

Surveyor-General's Rules for Cadastral Survey

2002/1

Office of the Surveyor-General

1 June 2002

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Foreword

Section 3 of the Cadastral Survey Act 2002 defines the purpose of that Act as:

- (a) *to promote and maintain the accuracy of the cadastre by—*
 - (i) *requiring cadastral surveys to be done by, or under the direction of, licensed cadastral surveyors; and*
 - (ii) *requiring cadastral surveyors to meet standards of competence to be licensed; and*
 - (iii) *providing for the setting of standards for cadastral surveys and cadastral survey data; and*
- (b) *to provide, either on an optional or mandatory basis, for the electronic lodging and processing of cadastral surveys; and*
- (c) *to provide for a national geodetic system and a national survey control system to be maintained.*

This document contains standards set by the Surveyor-General to contribute to achieving this purpose. The requirement to set standards is more particularly set out in Section 7 of the Act. Any comments or proposed amendments should be forwarded to the Surveyor-General.

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Document History and Approval

Document History			
Version	Date	Section No.	Summary of Changes / Amendments
1.0	1 June 2002		
1.1	5 June 2002	1,2,3	Add to table of contents, amend foreword and rule making process, add index to rules

Approved :

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 A J Bevin
 Surveyor-General

Date:/...../.....

SURVEYOR-GENERAL'S RULES FOR CADASTRAL SURVEY

1 Authority

In accordance with Sections 49(1) of the Cadastral Survey Act 2002, the following rules specify:

- (a) Standards for the conduct of cadastral surveys (including the use of cadastral survey marks); and
- (b) Standards for cadastral survey datasets.

As a transitional measure, this first set of rules has been made pursuant to Section 50 of the Cadastral Survey Act 2002 and take effect from 1 June 2002. They are subject to Section 51 which provides for expiry at the end of 12 months. A new or amended set of rules will be made under Section 49(1) before this expiry takes effect.

These rules set the standards, in terms of Section 7(1)(c) of the Cadastral Survey Act 2002:

to determine how the spatial extent (including boundaries) of interests in a tenure system must be defined and described

Cadastral surveyors are required to comply with these rules by section 47(2) subject to the exceptions provided for in Sections 47(4), 47(5) and 47(6) of the Cadastral Survey Act 2002.

2 Related Legislation

These rules should be read in conjunction with:

Deeds Registration Act 1908

Survey Act 1986 (repealed by Cadastral Survey Act 2002)

Land Transfer Act 1952

Maori Land Act 1993

Survey Regulations 1998 (revoked by Cadastral Survey Act 2002)

Cadastral Survey Act 2002

3 Rule Making Process

In accordance with Section 50 of the Cadastral Survey Act 2002 this first set of rules incorporates (and supersedes) the Survey Regulations 1998 plus Sections 57, 58 and 60 of the Survey Act 1986.

The only changes are those consequent upon the new act as outlined below.

The rules have been developed for publication in this document according to the following procedure:

- The rules are numbered the same as the corresponding regulations which they replace.
- The changes to Sections 57, 58 and 60 of the Survey Act 1986 as outlined in Part 1 of Schedule 3 of the Cadastral Survey Act 2002 were applied. These amended sections were then deemed to be new rules 3A, 3B, 3C respectively in accordance with Section 50 of the Cadastral Survey Act 2002.
- The changes outlined in Part 2 of Schedule 3 of the Cadastral Survey Act 2002 were applied to the Survey Regulations 1998. The amended regulations 1 to 48, Schedules 1 and 2 but excluding regulation 49 (see below) were then deemed to be rules in accordance with Section 50 of the Cadastral Survey Act 2002.
- A new rule has not been created from the existing regulation 49 (Revocation and Savings) of the Survey Regulations 1998 because:
 - (a) the revocation provisions in regulation 49(1) have already taken effect; and
 - (b) the savings provisions in regulation 49(2) for the Survey Regulation 1998 are enacted by Section 68(4) of the Cadastral Survey Act 2002
- A drafting correction was applied to Rule 1 to specify the title of these Rules and to specify the date of commencement in accordance with Section 2 of the Cadastral Survey Act 2002.
- In the Surveyor's Certificate in Schedule 1 of the Survey Regulations 1998, the reference to "registered surveyor" has been changed to "licensed cadastral surveyor". Reference to the "Survey Act 1986" has been changed to the "Cadastral Survey Act 2002". Reference to the "Survey Regulations 1998" has been changed to the "Surveyor-General's Rules for Cadastral Survey 2002/1". Note that under Section 68(4) of the Cadastral Survey Act 2002, surveys commenced under the Survey Regulations 1998 can continue to use the surveyor's certification in Schedule 1 of those regulations.
- All remaining references in these Rules to "Chief Surveyor" (ie those not already changed explicitly to chief executive by any of the above actions)

were changed to “Surveyor-General” in accordance with Section 69(1) of the Cadastral Survey Act 2002. A minor drafting correction was applied to Rules 35(1)(c), 36(1)(b) and 38(1)(b) to remove what would otherwise have been a duplicated reference to the Surveyor-General.

- References to “District Land Registrar” were changed to Registrar-General of Land in accordance with Section 38 of the Land Transfer (Computer Registers and Electronic Lodgement) Amendment Act 2002.
- All references in the Rules to “regulation(s)” were changed to “rule(s)”.
- Sections 69(2) and 69(3) of the Cadastral Survey Act 2002 provide for any reference to “plan” (in the context of a survey plan) to be read as including a digital cadastral survey dataset. However note that reference to “survey plan” and “plan” in Schedule 2 of these rules, explicitly relate to Hard-Copy Plans.

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RULES

1. TITLE AND COMMENCEMENT--

- (1) These rules may be cited as the Surveyor-General's Rules for Cadastral Survey 2002/1.
- (2) These rules come into force on 1 June 2002.

INTRODUCTORY MATTERS

2. INTERPRETATION--

- (1) In these rules, unless the context otherwise requires,--

"Class I survey" means a survey of land that--

- (a) Is situated in an urban area, or in an area likely to become urban as a result of a subdivision effected by the survey; or
- (b) Is used or intended to be used for commercial, industrial, or residential purposes:

"Class II survey" means a survey (not being a class IV survey) of land situated in a rural area that--

- (a) Neither is nor is intended to be used for commercial, industrial, or residential purposes; and
- (b) After survey will become a parcel less than 4 hectares in area:

"Class III survey" means a survey (not being a class IV survey) of land situated in a rural area that--

- (a) Neither is nor is intended to be used for commercial, industrial, or residential purposes; and
- (b) After survey will become a parcel 4 hectares or more in area:

"Class IV survey" means a survey conducted in accordance with requirements specified under rule 44:

"Compiled plan" means a plan prepared from existing survey records;

"Computed plan" means a plan prepared under the proviso to section 167 (1) of the Land Transfer Act 1952, or under any similar dispensation granted by the Surveyor-General:

"CSD" means a cadastral survey dataset:

"Definite feature" means a reasonably permanent physical feature that is--

- (a) Clearly defined in itself; and
- (b) Easily identified; and

(c) Easily defined, within any applicable standards of accuracy prescribed by these rules, in a CSD:

"Easement area" means a parcel defined, delineated, depicted, or otherwise described, for the purpose only of an easement (other than a right of way) or covenant created or to be created over or in respect of it:

"Flat or cross-lease dataset" means a CSD prepared for the purposes of section 121D of the Land Transfer Act 1952, or for a cross-lease or cross-leases under the Resource Management Act 1991:

"Information forming part of a CSD" includes information ascertained or calculated from information forming part of a CSD:

"The National Survey Control System" means the system referred to in section 4 of the principal Act:

"Parcel" means a separate area of land defined or intended to be defined:

"Primary parcel" means a parcel that is not--

(a) A parcel defined, or intended to be defined, for the purposes only of the Unit Titles Act 1972; or

(b) A parcel defined, delineated, depicted, or otherwise described, for the purposes only of a flat or cross-lease dataset; or

(c) A right of way area or easement area:

"Primary parcel boundary" means a boundary of a primary parcel (regardless of the nature of any other parcel of which it is also a boundary):

"The principal Act" means the Cadastral Survey Act 2002:

"Redefinition survey" means a survey undertaken for the purpose only of reinstating 1 or more parcel boundaries:

"Right of way area" means a parcel defined, delineated, depicted, or otherwise described, for the purpose only of a right of way created or to be created over it:

"Survey" means cadastral survey as defined in section 4 of the Cadastral Survey Act 2002:

"Surveyor" means a licensed cadastral surveyor as defined in section 4 of the Cadastral Survey Act 2002:

"Unit dataset" means a unit plan (within the meaning of the Unit Titles Act 1972); and includes survey-system information and tenure-system information associated with the unit plan:

"Witness mark" means a mark witnessing the position of a boundary mark, boundary angle, or point evidencing a natural boundary.

(2) Terms and expressions used but not defined in these regulations have the same meaning as in the Cadastral Survey Act 2002

3A. MEASURES OF LENGTH AND AREA--

- (1) All measurements of length in cadastral surveys and cadastral survey datasets must be expressed in metres and decimals of metres.
- (2) All measurements of area in cadastral surveys and cadastral survey datasets must be expressed in hectares and decimals of a hectare, or, where the area is less than 1 hectare, must be expressed in square metres.

3B. DUTIES OF SURVEYORS IN RELATION TO CERTAIN SURVEYS--

- (1) Except to the extent of any dispensation granted under Section 167 of the Land Transfer Act 1952, every surveyor conducting a cadastral survey must—
 - (a) Conduct the survey with such equipment and by such methods as will attain the prescribed standards of accuracy and shall apply such checks and tests to the survey work as may be necessary to obtain those standards:
 - (b) Locate sufficient old survey marks necessary to prove the accuracy of the survey and connect the survey to those marks:
 - (c) Supply to the chief executive, all relevant cadastral survey data obtained by him or her in relation to the survey:
 - (d) Report to the Surveyor-General any disturbance or the likelihood of any disturbance to trigonometrical stations or other control survey marks encountered in the conduct of the survey:
 - (e) Have regard for the consequences of any inaccuracies in the survey.
- (2) Every cadastral survey to which subsection (1) applies must be certified—
 - (a) personally by the cadastral surveyor who is responsible for the survey; and
 - (b) in a form specified by the Surveyor-General.

3C. SURVEYOR REQUIRED TO EXAMINE INFORMATION.

- (1) When conducting a cadastral survey a cadastral surveyor must examine all relevant documents from the sources specified in subsection 1A relating to the land to be surveyed and all land adjacent to the land to be surveyed.
 - (1A) The sources are—
 - (a) cadastral survey data and other information held by the chief executive:
 - (b) information held by the Registrar-General of Land:
 - (c) information held by the Maori Land Court.
- (2) No information so obtained shall be used in any way that infringes the copyright of the Crown or any other person.

4. CADASTRAL SURVEY DATASETS

A cadastral survey dataset and any related cadastral survey data required by these rules must be submitted to the chief executive before they can be incorporated in the cadastre.

SURVEYS

5. INTERESTS AND RESPONSIBILITIES OF THE CROWN--

A survey must be undertaken having regard to the Crown's interests in it, and responsibilities in respect of it.

6. CALIBRATION OF EQUIPMENT--

(1) All measuring equipment used in undertaking a survey must be and remain correctly calibrated.

(2) If the Surveyor-General so requests, the Surveyor-General must be given evidence (satisfactory to the Surveyor-General) of the calibration of any instrument used in the survey to which a CSD relates.

7. ORIGINS--

A survey must be connected to at least 3 existing survey marks, adequate to prove its reliability, orientation, and scale, each obtained from--

- (a) The National Survey Control System; or
- (b) A survey approved under the principal Act or any predecessor enactment; or
- (c) Some other survey recognised by the Surveyor-General for the purposes of these rules.

8. CONFIGURATION--

The origin marks and traverse of a survey must be configured in such a way that bearing and positional accuracy are maintained over the whole survey.

9. GOOD SURVEY PRACTICE--

A survey must be undertaken in accordance with accepted good survey practice in relation to any matter for which these rules do not expressly provide.

GENERAL PROVISIONS

10. FORM OF PARCEL BOUNDARIES--

A parcel boundary must be a right line, a circular arc, or some other curve approved by the Surveyor-General, unless it is--

- (a) A natural boundary; or
- (b) An existing boundary adopted with the Surveyor-General's approval.

11. NATURAL BOUNDARIES--

- (1) In a class I, class II, or class III survey, a natural boundary must be--
 - (a) The bank of a river or stream; or
 - (b) The shore of the sea or a lake.
- (2) A natural boundary must be fixed at intervals close enough to delineate it accurately.
- (3) New boundaries intersecting or meeting a natural boundary must be line-marked close to it.
- (4) A CSD depicting a natural boundary must indicate clearly its extent and nature.

12. SURVEY TO BE CONNECTED TO WITNESS MARKS--

- (1) Every survey must be connected to at least 3 witness marks complying with rule 36.
- (2) Every boundary mark and boundary angle in a survey must be connected to at least 1 witness mark complying with rules 13 and 36.
- (3) Every point at which a natural boundary in a survey is fixed must be connected to at least 1 witness mark complying with rules 13 and 36.
- (4) If a boundary in a survey has a height dimension, every mark or angle on it must be connected to at least 1 witness mark complying with rules 13 and 36, whose height is stated in compliance with rule 25.

13. DISTANCE TO CONNECTING WITNESS MARK--

For the purposes of the connections required by rule 12,--

- (a) In a class I survey,--
 - (i) A boundary mark or boundary angle must be no further than 125 m from the witness mark to which it is connected; and
 - (ii) A point at which a natural boundary is fixed must be no further than 250 m from the witness mark to which it is connected:
- (b) In a class II or class III survey,--
 - (i) A boundary mark or boundary angle must be no further than 250 m from the witness mark to which it is connected; and

(ii) A point at which a natural boundary is fixed must be no further than 500 m from the witness mark to which it is connected.

14. INFORMATION MUST BE ENOUGH TO FIX BOUNDARIES AND MARKS--

(1) A CSD must contain--

- (a) The dimensions of every parcel boundary (other than a natural boundary) to which it refers; and
- (b) Enough information to enable the position of every boundary to be ascertained with the accuracy required by these rules.

(2) A CSD must contain enough information to enable the position of every survey mark placed during, or used for the purposes of, the survey concerned to be accurately ascertained and verified.

15. EVIDENCE OF DEFINITION--

Every CSD must include enough information to--

- (a) Relate new parcel boundaries to existing and other new parcel boundaries; and
- (b) Prove (to the Surveyor-General's satisfaction) that titles to adjoining land have been respected; and
- (c) Show the relationship of occupation to boundaries.

16. CLASS OF SURVEY TO BE STATED--

(1) A CSD relating to a survey of 1 class only must state that class clearly.

(2) A CSD relating to surveys of more than 1 class must state clearly which parts relate to which class of survey.

17. ORIGINS TO BE STATED--

The origin of co-ordinates and bearings in a CSD, and the source of that origin, must be stated in the CSD.

18. CSDS TO BE CERTIFIED AS TO ACCURACY--

(1) A CSD must include a statement certifying--

- (a) To the accuracy of the survey concerned and the CSD; and
- (b) That the survey and CSD were undertaken and created in accordance with the principal Act and these rules.

(2) The statement--

- (a) Must be in the form set out in Schedule 1, or in a form for the time being approved by the Surveyor-General; and

- (b) Must be signed by the surveyor (or certified by the surveyor in a form approved by the Surveyor-General).
- (3) If the CSD is or includes a hard-copy plan, the statement must be on the face of every separate sheet of the plan.

PARCELS

19. ALL LAND AFFECTED BY DIVISION TO BE ACCOUNTED FOR--

- (1) A survey subdividing a parcel must account for every new parcel resulting from the subdivision (including every balance or residue parcel).
- (2) A survey defining part of a parcel does not have to account for the rest, if--
 - (a) The parcel is--
 - (i) Marginal strip, railway, or road; or
 - (ii) Land that is the bed of a lake, a river, a stream, or the sea; or
 - (b) The part is being defined for the purpose of acquisition under the Public Works Act 1981.
- (3) Subclause (2) overrides subclause (1).

20. UNIQUE APPELLATIONS OR IDENTIFIERS TO BE PROVIDED FOR NEW PARCELS CREATED--

- (1) A CSD of a survey must provide a unique appellation or unique identifier for every new parcel to which it relates.
- (2) The appellation or identifier for a lot in a Land Transfer CSD or a section in a Survey Office CSD must be a number.

21. AREAS TO BE INDICATED--

- A CSD must indicate--
 - (a) The area of every new primary parcel created for which rule 20 requires it to provide a unique appellation or identifier; and
 - (b) The total area of all primary parcels.

MEASUREMENT

22. DISTANCES--

Every distance recorded in any CSD must be the distance measured or calculated, reduced to the datum ellipsoid and rounded to either--

- (a) The nearest 0.01 m; or
- (b) The nearest 0.005 m, if greater precision is necessary in the particular circumstances.

23. BEARINGS--

(1) Every bearing recorded in a CSD must be the bearing measured or calculated, expressed--

- (a) Clockwise from the North, in degrees, minutes, and seconds:
- (b) In terms of the appropriate official survey projection for the time being approved by the Surveyor-General.

(2) So long as the CSD complies with the standard of accuracy prescribed by rule 26, bearings may be rounded.

24. GEODETIC DATUM--

Wherever practicable, co-ordinates and bearings must be expressed in terms of the official geodetic datum for the time being approved by the Surveyor-General.

25. HEIGHTS--

Every height must be stated by reference to a height datum for the time being recognised by the Surveyor-General for the purposes of these rules.

ACCURACY, TOLERANCES, MISCLOSURES, AND AREAS

26. PRESCRIBED STANDARD OF ACCURACY FOR VECTORS--

(1) The standard of accuracy required for vectors is that the difference between--
(a) The true vector from any point in a survey to any other point in the survey; and
(b) The vector between those points as measured or calculated,--
must not exceed the tolerances set out in subclause (2).

(2) The tolerances are--

- (a) For a class I survey--

- (i) 0.03 m, plus 0.01 m per 100 m, for each boundary point to each other boundary point:
 - (ii) 0.03 m for each boundary point to its witness mark or marks:
 - (iii) 0.03 m, plus 0.01 m per 100 m, for each boundary point to each origin mark:
 - (iv) 0.02 m, plus 0.01 m per 100 m, for each witness, traverse, or origin mark to each other witness, traverse, or origin mark:
- (b) For a class II survey--
- (i) 0.1 m, plus 0.01 m per 100 m, for each boundary point to each other boundary point:
 - (ii) 0.06 m for each boundary point to its witness mark or marks:
 - (iii) 0.06 m, plus 0.01 m per 100 m, for each boundary point to each origin mark:
 - (iv) 0.02 m, plus 0.01 m per 100 m, for each witness, traverse, or origin mark to each other witness, traverse, or origin mark:
- (c) For a class III survey--
- (i) 0.25 m, plus 0.01 m per 100 m, for each boundary point to each other boundary point:
 - (ii) 0.13 m for each boundary point to its witness mark or marks:
 - (iii) 0.13 m, plus 0.01 m per 100 m, for each boundary point to each origin mark:
 - (iv) 0.02 m, plus 0.01 m per 100 m, for each witness, traverse, or origin mark to each other witness, traverse, or origin mark.

(3) To the extent that a survey uses information adopted from a survey approved before the commencement of these rules, it is a sufficient compliance with subclause (1) if the adopted information complies with the standards of accuracy applicable when the earlier survey was approved.

27. DEFINITE FEATURE ON UNIT, FLAT, OR CROSS-LEASE BOUNDARY--

It is a sufficient compliance with rule 26 (1), if a boundary that--

- (a) Is for a unit, flat, or cross-lease; and
- (b) Is demarcated by a definite feature,--

is defined well enough in a CSD to enable its accurate plotting relative to the boundaries of the primary parcel concerned.

28. MISCLOSURES--

(1) Misclosures must be distributed by a systematic adjustment acceptable to the Surveyor-General.

(2) An adjustment must not exceed the appropriate maximum tolerance specified in rule 26.

29. PRESCRIBED STANDARD OF ACCURACY FOR AREAS--

The standard of accuracy required for areas is that--

- (a) If the true area of a parcel is more than 1000 m², the difference between that area and its area as stated in a CSD must not exceed one thousandth of the true area;
- (b) If the true area of a parcel is 1000 m² or less, the difference between that area and its area as stated in a CSD must not exceed 1 m².

30. AREA OF PARCELS SMALLER THAN 1 M²--

The area of a parcel that is less than 1 m² must be stated in a CSD as 1 m².

DEFINITION OF BOUNDARIES, AND MONUMENTATION**31. MONUMENTATION OF PRIMARY PARCEL BOUNDARIES--**

- (1) A primary parcel boundary (other than a natural boundary) must be monumented by ground-marking at--
 - (a) Every angle; and
 - (b) The terminal point of every arc; and
 - (c) Every new intersection with an existing parcel boundary (including any certificate of title boundary); and
 - (d) Points between those angles, points, and intersections, close enough to each other (when those angles, points, and intersections, are taken into account) to enable users on the ground to identify the boundary adequately.
- (2) A primary parcel boundary does not have to be ground-marked at an intersection with an existing primary parcel boundary if the intersection will become redundant once the transaction for which the survey concerned is being undertaken has been completed.
- (3) If satisfied that--
 - (a) It is not necessary to apply subclause (1) to any boundary in any class II or class III survey; and
 - (b) The boundary's position can be indicated adequately by the use of a definite feature,--
 the Surveyor-General may, before the CSD concerned is lodged, authorise compliance with the requirements specified in subclause (4) instead, and in that case the boundary may be indicated in accordance with those requirements instead.
- (4) The requirements referred to in subclause (3) are--
 - (a) If the boundary is irregular, information supporting the definition of its position must be lodged; and
 - (b) The intersection of the boundary with a boundary on a class I, II, or III survey must comply with the requirements for a survey of that class; and
 - (c) The CSD concerned must indicate clearly the nature of the definite feature.
- (5) Rule 34 (which relates to difficulties in ground-marking particular points), and subclauses (2) and (3), override subclause (1).

32. MONUMENTATION OF BOUNDARIES OF RIGHT OF WAY AREAS--

(1) The boundaries (other than natural boundaries) of a right of way area must be monumented by ground-marking as for a primary parcel boundary; but 2 or more adjacent right of way areas in respect of which there are reciprocal rights may be ground-marked as a single right of way area.

(2) If the side boundaries of a right of way area in a class II or class III survey are parallel, it is a sufficient compliance with subclause (1) if the area is monumented by ground-marking (as for a primary parcel boundary) along 1 of them, or the centreline between them.

33. FLAT, CROSS-LEASE, AND UNIT BOUNDARIES--

(1) Boundaries for a flat or cross-lease dataset must be defined by buildings or structures.

(2) Boundaries for an easement area in a flat or cross-lease dataset, or a unit in a unit dataset, must be--

- (a) Monumented as for a primary parcel, or by definite features; or
- (b) Defined by dimensions relative to the boundaries of the primary parcel concerned, or to definite features.

34. PRACTICAL DIFFICULTIES IN MARKING POINTS--

(1) If a point required by these rules to be ground-marked falls on an obstacle in such a way that its position cannot practicably be ground-marked,--

- (a) It does not have to be ground-marked; but
- (b) There must be included in the CSD lodged--
 - (i) A description of the obstacle; and
 - (ii) Details of the dimensions between the point and the obstacle.

(2) If a point required by these rules to be ground-marked falls on ground so unstable that its position cannot practicably be ground-marked,--

- (a) It does not have to be ground-marked; but
- (b) There must be included in the CSD lodged--
 - (i) A description of the instability; and
 - (ii) Details of the dimensions between the point and a ground mark, offset point, or finite structure.

35. BOUNDARY MARKS--

(1) A boundary mark must be readily identifiable as a boundary mark, and be--

- (a) A peg of durable or ground-treated timber, pointed and chamfered, at least 500 mm long, at least 50 mm wide, and at least 3500 mm² in cross-section; or
- (b) A sound and soundly anchored fence post; or

- (c) A mark of a type previously approved by the Surveyor-General for use for boundary marks.
- (2) To the extent that it is practicable to do so, there must be stably engraved on or attached to a boundary mark, in a readily identifiable form,--
- (a) A broad arrow, or some other suitable distinguishing identification; and
 - (b) The number of each primary parcel bounded by the boundary, facing that parcel; and
 - (c) If the boundary is a road frontage, the letter "R" facing the road; and
 - (d) If the boundary is the boundary of land subject to a right of way, the letters "RW" facing that land.

36. WITNESS MARKS--

- (1) A witness mark must be--
 - (a) A ferrous mark at least 12 mm in diameter, and if practicable at least 500 mm long; or
 - (b) A mark of a type previously approved by the Surveyor-General for use for witness marks; or
 - (c) A control mark forming part of the National Survey Control System
- (2) A witness mark must be located where it--
 - (a) May readily be driven or set as required by subclause (3); and
 - (b) Is not likely to be disturbed; and
 - (c) Is likely to be able to be conveniently found and used.
- (3) A witness mark must be driven or set in the ground so it is highly secure.

37. UNDERGROUND SERVICES--

To the extent only that is prudent to avoid striking underground services, a mark may be shorter than required by rule 35 or rule 36.

38. TRAVERSE MARKS--

- (1) A traverse mark must be either--
 - (a) A ferrous mark large and long enough to be reasonably durable and stable; or
 - (b) A mark of a type previously approved by the Surveyor-General for use for traverse marks.
- (2) A traverse mark must, as far as is reasonably practicable, be located where it--
 - (a) May readily be driven or set as required by subclause (3); and
 - (b) Is not likely to be disturbed; and
 - (c) Is likely to be able to be conveniently found and used.
- (3) A traverse mark must be driven or set in the ground so it is reasonably secure.

FORM AND FORMATTING OF PLANS AND OTHER INFORMATION

39. DIGITAL INFORMATION--

Information recorded in digital form is not an acceptable element of a CSD unless--

- (a) The Surveyor-General has approved the lodgement of information recorded in digital form in relation to elements of that kind (in surveys undertaken throughout New Zealand, or in specified areas only); or
- (b) The information is in a form and format for the time being approved by the Surveyor-General for information recorded in digital form forming an element of a CSD.

40. FORMAT AND CONTENT OF PLANS--

- (1) A hard-copy plan that is or is part of a CSD must be drawn in black on a form, and on drawing material, approved by the Surveyor-General for the purpose.
- (2) Unless some other enactment requires or allows something different, the plan must also comply with Schedule 2.

41. TRAVERSE SHEETS--

- (1) Every CSD lodged for the purposes of section 9(a) and (d) of the Act,--
 - (a) In the case of a hard-copy CSD, must be accompanied by traverse sheets; and
 - (b) In the case of a digital CSD, must include information corresponding to traverse sheets.
- (2) Subclause (1) does not apply to a flat or cross-lease dataset, a unit dataset, or a CSD lodged for record purposes only.
- (3) Traverse sheets (and corresponding information) must tabulate adjusted co-ordinates, in terms of the origin of the survey and the appropriate official survey projection for the time being approved by the Surveyor-General, in a format previously approved by the Surveyor-General.
- (4) The method of adjustment of co-ordinates on a traverse sheet (or in corresponding information) must be shown.

42. SURVEY REPORT--

- (1) Unless lodged for record purposes only, every CSD lodged for the purposes of section 9(a) and (d) of the Act,--
 - (a) In the case of a hard-copy CSD, must be accompanied by a survey report; and
 - (b) In the case of a digital CSD, must include a survey report.

- (2) A survey report must be signed by the surveyor concerned, and give as much of the following information as is applicable to the survey concerned:
- (a) The purpose for which the survey was conducted:
 - (b) How the origin of bearings and co-ordinates was derived:
 - (c) Details of old marks found, and the reasons for relying or not relying on them:
 - (d) Details of old marks searched for but not found:
 - (e) Details of relevant old marks not searched for, and reasons for not searching for them:
 - (f) Definition methodology:
 - (g) Details of any conflicts with existing survey and title records, and how each was resolved:
 - (h) Any orientation or scale adjustments, and the reasons for them:
 - (i) Details of equipment and methods used in the survey:
 - (j) Details of methods used to ensure compliance with prescribed standards of accuracy:
 - (k) Details of methods used to determine natural boundaries:
 - (l) Confirmation that adopted natural boundaries are still in the position shown:
 - (m) Explanations of any material differences between boundaries and occupation:
 - (n) Details of any existing rights of way, other easements, or covenants that are to be surrendered or released:
 - (o) References to any correspondence with the Surveyor-General, the chief executive, the Registrar-General of Land, or any person acting under the authority of any of them, relating to the survey.
- (3) A CSD may be accompanied by (or, in the case of a digital CSD, include) any other information that may expedite its approval.

43. FIELD INFORMATION--

- (1) The chief executive may require the record of field observations and measurements for a survey to be included in a CSD.
- (1A) The Surveyor-General may require a surveyor to produce the record of field observations and measurements for a survey for the purposes of the Surveyor-General's function specified in section 7(1)(j) of the principal Act.
- (2) Field information lodged for inclusion in official records must be recorded in a manner for the time being approved by the chief executive.

MISCELLANEOUS MATTERS

44. CLASS IV SURVEYS--

If satisfied that it is not necessary to apply rule 13, rule 19, rule 26, rule 28, rule 29, or rule 32 fully to a survey that would otherwise be a class II or class III survey, the Surveyor-General may, before the CSD concerned is lodged, specify different requirements (which may be the requirements of that provision modified in some manner, or new requirements, or a mixture of both); and in that case the survey may comply with those requirements instead.

45. RESTRICTIONS ON REDEFINITION SURVEYS--

A redefinition survey of a parcel is not permissible if--

- (a) The parcel is in a title limited as to parcels; or
- (b) The original survey was effected for the purposes of an instrument registered under the Deeds Registration Act 1908; or
- (c) The original title dimensions cannot be redefined without affecting existing rights relating to adjoining land; or
- (d) Information in the survey conflicts with information in titles to adjoining land.

46. INFORMATION TO BE LODGED FOR REDEFINITION SURVEYS--

(1) Except as provided in subclauses (2) and (3), these rules apply to information relating to a redefinition survey that is presented for approval as to survey as if it were a CSD.

(2) If a boundary mark has been placed during a redefinition survey, survey-system information about the mark must be lodged with the chief executive, for approval as to survey or for approval for record purposes only.

(3) Information relating to a redefinition survey that is lodged for record purposes only must be in CSD format, including all observations and measurements made, or a field note signed by the surveyor concerned; and must include--

- (a) A diagram of survey layout; and
- (b) A description of the equipment used; and
- (c) A record of all observations and measurements.

47. REQUISITIONS--

A requisition from the chief executive to--

- (a) Undertake additional survey work in relation to a CSD; or
- (b) Supply additional information for a CSD,--

must be complied with promptly, unless the surveyor gives the chief executive written notice that the approval of the CSD is no longer wanted.

48. CUSTODY OF CSDS--

- (1) Before its approval, a CSD is in the custody of the chief executive on behalf of the surveyor responsible.
- (2) After its approval, a CSD must be retained in the Crown's custody.

SCHEDULES

SCHEDULE 1

Rule. 18 (2) (a)

SURVEYOR'S CERTIFICATE

I (Name), being a person entitled to practise as a licensed cadastral surveyor, certify that--

- (a) The surveys to which this dataset relates are accurate, and were undertaken by me or under my direction in accordance with the Cadastral Survey Act 2002 and the Surveyor-General's Rules for Cadastral Survey 2002/1:
- (b) This dataset is accurate, and has been created in accordance with that Act and those Rules.

(Signature)

(Date)

SCHEDULE 2

Rule. 40 (2)

PROVISIONS APPLYING TO HARD-COPY PLANS

1. Interpretation--

In this schedule,--

"Dataset" means a hard-copy dataset:

"Diagram" means a hard-copy diagram:

"Plan" means a hard-copy plan.

2. Survey and title plans--

Unless these rules provide otherwise, 2 plans of a survey must be prepared, of which--

(a) One (in this schedule referred to as a survey plan)--

(i) Must show all survey traverses and adopted information that was used for the purposes of boundary definition, and must also show the co-ordinates of the origin point; and

(ii) May show boundary dimensions, if detail permits; and

(b) The other (in this schedule referred to as a title plan) must show all boundary marks placed by the survey (including arc pegs and line pegs), all areas all boundary dimensions (including intermediate distances and totals), and all other information and appellations necessary for the issue of title.

3. Title plans to be used for other enactments--

For the purposes of any enactment other than the principal Act, a title plan is the survey plan of subdivision.

4. Scale and standard of plans--

(1) A plan must be plotted on an appropriate standard metric representative-scale that will suitably and clearly illustrate details of the work.

(2) The scale must be shown in the appropriate panel of the plan.

(3) The plan must be drawn, to a standard acceptable to the Surveyor-General, and so as to be suitable for reproduction.

5. Plotting--

(1) A plan must show a north point.

(2) A plan must be accurately plotted, with the meridian parallel with the side of the plan form and the north point upwards.









(3) In exceptional cases where it is necessary to make the best use of the form because of the shape or layout of the survey, a plan may be plotted with the meridian at an angle to the side of the form. but in that case,--

- (a) The angle must not exceed 90°; and
- (b) The north pointing must not be below a line parallel with the bottom edge of the form.

(4) Full plotting lines are not required; but grid cuts must be shown towards the edge of the plan form, together with their co-ordinate values for at least 2 meridians and 2 perpendiculars, suitably spaced.

6. Symbols for marks and stations--

Survey marks and stations on a plan must be represented as follows:

	New or Adopted	Old
(a) Peg, or traverse or other survey mark		
(b) Post		
(c) Witness or permanent reference mark		
(d) Bench mark, survey control station, or network station		













7. Additional information relating to marks--

On a plan,--

- (a) An old mark must be shown annotated with the appropriate name or number, and plan reference:
- (b) An old mark found and renewed must be shown with the appropriate symbol for an old mark, with the new mark shown by notation:
- (c) An adopted mark must be shown annotated with the expression "adopt" and the appropriate plan reference:
- (d) A mark that is not a wooden peg must be shown annotated with a description of its type:
- (e) A traverse or witness mark must be shown with a unique reference number.

8. Linework--

Lines on a plan must be as follows:

		Line Weight Specification
(a) New traverse and observed lines		0.25 mm
(b) New parcel boundaries		0.7 mm
(c) Calculated or adopted lines that are not boundary lines		0.25 mm
(d) Land District boundary		0.7 mm
(e) Survey District boundary		0.7 mm
(f) Block of Survey District boundary or Local Authority boundary		0.7 mm
(g) Existing Section, Lot, D.P., or L.T. or Registration District boundary		0.5 mm
(h) Boundaries other than boundaries of new parcels		0.5 mm
(i) Fences		0.25 mm
(j) Fence on boundary		0.7 mm
(k) Underlying or abutting C.T. boundaries		0.25 mm
(j) Easements		0.5 mm

9. Additional information relating to linework--

On a plan,--

- (a) A line adopted from another survey must be annotated with the expression "adopt" and the appropriate plan reference:
- (b) As far as is practicable, the distance and bearing of a line must be written close to it, in characters at least 2.5 mm high:
- (c) Annotation must be shown clearly against a boundary that is not clearly identifiable:
- (d) A new traverse line measured by the Global Positioning System must be annotated "GPS":
- (e) A new observed line must be annotated "obs only":
- (f) A calculated line on a survey plan must be annotated "calc".

10. Plan references--

- (1) Each plan reference on a plan relating to a parcel or parcels must be shown,--
 - (a) On the face of the plan; and
 - (b) In its correct relation to the parcel or parcels.

- (2) Plans referred to must be listed in the appropriate panel on the plan.

11. Rights of way, other easements, and covenants--

(1) A plan--

- (a) Must show the position of each right of way area and easement area, together with a reference to the instrument creating it; and
- (b) If there is more than 1 such area, must identify each with a unique letter (or combination of letters) of the alphabet; and
- (c) Must bear, in the panel of the plan, a schedule stating (in relation to each right of way area and easement area) the nature of the right of way, other easement, or covenant, concerned, and either--
 - (i) The dominant and servient tenements; or
 - (ii) If it is an easement or covenant in gross, the name of the grantee.

- (2) If all of a parcel is subject to a right of way, other easement, or covenant, a plan must show that fact, and bear a reference to the instrument creating it.

12. Occupation information--

(1) A plan must show--

- (a) The position of occupation relative to title boundaries; and
- (b) The nature, description, and age of the occupation.

(2) A plan must--

- (a) Show each building on the land concerned--
 - (i) That is on or near a boundary; or
 - (ii) Whose eaves or projections overlap or closely approach a boundary;and
- (b) Specify and delineate its position in relation to the boundary.

(3) If a structure is or is to be used as a party wall, a plan must show--

- (a) Its height and width, and any change in its width; and
- (b) Its position relative to the boundary concerned.

13. Roads--

- (1) A survey plan must show the name and nominal width of every road shown on it.

- (2) A title plan must show the name of every road shown on it, and whether or not it is a legal road.

14. Consents and approvals--

A title plan must bear or have attached to it (as the case requires) all consents, approvals, and other endorsements or memorials, required by law.

15. Computed and compiled plans--

(1) A computed plan must bear the words "Computed Plan" directly above, and in lettering of a size comparable with, the plan's title.

(2) A compiled plan must bear the words "Compiled Plan" directly above, and in lettering of a size comparable with, the plan's title.

16. Legalisation plans--

A title plan for legalisation purposes--

- (a) Must show title references to the land surveyed, and to all abutting parcels affected by the action concerned; and
- (b) Must show the ownership and status of every parcel not registered under the Land Transfer Act 1952; and
- (c) Must bear--
 - (i) A statement of the total area of the land defined in the plan; and
 - (ii) A schedule of the areas defined in the plan, grouped as land to be taken or acquired, severances, and road to be stopped.

17. Land transfer plans--

A title plan for land transfer purposes--

- (a) Must show a reference to every Certificate of Title to any of the land concerned; and
- (b) Must show a reference to every Certificate of Title to any adjacent land if--
 - (i) The land concerned is being brought under the Land Transfer Act 1952; or
 - (ii) The land concerned (or any part of it) is being claimed as accretion; or
 - (iii) It is a condition of the approval of a subdivision that all or any part of the land concerned must be amalgamated with land in another title; or
 - (iv) The title to the land concerned is limited as to parcels; or
 - (v) The plan has been prepared (for the purposes of an application for title to land based on adverse possession) pursuant to a requirement of a the Registrar-General of Land under section 14 of the Land Transfer Amendment Act 1963; or
 - (vi) It is proposed to create a right of way, other easement, or covenant over or in respect of the adjacent land.

18. Plans relating to Maori land--

(1) The following provisions apply to a plan prepared for the purposes of the Maori Land Act 1993:

- (a) A legal road intersecting or abutting the area surveyed or to be surveyed must be shown labelled "Legal Road":
- (b) A roadway constituted by the Maori Land Court must be shown labelled "Roadway":
- (c) An unsurveyed road must be surveyed and shown:
- (d) If on partition an original area is found to be more or less than as stated (whether because of a defective earlier survey or for some other reason), the areas of the

new partitions must be adjusted proportionally, unless the Maori Land Court directs otherwise.

(2) The requirements of subclause (1) are in addition to the other requirements of this schedule.

19. Flat or cross-lease datasets and unit datasets--

(1) A flat or cross-lease dataset or unit dataset must be prepared on a form approved by the Surveyor-General for the purpose.

(2) A scale diagram on a flat or cross-lease dataset or unit dataset must show--

- (a) Title boundaries of the site concerned, and their bearings and distances; and
- (b) Abuttals; and
- (c) All buildings, whether main or ancillary, and whether existing or proposed.

(3) If--

(a) Part of a building forms or is on (or is to form or be on) an entitlement boundary on a flat or cross-lease dataset or unit dataset; and

(b) The relationship of the building to the boundaries of the primary parcel concerned is not clear at the plotted scale,--

the correct relationship of the building to the boundaries must be shown by offsets derived from field measurements.

(4) If part of a building forms or is on an entitlement boundary on a flat or cross-lease dataset or unit dataset, the dimensions and positions relative to the boundary of any parts of the building overlapping the boundary must be shown.

(5) If a flat or cross-lease dataset or unit dataset relates to a multi-level development,--

(a) There must for every level be provided an accurate drawing of the extent and shape of each principal or accessory unit or flat (or part of a principal or accessory unit or flat) on that level:

(b) Identical levels or floors may be shown as 1 drawing, entitled "Identical floor (or level) plans, floors (or levels) to ":

(c) A drawing--

(i) Must show all external perimeter walls; but

(ii) Does not have to show internal walls, details of fittings, details of furniture, or the dimensions of external perimeter walls.

(6) If--

(a) A wall, fence, floor, or ceiling is on or next to all or part of the common boundary between a unit or flat on a flat or cross-lease dataset or unit dataset and--

(i) Some other unit or flat on the dataset; or

(ii) Common property on the dataset; but

(b) The median of the wall, fence, floor, or ceiling does not coincide with the boundary or part,--

the dataset must show or indicate the position of the boundary or part.

(7) If a definite feature forms a boundary (other than a primary parcel boundary) on a flat or cross-lease dataset or unit dataset,--

(a) The feature must be described; and

(b) The feature must be plotted in its true position relative to the primary parcel boundaries; and

- (c) Where appropriate, reduced levels defining upper and lower limits must be shown.
- (8) If a boundary (other than a primary parcel boundary) on a flat or cross-lease dataset or unit dataset is not formed by a definite feature,--
 - (a) The horizontal dimensions of the space concerned must be plotted in their true position relative to the primary parcel boundaries; and
 - (b) Where appropriate, reduced levels defining upper and lower limits must be shown.
- (9) The title of flat or cross-lease dataset or unit dataset must show the legal description of the land concerned.
- (10) On a flat or cross-lease dataset or unit dataset,--
 - (a) Site, unit, and flat boundaries must be shown by a solid line 0.7 mm wide:
 - (b) Areas to be excluded from a unit, title, licence, or lease--
 - (i) Must be shown by a pecked line 0.25 mm wide; and
 - (ii) Must be labelled as being (or to be) excluded from the unit, title, licence, or lease.

20. Provisions applying to flat or cross-lease datasets only--

- (1) A right of way on a flat or cross-lease dataset must be shown by a scale diagram.
- (2) A flat or cross-lease dataset must show areas subject to land covenants, and must bear--
 - (a) A schedule, showing the Certificate of Title reference for each flat or unit; and
 - (b) In the case of a multi-level building, an elevation or elevations depicting the various flats or units.
- (3) An area subject to a land covenant on a flat or cross-lease dataset must be shown by a solid line 0.25 mm wide.

21. Provisions applying to unit datasets only--

- (1) An encumbrance on a unit dataset must be shown by a scale diagram.
- (2) A unit dataset must show any name or other appellation assigned or proposed to be assigned to the building concerned.
- (3) On a unit dataset, internal detail other than unit boundaries must be shown by a solid line 0.25 mm wide.
- (4) A unit dataset must bear a schedule, providing for the supplementary sheet reference and Certificate of Title reference for each unit to be entered on it, containing--
 - (a) The address of the body corporate concerned; and
 - (b) A unit description for each unit; and
 - (c) The unit entitlement for each unit; and
 - (d) The total unit entitlement for all units.
- (5) A unit dataset relating to a multi level building must bear an elevation--
 - (a) Showing each floor, basement, and roof area; and
 - (b) Stating its level and the datum of that level, and giving a description of the origin mark.

- (6) Any external or internal area on a hard-copy unit dataset that is common property must be clearly labelled as common property.
- (7) In the case of a multi level building, each principal unit on a hard-copy unit dataset must be clearly identified with a unique number that is linked or related to the appropriate level number.
- (8) In the case of a building that is not a multi-level building, each principal unit on a hard-copy unit dataset must be clearly identified with a unique number, letter, or combination of letters.
- (9) Each accessory unit on a hard-copy unit dataset must be clearly identified with the letters "AU" and a unique number.

22. Plans for mining permits--

A hard-copy plan prepared in relation to a mining permit--

- (a) Must show the relation of the boundaries of the permit and adjacent cadastral boundaries; and
- (b) Must show all existing mining permits whose boundaries are within 100 m of the land surveyed; and
- (c) Must show any intersection of the boundaries of the permit and the boundaries of any existing permit in such a way as to enable the exclusion of the appropriate area from the existing permit; and
- (d) Must show existing land appellation.