CHAPTER 239

THE LAND SURVEYORS REGULATIONS

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S.R.O. 16/1977.

THE LAND SURVEYORS ACT

THE LAND SURVEYORS REGULATIONS, MADE UNDER SECTION 28 OF THE LAND SURVEYORS ACT.

PART I

PRELIMINARY

1. These regulations may be cited as the Land Surveyors Regulations. **Brief title.**

2. In these regulations, except where the context otherwise requires: **Explanation of terms.**

"general" in relation to any boundary has the meaning ascribed to it in section 17 of the Registered Land Act;

"principal law" means the Land Surveyors Act;

"fixed" in relation to any boundary has the meaning ascribed to it in section 18 of the Registered Land Act;

"registration section" has the meaning ascribed to it in the Registered Land Act;

"Registry Map" has the meaning ascribed to it in the Registered Land Act;

"Board", "Chief Surveyor", "licensed surveyor", "plan", "public survey", "Registrar", "survey", and "surveyor" have the meaning ascribed to them in the principal law;

"assistant surveyor" means an assistant to a surveyor other than a surveyor who is permitted to use a survey instrument to make measurements during the course of a survey when the surveyor is not present.

PART II REGULATIONS AFFECTING ALL SURVEYS MADE UNDER SECTION 14 OF THE PRINCIPAL LAW

3. If a dispute arises between a licensed surveyor and the Chief Surveyor over the application of these regulations either party may refer the dispute to the Board. The Board **Disputes.**

shall hear and determine such dispute and its decision thereon shall be final.

Units of measurement.

4. (1) All distances shown on plans deposited with the Chief Surveyor shall be in metres and decimal parts thereof.

(2) All angular measurements shown on plans shall be in degrees, minutes, and seconds of arc.

(3) For conversion purposes one international meter = 3.28084 English feet, and an English foot = 0.3048 international metres.

System of coordinates and projections.

5. In Antigua the projection and the figure of the earth to be used in all computations shall be the Transverse Mercator Projection, British West Indies Grid, using the Clarke 1880 (Modified) Spheroid having elements semi-major axis 6378249.145 flattening 1/293.5. The scale factor to be used is 0.9995. On Barbuda the projection to be used is the Transverse Mercator, UTM Zone 20 grid, using the Clarke 1886 Spheroid having semi-major axis 6378206.400 flattening 1/295.0. The scale factor is 0.9996. The Chief Surveyor will provide information appropriate to work on Redonda on request.

Maintenance and inspection of measuring equipment.

6. (1) Every licensed surveyor shall maintain his measuring equipment in good order, and the Chief Surveyor may refuse to authenticate any survey made with defective equipment.

(2) All distance measuring equipment shall be submitted to the Chief Surveyor once every twelve months for checking against the official standard. Checking will be over a period of three days commencing on the second Monday of each New Year at such time and place as the Chief Surveyor may direct.

(3) The Chief Surveyor may refuse to authenticate any survey made with measuring equipment not submitted for inspection as in sub-regulation 6. (2) above.

(4) A licensed surveyor shall notify the Chief Surveyor if he has taken receipt of new measuring equipment and shall

present this for checking when requested to do so. A surveyor is not precluded from using new equipment provided that the Chief Surveyor is notified of its receipt.

(5) The Chief Surveyor may require a licensed surveyor to present his measuring equipment for checking at any time.

Presentation of surveys.

7. (1) Every licensed surveyor shall be responsible for the accuracy, fidelity, and completeness of every survey presented by him for authentication by the Chief Surveyor.

(2) It shall be the duty of every surveyor making any survey under these regulations to record all relevant information that may have a bearing on the accuracy and completeness of every such survey.

(3) Every surveyor shall perform sufficient work to enable him to apply a thorough check to every part of his survey.

(4) Every surveyor shall present his plan, computations, and field notes in such manner as these regulations require, and any such work that does not conform to these requirements shall not be authenticated by the Chief Surveyor until such time as it has been made to conform by the surveyor. The Chief Surveyor is not obliged to explain in detail why he has refused to authenticate a survey when it is presented in a manner contrary to these regulations.

(5) Any survey material returned to a surveyor because it does not conform to these regulations or the results are erroneous shall be resubmitted for authentication without undue delay.

(6) The Survey Department shall not retain a surveyor's work beyond seven days without authenticating or rejecting that work unless there is good reason therefor.

Permissible errors of measurement.

8. All measurements shall be carried out in accordance with these regulations and the Chief Surveyor may refuse to authenticate any survey which contains errors in excess of those that can be expected from measurements properly carried out in the manner specified.

Checking of surveys.

9. (1) The Chief Surveyor may depute any surveyor to check any survey made by another surveyor, and such check may include the verification of any information recorded in connection with any mark established under the principal law or any regulations made thereunder.

(2) If the Chief Surveyor requests that a licensed surveyor repeats or carries out additional work on the grounds that the work presented in the first instance is incorrect and it is subsequently proved that the licensed surveyor's work was correct in the first instance, the licensed surveyor shall be compensated for his time spent on extra work to such amount as may be determined by the Board.

Information prior to survey.

10. (1) Before carrying out a survey every licensed surveyor shall provide himself with all information in respect of any previous survey of the parcel of land to be surveyed and of any adjoining parcel. No survey shall be undertaken that disregards existing boundary markers, or markers purported to exist by a previous survey.

(2) The Chief Surveyor shall upon written application provide a licensed surveyor with any information referred to in sub-regulation (1) hereof, and such application shall where applicable make reference to any approval for mutation or any entries on the register or any application in relation to boundaries.

(3) The Chief Surveyor shall make available to any licensed surveyor any technical information in his possession. Where this involves a search or the extraction of information by the staff of the Survey Department a fee will be charged in accordance with charges approved by the Minister.

Prior approval of statutory authorities.

11. Before submitting any plan to the Chief Surveyor for authentication a licensed surveyor shall ensure that approval has been given for a mutation or other transaction of a parcel of land where approval is required by law, and that the survey submitted conforms with such approval.

Authority for entry upon land.

12. (1) In pursuance of sections 16 and 18 of the principal law the Chief Surveyor shall furnish to every surveyor an official letter of authority to enter upon land.

(2) Every surveyor shall present this authority to any owner or occupier of land who demands proof that such surveyor is duly authorised to enter upon his land.

Employment of assistant surveyors.

13. Where a licensed surveyor employs an assistant surveyor the work done by the assistant surveyor shall be under the control of the licensed surveyor who shall carry out sufficient checks to ensure that the work is correct. The licensed surveyor shall be personally responsible for all work performed by his assistant surveyor and for any act of default on his part.

Fees chargeable by Chief Surveyor.

14. The Chief Surveyor shall charge such fees in respect of work carried out by the Survey Department, including the inspection and copying of documents, as the Minister may by order prescribe.

PART III

SURVEY MARKS, BOUNDARY BEACONS, AND BOUNDARIES

Design and specification of survey marks.

15. (1) The design of survey marks for framework control shall be as specified by the Chief Surveyor.

(2) Every new station occupied during the course of establishing additional control stations shall be permanently marked unless there are very good reasons for not doing so. The use of a temporary station must be approved by the Chief Surveyor.

(3) Beacons emplaced for a fixed boundary survey shall be one of the following:

(*a*) a 12″ diameter concrete block at least 18″ deep cast in situ;

(*b*) a precast concrete block or cut stone 6″ x 6″ x 30″;

(*c*) a cartridge case or brass bolt set into bedrock with cement;

(*d*) a rail iron or 1″ (minimum) diameter iron rod driven into the ground, with a concrete collar; the iron shall be 30″ long and shall protrude 3″ above the ground.

(4) Whichever type of beacon is used a number approved by the Chief Surveyor shall be inscribed into concrete or stamped into metal as the case shall be, and there shall be a fine centre mark. All beacons shall be described on the plan, or descriptions shall be attached to the plan.

(5) A beacon emplaced for a general boundary shall be of a permanent nature, conforming in principle to the design of beacons for fixed boundaries. Beacons shall be described on the plan, or descriptions shall be attached to the plan.

Position of boundary beacons.

16. (1) Where the boundaries of a parcel are to be fixed in accordance with section 18 of the Registered Land Act beacons will be placed at the turning points of boundaries so that the parcel is accurately defined.

(2) Where general boundaries are inadequately defined on the ground by physical detail beacons shall be placed at turning points or other significant locations on the boundaries.

(3) Isolated beacons shall be referenced by measurements to local detail to facilitate their relocation. This information shall be filed with the plan.

Line beacons and river beacons.

17. (1) (*a*) Where a rectilinear boundary intersects a curvilinear boundary and a beacon cannot be placed at the intersection a beacon shall be placed on the rectilinear boundary as near as possible to the intersection. Such beacon shall be known as a line beacon.

(*b*) Where a rectilinear boundary continues on both sides of a curvilinear boundary beacons shall be placed on both sections of the rectilinear boundary.

(*c*) Where the curvilinear boundary falls within a river or swamp the line beacon shall be placed above flood level and shall be known as a river beacon.

(2) When a line or river beacon has been emplaced the distance from the beacon to the actual boundary shall be

measured to the same accuracy as the survey of the curvilinear boundary.

(3) All subdivisions of a parcel, the boundaries of which have been fixed, which is situated across a public road reserve or right of way shall be fully beaconed as self contained units.

(4) Where a curvilinear feature is adopted as a subdivisional boundary of a parcel the boundaries of which have been fixed, the several subdivisions and any remainder shall be fully beaconed as self-contained units.

Placing beacons on boundary lines.

18. Where a beacon is placed on a boundary line that has been fixed it shall be proved to be on line by establishing either directly or indirectly its relationship with the terminal beacons of the line.

Beacons placed from computed data.

19. Where a beacon is placed from computed data its position shall be proved by an independent field check and calculation.

When beacons cannot be placed.

20. When the corner of a parcel, the boundaries of which are required to be fixed, falls within inaccessible ground where a beacon cannot be placed, the position of such a corner shall be permanently referenced by at least one indicatory beacon placed on a boundary line as near as possible to the corner. The details of the situation shall be indicated on the plan.

Damaged beacons to be repaired.

21. Where an old beacon of the parcel under survey is found to be damaged the surveyor shall repair or renew the beacon and shall make a record of the repairs made in his field notes.

Control stations damaged.

22. (1) Every surveyor engaged on a public survey shall carry out repairs to control station marks where these are found to be damaged.

(2) A licensed surveyor except when engaged in a public survey shall report any damage to control marks to the Chief Surveyor.

Missing beacons.

23. Missing beacons shall be noted in the surveyors report and the surveyor shall furnish such measurements and

observations as may be necessary to satisfy the Chief Surveyor that a thorough search has been made.

Re-establishment of missing beacons.

24. If a surveyor is required to re-establish a missing beacon he shall submit his field notes, computations, and report to the Chief Surveyor.

Redundant beacons.

25. Where the existence of a visible redundant beacon is likely to lead to confusion it shall be removed and replaced by an underground witness mark.

Surveys and re-establishment of boundaries.

26. (1) In every survey of land where the position of a feature or beacon defining the boundary of a parcel is found to differ materially from that indicated by the previous relevant survey the surveyor shall exercise the greatest care in:

(*a*) establishing that the discrepancy actually does exist, and

(*b*) collecting all evidence which may have a bearing on the eventual action to be taken.

(2) A careful search shall be made in the position indicated by the previous survey to ascertain whether or not any evidence of the old boundary feature or beacon still exists, and the position of any building or other development in the immediate vicinity of the boundary shall be recorded.

(3) The surveyor before taking further action shall provide the Chief Surveyor with a full report and shall request instructions.

PART IV

SURVEYS

Guiding principal.

27. All licensed surveyors shall assist, as far as is consonant with efficient and economical survey, in the establishment and increase of permanent control marks of all types throughout Antigua and Barbuda.

Main control surveys.

28. (1) All surveys for the extension of the control network shall normally be carried out by Government surveyors.

(2) All tertiary control surveys shall be carried out in the manner specified by the Chief Surveyor, and shall aim to achieve a standard accuracy of not less than 1:20 000. Where existing control precludes the attainment of this accuracy the Chief Surveyor may at his discretion relax the standard.

(3) All tertiary (or higher accuracy surveys) shall have permanently marked stations as in sub-regulation 15. (2) of these regulations, and there shall be a description of each station filed in the Survey Department. The computed co-ordinates shall be entered in the co-ordinate lists.

Minor control surveys.

29. (1) Minor surveys, but not including boundary surveys, shall conform to such standards as the Chief Surveyor may direct.

(2) Wherever possible minor control stations shall be permanently marked, either by constructing a mark or by using an existing identifiable mark, such as a boundary mark, hydrant, etcetera. The description of each station and its co-ordinates shall be filed in minor control registers for each 1:5 000 plan. Each station shall occupy a single page in the register.

Control station numbering.

30. (1) Each tertiary control station shall be given a prefix corresponding to the number of the 1:5 000 plan of the area in which the station is located. This prefix shall be followed by the next available station number on that plan; for example:2690/3.

(2) Minor control stations shall be numbered in such manner as the Chief Surveyor may direct.

Boundary surveys.

31. Any boundary survey shall be carried out in such manner as is consistent with the existing survey data, boundary information, the nature of the boundary, and any recommendations made by the Chief Surveyor prior to the commencement of the survey.

Fixed boundary survey connected to national control network.

32. (1) Any fixed boundary survey ordered by the Registrar under section 18 of the Registered Land Act shall be connected to a station in the national control network. Where it is impractical for any licensed surveyor to under-

take this task the Survey Department shall on request establish a control point within reasonable distance of the location of the survey.

(2) A survey shall be connected to the control framework by traversing or triangulation, or by:

(*a*) intersection, provided that at least three suitable rays are observed into the point to be fixed;

(*b*) resection, provided that at least four points in favourable positions for such fixing are observed.

Instruments.

33. (1) A theodolite reading to 20″ of arc shall be used for all fixed boundary surveys.

(2) Measuring bands, steel tapes, and electronic measuring equipment shall be of an approved type.

Accuracy.

34. Surveys for fixed boundaries shall aim to achieve a standard accuracy of 1:5 000 except in special circumstances where this may be relaxed at the discretion of the Chief Surveyor.

Method of observing.

35. (1) At every traverse or triangulation station at least two rounds (where one round is a series of pointings made on face left followed by a series on face right) using two different zeros shall be observed.

(2) Distances shall be measured with sufficient precision to achieve a 1:5 000 closure. Lines measured with a band or tape shall be measured both ways, and EDM equipment shall be used in such manner as to avoid errors.

Closing of traverses.

36. (1) A surveyor shall not use a looped travers if it is practical to close between two previously fixed stations.

(2) If a looped traverse cannot be avoided different orientating rays shall be used for opening and closing the traverse if these are available.

(3) ''Open'' or ''swinging'' traverses shall not be used.

Surveying of boundary beacons.

37. Where possible beacons defining a fixed boundary shall be surveyed as the stations of a closed traverse.

Where this is not possible sufficient measurement shall be taken to avoid any gross error in the fixing of such beacons.

Degree of slope.

38. The degree of slope of a line shall be determined to sufficient accuracy to comply with regulation 34.

Curvilinear boundaries.

39. (1) With the consent of the Chief Surveyor an existing survey of a curvilinear boundary may be adopted.

(2) Curvilinear boundary surveys shall be carried out to a standard accuracy appropriate to the plotting scale of the survey plan.

(3) If the tacheometric method is used to survey a curvilinear boundary distances determined by staff readings shall not exceed 150 metres (500 feet) and all three stadia readings shall be taken.

(4) Offsets from a traverse that exceed 45 metres (150 feet) shall be set out instrumentally or geometrically and the method shall be recorded in the field book.

Air survey.

40. Air survey methods may be used for fixed boundary surveys with the special permission of the Chief Surveyor.

Guiding principle of general boundary surveys.

41. General boundaries shall be surveyed to an accuracy sufficient to allow the parcel of land to be drawn unambiguously on the Registry Map, and so that there is no plottable error between adjacent surveys.

Connection to control.

42. In order that a survey can be plotted in its correct location on the Registry Map it shall be:

(*a*) connected to the national framework control;

(*b*) or tied in to minor control or boundary marks; already connected to the framework control;

(*c*) or tied into points of detail selected by the Chief Surveyor on the 1:2 500 or 1:5 000 plans.

Accuracy.

43. General boundary surveys shall be carried out to an accuracy of 1:3 000 except at the discretion of the Chief Surveyor.

Method of survey.

44. (1) Regulations 32, 33, 36, 37, 39 and 40 applicable to fixed boundary surveys shall also apply to general boundary surveys.

(2) The degree of slope of a line shall be determined with sufficient accuracy to comply with regulation 43.

Method of observing.

45. Methods appropriate to fulfilling regulation 43 shall be used for observing. At least one face left and one face right on different zeroes shall be observed by theodolite. Sufficient care shall be taken in measuring distances to avoid errors that cancel each other out and give a false misclosure.

Chief Surveyor's discretion.

46. Where the Chief Surveyor considers that regulation 41 can be fulfilled by departing from regulations 42 – 45 he may at his discretion approve other methods of survey.

PART V

FIELD NOTES

Recording of observations for control work.

47. At every triangulation or traverse station in a control survey a surveyor shall record the date, the time, his name and the booker's name. Notes shall be made on the weather conditions or any other factor which may adversly affect the observations.

Damaged beacons.

48. A description of damage to survey beacons shall be included with the field notes.

Method of making field notes.

49. (1) All observations and measurements made in the field shall be recorded clearly and legibly in hard pencil or waterproof ink, provided that the colour red is not used, in such manner as the Chief Surveyor may require.

(2) All entries in field notes not made in the field shall be in pencil or ink of a different colour than the original field notes, provided that red is not used.

(3) All entries in field notes shall be indexed and referenced in such a way that any competent person shall be able to prepare a true plan therefrom, and the entries shall be capable of one interpretation.

Erasures and corrections.

50. (1) In no circumstances shall any erasure be made in field notes.

(2) Corrections shall be made by drawing a thin line through the erroneous entry so as to leave it legible; the correct entry shall be written outside the erroneous entry and not across it.

(3) Corrections to field notes shall be made in the field and shall be a true record of a measurement or observation and shall be initialled by the surveyor.

Nomenclature.

51. (1) The letters used to describe a beacon or survey mark in field notes shall be Roman script. Numerals shall be Arabic.

(2) Nomenclature shall be chosen to avoid confusion, and the letters I and O shall be avoided in numbering survey marks.

Cover page and index.

52. (1) All survey notes and field books shall have a cover page stating the number of the survey, location of the survey, the surveyor's name, and any other information that the Chief Surveyor may require.

(2) This information shall include the identifying number of the tape or measuring band used with its standard temperature and tension. If a tape is used in catenary its weight per 100 or other sensible unit of measurement, shall be included.

(3) The pages of field notes shall be numbered and an index in numerical order shall be given on the front or reverse side of the cover page.

Unorthodox methods.

53. Where a surveyor is compelled to use unorthodox methods he shall produce explanatory notes, supported by diagrams where necessary, to explain the method used and why. This regulation does not absolve the surveyor from the requirement to discusss deviations from the regulations with the Chief Surveyor prior to survey.

Topographical features.

54. Topographical features which may be relevant to locating a boundary or survey mark should be sketched.

Any feature which may involve a question of easement or right of way, such as a pipeline or footpath, shall be surveyed.

PART VI

COMPUTATIONS

Method of entering computations.

55. (1) Computations shall be clearly and legibly set out in ink, and the entry of numbers or words to indicate checks on the computations shall be made in pencil or a different coloured ink, providing that red is not used.

(2) Computations shall be laid out in a logical order and attached to the field notes. Pages shall be numbered and an index made.

(3) All corrections and adjustments made to measured angles and lengths shall be clearly shown. Measured distances shall be corrected for slope, reduced to the spheriod, and the scale factor applied in addition to corrections made that are dependent upon the type of measuring equipment used. If any of the corrections are deemed to be insignificant and not applied then this must be clearly stated in the computations. All formulae used must be obvious, otherwise they shall be written in the computations.

Method of computing.

56. (1) Any normal method of computing and applying adjustments can be used.

(2) A traverse computation shall be set out so that the derivations of the initial and final bearings are shown, the angles and intermediate bearings are shown, the bearing misclosure is immediately obvious, and the amount of adjustment made to individual bearings is clear.

(3) The positional misclosure, its distribution through the traverse, and the finally adjusted values of all traverse points shall be demonstrated in conformity with current standard survey practice.

(4) If an electronic calculator is used a surveyor is not obliged to present intermediate results provided that it was not necessary for the surveyor to record these during computation. A surveyor shall upon request furnish the Chief Surveyor with details of any electronic calculator used and

of the routine or programme used to compute a survey presented for authentication.

Independent checks to be made.

57. Before any surveyor forwards computations to the Chief Surveyor for authentication he shall make an independent check on all his calculations, and where possible these shall be demonstrated.

Areas.

58. (1) The areas of parcels, the boundaries of which are fixed, shall be determined mathematically.

(2) When a portion of a fixed boundary is a curvilinear feature the area shall be determined partly by computation and partly by planimetric or graphical means.

(3) The area to be determined by planimetric or graphical means shall be reduced to a minimum by making use of any co-ordinated points within the curvilinear boundary to carry out a mathematical determination.

(4) The area of a parcel with general boundaries may be determined mathematically or graphically.

Degree of accuracy of areas.

59. Areas shall be calculated with sufficient precision so that the area may be quoted as per the table of critical values in the First Schedule to these regulations.

Presentation of computations.

60. (1) Computations shall be presented for authentication attached to field notes and covered by the general index.

(2) There shall be a complete list of the final co-ordinates of every point adopted or calculated in the survey, arranged in groups consisting of datum points and boundary beacons in numerical or alphabetical order. There will be a description of each new point.

(3) Co-ordinates shall be quoted to the nearest centimetre.

PART VII

PLANS

Submission of plans.

61. At least one copy of a plan shall be submitted on stable transparent drawing medium drawn in black waterproof ink, and this shall be retained by the Survey Department. If a surveyor so desires he may submit only one copy and request that dyeline copies be produced for his own use subject to the payment of such charges as the Minister may prescribe.

Scales of plans.

62. Plans shall be plotted at the same scale as the Registry Map. The Registry Maps are drawn at scales of 1:1 250 or 1:2 500 or 1:5 000 and a surveyor shall confirm which one is appropriate to the area in which he is working. If such scale is inconvenient an alternative may be used with the prior approval of the Chief Surveyor, but such alternative must be a whole number ratio of 5 000. For example: 500, 1000.

Plotting of curvilinear boundaries.

63. (1) Where the consent of the Chief Surveyor has been obtained for the adoption of an existing survey of a curvilinear boundary as in sub-regulation 39. (1) of these regulations, the surveyor shall:

(*a*) make an accurate reduction of a larger scale plan for use at a smaller scale, or

(*b*) make an accurate transfer for use at the same scale, or

(*c*) replot from the original field notes and computations for use at a larger scale.

(2) Where an existing survey is adopted as in sub-regulation (1) hereof an appropriate reference shall be made to the original survey on the new plan.

(3) Where a rectilinear boundary intersects a curvilinear boundary and the provision of sub-regulation 17. (1) of these regulations applies, the distance from each line or river beacon to the intersection shall be shown on the plan to the nearest 0.1 metre, but the distance between successive beacons along the rectilinear boundary shall be shown to

the degree of precision required by sub-regulation 67. (4) of these regulations.

(4) Where a curvilinear boundary of a parcel has been fixed such a curvilinear boundary shall be distinctly described.

Plotting by coordinates.

64. (1) All plans shall be plotted by rectangular co-ordinates, excepting curvilinear boundaries.

(2) Every plan shall have at least four grid lines that form a square or rectangle no side of which shall exceed 20 centimetres in length.

General rules.

65. (1) All detail shown on the plan shall be distinct and the cramping of figures shall be avoided.

(2) The north point (grid) on every plan shall be upwards and parallel to the sides of the plan form, but in certain circumstances this rule may be relaxed provided that a very distinct north pointer is used.

Abutting boundaries.

66. (1) All boundaries abutting on any parcel which has been surveyed shall be shown on the plan with a short line.

(2) Where a parcel is bounded by a road the road shall be shown on the plan.

Co-ordinates and numerical data.

67. (1) In every survey the co-ordinates of permanent control stations used in the survey shall be tabulated on the plan.

(2) Where the boundaries of a parcel have been fixed the following information shall be given on the plan:

(*a*) the co-ordinates of corners of regular shaped figures and the co-ordinates of beacons defining irregular shaped figures;

(*b*) The length and bearing of every boundary shall where possible be inscribed along the line to which they refer, and such lengths and bearings shall be deducted from the co-ordinate tabulated on the plan.

(3) Where a parcel has general boundaries the co-ordinates of at least one co-ordinated boundary point shall be shown on the plan, and the length and bearing of every boundary shall be inscribed along the line to which they refer.

(4) Co-ordinates and lengths shall be shown to two decimal places of a metre and bearings to sufficient accuracy so that if the survey is recomputed from data given on the plan there is no apparent misclosure.

(5) When a general boundary survey is tied to points of detail under (*c*) of regulation 42 of these regulations sufficient detail shall be drawn on the plan to permit identification on the relevant national plan or Registry Map.

(6) (*a*) The area of every parcel shall be inscribed where possible within the figure to which it refers to the degree of accuracy prescribed by regulation 59 of these regulations.

(*b*) Sufficient space shall be left for the Block and Parcel number to be inserted by the Chief Surveyor.

(*c*) No Parcel number shall be inserted by any surveyor.

(7) All other data which may serve to clarify or complete any survey plan shall be shown on the plan.

Trig diagram.

68. A plan shall contain sufficient information to allow the survey to be recomputed. Traverse lines, where distinct from boundary lines, may be shown on the plan in coloured ink and the lengths and bearings of such lines shown. Alternatively, a separate diagram may be produced to show details of traverses and the connection to the control framework. Distances and bearings or angles shall be shown. This trig diagram may be on ordinary paper and shall be retained by the Chief Surveyor.

Style of plan.

69. Every plan shall be drawn in accordance with the requirements of the Chief Surveyor in respect of style of printing and other details.

Topographical features.

70. (1) All topographical features that have been accurately surveyed in accordance with regulation 54. Of these

regulations shall be shown in their correct positions on the plan.

(2) Topographical information may be taken from any official map published by the Chief Surveyor or any authority approved by him, with due caution in regard to the limitations enjoined by the scale of the map.

(3) Where topographical information is taken from aerial photographs the source shall be shown on the plan.

Erasures or corrections.

71. Erasures or corrections on the plan shall be made by completely removing the error and redrawings, or by crossing out the error and writing the correct word, letter, or number alongside. No attempt shall be made to change a word, letter, or number into another word, letter, or number.

Certificate.

72. Every plan shall have on it a certificate in such form as the Chief Surveyor may require, and it shall be signed and dated by the surveyor responsible for the survey.

Authentication by Chief Surveyor.

73. The Chief Surveyor may refuse to authenticate any plan submitted by a licensed surveyor which in his opinion has been drawn carelessly or untidily, or is received by him in a dilapidated or damaged condition.

PART VIII

MISCELLANEOUS

Public access to maps and plans.

74. (1) Any person shall have access free of charge to any published map or plan in the possession of the Chief Surveyor, provided that the Chief Surveyor may refuse access as he may deem necessary in the public interest.

(2) A search fee of one dollar per plan shall be paid in advance by any person who is not a licensed surveyor or not on Government duty for access to any unpublished plan. The search fee shall be credited against the price of a print of the plan purchased at the time of the search.

Made this 17th day of June, 1977.

FIRST SCHEDULE

CRITICAL TABLE FOR AREAS

Under 0.5 Acre to the Nearest 0.05 Acre		0.5-1 Acre to the Nearest 0.1 Acre	
Sq. ft.	Acre	0.55	
2179		]	0.6
]	0.05	0.65	
3270		0.66	
]	0.10	]	0.7
5450		0.74	
]	0.15	0.75	
7630		]	0.8
]	0.20	0.85	
9300		0.86	
]	0.25	]	0.9
11980		0.94	
]	0.30	0.95	
14160		]	1.0
]	0.35	1.05	
16340			
]	0.40		
18520			
]	0.45	1-5 Acres to the Nearest ¼ Acre	
20690			
]	0.50	1.05	
21780		]	1
]	0.5	1.13	
25050			1¼
]	0.6	1.35	
29400		]	1½
]	0.7	1.63	
33760		]	1¾
]	0.8	1.88	
38120		]	2
]	0.9	2.00	
42470			
]	1.0	etc.	
43560			

5-10 Acres to the Nearest ½ Acre		>10 Acres to the Nearest Acre	
5.00		10	
]	5	]	10
5.25		10.5	
5.26		10.6	
]	5½	]	11
5.74		11.4	
5.75		11.5	
]	6	]	12
6.25		12.5	
etc.		Note: Round off 0.5 acre to the nearest even acre *e.g.* 10.5—10; 11.5—12.	

SECOND SCHEDULE

Fees approved by the Minister will be charged by the Survey Department as follows:

1. For surveys executed by the Department fees will be assessed by the hour dependent upon the type of survey. These hourly rates will be posted in the Department.

2. For the copying of any plan(s) or diagram(s) a fee of 5.00 dollars will be charged per order (any number of plans) plus 30c. per square foot of copying paper used.

3. A search fee of 1.00 dollar will be charged for any unpublished map, plan, or survey record. This fee will be deducted from the cost of copying such map, plan, or record.

4. A search fee of 50c. will be charged for co-ordinates, heights, or station descriptions, plus 10c. per set of co-ordinates, height, or station description. No fee will be charged if the customer carries out the search and extracts the information himself.

5. A fee of 10 dollars will be charged for the checking of any survey and authentication of the relevant plan by the Chief Surveyor. If the survey is unacceptable and is returned to the surveyor, a further fee of 5 dollars will be charged for resubmission.

Fees chared by the Survey Department may be changed from time to time with the approval of the Minister.