#### CHAPTER 260

#### SURVEYORS

Ordinance No. 24 of 1969, Acts Nos. 40 of 1974, 12 of 1977.

# AN ACT TO PROVIDE FOR THE REGISTRATION OF LAND SURVEYORS, TO REGULATE THE SURVEY OF LAND AND MATTERS INCIDENTAL THERETO

[1st January, 1970.]

#### Short title

1. This Act may be cited as the Surveyors Act.

#### Interpretation

- 2. In this Act, unless the context otherwise requires—
  - "Board" means the Surveyors Registration Board;
  - "Director" means the Director of Lands;
  - "register" means the register of surveyors required to be kept under the provisions of this Act;
  - "Registrar" means the Registrar of the Board;
  - "surveyor" means a person registered as a surveyor under the provisions of this Act.

# Establishment of Surveyors Registration Board

- 3.—(1) For the purposes of this Act, there shall be established a Board to be known as the Surveyors Registration Board which shall consist of—
  - (a) the Director, who shall be the chairman;
  - (b) four surveyors appointed by the Minister.
- (2) The Minister shall appoint a Registrar and Secretary who may be a member of the Board.
- (3) In the absence of the chairman at any meeting, the other members shall appoint one of themselves to act as chairman.
- (4) A quorum shall be three and all resolutions shall be passed by a majority of those present. The chairman shall have an original and a casting vote.
- (5) Subject to the provisions of this Act, the Board may regulate its own procedure and may make rules for that purpose.
  - (6) The Board shall cause proper records of its proceedings to be kept.
  - (7) The Board's office shall be at the Lands Department in Suva.

# Duties of the Board

- 4. The duties of the Board shall be-
  - (a) to keep a register of all surveyors;
  - (b) to determine the suitability of and approve candidates for admission as surveyors in accordance with the provisions of this Act;

- (c) to take disciplinary measures against surveyors where appropriate;
- (d) to advise the Minister on all matters relating to the survey of land in Fiji.

Register of surveyors

- 5.—(1) The Registrar shall keep a register of surveyors in which shall be inserted the names, addresses and qualifications of all persons registered as surveyors by the Board.
- (2) In the month of January each year the Registrar shall publish in the Gazette a list of the names of persons registered in the register as on the 31st December immediately preceding.

(3) The Registrar shall publish in the Gazette from time to time any names

added to or deleted from the register.

(4) On application to the Registrar the register shall be available for inspection by any person during normal working hours on payment of such fee as may be prescribed from time to time by the Board which fee shall be paid into the Consolidated Fund.

#### Persons entitled to registration

- 6. Subject to the provisions of this Act, any person who satisfies the Board that he is of good character and reputation shall be entitled to be registered in the Register if he is either-
  - (a) a surveyor who at the commencement of this Act was already registered under the provisions of the Surveyors Ordinance repealed by this
  - (b) possesses such other qualifications and experience as may be acceptable to the Board. (Cap. 234) (1967 Edition.)

# Application for registration

7.—(1) Any person wishing to be registered under this Act shall apply in writing to the Registrar submitting evidence to support his application.

(2) The Board may approve, defer or refuse such application, or request the applicant to provide such additional information as the Board may reasonably require.

#### Annual registration fee

- 8.—(1) Every person registered under the provisions of this Act, other than an surveyor who is a public officer, shall pay to the Registrar an annual registration fee of fifty dollars due and payable on or before the date of registration or reinstatement, as the case may be, and upon each anniversary of such date during the currency of such registration.
- (2) Where any surveyor gives notice in writing to the Board before the date upon which the annual registration fee is payable by him in any year that he will not practise as a surveyor during the year then immediately succeeding, the Board may reduce the annual fee payable by him in respect of that year to five dollars:

Provided that if during such year the surveyor recommences practice the full fee for the whole year less the amount of five dollars so paid shall then be payable to the Board.

(3) All fees collected by the Registrar under the provisions of this section shall be paid into the Consolidated Fund. (Section amended by 40 of 1974, s. 2.)

Removal or suspension of name from register

- 9.—(1) If any person registered under the provisions of this Act shall—
  - (a) be convicted of any offence for which the maximum punishment is imprisonment for a term of not less than two years;
  - (b) be guilty of any act or conduct which in the opinion of the Board is infamous or unethical in any professional respect;
  - (c) be disqualified to practise surveying in the country or countries in which he was granted a recognised surveyor's qualification;
- (d) fail to pay the registration fee provided for in section 8, the Board may after due inquiry order that the name of such person be removed from the register or suspend his registration for a period not exceeding twelve months.
- (2) A person whose name has been removed from the register may apply for re-instatement and upon receipt of satisfactory evidence of proper reasons for his re-instatement the Board may approve such re-instatement.

#### Alterations to register

10. The Registrar shall from time to time make any necessary alterations to the register on instructions from the Board, including the deletion of the name of any deceased person.

#### Appeals against decisions of Board

- 11. Any person aggrieved---
  - (a) by the refusal of the Board to approve his application for registration; or
  - (b) by the removal of his name from the register; or
- (c) by the refusal of the Board to approve re-instatement of his name in the register,

may appeal to the Supreme Court.

#### Unregistered persons not to use title of registered surveyor

- 12.—(1) No person shall be entitled to take or use the name or title of registered surveyor (either alone or in combination with any other word or words), or any name, title, addition or description implying that he is registered under the provisions of this Act, or that he is a person specially qualified to practise land surveying unless he is registered under the provisions of this Act.
- (2) Any person, not being registered under this Act, who takes or uses any such name, title, addition or description as aforesaid, whether expressed in words or by letters, or partly in words and partly in letters, shall be guilty of an offence and shall be liable on conviction to a fine not exceeding two hundred dollars.

# Penalty for obtaining registration by false pretences

13. Every person who wilfully procures or attempts to procure registration under this Act by making or producing or causing to be made or produced any false or fraudulent representation or declaration either verbally or in writing, shall be guilty of an offence and shall be liable on conviction to a fine not exceeding two hundred dollars or to imprisonment for a term not exceeding twelve months.

# Evidence of registration

14.—(1) The list of names of persons registered in the register published in the Gazette under the provisions of subsections (2) or (3) of section 5 shall be evidence

in all cases before any court (until the contrary be made to appear) that the persons named in such list are registered under the provisions of this Act and the absence of the name of any person from such list shall be evidence (until the contrary be made to appear) that such person is not registered under the provisions of this Act.

(2) Notwithstanding the provisions of subsection (1), a certified copy under the hand of the Registrar of the entry of the name of a person in the register shall be evidence that such person is registered under the provisions of this Act, and a certificate under the hand of the Registrar that a person is not registered in the register or has been removed from the register shall be evidence of such non-registration or removal, as the case may be.

#### As to recognition by courts

15. No surveys for any purpose connected with dealings in land under the provisions of the Land Transfer Act or any Act repealing and replacing such Act other than those performed by a surveyor registered under the provisions of this Act shall be recognised by any court in Fiji or by the Registrar of Titles nor shall any action lie in any court of Fiji in respect of such services performed by surveyors unless the persons performing such services were at the time of performing the same duly registered under the provisions of this Act or of the Surveyors Ordinance repealed by this Act.

(Cap. 131.) (Cap. 234, 1967 Edition.)

# All plans to be signed and dated

16. Every plan of survey made by a surveyor shall be signed by the person executing the same and shall bear the date of execution.

# Duplicates of plans to be filed in office of Director

17. Every surveyor shall file in the office of the Director or the Registrar of Titles, as the case may be, a plan of every survey made by him for the purposes of conveyance or of dealing in land and the Director shall lay down upon general maps of the various islands of Fiji the position and boundaries of the lands represented in such plans.

#### Trigonometrical stations and survey marks

- 18.—(1) The Director or any surveyor, or their agents, servants and workmen may—
  - (a) enter upon or pass over any land, whether public or private, for the purpose of any survey and may affix and set up trigonometrical stations, tellurometer stations, survey pegs, marks, beacons, poles, stones or blocks or for the purpose of inspecting any such survey or stations or for altering, repairing, moving or removing any trigonometrical station, tellurometer station, survey peg, mark, beacon, pole, stone or block;
  - (b) do all things necessary for such survey or for any inspection, alteration, repair, move or removal aforesaid;
  - (c) clear and keep clear of any growth, land within a radius of one chain of any trogonometrical station or tellurometer station.
- (2) In the exercise of the powers given by this section, the Director and any surveyor shall not be deemed to acquire any right other than that of user only in or over the soil of any land.

- (3) The powers conferred by this section may also be exercised in relation to any trigonometrical station, survey mark or beacon, fixed, placed or erected by a surveyor, or his agent prior to the commencement of this Act and existing at such commencement.
- (4) In the exercise of the powers given by this section, the Director and any surveyor shall do as little damage as may be practicable and in any case shall pay full compensation to any person entitled thereto for all damage sustained by him by reason or in consequence of the exercise of such powers:

Provided that no compensation shall be payable in respect of any right of user acquired under the authority of this section.

- (5) In the case of damage caused by the Director or by any Government surveyor or his agent acting on his instructions, the compensation shall be payable from the Consolidated Fund, and in the event of any disagreement arising between the Director and the party claiming compensation either as to whether or not compensation is payable or as to the amount payable, the matter shall be referred for decision to a resident magistrate.
- (6) In the case of damage caused by a surveyor other than a Government surveyor, or his agent in the exercise of the powers conferred upon him under the provisions of this section, the compensation shall be paid by such surveyor and in the event of any disagreement arising as to compensation such disagreement shall be referred for decision to a resident magistrate.
- (7) Nothing in this section shall be deemed to authorise any surveyor, except with the authority of the Director to alter, move or remove any trigonometrical station, tellurometer station, or standard survey mark erected or set up by a Government surveyor.

#### Removing or defacing marks

19. Any person not a surveyor or a person working under the supervision of a surveyor who unlawfully interferes with, removes, destroys, displaces, replaces or alters the position of any trigonometrical station, tellurometer station, survey peg, mark, beacon, pole, stone, or block which has been fixed, placed or set up under the provisions contained in section 18 or of any existing trigonometrical station, survey mark or beacon referred to in subsection (3) of section 18, shall be guilty of an offence and shall be liable on conviction to a fine not exceeding two hundred dollars.

#### Obstructing surveyors

20. Any person who wilfully obstructs or hinders the Director or any surveyor or their agents, servants or workmen in the exercise of any of the powers confered upon them under the provisions of section 18, shall be guilty of an offence and shall be liable on conviction to a fine not exceeding two hundred dollars.

#### Survey fees

21. There shall be paid to surveyors for surveys of land such minimum fees as may from time to time be fixed by the Director with the consent of the Minister, and published in the Gazette.

#### Regulations

22. The Minister may, on the advice of the Board, make regulations for all or any of the following matters:—

(a) regulating the conduct of surveys;

(b) regulating the preparation and submission of plans;

(c) prescribing the procedure for amendments and additions to plans;

(d) providing for compliance with requisitions;

(e) generally prescribing fees payable under this Act; and

(f) generally, providing for such matters as are necessary or expedient to give full effect to the provisions of this Act and for the due administration thereof. (Section inserted by 12 of 1977, s. 2.)

#### By-laws

23. The Board may, with the approval of the Minister, make by-laws for all or any of the following purposes:-

(a) prescribing the forms of applications, certificates and other documents required under this Act;

(b) prescribing-

- (i) the subject matter of examinations to be conducted by or on behalf of the Board;
- (ii) the standards required to be attained by successful candidates;

(iii) the times when examinations will be held;

(iv) the fees payable in respect of examinations;

(v) the minimum periods of approved practical training which candidates must undergo before they may be registered;

(c) prescribing such other matters as may be necessary for the efficient discharge by the Board of its duties and functions under this Act. (Section amended by 12 of 1977, s. 3.)

Controlled by Ministry of Lands and Mineral Resources

#### **CHAPTER 260**

#### **SURVEYORS**

# SECTION 22—SURVEYORS REGULATIONS

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Legal Notice No. 92 of 1980

#### Short title

1. These Regulations may be cited as the Surveyors Regulations.

#### Interpretation

2. In these Regulations, unless the context otherwise requires—

"easy to hilly country" means country which is level or which has an average surface slope of not more than 15 degrees;

"plan" includes all plans resulting from any survey made in accordance with these Regulations:

"rough country" means country which has an average surface slope of more than 15 degrees;

"rural survey" or "class B survey" means any survey that is not a town

"survey" means any survey required or made under any written law relating to or affecting title to land whether the title is in fee simple or any lesser

"Surveyor-General" means the Director of Lands and Surveyor-General or any person authorised by him in writing for the purposes of these

"survey plan" means the plan prepared to record the evidence found, the marks placed and the measurements made to effect the survey;

"town survey" or "class A survey" means any survey for residential, commercial or industrial purposes, and includes any survey within any residential, commercial or industrial area.

#### Surveys

- 3.—(1) All surveys shall be executed by a registered surveyor or shall be executed under the direction of a surveyor who is so registered, and plans shall bear the signature of the surveyor executing the survey or under whose direction the survey is executed.
- (2) Only a person authorised by the Surveyor-General shall be employed by a surveyor to execute a survey under his direction.

(3) Responsibility for a survey shall rest with the surveyor whose signature appears on the plan.

(4) No plan shall be accepted as an official record of survey unless approved by the Surveyor-General.

(5) Surveys shall be carried out with such equipment and by such methods as will readily attain the standards of accuracy prescribed by these Regulations or any directions issued by the Surveyor-General.

(6) It shall be the duty of every surveyor at all times to apply such checks and tests to his work as may be necessary to obtain the standards referred to in paragraph (5).

Duties of surveyor

- 4.—(1) Every surveyor shall, when making a survey to which these Regulations apply, have regard to the responsibilities of the Crown which may arise in consequence of any wrongful or inaccurate survey.
- (2) Every surveyor shall search for all old marks necessary to prove the accuracy of his survey and, having found those marks, shall connect his survey to them.
- (3) Every surveyor shall supply to the Surveyor-General all information obtained by him relating to the survey.
- (4) Every surveyor shall report to the Surveyor-General disturbance, or the likelihood of any disturbance, to trigonometrical stations or other control survey marks, and the surveyors engaged on Government work shall renew or repair any such stations and marks or report their inability to do so.

Compliance with good survey practice

5. To the extent that no express provision is made by these Regulations, or any directions issued by the Surveyor-General, every surveyor shall comply with accepted good survey practice.

Compliance with Surveyor-General's requisition

- 6.—(1) On receipt of a requisition from the Surveyor-General to amend a survey plan or to supply information concerning it which is not contained in the field notes or shown on the plan and which amendment or information, in the opinion of the Surveyor-General, is necessary to complete the plan or survey in terms of these Regulations, the surveyor shall comply promptly with the requisition.
- (2) Where survey work requires to be amended, all erroneous markings shall be obliterated or defaced.
- (3) Any surveyor who fails or neglects to amend his survey work as required by a requisition in terms of paragraph (1) may be charged with the cost of rectification of such work.

#### Field notes

7.—(1) The field notes of a survey shall contain a record of all observations and measurements made by the surveyor and of the marks found or placed by the surveyor for the purposes of these Regulations.

(2) The field notes shall record the type of equipment, including the number of the measuring band used for the survey, and, in the case of electronic distance measuring equipment, the make, model and serial number of the equipment.

- (3) Field notes shall be neatly and clearly recorded in black pencil in such a way that a surveyor or competent draughtsman may draw a correct plan of the survey.
- (4) Original field notes of any survey shall be submitted to the Surveyor-General or to the Registrar of Titles on the request of either.
- (5) The original pencil notes shall not be obliterated or inked over or erased; every alteration made by the surveyor shall be clearly written and erroneous entries shall be clearly crossed out.
- (6) The first page of the field notes of each survey shall show the title of the survey, with particulars of the district, block, town or such other reference as shall

sufficiently identify the land surveyed, the date of commencing the survey, and the signature of the surveyor; each page of the field note shall be initialled by the surveyor and dated.

Distance

- 8.—(1) All distances shall be expressed in metres and decimal fractions of a
- (2) The surveyor shall, on request, supply to the Surveyor-General a certificate of comparison of the measuring band or other measuring equipment used on the survey with the official standard.
- (3) The necessary corrections for temperature, sag, slope and height above sea level shall be applied to the measured distances and the final horizontal distance at sea level shown in the field notes.

Bearings

9.—(1) Bearings shall be measured in degrees, minutes and seconds of arc in sexagesimal measurement, commencing at 0°, the north point of the standard meridian of the initial station, and thence through east, south and west, in that order, returning to the north point at 360°.

(2) Bearings for all surveys shall be measured with a theodolite.

- (3) Corrections for origin and closure are to be applied and the deduced bearing shown in the field notes.
- (4) For the purposes of computation and recording on plans, the deduced bearings may be rounded off as shown in the First Schedule.

Origin of co-ordination and bearings

- 10.—(1) Subject to paragraph (2), the origin of co-ordination and bearings shall be obtained from-
  - (a) the triangulation or control survey system; or

(b) surveys approved under former regulations; or

- (c) any other surveys executed by registered surveyors which the Surveyor-General accepts as suitable for the purposes of these Regulations.
- (2) If it is impracticable to carry out the methods mentioned in paragraph (1), the origin of bearing may be obtained from at least 2 independent stellar or solar observations.
- (3) The reliability of any 2 marks for the purposes of this Regulation shall be proved by testing their agreement with a third approved mark.
- (4) Subject to paragraphs (1), (2) and (3), the following methods of survey shall be acceptable:-
  - (a) direct traverse; or

(b) well conditioned connecting triangle; or

(c) resection from at least 4 favourably situated control survey stations that are part of a reliable triangulation system.

Check bearings

- 11.—(1) (a) Where a traverse through dense bush consists of more than 20 lines, check bearings shall be observed to stations of the traverse from some well established point.
  - (b) The number of stations between the check bearings referred to in sub-paragraph (a) shall depend upon the nature of the country and

length of the traverse lines but check bearings shall be observed at approximately every twentieth station where the lines are on the average not more than 100 metres.

(c) Where lines are on the average more than 100 metres in length or where, due to the nature of the country, difficulty is experienced in obtaining accurate angular observations of the traverse lines, a check bearing shall be observed at approximately every tenth station.

(d) Stellar or solar azimuths may be used for checking purposes when other means are impracticable.

- (2) Where lines exceed 2000 metres in length, check bearings shall be applied to the stations at both ends of the lines.
  - (3) (a) In country other than bush, check bearings shall be observed to approximately every tenth station except where lines average more than 200 metres in length, in which case check bearings shall be observed at stations not more than 2000 metres apart.

(b) The nature and location of check bearings shall always depend upon the circumstances of the particular case and shall be governed by the nature of the country, the length of the lines and the visibility at the

time of observation.

Angular and linear errors

- 12.—(1) The bearing of any line shown on a plan shall not differ from the standard bearing, in terms of the origin of bearings of the survey, by more than the limits of error shown in the Second Schedule.
- (2) The length of any line shown on the plan shall not differ from its true length in terms of the official standard of length by more than the following limits or error:-
  - (a) Class A survey: 0.01 m plus 0.001 m for each 10 m;
  - (b) Class B survey: 0.02 m plus 0.002 m for each 10 m.
  - (3) Measurements shall be rounded off:-
    - (a) In the case of Class A surveys, normally to 0.01 m; but where, in the opinion of the surveyor, a higher degree of precision is desirable because of land values or other relevant factors, measurements may be rounded off to 0.005 m; and
    - (b) In the case of Class B surveys to 0.01 m.

Traverse computations and closures

13.—(1) The closure of the traverse on to well established marks, or with the original or initial point of the survey after completing the traverse circuit, shall not exceed the following limits:-

(a) Class A surveys ...... 1:8000 (b) Class B surveys (i) Easy to hilly ...... 1:5000 (ii) Rough ...... 1:3000

(2) Notwithstanding anything in paragraph (1), in cases where the traverse circuit comprises, in whole or in part, traverse or boundary lines adopted from prior surveys, the closing limits prescribed in this regulation any be increased by the Surveyor-General.

Elimination of misclose

14.—(1) In a new traverse forming a complete surround, or in traverses connecting 2 triangulation or control survey stations, which traverses have been adjusted to conform with the geodetic triangulation, the closing error shall be eliminated by applying the Bowditch Rule to distribute the closing error in accordance with paragraph (2).

(2) As the total length of the traverse is proportional to the length of each line, so the whole error in latitude or departure is directly proportional to the correction of the corresponding latitude or departure and each correction so ascertained shall

be applied so as to diminish the whole error in latitude or departure.

#### Traverse sheets

15. Where possible, traverse co-ordinate values of all main traverse stations and of all boundary angle marks, together with the appropriate references to sources of the initial values used, shall be tabulated on approved sheets to be lodged with the plan; but, where a number of intermediate marks are placed on a line between 2 control survey marks or other well established traverse marks, co-ordinates of those intermediate marks need not be tabulated, unless required for calculation purposes.

# Boundaries to be marked

16.—(1) Boundaries shall be marked at every angle and, where necessary, at points on the boundary line in accordance with regulation 19.

(2) Straight boundary lines shall be cleared where necessary and distinctly marked at intervals not exceeding 500 metres, which interval may be varied to suit the conformation of the country, and advantage shall be taken of all most prominent and favourable positions on the line for the markings so that the direction may be seen from mark to mark.

(3) (a) Where a boundary of a portion crosses a tract of inaccessible country, the boundary shall be surveyed and marked on either side of, and up

to, the inaccessible part.

(b) Marks shall be established at the terminal points which shall, when practicable, be connected by a traverse survey detouring the obstacle or by triangulation.

# Fixation of boundaries

- 17.—(1) (a) Offset measurements fixing natural boundaries from traverse lines shall be taken at intervals sufficient to delineate those boundaries accurately and shall be shown on the survey plan; but no such measurements shall exceed 50 metres in length unless the natural boundary is tortuous or is located in rough, inaccessible country, in which case the length of this measurement may be varied to suit the physical features.
  - (b) When a boundary follows a sea coast or a tidal river, it shall in all cases follow the high water mark.
- (2) Notwithstanding anything in paragraph (1), fixation may be determined by tacheometric, photogrammetric or any other method approved by the Surveyor-General, and field notes and data required for these alternative methods shall accompany the survey plan.

Irregular boundaries

18. Fresh water swamps are inadmissible as boundaries unless they are reduced to right lines.

Boundary marks

19.—(1) Boundary marks shall be-

(a) suitably reinforced concrete pegs not less than 50 centimetres long with a minimum cross section of 55 square centimetres, or galvanised iron pipes 1.25 centimetres inside diameter and 45 centimetres long or angle iron pegs 45 centimetres in length; or

(b) plastic or other suitable permanent material, approved by the Surveyor-General, driven or set to protrude not more than 5

centimetres above ground level.

(2) Where the presence of rock, stone, concrete or other permanent material or structure makes it impossible to use any of the boundary marks specified in a paragraph (1), a metal plug, bridge spike or plastic of a type approved by the Surveyor-General shall be used, grouted if necessary into the base material to ensure stability, and a broad arrow cut to indicate the mark, the height of which above ground level shall be shown on the plan.

(3) Notwithstanding anything in paragraphs (1) and (2), where a boundary corner or boundary line falls on a permanent structure or other obstacle in such a manner that it is not possible to use any of the marks prescribed in this regulation, the exact position of the structure or obstacle shall be defined by survey, and the relationship between the structure or obstacle and the boundary corner or the boundary line shall be clearly shown on the plan of the survey, together with the age and description of the structure or obstacle.

(4) Notwithstanding anything in paragraphs (1), (2) and (3), permanence and stability shall be the main considerations in the marking of any boundary and, where necessary, the length of any driven mark shall be increased accordingly.

#### Curved boundaries

20. Boundaries defined by curves shall be marked on the ground by pegs or other accepted marks on the curve in such manner that the offset from the middle of the chord between adjacent ground marks shall not exceed 0.4 metres nor shall those ground marks be at greater intervals than 20 metres apart, but in every case a curve shall be marked by at least 1 peg or mark in addition to the pegs or marks at the tangent points.

## Connections to mounds, etc.

21. Connections shall be observed and measured to mounds, cairns or other marks indicating surveyed native tribal boundaries situated within or reasonably near to the boundaries of the land being surveyed.

# Traverse and witness marks

- 22.—(1) All traverse and witness marks shall be placed in position that are as safe as possible from foreseeable disturbance and shall normally be driven below ground level.
- (2) Where there is any risk of disturbance or destruction by cultivation, road formation, road maintenance or malicious interference, marks shall be driven as deep as is considered necessary for reasonable preservation.

(3) The depth of any such mark driven deeper than 30 centimetres shall be shown in the field notes and on the plan traverse and witness marks shall be so located and driven that they cannot be mistaken for boundary marks.

Permanent reference marks

- 23.—(1) All surveys shall be connected to at least 3 permanent reference marks.
- (2) For the purposes of these Regulations, the expression "permanent reference mark" means—

(a) a trigonometrical station; or

(b) a standard survey block or other control survey mark; or

(c) a galvanised iron pipe of not less than 1.25 centimetres internal diameter and 45 centimetres long, driven at least 45 centimetres into the gound, of sufficient stability to guarantee permanence and, where possible, set in concrete; or

(d) a metal or plastic mark of a type approved by the Surveyor-General securely set or grouted into rock or into a permanent structure; or

(e) such other mark as the Surveyor-General shall designate.

- (3) Permanent reference marks shall be placed, wherever practicable, on traverse lines not more than 300 metres apart on class A surveys, and not more than 600 metres apart on class B surveys, in positions free from disturbance, and a permanent reference mark may serve as a traverse mark or witness mark but not as a boundary mark; but, wherever practicable permanent reference marks shall be so sited that adjoining marks are permanently intervisible.
- (4) Notwithstanding anything in paragraph (3), the interval between permanent reference marks may be varied to suit the conformation of the country; but no boundary angle mark shall be distant from a permanent reference mark by more than 100 metres on class A surveys or by more than 200 metres on class B surveys.

(5) (a) Notwithstanding anything in paragraphs (1) to (4), permanent reference marks shall be sited and established to ensure the greatest stability, permanence and convenience for future reference.

(b) Generally, where the conformation of the country will permit, permanent reference marks shall be located on the line between a traverse station and triangulation station or other permanent mark.

(c) Unless freedom from disturbance or destruction cannot be reasonably inferred, permanent reference marks shall not be located on any road formation, including footpaths, unless investigation shows that such positions are clear of underground services, and such marks may be located at any offset to a traverse where it is not possible to comply with the foregoing requirements.

Hanging traverse

24. A hanging traverse shall not consist of more than 1 line which shall not exceed 40 metres in length and independent measurements to check bearing and distance shall be recorded in the field notes.

Computation of angles and azimuths

25. Where connecting triangles or resections have been observed, or where azimuths have been determined astronomically, the necessary computations shall accompany the plan.

Computation of areas

26.—(1) Areas of parcels shall, in all but exceptional circumstances, be entirely mathematically computed; but, where the area is bounded by irregular lines or a large number of sides, a planimeter may be used to obtain the areas of small parts, if at least 80 per cent of the total area of a parcel is computed mathematically.

(2) Areas of parcels—

- (a) less than one hectare (10 000m<sup>2</sup>) shall be shown in square metres (m<sup>2</sup>), and decimal fractions of a square metre resulting from the computation of an area shall not be shown but, in all cases, areas shall be rounded down;
- (b) one hectare  $(10\ 000\text{m}^2)$  and larger shall be shown in hectares (ha), normally to 4 decimal places of a hectare, although for computation purposes a tolerance of  $\pm$  1 part in 1000 will be acceptable, and areas may be rounded down within this tolerance.

#### Plans

27. All plans shall be drawn and presented in accordance with the directions given by the Surveyor-General.

#### Measurements

- 28.—(1) The reduced measurements determined in accordance with regulation 8 shall be shown on plans, notwithstanding that those measurements may not agree with those previously recorded.
- (2) Where the definite location of a boundary is indeterminate owing to the absence of evidence supplied by approved surveys or undisputed occupation of the requisite age, sufficient measurements shall be made of the adjoining properties to establish the fact that no encroachment is made upon the land of the adjoining titles.

Plans the property of the Crown

- 29.—(1) All plans received by the Surveyor-General from a surveyor or other person for examination shall be deemed to be held on behalf of the surveyor responsible for the plan until approved by the Surveyor-General, and the surveyor may notify the Surveyor-General that the approval is to be withheld until further notice.
- (2) After approval by the Surveyor-General, all plans become the property of the Crown.

# Plans to be lodged

30. Every surveyor shall file in the office of the Surveyor-General or the Registrar of Titles, as the case may be, a plan of every survey made by him for the purposes of conveyance or of dealing in land and the Surveyor-General shall lay down upon general maps of the various islands of Fiji the position and the boundaries of the lands represented in such plans.

## Examination of plan

31. Where a plan of survey is submitted to the Surveyor-General for examination, an examination fee of \$15.00 per plan and \$1.00 per lot shall be charged.

Mining plans

32. The regulations for the time being in force under the provisions of the Mining Act shall, in so far as such regulations apply to surveys to be made for the purpose of that Act, be deemed to be incorporated in these Regulations and shall be read and construed mutatis mutandis as part of these Regulations.

#### Redefinition surveys

33.—(1) Where a surveyor carries out a land title survey that does not require a plan of subdivision, a survey plan defining the boundary being resurveyed shall be forwarded to the Surveyor-General for approval.

(2) Survey plans shall be made in all cases, except where the reinstatement of pegs of an approved plan of survey does not involve the placing of additional new

marks and where no appreciable discrepancies are found.

Neglect by surveyor

34. Any surveyor who refuses or neglects to comply with these Regulations shall be deemed to be guilty of unethical conduct and subject to the penalties prescribed in section 9 of the Act.

#### Revocation and transitional

35.—(1) The Surveyors Regulations\* are hereby revoked.

(2) All survey matters and proceedings commenced under the regulations revoked by paragraph (1), pending on 1 July 1980 shall be continued and dealt with as if these Regulations had not come into force.

# FIRST SCHEDULE (Regulation 9)

#### ROUNDING-OFF OF BEARINGS

Class of Survey	Length of Line	May be rounded off to nearest
A	Up to 100 m	·0° 01′ 00″
**	Over 100 m	0° 00′ 30″
В	Up to 200 m	0° 01′ 00″
"	Over 200 m	0° 00′ 30″

# SECOND SCHEDULE (Regulation 12)

# LIMITS OF ERROR

Class of Survey A " B	Length of Line Up to 200 m Over 200 m Up to 200 m	By not more than 0° 01' 00" 0° 00' 30" 0° 02' 00"
**	Over 200 m	0° 01′ 00″

<sup>\*</sup>Regulations 28 January 1935, published at pages 6492 to 6510, Volume X, Laws of Fiji, 1967 Edition.

# SECTION 23—SURVEYORS (STUDENTS) BY-LAWS

# TABLE OF PROVISIONS

#### **BY-LAW**

- 1. Short title
- 2. Students to be registered
- 3. Syllabus to be issued
- 4. Examination fees
- 5. Re-registration required in certain cases
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- 7. Students registered before 1 January 1971

Legal Notices Nos. 29 of 1971, 199 of 1977

#### Short title

1. These By-laws may be cited as the Surveyors (Students) By-laws.

# Students to be registered

- 2.—(1) Any person wishing to become qualified as a surveyor under the provisions of the Act shall apply, on a form to be obtained from the Registrar, to be registered as a student with the Board.
  - (2) No person shall be registered as a student, unless he satisfies the Board-
    - (a) that he is fully employed in the practice of surveying under a registered surveyor or surveying agency or Government department employing registered surveyors; and
    - (b) that he has such minimum educational qualifications as may, from time to time, be notified by the Board.

# Syllabus to be issued

3. The Board shall, from time to time, issue a syllabus stating the subjects of examinations to be taken by candidates, the order in which such subjects shall be taken, the minimum marks to be obtained to achieve a pass in such examinations and the manner of application to sit for such examinations.

#### Examination fees

4. A fee \$3 for each examination subject for which the candidate wishes to sit shall be paid by the candidate to the Board.

(Amended by Legal Notice 199 of 1977.)

# Re-registration required in certain cases

5. Any person registered with the Board as a student who fails, within 9 years, to pass the examinations set by the Board shall, if he wishes to remain a student,

apply to the Board for re-registration as a student and the Board may, in its discretion, either refuse or permit such re-registration and, in the event of permitting re-registration, may impose such conditions as it deems advisable.

Reports of experience

6.—(1) Each person registered with the Board as a student shall, on or before 31 January in each year, make a report to the Board, in a form to be obtained from the Registrar, as to the type of work upon which he has been engaged during the previous calendar year.

(2) 2 weeks before a student takes the final examination, he shall submit to the Secretary of the Board a written report giving a summary of his job experience

since his registration as a student.

(3) If the Board is of the opinion that any student has had insufficient training and experience as shown in the report referred to in paragraph (2), it may direct that such student shall undertake further training to be specified by the Board or obtain further experience.

(4) For the purpose of paragraph (3), a period of training of less than 5 years and a proportion of less than 60 per cent of the time occupied during training on the

performance of field work shall be regarded as insufficient.

Students registered before 1st January, 1971

7. The Board shall consider the case of each person registered as a student prior to 1 January 1971, and shall advise him of the time he will be required to remain as a student and of the subjects in which he will be required to pass examinations.

Controlled by Ministry of Lands, Energy and Mineral Resources