CHAPTER IX
DETAIL SURVEYS
INDEX

DSR ref	Description	Page
	Clearing Operations	
9.1	Avoiding damages to cultivation in clearing operations	5
9.2	Clearing operations in state land	5
9.3	Cares to be taken in making survey of sacred buildings and ruins	5
9.4	Avoiding archaeological ruins or stone piles use as pickets	5
9.5	Preparing of Clearing sketch	5
9.6	Avoiding unnecessary clearing	5
	Service of Grama Niladhari	
9.7	Employment and duties of Grama Niladharis	5
9.8	Information regarding list of Grama Niladharis in various villages	5
9.9	Pointing out boundaries and landmarks for defining them	6
9.10	The Use of Grama Niladhari's notice form S 70	6
9.11	Grama Niladhari's notice form refers to more than one survey	6
9.12	Notice to others who pointing out boundaries	6
9.13	Survey notice to Divisional Secretaries	6
9.14	Differences in revenue boundaries	6
	Information obtained from Grama Niladharis and others	
9.15	Information obtain for correct tenementary information	6
9.16	Cares on accepting incorrect information	6
9.17	Description entries in field books	7
9.18	Clarification of important descriptions	7
9.19	Dealing with Demarcation Surveys	7
	Objections to Survey	
9.20	Notice for survey	7
9.21	Procedure to be adopted when objections to survey	7
9.22	Procedure to be adopted in Acquisition Surveys	8
9.23	Preventing from any wrong act or misconduct	8
	Landmarking	
9.24	Landmarking	8
9.25	Landmarking of new boundaries	8
9.26	Landmarking of old boundaries	8
9.27	Traversed over landmarks	8
9.28	Setting out boundaries, which are not clearly marked on the ground	8
9.29	Distance between two landmarks	8
9.30	Landmarking of boundaries between forest and chena or patana	8

DSR ref	Description	Page
9.31	Intervisible of the landmark	8
9.32	Boundaries that are need not be landmarked	8
9.33	Landmarking of paddy field and estate boundaries	9
9.34	Landmarking of village and other revenue boundaries	9
9.36	Burying landmarks securely	9
9.37	Use of stone piles or wooden stakes	9
9.38	Use of iron nails	9
	Detail Surveys	
9.39	Offset to details or detail survey by total station	9
9.40	Accuracy of detail survey	9
9.41	Survey shots to undefined features	9
9.42	Accuracy of offset	10
9.43	Measuring of offsets by total station	10
9.44	Offsetting boundaries of lots	10
9.45	Offsetting boundaries of streams	10
9.46	Survey of roads and paths	10
9.47	Survey of roads and paths where no boundary exists	10
9.48	Survey of culverts	10
9.49	Survey of ridges and bunds	10
9.50	Survey of streams and rivers	10
9.51	Survey of isolated streams	10
9.52	Survey of railways	10
9.53	Further instruction for offsetting	11
	Buildings	
9.54	Survey of buildings in Surveying	11
	Fixation of Old Boundaries	
9.55	Fixations of old boundaries	11
9.56	Best possible fixations of old plans	11
9.57	Fixation when old field books and old-field sheets not available	11
9.58	Best method for fixations	11
9.59	Method for fixation when involving extensive re-plotting	11
9.60	Accuracy of Title plan fixations	12
9.61	Things to be consider selection of fixation	12
9.62	Preparation of fixation tracing	12
9.63	Safety lot.	12
9.64	Authority for safety lots	12
9.65	Drawing of safety line	12
9.66	Lotting inside the safety lot	12
9.67	Instructions when fixations are impossible	12
9.68	Classification of fixations	12
9.69	Accuracy of all fixations	13

DSR ref	Description	Page
9.70	Alternations in fixation boundaries	13
9.71	Moving landmarks buried connection with old fixation	13
9.72	Fixation position of Title plan or Diagram boundaries with permanent boundary	13
9.73	Survey of cultivation exists within roads	13
9.74	New survey of stream within or in the boundary of a Title plan or Diagram	13
9.75	Adopting old stream boundaries	13
9.76	Deviation of old road and new road, which run along the boundary or through a title plan or Diagram	13
9.77	Lotting definite portion of roads covered by Title plan or diagram	13
9.78	Boundaries of roads shown on “Road Contracts Plans”	13
9.79	Reference to “Road Contract Plan”	13
9.80	Connecting new survey to road contract survey pickets	14
9.81	Errors detected in “Road Contract Plan”.	14
9.82	Treatment of Boundaries of original railway Acquisition plans	14
	Definition of old Boundaries	
9.83	Definition of old boundaries	14
9.84	Entering scaled measurements from the plan to field book	14
9.85	Setting out of scaled boundaries	14
9.86	Survey off setting out landmarks	14
9.87	Methods to be adopted in slope lines	14
9.88	Difference in scaled boundary and visible boundary	14
9.89	Resurvey of lines affected by replacing a picket by burying landmarks	14
9.90	Replacing missing and broken landmarks	14
9.91	Verifying old landmarks on the ground	15
	Definition of New Boundaries	
9.92	Definition of new boundaries	15
9.93	Defining boundaries clearly in new surveys	15
	Encroachment	
9.94	Encroachments	15
9.95	Lotting of encroachments	15
9.96	Dealing with encroachment	15
9.97	Dealing of small encroachments	15
9.98	Dealing of small encroachment in valuable land	15
9.99	Dealing of encroachments within old reservation along Roads and paths.	15
9.100	Dealing of encroachment within stream reservation	15
9.101	Dealing of encroachment close to any survey	16
9.102	Treatment of encroachment boundary	16
9.103	Treatment of moved landmarked	16

DSR ref	Description	Page
9.104	Treatment of cultivation in encroachment	16
9.105	Instruction for encroachment survey in demarcation survey	16

CHAPTER IX

DETAIL SURVEYS

Clearing Operations

9.1 Surveyors must ensure that damage is not done to cultivation when survey lines are cleared by Survey Field Assistant, unless permission has been obtained before hand from the owners. The nature of damage caused together with an assessment of its value should be immediately reported to District Senior Superintendent of Surveys through supervising officer.

9.2 When clearing operations inside State land are likely to involve the felling of valuable timber, the Divisional Forest Officer and the Forest Officer should be immediately informed.

9.3 Surveyors should exercise the greatest care in making surveys of sacred buildings and ruins, and should see that no marks are cut on such buildings or landmarks sunk within the precincts of the buildings or ruins. In every instance the consent of the authorities must be obtained prior to the survey.

9.4 No stones, bricks or stone piles which form part of archaeological ruins, may be used for pickets.

9.5 On completion of each day's clearing the chief survey field assistant should submit a rough sketch showing situation of found old marks and area of clearing done. The surveyor will then be able to estimate before survey, the position of the new work in relation to old surveys, and can decide whether connections are sufficient, and whether land has been divided in accordance with requirements.

9.6 In dividing the given extent of a land to certain number of lots or in sub-dividing a lot care should be taken that trial cut lines are set out as near as possible to the actual boundaries to be demarcated in order to avoid unnecessary clearing and confusion of cleared chain lines and boundaries

Service of Grama Niladhari

9.7 Service of the Grama Niladhari of each village or an authorized representative must be obtained to point out boundaries, and to get the names of lands and claimants and any other information that may be required during clearing and surveying (See Appendix 6 in DSR Chapter XI).

9.8 The Divisional Secretary should include name and other contact information of the relevant Grama Niladhari of village or authorized representative in the survey requisition.

9.9 Boundaries and the landmarks defining them must be pointed out to claimants and to the Grama Niladhari. If the landmarks are on a village boundary they should be pointed out to the Grama Niladhari of both the villages affected.

If it is found necessary, later, to remove any landmarks thus pointed out, a remark to this effect must be made on the Grama Niladhari's Notice Form and it must be initialed by the Grama Niladhari.

9.10 The Grama Niladhari should be given notice on form Survey 70. After the survey, the certificate at the foot of the form must be perfected before the signature of the Grama Niladhari is obtained. The Grama Niladari Division number should appear against his signature. The completed form should be attached to the report of survey.

9.11 If a Grama Niladhari's Notice Form refers to more than one survey, the each requisition number must be entered in the form in red. The original form will be attached to the one survey requisition, and a photocopy of it will be attached to the others, with reference to the original requisition number.

9.12 Any person, other than the Grama Niladhari of the village, who has been named to point out boundaries would also be noticed to be present during clearing and survey (Appendix 7 in DSR Chapter XI). If absent, then it must be reported.

9.13 Divisional Secretaries and persons of standing should not be given notice on form Survey 70, but a letter, couched in similar terms to the specimen given in Appendix 5 in DSR Chapter XI should be sent to them through Superintendent of Surveys. A written statement should be obtained from them.

9.14 The information obtained from a Grama Niladhari about the location of a revenue boundary may differ from what is shown in previous surveys. In such cases careful inquiry must be made on the ground with the Divisional Secretaries and Grama Niladharies. Signed certificates as to the correctness of the boundary adopted, should attach with the completed plans. It is essential that the Grama Niladharis of both divisions, and, in the case of a province boundary, both the District Secretary's, should be consulted. The final decision should be sent to Secretary to the Ministry of Home Affaires through Surveyor General.

Information obtained from Grama Niladharis and others

9.15 In deciding the correct tenementary information to be entered in the field book, surveyors should, if necessary, consult villagers as well as the Grama Niladhari. The details entered must be the surveyor's own final decisions resulting from these inquiries and inspections on the ground. See also DSR 12.61-12.73.

9.16 In connection with subsequent inquiries from Court or from the Settlement Officer or from Divisional Secretaries regarding tenement information, the surveyor must be in a position to state that the details given by him constitute his own definite opinion based after inquiry and inspection on the ground and are not merely the opinion of the

Grama Niladhari or others which might be rejected in a Court of Law as "hearsay evidence". Surveyors must take care not to accept incorrect information, which may be given by interested parties.

9.17 The details of the information entered in the field book must truly represent the actual situation on the ground at the date the entry is made. Where necessary, descriptions should be qualified by the use of such terms as "clearing for …….", "abandoned …….", "cultivated with ……..". Ambiguous terms such as "said to be ……." or "appears to be …….. " should be avoided as descriptions.

9.18 If there is any serious doubt regarding important descriptions, the surveyor should report the matter to Superintendent of Surveys, before making an entry in his field book. Superintendent of Surveys will, if necessary, refer the matter to District Senior Superintendent of Surveys for reference to the Settlement Officer or the District Secretary.

9.19 Cases will occur in demarcation and other surveys, where the original description of a lot or boundary must be retained. Alteration in such cases should not be made without special instructions.

Objections to Survey

9.20 The written notice should be given as per section 16 of Land Survey Act 17 of 2002 at least 3 days before entering upon the land and this notice should be written in the form shown in Appendix 7 in DSR chapter XI. If there is an objection for survey or is likely to be raised by owners of private lands, to a surveyor entering such lands for the purpose of carrying out a survey, or other official duty, action should be taken as per section 16 of Land Survey Act 17 of 2002 and matters should be explained to the relevant persons and effort should be taken to carry out particular survey. If further objection are prevailed action should be taken as per DSR 9.21

9.21 When a survey is obstructed, the surveyor shall report same to the District Senior Superintendent of Surveys through Superintendent of Surveys, together with a statement from the Grama Niladhari, officer deputed to point out boundaries and two of his Survey Field Assistant to the effect that the objectors did cause obstruction to the surveyor when attempting to carry out his official duties. On receipt of this, the District Senior Superintendent of Surveys will write to the District Secretary/ Divisional Secretary, forwarding a copy of the surveyor's report and inquire from him whether the obstruction is to be cleared by the process of law, and if so, whether he can provide the surveyor to Police protection when another attempt to survey is made. If the District Secretary/ Divisional Secretary is ready to provide police protection, the District Senior Superintendent of Surveys will apply to the Surveyor-General for a letter of authority for the surveyor to enter the land in terms of section 16 of Land Survey Act 17 of 2002. On receipt of this letter from Surveyor-General, the District Senior Superintendent of Surveys will instruct the surveyor to make a fresh attempt to survey the land with Police protection. If, however, the surveyor meets with further

obstruction, the Police will be requested to investigate the case with a view to Criminal Prosecution.

9.22 In making Acquisition Surveys the procedure will be above, except that at least 7 days written notice must be given, on the form shown in Appendix 8 of DSR chapter XI (Form A and B).

9.23 The attention of surveyors is drawn to section 17 of Land Survey Act 17 of 2002 in order to prevent from committing any wrong act or misconduct.

Landmarking

9.24 It must be understood that the object of landmarking is to indicate clearly to all concerned the position of a boundary, which is not otherwise evident on the ground, and insufficient demarcation may result the expense of another survey.

9.25 Landmarking of new boundaries should, as a rule, be done before survey.

9.26 Re-establishment of Landmarks in old landmarked boundaries should be done in the presence of the surveyor.

9.27 When surveying are done with theodolite, Chain and tape, Landmarks, which are over 10 m from a chain line, measured at right angle, should be traversed over. When Total station used for surveying maximum distance from instrument to Landmark is 100 m.

9.28 Boundaries, which are not clearly marked on the ground by walls, ditches, & etc. must be set out and cleared from landmark to landmark.

9.29 Landmarks should not as a rule be more than 100 m apart and must be inter visible. Surveyors must use their discretion in establishing land marks. For example, it is obvious that valuable land in a town should be more closely landmarked than a block of chena in a village in the jungle. The limit of 100 m apart should not be exceeded without the sanction of the District Senior Superintendent of Surveys who will take into consideration whether the landmarks are inter visible, the land is undulating or flat and if the boundary is through uncultivated land.

9.30 The boundaries between forest and chena, or patana, should not be landmarked unless specially requested the specification.

9.31 In order to follow the continuity of a boundary on the ground, consecutive landmarks should be inter visible.

9.32 Boundaries formed by permanent, natural, or artificial, features need not be landmarked.

9.33 Where the boundaries of paddy fields and estates are permanent, however few landmarks would be buried at intervals to prevent, or detect, future encroachments.

9.34 Village and other revenue boundaries passing through private land, should be defined for administrative purposes at about every 400 m and at the principal bends.

9.35 Indefinite boundaries of claimed or cultivated lots adjoining State land should be straightened before landmarking, but care must be taken not to exclude any portions of claims or cultivation.

Boundary should be maintained as far as possible as straight line on the ground and any bend should be landmarked, if not balancing of extent will be difficult in the case of subdivision in the future surveys.

9.36 Landmarks must be inflexibly and securely buried. Where it is not possible to bury a landmark securely in the desired spot owing to the presence of an obstacle, it should be buried on the boundary as close as possible to the spot.

9.37 Where the nature of the ground is such that it is not possible to use landmarks or rock landmarks, stone piles or wooden stakes should be used. See paragraph 4 of the extract from the Crown landmarks ordinance, Chapter 456 of Legislative Enactments, 1956 Revision. Superintendent of Surveys, should drawn personal attention to, that the use of piles and stakes is reduced to a minimum. They will be surveyed and shown in the Field Books ink but will be described on the plans as SP for Stone Pile and St for stake.

9.38 Where it is found impossible to bury landmarks in or near houses or buildings owing to the existence of masonry walls, concrete floors, & etc. 15 cm flat or wedge-shaped iron nails should be drilled into the floor or wall. They should be surrounded with tar marks 11 cm square, with a broad arrow in tar pointing to the nail.

Detail Surveys

9.39 In Chain and tape method used for survey, offsets to all details should be measured with a tape. When total station used for survey, all details should be measured with help of a pole with EDM reflector.

9.40 The degree of accuracy required in measurements depends upon the requirements of the survey, nature of the object measured and the scale of the plan required.

9.41 Taking offset or detail survey shots to undefined features must be carefully taken. Under normal condition in total station observation distance to the permanent boundary should not be more than 100m. Discretion should be used when taking measurement to undefined boundaries such as edges of streams. However, in detail survey using total station the boundaries of water features or natural boundaries shall be surveyed up to 200m.

9.42 Offsetting should be done at least second decimal place of a meter i.e. to centimeter.

9.43 Offset less than 10m may be set out by using theodolite and chain without total station when high accuracy is no need. However, it is advisable to take more accuracy offset distance further if the land is more valuable. Superintendent of Surveys can instruct the surveyor in this regard. A bearing and angled distance should be measured for offsets of over 10 m from the chain line. In addition, a rectangular offset should be taken as a check on the bearing and angled distance

9.44 (a) The boundaries offsetting/shots measured should be those that actually exists at the time of survey.

(b) When more than one of the features, such as drain, trench, mound, bank and fence separate two claims, it is the duty of the surveyor to ascertain which one of the features from the actual boundary between the claims and adopt it. The information should be obtained from the person nominated to point out boundaries and if he is in doubt, consent from the land owners themselves.

9.45 The boundary of a stream is the top of the bank. The water edge should not be surveyed. The bed width should be entered in the field book.

9.46 In offsetting or taking detail shots for a road or path, the boundary belong to the actual road lot should be offsetted or detail shots taken and not the edge of the metalling or the grass, unless this should be necessary in connection with fixations of old boundaries, or is pointed out as the claimed boundary.

9.47 Where no boundary for a road or path exists, the full reservation in accordance with paragraph 10.12 in DSR should be set out and survey.

9.48 Culverts should be offsetted or shots taken, plotted to scale where possible and shown on plan using conventional sign.

9.49 The top of a ridge and the toe of a bund or embankment will be surveyed as the boundary.

9.50 Both sides of rivers, streams and roads, must be surveyed. In small surveys if the stream is very broad or is too deep for crossing the opposite bank may be offsetted or shots taken in here and there and shown in broken lines.

9.51 The surveys of isolated streams in large blocks of forest may, with the permission of the District Senior Superintendent of Surveys, be closed by traversing back along the old pickets.

9.52 The boundaries of railways, and main and minor roads, should be surveyed with sufficient accuracy to allow the survey to be plotted on a scale of 1:2000.

9.53 For further instructions for offsetting, See Technical Instructions, Chapter IV.

Buildings

9.54 In normal surveys it will, as a rule be necessary to survey and show all buildings on the plan. District Superintendent of Surveys must use their discretion in these cases, their decision being dependent upon the purpose for which the survey is made. In cases of doubt, the officer making the requisition should be consulted. It is essential that all buildings should be surveyed in Acquisition Surveys.

Fixation of Old Boundaries

9.55 "Fixation" is the term used for laying down the boundaries of old plans, such as TPs, Diagram Plans, Diagrams, PPs and revenue boundaries, on new plans.

9.56 In the survey of land adjoining these plans, where it is necessary to adhere to the boundaries shown on the old plans, the best possible fixation of the old plans must be made.

9.57 Old plan copies can be obtained by District Senior Superintendent of Surveys through Document Management System (DMS) and in special cases where if any plan or field sheet is not available in said system and those documents can be obtained from Document Management & Professional Standard branch at SGO.

9.58 The best method of fixation is to re-plot the work if old pickets are still available after making connections to the new work. If the new plan is on the same scale as the old plan is re-plotted work must be compared with the old plan, using a tracing from the old plan.

If the scales are different, either an enlargement or reduction tracing should be made from the old plan and compared with the re-plot.

In the case of scanned images fixation tracing should be prepared according to DSR 22.7.3 by considering scale of the original plan and the correction for geometrical distortions.

9.59 Where this method involves extensive re-plotting the Superintendent of Surveys should give instructions on which of the 2 methods that follow should be adopted.

(a) In the case of a landmarked survey, a few landmarks should be surveyed on opposite sides of the survey, wherever possible, and plotted on the new plan. The old boundary will be fixed with an accurate tracing from the old plan using these L.Ms.

(b) If old pickets are not available and the survey is an unlandmarked one, features and boundaries on the old plan which are still available on ground should be surveyed, plotted on the new plan, and the best possible fit of an accurate tracing prepared from the old plan should then be obtained. The detail surveyed for 'fixing' old work is known as 'fixation data.'

9.60 The degree of certainty with which a TP, etc., can be fixed is dependent upon the amount of fixation data on the old plan, which can be surveyed and shown on the new plan. It is therefore essential that as much data as possible should be picked up, and that the most suitable and reliable data are adopted for fixation.

9.61 Discrimination is necessary in the selection of data to be adopted. It is obvious that the closer the data picked up are to the boundary to be fixed, the more reliable they are for fixation purposes. For example, if in a large T.P. it is required to fix the boundary of a reservation for a stream; the stream, being the nearest feature available, is more suitable than trees or other objects on the opposite boundary of the T.P., some distance away. Similarly, a bank or wall, which is permanent, is more reliable than a wire fence that is movable.

9.62 Tracing from old sheets necessary for fixation should be prepared shortly before fixation.

9.63 If a fixation is very doubtful; "R" fixation, the "safety lot" principle may be adopted. The object of the "safety lot" is to ensure that the adopted boundary includes all land that could be made to fall within the private lot, by any reasonable fixation.

9.64 **"**Safety lots" should only be used when authorized by the District Senior Superintendent of Surveys.

9.65 After the old boundary has been fixed as correctly as possible by the District Senior Superintendent of Surveys safety line beyond which, in his opinion, the private land cannot extend, will be drawn on the plan. After any necessary straightening, this line should be defined. The strip of land between this line and the fixed boundary will be lotted as a "safety lot," and described as "Unclaimed by the State."

9.66 Different claims and cultivations will not be lotted inside a safety lot.

9.67 If the District Senior Superintendent of Surveys finds it impossible to obtain a fixation for an old boundary, he could refer the matter to Document Management and Professional Standards for instructions.

9.68 Fixation will be classified as follows: -

Precise or "P" fixation - a rigid fixation about which there can be no doubt;

Questionable or "Q" fixation, - a fixation which has caused some difficulty, but which the Superintendent of Surveys considers he has satisfactorily settled;

Rough or "R" fixation, -fixation, which is very doubtful where enough data is not available for fixations.

9.69 Superintendent of Surveys are responsible for the accuracy of all fixation, which must be checked and classified by him and passed by the District Senior Superintendent of Surveys.

9.70 The fixation position of old boundaries, which have already been adopted in connection with landmarked surveys, should not be altered, unless there is reason to believe that the previous fixation was incorrect. Any fresh boundary demarcation should not be to the disadvantage of the private owner.

9.71 Landmarks, which have already been buried in connection with old fixations, should not be moved without written permission of District Senior Superintended of Surveys.

9.72 Where there are very slight differences between the fixation position of an old plan boundary and a permanent claimed boundary the permanent boundary should be adopted. This method avoids the formation of very small lots.

9.73 If cultivation exists within a reservation of road, path or bund, it should be surveyed and lotted separately.

9.74 If the new survey of a stream, within or on the boundary of an old plan, reveals that large natural differences have occurred since the original survey, the new survey of the stream should be adopted. see illustration A, Annexure 1 in DSR XI.

9.75 If large artificial deviations of a stream are revealed and encroachments are suspected old course of the stream should be laid down, and lotted separately.

9.76 Where a road runs along the boundary of, or through of an old plan, appreciable deviation from the old road must be shown and lotted separately from the new road.

9.77 Where definite portions of roads, paths, streams, & etc., are covered by old plan such portions should be separately lotted and described in the tenement list "Part of T.P. …….. or Diagram ……..", see illustration B, Annexure 1 in DSR XI.

9.78 The boundaries of roads shown on "Road Contracts Plans" cannot be regarded as authentic, and they should not be transferred on to new work.

9.79 When new work adjoins these roads, a reference should be made on the "Road Contract Plan" to the sheet showing the new survey. The new survey should not be transferred on to the "Road Contract Plan," the reference to the new sheet is all that is necessary.

9.80 New surveys should be connected to the road contract survey pickets wherever possible.

9.81 Any serious errors detected in "Road Contract Plans" should be investigated and reported to Document Management and Professional Standards branch at SGO.

9.82 Boundaries of original Railway Acquisition Plans should be laid down and defined. If the demarcation is found to be incorrect with the position of the iron rails set up by the Railway the District Senior Superintendent of Surveys should arrange for a representative of the Railway Department to be present during the rectification of the boundaries.

Definition of old Boundaries

9.83 In order to define a boundary, which has been laid down on the plan of a new survey, measurements must be scaled from the plan and set out on the ground.

9.84 The scaled measurements should be entered in the field book in pencil.

9.85 From these measurements, the setting out should be done, and landmarks buried in the presence of the surveyor.

9.86 The landmarks will then be offsetted and booked in red ink in the field book. Survey lines, distances, and bearings will be booked in black or blue if they are re-surveyed. The offset and conventional sign and boundary will be in red to show that it is a definition after compilation.

9.87 For method to be adopted on slope lines, see Technical Instructions, Chapter IV.

9.88 If a landmark which has been set out from scaled measurements, does not fall on the obvious and visible boundary it is intended to define, due to inaccuracies in compiling very small distances from a plan exactly, it should be buried on the correct boundary and offsetted.

9.89 When a landmark is buried in place of a picket, it must be made a point of departure and the lines affected should be re-surveyed, shown on a fresh page and cross-referenced.

9.90 When Title Plans, Diagrams, settled Preliminary Plans, & etc., have been previously landmarked, the old landmarks adjoining, State land should be surveyed. Any old landmarks that are missing or broken should be replaced, and a note to this effect should be made in the old field book and on the old field sheet.

9.91 Where there are a large number of old landmarks, a few of them may be surveyed and the remainder plotted from the old-field book. All landmarks must, however be verified on the ground.

Definition of New Boundaries

9.92 When new boundaries or reservations, areas to be cut out, & etc., are defined, the same procedure as described in paragraphs 9.88 - 9.91 will be follow except that black or blue ink will be used for the offsets as well as for the boundaries.

9.93 In surveying land, even if it is to be used for State purposes, the possible state requirements in adjoining land must be considered and the boundaries must be clearly defined.

Encroachments

9.94 All encroachments will be fully landmarked.

9.95 Very small lots should, if possible, be avoided. Very small encroachments (i.e. under 500 sq. meters in thinly populated village areas, or 375 sq. meters in thickly, populated village areas) over unlandmarked boundaries need not, as a rule, be lotted, but the boundaries should be straightened to include them.

9.96 Superintendent of Surveys must act according to the decisions of the officers from Land Commissioner General's Department or Divisional Secretary in dealing with these encroachments. It must be impressed on encroachers that they cannot encroach with impunity.

9.97 When small encroachments are found to extend over landmarked boundaries, the surveyor should request the encroachers to put back their boundaries. If they do so no further action is necessary, and the encroachments need not be shown on the plan. If the encroachers refuse to put back their boundaries, the encroachments should be fully landmarked, lotted and a report forwarded with the completed plans.

9.98 Very small encroachments in places where land is definitely valuable. i.e. in towns, bazaars, & etc., must be separately lotted and if necessary, drawn as separate insets on a larger scale.

9.99 All encroachments within old reservations along roads and paths will be treated as State and landmarks should be buried at the terminals.

9.100 Encroachments within landmarked stream reservations and those made on or after 01.01.1932 should be lotted for lease or ejectment and landmarks buried as above.

Encroachments made prior to 01.01.1932 within unlandmarked reservations should be defined fully for alternate action by the Divisional Secretary.

9.101 If numerous encroachments are found in the vicinity of a Requisition for Survey that being surveyed, the matter should be reported to the Superintendent of Surveys. The survey of such encroachments should not be undertaken if by so doing the progress of the work will be substantially affected. In this case the details should be reported with a tracing.

9.102 The boundaries of encroachments should be made as straight as possible.

9.103 If it is found that old landmarks have been deliberately moved from the correct boundary and placed on the boundary of an encroachment, they should be surveyed and shown on plan. The boundaries of the encroachments should be fully landmarked, and a report on the matter should accompany the completed plans.

9.104 Where there are cultivations of distinctly different ages in an encroachment, especially when the extent is large, the cultivations of different ages should be lotted separately where practicable.

9.105 For special instructions on the survey of encroachments during Demarcation Surveys, see paragraph 8.19.

CORRECTION SLIPS