

- (2) The inspection reports are sent by the CTE to the Executive Engineer concerned, to which the Executive Engineer shall reply within the period mentioned in the letter. Matter of serious nature, or such matters pertaining to sanctions of estimates, NIT's acceptance of tenders etc., dealt by the higher officers, may be referred by the CTE to be replied by the higher officers.
- (3) In respect of such paras, the Executive Engineer shall send his comments, if required by the higher officers, to the Superintending Engineer concerned, and not directly to the CTE.
- (4) In order to expedite replies and settle the points and to ensure timely action, it is essential that the time limit fixed by the CTE is strictly adhered to by the officers of CPWD at all levels. For keeping a proper watch in the disposal, the Executive Engineer/Superintending Engineer/Chief Engineer shall maintain a register in proforma given in Appendix 44.

52.4 Recoveries of overpayments pointed out by the CTE

- (1) Normally the recoveries of overpayments pointed out by the CTE should be made within a period of 3 months from the date of issue of memorandum by the CTE. The overpayment arising out of the defects pointed out by the CTE should be promptly assessed and accepted by the Divisional Officer whenever agreed to, and the recoveries effected from the money due to the contractor, either from the same work from the immediate running bill, or from any other work or from the security deposit, if any, with the Director General (Works).
- (2) In no case, action to recover the overpaid amount should be kept pending, or be kept in abeyance on account of the case being before the Arbitrator. Action in terms of the award can be taken after the award is received and accepted by the competent authority. Recoveries/adjustment of the amount in question should, in no case, be effected by debiting the amount to Miscellaneous Public Works Advance (MPWA).
- (3) In order that the recoveries of overpayment pointed out by the CTE are promptly effected, a Register of Overpayments pointed out by the CTE Organisation and subsequent recoveries effected, should be maintained by the Divisional Officer in the proforma given in Appendix 45.
- (4) Although the inspection of CTE is a part of the contract, yet the CTE is not a party to the contract, no reference should be made to his inspection/examination of works in any correspondence made with the contractor. Notice for rectification of defects, recoveries to be made etc., shall be issued by the Engineer-in-charge, who is party to the contract, acting for and on behalf of the President of India.

Annexure - I**Statement showing the quarterly progress of original works for the quarter ending.....**

[Reference para 52.2(1)]

Civil Works costing Rs. One crore and above.

Electrical Works costing Rs. 15 lakhs and above.

Horticulture Works costing Rs. 2 lakhs and above.

Sl. no.	Name of work & location	Est. cost in lakhs Rs.	Tender cost in lakhs Rs.	% above/below Schedule of Rates applicable	Agreement no.	Agency	Date of Commencement	Date of completion	Physical progress of work	Name of Engineer-in charge	Remarks
1	2	3	4	5	6	7	8	9	10	11	12

Annexure – II**Statement showing the quarterly progress of supply/purchase contracts for the quarter ending.....**

[Reference para 52.2(2)]

Sl. no.	Name of the organization with location	Contract no.	Brief details of the materials required	Value of the contract	Mode of tendering	Scheduled delivery period	Present status	Remarks
1	2	3	4	5	6	7	8	9

Annexure - III
List of documents considered essential for inspections by CTE and which may be
called for examination of a work

[Reference para 52.3(1)]

- (1) (a) Press Cuttings, including extended dates, if any
 - (i) For pre-qualification of architects/consultants.
 - (ii) For pre-qualifications of contractors.
 - (iii) Call of tenders.
- (b) Register of sale of tenders,
- (c) Register of opening of tender.
- (2) File giving reference to financial sanction and approval of competent administrative authority - Preliminary estimate.
- (3) Copy of detailed estimate and its technical sanction by competent technical authority.
- (4) Approved N.I.T. (Notice Inviting Tenders) in original.
- (5) Rejected tenders and comparative statements for :
 - (a) Selection of architects/consultants.
 - (b) Short-listing or pre-qualification of tenders.
 - (c) Other tenders.
- (6) Justification statement and corresponding notings in support of tenders/offers accepted.
- (7) Details of negotiations, if any, made before acceptance of tenders.
- (8) Original contracts with consultant/contractor.
- (9) Guarantee Bonds etc. towards security for work, machinery/mobilisation advance etc. including extension of validity.
- (10) Insurance policies for work, materials, equipment, men etc. including extension of validity.
- (11) Guarantees for water tightness, termite proofing etc.
- (12) Standard specifications.
- (13) Standard Schedule of Rates.
- (14) Drawings - architectural and structural.
- (15) All connected Measurement Books, Level Books, field books and lead chart.
- (16) All Running Account Bills with all connected statements/vouchers etc.
- (17) Statement showing details of check of measurements by superior officers - copies of orders laying down such requirements.
- (18) Materials at site accounts/dismantled materials record.
- (19) Site Order Books/Texts records/Log Books.
- (20) Details of extra/substituted items and of deviated quantities being executed/ considered for execution in the work along with analysis of rates.
- (21) Hindrance Register.
- (22) Office correspondence files and inspection notes, if any, issued by inspecting officers.
- (23) Complaint records, if any.
- (24) Any other documents relevant to the works.

SECTION 53

QUALITY ASSURANCE AND TECHNICAL AUDIT WING

53.1 Introduction

- (1) The Quality Assurance activity, in order to be truly effective has to ensure a progressively improved and uniform quality of the finished work. Experience gained over years indicate that "Process Control" is essential in building construction to ensure that the work in different phases is executed in a manner pre-determined and laid down in specifications. In order to achieve the above, the pre-requisites cover among other things, an inbuilt provision in the contract for a system of continuous check on quality by the field staff and the contractor for ensuring quality of work; availability of adequately manned and equipped agency for overseeing the quality aspects, and periodical appraisal of quality and a system of feed back for effecting possible improvements.
- (2) Maintenance of quality has to be imbibed in the minds of the contractor as well as the officials of the department. It is better to have a system in which the quality of work is achieved during the construction stage itself, rather than indulge in 'fire fighting' activities after the damage has been done by way of post-construction 'quality control'. Quality control does have a place in the system, but this has to be more by way of being a means of enforcement, to ensure that the quality of work is checked and controlled as a continuous process during the construction stage itself: The final output will then be satisfying both to structural as well as aesthetical sensibilities.

53.2 Minimum Quality Assurance Plan (*Modified as per OM/MAN/233*)

- (1) **Minimum Q.A. Plan shall have to be part of tendered document for all the works costing more than tendering limit of :-**
 - (i) **Class V contractors under Civil Category**
 - (ii) **Class IV contractors under Internal & External Electrical Installations**
 - (iii) **Group D Contractors empanelled for HVAC, Sub-Station, Fire Fighting System and Lifts Category under Specialized E&M Services.**
- (2) **Lot size, number of required tests and frequency of testing needs to be clearly indicated in QA Plan. While deciding these criteria CPWD Specifications & Provisions of BIS Code and Standard Practices may be referred. Volume of work, Practical Difficulties and Site Conditions etc. may also be kept in view and lot size, number of tests and frequencies of testing may be varied suitably by NIT Approving Authority.**
- (3) **It should clearly indicate the Machinery and other Tool & Plants required to be deployed at site by the contractor. Entire Machinery and T&P may not be required at the start of work, therefore, a proper time schedule by which each Machinery & T&P is to be brought at site should also be indicated.**
- (4) **Requirement to setup field laboratory should be defined. All the testing equipments to be arranged by the contractor should be clearly mentioned. If field lab is to be setup by the Department the same may be indicated in the QA Plan.**
- (5) **All the relevant and applicable codes, specifications and standards, as well as the acceptance criteria for various items of work, workmanship, materials and process employed needs to be mentioned.**
- (6) **A proper shuttering schedule showing quantity of shuttering to be brought at site either in one lot or at different stages of work should form part of QA Plan.**
- (7) **Maintenance of Register of Tests -**
 - (i) **All the registers of tests carried out at Construction Site or in outside laboratories shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-charge in the same manner as being issued to CPWD field staff.**

- (ii) All Samples of materials including Cement Concrete Cubes shall be taken jointly with Contractor by JE and out of this at least 50% samples shall be taken in presence of AE in charge. If there is no JE, all Samples of materials including Cement Concrete Cubes shall be taken by AE jointly with Contractor. All the necessary assistance shall be provided by the contractor. Cost of sample materials is to be borne by the contractor and he shall be responsible for safe custody of samples to be tested at site.
- (iii) All the test in field lab setup at Construction Site shall be carried out by the Engineering Staff deployed by the contractor which shall be 100% witnessed by JE and 50% of tests shall be witnessed by AE-in-charge. At least 10% of the tests are to be witnessed by the Executive Engineer.
For outstations the percentage of tests to be witnessed by JE, AE & EE are to be decided by NIT Approving Authority and should form part of QA Plan.
- (iv) All the entries in the registers will be made by the designated Engineering Staff of the contractor and same should be regularly reviewed by JE/AE/EE.
- (v) Contractor shall be responsible for safe custody of all the test registers.
- (8) Submission of copy of all test registers, Material at Site Register and hindrance register along with each alternate Running Account Bill and Final Bill shall be mandatory. These registers should be duly checked by AE(P) in Division Office and receipts of registers should also be acknowledged by Accounts Officer by signing the copies and register to confirm receipt in Division office.
If all the test registers and hindrance register is not submitted along with each alternate R/A Bill & Final Bill, it will be responsibility of EE & AAO that no payment is released to the contractor.
- (9) Maintenance of Material at Site (MAS) Register -
 - (i) All the MAS Registers including Cement and Steel Registers shall be maintained by Contractor which shall be issued to the contractor by Engineer-in-charge in the same manner as being issued to CPWD field staff.
 - (ii) Each of the entry of receipt of material at site shall be 100% test checked by JE or by AE if there is no JE.
 - (iii) Each MAS Register shall be checked by JE at least twice a week and at least once a week by AE. If There is no JE then MAS registers will be checked by AE at least twice a week.
 - (iv) Cement Register shall be reviewed by EE at least one in a month.
For outstations the frequency of checking the Registers by JE, AE & EE is to be decided by NIT Approving Authority and should form part of QA Plan.
- (10) It will be deemed that work so measured, checked and paid is of the required quality and standard, both in respect of ingredients as well as the intended functions it is supposed to perform. In other words, the work would not only meet the required specifications but also the workmanship as per sound engineering practices.
- (11) Minimum QA plan may vary work to work basis depending upon nature and volume of work.
- (12) The Superintending Engineer shall also have to check and sign these reports at suitable intervals in token of his ensuring compliance of the 'Quality Assurance Plan' for the work. For major works costing above Rs. 10 crores, he shall check and sign these reports for works in his headquarter, before every alternate running account bill, beginning from the first bill, as well as before the final bill is paid to the contractor. For works outside his headquarter, he shall check and sign these reports whenever he goes on inspection. The Chief Engineer can waive this requirement in exceptional cases, and for recorded reasons. However, in any case, the Superintending Engineer shall not be absolved of his responsibility to ensure that the 'Quality Assurance Plan' is complied with in every work under his charge. It will be his responsibility to locate the lapses or deficiency and take suitable remedial action if the Quality Assurance Plan is not implemented in spirit and action by the field officers.

53.3 Method Statement

In all major works of contract costing more than Rs. 10 crores, provision shall be made in the tender documents for the contractor to submit a 'Methods statement' for the approval of the department soon after the award of work to him. The 'Methods statement' is a statement by which the construction procedures for important activities of construction are stated, checked, and approved. The 'Methods statement', should have a description of the item with elaborate procedures in steps to implement the same, the specifications of the materials involved, their testing and acceptance criteria, equipments to be used, precautions to be taken, mode of measurement, etc.

53.4 Responsibility for Quality Assurance

The direct responsibility for ensuring proper quality of work as per approved specifications for achieving the intended performance and structural, functional and aesthetical parameters, and the desired life of the building/installation/structure rests with the construction team of Executive Engineer, Assistant Engineer and Junior Engineer. The Superintending Engineer shall be overall responsible for management of Quality System and Procedures for the works under his charge. The powers of acceptance of substandard work delegated to the Superintending Engineer should be used sparingly and under exceptional circumstances as emphasized under para 31.2 of this Manual. The Chief Engineer shall periodically review and monitor the Quality Assurance system. Para 53.17 may also be seen in this regard.

53.5 Quality Assurance Set-up

Independent Quality Assurance set up which keeps a watch on the effectiveness/adequacy of quality control measures at site and also provides guidance to the field engineers comprises of the following:

- (i) QA wings in each region under the Additional Director General of the Region.
- (ii) Core Wing at the Directorate under the Chief Engineer (CSQ).

53.6 Organisational set-up of Quality Assurance Unit

The implementation of Quality Assurance in the field will require close co-operation among the three agencies, namely (a) field engineers (b) the construction agency, and (c) the Quality Assurance team at Circle level for strict compliance of Quality Assurance Procedure forming part of agreement.

53.7 Responsibilities of the construction staff, Executive Engineer and Superintending Engineer

The broad responsibilities of the field staff and the EE & SE will be as under:

- (i) To ensure that materials duly approved by the competent authority are used in the work.
Samples of various materials in repetitive type, important/ big works of power of SE and above shall be approved by Superintending Engineer concerned and for works upto the power of EE, the samples of various materials shall be approved by the Executive Engineer.
(Modified as per OM/MAN/221)
- (ii) Wherever necessary the Executive Engineer/SE shall approve the sources for respective materials.
- (iii) Samples of materials should be approved by the Executive Engineer/SE and signed by him and the contractor and preserved till the end of the project.
- (iv) Samples of various materials, fittings to be used shall be approved well in advance and displayed at sites of works with make and name of the manufacturer/supplier.
- (v) As early as possible after award of work full-scale sample should be prepared for repetitive items. Such samples should be approved by the Executive Engineer/SE with regard to their specifications, execution, performance and aesthetics. Some examples are:
 - (a) Frames and shutters for door windows
 - (b) Water supply, drainage and sanitary lines and fittings
 - (c) External and internal finishing
 - (d) Flooring, including levels and slopes and dado
 - (e) Electrical switch board/electrical fittings/points

- (f) Door/window fittings
 - (g) Kitchen
 - (h) Sample quarter for residential areas
 - (i) Sample unit like corridors, toilet, room in case of non-residential areas.
 - (j) Various types of service pipes
 - (k) AC ducts/AC grills
 - (l) Window grills with or without coolers and AC's
 - (m) False ceiling
 - (n) Fire fighting pipes and fittings, conduit networks, including cable ducts and cable galleries
 - (o) Shafts.
- (vi) To ensure that all the mandatory field and laboratory tests as laid down in the specifications are carried out at appropriate time and materials failing to conform to the required specifications are promptly rejected and removed from site.
- (vii) As far as practicable all tests on materials will be carried out at the construction site in a field laboratory, which will be set up under the control of the Executive Engineer. The equipments for such field laboratories may be purchased directly, charging their cost to the work. A Junior Engineer of the Division with aptitude for testing should be selected by the Executive Engineer for manning the laboratory. He should be given training in the Central Laboratory to familiarize with the various tests, and then placed in charge of the field laboratory. A typical list of equipments and instruments which may be procured for a field Laboratory are given in Annexures I and II. Results of routine tests carried out in the field laboratory will be promptly communicated simultaneously to the Engineer-in-charge and the Quality Assurance team functioning at the Circle level. The Junior Engineer-in-charge of the field laboratory will be responsible for carrying out tests correctly, and for timely communication of test results to authorities mentioned above. These test results shall be analyzed, interpreted and acted upon for the purpose of ensuring quality in the work as per Quality Assurance Plan.
- (viii) Although testing of materials is a very important requirement for quality assurance, often testing is not carried out by the Assistant Engineer/Junior Engineer at site till the lapse is pointed out by an inspecting officer. It is essential that the officers who have to get the work executed at site, should be aware of the various tests required to be carried out during the progress of work, and should be adequately prepared for the same before the actual work starts. A consolidated test register, duly signed by the Executive Engineer should be issued from the Divisional Office soon after the award of work.
- (ix) It will be incumbent upon the Executive Engineer to keep a watch over regular testing of materials before making payment at the stage of each running bill. For this purpose, a proforma as given in Annexure III, is prescribed. The first five columns of the proforma should be filled by the Assistant Engineer/Junior Engineer, and checked by the Executive Engineer in advance, and copies as required made thereof. The remaining columns will be filled by the Assistant Engineer/Junior Engineer with each running bill and checked by the Executive Engineer before making payment.
- (x) Samples for tests are taken mostly by the Junior Engineers, or some by the Assistant Engineers. Samples for 10% of mandatory tests should be collected by the Executive Engineer. 10% of the field tests should be got done by the Executive Engineers in their presence.
- (xi) A guard file shall be maintained at all work sites, with copies of all inspection reports to-date, whether these be of the Assistant Engineer (QA), Regional QA units/QA Core Wing, Executive Engineer, Superintending Engineer or Chief Engineer.
- (xii) Inspection Register, Site Order book, Record of tests, Hindrance Register, etc. should be put up for entries and review to every inspecting officer.
- (xiii) The inspecting officers of the rank of Superintending Engineer and above shall not confine themselves only to review of progress, co-ordination and general matters, but shall also inspect the work from quality Assurance aspects.
- (xiv) The Executive Engineer and Superintending Engineer should invariably review and sign the guard file of earlier inspections, Inspection Register, Site Order Book, Register of tests carried out, Hindrance Register, etc.

- (xv) The Executive Engineers should ensure that the Assistant Engineers and Junior Engineers, as well as the contractor's supervisors in-charge are fully aware of the specifications and method of execution of any new/fresh item of work to be taken up in the next 2 weeks. The Assistant Engineers/Junior Engineers/Supervisors should ensure that this important aspect is not overlooked. The Junior Engineers/Assistant Engineers shall carry the required field testing instruments as per Annexure II to ensure on site quality assurance check on a regular basis, and to enable the senior officers to conduct checks during their site visits.
- (xvi) Checklist
 - (a) As and when any important item is taken up for execution, the Junior Engineer/Assistant Engineer should go through the specifications and invariably make a checklist. This checklist should be got approved from the Executive Engineer, and should be shown to the inspecting officers. The important items inter-alia include foundation work, including reinforcement and shuttering, brickwork, cast-in-situ mosaic flooring, doors & windows, plumbing, including water supply pipe lines, roof treatment, earth filling etc. which are a few illustrative items for check-list purpose.
 - (b) Sample checklists for items of concrete for raft, columns/beams/slabs, water supply lines, brickwork and plastering are given in Annexure IV for guidance.
- (xvii) To avoid dampness and leakage, the Executive Engineers shall ensure that necessary tests are carried out for proper slopes of canopies, chajjas, terracing, drainage arrangements, water tightness of expansion joints, joints in the water supply, drainage and sanitary works before these are covered/concealed, and also ensure rectification of defects noticed.
- (xviii) The Executive Engineers shall ensure availability of the required test equipments for field tests, as well as an updated copy of specifications, copies of agreement at sites of works.

53.8 Quality Assurance team at Circle level

- (1) The Quality Assurance team with the Superintending Engineer of the Circle as its head will comprise the Assistant Engineer (along with his Junior Engineer for laboratory work), whose main job is quality assurance. In order that the role of the Assistant Engineer (QA) is effective in the process of Quality Assurance, the following points are essential:
 - (i) The periodicity of visit of works should be such that the process control at various stages is possible.
 - (ii) There should be minimum delay between inspection of work and communication of inspection report to the field formation.
 - (iii) The Assistant Engineer (QA) should carry out his tasks in a work that relates operationally to the quality specifications and standards laid down for the work, and to the control actions that can be applied to the construction process. Thus the Assistant Engineer (QA) should assess those aspects which are important to the overall quality of the finished work.
- (2) The functions of the Quality Assurance team at Circle level are to check the compliance of Quality Assurance system by the field units, to locate the lapse/deficiency in the implementation of the Quality Assurance Plan, and to guide the field engineers in quality related aspects of the work. For this purpose:
 - (i) Every Assistant Engineer (QA) should carry out minimum four visits to works every month.
 - (ii) The Assistant Engineer (QA) should prepare his program and take approval of the Superintending Engineer. The program should be sent to site in advance of inspection.
- (3) Such inspections by the QA team shall, however, not absolve the responsibility of the Junior engineer/Assistant engineer/Executive Engineer for accepting only quality work from the contractor.
- (4) The following norms have been decided for inspection to be carried out by the Assistant Engineer (QA) of the Circle Office:

(i) Construction works costing more than normal tender acceptance powers of the Superintending Engineer	Each work to be inspected at least thrice during currency of work.
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| (ii) Construction works costing less than the normal tender acceptance powers of the Superintending Engineer but more than or equal to the normal tender acceptance powers of the Executive Engineer | Each work to be inspected at least twice during currency of work. |
| (iii) Construction works of the power of Executive Engineer | Each work to be inspected once. |
| (iv) Maintenance works | Frequency to be decided by SE. |
- (5) During periodical visits, efforts of the Assistant Engineer (QA) should be directed at:
- (a) To check the quality of materials accepted by the field units for use in the work and to see whether the laid down system of 'Quality Assurance Plan' has been followed.
 - (b) To check the overall quality of the finished items. Random checks shall be applied by the Assistant Engineer (QA), with the help of handy instruments like impact hammer for determining the strength of concrete, portable, penetrometer for testing strength of mortar of plaster, electronic moisture meter for testing moisture content of timber, etc.
 - (c) To randomly check the field tests carried out by the field staff during the progress of the work. This is to be with particular reference to the mandatory tests laid down in the CPWD Specifications. In case of any abnormal test results coming to his notice, the Assistant Engineer (QA), with the approval of the Superintending Engineer, shall send samples of such items to the laboratory for repeat tests.
 - (d) To provide guidance to the field staff in case of any problem relating to routine field tests.
 - (e) Finally, on the basis of these observations with regard to the quality of works, general adherence to the quality assurance procedures and the standard of progress, he shall submit an overall assessment report in the form at Annexure-V to the Superintending Engineer of the Circle. The Superintending Engineer shall complete Part V of the report with minimum delay. The Assistant Engineer (QA) will then send the report to the Executive Engineer concerned. In the case of works accepted by the Chief Engineer, or higher authority a copy of the Inspection Report is to be endorsed to the Zonal Chief Engineer also.

53.9 Action by SE on AE (QA) Report

Based on the report of the Assistant Engineer (QA), the Superintending Engineer shall assess the following:

- (i) The general standard of quality of the work at the particular site. This assessment is to be based on the regularity of the routine tests carried out in the field, and general adherence to the quality control procedures.
- (ii) Remedial action required to avoid defects of the nature mentioned in the Inspection Report.

53.10 Regional Q.A. units and their functions

- (1) Quality Assurance work in various Regions are being looked after by the Regional QA units headed by the Superintending Engineer (TLCQA) or Director Works of the Region.
- (2) The Regional QA units shall follow the guidelines and norms relating to Quality Systems and Procedures as laid down by the Quality Assurance Core Wing from time to time. These Regional QA units shall function under the control of the Additional Directors General, who shall be fully responsible for effective quality assurance in their Region. However, the Chief Engineer (CSQ) shall also inspect the works in the Regions on behalf of the Director General (Works) to see the effectiveness of Quality Assurance as well as cases referred to him by the Chief Engineer/Additional Director General.

53.11 The role and functions of Q.A. units under the Region

- (1) In general, the QA units shall exercise the role of management of Quality Systems and Procedures to achieve and sustain quality of works executed by the CPWD, and to offer necessary guidance to the field units in this regard.

(2) Major functions assigned to QA Units are as under:

- (i) To carry out inspection of original works costing more than the Superintending Engineer's power of acceptance of tenders in general, and maintenance works (including functioning of Enquiry Offices) from the Quality Assurance angle on selective basis. The QA units will check and comment on the Quality Assurance system in place. They are not supposed to supersede the existing Quality Assurance system. The QA units may also inspect any work irrespective of its value with the approval of ADG.
- (ii) In selecting works for inspection, their uniqueness, complexities and special characteristics, if any, shall be kept in view. For effective quality assurance, any major work shall be inspected 3 to 4 times during the progress of the work at various stages. Each QA unit headed by an Executive Engineer shall visit minimum 3 works per month, out of which at least 25% works shall be maintenance/special repair works.
- (iii) To carry out comprehensive examination and technical audit of at least one Division per Zone in a year for works costing more than Rs. One Crore. Such examination shall encompass all aspects of the work, right from the requisition stage till its completion and payment of final bill.
- (iv) To provide guidance in setting up laboratories at various stations/work sites.
- (v) To review the performance of new materials and techniques introduced in the Department from time to time on the basis of the field inspections.
- (vi) To convey observations regarding electrical works having bearing on the planning and execution of civil works to the appropriate unit in electrical wing and vice versa.
- (vii) To inspect any work, or carry out investigations and enquiries with regard to quality related aspects assigned by the Additional Director General concerned/Director General (Works).
- (viii) To submit quarterly reports in brief to the Additional Director General covering:

List of major works inspected, common defects/deficiencies observed in the work, and highlight of the functioning of the Regional QA set-up.

53.12 The Core Wing and its functions

- (1) The Core Wing shall have the over-all responsibility of constantly reviewing the existing quality assurance procedures, and updating them on the basis of feed back from the Quality Assurance Teams.
- (2) It shall carry out the functions of Regional QA unit for works under all Additional Directors General under whom no Superintending Engineer (QA)/TLCQA is posted. Presently, the QA unit in the Core Wing looks after works under the Additional Directors General (S&P), (TD) and (Border), as well as the Engineer-in-Chief, Delhi PWD. In addition, it performs the following other functions:
 - (i) To deal with policy issues pertaining to Total Quality Management System (TQM) for the C.P.W.D. as a whole.
 - (ii) To review the existing procedures regularly on the basis of feed back from the Regional units, and to issue guidelines/instructions to ensure uniformity, consistency and reliability in implementation of Quality Assurance systems and procedures in the Department.
 - (iii) To lay down norms/guidelines for periodic inspection and effective functioning of the QA units in the Regions/Quality Control teams at Circle level.
 - (iv) To keep itself updated with modern testing equipments and methods, and disseminate information in this regard to all concerned in the Department.
 - (v) To review the existing tolerance limits, and to lay down the tolerance limits in respect of finished items for which such limits are not specified in the C.P.W.D. Specifications. Such tolerance limits will be fixed on the basis of the accumulated experience in various works.
 - (vi) To issue guidelines/instructions for assigning accountability for different items of works.
 - (vii) To carry out investigations and enquiries with regard to quality related aspects for specific works or any other functions assigned by the Chief Engineer (CSQ)/concerned Additional Directors General/Director General (Works).

53.13 Calendar of returns

- (1) To enable the functioning of Core Wing as well as the Quality Assurance teams at the Circle level, the information as detailed below is to be furnished by the Divisions and the Circles:
 - (a) To be submitted by the Divisions to the Circle office
 - (i) Quarterly statement of works in progress in respect of all works under the tender acceptance power of Chief Engineer and above level officers, as on 31st March, 30th June, 30th September, and 31st December every year as per proforma at Annexure VI.
 - (ii) Quarterly statement of works under the tender acceptance power of Superintending Engineer as per proforma at Annexure VI.
 - (b) To be submitted by Circle Office to the Core Wing/Regional QA Unit Quarterly statement showing the progress of original works under the tender acceptance power of Chief Engineer and above level officers, as on 31st March, 30th June, 30th September and 31st December, every year as per proforma at Annexure VI.

53.14 Issue of Inspection Reports by Core Wing/Regional TLCQA units and follow-up action

- (1) During the inspection, the QA unit will prepare the necessary observations based on the proforma as Annexure VII.
- (2) The emphasis of QA inspection should be more on enforcing the required quality of work rather than on fault finding. The QA cell should also consider itself to be a part of the team with the field units to achieve the quality, and at the same time retain its independent status to ensure the required quality standards in the work. The QA inspections should, therefore, focus on ways and means to give the desired results in terms of quality of work. The report shall be prepared carefully, avoiding tendency to report shortcomings of minor/ routine nature possibly covered by the QA unit of the Circle Office. Defects/deficiency in the Quality Assurance system at the field unit level, lapses in the implementation of the Quality Assurance Plan should be indicated for corrective action. The inspection report should consequently be broadly in two parts-the first, being corrective in nature, and the second, mandatory.
 - (i) The first part should be on the shortcomings that are noticed, with necessary directions, and where necessary with necessary ways/methods, to rectify them. The field units should immediately act upon them, and report compliance to the QA cell.
 - (ii) The second part should cover serious shortcomings that affect the structural safety or life of the structure or installation. These may be due to oversight, carelessness, inadvertent miscalculation, or deliberate action of a functionary or functionaries in the field formation. Such observations shall require immediate remedial measures that could include rejection of the item of work or supply and re-doing the same, or reduction in payment, or in additional safety/corrective measures. The inspection report should indicate the action to be taken by the field units. Where such shortcomings are due to, or are suspected to be due to deliberate and/or malafide motives, the QA cell shall refer the case to the Chief Engineer for action to be taken against the erring officer(s) and/or official(s).
 - (iii) **While mentioning the shortcomings noticed under 2(i) and 2(ii) above, corrective steps/ methodology to be taken up against each observation is to be indicated in the inspection report. EE/SE/CE may give their opinion on such corrective steps as suggested which should be considered by QA unit and final decision to be conveyed to field units with minimum delay. (Added vide OM /MAN/233)**
- (3) After finalization of the report, the Executive Engineer (QA) shall sign and send the report to the concerned Executive Engineer, simultaneously enclosing copies to the concerned Chief Engineer and the Superintending Engineer. A copy of the report will also be endorsed to the Additional Director General of Region by the Regional TLCQA unit, and to the Chief Engineer (CSQ) by the Core Wing.
- (4) Any point considered serious enough to be brought to the specific notice of the concerned Superintending Engineer/Chief Engineer will be intimated by the Superintending Engineer (QA) of the Region/Chief Engineer (CSQ) through a separate letter by name in addition to the normal report.

- (5) Where some observation paras have been brought to the notice of the Superintending Engineer/Chief Engineer, they should send their comments/replies after personal inspection in case the work is located at the same station/headquarter. For outside works, the Superintending Engineer/Chief Engineer can take the assistance of the Assistant Engineer(QA)/Superintending Engineer (P&A) in order to ensure that the replies are sent within 4 weeks from the date of receipt of the Inspection Reports/letters from the Superintending Engineer (QA)/Chief Engineer (CSQ).
- (6) Notwithstanding the above, serious irregularities/defaults, over-payments, shortages, frauds like wrong certification, or wrong report of rectification of defects etc. may be referred to the Chief Engineer (Vig/CVO) immediately by the Chief Engineer (CSQ).

53.15 Action in Divisions on the Inspection Report of Core Wing/Regional QA unit

Proper attention by the field units to the concept of Quality Assurance as dealt in para 53.1 above and a continuous check over process control should as a matter of fact give no opportunity to the Core Wing to bring out any shortcoming in quality related aspects of the work. Following action shall be taken by the Executive Engineer on receipt of the Inspection Report from the Core Wing/Regional QA unit:

- (i) It should be immediately brought to the notice of the Assistant Engineer and the Junior Engineer in charge of the work.
- (ii) The following further action should be taken:
 - (a) The various observations involving the contractor's work or any other obligation of the contractor shall be brought to the notice of the contractor through the Site Order Book.
 - (b) The work should be checked up for defects similar to the ones observed at other locations, and all such findings also brought to the notice of the contractor suitably as above. It should be ensured that similar defects do not recur in further work.
 - (c) Wherever the defects are rectifiable, action should be taken for their rectification, simultaneously ensuring that such works are not placed in a position beyond rectification. No further work shall be done at that location till the defects are rectified. Also to investigate why such defects were not arrested by process control quality assurance set-up in the Divisional Office in the first instance.
 - (d) For items of observations not involving the contractor's work/obligations, the Executive Engineer shall ensure that due action is taken in time.
 - (e) Wherever any para is referred to the Superintending Engineer/Chief Engineer, the Executive Engineer should send an action taken report to the Superintending Engineer on priority.
 - (f) The Executive Engineer concerned shall take action on the observations, and send compliance report on rectification of defects/deficiencies to the QA Unit within a period of 4 weeks from the date of receipt of the Inspection Report.
- (iii) There should be concerted efforts on the part of the field units as well as the QA cell to comply with the observations of the QA cell, and finally settle all the paras during the progress of the work itself so that the bill for the work is finalised in time. Such observations should not be allowed to linger on indefinitely.

53.16 Action in Circle Office on Inspection Reports of QA units

Following action shall be taken by the Superintending Engineer on receipt of the Inspection Report from the Core Wing/Regional QA unit:

- (1) To analyze the reason for occurrence of the reported defects/shortcomings as to how the QA set-up in Divisional and Circle levels failed to arrest them in the first instance, and taking action including seeking explanation from the concerned field officers.
- (2) Watching the compliance of the observations by the Executive Engineer and his Assistant Engineers/Junior Engineers, and to ensure that replies to the Inspection Reports of the Core Wing are sent expeditiously.
- (3) On paras referred to the Superintending Engineer/Chief Engineer by the QA Wing, they shall not endorse the reply of the Executive Engineer as it is. They shall duly satisfy themselves about the same before sending their comments/reply to the QA unit.

- (4) Further, action on similar lines as mentioned under para 53.9 shall be taken by the Superintending Engineer on the inspection reports of the QA unit.
- (5) It is necessary that the observations made by the Q.A. unit are attended to on priority and compliance reported. The Superintending Engineer (P&A) of the Zone shall be responsible to monitor the compliance of observations made by the Q.A. unit, and bring cases to the notice of the Chief Engineer for appropriate action where there is delay of more than 3 months.
- (6) The Chief Engineer should have regular quarterly review of pending Inspection Reports. Similarly review should be done at Superintending Engineer's level at monthly intervals.

53. 17 Responsibility for quality

In respect of all works, the responsibility of various officers for checking of materials and workmanship of items of works shall be as given in Annexure VIII. However, this does not absolve the Junior Engineer and other officers of their responsibility to get the work executed as per specifications and provisions of Manual. Paras 5.2.3 and 53.4 above may also be seen in this regard.

53. 18 Field testing laboratories

- (1) The salient functions of the Field Testing Laboratories have already been outlined while discussing the functions of the field formation in exercising control of quality. A list of field equipments for a typical field laboratory is given in Annexures I and II. The Superintending Engineer shall from time to time review the functioning of these Field Testing Laboratories, and suggest ways and means of improving the standard of their performance, in consultation with the Core Cell if necessary.
- (2) In all major works of contract costing more than Rs. 10 crores, the contractor shall be required to establish complete field testing laboratory, and arrange all the relevant Codes and Standards. The list of such testing equipments, Codes, and Standards shall be specified in the tender documents. The contractor shall also arrange for more equipments, Codes, and Standards, if they are needed during the execution of the work. The contractor shall also provide the minimum staff, as specified, for quality assurance. He shall also provide for a temporary shed, of the specified size and specifications, at the allotted space at site, for housing the testing laboratory.

53. 19 Central laboratory

The Central Laboratory shall provide guidance in setting up the field level and circle level laboratories, both in respect of equipping them and training the testing personnel. These laboratories shall carry out confirmatory tests of samples collected by the Assistant Engineer (QA)/QA units during routine inspections of various works at the site. Besides, calibration of equipments of the field laboratories is another task assigned to Central Laboratory.

53.20 Outside/Independent Testing Facilities

Extensive testing of the materials used for construction is a pre-requisite for attaining high quality of the work. This shall also require specialized tests, physical, chemical, ultrasonic, x-ray and various other types of tests which cannot possibly be carried out in a site laboratory. These tests also require specialized personnel who regularly deal in such testing. Therefore the need arises for carrying out the tests in outside laboratories. These laboratories may be in the Government sector, Semi Government or Private sector. The outside private laboratories shall be short-listed before hand by EE and approval obtained from SE. In case of laboratories in the private sector, the past record and reputation of the laboratory must invariably be given due consideration. The infrastructure in these laboratories can also be inspected before they are short-listed.

However, testing of material in any Govt. Lab/Public Undertaking Lab/IIT or NIT Lab/Government Engineering College may be allowed by Executive Engineer without prior approval of Superintending Engineer or higher officers provided these labs have all necessary facility to carry out the required tests. (Modified as per OM/MAN/233)

Annexure - I
List Of Equipment For Field Testing Laboratory
 [Reference para 53.7(vii)]

A. For Building Works

1. Balances
 - (i) 7 kg. to 10 kg. capacity, semi-self indicating type - accuracy 10 gm.
 - (ii) 500 gm. capacity, semi-self indicating type - accuracy 1 gm.
 - (iii) Pan balance- 5 kg. capacity - accuracy 10 gms.
2. Ovens-electrically operated, thermostatically controlled upto 110°C - sensitivity 1°C.
3. Sieves: as per IS 460-1962.
 - (i) I.S. sieves - 450mm internal dia, of sizes 100 mm, 80 mm, 63mm, 50 mm, 40 mm, 25 mm, 20 mm, 12.5 mm, 10 mm, 6.3 mm, 4.75mm, complete with lid and pan.
 - (ii) I.S. sieves- 200mm internal dia (brass frame) consisting of 2.36mm, 1.18mm, 600 microns, 425 microns, 300 microns, 212 microns, 150 microns, 90 microns, 75 microns, with lid and pan.
4. Sieve shaker capable of 200 mm and 300 mm dia sieves, manually operated with timing switch assembly.
5. Equipment for slump test- Slump cone, steel plate, tamping rod, steel scale, scoop.
6. Dial gauges, 25 mm travel - 0.01 mm/division least count - 2nos.
7. 100 tonnes compression testing machine, electrical-cum manually operated.
8. Graduated measuring cylinders 200 ml capacity - 3 Nos.
9. Enamel trays (for efflorescence test for bricks).
 - (i) 300 mm × 250 mm × 40 mm- 2 nos.
 - (ii) Circular plates of 250 mm dia - 4 nos.

B. For Road Works

1. Balances
 - (i) 7 kg to 10 kg capacity, semi-self indicating type - accuracy 10 gm.
 - (ii) 500 gm capacity, semi-self indicating type, accuracy 1 gm.
 - (iii) Chemical balance, 100 gm capacity - accuracy- 0.1 gm.
 - (iv) Pan balance - 5 kg. capacity - 10 gm accuracy.
 - (v) Platform scale- 300 kg capacity.
2. Oven electrically operated, thermostatically controlled.
 - (i) Upto 200°C for determination of loss on heating of bitumen.
3. Sieves as per IS 460-1962.
 - (i) I.S. sieves - 450 mm of internal dia of sizes 100 mm, 80mm, 63mm, 50mm, 40mm, 25mm, 20mm, 12.5mm, 10mm, 6.3mm, 1.75mm, complete with lid and pan.
 - (ii) I.S. sieves - 200 mm internal dia (brass frame) consisting of 2.36mm, 1.18mm, 600 microns, 425 microns, 300 microns, 212 microns, 150 microns, 90 microns and 75 microns with lid and pan.
4. Sieves shaker capable for shaking 200mm and 300mm dia sieves, electrically operated with timer.
5. Dial gauge
 - (i) 25mm travel - 0.01mm/division.
6. Load frame-5 tonnes capacity, electrically operated with speed control.
7. Aggregate impact test apparatus as per IS 2386-Part IV-1963.
8. Compaction apparatus (Proctor) as per IS 2720-Part VII-1974.
9. Modified ASHO compaction apparatus as per IS 2720-Part-III-1974.
10. Sand pouring cylinder with control funnel and tube complete as per IS 2720-Part XXVIII-1974.
11. Sampling tins with rods 100mm dia × 50mm ht., 1/2kg capacity, and miscellaneous items like moisture tins etc.

12. Constant temperature bath for accommodating bitumen test specimen, electrically operated and thermostatically controlled.
13. Penetrometer with automatic time controller and with adjustable weight accessories and needles as per IS 1203-1958.
14. Oxllet extraction apparatus complete with extraction thimbles etc.
15. Laboratory mixer, about 0.02 cu-meter capacity, electrically operated with heating jacket.
16. Hubbard field stability test apparatus complete.
17. Marshall compaction apparatus as per ASTM 1559-62T, and complete with electrically operated leading unit, compaction pedestal bearing head assembly, dial micrometer, and bracket for flow measurement, load transfer bar, specimen mould (4 inch. dia) with base plate, columns, mould (4 inch, dia) with base plate, collars, specimen extracted. Compaction hammer, 4.53 kg (10lb)/457 mm (18inch) fall.
18. Distant reading thermometers.
19. Graduated cylinder 1000 ml. capacity.
20. Enamel tray.

Annexure - II
Field Testing Instruments
[Reference para 53.7(vii)]

1. Steel tapes - 3 m
2. Vernier calipers
3. Micrometer screw 25 mm gauge
4. A good quality plumb bob
5. Spirit level, minimum 30 cms long with 3 bubbles for horizontal vertical
6. Wire gauge (circular type) disc
7. Foot rule
8. Long nylon thread
9. Rebound hammer for testing concrete
10. Dynamic penetrometer
11. Magnifying glass
12. Screw driver 30 cms long
13. Ball pin hammer, 100 gms
14. Plastic bags for taking samples
15. Moisture meter for timber
16. Earth resistance tests (for Electrical Divisions)
17. Meggar (for Electrical Divisions)

Annexure –III
Proforma For Mandatory Tests To Be Attached With Running Bills
 [Reference para 53.7(ix)]

Name of the work:Name of ontractor..... Agreement no. and date R/A Bill No.....

Sl.no.	Item	Quantities as per agreement	Frequency as per specification	No. of tests required	Upto date quantity	No. of tests required	No. of tests actually done	Remarks
1	2	3	4	5	6	7	8	9

Note: If the number is less than that required, then reasons shall be recorded.

Signature of Junior Engineer

Signature of Assistant Engineer

Signature of Executive Engineer

Annexure -IV
Check Lists For Various Items
 [Reference Para 53.7 (xvi)(b)]

PART — A
CHECK LIST FOR ITEMS OF FOUNDATION CONCRETE

Name of work:.....

Name of contractor

Agreement no.

1. Date of inspection
2. Location
3. Material used for concrete whether tested
 - (a) Sand Yes/No
 - (b) Coarse aggregate Yes/No
 - (c) Water Yes/No
 - (d) Admixture, if any Yes/No
4. Raft top level, whether provided as per details Yes/No
5. Architectural/structural drawing correlated Yes/No
6. Whether location of construction joint has been discussed with Executive Engineer, and he has approved it Yes/No
7. Cleaning over water proofing surface and construction joint done Yes/No
8. CC cover blocks of 60 mm, thickness provided (min 2 in one square metre area) Yes/No
9. Reinforcement placement as per relevant structural drawing checked Yes/No
10. Layout of columns as per relevant structural drawing checked Yes/No
11. Placement of shuttering plates and key board for proper construction joint with shuttering oil Yes/No
12. Cement slurry applied on construction joint before pouring of concrete Yes/No
13. Trained mason available Yes/No
14. Concreting to start from farthest point to nearest point with respect of weight batching plant Yes/No
15. Concrete mix has been designed Yes/No
16. Plasticiser being used Yes/No
17. Adequate number of concrete vibrators in working condition available Yes/No
18. Slump checked Yes/No
19. Sample cubes taken Yes/No
20. Signature of Junior Engineer
21. Signature of Assistant Engineer
22. Signature of Executive Engineer

PART — B
CHECK LIST FOR COLUMNS/BEAMS/SLABS

1. Date of inspection
2. Drawing no.
3. Location
4. Whether materials used conform to relevant Specifications?
 - (a) Sand Yes/No
 - (b) Coarse aggregate Yes/No
 - (c) Water Yes/No
 - (d) Admixture, if any Yes/No/NA

- | | |
|---|--------|
| 5. Whether structural drawings correlated with architectural drawings? | Yes/No |
| 6. Whether the centre line of column/beams checked with reference to grid lines as per architectural drawings? | Yes/No |
| 7. Whether treatment of expansion joint, wherever required, is done? | Yes/No |
| 8. Whether cleaning, repairing and approval of shuttering plate, application of quality shuttering oil is done? | Yes/No |
| 9. Whether shuttering is in true plumb and vertical and properly done and maintained during concreting? | Yes/No |
| 10. Whether reinforcement detailing, their placement are as per structural drawings? | Yes/No |
| 11. Whether proper gauge binding wire is used and with full cross binding and tightening of reinforcement bars with stirrups? | Yes/No |
| 12. Whether required minimum cover to reinforcement is maintained? | Yes/No |
| 13. Whether stainless steel cramps, angle irons for holding stones and any holding arrangement for electrical/mechanical/fire fighting/other services have been seen and approved by JE (E)/AE(E) | Yes/No |
| 14. Whether conduits for various electrical/mechanical/fire fighting/other services have been seen and approved by JE(E)/AE(E)? | Yes/No |
| 15. Whether concrete of approved design mix within maximum permissible water-cement ratio is used? | Yes/No |
| 16. Whether admixture of good brand quality approved by Engineer-in-charge is used? | Yes/No |
| 17. Whether technical supervision at batching plant/mixer and at point of concreting done? | Yes/No |
| 18. Whether concreting is placed within initial setting time of mixing? | Yes/No |
| 19. Whether proper compaction with vibrator is done? | Yes/No |
| 20. Whether the concreting has been done in a lift not exceeding 1.5 m? | Yes/No |
| 21. Whether cubes as per requirement filled for testing? | Yes/No |
| 22. Signature of Junior Engineer | |
| 23. Signature of Assistant Engineer | |
| 24. Signature of Executive Engineer | |
| Post-concreting: | |
| 25. Whether shuttering stripped off as per specification, and laitance removed immediately thereafter? | Yes/No |
| 26. Whether proper arrangement of curing and curing period maintained as per specifications? | Yes/No |
| 27. Whether hacking of RCC surface by proper hacking tool for subsequent plastering/finishing is carried out ? | Yes/No |
| 28. Signature of Junior Engineer | |
| 29. Signature of Assistant Engineer | |
| 30. Signature of Executive Engineer | |

PART — C

CHECK LIST FOR BRICK WORK

- | | |
|--|--------|
| 1. Date of inspection | |
| 2. Drawing no. | |
| 3. Location | |
| 4. Whether materials used conform to relevant Specifications and whether mandatory tests done? | |
| (a) Sand | Yes/No |
| (b) Bricks | Yes/No |
| (c) Water | Yes/No |

- | | |
|--|--------|
| 5. Whether structural drawings co-related with architectural drawings? | Yes/No |
| 6. Whether the centre line of brickwork checked with reference to grid lines as per architectural drawings? | Yes/No |
| 7. Whether bricks soaked in water before use for sufficient period? | Yes/No |
| 8. Whether queen closers are used at junction of walls? | Yes/No |
| 9. Whether brickwork is in true plumb and vertical and all layers truly horizontal? | Yes/No |
| 10. Whether graduated wooden straight edge storey rod being used for keeping height of brick courses uniform? | Yes/No |
| 11. Whether wall height being constructed in a day is being restricted to 1 m height? | Yes/No |
| 12. Whether parts of wall left at different levels are raked back at an angle of 45 degrees or less with the horizontal? (Toothing is not to be permitted) | Yes/No |
| 13. Whether top courses of all plinths, parapets, steps and top of walls below floor and roof slabs laid with brick on edge? Whether marucona provided at corners in such brickwork? | Yes/No |
| 14. Whether thickness of joints in brickwork is kept 1 cm \pm 20%? | Yes/No |
| 15. Whether mortar of approved mix within maximum permissible water cement ratio is used? | Yes/No |
| 16. Whether all horizontal and vertical joints are being filled? | Yes/No |
| 17. Whether proper arrangement of curing and curing period maintained as per specification? | Yes/No |
| 18. Whether date of work done written? | Yes/No |
| 19. Signature of Junior Engineer | |
| 20. Signature of Assistant Engineer | |
| 21. Signature of Executive Engineer | |

PART — D CHECK LIST FOR PLASTERING

- | | |
|--|--------|
| 1. Date of inspection | |
| 2. Drawing no. | |
| 3. Location | |
| 4. Whether materials used conform to relevant specifications and whether mandatory tests done? | Yes/No |
| 5. Whether surface cleaned of all loose mortar and efflorescence? | Yes/No |
| 6. Whether all conduiting and electrical piping done? | Yes/No |
| 7. Whether all doors, windows etc. fixed? | Yes/No |
| 8. Whether all defects of brickwork/CC/RCC rectified? | Yes/No |
| 9. Whether preparation of surface done? | Yes/No |
| 10. Whether 2.5 m long aluminum straight edge and plumb bob being used to check verticality and evenness of surface? | Yes/No |
| 11. Whether 15 cm x 15 cm bunda at every 2 m horizontally and vertically being provided to serve as gauges? | Yes/No |
| 12. Whether uniform groove provided at junctions of all plaster and ceiling plaster? | Yes/No |
| 13. Whether mortar of approved mix within maximum permissible water cement ratio is used? | Yes/No |
| 14. Whether proper arrangement of curing and curing period maintained as per specifications? | Yes/No |
| 15. Whether date of work done written? | Yes/No |
| 16. Signature of Junior Engineer | |
| 17. Signature of Assistant Engineer | |
| 18. Signature of Executive Engineer | |

PART — E
CHECK LIST FOR WATER SUPPLY LINES

- | | |
|--|--------|
| 1. Date of inspection | |
| 2. Drawing no. | |
| 3. Location | |
| 4. Whether materials used conform to relevant Specifications and whether mandatory tests done? | Yes/No |
| 5. Whether plumber employed is licensed plumber or not? | Yes/No |
| 6. Whether plan for piping system has been prepared and got approved? | Yes/No |
| 7. Whether all pipes and fittings are ISI marked? | Yes/No |
| 8. Whether a sample system has been prepared and got approved? | Yes/No |
| 9. Whether clamps provided at specified spacing? | Yes/No |
| 10. Whether pipe lines checked at required pressure before covering? | Yes/No |
| 11. Whether weight of flushing pipe checked? | Yes/No |
| 12. Whether flushing cistern is ISI marked and internally painted with bitumastic paint? | Yes/No |
| 13. Whether fittings like wash basin, sink pan, cistern, bib cock, stop cock, wheel valves, etc. are ISI marked? | Yes/No |
| 14. Whether PVC water storage tank is ISI marked? If not, whether sample sent for testing? | Yes/No |
| 15. Signature of Junior Engineer | |
| 16. Signature of Assistant Engineer | |
| 17. Signature of Executive Engineer | |

Annexure - V
Central Public Works Department Proforma For Quality Control Inspection
By Circle Office QA Team
[Referred in para 53.8(5)(e)]
PART - I

1. General
 - 1.1 Name of work.
 - 1.2 Division and Sub-Division.
 - 1.3 Inspecting officer.
 - 1.4 Assisted by.
 - 1.5 Date of present inspection.
 - 1.6 Referenc-e to memos of previous Inspection.
2. Particulars of work
 - 2.1 Estimated cost put to tender.
 - 2.2 Tendered amount.
 - 2.3 Agreement no.
 - 2.4 Name of contractor.
 - 2.5 Registration class of contractor.
 - 2.6 Date of start of work.
 - 2.7 Due date of completion.
 - 2.8. % age progress of work at the time of inspection
3. Routine Quality Control
 - 3.1 Quality control aids.
 - 3.1.1 Is field staff equipped with:
 - (a) Copy of agreement with relevant specifications (detailed as well as special).
 - (b) Copy of preliminary estimate, detailed estimate and measurements.
 - (c) Upto date architectural as well as structural drawings.
 - (d) Testing facilities with the help of necessary field instruments/equipments (List of equipments available at site including level, theodolite, etc. may be given).
4. Observations on compliance of Quality Control system after intensive inspection under following sub-heads:
 - 4.1 Earthwork.
 - 4.2 Concrete work.
 - 4.3 R.C.C. work.
 - 4.4 Brick work.
 - 4.5 Stone work.
 - 4.6 Steel work.
 - 4.7 Flooring (including marble work, if any).
 - 4.8 Roofing.
 - 4.9 Finishing.
 - 4.10 Miscellaneous.
 - 4.11 Services, etc.
5. Quality and Testing of materials/Products
 - 5.1 Comment on:
 - 5.1.1 Testing facilities available with the Department at site.
 - 5.1.2 Testing facilities arranged with other Department/institution.
 - 5.1.3 Testing facilities further required to be arranged.

5.2 Testing

5.2.1 Are all mandatory tests being carried out at the frequency mentioned in CPWD Specifications?

5.2.2 No. of tests failed and approximate quantity rejected.

5.2.3 General observations on tests, viz. erratic results, consistently low or high results etc.

5.2.4 Follow up action taken on unsatisfactory results, with lapses in prompt follow up action.

5.2.5 Samples tested by Assistant Engineer (P) and their results (Samples should invariably be taken where material/product at site does not appear to conform to the latest test results.

5.3 Is material/product of make borne on approved list of Department/ISI?

5.3.1 Are tests carried out on materials/products (covered under 5.3) found satisfactory?

6. Comments on adequacy of resources employed by the contractor at site for timely completion of work.

PART - II TECHNICAL AUDIT

1. General details of work.

1.1 A/A & E/S amount for the work and corresponding provision available for this work in the sanction.

1.2 Amount of detailed estimate.

1.3 Item rate/percentage rate/lump sum tender.

1.4 No. of tenders received and tendered amount (call of tender).

1.5 Authority accepting the tender.

1.6 Is the detailed estimate technically sanctioned on the basis of complete set of architectural and structural drawings?

2. Deviation from plan/drawings.

2.1 Deviations, if any.

2.2 Reasons for deviation, financial implication and sanction of competent authority.

3. Deviation in quantities of items.

3.1 Reasons for deviations.

3.2 Sanction of competent authority for the deviation.

4. Extra and substituted items.

4.1 Amount of items sanctioned so far.

4.2 Sanction of competent authority.

4.3 Any minus extra item paid? Detail the reasons.

5. Issue of materials.

5.1 The theoretical consumption commensurate with the work executed and quantity lying at site.

5.2 Check recovery memo from the last running bill/final bill and short recovery made, if any.

5.3 Any material not stipulated issued?

5.3.1 Sanction/approval of competent authority for such issue.

5.3.2 Approval of rate under three rate formula.

6. Payment to contractor.

6.1 Amount of last bill paid to the contractor.

6.2 Normal frequency of payment.

6.3 Test check of measurements by Assistant Engineer/Executive Engineer.

6.4 Part rates paid/justification for the same.

6.5 Advances to contractor.

6.5.1 Checking up of secured advance, if any, with reference to materials lying at site.

6.5.2 Reasonableness of advance for unmeasured work.

6.5.3 Hypothecation of documents and safe custody of materials for which advances have been given.

**PART - III
PROGRESS MONITORING**

1. System adopted at site for monitoring progress.
2. Percentages progress achieved vis-a-vis time given for completion.
- 2.1 Steps taken to accelerate progress when shortfall is noticed.
3. Any extension of time required?
4. Co-ordination amongst various agencies involved in execution of work.
5. Constraints noticed in smooth progress of work and directions if any, received from Executive Engineer/Superintending Engineer/Chief Engineer to overcome them.

**PART - IV
RECOMMENDATION**

1. Give specific recommendations for immediate attention of Superintending Engineer on:
 - 1.1 Improving quality control on specific items.
 - 1.2 Comments on items lagging behind for want of drawings, materials, decision etc.

[Assistant Engineer (QA)]

To
SE

**PART - V
DIRECTION OF SE ON THE REPORT**

1. EE to improve quality of following items.
2. EE to issue notice to contractor for rectification of following defects at
3. EE to improve slow progress.
4. Directions, if any, for solving deadlocks/problems at site.
5. Further follow up action by AE(QA) on next inspection.

[Superintending Engineer]

To
AE (QA)

Annexure – VI
Quarterly Statement Of Works
[Reference para 53.13(1)(a)]

[illegible]

Annexure - VII
Proforma For Preparing Observations By Core Wing/Regional QA Units
 [Reference para 53.14.1]

- 1.0 Particulars of work
- 1.1 (a) Name of work:
- 1.1 (b) Description/scope of work:
- 1.2 (a) Sub-Division and name of Assistant Engineer:
- 1.2 (b) Division and name of Executive Engineer:
- 1.2 (c) Circle and name of Superintending Engineer:
- 1.2 (d) Zone and name of Chief Engineer:
- 1.3 Agency/contractor:
- 1.3 (a) Name:
- 1.3 (b) Registration class:
- 1.4 Agreement no:
- 1.5 Stipulated date of start:
- 1.6 Stipulated time and date of completion:
- 1.7 (a) Estimated cost put to tender:
- 1.7 (b) Schedule of rates applicable:
- 1.8 Accepted tendered cost with overall percentage:
- 1.9 Percentage progress at the time of inspection vis-a-vis expected as per contract and reasons for delay, if any:
- 1.10 Inspecting officer:
- 1.10 (Name & Designation)
- 1.11 Officers and contractor present during inspection:
- 1.11 (Name & Designation)
- 1.12 Date of inspection and number:
- 2.0 Quality Control aids:
- 2.1 Is site equipped with:
- 2.1 (a) Copy of agreement:
- 2.1 (b) CPWD Specifications/along with (upto date) correction slips:
- 2.1 (c) List of ISI marked/approved materials to be used:
- 2.1 (d) Guard File containing Inspection Reports of CTE/QCTA/AE(QC)/CE/SE etc.
- 2.1 (e) Testing facilities to check conformance to acceptance criteria:
- 2.1 (f) QACW Circulars on Quality Control.
- 2.2 Is field laboratory existing and well equipped?
- 3.0 Departmental procedure aspects:
- 3.1 Maintenance of Inspection Register
- 3.2 Highlights of inspections by CE, SE, AE(P) requiring compliance
- 3.3 Are Test Registers maintained in standard forms?
- 3.4 Are Test Registers reviewed by EE/SE with dates?
- 3.5 Cement Register:
- 3.5 (a) Is Cement store checked by AE/EE periodically as stipulated?
- 3.5 (b) Comment on cement stock with reference to Cement Register:
- 3.6 Site Order Book and Schedule of defects:
- 3.6 (a) Is Site Order Book properly maintained?
- 3.6 (b) Is the Site Order Book reviewed by EE and SE?
- 3.6 (Mention details)
- 3.6 (c) Have timely notices been issued to the contractor with the Schedule of defects/damages and date of compliance?
- 3.6 In case of failure to rectify defects/damages whether action under clause 14/17 initiated?

4.0 Process control aspects:

4.1 Is soil investigation done? (give brief details)

4.2 Suitability of water for construction:

(a) What is the source of water?

(b) Has water been tested and approved by Engineer-in-charge before construction?

(c) Has water been tested subsequently (i.e. after every 3 months) and found fit for use in works?

4.3 Are 10% (25% for concrete) of all samples for testing taken in presence of EE as per DG(W)'s OM No.28/7/86-WI(DG), Circular No. 9/87 dated 1.9.1987/6.10.1987?

4.4 Are all mandatory tests carried out at stipulated frequency?

4.5 Are materials approved by Engineer-in-charge?

If so, are samples available at site?

4.6 Are sample units/items completed and approved by EE before start of mass finishing work?

4.7 Specific control on RCC work like centering/shuttering, proportioning with boxes: mixing by full bag capacity hopper fed mixer: control of slump: placing/compaction with vibrator:

4.8 Any other particular comments on adequacy of process control:

5.0 Site inspection for observations and comments on Quality Control system in place:

5.1

Sub-head of work in progress	Whether in progress (If so, tick mark)	Whether inspected (If so, tick mark)	Location
(a) Earth work (b) Concrete work (c) RCC work (d) Brick work (e) Stone work (f) Marble work (g) Wood work (h) Steel work (i) Flooring (j) Roofing (k) Finishing (l) Internal Services (m) External Services (n) Road/pavement (o) Others (specify)			

5.2 Observations on floor slope (especially in Bath, WC, Kitchen, Terrace, Balcony etc.)

5.3 Observations on QC for dampness/leakages prevention.

If dampness/leakage noticed, then state locations and probable reasons.

5.4 Samples collected by QC Core/Cell

6.0 Observations on site material QC aspects.

(Keeping in view the requirements of contract specifications:

BIS marked/CPWD approved products etc.)

(Attach separate sheet, if required)

7.0 Observations on workmanship QC aspects.

(Attach separate sheet, if required).

8.0 Test audit of RA bill:

(Indicate RA bill no., gross amount, Vr. no. and date)

8.1 Whether deviation in quantities noticed?

If so, state reasons thereof:

- 8.2 Items not conforming to specifications:
 - (a) Whether notice was issued as specified in contract?
 - (b) Whether approval in principle was obtained from competent authority before acceptance of sub-standard work?
- 8.3 Extra/substituted items:
 - (a) Are justification of items proper?
 - (b) Sanction of competent authority:
- 8.4 Part Rates - whether rates held back are adequate?
- 8.5 Comments on secured advance paid with reference to materials lying at site.
- 8.6 Test Check by AE/EE
 - (a) Critical item:
 - (b) Hidden items:
 - (c) Extent (whether satisfactory?)
- 8.7 Any other observation?

[The observation made about quality of material and workmanship relate to only what could be randomly seen at locations specified. Executive Engineer and supervisory staff shall thoroughly inspect the entire work for such defects as observed as well as for other defects and take suitable remedial measures properly. The Executive Engineer shall be responsible for accepting any defective work that went unnoticed but pointed out during such inspection.]

Annexure - VIII
Responsibility For Quality
 [Reference para 53.17]

1. Civil Work

Item of work	Works costing	
	Above Rs. 50 lakhs	Upto Rs. 50 lakhs
A. Materials		
(a) Sand, stone, metal & chips, bricks, ordinary glass panes	JE & AE	JE
b) Timber, paints, polish, door, shutters, windows, door/ window fittings, sanitary and water specials, glass panes	JE & AE	JE
(c) Marble, granite, kota stone and similar stone work items	AE & EE	JE & AE
(d) Cement and steel	AE & EE	JE & AE
(e) Bitumen, bitumen emulsion, mastic	AE & EE	JE & AE
B. Items of work		
(a) Foundation upto plinth	AE & EE	JE & AE
(b) Brick masonry/stone masonry	JE & AE	JE
(c) Centering and shuttering excluding sunshades/ shelves	AE & EE	JE & AE
(d) Reinforcement and RCC	AE & EE	JE & AE
(e) Structural steel work	AE & EE	AE
(f) Steel work	AE	JE & AE
(g) Aluminum work	AE & EE	JE & AE
(h) Wood work/wood substitutes	AE & EE	JE & AE
(i) Flooring - CC, mosaic glazed/ceramic tiles	AE & EE	JE & AE
(j) Flooring & cladding - marble, granite, kota, sand stone etc.	AE & EE	AE
(k) Plastering, painting & polishing	JE & AE	JE
(l) Joints in pipes i/c testing, slopes in flooring i/c verandah, balcony, toilets, terrace	AE & EE	JE & AE
(m) Bitumen painting of roofs	JE & AE	JE
(n) Water proofing treatment	AE	JE & AE
(o) Fittings of doors/windows	AE	JE & AE
(p) False ceiling work	AE & EE	AE
(q) (i) Storage tanks	AE & EE	JE & AE
(ii) Sluice valves, fire hydrants	AE	JE & AE
(iii) CI/Hume pipes & specials and their leadcaulked joints	AE & EE	JE & AE
(r) (i) Manholes i/c covers & frames	JE & AE	JE
(ii) CI Inspection bends & chambers	JE & AE	JE
(s) General quality of work with particular reference to lines & levels/adherence to drawings and specifications & functionality	EE & SE	AE & EE
(t) Road works		
(i) Preparation of sub grade	JE & AE	JE & AE
(ii) Sub base/base course	JE & AE	JE & AE
(iii) Wearing course	AE & EE	JE & EE
C. Other important material/items	To be decided by tender accepting authority	

2. E & M Works

Item of work	Works costing	
	Above Rs. 20 lakhs	Upto Rs. 20 lakhs
A. Material		
(a) Conduit wires, switches, accessories internal wiring, MCB's, MCB DB's	JE & AE	JE
(b) Finished goods of Internal EI i.e. fans, electrical fittings, exhaust fans, call bells etc.	AE & EE	JE & AE
(c) L T / HT cables	AE & EE	JE & AE
(d) S/STN equipments, L T Panel/HT Panel Elect. main boards, DG Sets, Bus trunking, rising mains	AE & EE	JE & AE
(e) All the major equipment concerning wet riser/ sprinkler system, fire detection system etc. like pumps, DG Sets, pipes, valves, hoses, cabinets, panels, sprinklers, detectors, detecting panels, manual call boxes, PA system equipments etc.	AE & EE	JE & AE
(f) Air conditioning equipments like chilling units, cooling towers, Pump AHU's, duct insulation, GI sheets, pipes, control instrument etc.	AE & EE	JE & AE
(g) Major equipments of other special services like CCTV, BMS, EPABX, computer networking etc.	AE & EE	AE & EE
B. Items of Works		
(a) Internal EI work i/c UG cabling etc.	JE & AE	JE
(b) Sub Station work	JE & AE	JE & AE
(c) Fire fighting, fire detection work	JE & AE	JE
(d) A/C works & other specialized Services	JE & AE	JE
C. Other important materials/items	To be decided by tender accepting authority	

3. Horticulture Works

Item of work	Works costing	
	Above Rs. 5 lakhs	Upto Rs. 5 lakhs
A. Materials		
(a) Supply of Plants	SO/ADH & DDH	SO/ADH
(b) Supply of T&P	SO/ADH & DDH	SO/ADH
(c) Supply of Cut Flower	SO/ADH & DDH	SO/ADH
(d) Supply of various materials required for day to day use.	SO/ADH	SO/ADH
(e) Supply of Earth & Manure	SO/ADH & DDH	SO/ADH
(f) Supply of Earthen/Cement pot	SO/ADH	SO/ADH
B. Excavation works		
(a) Trenching	SO/ADH	SO
(b) Excavation	SO/ADH & DDH	SO/ADH
(c) Filling of earth in excavated area	SO/ADH & DDA	SO/ADH
(d) Grassing, fine dressing, spreading etc.	SO/ADH & DDH	SO/ADH
(e) fabricating of Tree Guards	SO/ADH & DDH	SO/ADH
(f) Digging of Holes	SO/ADH & DDH	SO/ADH/DDH
C. Maintenance Works		
(a) Renovation of Lawn	SO/ADH & DDH	SO/ADH
(b) Complete maintenance of garden feature.	SO/ADH & DDH	SO/ADH
(c) Maintenance of Potted plants/cut flowers arrangement.	SO/ADH	SO/ADH
(d) General quality of works & specification and functionally as well as adherence to landscape plan.	DDH/DOH	SO/ADH
D. Other important Material and items not covered above	To be decided by tender accepting authority	

CHAPTER VII

SECTION 54

DEPARTMENTALISATION OF ACCOUNTS-AGs INSPECTION AND INTERNAL AUDIT BY CHIEF CONTROLLER OF ACCOUNTS ATTACHED TO MINISTRY (PERTAINING TO CPWD) DEPARTMENTALISATION OF ACCOUNTS

54.1 General

- (1) Under the scheme of Departmentalisation of Accounts, the Financial Adviser, for and on behalf of Chief Accounting Authority (Secretary) shall be responsible inter alia for preparation of Chief Controller of Accounts annual Appropriation Accounts for the Demands for Grants of his Ministry/Department, get it duly audited and submit it to the Controller General of Accounts (CGA) (Ministry of Finance) duly signed by the Chief Accounting Authority.
- (2) The CGA prepares annual accounts including summary civil Appropriation Accounts, showing under the respective heads, the annual receipts and disbursements for the purpose of Union Government, and submits the same to the CAG.
- (3) The Comptroller and Auditor General of India (CAG) submits the Appropriation Accounts, duly audited/certified, to the President for laying it before each House of Parliament. The comments on the regularity and propriety etc. of expenditure, as are deemed necessary and proper by the Comptroller and Auditor General of India as a result of the audit observations, are contained in his Audit Report on the Appropriation Accounts.
- (4) The Divisional officers and higher officers should furnish the explanations as promptly as possible, and ensure that these are concise, accurate and fully informative. The explanations should indicate with sufficient clarity whether a variation or financial irregularity could not have been foreseen.
- (5) While submitting the Appropriation Accounts, the Divisional officers should take into consideration the facts that the Public Accounts Committee, while scrutinizing the Accounts, has to satisfy itself that:
 - (i) The amount shown in the accounts as having been disbursed were legally available for, and applicable to the services or purpose to which they have been applied or charged;
 - (ii) The expenditure conforms to the authority which governs it; and
 - (iii) Every re-appropriation has been made in accordance with the provisions made in this behalf under Rules framed by the Competent Authority.

54.2 Chief Accounting Authority

- (1) The responsibility for compiling and keeping the accounts of the transactions rest with the Ministry and Department under it.
- (2) The Secretary to the Ministry shall be the Chief Accounting Authority for all the transactions of the Ministry and its departments, and this responsibility is to be discharged by him through and with the assistance of the Integrated Financial Adviser of the Ministry (I.F.A.), who is to function for and on behalf of the Chief Accounting Authority.
- (3) The functions to be performed by the Integrated Financial Adviser for and on behalf of the Chief Accounting Authority shall be the following in so far as this scheme is concerned:
 - (a) He will be responsible for the preparation of the budget of the Ministry and its departments in close coordination with the heads of departments concerned. He will be responsible for distribution of budget allotments among the various wings/departments of the Ministry and for control of expenditure.
 - (b) He will be responsible for arranging payments to autonomous bodies, corporations, authorities etc.. towards Grants-in-aid, loans etc., as well as contributions to international bodies, as may be sanctioned by the Ministry.

- (c) He will arrange for making payments through the Pay and Accounts Offices (as well as departmental officers to whom cheque drawing powers will be delegated), of pay and allowances, office contingencies, miscellaneous payments, all admissible loans and advances to Government servants and their provident fund claims, in accordance with the prescribed financial and treasury procedures.
- (d) He will be responsible for consolidation of the accounts (compiled and rendered by the Pay and Accounts Office) for the Ministry as a whole in accordance with the instructions issued by the Central Government and/or CAG, and for rendering of the accounts to such authority as may be prescribed by the Central Government in consultation with the CAG.
- (e) He shall also be responsible on behalf of the Secretary for the preparation of Appropriation accounts for the grants controlled by the Ministry. These accounts will be got duly audited/certified by the principal Director of Audit Economic & Service Ministries, and submitted to Controller General of Accounts (Ministry of Finance), duly signed by the Chief Accounting Authority, viz. the Secretary. The material needed for the preparation of Finance Accounts will also be furnished by him to the Controller General of Accounts.
- (f) He will be responsible for organizing a sound system of internal audit to ensure accuracy in accounting and efficiency of operation as part of the management.
- (g) He will be responsible for introduction of an efficient system of management accounting, best suited to the functional requirements of the Ministry and its departments.

54.3 Accounts formation of Central PWD

The accounts formation concerning CPWD is under the control of Chief Controller of Accounts. This formation has been divided into a number of Pay and Accounts Officers (P&AO), corresponding to different Zones in CPWD. Each Zonal P&AO shall render compiled accounts in respect of its zone.

54.4 Procedure regarding accounts in respect of Divisional offices

The Divisional offices shall render compiled accounts to the Zonal Pay and Accounts Office in whose jurisdiction they fall. These accounts shall be incorporated in the accounts compiled by Zonal Pay and Accounts Officer.

54.5 Post-check by Accounts Officers

On receipt of the monthly compiled accounts from the Divisional offices, post-check of accounts and items will be carried out in respective Zonal Accounts Offices.

54.6 Compilation of accounts

On the basis of the list of payments/compiled accounts received from various Drawing and Disbursing Officers (enjoying cheque powers), Executive Engineers and the transactions occurring in the Zonal Pay and Accounts Office, the Zonal Pay and Accounts Officer will compile a consolidated monthly account in respect of the Zone as a whole and render it to the Principal Accounts Officer under the Chief Controller of Accounts on dates as prescribed. The account will be prepared according to major, minor and detailed heads of account, as well as according to budgetary units of appropriation for facilitating the compilation of Appropriation Accounts.

54.7 Final consolidation and submission of accounts

- (1) The Chief Controller of Accounts, Ministry of Urban Development will be responsible for the final consolidation of accounts for the entire Ministry, and for overall co-ordination and control.
- (2) The annual Appropriation Account will also be compiled by the Principal Accounts Office and submitted to the Secretary through the I.F.A. The Appropriation Accounts, signed by the Secretary, will be submitted to the Comptroller and Auditor General of India for audit certification.

54.8 CPWD organisation

While in the case of the PAO(DGW), CPWD and the payments made by the Zonal PAO's themselves, the compilation of the payments made should be done simultaneously, in the case of Divisional offices the compiled accounts in respect of the respective Divisions should be sent by them so as to reach the Zonal PAO by 4th of the following month. While also conducting the post-check, the consolidation of accounts in respect of the particular Zone will be completed by the 7th of the succeeding month and sent to the Principal Accounts Office.

54.9 AG/Director of Audit inspection

- (1) The Director of Audit/Accountant General, under whose jurisdiction a Division or Sub-Division is located, checks the monthly accounts. He arranges for the Test Audit and local inspection of the initial accounts of the Divisional and Sub-Divisional offices in order to verify the accuracy of the figures with reference to the original records, and ensure proper upkeep of the registers and records on the basis of which the accounts have been prepared and submitted to the Zonal PAO.
- (2) The Principal Director of Audit, Economic & Service Ministries conducts local inspection of Divisions rendering accounts to the Pay and Accounts Offices.

54.10 Central Audit

The monthly check of Divisional Monthly Accounts received in the AG's Office is known as 'Central Audit'. The deficiencies found in the upkeep of the accounts are intimated to the Divisional offices through Audit Notes. These contain all objections of a trivial nature and miscellaneous observations and enquiries etc. on minor matters, which the Executive Engineer is competent to deal with finally, and which are not important enough to be brought to the notice of the higher authorities.

54.11 Inspection

- (1) The audit conducted during the inspection of a Divisional or Sub-Divisional office is known as "Local Audit". Each Division and/or any of its Sub-Divisions is inspected once a year. The duration of such inspection of a Division by Audit is based on the work-load factor.
- (2) The following revised norms are being followed for local audit of Public Works Divisions by inspection parties with effect from the Revised Estimates, 1982-83 and Budget Estimates, 1983-84.

Nature of Divisions/offices	Working party days
1	2
1. Survey, investigation, design, research and Quality Control Divisions	5 days
2. Maintenance Public Works Divisions	6 days
3. Construction Division with expenditure	
(i) Upto Rs.80 lakhs	8 days
(ii) Above Rs.80 lakhs & upto Rs.1.20 crores	10 days
(iii) Above Rs.1.20 crores & upto Rs.2crores	12 days
(iv) Above Rs.2 crores & upto Rs.2.50 crores	14 days
(v) Above Rs.2.50 crores & upto Rs.3 crores	15 days
(vi) Above Rs.3 crores	16 days
4. Chief Engineer's offices	5 days
5. Superintending Engineers/Executive Engineers (P)	3 days
6. In case of maintenance-cum-construction Divisions the norms prescribed for construction Division will apply.	

- (3) The Accountant General/Principal Director of Audit, sends intimation in advance about the specific dates on which the inspection would commence to the concerned Division. On receipt of such intimation, the Executive Engineer should arrange to keep all the relevant records and documents ready for the Inspection Party. Important documents like Service Books, contract agreements, etc. should be produced only after obtaining the written requisition and acknowledgement from the Inspecting Officer. A list of various records usually examined during the local audit is given at Appendix 46.
- (4) The Inspecting Officer is authorised to inspect any books and other relevant documents relating to transactions to which his duties in respect of the audit extend. It is, therefore, the responsibility of the Executive Engineer to produce to the Audit Officer all the initial accounts and other records promptly. Where some of the records cannot be produced owing to certain unavoidable circumstances, the Executive Engineer should satisfy himself with the reasons of their non-production. He should make special efforts to produce those records that were not produced to the Audit at the time of previous inspections. In case the Executive Engineer is unable to produce some of the records, he should bring the fact to the notice of higher authorities for orders.

54.12 Inspection Reports

(1) The results of the Local Audit are communicated through Inspection Report, which is drawn in three parts as below:—

- (i) Part I - It includes :—
 - (a) Introduction.
 - (b) Outstanding objections from previous reports. (in this part, all old outstanding objections are reproduced in full, every alternate year along with upto date position. This is done to bring the outstanding paras, pointedly to the notice of all concerned for facility of watch and expeditious disposal). The old outstanding objections are to be replied separately through the respective old inspection reports, which should not be treated as closed till all the objections are settled.
 - (c) Schedule of persistent irregularities.
- (ii) Part II - Contains two sections “A” & “B”. Section “A” includes all important irregularities, i.e. irregularities involving recoveries, questions of violation of principles, losses, etc. Section “B” contains irregularities, though not major, which the Audit wants to bring to the notice of higher authorities.
- (iii) Part III - is a Test Audit Note containing minor irregularities to which a schedule is attached to show the items settled on the spot. The procedural irregularities in respect of which the Divisional Officer has given assurances for following the correct procedure in future are also noted in this Schedule.
(Although the Test Audit Note has been termed as Part III of the Inspection Report, the Test Audit Note objections are not included in the Inspection Report).

54.13 Removal of objections

- (1) Once a transaction has been challenged by the Audit and entered in one or the other documents referred to in the CPWA Code, the responsibility for having the objection removed and their prompt settlement, will primarily devolve upon the Divisional Officer. An audit objection is usually removed by obtaining the requisite sanction, by making the necessary recovery, by correcting or completing the relevant account or voucher, or by furnishing the necessary documents or information, or by otherwise securing compliance with the provisions of a specified Rule.
- (2) Audit Inspection Reports should be promptly dealt with by the Divisional Officers at the initial stage so that the contingency of reporting of any point or para to the Public Accounts Committee does not arise due to the neglect or delay in reply. The following procedure is suggested for disposal of the Inspection Reports.

54.13.1 Procedure in Divisional Office

The Inspecting Officer issues rough Audit Notes to the Division for verification of the factual accuracy of the objections taken by him during the course of inspection. These rough Audit Notes should not be dealt with in a casual manner. These should receive prompt attention and the replies thereto should be based on the personal knowledge of the Executive Engineer. Where necessary the explanation/reply of a subordinate should be passed on with the remarks after checking its correctness. Where the objection can be got settled by obtaining the requisite sanction, by making necessary recovery, by correcting or completing the relevant account or voucher, by furnishing the required documents or information or by otherwise securing compliance with provisions of a specific Rule, the Executive Engineer should endeavour to get these settled before the Inspecting Party leaves his Division.

54.13.2 Discussions with Inspecting Officer

- (1) The draft Inspection Report is discussed with the Executive Engineer by the Inspecting Officer before submitting the same to the AG/Principal Dir. of Audit to explain his viewpoint, especially in the case of objection contained in Part II of the Report. The Executive Engineer should avail of this opportunity and should record his remarks against each para in specific and unambiguous terms, thereby either accepting or refuting the factual accuracy of the objections/points that are raised by the Audit. This would help the Audit to appreciate the Department's point of view, and may eventually be helpful in settling most of the objections in the initial stage itself. The remarks like "Seen", "Would be looked into" etc. should not be used, as these defeat the very purpose of a discussion.
- (2) During the inspection, if certain important financial irregularities are noticed, which prima facie would be considered in the Audit Office for being developed to the stage of draft para for the Audit Report, the same should be taken up immediately by the Executive Engineer for thorough examination. A chronological history of such cases should be recorded in a separate register, and the connected documents/reports should be collected and kept in the personal custody of the Executive Engineer, so that such important cases are not lost sight of, and effective and prompt action is taken from time to time. At the time of his transfer, the Executive Engineer should mention the upto date position of all such cases in his charge report.

54.13.3 Settlement of outstanding objections

- (1) In the intimation memo about the inspection, the Inspecting Officer mentions that the Executive Engineer should keep ready the replies to the outstanding paras in the pending Inspection Reports, along with the relevant records for personal discussion with the Inspecting Officer for settlement of as many objections as possible. The old Inspection Reports should be discussed with the Inspecting Officer personally and results of such discussions should be recorded. This should not be left to the Divisional Accountant or other subordinates, as it would retard the chances of effecting settlement of the old outstanding objections. The objective should be to settle as many cases as possible.
- (2) The Executive Engineer should take up the discussions relating to the items brought by the Inspecting Officer from the very start of the inspection. It is not advisable to postpone it to the fag end of the inspection, because very little time is left for holding any constructive, effective, and useful discussions, and achieving the desired results of settling the objections on the spot. The records that are required for production to the Inspection Party in connection with the old paras should be collected in advance, and kept ready duly referenced and flagged. This will save a lot of time and irritation to the Audit Party.

54.14 Control Register

A Control Register should be maintained in the Divisional Office in the form given at Appendix 47, so as to keep watch on the disposal of the Inspection Reports. The following instructions should be followed:

- (i) A separate page should be set apart for noting down the position of each Inspection Report.
- (ii) The Register should be closed every month with the abstract as shown in Appendix 48.

- (iii) The Register should be reviewed by the Executive Engineer every month. While submitting the Register, the Divisional Accountant should record a certificate that reminders, wherever due, have been issued to the Assistant Engineer/Superintending Engineer/Chief Engineer.
- (iv) The following procedure should be followed with regard to indicating and calculating the number of paras/sub-paras of the Inspection Reports in Register: —
 - (a) The number of sub-paras in each para should be shown against the serial number of paras of the Report. A para having sub-para should be treated as one sub-para. Thus, it should show the number of items that require action.
 - (b) Any sub-para dropped subsequently, should be distinctly exhibited, and the balance of their totals worked out.
 - (c) An abstract showing the position of sub-paras outstanding from time to time should be kept in the files of inspection reports as well.
- (v) The position of the sub-paras outstanding from time to time, as worked out in the Divisional Office Control Register, should be reconciled with a similar Control Register maintained in the Audit Office. The items or objections recommended by the Inspecting Officer to the AG/Principal Dir. of Audit for being dropped, should not be mistaken by the Divisional Officer as actually dropped. These continue to be outstanding in the Audit Office Control Register till the recommendations of the Inspecting Officer are accepted. The actual position of the outstanding paras should be watched by the Executive Engineer from subsequent rejoinders received from the Accountant General/Director of Audit, CW&M.
- (vi) The disposal of Audit Notes and Test Audit Notes should be watched through a Progress Register, which should be maintained in the same manner as laid down for the Control Register.

54.15 Time limit for disposal

The Audit Notes/Test Audit Notes are dealt with directly in the Divisional Office, and should be returned to the Audit Office within a month from the date of their receipt. Similar time limit should be observed for Audit Notes received from PAO's.

(2) The Inspection Report (with one spare copy) is received from the Audit Office for reply and return (except first reply) through the Superintending Engineer. The replies to the original Inspection Report should reach the Audit Office within 8 weeks, and to the subsequent rejoinders within 4 weeks from the date of their receipt in the Divisional Office.

54.16 Procedure in Circle office

The Audit Office sends an advance copy of the Inspection Report to the Superintending Engineer, with specific mention of important items concerning serious irregularities and lapses requiring special attention and prompt action. The Superintending Engineer should take necessary steps to obtain the final settlement of the items. Where required, he should himself take up the items of the report with the higher authorities. He should keep the AG/ Principal Dir. of Audit fully informed in respect of cases regarding which reports have been sent to Chief Engineer/Director General (Works)/Ministry. While transmitting replies to the Audit on the original Inspection Reports as well as Rejoinders, the Superintending Engineer should examine the explanation offered against each para by the Executive Engineer and express his independent opinion. Where the para envisages completion of the Divisional/Sub-Divisional records and submission of certain documents/records to the Audit, the Superintending Engineer should ensure that the needful is done by the Executive Engineer with the least possible delay.

54.17 Guidelines for Internal Audit of the Departmental Accounts Organisations issued by Controller General of Accounts

The scheme of departmentalization of Union Government Accounts provides for setting up of an efficient internal audit organisation to ensure both accuracy in accounts and efficiency in the operation of

the accounts set up. Accordingly, Internal Audit Organisations have been set up in most of the Ministries/ Departments. The scope and function of the Internal Audit Organisation will depend on the nature of work, the number of subordinate offices, the strength of the establishment, nature and quantum of expenditure etc. Each Ministry/Department will, therefore, draw up a Manual of Internal Audit, specifying the duties and functions of the organisation, with particular reference to the conditions prevailing in the Ministry/ Department. The guideline contained in the ensuing paragraphs will regulate the working of these organisations, but these are of a very broad nature, and have to be supplemented by detailed instructions to be issued by each Ministry/Department.

54.17.1 Scope of Internal Audit

The Internal Audit Organisation will work directly under the CCA with overall responsibility for internal audit remaining with the or the Financial Adviser of the Ministry/Department concerned. The Principal Accounts Office, the Pay and Accounts Office as well as the office of the D.D.O's in the Ministry/Department shall be within the jurisdiction of Internal Audit. This organisation shall also check initial accounts maintained in the executive offices with a view to ascertaining as to how far they are following the rules and regulations, systems and procedures regarding accounting the financial matters. The Internal Audit should, inter alia, cover checking of all accounts records including those relating to fund accounts, loans and advances, and records of physical verification of stores, equipments, tools and plants.

54.17.2 Duties of Internal Audit

The duties of the Internal Audit Organisation will, inter-alia, include the following:

- (i) Study of accounting procedure prescribed for the Department with a view to ensuring that they are correct, adequate and free from any defects or lacunae;
- (ii) Watch over the implementation of the prescribed procedures and the orders issued from time to time.
- (iii) Security and check of payments and accounting work of the accounting units;
- (iv) Investigation of important areas in accounting and other connected records;
- (v) Co-ordination with other Ministries and C.G.A. regarding internal audit procedures;
- (vi) Periodical review of all accounts records;
- (vii) Pursuance/settlement of objections taken in Test Audit Notes issued by the statutory audit offices, and other matter relating to statutory audit;
- (vii) To examine and report on points or irregularities brought to its notice by the Principal Accounts Officer/P.A.O's.
- (viii) Preparation and submission of Annual Review on performance of Internal Audit Wing to comptroller General of Accounts

54.17.3 Procedure for conducting internal audit

The work relating to internal audit should normally be conducted by visiting the various units and offices, and by 'on the spot' verification of accounts records. The work of the local inspection parties may be coordinated by Internal Audit headquarter, depending upon the nature, number and size of the internal audit parties.

54.17.4 Quantum of audit

An internal audit party should conduct a general review of all the accounts records maintained by an office since the last inspection, or in case of new units, since the formation of the office. Apart from the general review, it should also conduct a detailed check of accounts records of one month in a year to be selected by the Controller/Deputy Controller in-charge of internal audit. The percentage of bills/vouchers/cases etc., other than those pertaining to the accounts records of the selected month, to be checked in

detail by the Internal Audit as part of the general review of the accounts of an office, will be left to the discretion of the Inspecting officer keeping in view the time and manpower available. The extent and nature of checks will include the following:

- (a) Detailed scrutiny of accounts records required to be maintained in the Offices of D.D.O's;
- (b) Verification of payment and accounting procedures in the departmentalized system of accounts including -check and post-check by the PAO's are adequate, and that the procedures for maintenance of provident fund accounts, finalization of pension cases, etc. are being duly observed;
- (c) Verification of the extent and frequency of control and checks exercised by the head of office, in order to locate any lacunae in procedures, whereby frauds or defalcations may be possible either individually or in collusion. Where necessary, steps to remove such lacunae will be suggested;
- (d) Scrutiny of sanctioning and purchase procedures in the office inspected, so as to ensure that they are free from any defect or lacunae;
- (e) Checking of procedures in regard to disposal of assets to ensure that there exist adequate scrapping/condemning procedures;
- (f) Scrutiny of general office management procedures adopted by the heads of offices locally, where these have financial and accounting implications, so as to suggest tightening up administrative and financial control, savings in expenditure, or streamlining of accounting.

54.17.5 Nature of checks to be exercised

Internal Audit parties will inter-alia exercise the following checks during inspection of accounts records of various offices, viz., cheque drawing (i.e. Divisional Officers), non-cheque drawing [i.e. Superintending Engineers/Chief Engineers/Director General (Works) etc.] DDO's:

- (a) All accounts records required to be maintained, are maintained in the prescribed forms;
- (b) Payments made by the cheque drawing DDO's are in accordance with the rules and orders governing them, their arithmetical calculations are correct, and the recoveries/deductions made from bills are in order; the list of payments accompanied by paid vouchers are sent every week by them as per instructions to the concerned PAO by the prescribed dates;
- (c) The instructions for the maintenance of cash books, contingent register, stock and stores accounts, log books and other accounts records are duly observed;
- (d) 'Account Payee' cheques (in favour of government servants and third parties, being payable only to the concerned payees) issued by PAO's after pre-check of relevant bills, to DDO's are not being entered in the cash book maintained by them, and that the delivery and acknowledgement of such cheques is being watched through a separate register required to be maintained for the purpose;
- (e) Pay fixations are correct;
- (f) The weekly accounts of receipts with duplicate copies of challans are being sent to the concerned PAO's;
- (g) Purchases are made as per rules and orders governing them; where lowest quotations are not accepted, the reasons therefore are recorded;
- (h) All sub-vouchers pertaining to contingent charges not sent to the PAO along with contingent bills are available in office, or otherwise in order and have been properly cancelled;
- (i) GPF/CPF accounts of Group "D" employees are maintained properly;
- (j) The instructions for processing submission of pension cases to the concerned PAO are observed.

54.17.6 Checking of receipts

(1) While the Departmental authorities are primarily responsible to see that all revenue or other debts due to the Government are correctly and properly assessed, realised and credited to Government account, it would be necessary for the Internal Audit to see that adequate regulations and procedures have been prescribed in a Department to secure an effective check on collection and accounting of all revenue receipts and funds, and that such regulations and procedures are being followed correctly. It would also be necessary to ascertain the nature of checks exercised by the Departmental authorities to ensure

prompt detection and investigation of irregularities, leakage or loss of revenue due to double refunds, refunds with reference to fraudulent and forged vouchers/challans or other types of commissions in the process of levy/collection of taxes in ordering refunds.

(2) In the Internal Audit of revenue receipts, the Internal Audit Party should inter-alia ensure following by such test checks as may be considered necessary:

- (a) That the demands are raised promptly in the manner required by the Law or Act of Parliament, and that no amount due to Government is left outstanding in its book without sufficient reasons;
- (b) That the collection and refunds are accounted for regularly and properly under the appropriate heads of accounts, and that no sums are credited to Government by debit to a suspense head; Credit must follow and not precede realization;
- (c) That proper safeguards exist to ensure that there is no willful omission or negligence to levy or collect taxes or to arrange for refunds wherever due;
- (d) That double refunds, fraudulent or forged refund orders, or other losses of revenue through fraud, default or mistake are promptly brought to light and investigated; and
- (e) That all revenue receipts collected by departmental officers are promptly remitted to the bank or the PAO, as the case may be, and that the receipts as per their records are reconciled with those booked in Government accounts on the basis of receipted challans, in accordance with the prescribed procedure.

54.17.7 Program for internal inspection

The program for internal inspection for each of the parties will be chalked out by the Internal Audit Organisation and got approved by the Controller/Deputy Controller in-charge of the Internal Audit. Timely intimation of the proposed visit of the inspection party will be sent to all the officers concerned. A copy of the program will also be forwarded to the PAO concerned.

54.17.8 Records documents to be made available to the Internal Audit Parties

(1) The head of the office to be inspected will be advised of the dates of inspection well in advance. A list of records to be examined during internal audit shall also be prepared and sent to him along with the notice of inspection so that these are kept ready by him before the arrival of the party.

(2) The accounts records maintained by the offices visited will be made available promptly to the Internal Audit Parties.

Note 1: (i) The payments made by a cheque drawing DDO during the selected month(s) will be verified by the Internal Audit Party with reference to the counterfoils of cheques, copies of the bank scrolls, pay bill register or office copies of the paid vouchers available with the DDO. It will, therefore, not be necessary for the party to obtain original paid vouchers etc. from the PAO. However, in the case of payments of long term loans/advances etc., for which the bills are presented by him to the PAO for pre-check and payment, the Internal Audit Party shall obtain from the PAO, a list of all such payments made by him during the month(s) selected for audit for the purpose of checking that the cheques/bank drafts marked 'accounts payee' had been made over to the correct payees, and their acknowledgements obtained, and that the cheques/bank drafts issued in favour of the cheque drawing DDO for arranging payment in cash had been entered in the cash book maintained by him.

(ii) During the internal inspection of the office of Drawing and Disbursing Officers concerned, internal check parties shall verify by referring to the vouchers, etc. through which the short term advances were drawn, that the payment entries are made properly in the Pay Bill Register, and that recoveries are being effected regularly from the Government servant concerned, and check the correctness of the entries relating to 'transfers in' and 'transfers out' cases.

Note 2: (i) In the case of DDO's without cheque drawing powers, the original paid vouchers for the month(s) selected for local audit would be required by the internal audit parties.

(ii) These should, therefore, be obtained by them from the PAO's. However, the lists of payments and cheques issued by the PAO/cheque drawing D.D.O's, in the case of payments for such D.D.O's, will not be required by the Internal Audit Parties, and these need not be called for from the PAO's.

Note 3: The list of payments and paid vouchers will be furnished by the PAO to the parties promptly on receipt of necessary requisitions. A list showing particulars of discrepancies, defects or other irregularities, if any, noticed during the course of scrutiny of bank scrolls with reference to the related paid vouchers and cheques, remaining unsettled or any other important point requiring investigation may also be furnished by the PAO's to the Internal Audit Parties for 'on the spot' examination and report.

Note 4: In case of Divisional Officers working on the Public Works system, the paid vouchers and other original records pertaining to the month(s) selected for audit, shall similarly be sent by the PAO to the Internal Audit Party. A record of paid vouchers furnished to/received back from the Internal Audit Party will be maintained by the PAO in a register in the form in Annexure I. The register will be reviewed monthly, and necessary action taken where the paid vouchers have not been received back. It will be the Inspecting Officer's responsibility to return the vouchers immediately after the internal audit of the concerned office is completed.

Note 5: The above instructions will also be followed *mutatis mutandis* in the case of audit of DDO's offices to be conducted by the statutory audit parties.

54.17.9 Frequency of Internal Audit

The frequency of internal audit will obviously depend upon the strength sanctioned for the Internal Audit Organisation, and the number of units to be inspected in a year. However, all efforts should be made to see that the inspection of all the offices within the jurisdiction of an Internal Audit Organisation is done at least once a year. The periodicity may be increased or decreased depending upon the nature of transactions, amount of expenditure incurred, state of arrears and the general health of account of a unit, etc.

54.17.10 Drafting and procedure for submission of Inspection Reports

(1) The Inspection Report should be drafted in a polite language. Offensive or strong words, sarcastic language etc., should on no account figure in the report. No suppositions, assumptions or allegations should be included in the report. Only facts should be mentioned and inevitable conclusions drawn. There should be no reference to responsibility being fixed for any irregularity; it is for the administrative authorities to take action in the matter. The Inspection Report should be in two parts, Part I-containing outstanding objections from the previous inspection, and Part II-irregularities noticed during the current audit/inspection.

(2) Routine errors of omission or commissions noticed during the course of inspection may be got rectified on the spot. Inspection Reports should invariably be discussed with the heads of offices inspected, and their comments, if any, suitably incorporated in the reports. Inspection Reports should be issued after being vetted at the headquarters. One copy of the Inspection Report will be issued to the head of office inspected. An abstract of important nature of paras alongwith a copy of the Inspection Report is sent to Head of Department concerned. Important points should also be brought to the notice of the FA/CCA by the head of Internal Audit Organisation. The progress of settlement of the points raised in the report should be watched by the Controller of Accounts/Deputy Controller of Accounts in-charge of Internal Audit Organisation, and all the outstanding points should be reviewed at the time of the next inspection by the internal audit party.

54.17.11 Pursuance of Test Audit Notes issued by Statutory Audit

In order to keep a watch over the settlement of audit objections included in the Test Audit Notes issued by Statutory Audit Offices, the Internal Audit Organisation will maintain a register in the form in Annexure II, setting apart separate folios for each D.D.O. The progress made towards the settlement of outstanding objections should be reviewed quarterly, and appropriate action taken to ensure their speedy settlement. The compliance with the objections reported to have been made by the D.D.Os, should be verified during the next internal audit of the concerned office. The register will be produced to Statutory Audit Parties whenever asked for, for verification of settlement of the objections raised.

Annexure – I**Register Showing Particulars Of Paid Vouchers Furnished To Internal/Statutory Audit Parties**

[Reference para 54.17.8(2)]

Sl. No.	Particulars of office to be inspected	No. & date of requisition	No. & date of letter with which sent	Particulars of inspecting Officer to whom sent	Month(s) to which the vouchers required pertain	No. of vouchers furnished	No. & date of letters with which vouchers received back	No. of vouchers received back	No. & date of reminder, if any	Remarks
1	2	3	4	5	6	7	8	9	10	11

Annexure – II**Register to watch settlement of Audit objections included in the Test Audit Notes**

[Reference para 54.17.11]

Name of office

Particulars of Audit Officer

Sl. No.	Letter No. & date with which test audit note received	Period of accounts covered by audit	No. of objections raised	No. of objections settled (quote Sl. No. of paras settled)	Paras outstanding	Action taken	Remarks
1	2	3	4	5	6	7	8

CHAPTER VIII

SECTION 55

PUBLIC ACCOUNTS COMMITTEE

55.1 General

The Public Accounts Committee is really a miniature Parliament/Legislature. It consists ordinarily of the representatives of different political parties of the Parliament/Legislature, but the fundamental difference between the main Parliament/Legislature and this Committee is that while the former functions on party lines, the Public Accounts Committee functions strictly on non-party lines. The reason for this is that this Committee is not concerned with the policies of the Government but with the executive functions of Government. The Committee is primarily a committee of Lok Sabha, with which some members of the Rajya Sabha are also associated. The term of office of Members of the Committee does not exceed one year.

55.2 Scope of functions

- (1) The functions of the Public Accounts Committee will be laid down by the Parliament/Legislature. The rules of business provide that the main function of the Committee is to consider the matters that are commented upon in the Audit Report by the Comptroller and Auditor General.
- (2) The function of the Public Accounts Committee is to discharge the responsibility of exercising vigilance over the financial working of the Government. The functions of the Public Accounts Committee are limited firstly to see that proper sanction of Parliament/Legislature has been obtained for expenditure to be incurred, that it has been presented in proper form so as to enable the Parliament/Legislature to understand the implication of the expenditure, that at the end of the year the appropriations have been asked upon in the proper way, and that if there are savings and excesses these are adequately explained.
- (3) The Public Accounts Committee would see that the Administration has functioned with due wisdom, faithfulness and economy. For this purpose, it is necessary for the Public Accounts Committee to have the material to show exactly that these duties of the Government have been performed, and the Audit Department supplies the Committee with the material in the form of Audit Reports.
- (4) In scrutinizing the Appropriation Accounts and the Audit Report thereon, the Committee has to satisfy itself that:
 - (a) The moneys shown in the accounts as having been disbursed were legally available for and applicable to the service or purpose to which they have been applied or charged;
 - (b) The expenditure conform to the authority which governs it; and
 - (c) Every re-appropriation has been made in accordance with the provisions made in this behalf under the rules framed by the competent authority.
- (5) The Public Accounts Committee, before taking up consideration of the current year's Report, goes over the past recommendations in which the Government has not taken action considered appropriate by the Committee. If in a particular case, an item appears year after year and the Department has not been giving satisfactory explanation, the Committee may appoint a small Sub-Committee, who might ask the Government to submit all the relevant papers so as to enable the Committee to arrive at proper conclusion.
- (6) If the Government directs or wants a certain department to adopt a certain procedure and the officer does not comply with it, the Committee will bring to the notice of the Government through its report that the officer does not appear to have followed the procedure, and the Government should make necessary investigation and take such disciplinary action as is considered necessary. In such case of an item which is placed before the Public Accounts Committee,

and is under investigation by the Police Department, or is receiving attention of the Court of Law, the Public Accounts Committee will await the result of the Police investigation or judgement of the Court.

- (7) It is the function of the Public Accounts Committee to ensure that the guilty, negligent, corrupt and inefficient Government servant does not escape punishment. The Committee is not, however, concerned with the individual but with the system. The individual is employed by the Government, and the Public Accounts Committee cannot substitute itself for Government in the matter of punishment. But the Committee is certainly entitled to know what action has been taken on its recommendations.

55.3 Role of Comptroller and Auditor General

The role of the Comptroller and Auditor General or his representative before the Public Accounts Committee and before the Executive is to explain the position fully, to give all aspects of the case, to point out whether a failure, if any, has occurred. It is then for the Public Accounts Committee to have an objective examination of the various points of view submitted by the Executive and by the Audit and come to a conclusion. The Comptroller and Auditor General does not influence the Committee in coming to those findings, and it is quite possible that he may even hold somewhat different views on a particular matter. But the Comptroller and Auditor General has still a role to play in the matter of drafting the report of the Public Accounts Committee, because he is to assist the Committee in seeing that all the relevant facts have been brought out in the report.

55.4 Draft Audit Para

- (1) The Draft Audit Paras intended for inclusion in the Audit Report of a particular year to be taken and reviewed by the Public Accounts Committee in the end, are first taken up by the Head of Audit Office demi-officially with the Secretary of the concerned Ministry for communicating Ministry's comments/acceptance, if any, of the facts stated in the draft paragraph. The copies of such paras along with 'key' statements are simultaneously endorsed to the Head of Department concerned.
- (2) The comments/acceptance of the Ministry are required to be intimated to Audit as expeditiously as possible and invariably within a period not exceeding 6 weeks. If no reply is sent within this prescribed period of 6 weeks, the paragraph as prepared by Audit is treated as final and included in the Audit Report.

55.5 Action required to be taken in Zonal/Circle/Divisional offices

- (1) Reports pertaining to existing or likely audit objections and draft audit paragraphs are required to be shown to the Director General (Works)/Chief Engineer in 'DAK' as per departmental instructions.
- (2) As soon as draft para is received in the Chief Engineer's office, a copy of the same should be endorsed to the Superintending Engineer/Executive Engineer concerned. The Superintending Engineer/Executive Engineer should communicate acceptance or otherwise of the facts and offer comments, if any, within a period not exceeding 2 weeks. The Superintending Engineer should also take immediate steps to prepare a chronological history of the case and collect the relevant records so as to make them instantly available to the higher authorities for perusal and verification. Where such collection of records is not considered feasible, the Superintending Engineer should keep a careful watch on the movement of such records. The custody of the records and movements of these records are required to be arranged till the Draft Para is finally dropped or discussed in the Public Accounts Committee. In the event of the transfer of the Superintending Engineer/Executive Engineer, the list of such paras, with their chronological history and records connected therewith, should be passed on to the successor, and a mention of this should be made in the handing over notes.
- (3) To ensure expeditious disposal of the draft audit paras within the prescribed period of 6 weeks, a suitable register should be maintained in the Chief Engineer's/Circle and Divisional offices.

- (4) In so far as the Central PWD is concerned, the recording of a certificate by the respective Chief Engineer to the effect that he has personally verified the explanations and facts mentioned in the Audit Para, would meet the purpose.
- (5) The need on the part of all officers and staff dealing with audit objections and audit paras to make sure that all statements made to Audit are factually correct cannot be over emphasized. All concerned should ensure that all facts and figures are carefully checked and verified before replies are sent to Audit, P.A.C., etc.
- (6) The general convention is that the officer who submits a case is responsible for ensuring that the facts pertaining to the case are correct, whilst the officer within whose competence the decision falls must accept responsibility for the decision once he concurs in the proposals. This does not, however, mean that the officer who takes the decision or in the case where a statement of facts is made in response to Audit objection or Audit paras, the officer who signs a communication, can be deemed to have no responsibility at all for seeing that the facts as stated or the reasons adduced are prima facie reasonable and correct.
- (7) It is enjoined on all the officers of the Central PWD to ensure that all relevant files required for reference by Audit are made available to them with promptitude and expeditiously. Following instructions in this respect should be observed:
 - (i) A subordinate authority shall afford all reasonable facilities to the Audit Officer/Accounts Officer, for the discharge of his function, and furnish fullest possible information required by him for the preparation of any official account or report.
 - (ii) A subordinate authority shall not withhold any information, books or other documents required by the Audit Officer/Accounts Officer.
 - (iii) If the information, books or other documents or part thereof, are of a secret nature, these should be sent by name to the Audit Officer/Accounts Officer, and he will deal with them in accordance with the standing instructions for handling and custody of such documents.

55.6 Production of documents to Audit

- (1) Files required by Audit Officers should be readily made available to them without any apprehension that objections may be taken in Audit merely based on contradictions in the views expressed in notes by subordinate officials and higher authorities. If the contents of the file or any parts of it are 'Secret' or 'Top Secret', the file may be sent personally to the Accountant General or the head of the Audit Office specifying this fact, who will then deal with it in accordance with the standing instructions for the handling and custody of such documents.
- (2) If any Officer fails to produce the records etc. required by the Audit Department, disciplinary action may be taken against him.

55.7 Audit Report

- (1) If replies to draft paras are considered satisfactory these are dropped. If these are not considered satisfactory and need further probe, these are included in the Audit Report. The Administrative authorities should undertake a thorough scrutiny of the Audit Reports immediately on their receipt, both in regard to verification of facts and figures mentioned therein, and for initiating prompt action on the various points brought out in the reports. Whenever irregularities are mentioned in the Audit Report, action to rectify them should be taken in advance of their consideration by the Committee, so that the Committee are informed of the final position, and not merely told that the matter would be looked into.
- (2) In case any discrepancy is noticed in the facts and figures mentioned in the Audit Reports, the same should be reported to the concerned Audit Officer immediately, and should not be held up for being discussed in the PAC meeting. It should also be ensured prior to appearing before the PAC that the discrepancies pointed out to Audit have been duly taken notice of by the Audit, so that a complete picture is available to the Committee as regards the facts.

- (3) The replies to the Committee's recommendations should be explicit and self-contained. In particular where remedial measures are called for, the details of action taken should be specifically spelt out. These should, in no case, be replied as 'Noted'.
- (4) The following procedure should be ensured while furnishing replies to the Committee's recommendations:
 - (i) The replies should be furnished (with 40 copies) duly vetted by Audit, and signed by the Secretary/Additional Secretary/Joint Secretary concerned.
 - (ii) The replies to recommendations/observations should be framed with reference to the summary of recommendations as appear in the body of the Report showing the Summary of main conclusions/recommendations.
- (5) It is essential to furnish the Committee complete and correct information, duly vetted by the Audit to enable them to come to correct conclusions.

55.8 Time Limit for Disposal of Audit Reports

- (1) A well thought out plan should be drawn for processing recommendations of the Committee as soon as a report is presented to the House. It should be possible to draft the replies on recommendations/observations within 6 months from the date the relevant PAC Report is presented to the Lok Sabha. Replies should be got vetted by the Audit within the next 2 months so that the final replies, duly vetted, could be sent to the Committee not later than 6 months of the date of presentation of the report to the Lok Sabha.

- (2) Timely submission of Action Taken Notes on the recommendations in the Report of the Public Accounts Committee.

In order that Financial Advisers are able to discharge effectively their responsibility as 'focal point' to monitor timely submission of Action Taken Note on the recommendations of P.A.C., the following drill may be adopted by them with such modifications as may be considered necessary in individual cases:

- (a) As soon as a report is received it should be gone through to spot out the recommendations marked jointly to one or more Ministries/Department. If there is any such recommendation, it should be determined by mutual consultation whether each Ministry/Department should submit Action Taken Notes separately, or one single Action Taken Note should suffice, and if so, which Ministry/Department would be responsible for the same. Such decisions should be taken at sufficiently high level (not below the level of Joint Secretary in any case).
- (b) Every endeavour should be made to finalise the Action Taken Notes within 4 months of the date of presentation of the Report to the Lok Sabha.
- (c) In respect of the recommendations on which Action Taken Notes are not finalised within 4 months, the Financial Adviser should submit a Report to the Secretary to his Ministry/Department so that the highest level is kept informed of the position.
- (d) During the 5th month, the Financial Adviser should convene inter/intradepartmental meeting of the concerned officers at such level as may be deemed necessary, to ascertain the reasons for delay in finalizing the Action Taken Notes, to remove the possible bottlenecks to cut short delays in prolonged correspondence.
- (e) If at the close of the 5th month of the presentation of the Report, it is anticipated that submission of 'Final Action Taken Note' will not be possible within the remaining one month, the Ministry/Department shall be advised by the Financial Adviser to seek extension of time from the Lok Sabha Secretariat.
- (f) All communications addressed to the Lok Sabha Secretariat regarding Action Taken Notes (forwarding copies thereof and/or seeking extension of time) will be endorsed to the Ministry of Finance, Department of Expenditure (Monitoring Cell).

- (g) As regards the Action Taken Notes pending with the Audit for vetting, the Government is required to furnish Action Taken Notes, duly vetted by Audit, within a period of 6 months, unless the Committee fixes another specific time limit for furnishing the replies. It will become incumbent on the Ministry/Department concerned to seek any extension for furnishing vetted replies as may be required thereafter, and for whatever reasons.
- (3) Notwithstanding the normal limit of 6 months indicated above, in such of those cases where the Committee desires to have a reply within a specific time limit, every endeavour should be made to ensure that replies, duly vetted by Audit, are furnished within that time limit.

55.9 Presenting the case before the P.A.C.

- (1) It has always been the practice that the Secretary to the Government in the Department concerned invariably represents the Government in the meetings of the PAC. Generally speaking, the Secretary to the Government is not responsible for executive functions, and accordingly he is able to take a more objective and detached view of the transactions that the Head of the Department is able to take. The Head of the Department, i.e. the Director General (Works) and the Chief Engineers assist the Secretary with information whatever is considered necessary.
- (2) If a particular officer who is representing the Department at the moment is not able to explain an item of expenditure fully, the most that the Committee could do is to suggest to him that he might obtain information from the officer who was in-charge of the work. The Committee cannot go to the individuals, because it is the Department which is to answer.

55.10 Time limit for examination of a case by the P.A.C.

The senior Financial Officers and Members of the Public Accounts Committee fix time limits for examination of points of each department. This time is devoted to important matters. In certain cases they form Sub-Committees to examine the specific important points relating to a Ministry/Department in detail.

55.11 Memorandum for P.A.C.

- (1) There are, however, other matters for which Administration itself is anxious to put its point of view. But because the time does not permit it to do so, it seeks permission to submit memoranda. These memoranda are submitted to the P.A.C. through Audit so that the facts may be verified. On other occasions, during the course of discussion, some points might rise about which the witness is not particularly well informed. In that case also he is either asked by the Committee, or he himself suggests that he would later on submit a note to the Committee explaining the point which at the moment is not in his knowledge.
- (2) In order to ensure that there is no avoidable delay in complying with Committee's requests, highest priority should be accorded by all concerned to supply the information desired by the Public Accounts Committee. In case where compliance is likely to take more than a month, an interim reply apprising the Committee of the position should invariably be sent, and such cases should be marked for scrutiny of pending lists.

55.12 Audit Paras regarding disciplinary action taken against officers responsible for irregularities etc.

Draft Audit Paras after acceptance by the Ministry are incorporated in the Audit Reports and these come up for discussion in the Public Accounts Committee. The Ministry is often placed in an awkward position if it has to tell to the PAC that the disciplinary action is under consideration. The PAC will always insist on the finalization of departmental enquiries, and will like to know the punishment awarded. It has, therefore, been decided that all Vigilance Officers should, with the approval of the Head of Department etc. show them all files dealing with Draft Paras mentioning disciplinary action, and that the Vigilance Officers should keep a close watch on the proceedings of such cases. Highest priority should be given to the disposal of disciplinary cases mentioned in the Draft Audit Paras.

55.13 Written minutes of important meetings where decisions are taken

- (1) The Public Accounts Committee has urged strict observance of the requirements of para 36(3) of the Central Secretariat Manual of Office Procedure (Eighth Edition).
- (2) The above para envisages that whenever an inter-departmental meeting is convened, an agenda setting up clearly the points for discussion should be prepared and circulated in advance to the Department concerned, and a record of the discussion should be prepared immediately after the meeting and circulated to the other Departments concerned, setting the conclusions reached and indicating the Departments responsible for taking further action on each conclusion. A proper observance of this procedure would help to ensure prompt and effective action on the points which ought to be decided through inter-departmental discussion.
- (3) Subordinate officers are expected to exercise the powers vested in them. Serious notice would be taken in cases where responsibility is shirked by senior officers.

55.14 Procedure for obtaining legal advice

- (1) The Public Accounts Committee have commented on a case involving the procedure for obtaining legal advice from the Ministry of Law, where the following unsatisfactory features were noticed:
 - (i) A second reference was made to the Ministry of Law on the point on which their opinion had been obtained earlier without mentioning the earlier opinion given by them. Further, the second opinion, which ran counter to the earlier opinion, was given at a lower level.
 - (ii) The normal practice of giving Audit an opportunity to present their views before a revised opinion is obtained from the Ministry of Law in cases arising out of Audit objection was not followed.
- (2) The Committee have accordingly made the following recommendations:

“There is another point the Committee would like to mention. The Board had in this case made a reference to the Ministry of Law for a second opinion without any mention of the earlier opinion given by that Ministry. This the Committee considers wrong in principle. Besides the second opinion, which ran counter to the first opinion, was from an Assistant Legal Adviser, while the first opinion was given by a Deputy Legal Adviser. The Committee would like to impress on Government the need to ensure that, where a second legal opinion is sought, it should specifically be sought from an official of a status higher than the official who gave the first opinion. In respect of matters included in the Audit Report, which are likely to come up before the Committee, it should also be ensured that Audit are given an opportunity to present their point of view before an opinion is sought from the Ministry of Law, and are associated with any inter-Ministerial deliberation that might take place in this connection”.
- (3) In cases where a second legal opinion is sought on matters arising out of the Audit objection, Audit should invariably be kept informed and given opportunity to present their points of view.

APPENDIX - 1

FINANCIAL POWERS DELEGATED TO CPWD OFFICERS
(Modified as per OM/MAN/175/183/186/186A & 186B/188/213/216/231 & 231A)

SI No.	Nature of Power	Designation of officer	Extent of power (in Rupees)	Remarks/Reference
1	To accord Administrative Approval and expenditure sanction to minor works for residential and non-residential buildings.			OM/MAN/188 & 231
		EE	5 lac	
		SE	25 lac	
		SE promoted on in situ basis	12.5 lac	
		CE	150 lac	
		ADG	250 lac	
		DG	500 lac	
(Modified as per OM/MAN/186B) Note: 1. All the works related with up-gradation and aesthetic improvement in residential buildings owned by Ministry of Urban development to be charged to CO 4216 (UD) (P). 2. All the works related with up-gradation and aesthetic improvement in non residential buildings owned by Ministry of Urban development to be charged to CO 4059 (UD) (P).				
2	Petty works, repairs, addition & alteration to hired and requisitioned buildings	CE	5,000 p.a. for non-recurring expenditure	CE/Acctt./575 dt. 21.5.84 (Sl. No. 33)
		CE	1,000 p.a. for recurring expenditure	
3	To issue orders declaring stores including spare parts of vehicles, other than those not involving losses, as surplus or unserviceable, the original purchase value of articles being estimated if not known.			CE/Acctt./589 dt. 23.9.85 Sl. No. 21(C) & Sl No. 12 of DGW/ Acctt./1 dt 27.1.87 & OM/MAN/231
		EE/DDH	7,500	
		SE/DOH	40,000	
		SE promoted on in situ basis	20,000	
		CE	2,00,000	
ADG	5,00,000			
4	Losses due to depreciation of stock	SE/DOH	15,000	CE/Acctt./589 dt. 23.9.85 Sl. No. 21(a) & Sl No. 11(a) of DGW/ Acctt./1 dt 27.1.87 & OM/MAN/231
		SE promoted on in situ basis	7,500	
		CE	40,000	
		ADG	Full powers	

5	Write-off losses:			CE/Acctt./589 dt. 23.9.85 Sl. No. 21(b)(i) & Sl No. 11 (b) of DGW/Acctt./1dt 27.1.87 & OM/MAN/231
	(1) On stores due to theft and/or negligence of individuals.	SE/DOH	4,000	
		SE promoted on in situ basis	2,000	
		CE	25,000	
		ADG	50,000	
	(2) On stores not due to theft or negligence of individuals	SE/DOH	4,000	CE/Acctt./589 dt. 23.9.85 Sl. No. 21(b)(ii) & Sl No. 11 (b) of DGW/Acctt./1 dt 27.1.87 & OM/MAN/231
		SE promoted on in situ basis	2,000	
		CE	25,000	
		ADG	50,000	
6	Issue of order of disposal of stores declared by competent authority to be unserviceable (subject to any orders, the SE may have passed) where the stores were so declared by himself or by Government.	EE/DDH	10,000	Para 158(d) of CPWD Code 1959 Edn. & OM/MAN/231
		SE promoted on in situ basis	20,000	
		SE/DOH	Full powers	
7	Write off from returns of unserviceable T&P of which part value is recovered.	EE/DDH	10,000	CE/Acctt./589 dt.23.9.85 Sl No. 21(d) & OM/MAN/231
		SE/DOH	20,000	
		SE promoted on in situ basis	10,000	
		CE	Full powers	
8	Sale of stores to private parties on full value plus 10% unless waived off by competent authority	CE	Full powers	Para 158-A of CPWD Code 1959 Edn.
<p>Notes:</p> <ol style="list-style-type: none"> 1. Recovery in all cases should be made in cash in advance. 2. Losses mentioned against S. No. 4 above may be broadly attributed to: <ol style="list-style-type: none"> (i) Normal fluctuation of market prices (ii) Fair wear and tear (iii) Lack of foresight in regulating purchases (iv) Neglect after purchase 3. Powers mentioned against S. No. 5 (1) & (2) will be exercised in respect of actual losses of stores as opposed to losses of stock due to depreciation. Losses against 5(2) may be due to act of God and other calamities such as fire, enemy action, damages, obsolescence etc. 4. The authority issuing orders against S. No. 6 should, after disposal of stores, of which value accounts are kept, determine and intimate to the audit officer concerned, the net amount to be written off to the final head (to be specified) as loss on stocks. Against item No. 8, see also paragraph 120 of CPWA Code. 				

9	Accord of sanction to expenditure on ceremonies connected with laying of foundation stone and opening of public buildings	CE	2,500	DGW/Acctt./7 dt. 11.1.88 & DGW/Acctt. 1 dt. 27.1.87 (Sl. No. 6) & CE/Acctt. 589 dt. 23.9.85 Sl. No. 19
		ADG	10,000	
10	To make advance payment to private firms/autonomous bodies for chemical analysis and testing of materials	CE	65,000*	OM/MAN/186A
		<p>* Notes: In each case out of project contingencies subject to the fulfillment of the following conditions:</p> <p>(i) Advance payments are made only in cases where it is considered absolutely necessary.</p> <p>(ii) Advance payments made on the basis of a valid expenditure sanction of the competent authority.</p> <p>(iii) The firm should be well established and has reputation for fair dealings.</p> <p>(iv) The officer drawing the money for making advance payment shall be responsible for its adjustment for which purpose he will send the detailed bills to the Accounts Officer within a period of one month from the date of drawl of the advance. If an advance cannot be adjusted within one month of the drawl, a detailed report should be sent to the component authority concerned.</p> <p>(v) The amount of advance shall be drawn on a simple receipt and accounted for under the final head to which the expenditure on service in question would be debited.</p>		
11	To write off infructuous expenditure on construction	SE/DOH	1% of contract value subject to ceiling of Rs. 7,500	CE/Acctt./575 dt. 21.5.84 (Sl No. 19) & OM/MAN/231
		SE promoted on in situ basis	0.5% of contract value subject to ceiling of Rs.3,750	
		CE	1% of contract value subject to ceiling of Rs. 30,000	
12	(a) Grant of extension of time and rescheduling of mile stones	AE/AEE/ADH	Full powers in respect of contracts amounting up to his power to accord TS	OM/MAN/231
		EE/DDH	-do-	
		SE/DOH	Full Powers	
		SE promoted on in situ basis	Full powers in respect of contracts amounting up to his power to accord TS	
	(b) Levy of compensation	SE/DOH	Full Powers	

13	Augmentation of electrical power supply to the residences of VIPs up to maximum electrical load sanctioned (a) Ministers (b) Judges of Supreme Court / High court (c) Members of Parliament (d) Secretaries/Additional Secretaries & equivalent officers.	DG	Full powers	OM/MAN/105
14	To undertake deposit works (a) At full rates of departmental charges or all Central Govt. works and works of autonomous bodies fully funded by the Central Govt. where no departmental charges are to be levied.	CE	1350 lac	OM/MAN/183 & 186-A
		DG/ADG	Full powers	
	(b) At rates lower than full rates of departmental charges	ADG	900 lac	
		DG	Full powers	
	Note: Delegation of full powers will be subject to the condition that the departmental charges to be charged shall not vary by more than 20% of the standard departmental charges and subject to the following conditions: (a) Such departmental charges will be reviewed at every upward revision of normal departmental charges; and (b) Deposit work will be accepted to utilize spare capacity of the CPWD at the Zonal level and should not in any way affect departmental working.			
15	Acceptance of lowest tender with or without negotiations	AE/AEE/ADH	3 lac	OM/MAN/186A & 231
	Where AE (planning) is not provided	EE/DDH	30 Lac	
	Where AE (planning) is provided	EE	45 Lac	
		SE/DOH	250 Lac	
		SE promoted on in situ basis	125 lac	
	Under his own power	CE	1000 Lac	
	With prior approval of ADG	CE	1300 Lac	
	With prior approval of DG	CE	1600 Lac	
	With prior approval of C.W. Board	CE	Full powers	
16	Acceptance of single tender with or without negotiations	AE/AEE/ADH	75,000	OM/MAN/186A & 231
		EE/DDH		
		(i) Under his own authority (ii) With prior approval of next higher authority (para 95 of CPWD code)	4.5 lac 30 lac	

		SE/DOH (i) Under his own authority (ii) With prior approval of next higher authority	125 lac 250 lac	
		SE promoted on in situ basis (i) Under his own authority (ii) With prior approval of Chief Engineer	62.5 lac 125 lac	
		CE (i) Under his own authority (ii) With prior approval of ADG (iii) With prior approval of DG (iv) With prior approval of C.W. Board.	500 lac 800 lac 1000 lac Full powers	
Note: Full reasons should be recorded by the approving authority who should also guard against contractor holding out unjustifiably higher rates.				
17	Award of work without call of tenders	AE/AEE/ADH	60,000	OM/MAN/186A & 231
		EE/DDH	4 lac	
		SE/DOH	12 lac	
		SE promoted on in situ basis	6 lac	
		CE (i) Under his own authority (ii) With prior approval of ADG (iii) With prior approval of DG (iv) With prior approval of C.W. Board.	25 lac 100 lac 180 lac Full powers	
18	Award of work to labour co-operative societies without call of tenders	EE/DDH	3 lac	OM/MAN/186A & 231
		SE/DOH	6 lac	
		SE promoted on in situ basis	4.5 lac	
Notes: (a) Award of minor works upto Rs. 6.00 lakh. (b) Award of works at current market rates provided the same are certified as reasonable by the officers of CPWD.				

SI No.	Nature of Power	Designation of officer	Extent of power (in Rupees)	Remarks/Reference
19	Award of work by negotiations ab-initio after infructuous call of tender or with a firm which has not quoted for execution of the remaining work after rescission of the contract	AE/AEE/ADH	60,000	OM/MAN/186A & 231
		EE/DDH	5 lac	
		SE/DOH	12 lac	
		SE promoted on in situ basis	6 lac	
		CE		
		(i) Under his own authority (ii) With prior approval of ADG (iii) With prior approval of DG (iv) With prior approval of C.W. Board	30 lac 150 lac 300 lac Full powers	
20	(i) Splitting up projects / works/ sub-heads	EE/DDH	Where sanctioned cost of Work/Distinct Sub Head to be split up is up to 30 lac	OM/MAN/186A & 231
		SE/DOH	Where sanctioned cost of Work/Distinct Sub Head to be split up is above 30 lac and up to 250 lac	
		SE promoted on in situ basis	Where sanctioned cost of Work/Distinct Sub Head to be split up is above 30 lac and up to 125 lac	
		CE	Full powers	
	(ii) Acceptance of tenders for the split up components	EE/DDH	Where sanctioned cost of Work/total cost of all split up component against each distinct sub head is up to 30 lac	

		SE/DOH	Where sanctioned cost of Work / total cost of all split up component against each distinct sub head is above 30 lac and up to 250 lac	OM/MAN/186A & 231
		SE promoted on in situ basis	Where sanctioned cost of Work / total cost of all split up component against each distinct sub head is above 30 lac and up to 125 lac	
		CE	Where sanctioned cost of Work / total cost of all split up component against each distinct sub head is above 250 lac and up to 1000 lac	
		ADG	Where sanctioned cost of Work / total cost of all split up component against each distinct sub head is above 1000 lac and up to 1300 lac	
		DG	Where sanctioned cost of Work / total cost of all split up component against each distinct sub head is above 1300 lac and up to 1600 lac	
		C. W. Board	Full powers	

	<p>(i) The tenders for the split up portion shall be accepted by the same competent authority who permitted such splitting for projects/ works costing up to Rs. 1000 lacs. The fact that the project/ work has been split up for the purpose of inviting tenders should, however, be clearly brought to the notice of the authority competent for split up, explaining the reasons while forwarding the tenders for such works.</p> <p>(ii) The tenders for the split up portions of projects/works costing more than Rs. 1000 lakh, shall be accepted by the ADG/DG (W)/CW Board as the case may be. The fact that the project has been split up for the purpose of inviting the tenders should be clearly brought to the notice of ADG/DG(W)/CW Board explaining the reasons while forwarding the tenders for their consideration/approval.</p> <p>(iii) Tenders relating to component parts of the project, if the amount of such component parts appears as distinct sub-head will be dealt with by the authorities concerned according to their powers of acceptance of the tenders and sanction of estimates and not referred to the higher authorities even though they may form part of the project beyond their acceptance as a whole.</p> <p>(iv) The procedure mentioned in note (iii) above will also apply in respect of tenders for sanitary and water supply and electrical and furniture work for which provision is made under the distinct sub-heads. The tenders for such works need not to be submitted to the higher authorities if the amount is within the competency of the authority concerned and the provision exists in the estimates under distinct sub-heads even if the total cost of work may be more.</p> <p>Explanations: For example if sanctioned cost of work (in case of having no distinct sub-head) or a particular distinct sub-head requires to be split up into more than one components is:</p> <p>(a) Rs. 1200 lacs (above Rs. 1000 lacs but less than Rs. 1300 lacs): Suppose such work or a particular distinct sub-head is split up by CE into 2 or more components each costing less than Rs. 1000 lacs, then such tenders of split up components may be having tendered value of as small as less than Rs. 3 lacs (financial powers of AE) shall be accepted by ADG only irrespective of tendered value of each such split up components.</p> <p>(b) Similarly depending upon sanctioned cost of work or a particular distinct sub-head being above Rs. 1300 lacs but up to Rs, 1600 lacs or above Rs. 1600 lacs, tenders for all split up components shall be accepted by DGW or CWBd as the case may be irrespective of tendered value of each split up component</p> <p>(c) Similar analogy shall be applicable to other cases as per financial powers delegated to EE and SE.</p> <p>(d) This is required to ensure that sanctioned work or particular distinct sub-head(s) are not split up by EE/ SE or CE into small components to bring the tenders within their power to avoid the authority competent to accept the tenders without splitting of work or distinct sub head as the case may be.</p> <p>(Added vide OM/MAN/186A)</p>			
21	Acceptance of tenders for smaller works likely to crop up during the execution of work /project and for which no provision exists in the sanctioned project estimates	CE	Full powers to accept tenders for such works subject to availability of funds under sub head "contingencies" in the sanctioned project estimate.	DGW/MAN/7 dt. 01.01.1997 Sl. No. 7
22	Award of work order (Annual limit)	AE/AEE/ADH	6 lac	OM/MAN/186A & 231
	In addition to sub-division powers	EE/DDH	45 lac	
	In addition to Sub-Division and Division powers	SE/DOH	125 lac (per division)	
		SE promoted on in situ basis	62.5 lac	

23	(a) To accept highest tender bid for disposal of govt. buildings without land at/and above the reserve price fixed by CE / DG	EE/DDH	9 lac	OM/MAN/186A & 231
		SE/DOH	75 lac	
		SE promoted on in situ basis	37.5 lac	
		CE/ADG/DG	Full powers	
	(b) Below reserve price	EE/DDH/SE/DOH/CE	Decision to be taken by next higher authority	
		SE promoted on in situ basis	Decision to be taken by next higher authority	
		ADG/ DG	Full powers	
	(c) Acceptance of single tender/ bid at/ and above the reserve price	EE/DDH	45,000	
		SE/DOH	45 lac	
		SE promoted on in situ basis	22.5 lac	
	Under his own power	CE	135 lac	
	With prior approval of ADG	CE	150 lac	
	With prior approval of DG	CE	200 lac	
	With prior approval of C.W. Board	CE	Full powers	
	(d) (i) Sale/dismantlement of public building other than purely temporary structure	CE	15 lac	
		ADG/DG	Full powers	
	(ii) Purely temporary structure	EE/DDH	Full powers subject to the conditions mentioned in Para 127 of CPWD code	
		SE/DOH	Full powers if the structure is to be sold at lower than reserve price	
Note:				
(i) Reserve price shall be fixed on assessed salvage value of dismantled materials only.				
(ii) Authority competent to fix reserve price will be competent to fix salvage value of dismantled materials also.				

24	Purchase of inspection vehicles	DG	Only for replacement of vehicles survey reported in accordance with government instructions on the subject from time to time	DGW/Acctt./ 19 dated 3.7.92 No. 17013/1/91-EW-1 dt. 9.6.92
25	Accord of technical sanction to detailed estimates (Civil and Electrical Works)	AE/AEE/ADH	3 lac	OM/MAN/186A & 231
		EE/DDH (i) where AE(P) is not provided	30 lac	
		EE (ii) where AE(P) is provided	45 lac	
		SE/DOH	250 lac	
		SE promoted on in situ basis	125 lac	
		CE/ADG/DG	Full powers	
<p>Note: This delegation of power is subject to restriction and provision of orders issued by the Ministry of Finance from time to time and as also the provision contained in various codes. In this context, instructions contained in the Ministry of Finance O.M. F-10(28)/EE Coord./77 dt. 20.1.1978 should be kept in view.</p>				
26	Acceptance/challenge of arbitration award	CE	15 lac	DGW/MAN/186A
		ADG	45 lac	
		DG	Full powers	
27	Accord of A/A & E/S for construction of houses for CPWD project staff for major projects	ADG	225 lacs	DGW/MAN/186A
		DG	Full powers	
		Note: This will be subject to the condition that the cost of construction will be met out of the contingencies of the project where there is no separate provision for the same.		
28	(i) Accord of Administrative Approval & Expenditure sanction for construction of houses for CPWD maintenance staff.	ADG	*60 lac	DGW/MAN/186A
		DG	*150 lac	
<p>*In case of project costing more than Rs. 15 lakh, pre budget financial scrutiny should have been done by the competent authority i.e. Budget Section, MOUD. Note: (i) Due care should be taken to ensure that powers are not used to create separate pool of accommodation and to ensure that DGW/ADG would draw up a list of maintenance staff for whom the quarters near the inquiry office are essential. (ii) Power should be exercised by CE/ADG/DGW in consultation with FO/CCA/MOUD.</p>				

29	Powers to modify contract conditions	ADG	*15%	DGW/MAN/ 75 dt. 27.09.2001
		DG	**25%	
	As per MAN/75: * Where financial implication is up to 15% of the contract amount. ** Where financial implication is up to 25% of the contract amount.			
30	Acceptance of tender conditions not in line with the standard conditions	DG	Full powers	DGW/Acctt./ 19 dated 3.7.92 No. 17013/ 1/91-EW-1 dt. 9.6.92
31	Purchase of Tools and Plants	CE	Full powers	OM/MAN/231
		SE	Up to 10 lac	
		SE promoted on in situ basis	Up to 7.5 lac	
		EE	Up to 5 lac	
32	To allow State PWD contractors to tender for the works of CPWD outside the State in which enlisted	ADG	Full powers	DGW/Acctt./1 dt. 27.1.1987 Sl. No. 2
33	Accord of sanction to extra /substituted items	AE/AEE/ADH	30% of contract amount or 30% of power to accord TS, whichever is lower	OM/MAN/175 & 231
		EE/DDH	30% of contract amount or 30% of power to accord TS, whichever is lower	
		SE/DOH	30% of contract value or equal to the power to accord technical sanction, whichever is lower.	
		SE promoted on in situ basis	30% of contract value or equal to the power to accord technical sanction, whichever is lower.	OM/MAN/ 231A
		CE	Full power	OM/MAN/175 & 231
34	Accord of sanction to deviation in quantities of agreement items	AE/AEE/ADH	10% of contract amount or 50% of power to accord TS, whichever is lower	OM/MAN/175 & 231

		EE/DDH	15% of contract amount or 50% of power to accord TS, whichever is lower	OM/MAN/175 & 231
		SE/DOH	30% of contract amount	
		SE promoted on in situ basis	15% of contract amount	
		CE	Full power	
Note: 1. Deviation means increase or decrease in quantities of agreement items. 2. Deviations upto \pm 10% of agreement quantity will not require any sanction. 3. Items deviating beyond \pm 10% of agreement quantity needs sanction for total deviation (including initial \pm 10%) 4. The amount of a deviation statement shall be the sum of absolute value of deviated amounts of all individual items.				
35	Purchase of Materials from open market through quotations or tenders or through DGS&D rate contracts Modified as per OM/MAN/186 & 231		Individual supply order	Annual ceiling
		AE/AEE/ADH	10% of powers to accord TS	Powers to accord TS
		EE/DDH	do	do
		SE/DOH	do	do
		SE promoted on in situ basis	do	do
		CE	10% of power to accept the tender under his own authority	Power to accept the tender under his own authority
		ADG (i) Under his own Authority	20% of power to accept the tender	No limit
		(ii) With prior Approval of DG	Full Power	No limit
Explanation: Para 37.3 & 37.4 under section 37 of CPWD Works Manual 2007 may be referred. Manual Provisions are very clear in this regard that financial powers to purchase materials through DGS&D or through open market shall be as laid down in Appendix - 1. Purchase of the materials from open market may be either by issuing supply order after call of quotations or by call of tenders. Materials can also be purchased by placing supply order through DGS&D contract. But financial powers are same in all situations as mentioned above irrespective of method of procurement. To bring more clarity financial powers under para 35 to approve supply order has now been replaced with Purchase of Materials from open market through quotations or tenders or through DGS&D rate contracts (Added vide OM/MAN/186A)				

36	(a) Local purchase of petty stationery stores	AE/AEE/ADH	Nil	OM/MAN/186A & 231
		EE/DDH	15,000 PA	
		SE/SA/DOH	70,000 PA	
		SE promoted on in situ basis	35,000 PA	
		CE/CA	1.2 lac PA	
		ADG	1.5 lac PA	
		DG	1.5 lac PA	
	(b) Local purchase of Drawing Stationery	SE/SA/DOH	30,000 PA	
		SE promoted on in situ basis	15,000 PA	
		CE/CA	1.2 lac PA	
		ADG	1.5 lac PA	
		DG	1.5 lac PA	
37	(i) Permanent imprest to AE provided imprests are not allowed to JEs at the same time		9000	OM/MAN/186A
	(ii) Local Purchase powers of AE out of permanent imprest		1500/- for petty payments	
38	Engagement of private Architects/ Consultants	ADG	Full power	OM/MAN/107
		DG	Full power	
	Note: The power is subject to fulfillment of conditions laid down in Section 6 of the Manual.			
39	To sanction Mobilization Advance	EE/DDH	Upto 50% of the advance or Rs. 30 lac, whichever is lower. Balance advance with the prior approval of the SE	OM/MAN/186A
Note: The mobilization Advance can be sanctioned to the contractors as per term of the contract on their specific request.				
40	Declaration of specialised items	ADGs	For works in their respective regions.	OM/MAN/ 106
		ADG (TD)	For works in and around Delhi	
		ADG (Arch)	For Architecture Planning related items (all over India)	OM/MAN/ 213

41	Contengencies and its utilization (Refer para 4.1.5(3)) (Added vide OM/MAN/231)		When sanctioned cost of the work is within his power to accord TS	Other works
		EE	Full powers to utilize available contingencies	5 lac
		SE/ DOH	Full powers to utilize available contingencies	15 lac
		SE Promoted on in situ basis	Full powers to utilize available contingencies	7.5 lac
		CE	Full powers to utilize available contingencies	
Authority under which the competency of the work falls should be kept inform about utilization of contingencies for every utilization indicating utilized and available amount				
42	Invitation of tenders for components parts (Refer para 15.3(2)) (Added vide OM/MAN/231)	EE	Up to 10% of TS power	
		SE	Up to 10% of TS power	
		SE promoted on in situ basis	Up to 10% of TS power	
		CE	Full powers	

APPENDIX – 2
[Reference para 2.5.1)]

PROFORMA – 1
LEVELLING

1. Name of project
2. (a) Reference to administrative approval and expenditure sanction and their amounts.
(b) Provision for levelling.
3. (a) Amount of detailed estimate
(b) Rate per square metre in the detailed estimate and how does it compare with provision in administrative approval.

Part I - Engineering Appreciation

4. (a) Total Area to be levelled
(b) General description of site
(c) Are there any low areas which may be left green or developed as lakes or ponds? If so, can earth for filling be made available from such development?
5. (a) Classification and nature of soil
(b) Result of trial bores, if any.
(c) Exact classification of the different strata, if rocky.
(d) Possibility of blasting, keeping in view local bye laws and proximity of important buildings.
(e) Has necessary credit for hard rock been allowed?
6. (a) Are the proposed formation levels such as cutting and filling balanced.
(b) (i) Site from where earth is to be brought and its lead, in case of excess filling.
(ii) Amount involved.
(iii) Royalty payable, if any.
(c) In case of excess cutting:
(i) Site for the disposal of surplus earth
(ii) Extra lead and amount involved
(iii) Possibility of selling the earth
7. Levels of the adjoining sites, roads and buildings as compared to the site being levelled.
8. Do the proposed formation levels obstruct the existing natural drainage?
9. (a) Are any terraces proposed to economise on earth work?
(b) If so, do the proposals have concurrence of Town Planner, Architect, Director of Horticulture?
10. Have the proposals for development/layout been approved by local authorities?

Part II - Materials

11. Special T & P like heavy earth moving machinery needed for the execution of the project.

PROFORMA – 2 OF APPENDIX - 2

FILTERED WATER SUPPLY

1. Name of the Project.
2. (a) Reference to administrative approval and expenditure sanction and their amounts.
(b) Provision for ancillary works such as overhead reservoirs, pumps, etc.
3. (a) Amount of detailed estimate
(b) Rate per sq. metre in the detailed estimate and how does it compare with provision in administrative approval.

Part I - Engineering Appreciation

4. Area covered (Give details of areas covered, if any, which have not been provided for in the A/A, future extension, etc.)
5. (a) Population
(b) Basis of assessment.
(c) Future increase
6. (a) Source of Water Supply
(b) Has permission of the local body to tap water from their source been obtained?
(c) Will sufficient quantity be available for areas under consideration?
(d) Distance of the source from the periphery of the scheme.
(e) Brief description of the system of water supply from intake to the distribution stage.
7. (a) Rate of supply with break-up showing allowance for industrial, horticulture and other uses.
(b) Is unfiltered water supply available?
(c) If not what, and on what basis, provision has been made for extra water required for lawns, parks etc.
8. (a) Pressure available at source.
(b) If required pressure is not available, state proposals to augment it.
9. Design formula adopted, value of the co-efficient of rugosity adopted in design.
10. Layout of mains
(a) Closed ring or tree type pattern with dead ends (give reasons for choice).
(b) Type of buildings and numbers of storeys recommended.
(c) Minimum head available in the distribution system; and is it suitable?
(d) Has minimum size of pipes required as per rule of the local body and Chief Fire Officer been provided?
11. Has the Chief Fire Officer been consulted with regard to the number of fire hydrants, their location and type?
12. Capacity and design particulars of overhead tanks, sumps, wells, pumps etc.
13. Have adequate provisions of sluice valves, reflux valves, air valves, scour valves and public hydrants been made?
14. Have the lines been taken sufficiently deep to keep the air valve spindles flush with the ground level?
15. Has provision been made for laying the pipe or digging the trenches under sub-soil water level?
16. Is cutting through rock involved?
17. Has provision been made for crossing roads and nallahs, where necessary?
18. Are there any obstructions such as transmitting station, aerodrome, etc. which necessitate diversion?

Part II - Materials

19. Requirements of different sizes/type of pipes and specials and method of procurement.
20. Requirements of pig lead.
21. Have requirements of pumps and accessories been determined in consultation with the Electrical Engineer? Give details.
22. Requirements of other materials/tools and plants.

PROFORMA – 3 OF APPENDIX 2 UNFILTERED WATER SUPPLY

1. Name of the project
2. (a) Reference to administrative approval and expenditure sanction and their amounts
(b) Provision for unfiltered water supply
(c) Provision for ancillary works such as overhead reservoirs, pumps, etc.
3. (a) Amount of detailed estimate
(b) Rate per sqm in the detailed estimate and how it compares with provision in administrative approval.

Part I – Engineering Appreciation

4. Total area of development scheme.
5. Area of grassy lawns.
6. Basis of working out requirement of water needed for horticultural purpose.
7. Source from which the unfiltered water is proposed to be tapped.
8. (a) Is the water suitable for horticultural purpose ? Has this been ascertained from laboratory tests ?
(b) Degree of salinity if the water is saline.
9. If supply is proposed to be from existing unfiltered/filtered water mains,
(a) Have the mains got the capacity to supply the required quantity ?
(b) Is the pressure in the existing mains enough to serve the area.
10. If the source of supply is from wells/tube wells indicate :
(a) Possibility of pumping from existing open wells; if any.
(b) Feasibility of digging open wells.
(c) Possibility of putting tube wells, if open wells are not suitable.
(d) Exploratory work done earlier in the proximity of the area to determine feasibility of providing wells/ tube-wells.
11. Have the development/layout proposals been approved by local authorities?
12. Formula adopted for designs, value of coefficient of rugosity adopted in designs.
13. Layout of mains:
(a) Closed ring pattern or tree type with dead ends.
(b) Reason for choice
(c) Minimum head available in the distribution system and is it suitable?
(d) In case fire hydrants have been provided in unfiltered water lines, has the Chief Fire Officer been consulted with regard to the number of fire hydrants, their location and type?
14. Capacity and design particulars of overhead tanks, sump wells, pumps, etc.
15. Have adequate provisions of sluice valves, reflux valves, air valves, scour valves been made?
16. Have the line been taken sufficiently deep to keep the sluice valves spindles flush with the ground level?
17. Has provision been made for laying the pipeline or digging the trenches under sub-soil water level?
18. Is cutting through rock involved?
19. Has provision been made for crossing road and nallahs, where necessary?
20. Are there any obstructions such as transmitting station, aerodrome, etc. which necessitate diversion?

Part II - Materials

21. Requirement of different sizes/types of pipes and specials and method of procurement.
22. Requirement of pig lead
23. Have requirements of pumps and accessories been determined, in consultation with the Electrical Engineer? Give details.
24. Requirement of any other materials/tools and plants.

PROFORMA – 4 OF APPENDIX 2 SEWERAGE

1. Name of Project
2. (a) Reference to administrative approval and expenditure sanction and their amounts.
(b) Provision for sewerage
(c) Provision for ancillary works such as pumps, sumps, pump houses connection to existing ducts, septic tanks, etc.
3. (a) Amount of detailed estimate
(b) Rate per sqm as per the detailed estimate and how it compares with provision in administrative approval.

Part 1 - Engineering Appreciation

4. Area covered (Give details of areas covered, if any, which have not been provided for in A/A: future extensions, etc.)
5. (a) Population.
(b) Basis of assessment.
(c) Future increase.
6. Sewers
 - (a) Shape of sewer
 - (b) Minimum size used
 - (c) Slopes adopted
 - (d) Self cleansing velocity assumed and at what depth of flow.
 - (e) If self-cleansing velocity not possible, have flushing arrangements been made?
 - (f) Minimum velocity attained in the design
 - (g) Is designed discharge three times the average discharge
 - (h) Brief description of the system of sewerage
 - (i) Design formula and the coefficient of rugosity adopted.
7. Manholes:
 - (a) Minimum depth of starting manholes.
 - (b) Types of manholes (rectangular, circular, arch type).
 - (c) Types of manhole covers used (whether heavy, medium, light) and principles governing their use.
 - (d) Has location of manhole been fixed on the consideration that:
 - (i) Each manhole should serve maximum number of plots.
 - (ii) Manholes provided at bends-change in diameter and gradients.
 - (e) Maximum distance between two manholes.
 - (f) Distance of vent shafts; has provision of these been made in the estimates?
 - (g) Has provision been made for drop connections?
 - (h) What is the maximum velocity in the sewer? (upto 2.44 metres per second avoids erosion of invert).
8. Disposal
 - (a) Arrangement for disposal of sewerage.
 - (b) Has permission of local body been sought if discharge is led into an existing sewer direct?
 - (c) Distance of the existing duct from the last manhole in the area.

- (d) Do the invert levels permit connection to existing duct by gravity? If not, has provision been made for pumping the sewerage?
- (e) If pumping is necessary :
 - (1) Has provision been made for sumps, pumps, pump house and rising mains?
 - (2) Is electricity available?
 - (3) Is arrangement for prime mover in an emergency breakdown required?
- (f) Details of sumps with regard to capacity, diameter.
- (g) (1) Details of pumps with regard to capacity, horse power, type of pumps (vertical or horizontal) etc.
- (2) Efficiency factor assumed in the design of pumps.
- (h) Details of pump house, rising mains, etc.
- (i) In case connection to existing duct has not been provided :
 - (1) Has provision for septic tank, treatment plant, etc. been made ?
 - (2) Have soak pits or dispersion trenches been provided?
 - (3) What is the type of soil?
- (j) Maximum and minimum depths below ground level of the ground water table.
- (k) Arrangements for disposal of treated effluents.
- (l) If sewers are to be laid in filling or across nallahs, have supports to firm ground been provided?
- (m) Have sewers and water mains been planned on opposite sides of the road?
- (n) Where sewers cross nallah, arrel etc. has the design been appropriately made?
- (o) In case of stage development schemes or where delay in the procurement of equipment is anticipated, have temporary arrangements been made for disposal work?
- 9 (a) Has provision been made for concreting upto haunches or all round?
- (b) If so, on what basis?
- 10. Is provision of excavation under sub-soil was necessary?
- 11. Has provision been made for laying concrete and sewers under sub-soil water?
- 12. Is cutting through rock involved?
- 13. Has provision been made for crossing roads and nallahs?

Part II - Materials

- 14. Requirements of different types/sizes of pipes and specials.
- 15. Requirements of different types of manhole covers.
- 16. Have requirements of pumps been determined in consultation with the Electrical Engineer?
- 17. Requirements of any other materials/tools and plants.

PROFORMA – 5 OF APPENDIX 2

CITY ROADS

- 1. Name of project.
- 2. (a) Reference to administrative approval and expenditure sanction and their amounts.
- (b) Provision to cover the portion of work for which detailed estimate has been prepared.
- 3. Amount of detailed estimate.

Part I - Engineering Appreciation

- 4. Reference to approval of the layout and alignment by competent authority.
- 5. Justification for the choice of the alignment indicating *inter-alia* obligatory points.
- 6. (a) Standards to be followed for :
 - (i) Cross-section of the road (indicating number of lanes)
 - (ii) Class of road
- (b) Have suitable road junctions and crossings been designed and provisions made in the estimate?
- (c) Has provision been made for road signs?
- 7. Nature of sub-grade and sub-grade preparation suggested.

8. Earth works : cutting and filling balance, if not, what is the :
 - (a) Quantity of surplus/deficit earth.
 - (b) Site and lead for disposal of surplus earth (in case of excess cutting)
 - (c) Source of obtaining earth required and lead (in case of excess fillings).
 - (d) Royalty payable, if any.
9. Method and salient features of road crust.
10.
 - (a) Soling
 - (b) Wearing coat
 - (c) Surface treatment.
11.
 - (a) Cross section between building lines showing the hard crust edging (if any), berms provisions for future widening (if any), storm water drains and their outlets and other services, both to be provided immediately and in the near future.
 - (b) Existing services, if any.
12. Details of bridges including class of loading for which they have been designed, culverts and other structures provided.
13. Details of land acquisition.
14. Phasing of the project.
15.
 - (a) Rate of cost
 - (i) per unit length of different types of roads.
 - (ii) per unit of the area developed
 - (b)
 - (i) Total cost of the work
 - (ii) Comparison of total cost with respect to provision in preliminary estimate.

Part II - Materials

16. Soling stone
 - (a) Total quantity.
 - (b) Name of quarry.
 - (c) Distance of quarry from site (Does scheduled rate for supply of soling stone indicate this lead? If not, has provision been made for extra lead?)
 - (d) Market rate at quarry.
 - (e) Prevalent carriage charges.
17. Stone ballast
 - (a) Total quantity
 - (b) Name of quarry
 - (c) Distance of quarry from site (Does schedule rate for supply of stone ballast indicate this lead?)
 - (d) Market rate at quarry.
 - (e) Prevalent carriage charges.
18. Bitumen
 - (a) Total quantity.
 - (b) Arrangements for procurement.
19. Cement
 - (a) Total quantity.
 - (b) Arrangements for procurement.
20. Steel
 - (a) Total quantity.
 - (b) Arrangements for procurement.
21. Pipes
 - (a) Total quantity.
 - (b) Arrangements for procurement.

22. Tools and Plants

Sl.No.	Equipments with details	Source of procurement	Cost	Foreign exchange
1	2	3	4	5

PROFORMA – 6 OF APPENDIX 2
HORTICULTURAL WORKS

1. Name of project.
2. (a) Reference to administrative approval and expenditure sanction.
(b) Amount provided for horticulture work.
3. Amount of detailed estimate.

Part-I- Horticulture Appreciation

4. Brief scope of the work contemplated.
5. Total area of the development schemes
6. Area of the garden/greenery.
7. Detailed landscape plan of the area quoting SA(TP)'s letter no. approving it.
8. Type of soil
 - (a) Nature
 - (i) Saline or alkaline
 - (ii) Full of kankar, moorum or building rubbish.
 - (b) P.H. Value
9. (a) Source of supply of earth if top soil is proposed to be replaced by good sweet earth.
(b) Site for dumping the replaced earth
(c) Proposal, if any, to apply cowdung or fresh cowdung to 1.5m – 4.5m depth in case the soil is alkaline.
(d) Is the area duly levelled for the development of horticulture works.

Part II - Drainage

10. Is the drainage from roof provided in such a way as to drain off the flow of rain water on the back of the house and not on the lawn?
11. Are the levels and slopes of bajri paths and lawns suitably adjusted?
12. Do levels permit a slope in the lawns between 1/12 and 1/300?
13. Is a storm water drain available in the vicinity to catch rain water from the lawns?
14. Suggestions, if any, for improving drainage of lawns.

Part III - Water Supply

15. (a) Is the unfiltered water supply proposed to be tapped from existing unfiltered water mains?
 (b) Is adequate supply of unfiltered water available?
 (c) Are tube-wells proposed to be installed (It should be kept in mind that 3000 gallons of water per acre of green per day will be required).
16. Have unfiltered water mains and distributaries been laid and hydrants installed?

Part IV - External Services

17. Have all the external services including roads, storm water drains, sewerage and electric cables/wires been provided before horticultural works are taken up?

PROFORMA – 7 OF APPENDIX 2 ELECTRICAL DISTRIBUTION LINES

1. Name of project.
2. (a) Reference to administrative approval and expenditure sanction and their amounts.
 (b) Provision to cover the portion of work for which detailed estimate has been prepared.
3. Amount of detailed estimate.

Part I - Engineering Appreciation

4. Brief specification of the system *
5. Average rate per sqm of:
 - (i) detailed estimate,
 - (ii) preliminary estimate
6. (a) Agency of execution
 (b) Departmental charges
7. Special T&P required.
8. (a) Is supply proposed to be taken from the existing L.T. network of the supply authority?
 (b) If yes, is element of cost of service connection taken in estimate, based on estimate from the supply authority?
 *(c) If L.T. supply not available, how is electric supply proposed to be obtained?
9. Provision for future expansion and its extent.
10. Tariff (HT bulk, LT Bulk or retail LT) applicable.
11. In case of bulk supply, has provision been made for
 - (a) Equipments?
 - (b) Buildings for sub-stations and switching stations?
12. Has Architect been consulted for local siting of 11(b)?
13. Is stand-by required, if yes, has provision been made for it?
14. Statutory requirements of overhead or underground cables.
15. Details of phasing, if any, of different portions of work in consonance with the progress of civil work.
16. Special remarks, if any.

*Give a brief description of the system as in the example below:

“..... Supply is proposed to be taken from the L.T. feeders of the local electricity undertaking by means of over-head/underground lines. The distribution is proposed to be carried out by over-head lines carried on PCC/steel tubular/rail poles, copper/aluminum conductors of size will be run on the main roads and of.....size on the other roads. For roads having a width ofmetres the lines will be taken along the central verge with double armed brackets for lighting fixtures. For

roads with a width of metres, a staggered layout will be adopted. ... Also indicate the arrangements adopted for sectionalizing and isolating portions of the net work for the purposes of maintenance and repairs”.

*In case of composite lines carrying street light and L.T. distribution lines, the basis of allocation of cost to street lighting and L.T. distribution lines should be given.

PROFORMA – 8 OF APPENDIX 2 STREET LIGHTING

1. Name of project.
2. (a) Reference to administrative approval and expenditure sanction and their amounts.
(b) Provision to cover the component for which this detailed estimate has been prepared.

Part I - Engineering Appreciation

- *3. Brief specification of the system.
4. Average rate per sqm of
 - (i) detailed estimate,
 - (ii) preliminary estimate.
5. (a) Agency for execution.
(b) Departmental charges.
6. Special T&P required.
7. Brief particular of source of power supply
8. Provision of future expansion and its extent.
9. Tariff applicable.
10. Phasing of different portions of the work in consonance with the progress of civil work.
11. Has the location of poles been decided in consultation with Director of Horticulture and the landscape architect?
12. Special remarks, if any.

*Give a brief description of the system as in the example below:

“..... Incandescent/High Pressure Mercury Vapour/fluorescent lamps will be provided onroads. The type of fittings shall be enclosed/open/semi-open tubes, and these will be suspended/fixed on brackets. The system of wiring will be with over-head copper/aluminum conductors of sizes.....Connections to poles will be given by means of underground cables ofsize and joints shall be used. For the major roads of widths, poles will be located on the central verge with double arc brackets for the lighting fixtures. For minor roads, poles will be located in a staggered pattern with an average spacing of An average illumination ofis arrived at on the main roads. Also indicate scheme of controlling lights, i.e. switching equipment”.

In case of composite lines carrying street light and L.T. distribution lines, the basis of allocation of costs to street lighting and distribution lines should be given.

Part II – Information Regarding Procurement of Materials

Sl.no	Principal items to be supplied by Govt. for use on the work	Available with central stores or to be indented on DGS&D	Items to be especially procured for the work. Details of procurement		Foreign Exchange required
			Sources	Time	
1	2	3	4	5	6

- Note:
1. For major and important items give full technical description of specification in column 2.
 2. For items to be imported, give a separate item wise note on justification and the inescapability of expenditure on foreign exchange.
 3. If any special difficulty is likely to be encountered in procuring important materials, give a note suggesting steps that may be taken to overcome them.

PROFORMA – 9 OF APPENDIX 2
TOWN PLANNING AND HOUSING SCHEME

(The following information should be available before a town planning scheme can be prepared)

1. Key plan of the area showing
 - (a) Location of site in relation to adjoining land uses.
 - (b) Types of development on adjoining plots
 - (c) Number of storeys (on adjoining plots)

APPENDIX – 3
[Reference para 3.4]

LETTER OF ACCEPTANCE OF DEPOSIT WORKS
(To be issued to the client department)

To

.....
.....

Subject: Execution of Deposit Works

.....(indicate name of work)

The above work can be taken up by the CPWD as a deposit work under para 118-119 of CPWD Code, subject to the following:

- (1) Full estimated cost of the work as worked out by CPWD including departmental charges will have to be deposited by the client department before the work is taken up for execution. No interest will be paid by CPWD to the client department for such deposits.
- (2) The client department should hand over vacant possession of land/site to CPWD. CPWD may, if so required, take responsibility for demolition/disposal of existing buildings/ structures.
- (3) CPWD does not bind itself to complete the work within the estimated cost. If additional funds are required, the same will have to be provided by the client department. Necessary revised estimate will be submitted as and when required.
- (4) Any dispute arising out of the operation of the contract(s) for the subject work will be subject to arbitration as provided for in the contract agreement. CPWD will defend the arbitration proceedings as best as it can and get the Arbitrator's award examined by the appropriate authority. The decision of the competent authority in CPWD to accept the award or to challenge the same in a Court of Law will be binding on the client department.
- (5) Funds for making payment of all amounts which may be decreed by a Court of Law, Tribunal or by award of an Arbitrator in relation to the deposit work will be made available by the client department promptly irrespective of it not being a party before the Court, Tribunal or Arbitrator. Such payments will be in addition to the payments made to the contractors for execution of work.
- (6) After receipt of A/A & E/S from the client department, the CPWD will prepare and submit various detailed architectural drawings and service plans to Local Bodies whose approvals are required before taking up the construction work. These Local bodies are independent organizations and CPWD has not control over them. These Local Bodies take their own time for approving the Plans. The time required to get such approvals is not included in the time of construction indicated in the estimate. Although CPWD will make all efforts to get such approvals early, it may be necessary for the client department also to pursue with Local Bodies for early approval.
- (7) The CPWD has no funds of its own for investing in the work. The client department should, therefore, ensure that adequate funds are available with CPWD for executing the work. In case the client department fails to provide funds as per requirements, it may be necessary for CPWD to suspend/ abandon the work. In such eventuality, the client department shall be solely responsible for all the consequences arising out of such stoppage/abandonment of work including claims of contractors for compensation/ damages.
- (8) The client department will help CPWD in –
 - (a) providing site for labour huts for the contractor's labour free of cost,
 - (b) providing free access to contractor's materials and labour to the site of work,
 - (c) providing electricity connection for execution of work on payment of usual charges, and
 - (d) sanction and release of load from the concerned Electricity Board/Authority.

- (9) CPWD may at its discretion allow the clients to deposit the funds in instalment. In such cases 33-1/3% of the estimated cost should be deposited as advance. Thereafter, expenditure incurred should be reimbursed in full through monthly bills. The initial deposit of 33-1/3% would be retained for adjustment against the last portion of the estimated expenditure.
- (10) In cases where funds are deposited in instalments, CPWD will not be responsible for any delay, damage, stoppage of work, claims of contractors for compensation/damages etc. due to non-receipt of funds in time.

You are requested to convey acceptance of the above to enable this office to proceed further.

Yours faithfully

Executive Engineer

APPENDIX – 4
[Reference Para 4.1.2]

PROFORMA 1

**PROFORMA FOR PARTICULARS TO BE FURNISHED BY ADMINISTRATIVE DEPARTMENTS
WHEN INITIATING BUILDING PROJECTS WHICH ARE TO BE EXECUTED BY THE CPWD**

1. Name of Ministry/Department/Organisation
 2. Name of work
 3. Location
 4. Whether land is available. If so, what is the area available. Attach letter of allotment/lease deed of land specifying land use.
 5. Estimate of total funds required for the project and availability of the same.
 6. Details of available budget provision year-wise
 7. Schedule of requirements:
 - (i) Details of officers and staff grade-wise/students/care-taking/ maintenance staff in
 - (a) Annexure-A1 for Non-residential buildings
 - (b) Annexure-A2 for Hostels
 - (c) Annexure-A3 for Residential Complexes
 - (ii) Details of special requirements, if any, in
 - (a) Annexure-B1 for Non-residential Buildings
 - (b) Annexure-B2 for Hostels
 - (c) Annexure-B3 for Residential Complexes
 8. Future requirements, if any, including phasing.
 9. Any other particulars.
- Note: (1) Generally lifts are provided for buildings of more than four storeys. If lifts are required for lesser storeyed buildings, reasons for the provision of the same may be given.
- (2) In a technical building, relative position of the rooms may be indicated by means of a rough sketch.
- (3) Attach separate sheets if the space provided in the proforma is not sufficient.

Signature

Forwarded to :

1. Chief Architect
2. Senior Architect
3. Chief Engineer (Civil)
4. Chief Engineer (Electrical)
5. Superintending Engineer (Civil)
6. Superintending Engineer (Electrical)

**SCHEDULE OF REQUIREMENTS IN RESPECT OF OFFICERS AND STAFF INCLUDING CARE
TAKING & MANAGEMENT STAFF
(NON-RESIDENTIAL BUILDINGS)**

[illegible]

ANNEXRE-A 2 OF PROFORMA - 1 OF APPENDIX - 4

SCHEDULE OF REQUIREMENTS FOR HOSTELS

S. No.	Status of incumbent	Numbers	Designation Grade/Scale of pay in case of faculty/ officers/ Warden/Staff	Entitled Type of Accomodation		Special amenities, such as attached Toilet & Kitchen/ Kitchenette. Servant Quaters, Telephone, Airconditioning etc. (Indicate whether approval of the competent authority is available)	Remarks
				Single/ Double/ Triple seated rooms with area prescribed (in case of Students only)	Single/double/ triple seated rooms with area prescribed (in case of Officers/ Hostel/Staff/ Warden		
1	2	3	4	5	6	7	8
1.	Officers/Faculty members						
2.	Research students						
3.	Post graduate students						
4.	Under graduate students						
5.	Warden						
6.	Office staff (specify) including maintenance staff						

SCHEDULE OF REQUIREMENT FOR RESIDENTIAL COMPLEXES

S. No.	Grade/Scale of pay of the incumbent including care taking & Maintenance personnel	Numbers	Residential Accommodation required category wise					Details of Norms & Specifications to be provided if norms* & specifications prescribed by Min. of UD&PA are not to be followed	Remarks
			Total	Avai lable	Additional required along with reference of approval of the competent authority	Numbers to be accomo dated in Hostel if any	Future requier- ment		
1	2	3	4	5	6	7	8	9	10

Note: *For Norms prescribed by Ministry of UD please see Appendix – 5

ANNEXURE – B 2 OF PROFORMA 1 OF APPENDIX- 4
SCHEDULE OF SPECIAL REQUIREMENTS FOR HOSTELS

S.No.	Nomenclature	Capacity /Area	Special Amenities Required, if any	Whether approval of the competent authority is available	Remarks
1.	Office				
2.	Reception				
3.	Lounge				
4.	Common room				
5.	Recreation room				
6.	Reading room & library				
7.	Dining hall & kitchen				
8.	Canteen				
9.	Dispensary & sick beds				
10.	Covered parking/garages				
11.	Caretaker				
12.	Service personnel				
13.	Guard room				
14.	Maintenance office & stores				
15.	Any other requirement (Specify)				

ANNEXURE – B 3 OF PROFORMA 1 OF APPENDIX - 4

SCHEDULE OF SPECIAL REQUIREMENTS FOR RESIDENTIAL COMPLEXES

S. No.	Nomenclature	Capacity/Area	Special Amenities Required, if any	Remarks including availability approval of the competent authority
1.	Hostel (Details to be submitted in separate annexures) (Annexures B1 & B2 of Proforma 1)			
2.	Community Hall/Recreation Centre			
3.	Out door Recreation facilities			
4.	Dispensary including sick beds			
5.	Shopping facilities / Cooperative store			
6.	Post Office			
7.	Bank			
8.	Schools			
9.	Guest House			
10.	Guard room			
11.	Maintenance office & stores			
12.	Any other requirement (specify)			

PROFORMA – 2 OF APPENDIX - 4
CENTRAL PUBLIC WORKS DEPARTMENT

No.

Dated, the

To

.....
.....

Subject:

Reference:

The following particulars in connection with the above may kindly be furnished to this office at an early date:

- (1) Dimension of all boundaries and diagonals or angles sufficient to enable to draw out the complete site plan.
- (2) Position of all existing structures or/and permanent marks such as wells, trees, paths, roads, drains may be clearly indicated on the plan together with their dimension, widths etc. Any of the above features to be retained may be shown on the plan.
- (3) Any structure existing within 6m of the boundaries giving height of the same; also general buildings existing in the near vicinity giving their character, heights and purpose. The sizes of window and door openings, if any, of the structures abutting the site, and their right of way and light etc. may be clearly mentioned.
- (4) All roads abutting the site together with their widths, berms and importance with regard to traffic etc.
- (5) All levels, if any, may be marked in relation to all existing roads (crown or road level)
- (6) Direction of north as also the general prevailing winds in the different parts of the year. Average rainfall during the year.
- (7) All services available in the localities, such as municipal sewers, water supply, its pressure in relation to height, and electric supply together with their mains, if possible.
- (8) All local Municipal Bye-laws or layout schemes affecting the site, particularly in relation to the set-back lines on roads front, rear or side, total built-up area allowed and permissible height.
- (9) All local materials for construction together with their uses in local practice, and mode of construction with regard to walling, roofing and general finishes.
- (10) Complete plans, elevation and section of the existing structures together with photographs and brief specification in case extension is desired to the same.
- (11) Any other information pertaining to nature of soil and its capacity, or zone falling in the seismic area etc. may be given.

NOTE: All information desired above may please be duly signed by the issuing officer.

Architect

PROFORMA 3-A OF APPENDIX - 4
CENTRAL PUBLIC WORKS DEPARTMENT

No.

Dated, the

The Executive Engineer,
.....

Name of the work:

Kindly furnish the following information for the above work as early as possible in order to enable this office to prepare preliminary estimate

- (i) Name and nature of soil strata upto 3m to 3.5m where footings are to be founded. If black cotton or filled up soil is met with, depth of such soil.
- (ii) Approximate recommended depth of foundations.
- (iii) Approximate recommended bearing capacity of soil.
- (iv) Whether any special type of foundations are to be provided.
- (v) Sub-soil water level (Maximum and Minimum).
- (vi) Any existing building to be dismantled, or telegraph or electric poles or cables or sewers to be shifted, or thick jungle clearance to be done with rough details. Encroachment by foundations of the structures abutting our site, if any, may be indicated with sketches.
- (vii) Whether site requires extensive levelling, and if so, the cost with approximate details.
- (viii) Data regarding High Flood Levels in case area is liable to flooding.
- (ix) Details of external services:
 - (a) Water mains: Whether they are available for our connections, and if so, at what distance, and of what size. If not, specify what type of well to be constructed (open well, etc. with size and depth) and the approximate cost of construction. In case of large requirement of water, whether the local body will give adequate supply should be assured.
 - (b) Sewer mains: Whether they are available for our connection, and if so, at what distance.
 - (c) Electric Mains:
 - (d) Road: Whether any approach road is to be constructed beyond that shown on site plan: if so, of what length? Give specification locally adopted and the rate per 10 sqm of road surface.
 - (e) Storm water drain and culverts: general arrangement of drainage:
Any storm water drains required with approximate cost, number of culverts to be provided with approximate sizes.
- (x) Cost index with detailed calculations, leads of materials and reference to Schedule of Rates applicable.
- (xi) Nearest Railway Station and distance of site from the Station.
- (xii) Whether any special provisions are required due to special local conditions, e.g. stone work instead of brick work, etc.

For Superintending Engineer(P)

..... Zone, CPWD.

Copy to

1. The Executive Engineer (Elect) Division for intimating the amount required for external electrical services to be provided for in the preliminary estimate. The amount should be given separately for connection to electric mains, sub-station equipments, pumping sets for water supply and their erection, street lighting, etc. (along with prescribed percentages on PAR, etc. as applicable.) If the provision required for internal electrical services is more than the usual provision of 12.5% of the building cost, the additional amount (or percentages as required) should be given in a specific manner.
2. The Executive Engineer (Elect) (P), Zone, for supplying the above information.

For Superintending Engineer(P)

..... Zone, CPWD.

PROFORMA 3-B OF APPENDIX - 4
CENTRAL PUBLIC WORKS DEPARTMENT

No.

Dated, the

The Executive Engineer,
.....

Name of Work:

Kindly furnish the following information for the above work of Water Supply Scheme as early as possible in order to enable this office to prepare project estimate for the same.

- 1 (a) What is the area in acres to be served by the Scheme?
 (b) Present population to be catered for
 (c) Probable population after 20 years to be catered for
 (d) Per capita water supply required by the sponsoring authorities or Municipal bye-laws.
- 2 (a) Site plan of the area for which water supply is required showing the buildings to be served, with spot levels at 60m intervals. The plan should show the layout of the buildings, main roads, service roads etc., and ground formation levels alongside of all roads shall be given at intervals of 60m.
 (b) If it is anticipated that any additional areas are to be covered in this scheme at any future date, these should be marked in the plan and the requirements given.
3. State if there is any existing filtered water supply in the area or in the vicinity. If so, furnish the following particulars:
 - (i) A key plan showing the area to be served, and the nearest main from which water is proposed to be tapped, and the point of tapping.
 - (ii) State the size of the main, and if it is adequate to cater for the additional supply required for the project.
 - (iii) Pressure available in the main at the proposed point of tapping, and the reduced level of the main at this point.
4. If supply is to be taken direct from the storage reservoir, give the following details:
 - (i) Site of the reservoir with reference to the site to be developed for water supply and distance from site.
 - (ii) Capacity of the reservoir.
 - (iii) Whether it is capable of meeting the extra demand in the worst summer?
 - (iv) Reduced level of the reservoir floor and depth of water in reservoir.
 - (v) Longitudinal sections of the proposed alignment of the main from the reservoir to the site, with nature of soil and sub soil.
- 5 (a) If there is no water supply in the area, how do you propose to provide water supply:
 - (i) From open or tube wells for smaller groups of buildings or colonies.
 - (ii) From any existing perennial sources of water supply, e.g. river, stream, canal etc. Give the details of dry weather and monsoon flow, low water level and RFL etc. Give details of weirs, if any required for heading up water in the stream, arrangements for purification, location of intake well, filter beds, pumping station etc. Also give an index plan showing the recommended location of water works.
 - (b) Indicate the size and depth of open or tube wells, expected supply per hour and approximate cost of the installations including cost of delivery main upto site.
6. In case storage or service reservoir is required, possible location of reservoir to be indicated on an index plan along with the ground levels at the site. In case a high level reservoir is to be constructed, local restriction regarding maximum height due to proximity of air field, if any, may be indicated.

7. Information about the quality of water available from the source and suggestions for treatment.

For Superintending Engineer(P)
..... Zone, CPWD.

No.

Dated, the

Copy to:

1. The Executive Engineer (Elect) Division for intimating the information in connection with the existing electric mains, their distance from the area, type of power available and adequacy of electric energy etc.
2. The Superintending Engineer Circle, CPWD, for information.
3. The Superintending Engineer Electrical Circle, CPWD, for information.

For Superintending Engineer(P)
..... Zone, CPWD.

PROFORMA 3-C OF APPENDIX- 4
CENTRAL PUBLIC WORKS DEPARTMENT

No.

Dated, the

To

The Executive Engineer,
.....
.....

Name of Work:

Kindly furnish the following information for the above work of sewerage scheme of the area as early as possible in order to enable this office to prepare project estimate for the same.

- 1 (a) What is the extent of the area for which sewerage scheme is to be designed?
(b) What is existing population?
(c) What is the proposed ultimate density of population?
(d) What is the per capita water supply?
2. Give a site plan of the whole area showing the existing and proposed buildings and other structures, spot levels at intervals of 60m, and ground formation levels alongside of all main and service roads (existing or proposed).
3. Is there any sewerage system in the area? If so, the following particulars should be furnished:
 - (a) Size of the nearest sewer and its distance from the site.
 - (b) Size of the nearest trunk sewer and its distance from the site.
 - (c) Whether the existing sewer is capable of taking the additional sewage from the site to be developed. If not, state alternative proposals for disposal of sewage.
 - (d) If the existing sewer is capable of taking the additional sewage, give "L" section of the sewer for a reasonable length showing the ILs, GLs., gradients and falls, if any, as well as position of manhole to which the proposed sewer from the colony to be developed may be conveniently connected.
 - (e) What is the level of sewage in the manhole reference to (d) above for peak discharge.
 - (f) A plan showing the layout of the branch or trunk sewer, and proposals for the outfall sewer connecting to manhole with invert and ground levels.
4. Whether the proposed outfall sewer from the area to be developed will have to be designed to carry sewage from any other area also. If so, the additional areas to be served may be shown on the site plan giving their extents with the present and anticipated density of population.
- 5 (a) Whether a long outfall sewer is necessary? If so, give a plan and longitudinal section of the proposed alignment showing the ground levels.
(b) What is the nature of the soil and sub-soil along the proposed alignment?
(c) State the ownership of the land through which the proposed alignment passes.
(d) Are there any obstructions, e.g. railway lines, drainage courses etc., on the alignment? If so, their nature and other relevant details may be given.
6. If there is no sewerage system in the area
 - (a) How do you propose to dispose of the sewage?
 - (b) A survey plan showing the likely location of the disposal works (septic tanks or other plants) may be furnished showing the prevailing direction of wind.
 - (c) How is the effluent proposed to be disposed off? If there is any natural water course in which the effluent is proposed to be discharged, the following particulars should be furnished:
 - (i) Normal water level and H.F.L.
 - (ii) Specify if there are any objections to discharge the effluent into the water-course or Nallah, and if so, what alternative do you suggest?
 - (d) Nature of soil, i.e. whether it is absorbent or otherwise.

7. Any other information in connection with the sewage scheme.
8. Full particulars about any local rules and restrictions regarding sewage disposal.

For Superintending Engineer(P)
..... Zone, CPWD.

No.

Dated, the

Copy forwarded to:

1. The Executive Engineer (Elect) Division for intimating the information in connection with the existing electric mains, their distance from the area, type of power available and adequacy of electric energy etc.
2. The Superintending Engineer Circle, CPWD, for information.
3. The Superintending Engineer Electrical Circle, CPWD, for information.

For Superintending Engineer(P)
..... Zone, CPWD.

PROFORMA 3-D OF APPENDIX - 4
CENTRAL PUBLIC WORKS DEPARTMENT

No.

Dated, the

To

The Executive Engineer,
.....
.....

Name of Work:

Kindly furnish the following information for the above work of Storm Water Drainage of the area as early as possible in order to enable this office to prepare project estimate for the same.

1. Give a survey plan of the area for which the Drainage system is to be designed showing the spot levels at intervals of 60m and proposed layout of roads and buildings. Formation levels of ground along side of the roads and crown levels of roads may be given at intervals of 60m.
2. (a) If the area forms of part of a bigger catchment, a site and contour plan of the entire catchment area should be given.
(b) If it is likely that drainage from the upper portion of the catchment enters the area now proposed to be developed, suggest measures to intercept the drainage or indicate the probable additional run off to be allowed for.
3. The maximum intensity of the rainfall in the area and its duration and the total annual rainfall.
4. Nature of the soil and vegetation in the area.
5. Full particulars of any natural water course or Nallah passing near the area into which the area under consideration can be drained, together with the HFL in the storm water drainage. A plan showing the Nallah and "L" section of the Nallah showing the HFL for about 400 metres above and below the point where it is proposed to discharge the drainage into the Nallah may also be supplied.

For Superintending Engineer(P)
..... Zone, CPWD.

No.

Dated, the

Copy forwarded to:

1. The Executive Engineer (Electrical) Division for furnishing the information in connection with the existing electric mains, their distance from the area, type of power available and adequacy of electric energy etc.
2. The Superintending Engineer Circle, CPWD, for information.
3. The Superintending Engineer Electrical Circle, CPWD, for information.

For Superintending Engineer(P)
..... Zone, CPWD.

PROFORMA 3-E OF APPENDIX- 4
CENTRAL PUBLIC WORKS DEPARTMENT

No.

Dated, the

The Executive Engineer,
.....
.....

Name of Work:

Kindly furnish the following information for the above work of development of the area as early as possible in order to enable this office to prepare project estimate for the same.

1. Survey plan of the area. The plan should show all local features such as existing structures, Nallahs, wells, drains, sewers, water mains, electric mains and cables, telegraph and electric poles, brick kilns, fields, ponds, trees, roads, culverts and bridges etc.
2. Contour plan of the area with spot levels taken at not more than 60m distances. If possible, the levels should be reduced with reference to GTS Bench Mark. Otherwise, full description of assumed R.L. of the Bench Mark should be given.
3. Index plan of the area showing places from where earth for filling the area, if necessary, may be brought, or where the earth obtained from cutting of the area should be disposed off.
4. Crown levels of all the adjoining roads, at suitable intervals.
5. Nature of soil surface as determined by visual inspections.
6. Nature of sub soil strata as determined by trial pits or trial bores at the rate of one pit or bore for every 20 acres or less. Cross sections of trial pits or bores should be suitably increased.
7. Details of water mains as existing, indicating the distance, diameter, pressure in the water mains.
8. Details of existing sewer mains, if available, indicating distances, invert level, diameter and spare capacity of the sewer mains.
9. Details of existing storm water drains and culverts, indicating section of drains, slope, spare capacity, invert level etc. It should also be indicated if the area itself is a part of bigger catchment area and thus receives storm water from other areas. If so, full details should be given.
10. Cost index of the place with details calculations.
11. Data regarding High Flood Levels, in case area is subject to flooding or is lower than HFL.

For Superintending Engineer(P)
..... Zone, CPWD.

Copy to:

1. The Executive Engineer (Elect) Division for furnishing the information in connection with the existing electric mains, their distance from the area, type of power available and adequacy of electric energy etc.
2. The Superintending Engineer Circle, CPWD, for information.
3. The Superintending Engineer Electrical Circle, CPWD , for information

For Superintending Engineer(P)
..... Zone, CPWD.

APPENDIX – 5
(Reference para 4.1.3)

ANNEXURE TO MINISTRY OF URBAN DEVELOPMENT
O.M.No.17020/86/W2 dt.25th August, 1987

REVISED SCALE OF PLINTH AREA

Type	Pay Range	Area of Unit		Staircase/ circulation		Sleeping out balcony		Cycle/Scooter shed/Garage		Remarks
		Sq M.	Sq. ft.	Sq M.	Sq. ft.	Sq M.	Sq. ft.	Sq.M	Sq.fi.	
I	(A) Upto Rs. 949/-	34.00	365.00	5.00	54.00	7.45	80.00	2.50	27.00	Cycle shed 100%
II	(B) Rs. 950-1499/-	45.00	484.00	5.00	54.00	7.45	80.00	2.50	27.00	Cycle shed 100%
III	(C) Rs. 1500-2799/-	55.75	600.00	5.00	54.00	7.45	80.00	4.20	45.00	Scooter shed 100%
IV	(D) Rs. 2800-3599/-	83.60	900.00	5.00	59.00	7.60	84.00	4.20	45.00	Scooter shed 100%
V	(E) Rs. 3600-4499/- Main Unit	139.35	1500.00	6.00	65.00	9.85	106.00	20.90	225.00	75% (Garage)
	Servant Qrs. Attached to the Main Unit	18.60	200.00	4.50	50.00	-	-	-	-	
VI	(EI) Rs. 4500 and above Main Unit	198.00	2200.00	6.00	65.00	11.00	118.00	20.90	225.00	100% (Garage)
	One servant quarter	25.00	269.00	4.50	50.00	5.00	54.00	-	-	

NOTE:

1. These plinth area standards shall be applicable to the construction of residential accommodation in all places in India.
2. Plinth areas proposed above are on the wall thickness achieved with the standard brick size 9"×4-1/2"×3" (Normal). When standard size bricks are replaced by modular bricks (20 cm×10 cm×10 cm) in course of time, the plinth areas specified above will not change. Where wall thickness has to be more for technical reasons, plinth areas may be suitably increased. In places where stone construction is more economical and is normally adopted, the plinth areas may be suitably increased to allow for additional thickness of walls. In areas, where standard size of brick is 10", an increase of plinth area to the extent of 4% in case of type I, II and III Qrs. and 2.5% in case of type IV, V and VI (D, E, EI) Qrs. will be allowed. In areas where local specifications permit use of thinner walls such as 'accra' walling or timber construction, the plinth areas would be reduced suitably.
- 3 (a) Sleeping out balconies shall be provided in region of hot and dry climate and for construction which is more than two storeyed. In the case of regions with hot and humid climates, i.e. coastal regions, where it is not customary to sleeping out during summer, sitting balconies with half of the areas stipulated above, shall be provided in lieu of sleeping out balconies in places other than Mumbai and Kolkata (for which reduced standard as indicated at 3(b) will apply). In regions of cold climate, viz. hill stations, glazed verandahs in lieu of sleeping out balconies may be provided with the areas of sleeping out balconies. Where sleeping out balconies are provided, facility of use of terrace by occupants need not be provided.
- (b) The area of sitting out balconies in Mumbai and Kolkata will be 1.5 sqm (16.15 sq.ft.) for type I, 2.5 sqm (26.90 sq.ft.) for type II, 3.50 sqm (37.65 sq.ft.) for type III, 4.5 sqm (49 sq.ft.) for type IV, 5.50 sqm (60 sq.ft.) for type V and 6.5 sqm (71 sq.ft.) for type VI(EI).
- (c) Areas of sleeping and sitting out balconies may vary with the type design, depending on architectural and structural considerations. The areas stipulated in this statement are maximum that will be allowed.
- (d) In hot and dry region, sitting out balconies may be provided for two storeyed construction.

4. In case of type I, II, III, IV, IV (Spl.) & V quarters, the standard plinth area may be exceeded upto 5% when found necessary on architectural consideration. This is to allow for some flexibility in architectural planning. **(Modified as per OM/MAN/207)**
5. In type V quarters, car garages will be provided for 75% of the number of units to be constructed. Out of these, 1/3rd of the garages will be partitioned temporarily so as to provide scooter sheds for remaining 50% of the allottees. Provision in planning and layout should be made for construction of additional garages for cars to an extent of 25% of the number of residential units.
6. In the case of double storied quarters, cycle or scooters sheds shall not be provided. Also no scooter/cycle sheds will be provided in Mumbai and Kolkata.
7. In case of main buildings, areas for staircase/circulation are based on a stair width 3'-6". Where bye-laws require more width than this, areas to be provided will be increased suitably. For 4 feet wide stair, areas for staircase shall be 6.5 sqm.
8. Where local bye-laws so require, additional area for fire escape staircase will be allowed.
9. Sanitary pipe shafts open to sky, wherever provided, are not to be included within the standard plinth areas.
10. Area required for services, such as garbage chutes, electric sub-station, pump room, etc. wherever necessary, will be allowed over and above the standard plinth areas.
11. In multi-storeyed flats, where lifts are necessary, additional areas over and above the standard plinth areas for the different types, will be allowed for the provision of one or more lifts and lift landings.
12. In the case of construction of four storied and above, in places other than Mumbai and Kolkata, in respect of types I to IV, cycle/scooter sheds may be provided separately, or one or more quarters on the ground floor may be earmarked for covered parking of cycles and scooters.
13. Normally no deviation from the prescribed scales should be made but in case it is desired that any deviation is to be made, this can be done only in semi-urban and rural areas where only single storey construction is involved, and proposal for such deviation should be sent to the Ministry of Urban Development for specific clearance.
14. The Public Sector Enterprises need not follow the scales prescribed by the Ministry of UD, but may follow the scales prescribed by the Bureau of Public Enterprises.

APPENDIX – 6
(Reference para 4.2.2)
(Refer CPWD Code para no. 87)

HISTORY SHEET OF ESTIMATE

CPWD 1

CENTRAL PUBLIC WORKS DEPARTMENT

Estimate No. : _____ for _____

State : _____

Branch : _____

Division : _____

Name of Work : _____

Fund : _____

Major Head : _____

Minor Head : _____

Detailed Head : _____

Note: The entries against each of the above should be made in accordance with the classification prescribed in para 3.1.8 of CPWA Code.

Estimate framed by Engineer of the probable
cost of

REPORT

APPENDIX – 7
(Reference para 4.2.2)
(Refer CPWD Code para no. 87)

CPWD-2

DETAILS OF MEASUREMENTS

Name of Work.....

Details of Work	No.	Measurements			Quantities
		L	B	H	

CPWD-3

Name of work.....

[illegible]

CPWD-4

Name of work.....

[illegible]

APPENDIX – 10
(Reference para 7.14)

PROFORMA FOR WRITE OFF OF LOST MB's

1. Serial number of the MB
2. To whom issued
3. The date on which the M.B. was lost
4. Details of FIR lodged with the police
5. From whose custody it was lost?
6. Detailed circumstances leading to its loss
7. What efforts were made to trace the M.B.?
8. By whom the last measurements were recorded?
9. Whether the measurements have been checked upto the required %age by the Superior Officer as required under the rules? If not, why ?
10. If any register is maintained to watch the movement of the M.B.?
11. Whether the M.B. contained the details of any work for which payment has not been made or all the works have been finalised?
12. Whether any audit objection or contractor's dispute relating to the M.B. is pending, and if so, nature thereof, and how it is proposed to settle up?
13. Whether work is susceptible of measurement again? If not, what is the basis on which the AE proposes to make final payment for the outstanding bills?
14. Whether the EE is satisfied that by writing of fresh measurements on the basis of other subsidiary records, if any, the Government will not be put to any loss, and there will be no dispute from any quarter? If not, what steps be suggested to safeguard against any such shortcoming?
15. Details of disciplinary action taken against the persons responsible for the loss
16. Details of remedial measures taken to avoid recurrence of such cases
17. Any other remarks

Executive Engineer
.....Division , CPWD

APPENDIX – 11
(Reference para 9.4)

AUTHORITIES EMPOWERED TO PREPARE, VERIFY AND PASS THE BILLS

Bills to be paid	Prepare	Authority competent to examine or verify	Pass for payment
1	2	3	4
1. Wages of labourers, current or arrears, except those mentioned in item 2 below	Junior Engineer	Assistant Engineer	Executive Engineer
2. Unpaid wages removed from the account of a work in respect of muster roll	Executive Engineer/ Assistant Engineer/ Junior Engineer if an imprest holder	Executive Engineer/ Assistant Engineer/ Junior Engineer if an imprest holder	Executive Engineer
3. Bill of work charged staff	Assistant Engineer	Assistant Engineer	Assistant Engineer, subject to condition that employment of WC staff in question is approved by the competent authority and bill is prechecked by the Divisional Office
4. Petty payments for work done or supplies made not exceeding Rs. 150/-	Junior Engineer	Assistant Engineer/ Junior Engineer if an imprest holder	Imprest holder
5. Running and final bills of contractors or suppliers involving work done or supply made to the value of Rs. 10,000/- and less, but exceeding Rs. 150 against agreement entered into by themselves.	Assistant Engineer	Assistant Engineer/ Junior Engineer	Assistant Engineer stationed away from Divisional Head Quarters, provided that the cash book, is maintained by him.
6. Running and final bills of contractors or suppliers involving work done or supply made in excess of Rs. 10000/- bills or advance (both secured and others & claims for refund)	Assistant Engineer	Assistant Engineer	Executive Engineer

APPENDIX – 13
(Reference para 10.7.1]

REGISTER OF DISMANTLED MATERIALS

1. Name of Work
2. Name of Division

Sl.no	Date of receipt	Ref. to no. & page of MB	Full particulars of material giving size, etc. if any	Opening balance	Qty recd.	Total	Ref. to its disposal, whether by write off, sale, or transfer to other works	Qty issued or disposed off	Closing balance	Dated initial of the AE	Date of verification of balance & by whom verified	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13

APPENDIX – 14
(Reference para 12.2)

**STATEMENT SHOWING THE RATES OF DEPARTMENTAL CHARGES LEVIABLE ON CPWD
WORKS AND THEIR BREAK-UP**

Objectives of works	All maintenance works, and minor works costing upto Rs. one lakh	Construction works costing upto Rs. two crores	Construction works costing between Rs. two and five crores	Construction works costing more than Rs. five crores
1	2	3	4	5
A) Establishment Charges				
1. Preparation of preliminary sketches	$\frac{1}{2}\%$	$\frac{1}{4}\%$	$\frac{1}{4}\%$	$\frac{1}{4}\%$
2. Preparation of detailed working drawings	1%	$\frac{3}{4}\%$	$\frac{1}{2}\%$	$\frac{1}{4}\%$
3. Preparation of preliminary estimates	$\frac{1}{4}\%$	$\frac{1}{4}\%$	$\frac{1}{4}\%$	$\frac{1}{4}\%$
4. Preparation of detailed estimates	$\frac{1}{2}\%$	$\frac{3}{4}\%$	$\frac{1}{2}\%$	$\frac{1}{4}\%$
5. Preparation of structural designs	1%	1%	$\frac{3}{4}\%$	$\frac{3}{4}\%$
6. Execution	$19\frac{1}{4}\%$	$7\frac{3}{4}\%$	$4\frac{3}{4}\%$	$4\frac{1}{4}\%$
Total Establishment charges	$22\frac{1}{2}\%$	$10\frac{3}{4}\%$	7%	6%
B) T&P (Machinery Equipment)	$\frac{3}{4}\%$	$\frac{3}{4}\%$	$\frac{1}{2}\%$	$\frac{1}{2}\%$
C) Audit & Account	$\frac{1}{4}\%$	$\frac{1}{4}\%$	$\frac{1}{4}\%$	$\frac{1}{4}\%$
D) Pensionary	$\frac{1}{4}\%$	$\frac{1}{4}\%$	$\frac{1}{4}\%$	$\frac{1}{4}\%$
	$23\frac{3}{4}\%$	12%	8%	7%

- Note: 1. The indicated rates of tools and plants are exclusive of the cost of special tools and plant, the cost of which will be charged to the estimate for the work.
2. The DDA will be allowed a rebate in the departmental charges on account of preparation of preliminary sketches, and detailed architectural drawing relating to their works as per the figures given in the breakup of departmental charges.

APPENDIX – 15
(Reference para 12.6)

DEPARTMENTAL CHARGES FOR COAL MINES WORKS

For works costing upto Rs. two lakhs		For works costing more than Rs. two lakhs
1.Preliminary Estimates	$\frac{1}{4} \%$	$\frac{1}{4} \%$ on first Rs. two lakhs plus $\frac{1}{8} \%$ on amount that exceed Rs. two lakhs
2.Detailed Estimates	$\frac{3}{4} \%$	$\frac{3}{4} \%$ on first Rs. two lakhs plus $\frac{1}{2} \%$ on amount that exceeds Rs. two lakhs

APPENDIX – 16
(Reference para 12.11]

FEES FOR CONSULTANCY SERVICES

(a) Planning	4%
(b) Construction Management	5%
(c) Visits of CPWD Officers from India	1%

For planning and designing work, the following charges shall be levied:

(i) Development of Master Plan	Rs.3210/- per hectare
(ii) Architectural plans and drawings	3 % for original work ½ % for repetition
(iii) Structural designs and drawings	1% for original work ½ % for repetition

APPENDIX – 17
[Reference para 15.9(7)]

STANDARD SCHEDULE OF CONTRACT PERIODS FOR BUILDINGS WORKS

Sl. No.	Number of Storeys	Time Period (Months)
1.	Upto 4 Storeys	8 to 12
2.	Beyond 4 and upto 6 storyes	12 to 15
3.	Beyond 6 Storeys	16 to 21

(Note:- Basement may be treated equivalent to one storey)

Time may be varied suitably due to following factors.

- (a) Rainy season and inundated conditions
- (b) Depth of subsoil water
- (c) Special features of the building
- (d) Scattered/concentrated works
- (e) Congested site
- (f) Type of foundation
- (g) Urgency/Importance of the work
- (h) Extent of Mechanization involved
- (i) Logistics available in area.

APPENDIX 18
(Reference Para 15.9(8))

GENERAL GUIDELINES FOR FIXING REQUIREMENT OF TECHNICAL STAFF FOR A WORK

Cost of work (Rs. in lakh)	Contract period (months)	Requirement of Technical staff		Minimum experience (Years)	Designation
		Qualification	Number		
More than 1000	24	i) Project Manager with degree in corresponding discipline of Engineering	1	10	Principal Technical Representative
		ii) Graduate Engineer	1	5	Technical represents Technical Representative
		iii) Graduate Engineer	2	Nil	
		or Diploma Engineer	2	5	
500 to 1000	18	(i) Graduate Engineer	1	5	Principal Technical Representative
		(ii) Graduate Engineer	2	Nil	Technical Representative
		or Diploma Engineer	2	5	
200 to 500	12	(i) Graduate Engineer	1	5	Principal Technical Representative
		(ii) Graduate Engineer	1	Nil	Technical Representative
		or Diploma Engineer	1	5	
50 to 200	9	Graduate Engineer	1	5	Principal Technical Representative
10 to 50	6	Graduate Engineer	1	Nil	Principal Technical Representative
		or Diploma Engineer	1	5	

- Notes: 1. 'Cost of work,' in table above, means corresponding amount available for work in sanctioned Preliminary estimate.
2. 'Contract period' indicated, in table above, should not be considered as standard schedule but should be actually determined as per Appendix 17 for each work.
3. Rate of recovery in case of non compliance of Clause 36(i) be stipulated at following rates:-

Sl. No.	Qualification	Experience (years)	Rate of recovery
(i)	Project Manager with Degree	10	Rs. 20,000/-p.m.
(ii)	Graduate Engineer	5	Rs. 15,000/-p.m.
(iii)	Graduate Engineer or Diploma Engineer	Nil 5	Rs. 10,000/-p.m.

4. Nothing extra need to be added while preparing market rate justified amount of the work if stipulation is made as per above recommended scale of requirement of technical staff.

5. Requirement of technical staff and their experience can be varied depending upon nature of work and contract period determined as per Appendix 17.
6. In event requirement of Technical staff is varied and estimated expenditure on technical staff worked out on the basis of 75% of the rate of recovery exceeds 1% of the cost of work, excess may be added while preparing market rate justified amount of the work.

APPENDIX – 19A
(Reference para 17.1(6))

(Added as per OM/MAN/221)

SPECIMEN OF PRESS NOTICE TO BE ISSUED FOR PUBLICATION IN NEWS PAPERS

NOTICE INVITING TENDERS

The Executive Engineer Division, CPWD invites on behalf of President of India sealed item rate/percentage rate / Lump Sum tenders on two / three envelope system for following work(s):-

1. NIT No. Name of Work*, Estimated Cost** Rs.
Earnest money, & time of completion
2. NIT No. Name of Work*, Estimated Cost** Rs.
Earnest money, & time of completion

The tender forms and other details can be obtained from the O/o EE on payment of Rs. The last date of receipt of application to purchase tender form will be up to PM. Other detail/information can be seen on website

* Name of work should include details of minor components in case of composite tenders.

** Estimated cost of minor component should also be indicated.

Note:

- (i) **Notice Inviting Tender as published in newspapers shall form part of NIT/ Tender document sold to the contractors**
- (ii) **Combined advertisement to be issued for all the tenders by clubbing all the press notices issued on a particular day.**

APPENDIX – 19B

(Reference Para 17.1(6))

(Added as per OM/MAN/221)**SPECIMEN PRESS NOTICE FORMING PART OF NIT AND TO BE POSTED ON WEBSITE**

The Executive Engineer Division, CPWD on behalf of President of India invites sealed Item rate/percentage rate tenders from approved and eligible contractors of CPWD and those of appropriate list of M.E.S., BSNL, Railway and State P.W.D. (B&R) or State Govt.'s Department dealing with building and roads, if there is no State PWD (B&R), for the following work(s) (strike out as the case may be)

S. No.	NIT No.	Name of work & Location	Estimated cost put to tender	Earnest Money	Time of Completion	Last date & time		Time & date of submission & opening of tender
						receipt of application	issue of tender documents	
1	2	3	4	5	6	7	8	9
		Name of work should include details of minor components in case of composite tenders	Estimated cost of minor component should also be indicated					

The tender forms and other details can be obtained from the office of the EE on payment of Rs.

***Conditions for Non-CPWD contractors only, if tenders are also open to non-CPWD contractors (For works estimated to cost up to Rs. 15 Crore)**

Tenders will be issued to eligible contractors provided they produce definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified below:-

Three similar works each of value not less than Rs. or two similar work each of value not less than Rs. or one similar work of value not less than Rs. in last 7 years ending last day of the month previous to the one in which the tenders are invited.

***Conditions applicable to CPWD contractors only, if tenders are also open to non-CPWD contractors (For works estimated to cost up to Rs. 15 Crore)**

For works costing above Rs. 3 Crore but up to Rs. 15 Crore, when tenders are open to non-CPWD contractors also, then class II contractors of CPWD shall also be eligible if they satisfy the eligibility criteria specified for Non-CPWD Contractors.

Earnest Money should be deposited along with the tender documents in separate envelop marked as Earnest Money in cash (up to Rs. 10,000/-) or Receipt Treasury challan/deposit at call receipt of a scheduled

bank/fixed deposit receipt of a scheduled Bank/Demand Draft of a scheduled bank issued in favour of A part of earnest money is acceptable in the form of bank guarantee also. In such case, 50% of earnest money or Rs. 20 lakh, whichever is less, will have to be deposited in shape prescribed above, and balance in shape of Bank Guarantee.

Both sealed envelopes(EMD and Tender document) marked as Earnest Money and Tender shall be submitted together in another sealed envelope superscripted with name of work and due date of opening. The envelope marked tender shall be opened whose Earnest Money, placed in the other envelope marked as Earnest Money is found to be in order.

Note: Other conditions for composite tenders and any special condition as applicable may also be added and Press Notice may be modified suitably by NIT approving authority.

APPENDIX – 20
(MODIFIED AS PER OM/MAN/160, 212 & 221)

(Reference para 15.7.1(4) & 16.5)

GUIDELINES FOR FIXING ELIGIBILITY CRITERIA FOR TWO/THREE ENVELOPE SYSTEM

1. The eligibility criteria to be inserted in Section-II (Information and Instructions for Bidders) and Section – III (Information regarding eligibility) of the document and in the Press Notice shall be decided on the following lines:

(A) Para 2(a) of the Invitation for bid, 7.1 of Section-II and Form 'C' of Section-III.

The 'month' shall be the month previous to the one in which the bids are invited.

(B) Para 2(a) of the Invitation for bid and 7.1 of Section - II

- (i) Experience of having successfully completed works during the last 7 years ending last day of the month previous to the one in which applications are invited:

Three similar completed works costing not less than the amount equal to 40% of estimated cost put to tender,

or

Two similar completed works, costing not less than the amount equal to 60% of the estimated cost put to tender

or

One similar completed work of aggregate cost not less than the amount equal to 80% of the estimated cost.

and

- (ii) One Completed work of any nature (either part of (i) or a separate one) costing not less than the amount equal to 40 % of the estimated cost put to tender with some Central Government Department/State Government Department/Central Autonomous Body/Central Public Sector undertaking.

(Note:- 1(ii) not applicable in case of specialized works)

(C) Para 2(b) of the Invitation for bid, and 7.3 of Section-II

Turnover: Average annual financial turn over on construction works should be at least 30% of the estimated cost during the immediate last 3 consecutive financial year.

(D) Para 2(c) of the Invitation for bid and 7.4 of Section – II

Profit/loss : The date to be filled in this column should be 31st March of the previous financial year.

(E) Para 2(d) of the Invitation for bid, and 7.6 of Section – II

Solvency Certificate: Solvency of the amount equal to 40% of the estimated cost of the work.

(F) Para 8 of Section - II

Evaluation of performance :

Evaluation of the performance of contractors for eligibility shall be done by NIT approving authority or a Committee constituted by him. If required, the works executed by the bidders who otherwise qualify may be got inspected by a Committee or any other authority as decided by NIT approving authority.

(G) Para 14.0 of Section III

While framing NIT, validity period mentioned in CPWD Form 6 and CPWD – 7/8 may be modified so as to conform to provision given in Para 14.0 of Section II.

Scoring Method of Evaluation : The scoring for evaluation mentioned in this column shall be done as given in Annexure-I. This should be made part of the tender documents.

2. For all works eligibility criteria shall be based on above guidelines. However, the Chief Engineer may insert experience of particular categories of items like stone work, metal false ceiling, basements, form works etc., as an additional condition.

3. The above criteria shall be applicable for normal Civil & Electrical Works in CPWD

Note:- In case only technical bids are called, the document may be modified suitably.

ANNEXURE-I OF APPENDIX - 20

CRITERIA FOR EVALUATION OF THE PERFORMANCE OF CONTRACTORS FOR PRE-ELIGIBILITY

	Attributes	Evaluation
(a)	Financial strength (20 marks) (i) Average annual turnover 16 marks (ii) Solvency Certificate 4 marks	(i) 60% marks for minimum eligibility criteria (ii) 100% marks for twice the minimum eligibility criteria or more In between (i) & (ii) – on pro-rata basis
(b)	Experience in similar class of works (20marks)	(i) 60% marks for minimum eligibility criteria (ii) 100% marks for twice the minimum eligibility criteria or more In between (i) & (ii) – on pro-rata basis
(c)	Performance on works (time over run) (20 marks)	
	Parameter Calculation For points	Score Maximum Marks
	If TOR =	1.00 2.00 3.00 >3.50
(i)	Without levy of compensation	20 15 10 10
(ii)	With levy of compensation	20 5 0 -5
(iii)	Levy of compensation not decided	20 10 0 0
TOR = AT/ST, where AT=Actual Time; ST=Stipulated Time.		
Note: Marks for value in between the stages indicated above is to be determined by straight line variation basis.		
(d)	Performance of works (Quality) (15 marks)	
	(i) Very Good (ii) Good (iii) Fair (iv) Poor	15 10 5 0
(e)	Personnel and Establishment (Max. 10 marks) (i) Graduate Engineer (ii) Diploma holder Engineer (iii) Supervisory/Foreman	3 marks for each 2 marks for each upto Max.4 marks 1 mark for each upto Max. 3 marks
(f)	Plant & Equipment (Max. 15 marks) (i) Hopper Mixer	1 mark for each upto Max. 2 marks

(ii)	Truck/Tippers/Transit mixer	1	mark for each upto Max. 2 marks
(iii)	Steel shuttering	2	marks for each 800sqm upto maximum 4 marks
(iv)	Tower Crane	2	marks for each upto Max. 4 marks
(v)	Building Hoist	1	mark for each upto Max. 2 marks
(vi)	Excavator	1	mark for each upto Max. 2 marks
(vii)	Batch Mix Plant	2	marks for each upto Max. 4 marks
(viii)	Tendrom Roller	1	mark for each upto Max. 2 marks
(ix)	Vibration Compactor	1	mark for each upto Max. 2 marks
(x)	Paver Finisher	2	marks for each upto Max. 4 marks
(xi)	Hot Mix Plant	2	marks for each upto Max. 4 marks
(xii)	Special Equipment		(Marks to be fixed as per requirement)

Note: Above marking system for plants and equipments may be modified suitably by NIT approving authority depending upon type of plants and equipments required for the work.

Press Notice

(Forming part of NIT/Tender document and to be posted on website)

Central Public Works Department

Invitation for Bid (Modified as per OM/MAN/160 & 221)

1. The Executive Engineer on behalf of the President of India invites the bids from firms/contractors of repute in two/three envelope system for the following work:

Sl. No.	NIT No.	Name of work	Estimated cost	Period of completion
		Details of Minor components also to be indicated in case of composite tenders	Details of estimated cost of minor components to be indicated in case of composite tenders	

2. Contractors who fulfil the following requirements shall be eligible to apply. Joint ventures are not accepted.

(a) Should have satisfactorily completed the works as mentioned below during the last Seven years ending last day of the month.....:-

(i) Three similar works each costing not less than Rs., or two similar works each costing not less than Rs. one similar work costing not less than Rs.....

and

(ii) One work of any nature (either part of (i) above or a separate one) costing not less than Rs.....with some Central/State Government Department/Central Autonomous Body/Central Public Sector Undertaking.

Similar work shall mean works of The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum; calculated from the date of completion to last date of receipt of applications for tenders.

(b) Should have had average annual financial turnover of Rs. on construction works during the last three years ending 31st March.....

(c) Should not have incurred any loss in more than two years during the last five years ending 31st March

(d) Should have a solvency of Rs.....

(Solvency not required if applicant is a class I (Civil) registered contractor of CPWD and estimated cost is up to Rs. 25 Crore)*

3. Bid documents consisting of plans, specifications, the schedule of quantities of the various types of work to be done and the set of terms and conditions of contract to be complied with the contractor whose bid may be accepted and other necessary documents can be seen in the office of the.....between hours of 11.00 AM and 4.00 PM from.....to every day except on Sunday and Public Holidays. Bid documents, excluding standard form will be issued from his office, during the hours specified above, on payment Rs..... as cost of bid document.
4. Applicant has to deposit Earnest Money of Rs..... in the form of Receipt/Treasury Challan/ Deposit at call receipt of a schedule bank/fixed deposit receipt of a schedule bank/demand draft of a scheduled bank issued in favour of along with tender document. A part of Earnest money is acceptable in the form of Bank Guarantee also. In such case, 50% of earnest money or Rs. 20 lakh whichever is less will have to be deposited in shape prescribed above and balance in shape of Bank Guarantee.
- 5** Application supported by prescribed annexure and the financial bid shall be placed in separate sealed envelopes each marked "Eligibility Documents" and "Financial bid" respectively. Both the envelopes shall be submitted together in another sealed envelope. The bids will be received up to 3.00 PM on The envelopes Marked "Eligibility Documents" shall be opened by the Executive Engineer or his authorized representative in his office on the same day at 3.30 PM. The time and date of opening of financial bid shall be communicated at a later date.
 - (i) Pre Bid conference shall be held in the chamber of at on..... to clear the doubt of intending tenderers, if any.
 - (ii) The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.

* To be struck off for works with estimated cost more than Rs. 25 Crore.

** Para 5 above be modified suitably for three envelope system.

(Any other condition as decided by NIT approving authority may be added)

Executive Engineer

.....

Note: Press notice inviting tenders shall be published in newspapers as per Appendix 19A.

SECTION I

BRIEF PARTICULARS OF THE WORK

1. Salient details of the work for which bids are invited are as under:

Sl.no.	Name of work	Estimated cost	Period of completion

2. The work is situated at
3. General features and major components of the work are as under:
 - (i)
 - (ii)
 - (iii)
 - (iv)
4. Work shall be executed according to General Conditions of Contract for Central P.W.D. Works available separately at printer's outlets. The bidder may obtain the address of the outlets from the Executive Engineer.

SECTION II INFORMATION & INSTRUCTIONS FOR BIDDERS (Modified as per OM/MAN/160)

1.0 General :

- 1.1 Letter of transmittal and forms for deciding eligibility are given in Section III.
- 1.2 All information called for in the enclosed forms should be furnished against the relevant columns in the forms. If for any reason, information is furnished on a separate sheet, this fact should be mentioned against the relevant column. Even if no information is to be provided in a column, a "nil" or "no such case" entry should be made in that column. If any particulars/query is not applicable in case of the bidder, it should be stated as "not applicable". The bidders are cautioned that not giving complete information called for in the application forms or not giving it in clear terms or making any change in the prescribed forms or deliberately suppressing the information may result in the bid being summarily disqualified. Bids made by telegram or telex and those received late will not be entertained.
- 1.3 The bid should be type-written. The bidder should sign each page of the application.
- 1.4 Overwriting should be avoided. Correction, if any, should be made by neatly crossing out, initialing, dating and rewriting. Pages of the eligibility criteria document are numbered. Additional sheets, if any added by the contractor, should also be numbered by him. They should be submitted as a package with signed letter of transmittal.
- 1.5 References, information and certificates from the respective clients certifying suitability, technical knowledge or capability of the bidder should be signed by an officer not below the rank of Executive Engineer or equivalent.
- 1.6 The bidder may furnish any additional information which he thinks is necessary to establish his capabilities to successfully complete the envisaged work. He is, however, advised not to furnish superfluous information. No information shall be entertained after submission of eligibility criteria document unless it is called for by the Employer.
- 1.7 Any information furnished by the bidder found to be incorrect either immediately or at a later date, would render him liable to be debarred from tendering/taking up of work in CPWD. If such bidder happens to be enlisted contractor of any class in CPWD, his name shall also be removed from the approved list of contractors.

2.0 Definitions:

- 2.1 In this document the following words and expressions have the meaning hereby assigned to them.
- 2.2 Employer: Means the President of India, acting through the Executive Engineer
- 2.3 Bidder: Means the individual, proprietary firm, firm in partnership, limited company private or public or corporation.
- 2.4 "Year" means "Financial Year" unless stated otherwise.

3.0 Method of application:

- 3.1 If the bidder is an individual, the application shall be signed by him above his full type written name and current address.
- 3.2 If the bidder is a proprietary firm, the application shall be signed by the proprietor above his full typewritten name and the full name of his firm with its current address.
- 3.3 If the bidder is a firm in partnership, the application shall be signed by all the partners of the firm above their full typewritten names and current addresses, or, alternatively, by a partner holding power of attorney for the firm. In the later case a certified copy of the power of attorney should accompany the application. In both cases a certified copy of the partnership deed and current address of all the partners of the firm should accompany the application.
- 3.4 If the bidder is a limited company or a corporation, the application shall be signed by a duly authorized person holding power of attorney for signing the application accompanied by a copy of the power of attorney. The bidder should also furnish a copy of the Memorandum of Articles of Association duly attested by a Public Notary.

4.0 Final decision making authority.

The employer reserves the right to accept or reject any bid and to annul the process and reject all bids at any time, without assigning any reason or incurring any liability to the bidders.

5.0 Particulars provisional

The particulars of the work given in Section I are provisional. They are liable to change and must be considered only as advance information to assist the bidder.

6.0 Site visit

The bidder is advised to visit the site of work, at his own cost, and examine it and its surroundings to himself collect all information that he considers necessary for proper assessment of the prospective assignment.

7.0 Initial criteria for eligibility

7.1 The Bidder Should have satisfactorily completed during the last Seven years ending last day of the month For this purpose cost of work shall mean gross value the completed work including cost of material supplied by the Government/Client but excluding those supplied free of cost. This should be certified by an officer not below the rank of Executive Engineer/Project Manager or equivalent.

- (i) Three similar works each costing not less than Rs....., or completed two similar works each costing not less than Rs....., or completed one similar work costing not less than Rs.....

and

- (ii) One work of any nature (either part of (i) above or a separate one) costing not less than Rs..... with some Central/State Government/Central Autonomous Body/Central Public Sector Undertaking.

Similar work shall mean works of

The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7 % per annum; calculated from the date of completion to last date of receipt of applications for tenders. **(Added vide OM/MAN/160)**

7.2 At the time of purchase of tender, the tenderer shall have to furnish an affidavit as under :

“I/We undertake and confirm that eligible similar work(s) has /have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/We shall be debarred for tendering in CPWD contracts in future forever. Also, if such a violation comes to the notice of Department before date start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.”

(Added as per OM/MAN/211)

7.3 The bidder should have had average annual financial turn over (gross) of Rs..... on Civil / Electrical construction works during the immediate last three consecutive financial years. This should be duly audited by a Chartered Accountant. Year in which no turnover is shown would also be considered for working out the average.

7.4 The bidder should not have incurred any loss in more than two years during the immediate last five consecutive financial years, duly certified by the Chartered Accountant.

7.5 The bidding capacity of the contractor should be equal to or more than the estimated cost of the work put to tender. The bidding capacity shall be worked out by the following formula:

Bidding Capacity = $[A \times N \times 2] - B$

Where,

A = Maximum value of construction works executed in any one year during the last five years taking into account the completed as well as works in progress.

N = Number of years prescribed for completion of work for which bids has been invited.

B = Value of existing commitments and on going works to be completed during the period of completion of work for which bids have been invited.

7.6 The bidder should have a solvency of Rs. certified by his Bankers.

(Not required if applicant is a Class-I (Civil) registered contractor of CPWD)*

7.7 The bidder should own constructions equipment as per list required for the proper and timely execution of the work. Else, he should certify that he would be able to manage the equipment by hiring etc., and submit the list of firms from whom he proposes to hire.

7.8 The bidder should have sufficient number of Technical and Administrative employees for the proper execution of the contract. The bidder should submit a list of these employees stating clearly how these would be involved in this work.

7.9 The bidder's performance for each work completed in the last Seven years and in hand should be certified by an officer not below the rank of Executive Engineer or equivalent and should be obtained in sealed cover.

* May be struck off for works with estimated cost more than Rs. 25 Crores.

8.0 Evaluation criteria

8.1 The detailed submitted by the bidders will be evaluated in the following manner:

8.1.1 The initial criteria prescribed in para 7.1 to 7.5 above in respect of experience of similar class of works completed, bidding capacity and financial turn over etc. will first be scrutinized and the bidder's eligibility for the work be determined.

8.1.2 The bidders qualifying the initial criteria as set out in para 7.1 to 7.5 above will be evaluated for following criteria by scoring method on the basis of details furnished by them.

(a) Financial strength (Form 'A' & 'B')	Maximum 20 marks
(b) Experience in similar nature of work during last five years	Maximum 20 marks (Form 'C')
(c) Performance on works (Form 'E') – Time over run	Maximum 20 marks
(d) Performance on works (Form 'E') – Quality	Maximum 15 marks
(e) Personnel and Establishment (Form "F"&"G")	Maximum 10 marks
(f) Plant & Equipment (Form "H")	Maximum 15 marks

Total 100 marks

To become eligible for short listing the bidder must secure at least fifty percent marks in each and sixty percent marks in aggregate.

The department, however, reserves the right to restrict the list of such qualified contractors to any number deemed suitable by it.

8.2 Even though any bidder may satisfy the above requirements, he would be liable to disqualification if he has:

- (a) made misleading or false representation or deliberately suppressed the information in the forms, statements and enclosures required in the eligibility criteria document,
- (b) record of poor performance such as abandoning work, not properly completing the contract, or financial failures / weaknesses etc.

9.0 Financial information

Bidder should furnish the following financial information:

Annual financial statement for the last five year in(Form “A”) and solvency certificate in (Form “B”)

10.0 Experience in works highlighting experience in similar works

10.1 Bidder should furnish the following:

- (a) List of all works of similar nature successfully completed during the last seven years in (Form “C”).
- (b) List of the projects under execution or awarded in (Form “D”).

10.2 Particulars of completed works and performance of the bidder duly authenticated/certified by an officer not below the rank of Executive Engineer or equivalent should be furnished separately for each work completed or in progress in (Form “E”).

10.3 Information in (Form “D”) should be complete and no work should be left out.

11.0 Organisation information

Bidder is required to submit the information in respect of his organization in Forms “F” & “G”

12.0 Construction plant and equipment

Bidder should furnish the list of construction plant and equipment including steel shuttering, centering and scaffolding to be used in carrying out the work. (in Form “H”). Details of any other plant & equipment required for the work not included in Form “F” and available with the applicant may also be indicated.

13.0 Letter of transmittal

The bidder should submit the letter of transmittal attached with the document.

14.0 Opening of Price bid

After evaluation of applications, a list of short listed agencies will be prepared. Thereafter the financial bids of only the qualified and technically acceptable bidders shall be opened at the notified time, date and place in the presence of the qualified bidders or their representatives. The bids shall remain valid for 90 days from the last dated of its submission.

15.0 Award criteria

15.1 The employer reserves the right, without being liable for any damages or obligation to inform the bidder, to:

- (a) amend the scope and value of contract to the bidder.
- (b) Reject any or all the applications without assigning any reason.

15.2 Any effort on the part of the bidder or his agent to exercise influence or to pressurize the employer would result in rejection of his bid. Canvassing of any kind is prohibited.

**SECTION III
INFORMATION REGARDING ELIGIBILITY
LETTER OF TRANSMITTAL**

From:

To

The Executive Engineer

.....

Subject: Submission of bids for the work of

Sir,

Having examined the details given in press notice and bid document for the above work, I/we hereby submit the relevant information.

1. I/we hereby certify that all the statement made and information supplied in the enclosed forms A to H and accompanying statement are true and correct.
2. I/we have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
3. I/we submit the requisite certified solvency certificate and authorize the Executive Engineerto approach the Bank issuing the solvency certificate to confirm the correctness thereof. I/we also authorize Executive Engineer to approach individuals, employers, firms and corporation to verify our competence and general reputation.
4. I/we submit the following certificates in support of our suitability, technical knowledge and capability for having successfully completed the following works:

Name of work

Certificate from

Enclosures:

Seal of bidder

Date of submission:

Signature(s) of Bidder(s).

FORM 'A'
FINANCIAL INFORMATION

- I. Financial Analysis – Details to be furnished duly supported by figures in balance sheet/ profit & loss account for the last five years duly certified by the Chartered Accountant, as submitted by the applicant to the Income Tax Department (Copies to be attached).

Years

--	--	--	--	--

- (i) Gross Annual turn over on construction works.
(ii) Profit/Loss.

- II. Financial arrangements for carrying out the proposed work.
III. Solvency Certificate from Bankers of the bidder in the prescribed Form "B".

Signature of Chartered Accountant with Seal

Signature of Bidder(s).

FORM "B"
FORM OF BANKERS' CERTIFICATE FROM A SCHEDULED BANK

This is to certify that to the best of our knowledge and information that M/s./ Sh.....having marginally noted address, a customer of our bank are/is respectable and can be treated as good for any engagement upto a limit of Rs..... (Rupees.....)

This certificate is issued without any guarantee or responsibility on the bank or any of the officers.

(Signature)
For the Bank

- NOTE (1) Bankers certificates should be on letter head of the Bank, sealed in cover addressed to tendering authority.
(2) In case of partnership firm, certificate should include names of all partners as recorded with the Bank.

FORM 'C'
DETAILS OF ALL WORKS OF SIMILAR CLASS COMPLETED DURING THE
LAST FIVE YEARS ENDING LAST DAY OF THE MONTH

S. No.	Name of work/project and location	Owner or sponsoring organization	Cost of work in crores of rupees	Date of commencement as per contract	Stipulated date of completion	Actual date of completion	Litigation/arbitration cases pending/in progress with details*	Name and address/telephone number of officer to whom reference may be made	Remarks
1	2	3	4	5	6	7	8	9	10

* Indicate gross amount claimed and amount awarded by the Arbitrator.

Signature of Bidder(s)

FORM 'D'
PROJECTS UNDER EXECUTION OR AWARDED

S.No.	Name of work/project and location	Owner or sponsoring organization	Cost of work in crores of rupees	Date of commencement as per contract	Stipulated date of completion	Upto date percentage progress of work	Slow Progress if any and reasons thereof	Name and address/telephone number of officer to whom reference may be made	Remarks
1	2	3	4	5	6	7	8	9	10

Certified that the above list of works is complete and no work has been left out and that the information given is correct to my knowledge and belief.

Signature of Bidder(s)

FORM 'E'**PERFORMANCE REPORT OF WORKS REFERRED TO IN FORMS "B" & "C"**

1. Name of work/project & location
2. Agreement no.
3. Estimated cost
4. Tendered cost
5. Date of start
6. Date of completion
 - (i) Stipulated date of completion
 - (ii) Actual date of completion
7. Amount of compensation levied for delayed completion, if any
8. Amount of reduced rate items, if any
9. Performance Report

(1) Quality of work	Very Good/Good/Fair/Poor
(2) Financial soundness	Very Good/Good/Fair/Poor
(3) Technical Proficiency	Very Good/Good/Fair/Poor
(4) Resourcefulness	Very Good/Good/Fair/Poor
(5) General Behaviour	Very Good/Good/Fair/Poor

Dated:

Executive Engineer or Equivalent

FORM "F"**STRUCTURE & ORGANISATION**

1. Name & address of the bidder
2. Telephone no./Telex no./Fax no.
3. Legal status of the bidder (attach copies of original document defining the legal status)
 - (a) An Individual
 - (b) A proprietary firm
 - (c) A firm in partnership
 - (d) A limited company or Corporation
4. Particulars of registration with various Government Bodies (attach attested photocopy)

Organisation/Place of registration**Registration No.**

- 1.
- 2.
- 3.
5. Names and titles of Directors & Officers with designation to be concerned with this work.
6. Designation of individuals authorized to act for the organization
7. Was the bidder ever required to suspend construction for a period of more than six months continuously after he commenced the construction? If so, give the name of the project and reasons of suspension of work.
8. Has the bidder, or any constituent partner in case of partnership firm, ever abandoned the awarded work before its completion? If so, give name of the project and reasons for abandonment.
9. Has the bidder, or any constituent partner in case of partnership firm, ever been debarred/black listed for tendering in any organization at any time? If so, give details

- Signature of Bidder(s)

DETAILS OF TECHNICAL & ADMINISTRATIVE PERSONNEL TO BE EMPLOYED FOR THE WORK

Signature of Bidder(s)

DETAILS OF CONSTRUCTION PLANT AND EQUIPMENT LIKELY TO BE USED IN CARRYING OUT THE WORK

[illegible]

S.No.	Name of equipment	Nos.	Capacity or type	Age	Condition	Ownership status			Current location	Remarks
						Presently owned	Leased	To be purchased		
1	2	3	4	5	6	7	8	9	10	11
7.	Needle vibrator (petrol)									
8.	Table vibrator (elect./ petrol)									
	Equipment for building work									
1.	Block making machine									
2.	Bar bending machine									
3.	Bar cutting machine									
4.	Wood thickness planer									
5.	Drilling machine									
6.	Circular saw machine									
7.	Welding generators									
8.	Welding transformer									
9.	Cube testing machines									
10.	M.S. Pipes									
11.	Steel shuttering									
12.	Steel scaffolding									
13.	Grinding/polishing machines									
	Equipment for road work									
1.	Road rollers									
2.	Bitumen paver									
3.	Hot mix plant									
4.	Spreaders									
5.	Earth rammers									
6.	Vibratory road rollers									
	Equipment for transportation									
1.	Tippers									
2.	Trucks									
	Pneumatic equipment									
1.	Air compressor (diesel)									
	De-watering equipment									
1.	Pump (diesel)									
2.	Pump (electric)									
	Power equipment									
1.	Diesel generators									
	(Any other plant/equipment)									

Signature of Bidder(s)

NOTE: ABOVE LIST MAY BE MODIFIED SUITABLY BY NIT APPROVING AUTHORITY CONFORMING TO MARKING CRITERIA GIVEN AT ANNEXURE – I.

APPENDIX – 21
 [Reference para 18.1]
APPLICATION FORM

To

The Executive Engineer,
 Division,

Subject: Purchase of Tender documents

Sir,

*I/We am/are registered with the CPWD as Class contractor/contractors and our Registration no. is It is certified that the said registration is valid as on date

2. *I/We am/are not registered with CPWD.

3. *I/We am /are registered contractor(s) with MES/Railways/P&T/State PWD also.

Particular of the Authority, class and tender amount/limit upto which I/we am/are eligible to tender are furnished below:

Authority	Class	Tendering limit

It is certified (confirmed) that this registration/these registrations is/are valid as on date and we shall inform the department ourselves as soon as my / our registration expires or is cancelled/revoked.

The particulars of work done are furnished/enclosed (for State PWD contractors)

*I/We request that permission may be granted to me/us for the purchase of tender document for the work of

Your faithfully,
 (Contractor)*

(*Strike out inapplicable portion)

APPENDIX – 22

[Reference para 16.5(6)]

SAMPLE GUARANTEE BOND

This agreement made this day oftwo thousand.....between M/s (hereinafter called the Guarantor of the one part) and the..... (President of India hereinafter called the Government of the other part).

Whereas this agreement is supplementary to the contract (hereinafter called the Contract) dated made between the Guarantor of the one part and Government of the other part, whereby the Contractor, inter alia, undertook to render the buildings and structures in the said Contract recited, completely termite-proof/water and leak-proof.

And whereas the Guarantor agreed to give a guarantee to the effect that the said structure will remain termite-proof for ten years to be reckoned from the date after the maintenance period prescribed in the contract expires.

During this period of guarantee the Guarantor shall make good all defects and for that matter, shall replace at his risk and cost such wooden members as may be damaged by termites, and in case of any other defect being found he shall render the building termite-proof at his cost to the satisfaction of the Engineer-in-charge, and shall commence the works of such rectification within seven days from date of issuing notice from the Engineer-in-charge calling upon him to rectify the defects, failing which the work shall be got done by the Department by some other Contractor at the Guarantor's cost and risk, and in the later case the decision of the Engineer-in-charge as to the cost recoverable from the Guarantor shall be final and binding.

That if the Guarantor fails to execute the anti-termite treatment or commits breaches hereunder then the Guarantor will indemnify principal and his successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reason of any default on the part of the Guarantor in performance and observance of this supplemental agreement. As to the amount of loss and/or damage and/or cost incurred by the Government, the decision of the Engineer-in-charge will be final and binding on the parties.

In witness whereof these presents have been executed by the Obligor and by for and on behalf of the President of India on the day, month and year first above written.

Signed, sealed and delivered by OBLIGOR in the presence of –

- 1.
- 2.

Signed for and on behalf of THE PRESIDENT OF INDIA by in the presence of.

- 1.
- 2.

APPENDIX – 23
(Reference para 20.3.1(1))

(Modified as per OM No. MAN/240)

TIME SCHEDULE FOR SCRUTINY OF TENDERS

Sl. no.	Classification of tenders	Maximum time allowed for scrutiny and disposal in days					CW Board (if concerned)
		AE	EE	FO	SE	CE	
1	Tenders within the powers of AE to award	7	-		-	-	-
2	Tenders within the powers of EE to award	-	15		-	-	-
3	Tenders to be accepted by SE	-	7		15	-	-
4	Tenders to be accepted by CE	-	7	3	5*	20**	-
5	Tenders to be approved by ADG/DG/CW Board	-	7	3	5*	15**	15

Note:

1. The time schedule given above relates to tenders other than lump-sum tenders. For the later type of tenders, two days more may be allowed at each stage.
2. Period indicated above is in working days.
3. *The SE will send his recommendation in the matter to the CE within 5 days of receipt of copy of tender papers from EE.
4. In case of composite tender the EE while forwarding the tender to the Chief Engineer will send a copy of comparative statement of schedule related to other disciplines to the concerned EE and SE, who will send their recommendation along with justified rates etc. to the Chief Engineer within 5 working days of receipt of the paper.

****AE(P) & EE(P) shall process the tender and put up the same to SE(P) within 7 days after receipt of recommendation in the matter from SEs concerned.**

APPENDIX – 24
(Reference-para 20.6.2)

CENTRAL PUBLIC WORKS DEPARTMENT

..... Zone

MEMO FORWARDING TENDERS TO CENTRAL WORKS BOARD

1. Name of Work
2. Committed date of completion of the work (Project)
based on PE & A/A & E/S
3. Ref. to administrative approval and expenditure sanction
 - (i) Authority
 - (ii) No. & date
 - (iii) Amount
 - (iv) Corresponding amount available for the work included in the
present tender
 - (v) Total No. of packages
 - (vi) Details of other packages

Package Number	Contents of Package	Corresponding amount available	Status including amount of work awarded

4. Position of balance items of works/Projects (Not included in the tender) as per A/A & E/S in the following format.

Sl. No.	Description of sub-head/items	Amount as per A/A & E/S	Present Status

5. Ref. to technical sanction
 - (i) Scope of work
 - (ii) Authority
 - (iii) No. & date
 - (iv) Amount
6. Scope of work for which tenders have been called for, clearly indicating the items omitted from the sanctioned estimate and how the omitted items shall be executed.
7. Ref. to approval of N.I.T.
 - (i) Authority
 - (ii) No. & date
 - (iii) Estimated amount put to tender
8. Ref. to publicity:
 - (i) Date on which notice inviting tenders was placed on notice
board in Divisional Office
 - (ii) Date on which it was circulated to other offices
 - (iii) Name of newspapers (with date) in which the notice inviting
tenders was actually advertised.
9. (i) The date and time at which tenders were due to be received
in Divisional Office

- (ii) Postponed date and time, if any
- (iii) Reasons for postponement
- (iv) Reference to publicity in regard to postponement of tenders
10. The date from which tenders were available for sale to contractors
11. Particulars of contractors to whom tenders were sold. Quote authority for issue of tenders to contractors not eligible to tender in remarks column.

Name of contractor	Class in which registered	Department in which enlisted	Date of issue of tenders	Remarks
1	2	3	4	5
(i) (ii) (iii) (iv) (v)				

12. Opening of tenders

- (i) Date and time at which tenders were due to be opened
- (ii) (a) Date and time at which tenders were actually opened
- (b) Name & designation of officer who actually opened the tenders
- (iii) Name of contractors present at time of opening of tenders
- (iv) Name and designation of any other person present
- (v) Have all the contractors deposited earnest money in proper form?

13. List of persons who tendered for the job, with their tendered amount

Name of contractor	Tendered amount percentage above or below	Net tendered amount after negotiations, if any
1	2	3

14. Justified percentage as worked out by CE
15. Date on which validity/extended validity of tender of lowest expires
16. Important information
- (i) Availability of site
- (ii) Availability of stipulated materials
- (iii) Approval to layout plan
- (iv) Approval to buildings plan clearance from DUAC/Local body
- (v) Comment on the capabilities of lowest tenderer including financial and technical resources
- (vi) List of works in hand with lowest tenderer indicating the name of works, tendered amount, date of start, stipulated period, progress made, and remarks
- (vii) Is this the first call of tenders? If not, details of previous calls and results
- (viii) Status of Architectural working drawings and programme of same
- (ix) Status of structural drawings and programme of same

- (x) Status of services drawings and programme of same
- (a) Internal Electrical Installation.
- (b) Internal Water Supply and Sanitary.
- (c) External Electrical services.
- (i) Street light cabling.
- (ii) Sub station Equipments
- (d) External Water Supply and Sanitary Lines/Installations.
- (e) Fire Fighting System including fire alarm system.
- (f) Lifts, Air Conditioning
- (g) Sewerage treatment Plant.
- (h) Water treatment plant.
- (xi) Time period of completion of
- a. the total Project
- b. the work
- (xii) Availability of funds
- (xiii) Justification
- (xiv) Any other information*
17. Reference to forwarding of tenders by the Executive Engineer to the Chief Engineer no. and date
18. Date of receipt of tenders and date of forwarding the same or date of forwarding of comments and justification for sub works in case of composite tender to the next authority/CE.

Date of receipt

Date of forwarding
to higher office.

- (a) EE (Civil)
- (b) EE (Elect)
- (c) SE (Civil)
- (d) SE (Elect)

19. Plant/Equipment required for each activities as assessed by CE and minimum requirement indicated in tender/or during negotiation.
20. Details of milestones of activity (not included in tender for withholding payment but for execution of project).

Details of milestones.

Sl. No.	Description of milestones	Time allowed in days (from date of start)	Amount to be withheld in case of non achievement of milestones.

21. Recommendations of Chief Engineer

Shri.....
Secretary, Central Works Board,
U.O. No.....

Chief Engineer

* Details of tenders for similar works in the nearby area accepted in the past.

APPENDIX – 25

(Reference para 22.5(1))

GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS

The Agreement made this day of two thousand and between son of of (hereinafter called the Guarantor of the one part) and the PRESIDENT OF INDIA (hereinafter called Government of the other part).

WHEREAS this agreement is supplementary to a contract (hereinafter called the Contract) dated and made between the GUARANTOR of the one part and the Government of the other part, whereby the Contractor, *inter alia*, undertook to render the buildings and structures in the said contract recited completely water and leak-proof.

AND WHEREAS GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water and leak-proof for five years from the date of giving of water proofing treatment.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structures completely leak-proof and the minimum life of such water proofing treatment shall be five years to be reckoned from the date after the maintenance period prescribed in the contract.

Provided that the guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose:

- (a) Misuse of roof shall mean any operation which will damage proofing treatment, like chopping of firewood and things of the same nature which might cause damage to the roof;
- (b) Alteration shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts;
- (c) The decision of the Engineer-in-Charge with regard to cause of leakage shall be final.

During this period of guarantee the guarantor shall make good all defects and in case of any defect being found, render the building water-proof to the satisfaction of the Engineer-in-Charge at his cost, and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-Charge calling upon him to rectify the defects, failing which the work shall be got done by the Department by some other contractor at the GUARANTOR'S cost and risk. The decision of the Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if GUARANTOR fails to execute the water proofing or commits breach thereunder then the GUARANTOR will indemnify the Principal and his successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the Government the decision of the Engineer-in-Charge will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Obligor and by and for and on behalf of the PRESIDENT OF INDIA on the day, month and year first above written.

Signed, sealed and delivered by OBLIGOR in the presence of—

- 1.
- 2.

Signed for and on behalf of THE PRESIDENT OF INDIA by in the presence of—

- 1.
- 2.

APPENDIX – 26

(Reference-para 23.6)

FORM OF SUPPLEMENTARY AGREEMENT

This Agreement made this day the 20..... between hereinafter called the First Party which expression shall include his heirs, executors and administrators/their successors and assigns and the President of India, hereinafter called the Second Party, which expression shall include his successors and assigns, shown as under :

- (1) That this Agreement shall be called as Supplementary Agreement to the Agreement No. relating to the construction of entered into by the parties to this Agreement.
- (2) That WHEREAS the First Party has substantially completed the execution of the work described in and covered by the Agreement No. except the items mentioned in the Schedule annexed to this Agreement and whereas the items of the work mentioned in the Schedule annexed to this agreement cannot now be executed on account of non completion of the sanitary work, electric installation and some other work; and whereas both the parties are desirous that the items mentioned in the Schedule annexed to this Agreement should be executed by the First Party after the completion of the sanitary work, electric installation and some other work, it is hereby further agreed as under :
 - (a) That First Party shall and will execute the work covered by the items mentioned in the Schedule annexed to this Agreement at the rates and as per the terms and conditions of the original Agreement No. whatsoever called upon to do so by the Engineer-in-Charge, within a period of one year from the date hereof.
 - (b) That the First Party shall have absolutely no claim of whatsoever nature against the Second Party for doing the work mentioned in the Schedule annexed to this Agreement as required under clause (a) above, except that which he would be entitled to under the original Agreement No.
 - (c) That the First Party shall have to execute all the items which the Engineer-in-charge consider necessary.
 - (d) That the First Party shall start with the work of the remaining items mentioned in the Schedule annexed to this Agreement within days from on the receipt of a letter to the effect from the Engineer-in-Charge or from any date fixed in the said letter and shall complete the said work within the time fixed by the Engineer-in-Charge or as extended by him from time to time.
 - (e) That on the due execution and completion of this Agreement by the parties, the bill of the First Party in relation to the work already done by him under the Original Agreement No. shall be provisionally finalized by the Second Party and payment on account, if any amount due, shall be made to the First Party provided that the Second Party shall have a right to retain such amount as is considered reasonable by him as a security for the execution of the work mentioned in the Schedule annexed to this Agreement and the Second Party shall have right to deal with the said amount of security as he thinks proper under the terms and conditions of the Original Agreement. Further, on the due execution and original completion of this Agreement, the First Party shall be entitled to claim back his security deposit relating to the work in question, subject to the right of the Second Party to retain such amount as he thinks reasonable as mentioned above soon after the maintenance period of three months or six months, as the case may be mentioned in clause of the Original Agreement, is over.
 - (f) That the final bill relating to the entire work under the two agreements shall be prepared after the completion of the entire work covered by Agreement No. and this Agreement.
- (3) Except as modified by this Agreement the said Agreement No. shall remain in full force and effect.

IN WITNESS WHEREOF THE ABOVE MENTIONED PARTIES HAVE PUT THEIR SIGNATURE ON THIS DAY THE

APPENDIX - 27
(Reference-para 25.1)
SAMPLE FORM FOR SITE ORDERS BOOK

Name of work Date of commencement/period for completion

Sl. no.	Remarks of the Inspecting Officer or Contractor	Action taken and by whom	Remarks
1	2	3	4

APPENDIX – 29
(Reference para 29.5)

FORM OF APPLICATION BY THE CONTRACTOR FOR SEEKING EXTENSION OF TIME

PART - I

1. Name of contractor
2. Name of work as given in the agreement
3. Agreement no.
4. Estimated amount put tender
5. Date of commencement of work as per agreement
6. Period allowed for completion of work as per agreement
7. Date of completion stipulated in agreement
8. Period for which extension of time has been given previously:

	EE's letter no. and date	Extension granted	
		Months	Days
(a) 1st extension			
(b) 2nd extension			
(c) 3rd extension			
(d) 4th extension			
(e) Total extension previously given.....			

9. Reasons for which extension have been previously given (copies of the previous applications should be attached)
10. Period for which extension if applied for
11. Hindrances on account of which extension is applied for with dates on which hindrances occurred and the period for which these are likely to last.
 - (a) Serial no.
 - (b) Nature of hindrance
 - (c) Date of occurrence
 - (d) Period for which it is likely to last
 - (e) Period for which extension required for this particular hindrance
 - (f) Overlapping period if any, with reference to item.
 - (g) Net extension applied for
 - (h) Remarks, if any.

Total period on account of hindrances mentioned above..... Months Days
12. Extension of time required for extra work
13. Details of extra work and the amount involved:
 - (a) Total value of extra work
 - (b) Proportionate period of extension of time based on estimated amount put to tender on account of extra work.
14. Total extension of time required for 11 & 12
Submitted to the Sub Divisional Officer

Signature of contractor
Dated:

APPLICATION FOR EXTENSION OF TIME**PART II**

(To be filled in by the Sub-Divisional Office)

1. Date of receipt of application from, contractor for the work of in the Sub-Divisional Office
2. Acknowledgement issued by S.D.O. vide his no. dated
3. Remarks of S.D.O. on the reasons given by the contractor are correct and what extension, if any, is recommended by him. If he does not recommend the extension, reasons for rejections should be given.

Signature of Sub-Divisional Officer
Dated

(To be filled in by the Executive Engineer)

1. Date of receipt in the Divisional Office
2. Executive Engineer's remarks regarding hindrances mentioned by the contractor.
 - (i) Serial no.
 - (ii) Nature of hindrance
 - (iii) Date of occurrence
 - (iv) Period for which hindrance is likely to last
 - (v) Extension of time applied for by the contractor
 - (w) Overlapping period, if any, giving reference to items which overlap
 - (vii) Net period for which extension is recommended
 - (viii) Remarks as to why the hindrance occurred and justification for extension recommended.
3. Executive Engineer's recommendations.

[The present progress of the work should be stated and whether the work is likely to be completed by the date upto which extension has been applied for. If extension of time is not recommended, what compensation is proposed to be levied under Clause 2 of the agreement.]

Signature of
Executive Engineer

Dated

Superintending Engineer's recommendations

Signature of Superintending Engineer
Dated

APPENDIX – 30
(Reference para 29.9)

PROFORMA FOR EXTENSION OF TIME

To

Name

Address of the contractor

.....

.....

Subject:

Dear Sir (s),

Reference your letter no. dated in connection with the grant of extension of time for completion of the work

The date of completion for the above mentioned work is as stipulated in the agreement dated the

Extension of time for completion of the above mentioned work is granted upto without prejudice to the right of the Government to recover liquidated damages in accordance with the provision of Clause 2 of the said agreement dated the

Provided that notwithstanding the extension hereby granted, time is and shall still continue to be the essence of the said agreement.

Yours faithfully

Engineer-in-Charge
For and on behalf of the President of India

APPENDIX – 30A
(Reference para 29.8)

(Added as per OM/MAN/221)

PROFORMA FOR EXTENSION OF TIME UNDER CLAUSE 5

To

(Name& Address of the contractor)

.....
.....

Sub : Extension of contract under clause 5

Agreement No:-

Name of Work:-

Stipulated / Extended date of completion:-

(Strike out whichever not applicable)

Dear Sir (s),

Reference your letter no. dated submitting revised completion programme in connection with the grant of extension of time for completion of the above said work.

After considering your request carefully, under the provision of clause 5 the date of completion for the above mentioned work as stipulated in the above said agreement is extended up to without prejudice to the right of the Government to recover compensation in accordance with the provision of Clause 2 and other clauses of the said agreement.

Provided that notwithstanding the extension hereby granted, time is and shall still continue to be the essence of the said agreement.

Yours faithfully

Engineer-in-Charge
For and on behalf of the President of India

APPENDIX – 31
(Reference para 29.12)

(Modified vide as per OM/MAN/181 & 221)

**PROFORMA FOR INTIMATING THE CONTRACTOR REGARDING COMPENSATION
UNDER CLAUSE 2**

To

Name.....
Address of the contractor
.....
.....

Subject: Intimation regarding levy of compensation under clause 2

Dear Sir (s),

The date of completion for the above mentioned work was as stipulated in the agreement numberfor the work of.....

Extension of time for completion of the above mentioned work was extended by the Engineer-in-Charge vide his letter no. up to under clause 5 of the said agreement without prejudice to the right of the Government to recover compensation in accordance with the provisions of Clause 2 of the said agreement.

The work has finally been completed/determined (strike out whichever not applicable) on You were issued show cause vide this office letter no..... to explain why compensation not be imposed upon you under the provisions of clause 2 of said agreement for delayed completion of the work.

Your reply vide letter no. received in response to show cause has been considered carefully. (Reasons for not agreeing with hindrances as claimed by the contractor and total delay on part of contractor to be indicated in brief). After taking into consideration all the facts & circumstances I have come to the conclusion that you are solely responsible for delay of months days.

In exercise of the powers conferred on me under Clause 2 of the agreement, I the Superintending Engineer decide and determine that you are liable to pay Rs..... as and by way of compensation as stipulated in Clause 2 of the agreement. The said amount of compensation is hereby levied on you for the period of and at the rate of as determined by me on the tendered amount of the work shown in the agreement and you are hereby called upon to pay the same to the Government within(here mention the period) failing which the said amount shall be adjusted or set-off against any sum payable to you under this or any other contract with the Government.

Yours faithfully,

(.....)
Superintending Engineer

APPENDIX – 31A
(Reference para 33.1.1)

(Added vide OM/MAN/221)

**PROFORMA FOR SHOW CAUSE TO THE CONTRACTOR REGARDING COMPENSATION
UNDER CLAUSE 2**

To

Name & Address of the contractor

.....
.....

Sub: Show Cause for delayed completion/likely to be delayed completion of work under Agreement No

Dear Sir (s),

The date of completion for the above mentioned work was/is as stipulated in the agreement number for the work

Extensions of time for completion of the above mentioned work was extended by the Engineer-in-Charge vide his letter no. up to under clause 5 of the said agreement without prejudice to the right of the Government to recover compensation in accordance with the provisions of Clause 2 of the said agreement.

The work entrusted to you under the agreement referred above could not/unlikely to be completed within stipulated/extended date of completion due to your wrongful delay or suspension of work or slow progress of work or because of reasons within your control. The work has finally been completed on..... /cannot be completed within stipulated/extended date of completion. Therefore, under the provisions of clause 2 of the above said agreement you have rendered yourself liable to pay compensation.

Therefore, I, in exercise of the powers conferred on me by the aforesaid agreement, for and on behalf of the President of India, hereby give you show cause within to my satisfaction that why compensation should not be imposed upon you under the provisions of clause 2 of said agreement for delayed/likely to be delayed completion of the work. Please note that in case no cause is shown by you within the stipulated period or the cause shown is not to my satisfaction, I shall take such actions against you as are contemplated under Clause 2 there under of the said agreement without further notice.

Yours faithfully,

(.....)
Superintending Engineer

Note: Strike out whichever is not applicable. Notice may be modified suitably intending to impose compensation when tendered value of the item or group of items of work for which a separate period of completion is originally given.

APPENDIX – 31B
(Reference para 33.1.1)

(Added vide OM/MAN/221)

**PROFORMA FOR SHOW CAUSE TO THE CONTRACTOR REGARDING COMPENSATION
UNDER CLAUSE 2 (IN CASE OF CONTRACT IS DETERMINED UNDER CLAUSE 3)**

To

Name & Address of the contractor

.....
.....

Sub: Show Cause against agreement No for the work

Dear Sir (s),

The date of completion for the above mentioned work was as stipulated in the agreement number for the work of

Extension of time for completion of the above mentioned work was extended by the Engineer-in-Charge vide his letter no. up to under clause 5 of the said agreement without prejudice to the right of the Government to recover compensation in accordance with the provisions of Clause 2 of the said agreement. (Delete this Para if work was determined before stipulated date of completion)

The work entrusted to you under the agreement referred above could not be completed within stipulated/extended (strike out whichever not applicable) date of completion and the work has been finally determined under clause 3 vide letter dated Under the provisions of clause 2 of the above said agreement you have rendered yourself liable to pay compensation.

Therefore, I, in exercise of the powers conferred on me by the aforesaid agreement, for and on behalf of the President of India, hereby give you notice to show cause within to my satisfaction that why compensation should not be imposed upon you under the provisions of clause 2 of said agreement for your failure to complete the work by the stipulated date of completion/extended date of completion (strike out as the case may be). Please note that in case no cause is shown by you within the stipulated period or the cause shown is not to my satisfaction, I shall take such actions against you as are contemplated under Clause 2 of the said agreement without further notice.

Yours faithfully,

(.....)
Superintending Engineer

APPENDIX – 32
(Reference para 33.3.2)

SHOW CAUSE NOTICE UNDER CLAUSE 3 OF THE AGREEMENT

To

.....
.....

Sub:– Name of work.....
Agreement No.....

Dear Sir (s)

WHEREAS it appears to the undersigned that by reason of your wrongful delay or suspension of work or slow progress, the work entrusted to you under the agreement referred to above will not be completed/has not been completed (strike out whichever not applicable) within the stipulated/extended date of completion.(strike out whichever not applicable)

Therefore, I, in exercise of the powers conferred on me by the aforesaid agreement, for and on behalf of the President of India, hereby give you notice to show cause within to my satisfaction why an action under clause 3 (a) and (b) of the above agreement will not be taken against you on account of the breach of contract on your part. Please note that in case no cause is shown by you within the stipulated period or the cause shown is not to my satisfaction, I shall take such actions against you as are contemplated ***under Clause 3(a) and (b)*** thereunder of the said agreement and/or other clauses thereof, without further notice.

Yours faithfully

(Designation)

For and on behalf of the President of India

Note: While determining the contract under any of the sub-clause (i) to (xi) of clause 3 for causes other than the causes as mentioned above (viz. wrongful delay or suspension of work or slow progress) suitable modifications may be made.

APPENDIX – 33
(Reference-Para 33.3.2)
(Modified vide as per OM/MAN/221)

NOTICE ON FINAL ACTION UNDER CLAUSE 3 OF THE AGREEMENT

To

(Name & Address of the contractor)

.....
.....

Dear Sir(s),

Whereas under Clause 3 of the aforesaid agreement the Engineer-in-Charge shall have powers to take action under clause 3 in the event of delay or suspension in the execution of the aforesaid work by the contractor so that in the opinion of the Engineer-in-Charge (which shall be final and binding) the contractor will be unable to secure completion of the work by the stipulated/have already failed to complete the work by the extended* date of completion, whereas you have delayed/suspended the execution of the aforesaid work and as per the opinion of the undersigned, the Engineer-in-Charge (which is final and binding), you will be unable to secure completion of the work by the stipulated/have already failed to complete the work by the extended* date of completion and, and whereas you were served with show cause in this regard under this office no. dated but no reply has been given by you so far / your reply vide letter no. received in response to show cause has been considered carefully but not found to the satisfaction of the Engineer-in-Charge (Strike out whichever is not applicable, the arguments/facts claimed by the contractor be indicated in brief) or reply not received by the date. Therefore under powers delegated to me under sub-clause 3(a) & 3(b), I the Engineer-in-Charge for the aforesaid work under the aforesaid agreement, for and on behalf of the President of India, hereby

- (i) Determine the contract as aforesaid upon which determination your earnest money deposit, security deposit already recovered and Performance Guarantee stand absolutely forfeited to the Government and shall be absolutely at the disposal of Government, and
- (ii) Take out such part of the work out of your hand, as remains unexecuted, for giving it to another contractor to complete the work, and you shall have no claim to compensation for any loss sustained by you by reasons of your having purchased or procured any materials or entered into any engagements or made any advances on account of or with a view to the execution of the work or the performance of the contract. You are also hereby served with notice to the effect that the work executed by you will be measured up on for which you are asked to attend for joint measurement failing which the work will be measured by the department unilaterally in your absence and result of measurement will be final and will be binding on you.
- (iii) You shall not be allowed to participate in the tendering process for the balance work.

This is without prejudice to Government's right to take action under any other clauses or sub-clauses of the agreement and to realize Government dues and losses and damages whatsoever under such clauses or sub-clauses.

Yours faithfully,

Engineer-in-charge
Executive Engineer
..... Division

For and on behalf of the President of India

*Score out which is not applicable.

Note: While determining the contract under any of the sub-clause (i) to (xi) of clause 3 for causes other than the causes as mentioned above (viz. wrongful delay or suspension of work or slow progress) suitable modifications may be made.

APPENDIX– 34

(Reference para 35.6)

Model form of letter of appointment of Arbitrator

CENTRAL PUBLIC WORKS DEPARTMENT

No.

Dated, the20.....

Subject: In the matter of arbitration between and Union of India, regarding the work Agreement no.

Whereas.....has/have written to me vide his/their letter no..... dated..... that certain disputes have arisen between the above noted parties in respect of the above noted work. I,,Chief Engineer, CPWD by powers conferred on me under Clause 25 of the said Agreement hereby appoint Shri Arbitrator, Ministry of Urban Development, New Delhi as Sole Arbitrator to decide and make his award regarding the claims/disputes by the contractor, if any, as shown in the statements enclosed subject always, however, to their admissibility under clause 25 of the aforesaid agreement.

**The amount of the claim(s) in dispute being Rs.1,00,000/-* or above Rs.1,00,000/- the Arbitrator shall give reasons for the award.

CHIEF ENGINEER

[*Score out what is not applicable]

Note: **This para is to be omitted in cases where the amount of claim(s) is less than Rs.1,00,000]

To

1. Shri.....
Arbitrator
Ministry of Urban Development, New Delhi.

2. M/s Contractor, with reference to his/their letter no. dated
Copy to:

1. Shri Superintending Engineer, Circle, CPWD,with reference to letter no.dated.....

2. Shri Executive Engineer,Division, CPWD with reference to his letter no. dated

Arrangements may please be made to defend the case effectively. Legal assistance of the Counsel/ Superintending Engineer (P) may be obtained where necessary.

Superintending Engineer/Executive Engineer should ensure that the bills of the contractors are finalised immediately, if not already done.

CHIEF ENGINEER

APPENDIX – 35
(Reference para 35.6)

**Model form of letter of appointment of substitute Arbitrator due to transfer or vacation of office
by the Arbitrator**

CENTRAL PUBLIC WORKS DEPARTMENT

No..... Dated, the 20.....

Subject: In the matter of arbitration between :

..... Claimant

vs

..... Respondent

Arbitration case no..... of

Whereas Shri..... was appointed Sole Arbitrator by letter no. dated in the above matter, and whereas the aforesaid Arbitrator has been transferred/vacated his office on, I,, Chief Engineer (Zone) in exercise of my powers under clause 25 of the contract appoint Shri..... as the Sole Arbitrator to determine the disputes referred to the aforesaid arbitrator in accordance with the said clause 25. Shri..... may start the proceedings from the stage at which the aforesaid Arbitrator left off.

2. **The amount of the claim in dispute being Rs.1,00,000/- and above, the arbitrator shall give reasons for the award in respect of each claim/dispute.

Chief Engineer

Copy to:

1. Shri.....with the request to transfer the records of the case to Shri..... at the earliest.
2. Shri..... with the request to take over the records of the case from Shri.....at the earliest.

Note: **This para is to be omitted in cases where the amount of claim(s) is less than Rs.1,00,000/-

APPENDIX – 36
(Reference para 43.1)

CPWA-35 (Revised)

REGISTER OF MATERIALS AT SITE ACCOUNTS

(Referred to in paragraphs 10.3.11, 10.3.12, 10.3.18, 10.5.7, 10.5.8 of CPWA code)

1. Section
2. Name of work
3. Name of article
4. Estimate requirements
5. Issue rate

S.no.	Date of receipts/ issues	Received from/ Issued to	Receipts/ Issues	Balance	Remarks
1	2	3	4	5	6

APPENDIX - 37
(Reference para 44.3)

Rules for conducting departmental auction

The following rules shall be observed by the departmental officers while conducting departmental auction for disposal of surplus stores and unserviceable materials:

1. Publicity

- (a) Wide publicity shall be given in all cases of auction of unserviceable materials and surplus stores. The notice should be displayed in the CPWD web site irrespective of the value of stores (Reserve Price) to be auctioned. In cases of auction of stores valued at Rs.25,000/- or more (Reserve Price) publicity should invariably be given in the local English and vernacular Press. In the important cases, auction notices should be published at least seven days ahead of the scheduled date of auction.
- (b) For all cases of auction, registered notices shall be given to be local Registered Kabari Associations. These should be sent at least seven days in advance of the date of auction. In addition, the notice of auction may be endorsed to certain individuals, at the discretion of Executive Engineer, if it is felt by him that it would be in the interest of the Government to do so.
- (c) Auction notices should invariably be endorsed to Sub-Divisions under the Divisions concerned and local Divisions for prominent display on the Notice Boards and also pasted on the Notice Board of the Division concerned as well as at the prominent place at the site of auction. In case auction is proposed to be conducted at stations other than Divisional Headquarters, notice for auction shall be sent to all Sub-Divisions as well as Offices of the State Departments for display on Notice Board. Record of notices sent to the Associations, individuals and offices, shall be properly maintained. Record of the dates on which they are pasted on the Notice Board of the Division etc. and the days they remain on the Notice board will also be kept. It will be the personal responsibility of the Head Clerk to watch that they remain on the Notice Boards till the date of auction.
- (d) Auction Notice should clearly indicate the particulars such as value of materials proposed to be disposed off by auction, conditions of auction, earnest money to be deposited and the time and date fixed for auction. It is also necessary to draw a set of detailed additional conditions depending on the materials proposed to be disposed off and also the locality in which the same is stored so that bidders may not prefer any claim due to misunderstanding or incorrect wordings provided in the contract documents.

2. Inspection

The materials to be auctioned should be properly stored and clearly stacked to enable proper inspection by the prospective bidders.

3. Supervision

Auctions shall be conducted in the presence of the Assistant Engineer-in-charge. The Junior Engineer under whose supervision the materials have remained under custody will render all possible help to the Assistant Engineer in discharging his duties and he will attend the auction. In case of auctions of stores the reserve price of which is more than Rs.1,00,000/- the auction will be supervised by the Executive Engineer concerned. In the case of auctions held at a place outside the Sub-Divisional Head Quarter, the auction may be attended and final bids recorded by the Junior Engineer, provided the book value of the materials auctioned is not more than Rs.2500/-.

4. Bid amount

- (a) At the fall of hammer the highest bidder will be required to deposit in cash bid amount @ 25% of his bid money. Balance of the sale value shall be paid by the buyer to the Executive Engineer or his accredited representative after the acceptance of the bid within the time limits mentioned below:
 - (i) In case bids which do not exceed Rs. 10000/-, within 24 hours of the receipt of notice of the acceptance of the bid.
 - (ii) In case of bids which exceed Rs.10000/-, within three days of receipt of notice of the acceptance of the bid.
- (b) The supervising Officer shall have the discretion to demand more than 25% of the bid money upto full amount of the bid, if considered necessary by him.
- (c) In case of bidder's failure to deposit the full bid money in time, the earnest money deposited by the bidder shall stand forfeited, the materials shall be re-auctioned. The name of defaulting bidders shall be intimated to Chief Engineer's office for circulation to other Divisions, so that such bidders are debarred from bidding in future.

5. Acceptance of bid

- (a) The acceptance of the bid by the competent authority must be conveyed in writing (Registered AD) to the bidder as far as possible within five days from the date of auction. In case, the bid is to be accepted by Superintending Engineer, it shall be conveyed within ten days.
- (b) It is not incumbent on officers of CPWD to out-right accept the highest bid, which can be rejected without assigning any reason to the bidder concerned, but he must record in writing his reasons for not accepting the same.

6. Removal of auctioned materials

- (a) As far as possible, auctioned materials must be removed by the bidder within 3 days from the date of acceptance of bid. However, the materials will be allowed to be removed only after payment of bid money, which will be accepted in cash or amount deposited by the bidder in branch of RBI/SBI and challan made over to CPWD. No cheques will be accepted under any circumstance.
- (b) As soon as the full amount of the bid money is made good by the prospective buyer, he would acquire his lien on the auctioned stores etc. and it will be his duty/responsibility to any damage done by way of pilferage, fire, or any other unforeseen calamity, and no claim on this account shall be entertained.
- (c) The bidder will leave storage place of the material quite clean.
- (d) The materials will be removed from site in presence of the bidder himself or agent duly authorised by him in writing in this behalf.
- (e) If the bidder does not vacate the site within three days, EE may confiscate the balance materials lying at the site. (such Provisions may be kept in Auction Documents)

7. Records of bids

- (a) The officer who supervised the conduct of auction, will maintain in his own handwriting, a complete record of all the bids offered by different bidders.
- (b) The scroll of bids will indicate the full description of the materials, reserve price, site, date and time of auction and will be signed by the Supervising Officer and at least two witnesses at the conclusion of the auction.
- (c) The bid sheet in triplicate should be signed simultaneously by the purchaser and the Supervising Officer.
- (d) The Supervising Officer should send an immediate report about the auction to the next higher authority.

8. Power to accept the bid

Bids should be accepted by the Executive Engineer concerned. In case of bids below the reserve price, the bids will be accepted by the next higher authority.

**PROFORMA FOR MAINTAINING RECORD OF CONDUCTING
DEPARTMENTAL AUCTION
CENTRAL PUBLIC WORKS DEPARTMENT**

Name of Sub-Division

[illegible]

APPENDIX – 39
(Reference-Para 47.4.11)

ESTIMATE FOR ESTABLISHMENT CHARGES

DETAILED DEMAND FOR GRANTS ENSUING YEAR

DEMAND No.....

Estimated strength of Establishment and provisions thereof:

Estimated strength, as on 1st March

(In thousands of Rupees)

Last year	Current year	Ensuing year	Budget	Revised Current year	Budget
				1. <u>Salary</u> (a) Officers; Indicate designation of each post and strength and provision thereof. (b) Staff; Indicate types/ Categories of all posts and show in lump the Estimated strength and provisions thereof	
				Total salary	
				2. Allowances (other than Travel Expenses)	
				3. Wages	
				4. Travel Expenses	
				Total	

APPENDIX – 40
(Reference para 47.4.12)

REVENUE RECEIPTS

Ministry/Department/Union Territory:

Major Head

(in thousands of Rupees)

	First		Last month		Total
	Seven month	Eight month	Five month	Four month	
ACCOUNTS Third last year Second last year Last year					
ESTIMATES Current year] Budget] Revised Ensuing year] Budget Year]					

Accounts 7 months		Minor Heads	Accounts			Current year		Ensuing year
Last year	Current year		Third Last year	Second last year	Last year	Budget Estimate	Revised Estimate	Budget Estimate

Explanation for increase/decrease (Minor Head wise)

Signature.....
Designation.....
Date.....

APPENDIX –41
(Reference para 47.4.13)

FORM GFR 5-A:

**ESTIMATES OF FOREIGN GRANTS CONCERNING
THE MINISTRY/DEPARTMENT OF**

(In thousands of Rupees)

Name of the grantor country / body	Date of aid agreement	Particulars of assistance to be received	Total assistance expected	Receipt Major Head	Amount to be provided in			Manner of utilisation of aid*
					Current year B.E	Current year R.E	Ensuing year B.E	
1	2	3	4	5	6	7	8	9

Signature.....

Designation.....

Date.....

- * A brief note may be added indicating the project on which aid is to be utilised. In the case of material and equipment, the relevant grant and expenditure Heads of Account under which (i) utilisation of material by Central Government Department/projects, (ii) transfer of material to State, Union Territories and other Bodies will be adjusted and also whether the utilisation on transfer will be on Plan (State/UT/ Central Sponsored or Central) or Non-Plan schemes should also be indicated. In cases where the aid material is proposed to be sold, the Receipt Major Head under which the proceeds will be credited should be indicated.

Note: Cash grants and assistance in the form of material and equipment should be indicated separately in Columns 3 to 8.

APPENDIX – 42
(Reference para 47.4.13)

FORM GFR 5-B

ESTIMATES OF INTEREST RECEIPTS & LOAN REPAYMENTS

Ministry/Department

(In thousands of Rupees)

	INTEREST RECEIPTS			LOAN REPAYMENT		
	B.E. Current year	R.E. Current year	B.E. Ensuing year	B.E. Current year	R.E. Current year	B.E. Ensuing year
1. ** Other parties (Cooperatives, Educational Institutions*, displaced persons and other individual loanees except Government servants)						
2. ** Government Servants						
Total						

No.....

Dated the
Signature.....
Designation.....

Ministry/Department.....

Forwarded, in duplicate, to the Ministry of
Finance, Department of Economic Affairs,
(Budget Division)

*Estimates for each Institution should be separately appended to the Annexure

(**Categories with which CPWD is concerned have only been included).

APPENDIX - 43
FORM GFR7-1
PLAN
 (Reference para 47.4.14)

STATEMENT OF ACCEPTED ESTIMATES OF PLAN EXPENDITURE OF
MINISTRY/DEPARTMENT OF

- *1. Central Plan
- *2. Centrally sponsored Plan
- *3. U.T. Plan of(Name of U.T.)
- *4. State Plan

[*Please score out what is not applicable.]

Revised Estimates - Current year

(Amount in thousands of Rupees)

Head of Development	Major Head of Account	Number and title of Demand	Sub-heads and units of Appropriation in Demand	Budget Estimates Current Year			Revised Estimates Current Year			Brief reasons for variation between R.E and B.E.
				G	R	N	G	R	N	
1	2	3	4	5	6	7	8	9	10	11
@ Total: Major Head @ Total: Major Head Grand Total										

@ Total under each Major Head to be struck separately.

G: Gross expenditure, R: Recoveries, if any, below the Demand. N: Net expenditure

No.....
 Ministry/Department of
 Dated, the

Forwarded, in (quadruplicate) to Controller General of Accounts, Ministry of Finance, Lok Nayak Bhawan, New Delhi

For Financial Adviser

APPENDIX – 44

(Reference para 52.3)

REGISTER OF OBSERVATION MEMOS RECEIVED FROM THE CHIEF TECHNICAL EXAMINER

Sl.no.	No. & date of Observation Memo	Name of work and Agreement no.	Name of contractor	Remarks regarding subsequent development and disposal
1	2	3	4	5

APPENDIX – 45

(Reference para 52.4)

**REGISTER SHOWING OVER PAYMENT ASSESSED/POINTED OUT BY C.T.E. ORGANISATION
AND SUBSEQUENT RECOVERIES EFFECTED**

Sl. no.	Reference no. and date	Name of work and agreement no.	Name of contractor	Amount of over payment assessed/ pointed out by CTE	Amount of over payment finally accepted by EE for recovery	Actual date of recovery of over- payment	Remarks
1	2	3	4	5	6	7	8

APPENDIX – 46
(Reference para 54.11)

**LIST OF VARIOUS RECORDS WHICH ARE EXAMINED BY INSPECTION PARTY
DURING LOCAL INSPECTION**

1. Cash Book
2. Cash balance report
3. Register of sale of tender forms
4. Register of tenders
5. Cheque counterfoils and receipt books
6. Remittances made into the Bank/Treasury
7. Subsidiary Cash Book
8. Acquittance Rolls and T.A. Bills, Register of passed bills (CPWA 99) and Check Register of pay bills (CPWA 100)
9. Imprest Accounts
10. Register of contingencies
11. Stock accounts
12. T&P accounts
13. Workshop accounts
14. Road metal accounts
15. Manufacture accounts
16. Transfer Entries books
17. Register of property accounts
18. Register of licence fees of land and buildings
19. Register of immovable and landed properties
20. Register of miscellaneous recoveries
21. Register of C.T.E. Observations and recoveries
22. Register of transfers awaited
23. Register of miscellaneous sanctions
24. Register of A.G./Adjustment memos.
25. Register of Cash Settlement Suspense Accounts
26. Register of Deposits
27. Register of interest bearing securities
28. Post Office Savings Pass Books
29. Register of Purchases
30. Register of Miscellaneous Works Advances
31. Schedule of Rates
32. Register of Rates
33. Register of Muster Rolls
34. Log Books
35. Records relating to works
36. Workcharged Establishment pay bills/ Pay Bill Register (TR 28A)
37. Measurement Books
38. Register of review of Measurement Books by the Divisional Accountant
39. Standard Measurement Books
40. Tenders and comparative statements
41. Work Orders and Register of Work Orders
42. Supply orders and Register of local purchases
43. Contractors' Ledgers

44. Register of Contractors' bills
45. Works Abstract
46. Register of Works
47. Materials at Site Accounts.
48. Register of sanctioned estimates
49. Service Books
50. Work Charged Provident Fund Account
51. GPF Accounts of Group 'D' Staff
52. Overtime allowance claims
53. Children education allowance claims
54. Watchings of Actual
55. Budget Estimates Surrender of unanticipated credits
56. Incumbency's Register
57. Register of expenditure on demolition, restoration, etc.
58. Rush of expenditure during March

S. No.	Correction Slip No.	Reference No.	Contents in Brief