



PROJECT AUDIT REPORT
ON
CONSTRUCTION OF
METRO BUS TRANSIT SYSTEM,
FEROZEPUR ROAD (CORRIDOR-I)
LAHORE
HOUSING, URBAN DEVELOPMENT &
PUBLIC HEALTH ENGINEERING
DEPARTMENT
GOVERNMENT OF THE PUNJAB
YEAR 2013

AUDITOR GENERAL OF PAKISTAN

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ABBREVIATIONS & ACRONYMS

AA	Administrative Approval
ABC	Asphaltic Base Course
A&C	Addendum and Corrigendum
B&R	Buildings & Roads
BOQ	Bill of Quantities
BRTS	Bus Rapid Transit System
BS	British Standards
CDWP	Central Development Working Party
Cft	Cubic Feet
CM	Chief Minister
DAC	Departmental Accounts Committee
DFR	Departmental Financial Rules
DG Set	Diesel Generator Set
DNIT	Draft Notice Inviting Tender
EA	Executing Agency
ECNEC	Executive Committee of National Economic Council
EM&E	Electrical Mechanical & Engineering
EN	European Norms
FOB	Free on board
GB	Great Britain
GoPb	Government of the Punjab
GST	General Sales Tax
HUD&PHE	Housing Urban Development and Public Health Engineering Department
IB	Instructions to Bidders
JMF	Job Mix Formula
JV	Joint Venture
KM	Kilo Meter
LDA	Lahore Development Authority
MB	Measurement Book
MBS	Metro Bus Service
MRS	Market Rate System
MTBS	Metro Bus Transit System
MTDF	Medium Term Development Framework
NAC	Non-Availability Certificate
NEC	National Economic Council
NESPAK	National Engineering Services of Pakistan
PAO	Principal Accounting Officer

PD	Project Director
P&D	Planning & Development
PC-I	Planning Commission-I
PDWP	Provincial Development Working Party
PFR	Punjab Financial Rules
P ft	Per Foot
PMA	Punjab Metrobus Authority
PSD	Platform Screen Doors
PO	Public Oversight
RCC	Reinforced Cement Concrete
Rft	Running Feet
RM	Running Meter
SDAC	Special Departmental Accounts Committee
SGS	Societe Generalede Surveillance (French)
TEPA	Traffic Engineering &Transport Planning Agency
TSE	Technical Sanctioned Estimate
UET	University of Engineering and Technology, Lahore
UPS	Uninterrupted Power Supply

PREFACE

Articles 169 & 170 of the Constitution of the Islamic Republic of Pakistan 1973, read with sections 8 and 12 of the Auditor General's (Functions, Powers, and Terms and Conditions of Service) Ordinance, 2001 require the Auditor General of Pakistan to conduct audit of the accounts of the Federation, the Provinces and any authority or body established by the Federation or a Province.

The Directorate General of Audit Works (Provincial) Lahore conducted Project Audit of "Construction of Metro Bus Transit System for Ferozepur Road (Corridor-I) Lahore" during May 2013 for the period 2012-13 with a view to report significant findings to the stakeholders. The Project was executed by Traffic Engineering & Transport Planning Agency, Lahore Development Authority, Lahore. Audit examination was primarily aimed at evaluating the pace, mode and level of achievement of project objectives while ensuring compliance with authority. The Audit Report also gives specific recommendations that, if implemented, will help the management in realizing the objectives of the project.

Nine SDAC meetings were scheduled between November, 2013 to June, 2015 but all remained inconclusive and minutes of the meetings were not issued by the management despite Principal Accounting Officer's intervention. In its last endeavour to seek SDAC directives, the Secretary HUD & PHE Department, Lahore was again asked by Audit for holding a SDAC meeting vide DO letter No. IRABC-I/SDAC / MBS/ TEPA/929 dated 29.06.2015 but no response was received till finalization of this report. Therefore, the audit observations included in this report have been finalized without the SDAC directives.

The Audit Report is submitted to the Governor of the Punjab in pursuance of Article 171 of the Constitution of the Islamic Republic of Pakistan 1973, for causing it to be laid before the Provincial Assembly.

-sd-

Islamabad

(Rana Assad Amin)

Dated:

Auditor General of Pakistan

EXECUTIVE SUMMARY

CONSTRUCTION OF METRO BUS TRANSIT SYSTEM FOR LAHORE FERROZEPUR ROAD LAHORE

The Directorate General Audit Works (Provincial), Lahore conducted audit of the project “Construction of Metro Bus Transit System for Ferozepur Road (Corridor-I), Lahore” during May 2013 to evaluate the financial performance, achievement of the project’s objectives and the desired benefits as envisaged in PC-I. The audit was conducted in accordance with the INTOSAI Auditing Standards.

Traffic Engineering & Transport Planning Agency (TEPA), LDA Lahore launched this project during 2012-13. The scheme was funded in April 2012 by the Government of the Punjab with approved PC-I cost of Rs 30,824.79 million and completion period of one year. The overall objectives of this project were to improve the efficiency and performance of the public transport system in Lahore by introducing environment friendly and high quality rapid mass transit system.

In the light of Rule 8 of the Second Schedule of Delegation of Financial Powers Rules, 2006, ECNEC is the final approving authority for any provincial project costing more than Rs 10,000 million. However, this project, which otherwise required ECNEC approval, was split into nine packages (I to IX) and each package was got approved separately from the PDWP to avoid approval from ECNEC. The project was completed in 11 months in February, 2013 with total expenditure of Rs 29,896.96 million (including cost of land: Rs 2,662.07 million, construction cost: Rs 23,617.39 million and other costs: Rs 3,617.49 million) against revised PC-I cost of Rs 30,564.79 million.

Initial Environmental Examination and Environmental Impact Assessment were not carried out as required under Section 12 of the Pakistan Environmental Protection Act, 1997, despite its provision in the PC-1. During construction, the contractors used parks at various places under Parks and Horticulture Authority, Lahore for construction of girders and slabs and dumping material having adverse impact on the environment. The project is viable and sustainable only if huge amount of subsidy is provided by the Provincial Government.

PC-IV of the project was neither prepared by the Agency nor produced to Audit. Hence, the socio-economic benefits could not be evaluated. The maintenance period of all the works was two years except NLC contracts for Packages-I & VII, Lahore which was required to be three years as per Chief Minister's directive.

Effective implementation of the system of internal controls as laid down in the departmental codes/instructions was found lacking. Therefore, audit observations indicating lapses in financial management, contract management, construction & works and deviation from the instructions contained in summary approved by the Chief Minister (Annexure-I) were issued. The Agency did not hold exit meeting with the Audit Team at the end of audit programme.

Nine SDAC meetings were scheduled between November, 2013 to June, 2015 but all remained inconclusive despite discussions. In the audit report, audit has pointed out a number of cases in which excess rates were approved due to application of higher input rates than admissible. During the SDAC meeting held on 27.04.2015, this issue was discussed at length. The management was of the view that the rates approved in the PC-I were within 5% above the MRS (Market Rate System) rates as approved by the Chief Minister, Punjab. Audit asked the TEPA Authorities to calculate and compare the overall Metro Bus Project cost with MRS (for 1st Bi-annual 2012 for District Lahore) to substantiate its point of view. The same was not provided. The Agency neither convened a fresh SDAC meeting nor issued the minutes of already held meetings despite direction from the Secretary Government of the Punjab, Housing, Urban Development & Public Health Engineering Department (Annexure-II). A last effort for holding of the SDAC meeting was made by Audit through D.O letter No. IRABC-I/SDAC/MBS/TEPA/929 dated 29.06.2015 addressed to the Secretary but no response was received till finalization of this report.

Key audit findings

Audit findings, categorized into major issues, viz. Financial Management, Procurement & Contract Management and Construction & Works are as under:-

1. Financial Management

Review of Financial Management revealed overpayments and losses of Rs 318.68 million as summarized below:

1. Overpayment due to extra labour rate of pre-mixed carpeting - Rs 86.32 million
2. Overpayment due to inadmissible pre-heating charges - Rs 72.09 million
3. Inadmissible payment of surface rendering and finishing - Rs 39.84 million
4. Non deduction of cost of less used bitumen - Rs 32.11 million
5. Overpayment to the contractors on account of higher rates than admissible under revised estimate - Rs 28.97 million
6. Overpayment due to non-deduction of rebate offered by the contractor - Rs 20.05 million
7. Loss to the Authority due to provision of higher rates of service tax - Rs. 15.42 million
8. Overpayment due to application of incorrect loose factor - Rs 12.23 million
9. Overpayment due to higher rates of carriage than schedule rate - Rs 10.76 million
10. Undue financial benefit to the contractor - Rs 0.89 million
(Paras 4.2.1.1 to 4.2.1.10)

2. Procurement and Contract Management

Examination of Contract Management revealed irregularities amounting to Rs 1,554.81 million. This amount is in addition to para number 4.3.1.1 under which the total project cost has been observed by audit as irregular because approval from the ECNEC was not obtained. Audit findings under this category, inter alia, include the following:

1. Irregular execution of project without approval of the ECNEC- Rs 30,824.79 million
2. Non-production of record-Rs 976.65 million
3. Overpayment due to incorrect rates analysis- Rs 317.88 million
4. Irregular procurement and non-reduction in rate of below-specification escalators - Rs 163.59 million
5. Provision of import duties and taxes on local items – loss of Rs 46.01 million
6. Non compliance of the Chief Minister's approval on account of maintenance period for Rs 38.08 million.
7. Non recovery of occupancy cost of office - Rs 9.49 million
(Paras 4.3.1.1 to 4.3.1.7)

3. Construction & Works

Review of Construction and Works revealed overpayments and losses amounting to Rs 121.45 million, such as:

1. Overpayment due to incorrect RCC rates- Rs 41.10 million
2. Non utilization of retrieved material - Rs 35.28 million
3. Overpayment due to - incorrect labour rates - Rs 23.39 million
4. Overpayment due to incorrect rate for item of paint - Rs 16.32 million
5. Overpayment due to extra overheads in the rates analysis for Rs 4.08 million
6. Loss due to higher rates in technical sanctioned estimate than PC-I rates for - 1.28 million

(Paras 4.4.1.1 to 4.4.1.6)

Recommendations

Audit observed that most of the irregularities were either due to weak technical, supervisory and financial controls or poor contract management. Principal Accounting Officer needs to strengthen internal controls regime in the department in the light of following recommendations:

- i. Internal controls like test check measurements / periodic inspections of works by supervisory officers need to be implemented.
- ii. Amount paid to the contractor(s) on account of taxes, not applicable or paid in excess, be recovered from contractor(s).
- iii. Action needs to be initiated and responsibility fixed against the officers responsible for lapses and violation of rules besides effecting recoveries.
- iv. Proper rate analysis should be carried out while sanctioning the PC-1 and technical sanctioned estimates.
- v. Disciplinary action be initiated against officers on account of non-production of record to audit and necessary directions be issued in this regard to all concerned.

1. INTRODUCTION

1.1 Traffic Engineering & Transport Planning Agency (TEPA), Lahore Development Authority, Lahore launched the project “Construction of Metro Bus Transit System for Lahore Ferozepur Road, Lahore” during 2012-13. The whole Project comprised construction of Bus Rapid Transit (BRT) System of three corridors in Lahore city i.e. Corridor-I (Gajjumatta to Shahdra, Ferozepur road 27 Km) Corridor-II (Thokar Niaz Baig to MAO College 13 km) and Corridor-III (Canal Roads, M-2 inter change Thokar Niaz Baig to Moghalpura). Work on Corridor-I was undertaken by TEPA while on the other two corridors it has not been launched as yet.

1.2 The Directorate General of Audit Works (Provincial), Lahore conducted project audit of Corridor-I (Gajjumatta to Shahdra, Ferozepur road 27 Km) during May 2013. The project, funded by Government of the Punjab with approved PC-I cost of Rs 30,824.79 million, was started in April 2012 with completion period of one year. In the light of Rule 8 of Second Schedule of Delegation of Financial Powers Rules, 2006, ECNEC is the final approving authority for any provincial project costing beyond Rs10,000 million. However, this project, which otherwise required ECNEC approval, was split into nine packages (I to IX) and each package was got approved separately from the PDWP to avoid approval from ECNEC. The project was completed in 11 months in February, 2013 with total expenditure of Rs 29,896.96 million (including cost of land: Rs 2,662.07 million, construction cost: Rs 23,617.39 million and other costs: Rs 3,617.49 million) against revised PC-I cost of Rs 30,564.79 million.

1.3 Project objectives were as under:

- To reduce traffic load in Lahore city,
- To improve the efficiency and performance of public transport in Lahore,
- To improve the city’s environment by reduction in number of vehicles plying on the roads, and
- To improve quality of life.

1.4 Summary of financial results of the project is as under:

(Rs in million)

Package No	Package Name	Original PC-1 cost	Revised PC-I cost	Actual Cost
1	(Package-I) Chungi Amer Sidhu to Kalma Chowk	7,157.24	5,377.49	5,342.77
2	(Package-II) Kalma Chowk to Qartaba Chowk	5,482.90	6,058.47	5,773.16
3	(Package-III) Qartaba Chowk to MAO College	5,148.95	6,023.50	6,039.50
4	(Package-IV) MAO College to Bhatti Chowk	3,411.84	3,380.75	3,346.12
5	(Package-V) Bhatti Chowk to Niazi Interchange, Lahore	2,590.78	2,616.42	2,677.38
6	(Package-VII) Construction of Additional Bridge along Lahore Bridge	849.69	893.08	846.44
7	Gajju Matta to Youhanabad (Package-VIII)	1,930.02	2,027.52	1,862.10
8	Provision and installation of Escalators and Platform Screen Doors at BRTS Section (Package-IX) Lahore	3,227.18	3,227.17	3,096.79
9	Development & Construction of Bus Depot on Southern Side	1,026.19	960.36	912.67
Total		30,824.79	30,564.79	29,896.96

Source: Progress report and expenditure statement of TEPA/LDA Lahore dated 11.12.2014

1.5 Cash flows/releases of funds were regulated by the Finance Directorate TEPA, LDA Lahore through its cash management plan depending on the cash flows.

1.6 Payments were regulated by the provision of contract agreements and Departmental Financial Rules (DFR).

1.7 Financial impact of the project, in brief, is as under (detail given in para 1.4)

(Rs in million)

Original PC-1 cost	Revised PC-I cost	Total cost
30,824.79	30,564.79	29,896.96

1.8 Physical and Management progress as compared with the PC-I is mentioned as under:

Physical Progress:

(Rs in million)

Planned cost	Planned completion Period as per PC-I	Revised PC-I cost	Actual expenditure upto May, 2013	Percentage of expenditure
30,824.79	12 Months	30,564.79	29,896.96	98%

Management Progress:

Project	Length of track	Construction time in PC-I	Completion Time
Corridor-I (Gajjumatta to Shahdra Road)	27 kilometers	12 months	11 Months

2. AUDIT OBJECTIVES

The major objectives of the audit were to:

- i. Analyze the overall performance vis-à-vis planned targets, achievement of objectives, cost and time over-run and timely accrual of benefits/outcomes.
- ii. Assess whether the resources were utilized for the purpose for which they were provided with respect to three E's (Economy, Efficiency and Effectiveness).
- iii. Review compliance with applicable rules, regulations, procedures and instructions contained in the summary approved by the Chief Minister of the Province.

3. AUDIT SCOPE AND METHODOLOGY

3.1 The audit scope included the scrutiny of accounts of the scheme for the financial year 2012-13 (up to May 2013) covering the total project expenditure of Rs 29,896.96 million.

3.2 Audit methodology included data collection, scrutiny/analysis of record, discussions with engineering staff, site visits and reporting, holding SDAC meetings and follow-up.

4. AUDIT FINDINGS AND RECOMMENDATIONS

4.1 Organization and Management

On examination of the record, audit observed that organization and management set-up for the project was well structured and functioning accordingly; hence, no observation on these aspects was issued. Salient features of Organization and Management set-up of the project are given below:-

4.1.1 The project/scheme was executed by the TEPA, LDA Lahore under the administrative control of Secretary HUD & PHE Department, Lahore. The Project was headed by Managing Director TEPA, supported by Chief Engineer, Director Engineering and Director Finance TEPA, LDA, Lahore.

4.1.2 Job descriptions of the said staff were well defined in the delegation of powers of TEPA, LDA Lahore.

4.1.3 The Resident Engineer of M/s NESPAK Pvt. Ltd. was supposed to be present at site round the clock throughout execution of the work. The Assistant Director TEPA, LDA was to visit the site regularly and was responsible for 100% checking of work whereas the Director was to visit the site occasionally. The Chief Engineers and Director Engineering concerned were also required to carry out physical inspections of the schemes under execution.

4.1.4 The contractors submit the bills to TEPA which were first checked by M/s NESPAK as Supervisor Consultants of the project. Pre-audit was then carried out by the Local Fund Audit, Government of the Punjab, Lahore.

4.1.5 The accounts were maintained centrally in the Directorate of Finance TEPA, LDA Lahore.

4.2 Financial Management

4.2.1 The issues relating to the financial management involving an amount of Rs 318.68 million, observed during the audit, are as under:

4.2.1.1 Overpayment due to extra labour rate of pre-mixed carpeting - Rs 86.32 million¹

As per Finance Department letter No. RO(TECH)FD.2-9/2005 dated 04.04.2006, only 10% sundry charges on 12.50% labour charges, already included in item rate, were to be included in the rate of carpeting on account of supervisory technical and non-technical staff charges.

The Project Directors TEPA, LDA Lahore, made payment for items of work “Asphaltic Base Course plant mix Class (B)” and “Asphaltic Wearing Course plant mix class (A)” in various packages of BRTS Lahore at different rates with quoted percentages, to the contractors including labour charges @ 12.5% of equipment & machinery whereas labour charges were already included in the hire charges of equipment & machinery and only 10% sundry charges on the cost of labour were to be added in the rate as per rate analysis approved by the Finance Department.

Weak supervisory and financial controls resulted in overpayment of Rs 86,316,313.

Audit pointed out the overpayment in May 2013. The Agency replied that the equipment & machinery charges for asphalt plant only includes expenses of the crew directly associated with operation of this equipment. It, however, does not include Site Engineer, Supervisor, Surveyor, and other related technical / non-technical staff. This manpower requirement was catered for in the Engineers mode of estimation @ 12.50% of equipment charges. The charges included in the rate analysis for estimation purpose were fully justified.

The reply was not tenable because labour charges were payable as per Finance Department’s letter No. RO(TECH)FD.2-9/2005, dated 04.04.2006 for item of carpeting.

¹ Calculation at Annexure III

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends recovery from contractor besides fixing responsibility against concerned officers/officials.

(Para 5, 40, 48, 68, 93, 109, 159, 160, 204, 205)

4.2.1.2 Overpayment due to inadmissible pre-heating charges of bitumen - Rs 72.09 million²

As per Finance Department's clarification issued vide letter No. RO (Tech)FD 11-8/22013 dated 30th July, 2013, no pre-heating charges for bitumen shall be paid separately as the same were already included in the material/input rates available on its website.

The Project Directors, TEPA, LDA Lahore, made payment for items of work "Asphaltic Base Course plant mix Class (B) and Asphaltic Wearing Course plant mix class (A) in various packages of BRTS Lahore. The Agency sanctioned rate analysis for items of work "Asphaltic Base Course plant mix Class (B) with 3.6% JMF and Asphaltic Wearing Course plant mix class (A) with 4.2%" by including extra cost of pre-heating charges of bitumen @ Rs 59,047 and Rs 52,160 respectively for each 187.50 cubic meter. Audit observed that the Agency included additional pre-heating charges in the rate analysis, whereas, it was already included in item rate.

Weak supervisory and financial controls resulted in overpayment of Rs 72,087,898.

Audit pointed out the overpayment in May 2013. The Agency replied that heating of bitumen in storage tanks of asphalt batching plant was included in the rate of machinery charges for asphalt plant. The pre-heating of bitumen brought at plant from oil refinery through especially equipped bowzers was an entirely different item. These bowzers were pre-heated to melt down bitumen for transfer to main storage tanks of the plant where bitumen was further heated at specified temperature for preparation of asphalt mix. The pre-heating of bitumen in bowzers was the activity not covered in machinery charges for asphalt plant.

²Calculation at Annexure IV

The reply was not tenable because as per clarification of Finance Department issued vide letter No. RO (Tech)FD 11-8/22013 dated 30th July, 2013, pre-heating charges were not admissible. Hence, inadmissible payment was made to the contractor on account of pre-heating.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends recovery from the contractor besides fixing responsibility against concerned officers/officials.

(Para 24, 41, 55, 73, 97, 105, 150)

4.2.1.3 Inadmissible payment of surface rendering and finishing - Rs 39.84 million

As per clause 401.4.2 of specification of the project read with Chief Engineer TEPA letter No. CE/TEPA/1235/LDA/365 dated 08.04.2013 “Curing, surface finishing and rendering etc”, necessary to complete the item was included in the item rate of concrete work, therefore, no separate payment would be admissible to contractor.

The Project Directors, TEPA, LDA Lahore made payment for the item of “Surface rendering and finishing” to the contractors as non BOQ item which was not admissible as per instructions issued by the Chief Engineer, TEPA LDA.

Weak supervisory and financial controls resulted in loss of Rs 39,838,631.

Audit pointed out the loss in May 2013. The Agency replied that the recovery would be made from contractors.

The reply was not tenable, because no document towards effected recovery was produced to Audit for verification till finalization of the report.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends early recovery from the contractor besides fixing responsibility against concerned officers/officials at fault.

(Para 81, 139, 140)

4.2.1.4 Non deduction of cost of less used bitumen- Rs 32.11 million³

As per Finance Department's Notification No. RO (Tech) FD-2-3/2004, dated 02.08.2004, the payment of carpeting was to be made to the contractor as per Job Mix Formula (JMF) or actual bitumen used in the work.

The Project Directors TEPA, LDA Lahore, approved rate analysis of item Asphalt Base Course Plant Mix class B in various packages of BRTS, Lahore with different ratios of bitumen. Audit observed that the Agency made payment at full rate to the contractors instead of reduced rates on account of less use of bitumen in accordance with the Bitumen Extraction Test Report.

Weak supervisory and financial controls resulted in loss of Rs 32,115,891.

Audit pointed out the loss in May 2013. The Agency replied that contract was awarded on the basis of the bid rate for each item, and the same rates have been applied for the payment to contractors.

The reply was not tenable because the payment of carpeting was to be made to the contractor as per Job Mix Formula (JMF) or actual bitumen used in the work.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends recovery from contractor besides fixing responsibility against concerned officers/officials.

(Para 8, 25, 36, 42, 51, 70, 95, 125, 130)

³Calculation at Annexure V

4.2.1.5 Overpayment to the contractors on account of higher rates than admissible under revised estimate - Rs 28.97 million

As per Chief Engineer TEPA letter No. CE/TEPA/1235/LDA/365, dated 08.04.2013, the Agency was required to pay for the items of work “Admixture etc.” @ Rs 87.50 per liter and “Providing and laying cable single core” @ Rs1,397 per running meter.

The Project Directors, TEPA, LDA Lahore, made payment for two items i.e. “Supply installation & laying single core cable” and “Admixture (plasticizer) etc” at higher rates than admissible rates approved by the competent authority in the revised technical sanctioned estimate of various packages of BRTS, Lahore.

Weak supervisory and financial controls resulted in overpayment of Rs 28,972,407.

Audit pointed out the overpayment in May 2013. The Agency replied that recovery would be made from the contractors.

The reply was not tenable, because no document towards effected recovery was produced to Audit for verification till finalization of the report.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends recovery from the contractor besides fixing responsibility against concerned officers/officials.

(Para 119,129,142,157)

4.2.1.6 Overpayment due to non-deduction of rebate offered by the contractor - Rs 20.05 million

According to schedule of prices, the contractor quoted and offered discount of Rs 20,057,462 in writing which was required to be deducted by the Authority from the contractor's payments.

The Project Director EM&E, TEPA LDA, Lahore released the payment in favour of contractor on account of purchase of Escalators and Platform Screen Doors installed at BRTS Stations. Audit observed that the Authority made payment on account of providing and installation of 98 escalators and 664 platform screen doors (PSD) but did not deduct the discount offered by the contractor in his bid/schedule of prices.

Weak financial and managerial controls resulted in overpayment of Rs 20,057,462.

Name of item	Bill Number	Payment made (Rs)	Discount (Rs)
Escalators	5 th running bill	784,717,999	19,667,962
PSD	16 th running bill	63,618,9780	389,500
		Total	20,057,462

Audit pointed out the overpayment in May 2013. The Agency replied that recovery had been made from the contractor.

The reply was not tenable, because no document towards the recovery, if effected, was produced to Audit for verification till finalization of the report.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends early verification of recovery besides fixing responsibility against concerned officers/officials.

(Para 161, 162)

4.2.1.7 Loss to the Authority due to provision of higher rates of service tax - Rs 15.42 million

As per rule 2.10 of Punjab Financial Rules Volume-I, every public officer is expected to exercise the same vigilance in respect of expenditure

from government funds as a person of ordinary prudence would exercise while incurring expenditure from his own money.

The Authority made provision of 6% service tax (income tax) in the approved operational cost of Rs 360 per kilometer for each bus. Audit observed that the Authority made provision of service tax i.e. 6% but while making payment only 2% service tax was deducted from the contractor's bills, which resulted in loss to the Authority.

Weak financial controls resulted in loss of Rs 15,428,871.

Audit pointed out the loss in May 2013. The Authority replied that the payments on account of transport services fall within the purview of clause (b) of sub-section (1) of Section 153 read with clause 2 (i) of Division-III Part-III of first schedule of Income Tax Ordinance 2001 which was a specific provision in the instant case "in the case of transport services 2% of the gross amount payable". Hence, the income tax @ 2% had been correctly deducted.

The reply was not acceptable because the Authority made provision of 6% income tax while calculating operating cost per bus per day but while making payment, deduction @ 2% was made which resulted in loss to the Authority.

The Punjab Metro Bus Authority (PMA), Lahore neither submitted working papers nor a SDAC meeting was convened. The matter was also taken up with the Secretary, Government of the Punjab, Transport Department, Lahore (Principal Accounting Officer of the PMA) through letter but no response was received.

Audit recommends recovery from the contractor besides fixing responsibility against concerned officers/officials.

(Para 239)

4.2.1.8 Overpayment due to application of incorrect loose factor - Rs 12.23 million⁴

According to Addendum & Corrigendum issued by the Finance Department vide No.RO (TECH)FD.18-47/2006 dated 26.04.2006, the quantity of crushed stone aggregate for payment of carriage were to be taken

⁴Calculation at Annexure VI

as per actual loose volume but not more than 120 cft for sub base and 122 for base course for 100 cft compacted material.

The Project Directors TEPA LDA, Lahore, made payment for items of work “Granular Sub Base Course and Water Bound Macadam (Base Course) at different rates with quoted percentage to the contractor including carriage for loose stone aggregate with factors @ 125 cft for both the items instead of 120 cft for sub base and 122 cft for water bound macadam/base course as directed and clarified by the Finance Department.

Weak supervisory and financial controls resulted in overpayment of Rs 12,236,325.

Audit pointed out the overpayment in May 2013. The Agency replied that the conversion factor for the loose to compacted layer of sub base course depends upon the gradation of the aggregate to be used at site, based upon the field experience, the ratio between loose and compacted layer of gradation was determined as 1.25cft and same was adopted in the rate analysis of this project.

The reply was not tenable because the rate analysis was approved and payment was made with 125 cft loose volume instead of admissible 120 cft for sub base and 122 for base course for 100 cft compacted material in the light of Finance Department’s instruction.

Nine SDAC meetings were scheduled / held with TEPA management from November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends recovery from the contractor besides fixing responsibility against concerned officers/officials.

(Para 3, 38, 46, 65, 91, 107, 145, 151, 183, 184)

4.2.1.9 Overpayment due to higher rates of carriage than schedule rate - Rs 10.76 million⁵

As per provision of PC-I, the Agency was supposed to sanction and pay the rate of cost of carriage of stone aggregate for sub-base, base course and pre-mixed carpeting as per item No. 1 under Chapter 01 (Carriage) of

⁵Calculation at Annexure VII

MRS, based on 1st Bi Annual 2012, district Lahore, as adopted by the Agency.

The Project Director, TEPA LDA, Lahore, sanctioned incorrect rate of carriage of stone from quarry to site of work over and above the admissible rates. Audit observed that excessive rate for the carriage of stone was approved due to inclusion of inadmissible rate of first four chains (from 1 to 900 meter) whereas the rates were included in the rates of 1st Kilometer.

Weak supervisory and financial controls resulted in overpayment of Rs 10,767,337.

Audit pointed out the overpayment in May 2013. The Agency replied that the distance from quarry to Niazi Chowk, Lahore was 196 km, and from Niazi Chowk to Kalma Chowk via ring road was more than 25 km as the current route was blocked due to construction of carriageway. Further the contract was awarded on the basis of approved quoted rates, hence the payment was justifiable.

The reply was not tenable as the over payment was made due to inclusion of rates of inadmissible first four chains. It is worth mentioning that the Agency had approved and paid the carriage in item No. 209-C of the same project as identified by the Audit.

Nine SDAC meetings were scheduled / held with TEPA management from November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends recovery from contractor besides fixing responsibility against concerned officers/officials.

(Para 1, 4, 44, 47, 66, 67, 92, 102, 103, 203)

4.2.1.10 Undue financial benefit to the contractor - Rs 0.89 million

As per para (v) of the Finance Department notification No. RO (Tech)FD 1-2/83-VI dated 29th March 2005, final cost of the tender/payment shall be the same percentage above/below the amount of revised sanctioned estimate as was at the time of approval of the tender, so as to check excess payment.

The Project Director-I, TEPA LDA, Lahore awarded the work for Rs 45.17 million and enhanced up to Rs 86.57 million which was 4.49% above the DNIT/Estimated cost. The Agency made payment as 5.6% above against quoted percentage of 4.49% up to the final bill. Audit observed that difference in percentage was due to difference of rates between estimated and quoted rates of some items of work for which the contractor quoted less-rates as compared to estimated rates.

Weak administrative and supervisory controls resulted in undue financial benefit to the contractors of Rs 897,796.

Audit pointed out the undue financial benefit in May 2013. The Agency replied that quoted percentage would be maintained at the time of final bill.

The reply was not tenable, because no documents were produced to Audit for verification till finalization of the report.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends recovery from the contractor besides fixing responsibility against concerned officers/officials. Final bill may be provided for scrutiny.

(Para No. 19)

4.3 Procurement and Contract Management

4.3.1 Issues relating to non-observance of contractual obligations and procurement revealed irregularities of Rs 1554.81 million. This amount is in addition to para number 4.3.1.1 under which the total project cost has been observed by audit as irregular because approval from the ECNEC was not obtained. Audit findings are given below:

Para 4.3.1.1 Irregular execution of project without approval of the ECNEC - Rs 30,824.79 million

As per Rule 8 of the Second Schedule of Delegation of Financial Powers Rules, 2006, the ECNEC is the final approving authority for any provincial project costing beyond Rs 10,000 million after clearance of CDWP forum.

An examination of record of the project “Bus Rapid Transit System Lahore” revealed that the Project Director, TEPA, Lahore split the project into nine packages (I to IX) and each package was got approved separately from the PDWP to avoid approval from higher forum i.e. ECNEC, which is the final approving authority for any provincial project costing beyond Rs 10,000 million.

Weak managerial controls resulted in irregular approval/execution of project of Rs 30,824.79 million.

Audit pointed out the irregularity in November 2012 as an annual Audit Report Draft Para. The Authority did not reply.

The matter was also discussed in the SDAC meeting held on 30.12.2012 wherein the Agency neither submitted working papers nor attended the SDAC meeting. The Committee took it very seriously and directed the Agency to produce record for verification in audit office within 07 days. No compliance of the Committee’s directive was intimated till finalization of the report.

Matter needs to be got regularized besides fixing responsibility against concerned officers/officials.

(Para 342 AR 2012-13)

4.3.1.2 Non-production of record-Rs 976.65 million

As per section 14(02) of Auditor General Pakistan (Functions, Powers, Terms and conditions of services) Ordinance 2001, the officer in charge of any office or department shall afford all facilities and provide record for audit inspection and comply for requests for information in as a complete form as possible and with all reasonable expedition.

The Project Director EM&E, TEPA LDA, Lahore, awarded the work “Construction of Vehicular Underpass at Kalma Chowk, Lahore” to a contractor during December, 2012 at a cost of Rs 948.76 million. The record regarding rates analysis of non-MRS items and measurement Books were not produced to audit despite several requests. Further, in another work ‘SOP-2 Escalator works’ rate analyses of items i.e. item No. 404(b)-reinforcement grade-60 @ Rs 138 per kg, item No.413(a)-steel structure A-36 @ Rs 262 per kg and item No. 413(d)-polyurethane paint @ Rs 1,850 per sqm were also not produced.

Weak managerial controls resulted in non-production of record of the projects costing Rs 976,652,000.

Audit pointed out the non-production of complete record in May 2013. In the first case the agency replied that record including PC-1, MBs, and rate analysis were provided, however, the main file of the project cannot be provided as the same was with LDA (for reimbursement) when fire incident at LDA Plaza occurred. In the other case, the rate analysis of required items were not produced.

The reply was not tenable because no record was produced to Audit despite repeated written and verbal requests during the course of Audit. It is further added that for any file submitted to LDA for reimbursement, main file i.e. source documents and working papers should have been kept with the Agency for record.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends production of record along with inquiry report of fire incident to Audit Office for scrutiny besides fixing responsibility against the concerned officers/officials.

(Para 221,222,223, 224,226,227)

4.3.1.3 Overpayment due to incorrect rates analysis- Rs 317.88 million

According to Finance Department letter No. RO (Tech) FD-18-29/2004 dated 03.03.2005, contractor profit and overhead charges @ 20% will not be added while preparing rate analysis of the machinery and store items.

The Project Director EM&E, TEPA LDA, Lahore made overpayment due to sanction of incorrect rate analysis provided in the PC-1 by allowing 20% contractor profit and overhead charges on machinery items like escalators and platform screen doors in violation of criteria mentioned above.

Weak financial and managerial controls resulted in overpayment of Rs 317,880,000.

Audit pointed out the overpayment in May 2013. The Agency replied that PC-1 was meant for the internal controls of the government and cannot be mixed up with the provisions of the contract, which was concluded as a result of open competitive bidding process. Thus the reference of PC-1 for the price comparison was not justifiable.

The reply was not tenable as PC-1 of the project was the most important and fundamental document. Higher and incorrect base price was provided in the PC-1 / estimate and accordingly the contractors quoted rates on the higher side which resulted in loss to government.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends recovery from the contractors besides fixing responsibility against concerned officers/officials.

(Para 173, 174)

4.3.1.4 Irregular procurement and non-reduction in rate of below specification escalators - Rs 163.59 million

As per para 2 of Section-I of Special Provisions for Escalator Works read with para Nos. 2, 3 and 7 of Section-II of Technical Provisions (bidding documents) for Escalator Works, all equipment and materials under escalator shall be furnished in conformity with latest standards/code editions with British Standards/European Norms-BS/EN-13015:2008 version of European origin.

The Project Director EM&E, TEPA LDA, Lahore released the payment in favour of M/s Merin Pvt. Ltd. on account of purchase of Escalators at MTS stations. The technical description of escalator given by National Engineering Services Pakistan (Pvt.) Limited showed that escalators installed at site were “covered-outdoor” and with standard/code EN115-1/BS5656/GB16899 version-1997 instead of “outdoor/exposed” escalator with standard/code BS/EN-13015:2008 version. Automatic control and motion sensors were also not installed in all the escalators. Further, the Letter of Credit (LC) showed that procured escalators were China made but the rate approved in Technical Sanctioned Estimate and PC-I (approved by PDWP) was for escalators of European origin (i.e. Greece). However, the Agency did not reduce the price of escalator while

making payment to the supplier/contractor due to supply of below-specification equipment and escalators.

Weak managerial and financial controls resulted in non-reduction in rate of escalators, at least by 20% in view of the difference in rate in the market, on account of their non-European origin and below-specification which comes to Rs 163,592,000.

Audit pointed out the irregularity in May 2013. The Agency replied that there was no such brand mentioned as “Westing House” (European Origin). M/s Merin Pvt. Ltd had supplied Schindler (China) which was in accordance with clause 3.0 of the technical provisions of the contract document.

The reply was not tenable because in the light of para 2 of Section-I of Special Provisions for Escalator Works read with para Nos. 2, 3 and 7 of Section-II of Technical Provisions for Escalator Works, all equipment and materials under escalator shall be in conformity with latest standards/code editions with British Standards/European Norms-BS/EN-13015:2008 version, each escalator should be brand new for outdoor/exposed applications, should be heavy duty with automatic control, safety devices, truss, motion sensors and of European origin etc but the contractor procured sub-standard equipments/escalators as per technical description of Consultant M/s NESPAK Pvt Ltd, which required recovery from the contractor/supplier. Further, no 3rd party pre-inspection and post inspection of the escalators was carried out by the Agency; like in case of imported Greaves Generator, installed at Metro Bus Stations, Lahore, for which pre inspection was done by SGS surveyors and post inspection by U.E.T., Lahore.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends recovery from the contractor besides fixing responsibility against concerned officers/officials.

(Para 167)

4.3.1.5 Provision of import duties and taxes on local item – Loss of Rs 46.01 million

As per rule 2.10 of Punjab Financial Rules Volume-I, every public officer is expected to exercise the same vigilance in respect of expenditure from government funds as a person of ordinary prudence would exercise while incurring expenditure from his own money.

The Project Director EM&E, TEPA, LDA Lahore, made payment of Rs 18,762,480, to the sub-contractor M/s Chawla Chemical & Material Industries through 13th running bill on the advice of NESPAK letter No.3495/04/MUD/01/0501 dated 05.03.2013 through Cheque No. A030245 dated 9.3.2013 against total value of work done amounting to Rs 168,823,768 on account of “SOP-2 installation of PSD Doors (aluminum work) etc” by deducting 6% income tax. On the other hand, as per rates analysis, the contractor claimed 25% on account of import duties and taxes and 20% contractor profit and overhead charges. Audit observed that the item of fixed panel/partition and support with aluminum was not imported from abroad and works was done by M/s Chawla Chemical and Material Industries locally. Hence, allowing extra 25% import duties on these items caused loss to the Government. Further, in the 14th running bill the value of previous work done was deducted for Rs 159,052,168 instead of Rs 168,823,768 of 13th running bill, which resulted in double payment to the contractor for Rs 9,771,600.

Name of item	Rate approved per Fixed Panel	Rate to be approved	Excess rate (in Rs.)	Overpayment (in Rs.)
SOP-2 Supply/ Installation of 27 Fixed Panel length 80 meter height 2.5 meter	Rs.650 sft + Rs.162.50 (25% taxes)+Rs.130 (20% contractor profit) = Rs.942.50x2152 sft=Rs.2,028,260x 3sides =Rs.6,084,780 Say Rs.6,000,000	Rs.650 sft + Rs.71.50 (11% contractor profit) =Rs.721.50x 2152sft=Rs.1,552, 668x3side= Rs.4,658,004	1,341,996	1,341,996 x 27= 36,233,892

Weak managerial and financial controls resulted in loss to the Government/Authority of Rs 46,005,492.

Audit pointed out the loss in May 2013. The Agency replied that as per para No. 11.3.2 of instructions to bidders (IB), all import duties, Sales

tax, Iqra charges, KPT charges, Excise, octroi and all other government levies would be paid by the employer i.e. TEPA.

The reply was not tenable because the contractor claimed his bill with 25% import duties & taxes and 20% contractor's profit, whereas in his 13th running bill only 6% income tax was deducted. Hence 25% import duties and taxes were over-claimed by the contractor which was not admissible.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends recovery from contractor besides fixing responsibility against concerned officers/officials.

(Para 163)

4.3.1.6 Non compliance of the Chief Minister's approval on account of decrease in maintenance period - Rs 38.08 million

As per para-9 & 18 of approved summary by the Chief Minister Punjab on 06.03.2012, NLC shall be responsible for maintenance of executed work for a period of three years with no additional cost.

The Project Director-I, TEPA, LDA Lahore awarded the work and signed an agreement with NLC on 08.03.2012 with maintenance period of two years instead of three years as approved by the Chief Minister of Punjab.

Weak supervisory and financial controls resulted in loss of Rs 38,076,976 (the maintenance cost for one year).

Audit pointed out the loss in May 2013. The Agency replied that two years were printed erroneously, and the department was holding retention money of more than Rs 60 million which will not be released before three years maintenance period.

The reply was not tenable. The Agency may revise agreement for the three years maintenance period or issue corrigendum because as per law, the Agency would not be in a position to hold retention money after the expiry of two years agreement period.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends extension of maintenance period for three years besides fixing responsibility against the concerned officers/officials.

(Para 87)

4.3.1.7 Non-recovery of occupancy cost of office-Rs 9.49 million

As per clause 3.1.7 of contract agreement made with M/s Platform, the Punjab Metrobus Authority, Lahore was required to provide only corridor for washing of buses and minor repair shed to the contractor.

Examination of PC-I of Metro Bus Depot revealed that Agency paid cost of Rs 1,376.296 million on the construction of Metro Bus Depot in which offices for Punjab Metro Bus Authorities (PMA) were constructed under head “Admn/Office Block”. The PMA Authorities handed over these offices to the contractor M/s Platform, free of cost. Whereas the Authority had accommodated its offices in Arfa Karim Tower Ferozepur Road, Lahore at a cost of Rs 9.49 million instead of shifting offices to the Building at Bus Depot, meant for the purpose.

Weak managerial and financial controls resulted in loss to the Government of Rs 9,488,745.

Audit pointed out the loss in May 2013. The Authority replied that if recovery of rent of office had been charged to the bus operators, the same would have been passed on to the Government in the form of an increase in the bid price along with margins for contingencies and profit. Thus, it was considered in the best interest of the public not to charge the rent.

The reply was not tenable because as per clause 3.1.7 of contract made with M/s Platform, the contractor was to be provided a corridor for washing of buses and minor repair shed etc. Hence, it was not the obligation of the Authority to provide office to the contractor without any occupancy charges.

The Punjab Metro Bus Authority (PMA), Lahore neither submitted working papers nor was any SDAC meeting convened. The matter was also taken up with the Secretary, Government of the Punjab, Transport

Department, Lahore (Principal Accounting Officer of PMA) through letter but no response was received.

Audit recommends early recovery on account of rent from the contractor besides fixing responsibility against the concerned officers/officials.

(Para 242)

4.3.1.8 Deviation from clauses of standard agreement- Loss of Rs 2.98 million

As per rule 2.10 of Punjab Financial Rules Volume-I, every public officer is expected to exercise the same vigilance in respect of expenditure from government funds as a person of ordinary prudence would exercise while incurring expenditure from his own money.

The Deputy Secretary (Planning), Government of the Punjab, Transport Department, Lahore awarded the contract of “Procurement/Operation & Maintenance of 45 Articulated Metro buses at Lahore”, vide letter No. SO (NTS)2-93/2012(MBS), dated 27.08.2012 for Rs1,134 million. The contractor offered rate of Rs 360 per kilometer per bus which was accepted by the Authority. The Authority was required to make payment at full rate i.e. Rs 360 per bus per day up to 191.78 kilometers and @ Rs 252 (360x70%) per kilometer after the first slab of 191.78 kms. However, the Authority made payment to the contractor at full rate of Rs 360 per kilometer up to 200 kilometers instead of 191.78 kilometers. Further, while calculating the operational cost per bus per km, consumption of diesel was taken by the Authority as 0.8 kilometer per liter instead of 3.40 kilometer per liter, which resulted in excess claim of contractor and loss to the Government/Authority.

Weak managerial and financial controls resulted in loss of Rs 2,988,900.

Audit pointed out the loss in May 2013. The Authority replied that rate was applied correctly by the General Manager Finance, Punjab Metro bus Authority in the light of clause No. 3.1.8 of contract agreement and no overpayment was made to the contractor as the benchmark for reduction of rate per kilometer was agreed above 200 kilometers per bus per day to ensure payment of 70,000 kilometers per annum, assuming 350 operation days in a year, keeping margin for any unforeseen events/exigencies impeding bus operations.

The reply was not tenable because in the summary of operating cost, 365 operational days in a year were taken (i.e. $70000/365=191.78$ km) as a benchmark. It is worth mentioning that the Authority, in consideration of this audit observation, made an agreement of “Metro Bus System at Rawalpindi-Islamabad” with the same contractor by taking 365 operational days per year. Further, Audit studied the operating mechanism in another public transport sector viz, Pakistan Railway and observed that in the agreements of “Shalimar Express” between the Pakistan Railways and M/s Air Rail Services and “Freight Train” between Pakistan Railways and M/s NLC, the calculation of kilometers per day was determined by taking 365 operational days per year. Accordingly, the Authority should have made the agreement by taking 365 operational days instead of 350 days. This lapse resulted in loss of Rs 2,988,900 up to 3rd running payments/bills, which needs to be recovered from the concerned and further payments should also be made accordingly.

The Punjab Metro Bus Authority (PMA), Lahore neither submitted working papers nor was any SDAC meeting convened. The matter was also taken up with the Secretary Government of the Punjab, Transport Department, Lahore (Principal Accounting Officer of PMA) through letter but no response was received.

It is recommended that recovery may be effected and necessary amendment may be incorporated in the contract agreement in the light of contract amendment clause (15.4) of the agreement.

(Para 240)

4.4 Construction and Works

4.4.1 The issues regarding Construction and Works noticed during audit, amounting to Rs 121.45 million, are as under:

4.4.1.1 Overpayment due to incorrect rates for RCC – Rs 41.10 million⁶

As per para Nos. 3, 6 and 8 of summary approved by Chief Minister of the Punjab read with summary of PC-I, on account of Construction of

⁶Calculation at Annexure VIII

Metro Bus Transit System, Lahore, the Agency was required to prepare rate analysis on the basis of relevant input rate of the Finance Department.

The Project Director EM&E, TEPA LDA, Lahore, awarded the work “Construction and Development of Bus Depot on Southern Side, near Nishtar Town along Ferozepur Road, Lahore” during September, 2012 at a cost of Rs 884.34 million. It was 3.15% below the estimated cost of Rs 913.12 million. The consultant prepared incorrect rate analysis for item “RCC/Concrete Class A-1 1:2:4 (3000 PSI) and class A-2 1:1/5:3(4000 PSI)” for 50 cm by taking 6 hours for Concrete Batching Plant and 6 hours for Transit Mixer instead of admissible 1.67 hours and 1.0 hour respectively as per item no.15 & 16 of equipment rates based on MRS for 1st Bi-annual 2012 for District Lahore.

Weak technical and financial controls resulted in overpayment of Rs 41,091,600.

Audit pointed out the overpayment in May 2013. The Agency replied that for the accomplishment of fast track project, mechanized method was adopted and rates of batching plant and transit mixers were applied on the same pattern on which mega projects were executed. The rate analysis based on Engineer mode of cost estimation was duly approved by the competent forum of P&D Department.

The reply was not based on the facts and was contrary to specifications and standards. The excessive hours of batching plant and transit mixers were incorporated in rate analysis which resulted in overpayment to the contractor.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends recovery from the contractor besides fixing responsibility against the officers/officials responsible for this lapse.

(Para 201, 202)

4.4.1.2 Non utilization of retrieved material – Rs 35.28 million

As per PC-I and revised technical sanctioned estimate, retrieved material from dismantling of existing road pavement was to be used as sub

base course at labour rate and remaining was to be disposed off from site of work.

The Project Directors TEPA, LDA Lahore made provision of utilization/adjustment of material retrieved from dismantling of existing road pavement. The Agency neither utilized the retrieved material nor effected recovery from the contractor in the light of criteria mentioned above.

Weak supervisory and financial controls resulted in loss of Rs 35,287,636.

Audit pointed out the loss in May 2013. The Agency admitted the recovery. However, no document towards effected recovery was produced to Audit for verification till finalization of the report.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive and no record was submitted.

Audit recommends recovery from the contractor besides fixing responsibility against the officers/officials responsible.

(Para 111)

4.4.1.3 Overpayment due to incorrect labour rates - Rs 23.39 million⁷

As per para Nos. 3, 6 and 8 of the summary approved by Chief Minister of the Punjab read with summary of PC-I, of Construction of Metro Bus Transit System (MTBS), Lahore, the Agency was required to prepare rate analysis on the basis of relevant input rate of the Finance Department.

The Project Director EM&E, TEPA LDA, Lahore, awarded work “Providing and installation of platform screen doors at Metro Bus Transit System along Ferozepur Road, Lahore” on 19.10.2012 at cost of Rs 700 million. The consultant prepared incorrect rate analysis under head civil works SOP-2 and SOP-3 for items No.3.1 “Installation, testing and commissioning of brand new Platform Screen Door complete in all respect” @ Rs 45,000 per number, item no.2.1 “civil work required to complete the installation of PSD work” @ Rs 30,000 per number and item No.3.2 “Supply and installation of UPS and battery for PSD etc” @ Rs 437,500 per

⁷Calculation at Annexure IX

number instead of admissible rates @ Rs 27,599, Rs 15,478 and Rs 356,149 (per number), respectively by incorporating higher labour rates than available on Finance Department's website based on 1st bi-annual 2012, Lahore.

Weak technical and financial controls resulted in overpayment of Rs 23,393,349.

Audit pointed out the loss in May 2013. The Agency replied that the payment was made on the recommendation of the Consultant, who prepared the rate analysis. The rate for Rs 30,000 in SOP-II of the bidding documents was for "Related Civil Works required to complete the installation of PSD (complete in all respect)" whereas the rate of Rs 45,000 was for the "Installation, Testing and Commissioning of brand new PSD (complete in all respect)". In other case, the rate for Rs 437,500 was for "Supply and Installation of UPS and battery for complete PSD with all accessories (complete in all respect)" whereas the rate of Rs 51,000 was for "Related Electrical works for all 27 Stations (Complete in all respect)". Hence, no excess payment was allowed to the contractor.

The reply was not tenable because rate analyses were sanctioned by taking higher input rates for Site Engineer @ Rs 1,200 per day, Skilled Coolies @ Rs 500 per day instead of actual rate @ Rs 952 per day and Rs 310 per day based on labour rates of 1st Bi-annual 2012 for District Lahore and further the Authority added in-admissible foods and transportation etc, which resulted in loss to the Authority.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends recovery from the contractor besides fixing responsibility against the responsible officers/officials.

(Para 169, 170)

4.4.1.4 Overpayment due to incorrect rate for item of paint -Rs 16.32 million⁸

According to the specification given by the manufacturer of "No. 1 Kansai Paint Japan", practical coverage by 01 liter polyurethane paint

⁸Calculation at Annexure X

coating is 10-14 square meter area and only 01 liter zinc primer is required for 13 square meter area.

The Project Director EM&E, TEPA LDA, Lahore, awarded the work “Construction and Development of Bus Depot on Southern Side, near Nishtar Town along Ferozepur Road, Lahore” during September, 2012 at cost of Rs 884.34 million. The consultant prepared analysis of rate for item “Polyurethane paint/coating at steel structure A-36 etc” @ Rs 1,216.31 per sqm instead of admissible rate @ Rs 708.31 per sqm.

Audit observed that the higher rates were sanctioned and paid due to inclusion of 16 gallons (60.56 liter) zinc primer instead of 2 gallons (7.69 liter) for every 100 square meter as per manufacturer specification (Kansai) i.e. 1 liter for 10-14 square meter for the coverage on new surface.

Weak technical and financial controls resulted in overpayment of Rs 16,316,972.

Audit pointed out the overpayment in May 2013. The Agency replied that for the rough cost estimates, the consultant prepared rate analysis on the same pattern on which mega projects were executed in the recent past. The area coverage of paint has been based on the field experience to achieve the requisite results. The rate analysis based on Engineer’s mode of cost estimation was duly approved by the competent forum.

The reply was not tenable as extra provision of zinc primer was made against manufacturer specification i.e. 1 liter for 10-14 square meters for the new surface coverage.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends early recovery from the contractor besides fixing responsibility against responsible officers/officials.

(Para 206)

4.4.1.5 Overpayment due to extra overheads in the rates analysis -Rs 4.08 million

As per Finance Department’s Notification No.RO (TECH) FD.2-3/2004 dated 02.08.2004, 10% overhead charges may be added in addition to 10% contractor’s profit already allowed in rate analysis standardized by

the Finance Department for the purpose of estimation. Further, 5% mega project allowance was admissible on project cost exceeding Rs 200 million.

The Project Director EM&E, TEPA LDA, Lahore, awarded the work “Construction and Development of Bus Depot on Southern Side, near Nishtar Town along Ferozepur Road, Lahore” during September, 2012 at a cost of Rs 884.34 million. The consultant prepared rates analysis for two non-schedule items i.e. Steel structure A-36 and polyurethane paint etc. with inclusion of 29.16% on account of overhead and mega project allowance instead of only 25% admissible.

Weak technical and financial controls resulted in overpayment of Rs 4,076,239.

Audit pointed out the overpayment in May 2013. The Agency replied that for the rough cost estimates, the consultant prepared rate analysis on the same pattern on which mega projects were executed in the recent past. The rate analysis based on Engineering mode of cost estimation was duly approved by the Competent Forum.

The reply was not tenable as the Authority added 29.16% overheads and mega project allowance instead of admissible 25% overhead charges and mega project allowance only. Hence, the authority included mega project allowance in the rates twice.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends recovery from the contractor besides fixing responsibility against concerned officers/officials.

(Para 212)

4.4.1.6 Loss due to higher rates in Technical Sanctioned Estimate than PC-I rates - Rs 1.28 million

As per approved PC-I, the Agency was required to pay Rs 551 per RM for the item of work “Pre-cast kerb stone 18 inches high etc” to the contractor .

The Project Director EM&E, TEPA LDA, Lahore, awarded the work “Construction and Development of Bus depot on Southern Side, near Nishtar Town along Ferozepur Road, Lahore” during September, 2012 at a

cost of Rs 884.34 million which was 3.15% below the estimate cost of Rs 913.129 million. The Authority approved rate of Rs 1,009.71 per RM for the item “Precast kerb stone 18 inches high etc.” in the technical sanctioned estimate instead of admissible rate of Rs 551 per RM as approved in PC-I. Therefore, excess rate of Rs 458.71 per RM was sanctioned and cost of technical sanctioned estimate was escalated from Rs 911.839 million to Rs 913.129 million, causing loss to the Authority.

(Rs. in Million)

Rate Approved of the item in TS	Admissible rate of the item in PC-I	Excess rate	Qty executed	Loss
1,009.71	551	458.71	2787.46 RM	1,278,636

Weak technical and financial controls resulted in loss of Rs 1,278,636.

Audit pointed out the loss in May 2013. The Agency replied that this was an item rate contract and payment was accordingly made to contractor as per accepted rates.

The reply was not tenable because excess rate was sanctioned for kerb stone which resulted in un-due financial benefit to the contractor.

Nine SDAC meetings were scheduled / held with TEPA management between November, 2013 to June, 2015 but all remained inconclusive.

Audit recommends recovery from the contractor besides fixing responsibility against the officers/officials responsible.

(Para 194)

4.5 Asset Management

4.5.1 Road wise and location wise data of road network under the jurisdiction of TEPA LDA was being maintained as prescribed in the Department’s code and Manuals.

4.6 Monitoring and Evaluation

4.6.1 Subject to the irregularities, losses and over payments pointed out in project audit report, internal checks such as inspections, regular monitoring and supervision by field engineers, material testing and laboratory test reports of the executed works are being carried out to ensure qualitative execution of work in line with the specifications and approved design. Two levels of monitoring/supervision are in place; firstly it is carried out by the by consultant M/s NESPAK and secondly by the supervisory engineers. The progress of the schemes under execution was reviewed on monthly basis and quarterly basis by the Chief Engineers and Director General LDA (UD-Wing), Lahore.

4.7 Environment

4.7.1 In violation of Section 12 of Pakistan Environmental Protection Act, 1997, Initial Environmental Examination and Environmental Impact Assessment (EIA) was not carried out.

4.7.2 Despite the fact that it had been indicated in the PC-I that the project may be having an environmental impact, the environmental data was not compiled by the project authorities. Hence, environmental impact of the project could not be assessed.

4.7.3 During construction, the contractors used parks at various places under Parks and Horticulture Authority, Lahore for construction of girders & slabs and for dumping material etc. causing damage to these parks leading to adverse impact on the environment. The evaluation of loss and calculation of rent on account of use of parks was the responsibility of TEPA Management. However, neither the loss was calculated nor repair & maintenance of the parks was carried out at the risk and cost of the contractor(s), as agreed in the various meetings with the contractors. The rehabilitation cost and the rent are required to be calculated and recovered from the responsible(s), besides fixing responsibility for slackness of TEPA Management.

4.8 Sustainability

4.8.1 Sustainability of a project is indispensable for its operational performance. Sustainability of the project depends mainly upon the sufficient flow of financial resources both during implementation and

operation. Punjab Metro Bus Authority is charging fare @ Rs 20 per passenger. As per data collected for the period w.e.f 10th February, 1013 to 31st May 2013, total revenue of Rs 176.93 million was generated against operational expenses of Rs 945 million. Hence, the Authority had to bear an expenditure of Rs 768.07 million for this period from its own resources in the shape of subsidy. Thus, sustainability of this project is subject to provision of huge amount of annual subsidy by the Provincial Government.

4.9 Overall Assessment

4.9.1 Relevance: TEPA/LDA aims to provide smooth and efficient traffic flow to the public.

4.9.2 Efficiency: The project was completed well in time.

4.9.3 Economy: The original PC-I cost of Rs 30,824.45 million was revised to Rs 30,564.79 million. An expenditure of Rs 29,896.96 million was incurred against the Revised Cost which was 2% below.

4.9.4 Effectiveness: Since the scheme was completed, the envisaged targets and desired results have been achieved in time.

4.9.5 Compliance with Rules: Issues of poor financial management, procurement & contract management and construction & works depicting losses, overpayments and irregularities of Rs 1994.81 million (in addition to the amount observed in para 4.3.1.1) were noticed. Non-adherence to financial management rules/practices, as highlighted by audit, is the critical area which needs to be given a serious thought by the Principal Accounting Officer.

4.9.6 Performance Rating: Satisfactory.

4.9.7 Risk Rating: High risk; as its operation and maintenance depends upon provision of subsidy by the Government of the Punjab.

5 CONCLUSION

5.1 Key Issues for the Future: Increase in operational cost, repair and maintenance cost and subsidy coupled with inadequate funding may limit project's/scheme's performance and achievement of objectives.

5.2 Lessons Learnt: Non-compliance of contractual obligations and violation of rules are critical areas to be improved.

- i. Proper vigilance is required to be exercised while sanctioning rate analysis, PC-1 and technical sanctioned estimates for the future projects.
- ii. Internal controls like test check measurements/ periodic inspections of works by supervisory officers need to be implemented/strengthened.
- iii. Disciplinary action needs to be initiated and responsibilities fixed against the officers concerned for lapses and violation of rules besides effecting recoveries and initiating disciplinary action against the defaulter held responsible.

ACKNOWLEDGEMENT

We wish to express our appreciation and gratitude to the Management & staff of Director Engineering, Director Finance of TEPA LDA Lahore and the Management of Punjab Metrobus Authority, Lahore for the assistance and cooperation extended to the auditors during this assignment.

Annexure-I **(Referred in Executive Summary)**



Annexure - II.

LAHORE DEVELOPMENT AUTHORITY
TERA



SUMMARY FOR THE CHIEF MINISTER PUNJAB

**Subject: BUS RAPID TRANSIT SYSTEM (BRTS), FERROZPUR ROAD
CORRIDOR FROM GAJJU MATTA TO SHAHDRAH, LAHORE.**

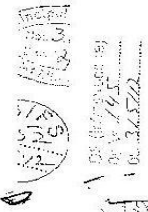
Pursuance to Government directions, the BRT along Ferozepur corridor has to be implemented in phases for which, the overall scope of work has been splitted into various packages. The Package-I comprising of 10 Km stretch already stand awarded to M/s NLC, based on input rates with 15% premium.

2. To engage the reputed contractors for execution at other Packages, pre-qualifications were invited for which, initial response from relatively low profile contractors was observed, whereas, the participation of high profile contractors was very limited. The date of pre-qualifications has been extended after approaching top-line contractors in the business. Upon enquiring, their hesitation towards participation at tendering process is realized on account of following factors:

- i. Cost estimates based on MRS which are not workable for mechanized mode of construction.
- ii. Compulsion of day and night work which require additional resources to be mobilized.
- iii. Extra overheads to manage work along congested urban vicinity.

3. To attract reputed top of the line firms, auction of input rates without additional premium for rest of BRT packages is solicited enabling accomplishment of the project to the optimum standards and in accordance with the Government time lines.

4. The aforesaid proposal, contained in Para 3 above is submitted for the approval of the Chief Minister Punjab.



RECEIVED
LAHORE DEVELOPMENT AUTHORITY
28-4-2012

Handwritten notes:
LDA/12/1600/495
28-4-2012

SECRETARY-HUD & PIED

(AHAD KHAN CHEEMA)
DIRECTOR GENERAL, LDA

Handwritten notes:
R.V.
GSC
(i) Notification
(ii) Rates
(iii) Enc copy for DDES

CHAIRMAN P&D BOARD

If contractors are not forthcoming at NCS rates for this time compressed project option of award of contract on Engineer's estimates shall have to be formally approved from PWD also after approval of this summary by CM. In all such cases expected financial implication also needs to be brought out.

SECRETARY FINANCE

500
1570
3000

PRINCIPAL SECRETARY TO CM

Principal Secretary
3/19/79
Date 2/5/79
Per Principal Secretary

S/K
8520
5/12

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(From p-6 page)

Subject: BUS RAPID TRANSIT SYSTEM (BRTS) - FERROZPUR ROAD
CORRIDOR FROM GAJJUMAYTA TO SHAHDRAH, LAHORE

7. Summary has been examined in Finance Department. It is observed that Package-I stands awarded to M/s NLC and the request to also award work of Package VII to M/s NLC has been taken up in a separate Summary.

8. In view of the explanation and special circumstances mentioned by the department, the views expressed by the Chairman P&D of Para Grants are endorsed subject to the condition that the total financial implication based on Engineer's estimate would generally be within a limit of 5% over the MRS based estimate.



Enc. 7 (1 JULY 2-10/2009)

(TARIQ BAJWA)
SECRETARY FINANCE

Dated Lahore May 3, 2012



CHIEF SECRETARY

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03-05-12

CHIEF MINISTER



Subject: BUS RAPID TRANSIT SYSTEM (BRTS) FEROZEPUR ROAD
COORIDOR FROM GAJJU MATTA TO SHAHDARA, LAHORE.

IC: Chief Minister has seen and is pleased to approve the proposal
contained at para 3 read with paras 6&8 ante.

(NADEEM HASSAN ASIF)
Principal Secretary to
Chief Minister Punjab

6.5.2012

Chief Secretary

Hassan Asif
04.05.12

Finance Secretary

Touqeer
5.5.12

Secretary, HUD&PHE

P
5/5

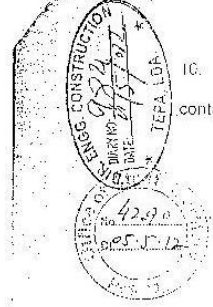
Director General, LDA

05/12

CE-TERA

DFL

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Annexure-II
(Referred in Executive Summary)



(Annexure - I)

456/

NO.SO(A&A)1-40/2012
GOVERNMENT OF THE PUNJAB
HOUSING, URBAN DEVELOPMENT &
PUBLIC HEALTH ENGINEERING DEPARTMENT

Telephone No.9212634- Fax- 921263

Dated Lahore the 23rd January, 2015

To

The Director General Audit Works (Provincial),
Lahore.

SUBJECT:- SCHEDULE OF SDAC MEETING ON PROJECT AUDIT REPORT OF CONSTRUCTION OF METRO BUS SYSTEM FOR LAHORE-FEROZEPUR ROAD CORRIDOR (BUS RAPID TRANSIT SYSTEM) FOR THE AUDIT YEAR 2013-2014 EXECUTED BY THE TEPA / LDA AND PUNJAB METRO BUS AUTHORITY, LAHORE.

1-450/ ✓ I am directed to refer to your D.O.letter No.IRABC-I/SDAC/MBS/2013-14/684 dated 08-1-2014 on the subject noted and to state that TEPA Management submitted working papers of Metro Bus System, Lahore containing about 245 Paras on 24-3-2013.

2. It is informed as under:-

- (i) Three number of meetings of SDAC were held on 04-3-2014, 7-4-2014 & 15/16-9-2014 where Audit Paras were discussed and in the last meeting it was decided that TEPA Management shall furnish the Minutes of the meeting by incorporating their view points in detail on or before 20th September, 2014. Same are still awaited for which DG, LDA and TEPA Management vide this Department's letter dated 14-1-2015 has been requested to furnish the Minutes of the meeting within 7 days positively (copies enclosed).
- (ii) Two number of meetings of SDAC were scheduled to be held on 3 & 4-6-2014 and 12 & 13-9-2014. Same could not be convened due to the reason that Additional Secretary (A&M) were transferred and post remained vacant on the above said dates.
- (iii) 2 meetings of SDAC were scheduled to be held on 06-6-2014 & 19-6-2014. Same were postponed due to the following reason:-
 - a. The meeting scheduled to be held on 06-6-2014 under the Chairmanship of Additional Secretary (Tech). Same was postponed due to the occupation of Additional Secretary (Tech) in some other official business.
 - b. Meeting scheduled to be held on 19-6-2014 was postponed on the request of TEPA Management (copies enclosed).

3. I am further directed to inform you that Director General, LDA and TEPA Management have been requested to furnish the Minutes of SDAC meeting held on 15 & 16 Sept, 2014 vide this Department's letter of even number dated 14-1-2015.

Jawaid Khan Bq

CC:

M. S.
SECTION OFFICER (A&A)

Annexure-III

(Referred in para 4.2.1.1)

4.2.1.1 Overpayment due to allowing extra labour in rate of pre-mixed carpeting - Rs 86.32 million

1. Paras related to Project Director-I&II – Rs 85,695,850

Para No	PKG No	Name of item	Rate paid (Rs Per CuM)	Rate required to be paid (Rs Per CuM)	Excess rate Paid (Rs Per CuM)	Quantity paid (CuM)	Overpayment (Rs)
5	1	Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWB.	16452.27	15703.41	748.86	18,927.14	14,173,778
		Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWC.	18232.50	17489.98	742.52	16843.08	12,506,323
40	1	Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWB.	18320.58	17669.40	651.18	2203.47	1,434,856
		Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWC.	18117.73	17472.06	645.67	1856.973	1,198,992
48	8	Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWB.	20522	19829.57	692.43	9396.91	6,506,702
		Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWC.	23003	22286.13	716.87	6834.3	4,899,305
68	2-a	Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWB.	19910	19126.06	783.94	3,898.01	3,055,806

		Inadmissible labour@ 12.5% of equipment charges added in the rate analysis of AWC.	21570	20786.32	783.68	2,487.35	1,949,286
93	2-b(Elevated)	Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWB.	17913.30	17218.42	691.88	3,829.55	2,649,589
		Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWC.	19168.17	18485.71	682.46	2,513.91	1,715,643
109	5	Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWB.	22642	21893.14	748.86	11,814.47	8,847,384
		Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWC.	25435	24692.48	742.52	14,854	11,029,392
159	4	Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWB.	18523	17878.59	644.41	7,313.19	4,712,692
		Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWC.	19911	19272.04	638.96	2,908.49	1,858,409
60	4	Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWB.	21014.09	20362.91	651.18	9,295.21	6,052,854

		Inadmissible labour @ 12.5% of equipment charges added in the rate analysis of AWC.	22585.68	21940.01	645.67	4,808.71	3,104,839
						Total	85,695,850

2. Paras related to Project Director-III and EM&E – Rs. 620,463

Para No	PKG No	Name of item	Rate approved (Rs)	Rate required to be approved (Rs)	Excess rate (Rs)	Quantity paid (CuM)	Over payment (Rs)
204	IX	Asphalt wearing course 4.20%	18,232.50	17,248	984	307.352	302,588
205	IX	Asphalt Base course 3.60%	16,975.24	15,941	0.24	307.352	317,875
							620,463

Annexure-IV

(Referred in para 4.2.1.2)

**4.2.1.2 Overpayment due to allowing inadmissible preheating charges -
Rs 72.09 million**

Para No	PKG No	Name of item	Rate paid (Rs in CuM)	Rate required to be paid (Rs in CuM)	Excess rate (Rs in CuM)	Qty paid (CuM)	Overpayment (Rs)
24 (i)	1	Incorrect rate of crushed stone/bajri	3,422.24	2,977.99	444.25	18,927.14	8,408,382
		Incorrect rate of crushed stone/bajri	3,422.24	2,977.99	444.25	16,843.08	7,482,538
24 (ii)		with inadmissible preheating charges (AWB)	16452.27	16017.68	434.59	18,927.14	8,225,545
		with inadmissible preheating charges (AWC)	18232.50	17848.60	383.90	16,843.08	6,466,097
41	1	Inadmissible preheating charges (AWB)Paid	16452.27	16074.37	377.90	2,203.34	832,513
		Inadmissible preheating charges (AWC) Paid	18232.20	17898.68	333.52	1,856.97	619,336
55(i)	8	Incorrect rate of crushed stone/bajri	3,422.24	3,011.24	411	9396.91	3,862,130
		Incorrect rate of	3,422.24	2,993.32	428.91	6834.3	2,931,367

		crushed stone/bajri					
55(ii)		with inadmissible preheating charges (AWB)	20522	20119.94	402.06	9396.91	3,778,122
		with inadmissible preheating charges (AWC)	23003	22632.35	370.65	6834.3	2,533,133
73	2-a	Incorrect rate of crushed stone/bajri	3,265.92	2,882.39	383.52	3898.01	1,494,965
		with inadmissible preheating charges (AWB)	19910	19444.21	465.79	3898.01	1,815,654
		Incorrect rate of crushed stone/bajri	3,265.92	2,865.67	400.24	2487.35	9,95,536
		with inadmissible preheating charges (AWC)	21570	21140.60	429.40	2487.35	1,068,068
97	2-B (Elevated)	Incorrect rate of crushed stone/bajri	3,265.92	2,935.30	330.61	3829.55	1,266,126
		with inadmissible preheating charges (AWB)	17913.30	17511.77	401.53	3829.55	1,537,679
		Incorrect rate of crushed stone/bajri	3,265.92	2,937.02	328.9	2513.91	826,825
		with inadmissible preheating charges (AWC)	19168.17	18815.66	352.51	2513.91	886,192
105	5	Incorrect rate of crushed stone/bajri	3,103.36	2,814.08	289.27	11814.87	3,417,806

		with inadmissible preheating charges (AWB)	22642	22217.40	424.60	11814.87	5,016,704
		Incorrect rate of crushed stone/bajri	3,103.36	2,800.80	302.55	4854.43	1,468,756
		with inadmissible preheating charges (AWC)	25435	25042.70	392.30	4,854.43	1,904,393
150	4	Incorrect rate of crushed stone/bajri	3,103.36	2,891.04	212.31	7313.19	1,552,737
		with inadmissible preheating charges (AWB)	18523	18211.36	311.64	7313.19	2,279,083
		Incorrect rate of crushed stone/bajri	3,103.36	2,891.04	212.30	2908.49	617,531
		with inadmissible preheating charges (AWC)	19911	19635.71	275.29	2908.49	800,678
						Total	72,087,898

Annexure-V
(Referred in para 4.2.1.4)

4.2.1.4 Non recovery of cost of less used bitumen- Rs 32.11 million

Para No	PKG No	Name of item	Rate of Bitumen paid along with premium (Rs)	Qty of Bitumen Paid in Ton	Qty of Bitumen required to be Paid in Ton	Qty of Less Used Bitumen	Overpayment (Rs)
8	1	Recovery of less use of bitumen ABC/AWC	104,411	1635.30	1552.03	83.279	8,695,244
25	7	Recovery of less use of bitumen (AWC)	80,000	18.142	10.582	7.56	604,800
		Recovery of less use of bitumen (ABC)	80,000	34.593	16.393	18.2	1,456,000
36	1	Recovery of less use of bitumen (ABC)	75660	28.191	18.103	10.087	763,182
42	7	Recovery of less use of bitumen (ABC)	80000	24.18	15.528	8.652	692,160
51	8	Recovery of less use of bitumen (ABC)	96592.4	811.89	762.10	49.8	4,810,302
70	2-a	Recovery of less use of bitumen (ABC)	109301	336.79	314.34	22.453	2,454,135
95	2-b/1(Elavated)	Recovery of less use of bitumen (ABC)	96466.8	330.87	303.30	27.573	2,659,879
125	5	Recovery of less use of bitumen (ABC)	104411	1020.80	949.92	70.89	7,401,696

130	3	Recovery of less use of bitumen (ABC)	113490	803.107	789.687	13.42	1,523,036
		Recovery of less use of bitumen (AWC)	113490	415.473	406.240	9.3	1,055,457
Total							32,115,891

Annexure-VI

(Referred in para 4.2.1.8)

4.2.1.8 Overpayment due to application of incorrect loose factor for base and sub-base course – Rs 12.23 million

1. Paras related to Project Director-I&II – Rs 10,661,900

Para No	PKG No.	Name of item	Rate paid (Rs)	Rate required to be paid (Rs)	Excess rate (Rs)	Quantity paid (CuM)	Overpayment (Rs)
3	1	Incorrect conversion applied for sub base	2258.97	2168.62	90.35	19996.76	1,806,707
		& base course	2258.97	2204.76	54.21	26153.59	1,417,786
38	1	Incorrect conversion applied for sub base	1663.32	1596.79	66.53	395.641	26,322
		& base course	1663.32	1623.4	39.92	4133.729	165,018
46	8	Incorrect conversion applied for sub base	1819.76	1756.46	63.3	15541.64	983,785
		& base course	1819.76	1776.82	42.94	15736.35	675,719
65	2-a	Incorrect conversion applied for sub base	1783.5	1712.16	71.34	7206.535	514,114
		& base course	2018.68	1970.24	48.44	6585.779	319,015
91	2-b/1(Elevated)	Incorrect conversion applied for sub base	1456.34	1398.09	58.25	1882.38	109,649
		& base course	2283.3	2244.58	38.72	7087.458	274,426
107	5	Incorrect conversion applied for sub base	2825.89	2816.32	9.57	12269.56	117,420
		& base course	3888.04	3872.61	15.43	14525.05	224,122
145	4	Incorrect conversion applied for sub base	2787.02	2777.59	9.43	4080.975	38,484
		& base course	3333	3319.75	13.25	14295.55	189,416
151	3	Incorrect conversion applied for sub base	3553.86	3411.71	142.15	13590	1,931,819

		& base course	4244.25	4142.39	101.86	18339.85	1,868,097
						Total	10,661,900

1. Paras related to Project Director-III/EM&E – Rs 1,574,425

PK G No.	Par a No	Name of item	Rate approve d (Rs)	Rate to be approve d (Rs)	Exces s rate (Rs)	Quantit y paid (CM)	Overpaymen t (Rs)
IX	183	Sub Base Cours e	2,976.99	2,881.25	95.74	16096	1,541,031
IX	184	Sub Base Cours e	3,529.30	3,465.42	63.88	522.76	33,394
						Total	1,574,425

Annexure-VII

(Referred in para 4.2.1.9)

**4.2.1.9 Overpayment due to adoption of higher rates of carriage than schedule rate
- Rs 10.76 million**

1. Paras related to Project Director-I&II – Rs. 9,465,180

Par a No	PK G No	Name of item	Rate paid (Rs)	Rate to be paid (Rs)	Exces s rate (Rs)	Quantity paid (CuM)	Overpay ment (Rs)
1	1	Incorrect carriage of 205 Km for stone paid Sub base	2,258.97	2,215.9	43.07	19996.76	861,260
		Base course	2,258.97	2,215.9	43.07	26153.59	1,126,435
4	1	Incorrect carriage of 205 Km for stone paid Sub base	2,766.19	2,713.44	52.75	18927.14	998,407
		Base course	2,766.19	2,713.44	52.75	16843.08	888,472
44	8	Incorrect carriage of 205 Km for stone paid Sub base	1,580.6	1,550.36	30.24	15541.64	469,979
		Base course	1,789.11	1,754.89	34.22	15736.35	538,498
47	8	Incorrect carriage of 205 Km for bajri of carpeting ABC	2,559.05	2,516.04	43.01	9396.91	404,161
		AWC	2,670.62	2,625.74	44.88	6834.3	306,723
66	2-a	Incorrect carriage of 190 Km for stone paid Sub base	2,838.38	2,710.72	127.66	7206.535	919,986
		Base course	3,808.72	3,664.22	144.5	6585.779	951,645
67	2-a	Incorrect carriage of	2,757.57	2,698.37	59.2	3898.012	230,762

		190 Km for bajri of carpeting ABC					
		AWC	2,780.19	2,720.51	59.68	2487.359	148,446
92	2-b/1(Elevated)	Incorrect carriage of 190 Km for bajri of carpeting ABC	2,433.77	2,381.53	52.24	3829.558	200,056
		AWC	2,423.51	2,371.49	52.02	2513.917	130,774
102	2-b/1(Elevated)	Incorrect carriage of 190 Km for stone paid Sub base	1,673.77	1,644.8	28.97	9673.514	280,242
103	2-b/1(Elevated)	Incorrect carriage of 190 Km for stone paid Sub base	2,314.72	2,213.47	101.25	1882.38	190,591
		Base course	3,044.77	2,929.25	115.52	7087.458	818,743
						Total	9,465,180

2. Paras related to Project Director-III/EM&E – Rs.1,302,157

PKG No.	Para No	Name of item	Rate approved (Rs)	Rate to be approved (Rs)	Excess rate (Rs)	Quantity paid (CuM)	Overpayment (Rs)
IX	203	Carriage of stone for 205 km	1,309.55	1,233.20	76.35	17,055.10	1,302,157

Annexure-VIII

(Referred in para 4.4.1.1)

4.4.1.1 Overpayment due to sanction of incorrect rates for RCC – Rs 41.10 million

Pk g. No	Para No	Name of item	Rate approved	Rate to be approved	Excess rate	Quantity paid	Over payment
IX	201	RCC 1:2:4 (3000psi)	11,143.73	8,723.73	2,420	495	1,197,900
IX	202	RCC 1:½:3 (4000psi)	11,904.29	9,484.28	2,420	16485	39,893,700
						Total	41,091,600

Annexure-IX

(Referred in para 4.4.1.3)

4.4.1.3 Overpayment due to application incorrect labour rates – Rs 23.39 million

Pkg No	Para No	Rate approved P.Sq mtr	Rate required to be approved P.Sq mtr	Excess rate	Quantity paid	Overpayment
IX	169 (i)	45,000	27,599	17,401	664	11,554,264
	(ii)	30,000	15,478	14,522	664	9,642,608
IX	170	437,500	356,149	81,351	27	2,196,477
					Total	23,393,349

Annexure-X

(Referred in para 4.4.1.4)

**4.4.1.4 Overpayment due to sanction of incorrect rate for item of paint –
Rs 16.32 million**

Skg No	Para No	Name of item	Rate approved Rs P.Sqm	Rate to be approved Rs P.Sqm	Excess rate Rs P.Sqm	Qty paid Sqm	Over payment Rs
IX	206	Poly urethane paint	1,216.31	708.31	508	32,120.025	16,316,972