00
16	Mainpuri	CD, Mainpuri	06/SE	04.11.2011	0.86	12, 5.6.12	2.39
17	Mainpuri	CD, Mainpuri	41/SE	26.03.2015	0.59	231, 31.3.15	14.60
18	Mainpuri	CD, Mainpuri	36/SE	21.07.2015	22.60	69, 30.7.15	100.00
19	Hardoi	PD, Hardoi	16/SE	21.01.2013	37.19	135, 26.03.13	502.43
20	Saharanpur	CD-3, Saharanpur	54/SE	29.09.2011	25.75	111, 29.08.13	48.37
21	Saharanpur	CD-3, Saharanpur	54/SE	29.09.2011	-do-	51, 30.01.14	61
22	Saharanpur	CD-3, Saharanpur	06/SE	11.03.2013	0.45	140, 31.03.13	4.68
23	Saharanpur	CD-3, Saharanpur	04/SE	15.06.2015	10.21	81, 29.06.15	40
24	Saharanpur	CD, Saharanpur	55/SE	29.09.2011	24.36	47, 29.10.14	209.86
25	Saharanpur	CD, Saharanpur	55/SE	29.09.2011	-do-	71, 30.09.15	190
26	Saharanpur	CD, Saharanpur	51/SE	27.03.2015	13.81	258, 31.03.15	31.31
27	Saharanpur	CD, Saharanpur	51/SE	27.03.2015	-do-	17, 21.08.15	8.65
28	Lucknow	CD-1, Lucknow	60/SE	17.12.2011	12.02	55, 27.01.12	110.00
Total							3,614.41

Appendix 9.2**Un-authorised advances paid to contractors***(Reference: Paragraph no. 9.2)*

Sl. No.	Name of Division	CB No.	CB Date	Cost of Contract (₹in crore)	Voucher No. & date	Advance Payment (₹in lakh)
1	CD-2, Agra	19/SE	29.07.2011	16.09	NA	80.37
2	PD, Hapur	04/SE	05.12.2012	33.08	04, 07.02.13	111.31
3	PD, Hapur	04/SE	05.12.2012	-do-	01, 07.05.13	519.00
4	PD, Mainpuri	13/SE	12.06.2013	16.57	31, 20.01.14 &78, 26.02.14	410.53
5	PD Unnao	98/SE	30.03.2015	66.98	02, 10/9/15	856.75
6	CD Mainpuri	29/SE	25.03.2013	41.75	NA	304.63
7	CD- 3 Mainpuri	32/SE	29.03.2013	195.74	10, 13-03/16	1636.72
8	CD- 3 Mainpuri	27/SE	27.11.2014	49.51	44, 24.02.16	605.00
9	PD Gorakhpur	95/SE	19.12.2013	63.17	86, 20.08.14	302.01
10	PD Gorakhpur	95/SE	19.12.2013	63.17	20, 26.09.14	418.65
11	CD-I Basti	35/SE	03.08.2015	4.06	407, 31.03.16	30.26
12	PD Saharanpur	65/SE	17.12.2011	23.01	02, 09.07.13	149.15
12	PD Saharanpur	65/SE	17.12.2011	-do-	210, 31.03.14	23.99
12	PD Saharanpur	65/SE	17.12.2011	-do-	48, 17.06.14	101.00
13	PD Saharanpur	50/SE	27.03.2015	2.38	11, 15.05.15	110.00
14	CD-3 Saharanpur	54/SE	29.09.2011	25.75	51, 30.01.14	119.67
14	CD-3 Saharanpur	54/SE	29.09.2011	-do-	125, 31.03.14	116.82
15	CD-3 Saharanpur	29/SE	21.10.2013	8.34	25, 22.10.13	83.30
16	CD-3 Saharanpur	04/SE	15.06.2015	10.21	13, 07.11.15	200.00
16	CD-3 Saharanpur	04/SE	15.06.2015	-do-	04, 28.04.16	82.37
17	CD-3 Saharanpur	27/SE	04.11.2015	8.64	73, 29.07.16	70.00
17	CD-3 Saharanpur	27/SE	04.11.2015	-do-	10, 07.12.15	50.00
18	CD Saharanpur	55/SE	29.09.2011	24.36	56, 30.12.14	38.56
18	CD Saharanpur	55/SE	29.09.2011	-do-	29, 13.03.15	47.75
18	CD Saharanpur	55/SE	29.09.2011	-do-	141, 30.03.15	87.23
19	CD Saharanpur	51/SE	27.03.2015	13.81	07, 20.05.15	52.47
19	CD Saharanpur	51/SE	27.03.2015	-do-	06, 14.07.15	5.97
19	CD Saharanpur	51/SE	27.03.2015	-do-	02, 04.09.15	96.85
Total						6,710.36

Appendix 9.3 (A)**Details of MM-11 provided other than district of execution***(Reference: Paragraph no. 9.7.2)*

Name of division	Name of road	Total No. of MM-11 provided	MM-11 of other destination	Percentage of MM-11 provided other destination
CD, Badaun	Strengthening of Meerut Badaun road, SH-18 in Km 163 to 208.955	1022	677	66
PD, Hapur	W/S of Delhi-Bareilly-Lucknow road, ODR (old SH-24)	342	210	61
PD, Sambhal	W/S of Moradabad Sambhal road to connect district headquarter of Sambhal under four lane connectivity of district headquarters scheme, length 35.71 km	362	125	35
CD-1, Unnao	Widening and strengthening work of Sandila-Rasoolabad-Chakalvanshi (MDR-31) km. 14 to 20	310	290	94
PD, Gorakhpur	Widening and strengthening of Shri Ram Janki Marg NH-72 km. 136 to 151	95	25	26
PD, Mainpuri	Widening and strengthening of Lakhaura Occha Marg	548	326	59
PD, Hardoi	Strengthening of HPC Road Ch 1.105 to 25.40 (MDR-43)	99	00	00
PD, Unnao	Unnao Kanpur Marg (SH-58) four lane and cycle track/Service lane	438	366	84
PD, Ghazipur	W/S of Saidpur Deochanpur Dharwa to Chochakpur road	148	80	54
CD (Building), Gorakhpur	W/S of city portion of NH-28 (13-14) Kalesar to Nausad	98	30	31
CD-3, Gorakhpur	Strengthening of Gorakhpur-Deoria Upmarg (ODR) (13-14)	143	22	15
CD-1, Lucknow	Widening and strengthening of Malbharawan Road	133	03	02
CD-II, Lucknow	Widening and strengthening of Lucknow Nagram Nighoha	320	27	08
PD, Saharanpur	Strengthening of Fatehpur Muzaffarabad Kalasia Road km. 27 to 27	310	32	10
CD, Saharanpur	Strengthening and improvement of Nanauta-Devband-Manglore Road km. 01 to 38 (chinage 0 to 26.50)	380	251	66
PD, Mirzapur	Lumbni Duddhi Marg	94	00	00
Total		4,842	2,464	51

Appendix 9.3 (B)**Royalty calculation due to non-availability of MM-11***(Reference: Paragraph no. 9.7.3)*

Name of road	Name of division	Details of material used in the construction of roads and due royalty due to non-availability of MM-11										
		Stone ballast (cum.)	MM-11 Provided	Due royalty of stone ballast @68 per cum (₹ in lakh)	Grit (cum.)	MM-11 provided (cum.)	Quantity of grit for which MM-11 was not provided (cum.)	Due royalty of grit @ 72 per cum (₹ in lakh)	Sand and stone dust (cum.)	MM-11 provided (cum.)	Sand and stone dust for which MM-11 was not provided (cum.)	Due royalty of sand/stone dust @ 33 per cum (₹ in lakh)
Strengthening of Meerut Badaun road, SH-18 in Km 163 to 208.955	CD,Badaun	22,059	0	15.00	66,307	85,451	(-)19,144	(-)13.78	22,781	3482	19,299	6.37
W/S of Delhi Bareilly Lucknow Hapur road, ODR (old SH-24)	PD, Hapur	8,166	0	5.55	42,514	572	41,942	30.20	7,000	192	6,808	2.25
W/S of Moradabad Sambhal road to connect district headquarter of Sambhal under four lane connectivity of district headquarters scheme, length 35.71 km	PD, Sambhal	25,304	0	17.21	78,335	5,666	72,669	52.32	20,273	1281	18,992	6.27
Widening and strengthening work of Sandila-Rasoolabad-Chakalvanshi (MDR-31) km. 14 to 20	CD-1, Unnao	8,271	0	5.62	13,796	1,296	12,500	9.00	6,280	1071	5,209	1.72
Widening and Strengthening of Shri Ram Janki Marg NH-72 km. 136 to 151	PD, Gorakhpur	28,463	0	19.36	34,815	2,223	32,592	23.47	13,737	00	13,737	4.53
Widening and strengthening of Lakhaura Occha Marg	PD, Mainpuri	14,104	0	9.59	30,787	8,801	21,986	15.83	11,668	42	11,626	3.84
Unnaokanpurmarg (SH-58) four lane and cycle track/ Service lane	PD, Unnao	44,962	0	30.57	72,686	2,733	69,953	50.37	29,653	222	29,431	9.71
Strengthening of HPC Road Ch 1.105 to 25.40 (MDR-43)	PD, Hardoi	12409	0	8.44	38,120	848	37,272	26.84	12,832	336	12,496	4.12
W/S of Saidpur Deochanpur Dharwa to Chochakpur road	PD, Ghazipur	40,148	0	27.30	6,654	1,251	5,403	3.89	9,042	00	9,042	2.98
W/S of city portion of NH-28 (13-14) Kalesar to Nausad	CD (Building), Gorakhpur	11,946	0	8.12	31,457	1,429	30,028	21.62	9,767	14	9,753	3.22
Strengthening of Gorakhpur-Deoria Upmarg (ODR) (13-14)	CD-3, Gorakhpur	3,360	0	2.29	9,323	2,664	6,659	4.79	3,394	00	3,394	1.12

Appendix

Strengthening and improvement of Nanauta-Devband-Manglore Road km. 01 to 38	CD, Saharanpur	755	0	0.51	38,747	4,290	34,457	24.81	1,491	830	661	0.22
Strengthening of Fatehpur Muzaffarabad Kalasia Road km. 27 to 47	PD, Saharanpur	17,376	0	11.82	57,682	1,648	56,034	40.34	14,078	44	14034	4.63
Widening and strengthening of Malbharawan Road	CD-1, Lucknow	9,465	0	6.44	22,106	1,285	20,821	14.99	8,156	00	8156	2.69
Widening and strengthening of Lucknow Nagrawa Nigotha	CD-2, Lucknow	12,643	0	8.60	24,939	2,268	22,671	16.32	10,619	306	10313	3.40
Lumbni Duddhi Marg	PD, Mirzapur	7,242	0	4.92	6,677	2,044	4,633	3.34	1,544	00	1544	0.51
Total		2,66,673	0	181.34	5,74,945	1,24,469	4,69,620	324.35	1,82,315	7,820	1,74,495	57.58
Grand Total	₹ 563.27 lakh or say ₹ 5.63 crore											
Amount of royalty with penalty (five times of royalty)	₹ 2816.35 lakh or say ₹ 28.16 crore.											

Appendix 9.3 (C)**Details of Calculation of cartage***(Reference: Paragraph no. 9.7.5)*

Sl. No.	Details of work	Total quantity executed (in cum)	Ratio of loose quantity to compacted quantity	Cartage of compacted value of work (₹ in crore)	Cartage of loose quantity (₹ in lakh)
1	GSB	16,01,367		136.49	
	Stone ballast 53 mm to 26.5 mm 134.4/300		384/300		174.71
	26mm to 4.75 mm 172.80/300				
	2.36 mm and below 76.80/300				
2	WMM	22,27,385		193.99	
	22.4 mm to 45 mm 89.10/225		297/225		256.07
	22.4 mm to 2.36 mm 118.80/225				
	2.36 mm to 75 micron 89.10/225				
3	BM	3,49,599		29.12	
	25 mm to 37.5 mm 43.51/205		333.61/205		47.39
	25 mm to 10 mm 116.04/205				
	10 mm to 05 mm 116.04/205				
	05 mm & below 58.02/205				
4	DBM	7,03,942		67.33	
	25 mm to 10 mm 86.16/195		281.49/195		97.20
	10 mm to 05 mm 80.43/195				
	05 mm & below 114.9/195				
	filler 0.028 cum				
5	SDBC	3,49,755		15.28	
	9.5 mm to 4.75 mm 162.45/195		279.30/195		21.89
	4.75 mm & below 116.85/195				
	Filler 0.028 per cum				
6	BC	2,81,437		26.02	
	13.2 mm to 10mm 85.5/191		279.30/191		38.05
	10 mm to 05 mm 71.25/191				
	05 mm & Below 122.55/191				
	filler 0.029 per cum				
7	WBM-I	32,468		2.73	
	90 mm to 45 mm 435.60/360		536.4/360		4.06
	Coarse sand 100.80/360				
8	WBM-II	1,32,203		9.60	
	63 mm to 45 mm 435.60/360		511.4/360		13.64
	Coarse sand 75.80/360				
9	WBM-III	1,62,278		12.59	
	53 mm to 22.4 mm 435.60/360		526.80/360		18.42
	Coarse sand 91.20/360				
10	Pre-mix Carpet	8,14,352			
	Crused stone 13.2 mm to 5.66 mm 0.27 cum per 10 sqm				1.91
11	Seal-Coat	5,75,140			
	6.77 mm 0.09 cum per 10 sqm				0.57
				Total	673.91

Appendix 9.4**Non-crediting of deducted security to 'Public Works Deposit'***(Reference: Paragraph no. 9.8)***(Amount in ₹)**

Sl. No.	District	Division	2011-12		2012-13		2013-14		2014-15		2015-16	
			Credit during the Month	Debit during the Month	Credit during the Month	Debit during the Month	Credit during the Month	Debit during the Month	Credit during the Month	Debit during the Month	Credit during the Month	Debit during the Month
1	Budaun	CD	54,00,540	19,58,400	21,02,100	66,94,847	64,20,274	62,49,341	62,99,963	11,24,342	26,97,400	68,20,014
2	Hapur	PD	2,05,000	0	0	2,05,000	0	0	92,42,485	95,124	1,29,78,003	1,06,12,848
3	Sambhal	PD	8,30,472	3,25,000	22,56,569	3,12,748	1,37,52,451	1,46,26,827	4,58,84,282	3,67,21,738	1,89,36,148	1,78,06,491
4	Agra	CD-1	26,08,460	21,71,953	4,74,258	5,22,072	65,76,109	19,68,243	56,65,348	36,97,420	2,67,44,964	1,79,85,373
5	Agra	CD-2	0	4,41,000	41,800	0	0	0	0	,0	2,46,11,709	2,19,92,781
6	Mainpuri	PD	0	0	0	0	0	0	8,05,95,369	7,96,59,832	6,08,90,884	4,84,11,036
7	Gorkhpur	PD	5,95,16,089	1,76,96,810	40,19,697	2,64,97,652	1,03,36,965	2556,858	90,76,334	99,77,687	3,95,14,038	1,50,33,004
8	Basti	CD-1	5,95,16,089	1,76,96,810	40,19,697	2,64,97,652	1,03,36,965	25,56,858	90,76,334	99,77,687	3,95,14,038	1,50,33,004
9	Jhansi	PD	7,27,620	8,83,040	3,49,675	2,28,717	56,20,921	41,19,335	2,48,32,501	2,45,42,389	2,43,70,116	2,70,02,603
10	Unnao	CD-1	1,17,38,570	1,20,64,895	0	7,69,443	0	36,300	2,16,000	1,59,300	,0	10,000
11	Siddharth Nagar	C.D-1	63,73,489	17,18,791	13,18,422	52,06,927	2,58,61,662	91,31,412	1,67,95,141	1,07,65,059	1,40,41,543	2,83,74,338
12	Gonda	P.D	15,13,874	1,77,47,891	13,04,04,245	2,63,85,380	6,32,55,050	8,92,07,829	18,30,611	2,66,60,704	28,30,840	30,39,520
13	Saharanpur	PD	38,67,807	46,85,135	73,31,505	88,89,893	1,09,29,882	1,19,76,113	1,40,39,633	1,08,48,399	84,39,303	77,56,828
	Saharanpur	CD-3	1,13,57,887	1,33,56,025	99,99,748	1,12,22,829	1,21,74,588	1,07,77,996	1,01,27,862	1,23,99,325	73,01,779	34,66,879
	Saharanpur	CD	39,47,532	29,09,155	28,09,947	33,68,807	1,08,76,475	1,02,26,428	69,62,472	74,12,941	1,15,50,573	87,03,529
14	Mirzapur	PD	1,01,78,597	12,30,230	91,61,188	71,86,145	1,28,70,414	1,25,24,639	81,50,629	95,83,267	39,42,382	83,50,324
Total			17,77,82,026	9,48,85,135	17,42,88,851	12,39,88,112	18,90,11,756	17,59,58,179	24,87,94,964	24,36,25,214	29,83,63,720	24,03,98,572
Total Credit is ₹ 108.82 crore and Total Debit is ₹ 87.88 crore												

Appendix 10.1**JEs supervised by an AE***(Reference: Paragraph no. 10.3)*

Sl. No.	District	Division	Average workload during 2011-16 (₹ in crore)	Available average manpower (PIP) during 2011-16		Average work load (₹ in crore)		Average JE per AE
				AE	JE	AE	JE	
1	Budaun	PD	109.61	2	18	54.81	6.09	9
		CD	84.93	3	20	28.31	4.25	6
2	Moradabad	PD	85.45	4	25	21.36	3.42	6
		CD-1	46.30	4	18	11.58	2.57	5
3	Hapur	PD	49.36	4	24	12.34	2.06	6
4	Sambhal	PD	94.47	5	17	18.89	5.56	3
5	Agra	PD	70.90	5	24	14.18	2.95	5
		CD-1	45.78	4	19	11.45	2.41	5
		CD-2	50.41	3	15	16.8	3.36	5
6	Mainpuri	PD	73.53	4	16	18.38	4.60	4
		CD	44.23	3	13	14.74	3.40	4
		CD-3	75.46	2	18	37.73	4.19	9
7	Gorakhpur	PD	55.15	3	20	18.38	2.76	7
		CD (Building)	51.51	NA	NA	NA	NA	NA
		CD-3	28.26	3	12	9.42	2.36	4
8	Basti	PD	76.58	2	18	38.29	4.25	9
		CD-1	46.51	4	11	11.63	4.23	3
9	Jhansi	PD	40.75	3	18	13.58	2.26	6
		CD-3	34.54	3	13	11.51	2.66	4
10	Unnao	PD	81.46	4	21	20.37	3.88	5
		CD-1	51.60	4	23	12.9	2.24	6
11	Ghazipur	PD	46.55	2	11	23.28	4.23	6
12	Hardoi	PD	41.76	3	16	13.92	2.61	5
13	Siddharthnagar	CD-1	40.48	2	11	20.24	3.68	6
14	Gonda	PD	37.63	3	13	12.54	2.89	4
15	Saharanpur	PD	29.18	3	15	9.73	1.95	5
		CD	24.22	3	17	8.07	1.42	6
		CD-3	49.85	4	18	12.46	2.77	5
16	Mirzapur	PD	34.69	3	24	11.56	1.45	8
		CD-2	49.08	4	21	12.27	2.34	5
17	Lucknow	PD	108.31	8	29	13.54	3.73	4
		CD-1	67.63	5	19	13.53	3.56	4
		CD-2	61.75	6	17	10.29	3.63	3

Appendix 11.1**Sanction of time-extension on inadmissible ground***(Reference: Paragraph no. 11.1.1)*

Sl. No.	District	Name of Unit	Total no of CBs	No. of cases of inadmissible grounds		Delay completion of work (in days)		Sanctioned By	Penalty dues (₹ in crore)	Penalty imposed (₹ in lakh)	Penalty (LD) to be deducted (₹ in crore)
				No. of CBs	Bonded cost (₹ in crore)	From	To				
1	Agra	CE	23	19	36.48	110	726	CE	3.65	1.48	3.63
		SE	11	6	20.73	31	310	SE	2.07	0.00	2.07
2	Budaun	SE	49	42	17.46	22	665	CE/SE	0.95	0.56	0.95
3	Bareilly	CE	18	10	33.50	96	450	CE	3.35	1.22	3.34
4	Gorakhpur	CE	22	18	18.08	51	527	CE	1.78	2.90	1.75
		SE	21	16	13.49	21	545	SE/CE	1.31	2.21	1.28
5	Jhansi	CE	50	44	72.76	27	782	CE	7.17	2.44	7.14
		SE	10	10	2.17	77	498	SE	0.22	0.19	0.21
6	Moradabad	CE	37	31	147.75	38	1,221	CE	13.89	2.74	13.87
		SE	9	0	0.00	-	-	CE/SE	0.00	0.00	0.00
7	Mainpuri	SE	8	6	1.44	77	578	SE	0.14	0.00	0.14
8	Meerut	CE	34	24	66.73	29	545	CE	6.59	5.41	6.54
9	Mirzapur	SE	34	32	54.64	86	744	CE/SE	5.46	2.15	5.44
10	Unnao	SE	15	9	4.20	21	488	CE/SE	0.36	1.02	0.35
		SE.	45	35	15.40	26	456	SE	1.43	0.92	1.42
11	Varanasi	CE	35	35	33.13	31	1,928	CE	3.26	10.13	3.16
		SE	21	18	9.76	36	574	CE/SE	0.95	0.48	0.95
Total			442	355	547.72	21	1,928		52.58	33.85	52.24

Appendix 11.2

Delay in sanction of time-extension after schedule completion of work

(Reference: Paragraph no. 11.1.2)

Sl. No.	District	Name of Unit	No. of Bonds	Bonded cost (₹ In crore)	Delay completion of work (in days)		Diary of applications of contractor for time extension	Sanctioned By	Delay in sanction			
					From	To			No. of cases sanction after schedule completion of work	Bonded cost (₹ in crore)	Delay in days	
											From	To
1	Agra	CE	23	59.33	110	801	16	CE	23	59.33	228	1,770
		SE	11	22.19	31	503	0	SE	9	21.72	233	1,111
2	Budaun	SE	49	70.43	22	699	24	CE/SE	49	70.43	126	2,459
3	Bareilly	CE	18	189.27	120	720	2	CE	18	189.27	365	1,952
4	Gorakhpur	CE	22	64.13	51	626	0	CE	22	64.13	44	1,227
		SE	21	14.61	21	605	0	SE/CE	21	14.61	108	1,230
5	Jhansi	CE	50	24.42	61	848	17	CE	50	24.42	99	1,980
		SE	10	2.17	90	498	0	SE	10	2.17	138	1,065
6	Mainpuri	SE	8	1.82	77	578	0	SE	8	1.82	499	951
7	Meerut	CE	34	135.63	63	730	0	CE	34	135.63	140	1,287
8	Moradabad	CE	37	177.36	38	1,221	0	CE	37	177.36	186	1,333
		SE	9	9.99	48	365	0	CE/SE	9	9.99	139	632
9	Mirzapur	SE	34	55.34	86	744	0	CE/SE	34	55.34	202	1,365
10	Unnao	SE	15	8.00	21	488	15	CE/SE	15	8.00	80	889
		SE.	45	27.15	26	657	0	SE	45	27.15	99	2,650
11	Varanasi	CE	35	33.13	83	1,928	0	CE	34	31.95	150	2,272
		SE	21	10.24	36	846	3	SE	20	10.09	107	1,336
Total/ Range			442	905.21	21	1,928	77		438	903.41	44	2,650

Appendix 11.3**Imposition of insignificant penalties***(Reference: Paragraph no. 11.1.3)*

Sl. No.	Name of District	Name of Unit	No. of CBs	Bonded cost (₹ in crore)	Delay completion of work (in days)		No. of cases sanction in which insignificant penalty						No. of cases sanction in which penalty not imposed (without penalty)			
					From	To	No. of CBs	Bonded cost (₹ in crore)	From (in per cent)	To (in per cent)	Penalty dues (₹ in crore)	Penalty imposed (₹ in lakh)	Penalty (LD) to be deducted (₹ in crore)	No. of CBs	Bonded cost (₹ in crore)	Penalty (LD) to be deducted (₹ in crore)
1	Agra	SE	11	22.19	31	503	0	0.00	0.00	0.00	0.00	0.00	0.00	11	22.19	2.21
		CE	23	59.33	110	801	7	4.51	0.10	0.50	0.45	1.48	0.44	16	54.82	5.48
2	Budaun	SE	49	70.43	22	699	22	1.45	0.10	1.00	0.14	0.57	0.13	27	68.97	6.13
3	Bareilly	CE	18	189.27	120	720	4	19.43	0.02	0.62	1.94	1.23	1.93	14	169.84	16.98
4	Gorakhpur	SE	21	14.61	21	605	18	13.34	0.10	1.00	1.29	2.47	1.27	3	1.28	0.13
		CE	22	64.13	51	626	14	11.62	0.05	1.00	1.15	3.17	1.12	8	52.51	5.22
5	Jhansi	CE	50	24.42	61	848	13	35.90	0.10	1.00	3.59	29.20	3.30	37	53.09	5.31
		SE	10	2.17	90	498	5	0.60	0.01	2.00	0.06	0.28	0.06	5	1.57	0.16
6	Mainpuri	SE	8	1.82	77	578	0	0.00	0.00	0.00	0.00	0.00	0.00	8	1.82	0.18
7	Meerut	CE	34	135.63	63	730	20	123.61	0.008	1.00	12.36	7.02	12.29	14	12.02	1.20
8	Moradabad	CE	37	177.36	38	1,221	13	17.55	0.01	0.20	1.75	1.93	1.74	24	159.81	15.98
		SE	9	9.99	48	365	4	4.15	0.10	0.20	0.41	0.54	0.41	5	5.84	0.58
9	Mirzapur	SE	34	55.34	86	744	24	4.25	0.25	1.00	0.43	2.15	0.40	10	51.09	5.11
10	Unnao	SE	15	8.00	21	488	11	3.48	0.15	0.50	0.35	1.42	0.33	4	4.52	0.44
		SE.	45	27.15	26	657	16	2.94	0.01	2.00	0.29	1.01	0.28	29	24.21	2.42
11	Varanasi	CE	35	33.13	83	1,928	29	26.46	0.10	1.00	2.65	10.13	2.54	6	6.67	0.67
		SE	21	10.24	36	846	5	3.13	0.05	0.50	0.30	0.55	0.30	16	7.11	0.71
Total/Range			442	905.21	21	1,928	205	272.42	0.01	2.00	27.16	63.15 say ₹0.63 crore	26.54	237	697.36	68.91

Appendix 11.4**Sanction of time-extension on non-availability of funds***(Reference: Paragraph no. 11.1.4)*

Sl. No.	District	Name of Unit	Total no. of Bonds	No. of cases in which non-availability of funds (no of CBs)	Bonded cost (₹ in crore)	Delay completion of work (in days)		Sanctioned by
						From	To	
1	Agra	CE	23	9	30.28	46	728	CE
		SE	11	4	1.71	265	503	SE
2	Budaun	SE	49	8	53.64	102	699	CE/SE
3	Bareilly	CE	18	12	168.68	62	582	CE
4	Gorakhpur	CE	22	5	46.55	59	562	CE
		SE	21	6	9.97	179	558	SE/CE
5	Jhansi	CE	50	14	22.44	14	686	CE
		SE	10	1	0.38	104	104	SE
6	Moradabad	CE	37	8	57.03	108	761	CE
		SE	9	0	0.00	0	0	CE/SE
7	Mainpuri	SE	8	2	0.46	93	146	SE
8	Meerut	CE	34	21	101.65	52	582	CE
9	Mirzapur	SE	34	3	49.19	365	438	CE/SE
10	Unnao	SE	15	6	3.80	90	457	CE/SE
		SE.	45	10	13.63	173	659	SE
11	Varanasi	CE	35	4	2.94	158	620	CE
		SE	21	6	2.32	94	365	CE/SE
Total			442	119	564.67	14	761	

Appendix 11.5**Irregularities in sanction of variations***(Reference: Paragraph no. 11.2)***(₹ in crore)**

Sl. No.	Name of District	Name of Zone/ Circle	No. of CBs	No. of items of work	Bonded cost of items	Executed Cost of items	Excess amount	Variation in per cent (in range)	Sanctioned by	Range of variation 15% to 50%	Range of variation 50% to 100%	Range of variation 100% to 500%	Range of variation 500% and above	Average Variation (in per cent)
1	Agra	CE	10	51	15.48	21.26	7.45	17.18 to 2519.00	CE	15	11	19	6	56
2	Budaun	SE	5	10	0.28	0.52	0.25	20.18 to 203.20	SE	3	3	4	0	89
3	Basti	SE	3	3	0.14	0.20	0.06	31.4 to 322.44	SE	1	1	1	0	45
4	Gorakhpur	SE	9	42	1.16	2.26	1.09	21.94 to 576.88	SE/CE	23	12	7	1	95
5	Jhansi	SE	14	49	2.54	5.03	2.49	16 to 1467.07	SE	21	6	16	6	98
6		CE	5	22	0.98	1.30	0.32	20.53 to 438.76	CE	11	4	7	0	33
7	Mainpuri	SE	10	32	0.45	1.09	0.64	22.22 to 1581.15	SE	9	9	11	3	144
8	Meerut	CE	6	19	4.00	6.76	2.76	18.85 to 1944.8	CE/SE	8	4	5	2	69
9	Moradabad	SE	8	24	0.81	1.25	0.44	27.63 to 347.33	CE/SE	12	5	7	0	55
10	Mirzapur	SE	11	74	3.69	5.47	1.78	20.88 to 658.61	CE/SE	34	21	17	2	48
10	Unnao	SE	9	25	1.35	1.43	0.78	19.50 to 715.79	SE	9	4	10	2	58
11	Varanasi	CE	8	20	4.63	6.15	1.96	23.00 to 290.57	CE	14	2	4	0	42
12		SE	7	26	0.10	0.22	0.12	26.46 to 497.11	SE	5	3	18	0	126
Districts(11)/Total			105	397	35.61	52.94	20.14	16.00 to 2519.00		165	85	126	22	

Appendix 11.6**Extra-items not provisioned in bond but items provisioned in estimates***(Reference: Paragraph no. 11.3.1)***(₹ in crore)**

Sl. No.	District	Name of Units	No. of bonds	Estimated cost	Bonded cost	Amount of extra items
1	Agra	CE	8	245.19	241.21	12.62
2		SE	4	213.16	121.31	2.56
3	Budaun	SE	14	1.97	120.18	6.69
4	Basti	SE	5	2.93	2.99	1.69
5	Bulandshahar	SE	1	7.38	8.72	0.06
6	Gorakhpur	CE	5	6.66	4.87	1.27
7	Jhansi	SE	4	3.71	3.27	0.54
8	Mainpuri	PD	5	0.78	0.78	0.32
9	Moradabad	SE	4	0.11	0.10	1.04
10	Mirzapur	SE	10	13.63	10.55	1.84
11	Sambhal	PD	7	1.22	1.04	0.31
12	Unnao	SE	14	38.28	38.25	2.10
13	Varanasi	CE	7	0.00	0.00	3.70
14		SE	4	0.00	0.00	0.92
Total			92	535.02	553.27	35.66

Appendix 11.7**Extra-items are not related to this work (other works)***(Reference: Paragraph no. 11.3.2)***(₹ in crore)**

Sl. No.	District	Name of Units	No. of bonds	Estimated cost	Bonded cost	Amount of extra items
1.	Agra	CE	1	2.35	2.35	0.44
2.		SE	2	6.25	6.23	0.78
3.	Gorakhpur	SE	1	0.56	0.56	0.26
4.	Jhansi	SE	8	7.95	7.78	1.90
5.	Mainpuri	PD	10	1.03	1.03	1.51
6.	Mirzapur	SE	4	2.65	2.42	1.10
7.	Unnao	SE	1	9.41	9.27	0.54
Total			27	30.20	29.64	6.53

Appendix 11.8**Extra-items/extra-payment for shifting of stone ballast/material***(Reference: Paragraph no. 11.3.3)***(₹ in crore)**

Sl. No.	District	Name of Units	No. of bonds	Estimated cost	Bonded cost	Amount of extra items
1	Agra	CE	2	1.97	1.95	0.09
2	Basti	SE	23	16.83	16.79	0.80
3	Gorakhpur	CE	8	14.27	14.08	3.91
4		SE	17	11.06	10.22	0.80
5	Moradabad	SE	1	0.00	0.00	0.11
6	Mirzapur	SE	1	1.29	0.74	0.03
7	Unnao	SE	1	0.59	0.59	0.07
Total			53	46.01	44.37	5.81

Appendix 11.9

Payment of extra-item without sanction

(Reference: Paragraph no. 11.3.4)

Sl. No.	Division	Year	No. of CBs	Amount of Extra items executed (in ₹ crore)	Ranging of percent with respect CBs
1	PD, Agra	2011-12	12	1.77	3.28% to 506.65%
		2012-13	16	3.40	1.46% to 553.13%
		2013-14	17	3.60	18.35% to 531.50%
		2014-15	10	1.43	3.50% to 817.51%
		2015-16	16	2.64	9.12% to 1035.94%
2	PD, Basti	2011-12	10	1.18	7.30% to 460.36%
		2012-13	1	0.05	195.33%
		2013-14	17	2.94	4.82% to 4056.22%
		2014-15	14	2.19	2.09% to 444.97%
		2015-16	14	0.87	6.50% to 159.17%
3	PD, Budaun	2011-12	6	0.44	19.64% to 1867.79%
		2012-13	22	0.78	2.95% to 1315.59%
		2013-14	14	1.10	107.53% to 1147.38%
		2014-15	15	2.29	119.16% to 1123.13%
		2015-16	9	2.02	132.05% to 2264.62%
4	PD, Ghazipur	2011-12	10	0.51	149.88% to 150.48%
		2012-13	66	2.77	19.64% to 2685.15%
		2013-14	7	0.27	24.44% to 352.16%
		2014-15	11	0.91	9.45% to 72.12%
		2015-16	6	0.16	0.31% to 176.65%
5	CD-3, Gorakhpur	2011-12	11	1.24	17.47%
		2012-13	10	0.44	50.68% to 669.50%
		2015-16	2	0.13	50.68%
	CD (Building), Gorakhpur	2011-12	12	1.38	6.69% to 1148.39%
		2012-13	5	0.35	2.32% to 106.87%
		2013-14	6	0.25	8.67% to 38.35%
		2014-15	7	0.38	3.43% to 104.45%
		2015-16	20	1.85	2.79% to 134.91%
6	PD, Hardoi	2011-12	11	1.47	3.10% to 576.39%
		2012-13	8	0.75	3.19% to 478.34%
		2013-14	1	0.17	40.56%
		2014-15	3	0.26	6.87% to 14.77%
		2015-16	2	0.26	2.28% to 6.99%
7	CD-3, Jhansi	2013-14	4	0.12	5.33% to 14.22%
		2014-15	6	0.41	2.78% to 35.72%
		2015-16	12	0.96	7.43% to 241.95%
8	PD, Lucknow	2011-12	7	0.85	10.61% to 208.61%
		2012-13	7	0.56	1.61% to 156.06%
		2013-14	10	6.51	0.47% to 72.72%
		2014-15	9	1.43	2.17% to 232.97%
		2015-16	14	4.35	10.79% to 323.51%

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	CD-1, Lucknow	2011-12	7	1.10	5.69% to 880.12
		2012-13	8	0.48	15.82% to 170.00%
		2013-14	8	0.29	8.03% to 121.58%
		2014-15	12	0.85	1.24% to 282.81%
		2015-16	34	4.20	10.04% to 624.74%
	CD-2, Lucknow	2011-12	5	0.28	4.20% to 226.45%
		2012-13	7	0.31	5.01% to 147.47%
		2013-14	1	0.04	21.18%
		2014-15	7	0.57	1.96% to 295.66%
		2015-16	17	2.06	0.20% to 827.35%
9	CD, Mainpuri	2011-12	6	0.24	15.43% to 100.91%
		2012-13	9	0.39	4.77% to 504.53%
		2013-14	4	15.79	1.20% to 34.82%
		2014-15	22	1.97	5.18% to 599.95%
		2015-16	13	2.35	9.16% to 1036.73%
	CD-3, Mainpuri	2011-12	4	0.20	5.94% to 17.20%
		2013-14	4	0.54	28.25% to 277.54%
10	PD, Mirzapur	2013-14	9	0.02	19.39% to 3753.53%
		2014-15	3	0.61	51.24% to 1994.59%
		2015-16	10	1.50	24.98% to 5280.65%
	CD-2, Mirzapur	2011-12	10	0.94	21.98% to 1105.84%
		2012-13	2	0.03	7.59% to 53.44%
		2013-14	2	0.11	23.64% to 494.96%
		2014-15	4	0.09	5.08% to 24.85%
		2015-16	25	2.94	2.47% to 4842.99%
11	PD, Moradabad	2011-12	1	0.06	22.12%
		2012-13	4	0.18	20.11% to 913.59%
		2013-14	4	0.29	4.15% to 101.88%
		2014-15	18	1.85	0.33% to 290.06%
		2015-16	6	0.21	1.43% to 338.50%
	CD, Moradabad	2011-12	3	0.04	1.17% to 101.78%
		2012-13	2	0.09	21.42% to 149.32%
		2014-15	4	3.07	24.70% to 67.33%
		2015-16	7	0.50	13.34% to 97.13%
12	PD, Saharanpur	2014-15	2	0.54	133.16% to 172.41%
		2015-16	15	4.23	4.00% to 4065.26%
	CD-3, Saharanpur	2011-12	3	7.96	2.6% to 19.42%
		2012-13	1	0.01	1.56%
		2014-15	2	0.32	1.55% to 3279.79%
		2015-16	6	8.07	25.67% to 566.49%
13	PD, Unnao	2011-12	19	1.62	1.31% to 2408.40%
		2012-13	13	0.89	5.86% to 1913.41%
		2013-14	7	0.38	4.58% to 76.57%
		2014-15	13	3.66	2.20% to 1409.64%
		2015-16	23	1.32	7.58% to 200.44%
20 divisions		Total	846	128.63	0.20% to 5280.65%