

D—DEMANDS BY CIVIL OFFICERS

I. GENERAL

104. The procedure in this section is applicable only in the case of works carried out by the Public works Department and does not hold good in the case of works carried out by the other departments—vide paragraphs 95 to 98.

105. Applications for new buildings and for additions or alterations to existing buildings, should be made by the Officer of the department concerned in communication with the Executive Engineer. It is the duty of Executive Engineer, while giving due weight to the opinions of the department concerned, to oppose any application for works of the real necessity for which he is not satisfied whenever he is unable to recommend the execution of works, he should explain his objections to the officer concerned, and if he fails to convince him, he should refer the matter to the Superintending Engineer. The actual execution of works asked for by Civil Officers, must in every case be dependent on funds being available.

106. The local head of a Civil department may call upon the Executive Engineer to report on proposals for additions or alterations to the buildings in his use and to state the probable cost; but Executive Engineers cannot be required except by their departmental superiors, to prepare the detailed designs and estimates necessary for technical sanction.

107. Proposals for frequent additions and alterations present a real obstacle to rapid progress and Executive Engineers must satisfy themselves that the alterations demanded by an administrative department are necessary and will not prove a source of serious delay. The Executive Engineer should refuse to consider proposals for alterations if he is not satisfied as to the necessity of the alterations but he should forward a brief but clear statement of his reasons for his refusal to the Superintending Engineer as well as to the administrative authority concerned.

II.—PETTY ORIGINAL WORKS COSTING Rs. 5,000

108. In cases in which such works are not executed by Civil department under the provisions of paragraphs 93 to 97 but are required to be carried out by the Public Works Department, a requisition should be made in Public Works Account Code Form 32 (C. F. No. 145) by the Officer requiring the work. The

Executive Engineer will record on the requisition what work should be done (applying the principles of the two foregoing paragraphs) an estimate of the probable cost, and his sanction to the estimate. After acceptance of the estimate by the requisiting Officer, the Public Works Department will take necessary action to provide funds and to sanction the execution of the work.

NOTE.—Lump-sum grants for minor works are allotted to circles for distribution by the superintending Engineer, generally these grants are redistributed to divisions at once, in such cases the Divisional Officer will sanction execution of the work.

III—PROCEDURE IN REGARD TO ORIGINAL WORKS COSTING MORE THAN Rs. 5,000

109. If the work be likely to cost more than Rs. 5,000 the procedure described in paragraphs 99 to 102 regarding administrative approval and technical sanction should be followed.

IV—PROCEDURE IN REGARD TO REPAIRS.

110. The procedure to be followed in the case of repairs is as follows:—

(i) The requisition will be made by the Civil Officer concerned in Public Works Account Code Form 32 (C. F. No. 145)

(ii) On receiving the requisition, the Executive Engineer, will first satisfy himself as to the propriety of the work, and that there is sufficient provision in the budget grant, under the proper sub-head of "Repairs".

(iii) The Executive Engineer may then order the immediate execution of the work, without the preparation of a detailed estimate, provided that the cost is not likely to exceed Rs. 5,000.

(iv) Should the budget grant under the particular sub-head be insufficient to meet the outlay, reference must be made to the Superintending Engineer.

(v) When the approximate estimate exceeds Rs. 5,000 detailed estimate must be framed and sanctioned by the authority competent to accord technical sanction.

Attention is invited to paragraphs 144 and 147.

V--LIMITATION OF SANCTION.

111. Nothing in these rules is to be constructed into a permission to officers to carry out in portions any group of works or alterations or to make purchases of which the cost in the aggregate would exceed what they are empowered to sanction under the rules.

E--PREPARATION OF PROJECTS.

I. GENERAL

112. The papers to be submitted with the Project for a work will consist of a report, a specification and a detailed statement of measurements, quantities and rates, with an abstract showing the total estimated cost in rupees only of each item. These documents form what is called the estimate in the sense of this Code. The form of the abstract will depend on the method proposed for the execution of the work. If it is intended to purchase or supply materials and to employ labour for construction separately (whether by contract or departmental agency) the abstract of the estimate should be so framed as to show separately for each distinct item of artificer's work (1) the cost and quantity of "Labour" and (2) the cost of materials. But if this is not the case, e. g. when any item of work is to be executed by the contract and it is proposed to contract for the completed items of work, the abstract of the estimate may show merely the quantity and cost each item of work. In the case of a project consisting of several works the report may be a single document for all the works and likewise the specification; but details of measurements and abstracts may conveniently be prepared for each work, supplemented by a general abstract bringing the whole together. In the case of estimates for 'Repairs' or 'Maintenance' only the specification and the detailed statement of measurements and quantities with the abstract will ordinarily be required. The report should state clearly the purpose of the work estimated for, and explain any peculiarities which require elucidation including where necessary, the reason for the adoption of the estimated project or design in preference to others.

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113. To facilitate the preparation of estimates, a schedule of rates of each kind of work commonly executed should be prepared annually in each division, and the rates entered in an estimate should generally agree with the schedule rates, but where from any cause these are considered not sufficient, or in excess a detailed statement must be given in the data showing the manner in which the rate used in the estimate is arrived at.

114. In the case of materials supplied departmentally, the rates allowed to the contractor should not allow any profit on the cost of materials.

115. When an extra percentage is allowed on account of special local conditions such as in the case of out-of-the way tank restoration scheme works, it should be so stated in a note at the end of the data statements accompanying schedule of rates, and this extra percentage should not be described as contractors' profit.

116. The schedule of rates should be prepared on the basis of rates prevailing in the locality, and as it is used for the important purpose of preparing estimates and is also used as a guide in setting rates in contract agreements, necessary analyses of the rates for each description of work and the varying conditions thereof should be given as far as practicable.

In working out the rates, the tenders accepted for works in the division during the twelve months preceding the date on which their preparation is due to begin, and the tendency of rates and prices to rise or fall should be taken in to account. When rates and prices are changing rapidly, the Superintendent Engineer should issue orders at any time, that a certain percentage should be added to or deducted from all the rates of from certain specified rates or from rates for certain specified classes of items, e.g. for materials or for labour. In the data accompanying the schedule of rates for works, the Contractor's profit should not be added as a separate item.

117. In addition to the usual charge of 5 percent for petty supervision and contingencies, all incidental expenditure which can be foreseen such as compensation for or cost of land, sheds for workmen and stores, should be separately provided for in the estimate. The provision for contingencies may not be diverted to any new work or repair which is not provided for in the estimate and of which the cost exceeds Rs. 5,000 without the sanction of the Superintendent Engineer [vide also paragraph 428 (e)].

NOTE—The provision for petty supervision should, in no case, be diverted to meet expenditure on other items of work.

117-A. In the estimates for major works, provision upto 5 per cent of the estimated cost of the works portion may ordinarily be made for 'unforeseen works'. When found necessary, this provision may be utilised for new items of works which are required by the administrative authority and which are essential for the fulfilment of the precise object for which the estimate for the main works is intended. The working estimates for such works will be sanctioned by the Executive Engineer upto a limit of Rs. 5,000 for each item and by the Superintending Engineer beyond this limit [vide paragraphs 417 (g) and 428 (f).]

117-B. "In the case of estimates for all Government Buildings 1 per cent of the cost of the building shall be separate for the purpose of sculptures paintings, arts objects etc., subjects to a maximum of of Rs. 5,000 and in case, the amount is likely to exceed the above limit, specific orders of Government should be obtained. The works of art should be got executed in consultation with the Government School of Arts and Crafts. Special authorisation of the Chief Engineer (Buildings) should be obtained before executing such works so as to limit it overall expenditure, to an annual ceiling of Rs. one lakh'.

118. The rules regulating the inclusion in estimates of the approximate cost of establishment and tools and plant will be found, in respect of irrigation projects, in paragraph 396 below and in respect of other works, in rule 19 of Appendix 7 of the Tamil Nadu Public Works Account Code.

119. Estimate for works on which it is intended to use prison labour will, as in the case of free labour, provide for the full market value of the work to be done, but a note of the reduction if any, to be effected thereby should be made at the foot of the abstract of the estimate. See paragraph 483 of the Tamil Nadu Public Works Account Code.

120. Important structural designs should, as far as possible be prepared in the Chief Engineer's office together with the schedule of quantities, and the remaining designing work of importance should be concentrated in the Superintending Engineers' Offices, the Executive Offices being left to deal only with designs for the alterations of existing building and less important new works. The responsibility for the technical features

of a design lies with the office of origin. Local officers will be responsible, however for settling locally questions connected with foundations and other similar matters. Subordinate officer should always bring to the notice of their higher authorities any unsuitability or technical defect in a design.

121. All Government servants should treat the rate and the amount of cost entered against each item in an estimate and the abstract showing the total estimated cost of a work or part of a work as strictly confidential. No information concerning them may be communicated on any account to any contractor, piece worker or prospective tenderer.

II—ORIGINAL WORKS.

(a) CIVIL BUILDINGS.

122. The site of every building should, if possible, be definitely settled before the detailed designs and estimates are prepared. Local authorities must be consulted in all cases as to the site. In the case of works or buildings which are intended to be erected in the neighbourhood of any fort or cantonment, the matter should, in the first instance be referred to the local military works officer for an expression of his opinion from a military point of view, and then submitted to the Government of India in the Army Department for concurrence, and when such concurrence has been obtained no deviation is permissible without previous reference to that department.

Estimates for buildings should be accompanied by drawing as follows;—

(i) A block plan showing the situation, of the proposed building with reference to others, the various features in proximity to the intended site, meridian line, prevailing directions of the wind, and all other matters capable of graphic delineation which may have influenced the SELECTION.

(ii) A ground plan or plans of the building foundations and various stages as required.

(iii) Sections through the buildings in such directions as may be necessary to exhibit the intended form and dimensions of every part.

(iv) Elevations where necessary.

(v) A plan or plans showing the general arrangements and distribution of the timbers or iron work of the floors and roof and such working drawings as may enable the officer responsible for the project to judge of the details.

123. Delegated.

124. Powder magazines should be provided with lightning conductor as directed in the Code of Instructions for the guidance of Public Works officers in the subject. All conductors and their connection with the earth should be inspected and tested periodically under the rules, laid down in that code, by Public Works Department Officers, a report of each such inspection being submitted to the Superintending Engineer.

125. Designs for the coach-houses attached to residential buildings should include provision for a motor pit with a wooden covering and a window. The coach-house should be capable of being used either for a carriage or a car.

126 to 132—Deleted.

III—REPAIRS

(a) GENERAL

133. "Repairs" may be divided into two classes, "ordinary" and "special". Ordinary repairs include:—

(i) those, which, as a matter of regulation, are carried out periodically and which are usually of the same quantity from time to time, such as the painting or white washing a building, or a new coating of metal on a road.

(ii) other occasional petty repairs which may become necessary from time to time and which may have to be carried out between the time of periodical repairs.

(iii) in respect of irrigation works all operations required to maintain, in proper condition, the work, as they are i.e. to the standards laid down already-

134. (i) Special repairs are other than ordinary repairs i.e. they are repairs which are not periodical or frequent, e.g. re-roofing a building, replacing of beams, renewal flooring etc. Whenever a work of special or ordinary repairs is accompanied by improvements or extensions, the rule in paragraph 93 for classifying the work should be observed.

(ii) In respect of irrigation works, repairs special include all operations required to maintain the works in a better condition i.e. to an improved standard by using materials of a more permanent or lasting nature without increasing the efficiency or scope of the system. e.g. cement plastering or pointing in place of ordinary plastering; or pointing, plastering in place of pointing, roughstone masonry in place of dry stone packing, revetment to tankbunds at sites of breaches and to margins of rivers at places where they are eroded. grouting newly the surface of the aprons and revetments, lengthening of aprons and revetments to protect erosions noticed in beds and margins of rivers, canals, and channels. When a work of special or ordinary repairs is accompanied by improvements work extension; the rule in paragraph 379 (c) for classifying the works should be observed.

135. Ordinary repairs: Except in the cases contemplated in paragraph 147 a separate estimate should be prepared annually for all them anticipated order that the estimate may be prepared in the slack season, and that the working year, as detailed in the budget.

136. An ordinary repair estimate lapses on the last day of the financial year in the case of roads and buildings. In the case of irrigation works, however, separate working years have been laid down as shown below in order that the estimates may be prepared in the slack season, and that the end of the financial year may not interfere with the working season of the department.—

Circle (1)	Division (2)	Date (3)
Madras	All Division except Chingleput.	31st August
	Chingleput	31st December
Coimbatore	All Divisions	31st January
Thanjavur	All Divisions	31st January
Tiruchirappalli	All Divisions except Tiruchirappalli.	31st December
	Tiruchirappalli	31st July

(ii) the following programme should be followed in the execution of all road maintenance works (water bound macadam)

(1) Maintenance estimates should be got ready and tenders invited before the end of December.

(2) Tenders should be settled by the end of January in any case not later than 15th February.

(3) Sites should be handed over by March

NOTE (1).—The annual maintenance estimates for the Buckingham Canal Division will be closed on the 31st July.

NOTE (2).—In future all sanctioned estimates for deposit works whether original works or repairs, will continue to be in force till the work is completed or unless the estimate is operated upon for five years, whichever is less.

NOTE (3).—If any annual maintenance and repair work, the accounts of which have under this paragraph to be closed on the 31st March; is executed under the lumpsum contract system, as described in the Tamil Nadu Building Practice and the date of completion thereof according to the agreement entered into with the contractor falls beyond the 31st March, the date of closing the estimate for the work shall be the date of payment of the final bill to the contractor after the completion of the work.

137. The sanction to an ordinary repair estimates lapses on the last date of the year fixed by the State Government under paragraph 136. If, however, inconvenience would arise in any exceptional case from the stoppage of the work on the fixed date, the repairs may be carried on to completion, the expenditure after that date being treated as expenditure against a fresh repair estimate for the next working year.

In the case of non-periodical estimates pertaining to irrigation works the time-limit of five years prescribed in paragraphs 139 and 186 for sanction to estimates for original works and special repairs will apply.

138. Repairs estimate should like those for original works, provide for the removal of all rubbish which may have accumulated filling in unsightly pits, etc round the buildings; all works establishment employed specially on the work; and, under separate sub-heads, all watchmen sanctioned by competent authority for the care of vacant buildings guarding works working sluices etc.

139. Estimates for special repairs remain current till the completion of the repairs in the same manner as estimates for original works-*vide* paragraph 186.

140. In cases of urgency the Superintending Engineer may authorize the commencement of periodical repairs in anticipation of the formal sanction to the estimate; but in such cases an approximate sum must be fixed, to the expenditure of which sanction is provisionally given, and the Executive Engineer will be responsible that sanction of the competent authority is accorded to the regular estimates at the earliest possible date.

141. In the case of all descriptions of work, for the renewal of which any specific periods of time has been fixed, the estimate for its repairs should show the date when such item of work was last executed.

142. No administrative approval is required for works, which are of the class of either ordinary or special repairs. The class of mixed works described in paragraph 93 above require the same approval as original works.

143. To facilitate the preparation of estimates for periodical repairs, a standard measurement book may be kept in the office of each Executive Engineer showing the detailed measurements of each kind of work which is usually subject to renewal in each work under his charge *vide* paragraph 29, Tamil Nadu Public Works Account Code. Standard Measurement books should, however, be maintained properly in the case of repairs to floating plant which require periodical repairs such as painting and tarring.

144. Except in the case of lump-sum estimates for ordinary repairs dealt with under paragraph 147, the annual expenditure on ordinary repairs to Government Buildings (both residential and non-residential) exclusive of Municipal taxes, should be limited to the norms fixed by Government from time to time *vide* appendix XXII-A. Expenditure on special repairs to Government buildings (both residential and non-residential) should be limited to the norms fixed by Government from time to time *vide* Appendix XXII-A.

Note 1.—Deleted

Note 2.—Deleted

144-A. The Executive Engineer and the Electrical Engineer, P.W.D. may incur annual expenditure on ordinary repairs to electrical installations in Government buildings (both residential and non-residential) and should be limited to the norms fixed by Government from time to time vide Appendix XXII-A.

Expenditure on special repairs to electrical installations in Government buildings both residential and non-residential should be limited to the norms fixed by Government from time to time—vide Appendix XXII-A.

145. The estimate when prepared will be submitted to the officer occupying such building, or in the case of military buildings in charge of the Public Works Department, to the officer commanding the station, for counter signature in token that all repairs known to be required are provided for. In the case of buildings occupied by officers of a Civil department occasional repairs not provided for in the annual estimate will be executed on requisitions sanctioned under paragraph 110.

146. Provision for the payment of municipal or other taxes on Public buildings should be made in the annual repairs estimates in the cases indicated in Article 120 in the Tamil Nadu Financial Code, Volume I.

(b) LUMP-SUM REPAIR ESTIMATES.

147. If the cost of ordinary annual repairs, excluding municipal taxes, to a building (residential or non-residential) is less than Rs. 2,000 the Superintending Engineer may prescribe, subject to revision from time to time, a lump-sum limited to Rs. 2,000 (plus the amount of municipal taxes, if any, payable by Government under paragraph 250) to cover the cost of ordinary annual repairs and within this amount, expenditure will be permissible year after year without any detailed estimate being prepared. The Executive Engineer enjoys similar power upto a limit of Rs. 1,000 for each building. Such lump-sum estimates should be framed after a consideration of the cost of maintenance in the past and is not subject to the 1 per cent limit under paragraph 144 except in the case of residential buildings. If, in any working year the estimated cost of ordinary repairs is more than the permissible limit given above, or if the lump sum sanctioned by the Superintending Engineer or Executive Engineer is exceeded, a detailed estimate should

be prepared in accordance with the ordinary rules and sanctioned by the competent authority. On sanction being accorded to such an estimate, the sanctioned lump-sum estimate would automatically be superseded for the working year in question.

Similarly lump-sum estimates may also be prepared and sanctioned for ordinary repairs to floating plant based on a five year limit of expenditure subject to the following conditions.

In the case of staff boats or steamers for which proforma accounts are maintained individually for each plant the expenditure on any one plant in any year together with the expenditure on that plant in the previous four years should not exceed the five-year limit to be fixed. In the case of other minor floating plant, a single lumpsum estimate based on a five year limit to be fixed may be sanctioned for the repairs of all floating plant included in a class and the total expenditure for any one year on all the plant in any one class should not exceed one-fifth of the five-year limit fixed for that class.

Electrical Maintenance Works.

Similar lump-sum estimates may also be prepared and sanctioned for ordinary repairs to electrical installations in civil buildings. Where the cost of such annual ordinary repairs is less than Rs. 10,000 the Chief Engineers may prescribe, subject to revision from time to time, a lumpsum limited to Rs. 10,000 to cover the cost of annual maintenance of electric installations in civil buildings. The Electrical Engineer, Public Works Department may similarly prescribe lump-sums upto a limit of Rs. 2,500. Within this amount the expenditure will be permissible year after without any detailed estimates being prepared and when the above limits are exceeded in any working year detailed estimates will have to be prepared in accordance with the ordinary rule and got sanctioned by the competent authority.

NOTE:—The sanction accorded to the lump-sum provision referred to in the paragraph should be held to be a sanction for an estimate for the amount of the lump-sum for all purposes of this code.

(C) SPECIAL REPAIRS.

148. It is irregular to classify under 'Special Repairs' an estimate which provides for items of ordinary repairs for the reason that the repairs cannot be completed before the date fixed for the closure of annual maintenance estimates.

IV—ROADS

149. Unless metal is to be obtained by purchase or contract, delivered on the road, the estimate should show the proposed cost, divided under cost of collection' and 'carriage'; if the metal is to be manufactured the probable outlay on each sub-head of the operation should be shown distinct from carriage.

F—CONTRACTS

I—METHODS OF EXECUTION OF WORKS

150. The works executed by the department are carried out by one of the undermentioned three methods:—

- (i) departmentally, by the employment of daily labour,
- (ii) by piece-work agreement in form Public Works Department IV-27 and
- (iii) by an agreement in form Public Works Department, V. 53, based on a lump-sum tender system, as defined in the TNBP—Method (i) is adopted in cases where no contractors are available or where for other reasons, it is found more economical. Under this method, the department manufactures or purchase its own materials. The purchase of materials or tools and plant and machinery is governed by the stores rules in Appendix 15 to the Tamil Nadu Financial Code (Volume II).

Under method (ii), the piece-worker merely agrees to execute a specified work at specified rates without reference to quantity or time. The conditions of the contract and the security to be taken from the piece-worker for the due fulfilment of the contract are set forth in form Public Works Department IV-27. The piece workers usually possesses little professional knowledge or capital and employees no supervising staff. The department arranges for the Supervision, the setting out and the measuring of all work. The piece-work system shall ordinarily be confined to works (including improvements and repairs) costing not more than Rs. 1,00,000 If in any case for works costing more than

Rs. 1,00,000 it is considered preferable to adopt the piece-work system instead of method (iii) which should not be resorted to as a matter of course unless the situation strongly warrants it, the reasons for adopting piece-work system of contract should be recorded in relevant file. The schedule of rates in the piece-work agreements should show rates either for finished work or for labour and materials, as the case may be, even for items for which lump sums have been provided in the sanctioned estimates.

In regard to method (iii) the details are set forth clearly in—

1. The General conditions of contract to TNBP;
2. The standardized forms of articles of agreement, tender notice and tender mentioned in the TNBP (Public Works Department Form Nos. V-53, 53 (a) and 53 (b) respectively); and
3. The intermediate and the final bill forms connected therewith (Public Works Department Form Nos. VI-75 (a) and 75 (b).

In the case of each work executed under Method (ii) or method (iii) the authority accepting the contract will decide whether it is desirable to retain, in the hands of the department, the supply of imported stores or other materials.

In cases where it is decided that the department should supply certain materials to the contractor for use on the work a description of every such material and the rate and place at which it will be supplied should be specified in the notice calling for tenders and also in the schedule forming part of the agreement *vide* also paragraph 327, Tamil Nadu Public Works Account Code.

In cases where the contractors are allowed to supply the required imported articles themselves, the description of such articles must be clearly defined by governing specifications. For cases where the 'British Standard Specifications' standards are not applicable, other suitable methods should be adopted, such as specifying the catalogue number product of a reputable firm. When test certificates are demanded, full particulars shall be given in the tender notice and the agreement and it shall also be stated therein that the cost of furnishing such certificates shall be borne by the contractors.

CHAPTER II

WORKS

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NOTE.—Rules regulating the payment of bonus to contractors in very exceptional cases are given in Appendix XVII.