



MUNICIPAL BUILDING RULES: SUGGESTED CHANGES

May 2016



CHAPTER - X

BUILDING REGULATIONS

General Powers

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Abbreviations

DTCP	Directorate of Town and Country Planning
EO	Executive Officer
GoTN	Government of Tamil Nadu
MBR	Municipalities Building Rules
TCC	Tiruchirappalli City Corporation
TNUSSP	Tamil Nadu Urban Sanitation Support Programme
Tps	Town Panchayats
UGSS	Underground Sewerage Systems
ULBs	Urban Local Bodies



Municipal Building Rules: Suggested Changes

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1. Municipal Building Rules: Suggested Changes

1.1. Background

The Tamil Nadu Urban Sanitation Support Programme (TNUSSP) supports the Government of Tamil Nadu (GoTN) and cities in making improvements along the entire urban sanitation value chain. In order to effect improvements across the sanitation value chain, an assessment was undertaken of the existing practices with respect to on-site containment structures. This has also been highlighted as an important element in GoTN's Septage Operative Guidelines of 2014.

While already existing on-site structures need to be surveyed to ensure compliance with sanitary requirements, and enforcement in this regard has been taken up by Urban Local Bodies (ULBs) in Tamil Nadu, another intervention identified was improvements to the existing procedures for receiving and approving building proposals.

A review was hence, carried out as follows:

- The rules laid out under the Tamil Nadu District Municipalities Building Rules (MBR), 1972 were examined to lay out the procedure advised especially in respect of building of toilets and sub-structures thereof, in particular;
- Discussions were held with officers in Tiruchirappalli City Corporation (TCC), and at Town Panchayats (TPs) of Periyanaicken-palyam and Narsimhanaicken-palyam, to understand the process followed for approving building plan and building construction.

This note summarises the review and the ensuing recommendations (This is under the consideration of GoTN).

1.2. Observations on Existing Procedure and Process

Applications along with site plan, building plan and construction specification as per the MBR are submitted to ULBs. The key submissions related to sanitation are:

1. Undertaking by the applicant not to occupy the building until a certificate from public health officer is obtained;
2. The site plan to show location of latrine, urinals, passage/means of access for scavenging purposes, position of well/tank/water course if any in the site and within 20 m from site
3. The site plan to include nature of soil, sub-soil, water level in (or adjoining) well
4. The building plan to include form and dimensions of any water closet, earth closet, privy, ash pit, or cess pool
5. Construction specification to provide details of the manner in which room, house drainage, surface drainage proposed to be disposed

Information provided in the application for building construction approval is usually limited to existence of toilet(s) (in the plan) and a mention of treatment structure and capacity in words. The following features are not captured:

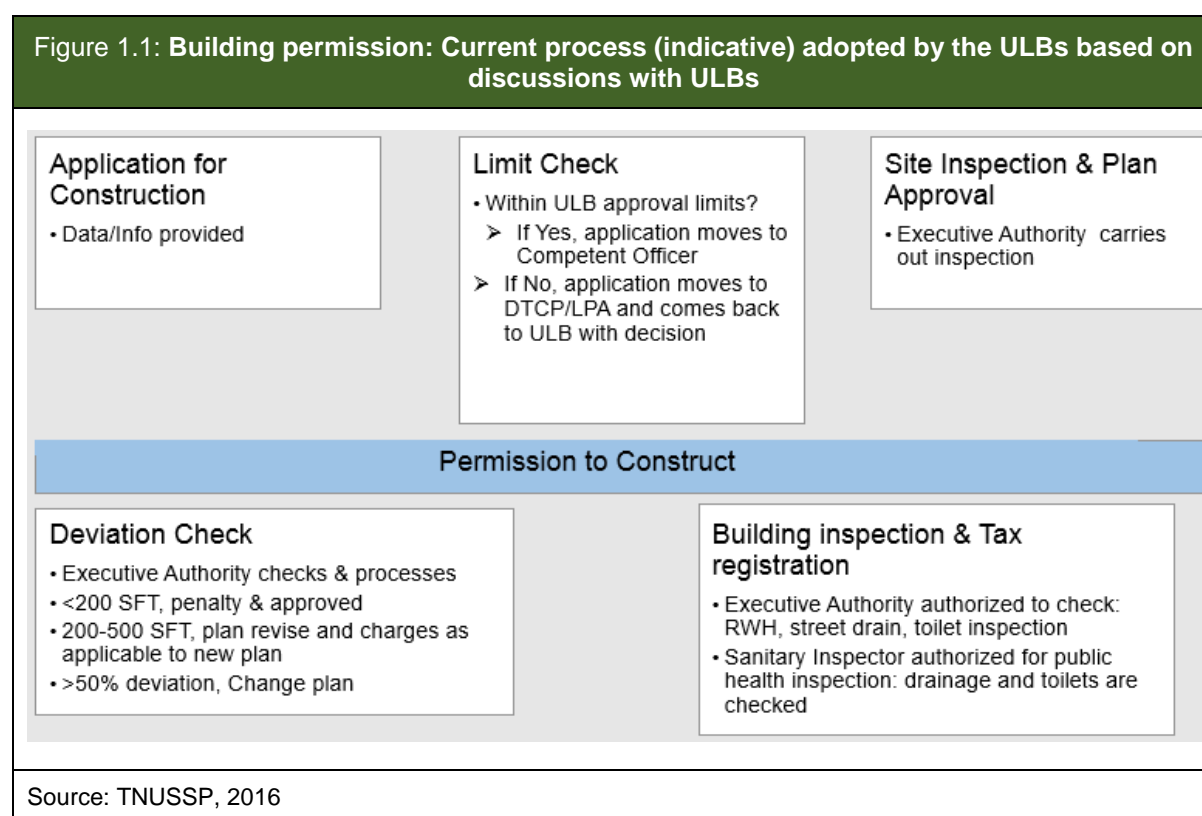
1. Availability of water-seal (e.g., S or P trap);

2. Location of toilet containment structure (in-site plan and building plan) and details of connection to toilet;
3. Conformity to toilet containment design requirements;
4. Provision for access to containment structure for inspection, cleaning and desludging
5. Distance from nearest drinking water source (in site plan)

After the plan has been approved, the following issues/gaps are observed during construction or post-construction:

1. Due verification has not been made for all properties in the TPs.
 - a. While TCC reported that all properties were inspected/verified, issues such as the lack of building inspector positions in the TPs, extra workload on the Executive Office (EO) were reported as primary reasons for all properties not being inspected in the TPs.
2. Extent of inspection is limited.

A flowchart of the existing procedure and process is presented below:



1.3. Suggested Changes in Application Submission Requirements

The application has to capture the following information:

1. Re-state number of toilets to link plumbing and containment needs and provisions shown in plan and section.
2. Sanitary toilets (Yes or No): Availability of S/P trap with seal

3. Toilet pan outlet connected to the type of sub-surface structure (choose):
 - i. Pit
 - ii. Septic tank
 - iii. Chamber connected to UGD
 - iv. Others (specify)
4. Building plan with cross section of toilet pan outlet connection to sub-surface structure (yes or no)
5. Building plan showing provision for access to clean and/or desludge sub-surface structure (yes or no)

In the application for permission to construct/reconstruct (Appendix A) of the MBR add item (d) to provide information on arrangements for human excreta disposal as highlighted in the Figure 1.2.

Figure 1.2: Suggested changes to the application for permission to construct / reconstruct

<p>Section 1 97, 204, 208, 213 or 215 as the case may be and rules 3(1) of the Tamil Nadu District Municipalities Building Rules, 1972, I forward herewith in triplicate.</p> <p>(a) A site plan of the land on which the building is to be constructed/reconstructed/alterd or added (complying with the requirements of Appendix B of the rules); and (b) A plan or plans of the building showing a ground plan of each floor, elevations and section (complying with the requirements of Appendix C of the rules); and (c) A specification of work (complying with the requirements of Appendix D of the rules).</p> <p>(d) The arrangements for human excreta disposal are as follows:</p> <ol style="list-style-type: none"> 1. No of toiletsspecify number 2. Availability of S/P trap with seal.....Yes/No (circle appropriate) 3. Toilet outlet connected to the type of sub-surface structure (circle appropriate): <ol style="list-style-type: none"> a. Pit b. Septic tank c. Chamber connected to UGD d. Others: Please describe: <div style="border: 1px solid black; height: 20px; width: 100%;"></div> 4. In the building plan cross section of toilet outlet connection to subsurface structure provided..... Yes/No (circle appropriate) 5. In the building plan details on access to cleaning and/ or desludging of subsurface structure has been provided Yes/No (circle appropriate). <p>I intend to use the building only as a house/not as dwelling house but for the purpose of. I request that the site may be approved and that permission may be accorded to execute the said work.</p> <p>Signature of the owner of the land and building or the applicant.</p>
Source: TNUSSP, 2016

The above suggested change has been incorporated in the application and provided in Annexure 1 of this note. Along with the Application Form, it is also recommended that a one-page note on Dos and Don'ts is provided to the applicant, which emphasises the following:

1. The need for water-seal to make the toilet sanitary in the case of pour-flush or cistern-flush toilets

2. Requirements of septic tank:
 - a. Minimum size and dimensions (L:W:D) for different numbers of users
 - b. Water tightness of floor and sidewalls of septic tank
3. Provision of access for cleaning/emptying septic tank
4. Connect to soak-away: need, design and porous nature
5. Location and distance of soakaway from drinking water source and structure

A draft of the one-page note is provided in Annexure 2.

It is also recommended that the Directorate of Town and Country Planning (DTCP) checklist for ordinary buildings (Part I) (<http://www.tn.gov.in/tcp/checklist.html>) be modified appropriately and used for the application process.

1.4. Suggested Changes in the Inspection Process

To make the process of building construction inspection and completion certification more manageable, the following changes are suggested:

1. The applicant photographs and geo-tags (longitude and latitude) the containment structure being constructed, showing:
 - a. Access to cleaning and/or desludging: an open manhole and the top view of the chamber
 - b. In areas covered by Underground Sewerage System(UGSS), the connection to UGSS
 - c. In case of a septic tank, the connection of the septic tank outlet to the soak-away structure
2. The applicant has to take photographs as mentioned above, in two stages:
 - a. The first stage is when it is under-construction. A digital copy of the photographs are to be uploaded and submitted through internet or other media as suggested by the Authorities
 - b. The second stage is on the completion of construction. Copies of the photographs are to be printed and made available for inspection during site visits by the Competent Authority. Copies are also to be submitted to obtain the completion certification

It is suggested to incorporate the above requirements in Appendix A: Application form of MBR, 'Conditions' Section. The change suggested above has been incorporated in the application and provided in Annexure 1 of this note.

The Competent Authority carrying out site inspection may observe and document the following:

- a. Structures on excreta disposal arrangements as specified in the plan against as constructed
- b. Conformity to design dimensions
- c. Existence of water-seal in the case of water-flush
- d. Connection of toilet outlet to UGSS, if there

- e. Connection of septic tank outlet to soak-away structure
- f. Provision of access for cleaning and desludging
- g. Minimum distance maintained for containment structure to drinking water source

In TPs which fall short of manpower for verification, the following alternatives are suggested:

1. A Competent authority from the nearest Municipalities may be deputed for verification;
2. A Physical verification be conducted on all households that have defaulted in submitting photographs and on only a sample of the compliant households.

It is also recommended that the DTCP checklist for ordinary buildings (Part II) (<http://www.tn.gov.in/tcp/checklist.html>) be modified appropriately and used for the application process (GoTN 1972).

Bibliography

GoTN (1972). "THE TAMIL NADU MUNICIPALITEIS BUILDING RULES, 1972 (G.O.Ms.No.1009, Rural Development and Local Administration, Dated 19" 1972 (1009).

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Annexure 1: Suggested Changes in the Application Form

(See rule 3(1)) Municipality

Application under Section (197, 204, 208, 213 or 215 as the case may be), of the Tamil Nadu District Municipalities Act, 1920 (Tamil Nadu Act V of 1920).

Rule 3(1) of the Tamil Nadu District Municipalities Building Rules, 1966.

From

Name of the owner or the applicant

Address

Sir,

I intend to construct/reconstruct/make alterations or addition to a building other than a hut, in the site or plot of land Town or Revenue Survey No..... Street or road name in the ward of division and in accordance with the provisions of section.

Section 1 97, 204, 208, 213 or 215 as the case may be and rules 3(1) of the Tamil Nadu District Municipalities Building Rules, 1972, I forward herewith in triplicate.

- (a) A site plan of the land on which the building is to be constructed/reconstructed/alterd or added (complying with the requirements of **Appendix B** of the rules); and
- (b) A plan or plans of the building showing a ground plan of each floor, elevations and section (complying with the requirements of **Appendix C** of the rules); and
- (c) A specification of work (complying with the requirements of **Appendix D** of the rules).
- (d) The arrangements for human excreta disposal are as follows:
 1. No of toiletsspecify number
 2. Availability of S/P trap with seal.....Yes/No (circle appropriate)
 3. Toilet outlet connected to the type of sub-surface structure (circle appropriate):
 - i. Pit
 - ii. Septic tank
 - iii. Chamber connected to UGD
 - iv. Others: Please describe:
.....
.....
.....
 4. In the building plan cross section of toilet outlet connection to subsurface structure provided..... Yes/No (circle appropriate)
 5. In the building plan details on access to cleaning and/or desludging of subsurface structure has been provided Yes/No (circle appropriate).

I intend to use the building only as a house/not as dwelling house but for the purpose of.

I request that the site may be approved and that permission may be accorded to execute the said work.

Signature of the owner of the land and building or the applicant.

Signature of the licenced builder.

Surveyor, architect or engineer.

Conditions

- i. I agree not to proceed with the execution of the work until approval is signified by the Executive Authority under section 200 of the Tamil Nadu District Municipalities Act, 1920 or permissions is granted by the said authority under section 201 or section 210, as the case may be, or by the Municipal Council under section 202 or section 211 of the said Act.
- ii. I agree not to do any work otherwise than in accordance with the site and building plans and specifications which have been approved or in contravention of any of the provisions of the Tamil Nadu District Municipalities Act, 1920 or any rule, byelaw, order or other declaration made thereunder or of any direction or requisition lawfully given or made under the said Act, rules or byelaws.
- iii. I agree to make any alterations which may be required by any notice issued or by any order confirmed by the Executive Authority under section 205 or section 216 of the Tamil Nadu District Municipalities Act, 1920 as the case may be.
- iv. I agree to keep one of the approved site plan and one set of copies of the sanctioned plans of the buildings at the site of the building at all times when the work is in progress and also agree to see that such plans are available and the building is open at all time for the inspection of the Executive Authority or any officer authorised by him in that behalf.
- v. I agree to give notice to the Executive Authority in accordance with section 89 of the Tamil Nadu District Municipalities Act, 1920 and furnish a set of completion plans within fifteen days from the date of completion or occupation of the building. whichever is earlier".
- vi. I also agree not to occupy the building that will be constructed or reconstructed by me, or cause or permit it to be occupied until I have obtained a certificate from an officer of the Public Health Department of the Municipality as required by sections 26 and 33 of the Tamil Nadu Public Health Act, 1939.
- vii. I agree to capture photographs and geo-tag (longitude and latitude) of:
 - a. In areas covered by UGSS, connection to UGSS
 - b. Cleaning and/or desludging access to on-site excreta disposal systems such as open manhole and chamber top view
 - c. In case of septic tank, connection of septic tank outlet to soak-away structure
- viii. I also agree to take photographs as mentioned in point (vii) above in two stages:
 - a. Under-construction stage, and submit the digital copy of the photograph through internet or other media as suggested by the Authorities

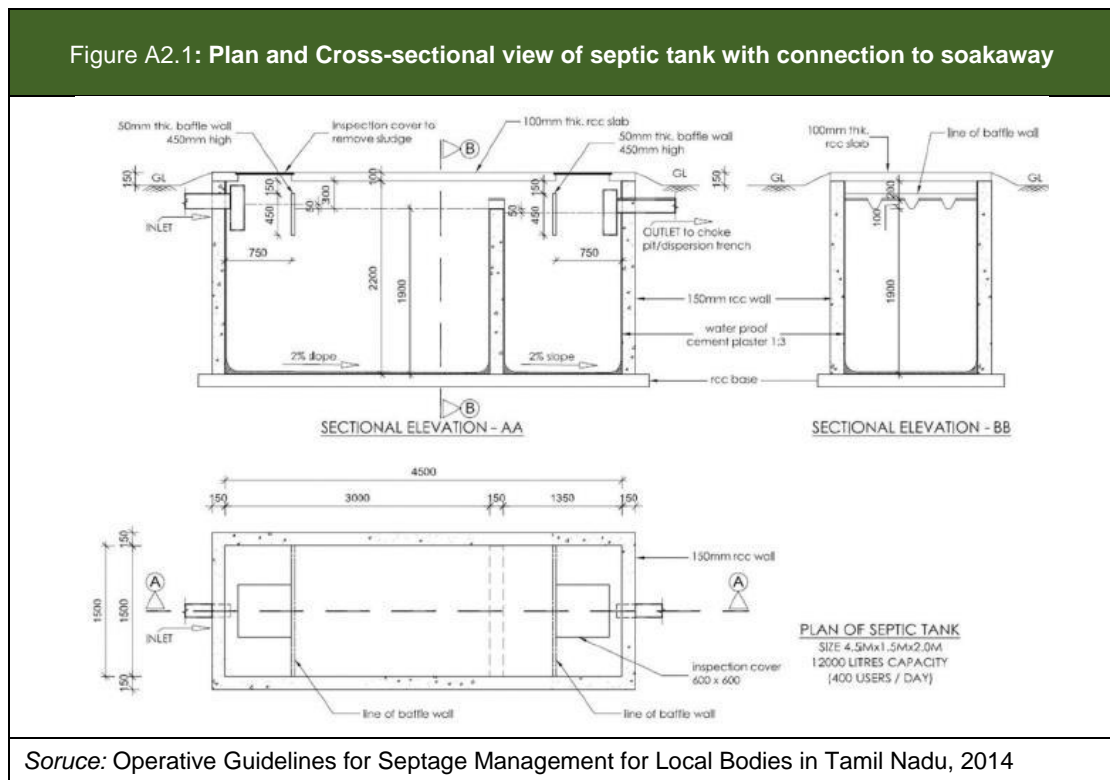
b. After completion of construction

Print copies of such photographs as above shall be kept and made available for inspection during site visits of Competent Authority and for submission for completion certification.

Signature of the owner of the land and building or the applicant.

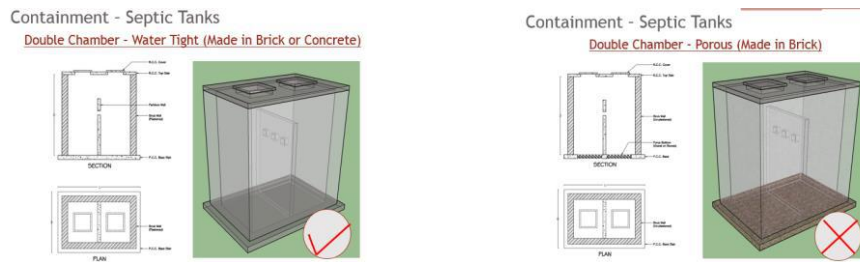
Annexure 2: Dos and Don'ts for Arrangements for Human Excreta Disposal

1. No building plan shall be approved and no building shall be deemed to have been completed and fit for human occupation unless provision is made for water seal latrine. No dry latrine shall be allowed.
2. Septic tank should not be located in swampy areas or areas prone to flooding. It should also be accessible for cleaning and desludging with two covers situated on top of the two chambers. Typical cross-sectional view is provided in Figure A2.1 below:



3. Septic tank is a water tight system; the side walls and floor should be made of water impermeable materials. Do not approve septic tanks with walls or floors constructed using porous materials. Figure A2.2 illustrates water tight and non-water-tight tanks.

Figure A2.2: Water tight and porous containment structures



Source: Illustrations developed by IIHS team based on Scoping Study, 2015

4. Septic tanks shall have a minimum width of 750 mm, a minimum depth of 1 m below the water level and a minimum liquid capacity of 1 m³. The length of tanks shall be 2 to 4 times the width. Reject designs that do not meet these minimum specifications.
5. Septic tanks can only partly treat wastewater. Therefore, under no circumstances shall effluent from a septic tank be allowed into an open channel drain or body of water without adequate treatment. The effluent from septic tank is to be treated using soakaway. Typical soakaway pit is shown in Figure A2.3. It is emphasised that a septic tank is a watertight tank, whereas soakaways require the floor and sidewalls to be porous.

Figure A2.3: Soakaway pit cross sectional view showing porous structures for effluent dispersion/spreading

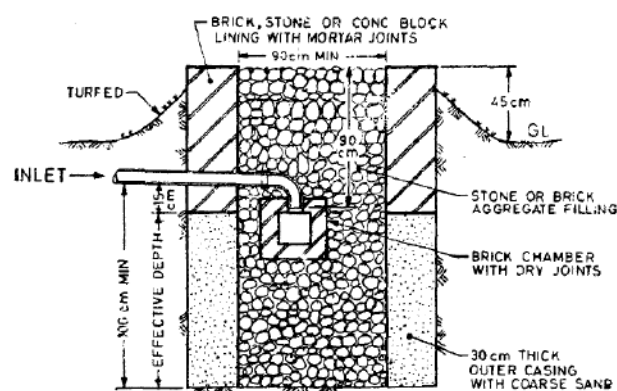


FIG. 2 TYPICAL ILLUSTRATIONS OF SEEPAGE PITS

Source: IS: 2470 (Part II) – 1985

6. Safe distance from drinking water sources such as tube wells and dug wells:
 - a. Where the height between the bottom of the soak away and the maximum ground water level throughout the year is 2 m and more, soakaway can be located at a minimum distance of 3 m from the drinking water sources.

- b. Where the height between the bottom of the soak away and the maximum ground water level throughout the year is less than 2 m soakaway can be located at a minimum distance of 10 m from the drinking water sources.



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