

## CHAPTER XVI

### TOWN SURVEYS

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**CHAPTER XVI****TOWN SURVEYS**

- 16.1** Town Surveys are done for Local Bodies, i.e., Municipalities, Urban Councils and Pradeshiya Sabas at their request.
- 16.2** Plans supplied are of 2 types.
- a) Assessment plans showing roads, paths, watercourses, other natural features, property boundaries and buildings together with other details. The plan is a record of detail as it exists on ground and is meant for assessment purposes only. Old work is not dealt with and no tenement lists are supplied. Assessment numbers of properties are handwritten on copy of plans supplied to the local authority.
  - b) Contour Plans supplied at the request of the Director General of Water Supply and Drainage Board.
- 16.3** The limits of the area to be surveyed are determined by notification in the Gazette.
- 16.4** **Assessment Survey.** Existing traverse control is examined and this is supplemented by a framework of control traverses, which may run on the outer limits of the town and along principal roads and streams.
- The Commissioner of Local Government requires that Town boundaries not defined by natural or artificial features should be defined by landmarks. As no Revenue Plan is issued, departmental Landmarks should not be used. Necessary landmarks should be obtained from the Regional Assistant Commissioners of Local Government. These should be buried at 200 meters intervals and at prominent bends. They will be shown on plan by black squares of side 1/2 mm. (i.e. 20 m on the 1:4000 scale.) Whenever sections of these boundaries coincide with Landmarked Revenue boundaries such as F.V.PP, they will not be defined further by Local Government landmarks. Departmental landmarks in such sections should be shown on the plan in the usual manner. Landmarks, both departmental and Local Government demarcating town boundaries will not be described on the plan but should be included in the list of references.
- 16.5** The outer boundary of the town is plotted on A<sub>1</sub> sheet on a suitable scale. e.g. 1/10000 and a key diagram of the sheet area is prepared. All sheets taken up are A<sub>2</sub> sheets.
- 16.6** Sheets are numbered from unity. The sheet numbers of the abutting sheets should be indicated on the relevant margins of each sheet
- 16.7** The key diagram should be passed by the Supervising Officer and District Superintendent and forwarded with a type sheet for printing on completion of work.

- 16.8** The required number of A<sub>1</sub> sheets should be estimated and the S.S.(Map Publication) should be requested to keep them in ruled in time.
- 16.9** A plan number for the town survey plans should be obtained from Surveyor General.
- 16.10** All Town Surveys will in future be on the scale of 1/1000. Data should be collected according to the scale.

**16.11 Benchmarks**

- (a) Benchmarks are shown with their values on the assessment plans thus:



C Type Benchmarks (without Bolts) are constructed at about 1 km intervals along principal roads, preferably at the main road junctions. If live rock, concrete or masonry structures are not available “E” Type Benchmarks (without Bolts) will be used. Necessary control Levelling is done for the purpose of leveling these Benchmarks.

- (b) Type E Benchmark may be buried for security near road junctions, in adjacent private gardens with the permission of the landowners.
- (c) Sketches showing values and locations of benchmarks should be prepared and forwarded with location diagrams on a suitable scale on completion of work.
- 16.12** Paragraph 16.4 indicates the procedure when ground survey methods are exclusively used for the town survey. Air survey methods may also be used. In this case, S.S. (Air), will supply his requirements of ground control points, which will be surveyed and levelled.
- 16.13** S.S.(Air) will prepare photogrammetric plot of the required area in suitable scale & will be send to S.S.(Map publication) & he will forward the copy of this to field for field revision. After field revision town survey sheet will be printed by S.S.(Map publication).
- 16.14 Survey of Detail.** Available traverses are being used for this purpose. More detail traverses may be run to provide further control for survey of detail, if necessary. These traverses should be reduced to the minimum required.
- 16.15** GPS / EDM / TOTAL station / Theodolite traverses can also be run to pick up details.
- 16.16** Offsets to buildings, may be taken up to 10 m. Such buildings may also be picked up on swinging lines.

- 16.17** Boundaries of claims should be surveyed, as they exist on ground. When the boundaries are not evident, but the adjoining landowners and agreed on a common limit, they may be surveyed but should be described as indefinite.
- 16.18** Each assessment falling within a claim should be separately shown. If this is likely to cause confusion as in the case of tenements, 3 or 4 such assessments may be grouped together. No F.B. s are maintained and T.L. s will not be prepared.
- 16.19** Two or more lands bearing different assessment numbers may also be grouped and surveyed as one lot where it is found impossible to settle the boundaries of individual assessment on claims at the time of survey. A report should be forwarded with completed plans in such cases.
- 16.20** Small projections, recesses and angles of buildings which fall entirely within one claim need not be measured if they cannot be drawn clearly on plans.
- 16.21** Drains running within the limits of a road and public drains running through private property should be shown.
- 16.22** Assessment numbers should be entered in pencil on the original sheets.
- 16.23** Sheets should be taken up for survey and completed in order, so that the local authority may take action on plans Ward by Ward.
- 16.24** Town Revision- In the case of town revision surveys, the work can be done on blue prints obtained from plans of earlier surveys. The required blueprints should be applied for well in advance.
- 16.25** When the original plan is on the 1/2000 scale and the new plan is to be on the 1/1000 scale, the Superintendent of Surveys (Map Publications). should be requested to get them enlarged.
- 16.26** Old detail, which exists, is shown in black and new detail a red.
- 16.27 Plan work:** Plan work should be done in Sinhala on the following lines: -
1. Heading of the plan should be in Sinhala and English.
  2. Other detail in Sinhala.
  3. An English translation should be given to the reference. Key of abbreviations on the plan.
  4. The tracing giving details for hand written/computer printing should conform to (a), (b), and (c) above.
  5. In the case of Northern and Eastern provinces plans of towns not falling within the jurisdiction of Sinhala DS's will be in English.

The main items described on plans are:

- (a) Ward numbers and names.
- (b) Descriptions of buildings, i.e. whether temporary or permanent.
- (c) Descriptions of boundaries.
- (d) Road names.

The conventional abbreviations mentioned in annexure 10 in Chapter XXII may be used.

- 16.28** As soon as work on a sheet is completed, sheet edges should be compared or sheet edge comparison tracings should be prepared and kept for comparison with adjoining sheets. This procedure is adopted so that sheets may be passed by the Supervising Officer and sent for printing as each sheet is completed
- 16.29** Completed sheets should not be retained in the field and sheets sent for printing should not be recalled for comparison of sheets edges.
- 16.30** A surveyor's report should accompany every sheet.
- 16.31** On completion of work, co-ordinate sheets of detail traverses should be systematically field with a key diagram and forwarded to the District S.O.
- 16.32** A letter of authority may be obtained from S.G. by each surveyor to enter private land for the town survey.
- 16.33** **Contour Survey.** This survey is on the scale of 1/2000.
- 16.34** When recent assessment surveys exist the contours will be shown on 1/2000 blueprints of these plans. Sufficient revision of detail will to done to include new roads and public buildings only.
- 16.35** Benchmarking is done at the time of assessment survey. See paragraph 16.11. Further benchmarking may be done if necessary.
- 16.36** The method to be adopted in Levelling i.e., rectangulation, or instrumental tracing of the contours will be determined by the D.S.G. in charge of the Province.
- 16.37** The following details must be surveyed: -  
Benchmarks, all water courses streams, rivers, canals, channels, all drains along roads, open masonry drains along roads, open storm water drains, manholes of covered and under ground storm water drains, manholes and vent columns and sewers maintained by the Local Body, sewage pumping stations, treatment grounds, sewerage disposal outlets, the outer boundary of paddy field areas, grass field areas, marsh areas, fallow lowland areas, pits, water holes, ponds, tanks, bunds, embankments, culverts and bridges with their outlet dimensions, limits of the areas

subject to salvinia-infestation in dotted lines, limits of area subject to flood medium flood and high flood in broken lines and described as L.F.L., M.F.L., and H.F.L.

**16.38** The following details must be levelled: -

Benchmarks, spot heights at 50 m intervals and changes of slope along one edge of the carriage way of all metalled roads, along center line of other roads, paths, etc, heights on manhole lids of storm-water drains and sewers maintained by the Local Body, banks and water courses, streams, rivers, canals, channels at their confluence's and at 1/2 km intervals, heights (at the ends and at 1/2 km intervals in between) on top and toe of bunds and embankments, heights of banks and beds of pits, water holes and ponds.

**16.39** Contours will be shown at 1 m intervals to a thickness of 0.25 mm and every 3 m contour will be shown to a thickness of 0.8 mm. In hilly country, contours may be at 2 m intervals where, appropriate.

**16.40** Amendments to detail will be inked in red on a 1/4000 blue print.

An ethulon will be taken up for hypsometry and the contours BM's their values ruling heights and registration marks will be shown in black on it.

**16.41** Use abbreviations in Annexure 10 in chapter XXII to describe boundaries.

**CORRECTION SLIPS**