

*Outdoor
Sign
Manual*



Department of Conservation
Te Papa Atawhai

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1. Introduction

This manual is intended for use by those people responsible for the design, construction and maintenance of signs located on land managed by the Department of Conservation. It describes the format of the Department's sign system.

Signs are used to influence behaviour of visitors and enable them to find and enjoy the opportunities on land managed by the Department.

Before designing a sign, define the communication need and consider other options for getting the message across. These could include the use of brochures, maps or alterations to the site that will eliminate the need to communicate. Where a sign is required the message should be a balance of what visitors want to know and what the managing organisation wants to tell them.

Keep the total message, including symbols, concise, especially with identification, directional and warning signs read from vehicles. Travelling at speed reduces the amount of time available to notice, read and respond to a sign.

Visitor Information Needs

Different people have different information needs. Types of visitor include overseas visitors, young, old, people with disabilities, first time visitors, pedestrians, cyclists, horse riders and those in cars. Their particular needs will affect the content and complexity of the sign, as well as the height, size and placement angle. Visitors require signs that:

- identify or locate an area, facilities, services or features of the environment;
- direct them to an identifiable destination;
- warn of danger;
- inform and orientate by providing details about a location and the regulations that apply.

Most visitors have little knowledge of the places they visit. They may need more or different information than expected and will often interpret information in unexpected ways. It is often useful to ask visitors what they want or need to know at each location. Wherever possible 'test' signs before

installation (as scale or full-size mock-ups) and evaluate them after installation to see if they are fulfilling their purpose.

Management Communication Needs

Managers and providers of facilities and services will also want to use signs to identify, direct, warn and inform. Many management problems can be alleviated by communicating a message to visitors.

Key message objectives will include:

- welcoming visitors;
- encouraging appropriate use and understanding of the conservation resource;
- promoting the safety of visitors;
- protecting the conservation resource;
- identifying public land and the manager of any particular resource.

Objective

The objective is to provide a sign system that:

- **communicates clearly, provides messages that are easy to read and understand;**
- **is cost effective;**
- **reflects positively on the Department.**

The system is comprehensive in its cover and will work to integrate all types of signs yet allow for flexibility in meeting a diverse range of needs.

Scope

This manual applies to all outdoor signs except where specified below, or where the separate and written approval of the Director, Visitor Services Division has been given. This manual replaces all previous instructions and existing sign manuals.

The manual applies to:

- outdoor signs erected by the Department, including signs on departmental buildings;
- marine reserve markers (see appendix);
- signs associated with historic or cultural sites or features on land managed by the Department. Special care is required to avoid compromising the integrity of historic or cultural sites or features.

Use of the manual is discretionary for:

- signs on approved New Zealand Walkways where the land the walkway passes through is not wholly owned by the Department;
- concessionaire signs by negotiation. All new or renewed leases, licences and permits should specify compliance with this manual;
- replacement of signs which are culturally or historically significant and as such are worthy of protection in their own right;

Excluded from the manual are:

- **traffic control signs on roads. These signs should comply with “The Manual of Traffic Signs and Markings”, Edition 3 1992 (TNZ/MOT);**
- **areas designated and managed as wilderness. No signs are to be erected in these areas;**
- **marine navigation aids;**
- **triangular fire signs;**
- **poison warning signs (see appendix).**

Manual Review

This manual has been developed in a loose-leaf format so that new and amended information can be easily added.

Feedback and suggestions from users of the manual are welcome and should be forwarded to the Director, Visitor Services Division, Head Office of the Department of Conservation.

2. The Visual Image



Sign Board

Rectangular, normally in the landscape format.

Sign Size

Sign size is dictated by the amount and size of text and other graphics. The sign must be of adequate size to be easily read within the constraints of regulation, cost and environment.

Keep the total message, including symbols, short, especially on identification, directional and warning signs read from vehicles. Travelling at speed reduces the amount of time available to notice, read and respond to a sign. As a guide, limit the message that will be read from moving vehicles to 10 items of information.

Many products used in sign manufacture are supplied in 2.4 m x 1.2 m sheets so there can be cost benefits to keeping within these dimensions, but effective communication should be the final dictate on sign dimension.

Signs which exceed size constraints detailed in your district scheme may require resource consent.

Colour

One colour scheme is applied throughout New Zealand. Colour swatches are included in this manual. Use the colour swatches to match paints rather than simply specifying a colour code. Where

possible request a colour sample from your supplier before committing yourself to production.

Matt finishes are preferred over high gloss but either may be used. Gloss and matt finishes look quite different so the choice should be used consistently within a locality.

The following colours are to be applied:

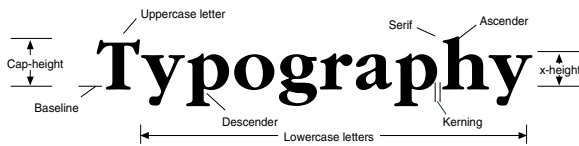
- background colour and posts:
 - dark green
 - based on PMS 553;
- primary information (main message text and graphics):
 - yellow
 - based on PMS 123;
- corporate signature, area identifier, other approved logos:
 - white;
- slash on symbols:
 - red
 - based on PMS 186.

Identifying Band

A yellow band is used to draw attention to the sign and provide a visual link between signs. It runs across the top of all signs, covering the full width excluding the post or other mounting system. It can also be used to give added protection to the top edge of the sign board, but on single-sided signs the yellow band preferably does not appear on the back.

Text

Type



The typeface family for the sign system is ITC Garamond. Ensure that:

- this is the only typeface used;
- text is only written in lower case with the appropriate capitals applied;
- upper case is not used for whole words;
- ITC Garamond Book and ITC Garamond Book-Italic are used for the wordmarks of the corporate signature. These are “embedded” in the computer file of the signature and cannot be altered. (They are rendered as graphic rather than text so that the corporate signature can be produced by any computer output device, e.g., laser printer, vinyl cutter.)
- ITC Garamond Bold is used for text on naming, directional, warning and regulatory signs (see section 4);

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

1234567890\$%&!?(.,;:)

ITC Garamond Bold

- ITC Garamond Book is used for the main text blocks on detailed orientation signs;

ABCDEFGHIJKLMNOPQRSTUVWXYZ

abcdefghijklmnopqrstuvwxyz

1234567890\$%&!?(.,;:)

ITC Garamond Book

Letter spacing (kerning) follows the ITC Garamond standard (with the exception of the wordmark which has been altered). Do not compress or expand kerning to adjust overall sign size.

Letter Size

Size of lettering should be dictated by likely speed of approach, distance from which the sign will be read and sign location. Check the layout diagram on page 2.10 for a guide to letter size. It does not

apply to orientation signs which are generally viewed from close by, are more complex and for which text sizes may be considerably smaller.

All sizes specified in this sign system relate to the height of capital letters (not x-height). These are the minimum sizes recommended.

Take special care to make sure that warning signs are easily seen.

Alignment

Flush left, aligned with the wordmark where used, ragged right.

Corporate Signature

The corporate signature comprises the logo and the wordmark. In all cases the logo is to be used with the full departmental wordmark. The design of the logo is protected by law and may not be altered.

Two configurations are approved for signs:

- configuration 1 (horizontal in two lines) for use on all signs except boundary markers and bollards;



- configuration 2 (vertical in three lines), used only for boundary markers and bollards.



Some typographical attributes of the wordmark have been altered from standard ITC Garamond so only the officially supplied versions of the logos can be used – do not attempt to re-create the logo on computer.

The corporate signature will be used on:

- signs on the boundary of or at the entrance to areas managed by the Department;
- key directional signs at roadends;
- signs that identify major facilities such as huts and campsites that are operated by the Department;
- orientation signs;
- regulatory signs;
- signs identifying departmental buildings.

Other Departmental Logos

Departmental regional and park logos may not be used. They have been replaced by the area identifier which gives the park or reserve name.

Only the following national logos may be used on signs. They will always be produced in white.

- World Heritage Area used on all sign types;



- Great Walks, Back Country Huts, and Conservation Campsites only on detailed signs e.g. orientation, interpretation (see section 4);



- NZ Walkways on national walkways. The portrait format is for use on Flexopost markers and bollards only;



- Environmental Care Code on orientation signs, always accompanying the 10-point checklist or full version of the code.



Use of other logos, including those associated with business units, must be approved by the Director, Visitor Services Division.

Other Agencies

Concessionaires, Sponsors and Partners Logos

Dependent on the type and significance of the relationship, these logos may be used either in place of the locality identifier (where it is just a logo or logo and simple wordmark) or along the base of the sign whenever more text is required.

The size of another agency's logo should visually equate with the Department's corporate signature and will be printed in white only. In the case of multiple sponsors or partners, acknowledgment should be placed at the base of the sign.

If it is necessary to display other agencies' corporate colours use a separate board below the main sign board.



Concessionaire Signs

It may be desirable in certain situations to incorporate concessionaires' signs into the Department's sign system. This will be a matter for negotiation as part of a concessionaire's licence.

Heritage Trails and Scenic Routes

It is becoming increasingly common for local and regional agencies to develop sign systems that promote visitor attractions. These often include places managed by the Department.

Such signs, including Heritage Trails and scenic route signs, may be used to indicate Department facilities from the road but will not be used on land managed by the Department.

Area Identifier

An area identifier may be used to remind visitors of the status or tenure of an area. It should not be used as the primary means of naming a place. The name used in the area identifier should already have been used as the main message on a previous sign.

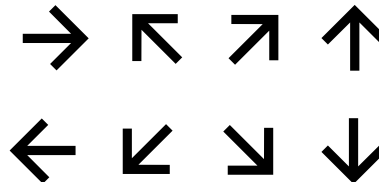
The area identifier should always appear in the top right of the sign with a vertical line to its left. The line length equals the height of the logo. The text aligns vertically with the Department's wordmark and uses the same text size as the words "Department of Conservation" in the wordmark. It normally aligns right with information on the body of the sign but must never be closer to the corporate signature than a distance equal to three times the main cap height.



Arrows

The arrow symbol as shown in NZS 8603:1992 is not to be used on signs. The approved arrow is based on a square format to allow rotation.

- Arrows may point left, right, up or down and at 45 degrees between those points.



- Where one arrow is used on a sign it may be placed on the side of the text closest to the destination, e.g., where "Hut" is to the right:



where "Hut" is to the left (unless that space is already occupied by a symbol):



- Where two or more arrows are used on the same sign, all arrows will be placed to the right of the text regardless of the direction.



- Arrows are to be grouped according to direction. Show closest destinations first.

Symbols

Symbols require less space than words and are recognised by many non-English speaking visitors. Symbols can be used to indicate facilities, services or activities. The Department has adopted the New Zealand Standards Association Outdoor Recreation Symbols (NZS 8603:1992) with the exception of the arrow.

Symbols that conflict with NZS 8603 are not to be used. Symbols are not to be altered in any way and are to be produced with square corners as shown. Occasions may arise where there is no appropriate NZ Standard symbol. Suggestions and designs for new symbols must be submitted to Visitor Services Division, Head Office for approval and development in the style of New Zealand Standard 8603, and, if appropriate, inclusion within the standard.

Ensure that each use of a symbol has a valid reason. Do not use symbols simply for visual effect.

- Symbols will normally be printed in dark green on a yellow background.



- If using reflectorised vinyl lettering the symbol may be printed in yellow on a dark green background with a thin yellow border.



- Symbols which imply direction, e.g., “mountain biking” may be used in left- and right-facing, uphill and downhill versions as appropriate. These options are adaptations and have not been formally adopted in the New Zealand Standard.



- A diagonal slash across the symbol indicates that the facility, service or activity is prohibited. The red slash runs from the top left to bottom right corner.



- Symbols with a prohibition slash are grouped to the right of other symbols. The groups are separated by a space equal to the width of one symbol. The space between symbols equals half the width of one symbol.



- Use up to five symbols on identification, directional, and warning signs and up to ten symbols on information signs.

Approved Symbols

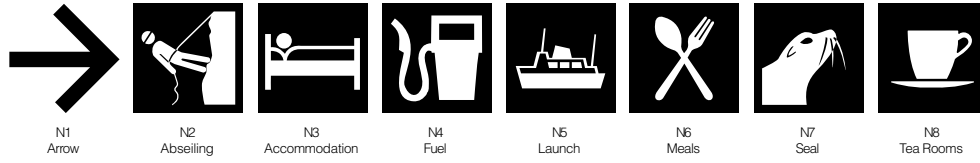
NZ Standard 8603 Symbols

NZ Standard 8603 Outdoor Recreation Symbols, except for the arrow, are approved for use on signs.



Non-NZ Standard 8603 Symbols

Arrow and other symbols not included in NZ
Standard 8603 but approved for use on signs.



Layout

The diagram on page 2.10 shows layout specifications for six commonly used letter sizes (based on the cap height of the main message). Signs can be made to any intermediate size but should use the same proportions as the nearest smaller size shown in the diagram. The relative sizes of elements and spaces on a sign differ for each of these sizes shown in the diagram: the spaces are relatively larger for smaller signs to improve legibility. To design a sign of intermediate proportions, use the dimensions for the nearest smaller size on the diagram then proportionately scale up the complete layout to the desired size.

Features of the layout to note are:

- for signs containing the corporate signature, nothing is positioned below the logo. Information aligns with the left of the wordmark;
- a symbol appearing on the same line as the main text is left “hanging”: subsequent lines of information align with the beginning of the first line of text;
- the space between symbols equals half the width of one symbol. Symbols with a prohibition slash are grouped to the right of the other symbols. A space equal to the full width of one symbol separates the prohibition symbols from the others;
- the area identifier, if used, always appears in the top right of the sign with a vertical line to its left. The line length equals the height of the logo. The text is to align vertically with the Department’s wordmark and uses the same text size as the words “Department of Conservation” in the wordmark. It normally aligns right with information on the body of the sign but must never be closer to the corporate signature than a distance equal to three times the main cap height. The area identifier is never used on signs without the corporate signature;

- the yellow band and the corporate signature are “locked” to the spaces below them, that is, they determine the amount of space below to establish the position of the first primary message. If the corporate signature is not used the space below it is not used either. All other elements are “locked” to the space above them. Elements are also “locked” to the space to the right of them. Using the diagram on page 2.10 as an example, if the camping symbol on the first line were removed, the space to its right would also be removed so that everything would align below the beginning of the wordmark. If “Secondary message” were removed, the space above it would go as well.

Detailed signs

Signs containing detailed text and/or graphics e.g., orientation, interpretation signs, require individual layout solutions. Manual standards regarding use of the yellow band, corporate signature, and typefaces apply. Colour scheme should be based on the standard yellow and dark green but additional colours may be introduced for graphic purposes (for example see section 4).

Posts

- Posts are coloured dark green. They should have no other colours nor adornments attached to them.
- Posts may extend above the sign board the minimum distance required to achieve fixing.
- When determining post dimensions consider their visual balance in relation to the dimensions of the sign board. For example, with some materials it may be possible to achieve adequate strength with very narrow posts but they may look out of proportion.

Bollards

Bollards (or symbol posts) are useful for displaying symbols and arrows.

- They conform to the yellow and green colour specifications of the sign system.
- Ensure that the space around the sides and between symbols is adequate to provide a good visual balance. This will be influenced by factors such as the thickness, width, and height of the bollard. As with symbols on sign boards, establish a greater space to separate prohibition symbols from others.
- A combination of no more than three of the corporate signature, an arrow and symbols may be used on bollards.

Main cap height (mm)	Maximum travelling speed		Left margin	Symbol on text line	Space to text	Width of symbol on separate line	Space between symbols	Space to prohibition symbol	Space after message	Thickness of vertical line	Space after vertical line	Arrow	Space after arrow	Right margin
	20 km/h	40 km/h												
30	30	60	45	30	15	45	22.5	45	30	3	12	30	15	45
60	60	90	60	60	30	90	45	90	45	5	15	60	15	60
90	90	120	90	90	45	120	60	120	60	6	18	90	30	90
120	120	160	105	120	60	150	75	150	90	9	21	120	30	105
160	160	210	110	160	75	190	95	190	115	12	24	160	35	110
210	210	240	135	210	90	240	120	240	150	15	30	210	45	135

Main cap height (mm)	30	60	90	120	160	210
Band	30	45	60	90	95	105
Space below yellow band	45	60	75	105	115	135
Corporate signature	60	90	105	135	155	180
Space below corp. signature	30	45	60	90	110	135
Cap, symbol height	30	60	90	120	160	210
Space if 2nd line of message	30	45	60	90	105	120
Space if new message	30	60	90	120	145	180
Cap height	30	60	90	120	160	210
Space above first 2y message	15	30	45	60	75	90
Space above other 2y message	15	30	30	45	60	75
Cap height 2y message	15	30	45	60	75	90
Space above symbols	30	60	75	90	105	120
Symbol height	45	90	120	150	190	240
Base	45	60	90	105	125	150

3. Language

Simplicity

Keep language simple and direct. Use short sentences and common words. Avoid jargon, sexist and culturally insensitive language at all times and scientific words wherever possible.

When using scientific names use the common name (where available) first. Write out the wording and try to eliminate unnecessary words while retaining the meaning. For example:

“To the car-parking area” may be reduced progressively to:

- Parking
- 

The New Zealand Style Book published by GP Publications Ltd should be used for general reference.

Being positive

Keep all messages positive. Do not attempt to frighten visitors. When reminding visitors of their obligations in an area take the opportunity to also inform them of positive aspects such as the recreation opportunities available.

Avoid large groups of prohibitive symbols. It will often be appropriate to inform people what they are allowed to do as well. Use firm but positive language for regulatory and warning signs.

Places Managed by the Department

Area Identifier

Include the full status of the area described, viz., National Park, Nature Reserve, National Reserve, Scientific Reserve, Scenic Reserve, Recreation Reserve, Wildlife Management Reserve, Forest Park, Conservation Park.

Track Classification

Include the classification as part of the name of a track, viz., path, track, route. Use the appropriate symbols to differentiate barrier-free paths from others and walking tracks from tramping tracks. Where tracks are listed on a sign it may be appro-

priate to use the correct symbol alongside each name. In these situations the symbol will be the first item on the line (see diagram page 2.10).

Maori language

It will often be appropriate to use Maori language on signs. When using full sentences of Maori the message should also be provided in English. Take special care to get Maori language correct, including checking the text with the conservancy kaupapa atawhai manager.

Where a place or feature has both a Maori and an English name the alternative name can be displayed in italics.

When Maori words are used in English text their use should conform to English grammar but retain their own spelling. Maori syllables always end with a vowel, therefore plural forms of Maori words are spelt the same as the singular – do not add an ‘s’. Long-sounding vowels are denoted by a macron above the vowel.

Maori names for plants and animals do not have an initial capital letter unless they are part of a place name, e.g., rimu and Rimu Stream.

Scientific Language

Genus, species, subspecies, variety and form names should be written in italics. Use an initial capital letter for genus or higher names. Use all lower case letters for species names and lower. A genus name may be abbreviated to its initial capital letter if the name has already appeared in the text and if the abbreviation will not cause confusion with other generic names. The abbreviations “sp.”, “ssp.”, “var.”, etc., always appear in roman style, not italic, e.g., *Phormium cookianum* ssp. *bookerianum*.

Foreign Language

Before using foreign languages on signs consider other options such as symbols and/or brochures. Information in alternate languages should be limited to danger warnings, regulations and selected information.

Common Words

Use	<i>Not</i>
Toilets	Lavatories, conveniences, loo, WC
Women	Ladies
Men	Gents, gentlemen
Roadend	Road end

Abbreviations

Abbreviations of measurement have the same singular and plural form and do not have full stops after them. Use a thin space (t-space) between the number and the unit abbreviation.

- *Time*

minute(s)	min	<i>not</i>	mins
hour(s)	hr	<i>not</i>	hrs
 - *Speed*

kilometre(s) per hour	km/h	<i>not</i>	kmph
cubic meters per second	m ³ /s		
meters per second	m/s		
knot	kn		
 - *Length/Distance*

millimetres	mm	<i>not</i>	mms
metre(s)	m	<i>not</i>	ms
kilometre(s)	km	<i>not</i>	kms
 - *Weight*

gram	g	<i>not</i>	gms
kilogram	kg	<i>not</i>	kgs
 - Street
 - Road
 - Mountain
 - Point
 - Subspecies
 - Variety
 - Form
 - New Zealand
- *Do not abbreviate:*

National Park	St
Forest Park	Rd
Department of Conservation	Mt
Conservancy	Pt
Field Centre	ssp.
Barbecue	var.
	f.
	N.Z.

Abbreviations denoting proper names or titles use capitals, e.g., M.F.E. – Ministry for the Environment.

Place-names

Place-names start with an upper case letter. Use place-names recognised by the New Zealand Geographic Board. These will generally be shown on Department of Survey and Land Information topographical maps. It may be appropriate to use alternative names in association with the official name. In such circumstances the alternative should not appear alone and should use the secondary message letter size relevant to the size used for the official name (refer to layout diagram page 2.10).

Time

Time is to be used as the primary guide for pedestrian traffic. Measurement in metres or kilometres may be provided as secondary information. When giving times to destinations:

- use average to slightly slower than average times relevant to most visitors;
- use hours and minutes rather than decimal time or fractions. (1 hr 30 min not 1.5 nor 1½hr);
- all times are to be one-way unless otherwise stated on the sign. Appropriate options are:
 - return (time to a destination and return to the starting place via the same route);
 - round trip (time to complete a circuit returning to the starting place).

For times:

- up to 5 minutes round to the nearest minute, e.g., 4 min;
- between 5 minutes and 1 hour 30 minutes round to the nearest multiple of 5, e.g., 25 min;
- between 1 hour 30 minutes and 4 hours round to the next multiple of 30 minutes, e.g., 3 hr 30 min;
- over 4 hours round to the next full hour, e.g., 5 hr.

Distance

Distance is to be used as the primary guide for vehicular traffic.

- Use metres for distance below 1 km, e.g., 750 m, not .75 km.
- Use kilometres for distances above 1 km, e.g., 1.3 km, not 1300 m.

Order

Structure key messages in a logical progression. Try to give the most important information first. Group similar messages together and order destinations as they will be reached.

The Metric System

Measurements will use ISO units. In historical situations it may be appropriate to include the equivalent imperial measures in addition to the metric.

- Distance/length: millimetres, metres, kilometres, nautical miles
- Altitude: metres
- Weight: grams, kilograms, tonnes
- Volume: millilitres, litres, cubic metres, cubic metres per second
- Speed: kilometres per hour, metres per second, knots

4. Sign Types

Signs are sometimes described according to the function they perform or by the construction style, whichever is more convenient. The following terms are commonly used. Many signs are combinations of the types described here.

Annual Sign

A sign which is erected for short periods and removed repeatedly throughout its life and is therefore made of durable materials but is designed to facilitate removal.

Bollard

A single post on which symbols are displayed to indicate an activity, facility and/or direction. The arrow is placed below the symbol(s).

Detailed Sign

Most signs can be read at a glance, without stopping. Detailed signs require the visitor to stop and study the information. They contain comprehensive text and/or graphics of a size designed to be read at close range. The content of detailed signs strongly influences the layout but the manual standards should be followed for colour scheme (allowing for additional colours in graphics), corporate signature, typefaces and the yellow band. The illustrations of the orientation sign (page 4.2) and campsite notice (below right) are examples of detailed signs.

Directional Sign

Indicates direction and/or time to a destination.

Holdsworth Lookout ← 1 hr
Donnelly Flat → 30 min
 Donnelly Flat via Loop Walk 45 min
Gentle Annie Track →
 Rocky Lookout 1 hr
 Mountain House 2½ hr
 Powell Hut 4 hr
 Totara Flats Hut 4 hr
 Mt Holdsworth 5 hr
Atiwhakatu Track →
 Atiwhakatu Hut 3 hr
 Jumbo Hut 5 hr

Finger Sign

A landscape format sign (large length, small depth) on a single post, used as a direction sign for pedestrians. Capital letters do not exceed 50 mm high.

Flag Sign

A portrait format sign (small length, large depth) on a single post, normally used as a roadside information sign where advanced warning is required.

Flexopost

A flexible polyethylene post that can be used for boundary marking and route marking.

Historic Sign

A sign which is more than 50 years old and is recognised as being a feature in its own right. Such a sign must be identified in the conservancy's historic resources strategy or in a specific site conservation plan.

Information Sign

Conveys information pertaining to the use, land status, feature or facility.

Department of Conservation
Te Papa Atawhai

Lake Alexandrina Wildlife Refuge

Icons for: Camp, Picnic, Kayaking, Fishing, Birdwatching, Dog Prohibited, No Motor Vehicles, No Alcohol, No Smoking, No Firearms, No Weapons.

Department of Conservation
Te Papa Atawhai

Rimutaka Forest Park

Walking Tracks, Bush Cabins for Hire, Safety, and other information.

Interpretation Sign

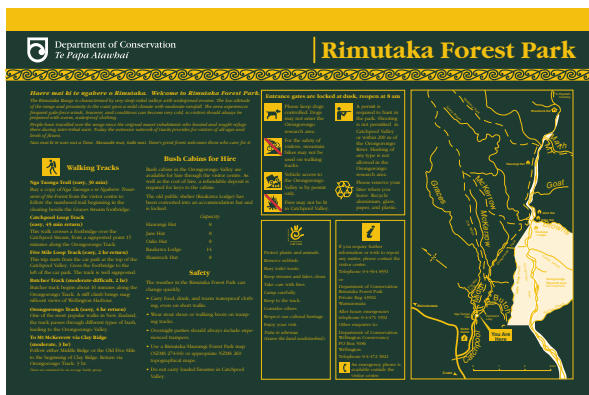
A sign which relates a story or a message in a written, visual or interactive way in order to improve the reader's understanding and appreciation of the topic. Specifications for interpretation signs are not presented in this manual but many features of the visual image are appropriate for interpretation signs and should be incorporated wherever possible.

Marine Reserve Boundary Marker

A large triangular sign conforming to specifications determined by the Ministry of Transport (see appendix).

Orientation Sign

An information sign which includes detailed information and/or any pictorial content other than symbols alone (such as a map). These signs may also include some interpretation of an area or a feature.



Regulatory Notice

The corporate signature may be placed at the bottom left of the notice.

Temporary Sign

A sign which is required for a period generally not exceeding 6 months and is therefore designed with short-term life in mind.

Walkway Information and Orientation Signs

These signs follow the same design standards as Departmental signs except the New Zealand Walkways logo replaces the corporate signature which is moved to the bottom left of the sign.

Warning Sign

A sign to warn of a particular hazard and describe the appropriate action.



Common stock

Where the same sign is required in a number of places costs may be reduced through both economies in large scale production and choice of the manufacturing method. Screen printing and heat stamping are especially suited to mass production signs.

Suggestions for new common stock signs are to be made to the Visitor Services Division, Head Office.

Examples of common stock signs available are shown in the appendix.

5. Planning and Ordering Signs

Sign Plan

A sign plan provides a framework for establishing an effective sign programme, including costing, approvals, construction, installation and inventory. A sign plan should be completed in conjunction with, and at the same time as, other facility and landscape planning in the area and should follow a schedule of sign needs. In many cases careful design of facilities will reduce or eliminate the need for signs.

The sign site should be visited at least once during the planning phase. The sign plan consists of two parts, the siting plan and the sign schedule.

Approvals

The placement of signs may be controlled by the Resource Management Act 1991 and the local district plan.

District plans are currently being rewritten and conservancies should be active in ensuring that unreasonable controls are not placed upon the proper placement of signs on conservation land.

All signs require a land use consent under the section 9(1) of the Resource Management Act unless section 4 applies. Under section 4 land use consents are not required if:

- the land on which the sign is to be placed is managed by Department of Conservation; and
- the placement of signs on such land is consistent with a conservation management strategy or conservation management plan; and
- the placement of signs on such land does not have a significant adverse effect beyond the boundary of the area.

For exact wording refer to the Resource Management Act 1991. (Section 4 of the Resource Management Act was amended in 1993.)

Even if your sign does not meet the above criteria a land use consent will not be required if the sign meets the criteria and performance standards set out in the district plan allowing certain signs as permitted activities.

Signs do not require a building consent unless they exceed 7 metres in height. (Refer to the third schedule, item (b) of the Building Act 1991.)

Siting Plan

A detailed map should show boundaries, facilities, services and features with both existing and proposed signs. If the area is not well-known the siting plan should contain a locality diagram.

Ordering Signs

Two major stages are required to prepare an order for a sign:

- requisition for the sign completed by the field staff;
- sign visuals prepared as scale computer-drawn images.

The requisition, prepared by the person requesting the sign, contains:

- purpose of the sign;
- sketch of the sign complete with text and symbols;
- list and diagram of those symbols that require a prohibition slash;
- where the sign is double-sided or made up of several parts, a sketch diagram indicating how the sign is to be produced;
- speed that the person reading the sign will be travelling, e.g., walking, open road;
- maximum distance the sign will be read from;
- date requested;
- name of the person who requested the sign;
- address for delivery;
- information on post length requirements.

Where the sign is on sloping ground or in a high wind area details on additional post lengths required will be needed.

The sign visuals prepared from the requisition contain:

- scale drawing of the sign complete with text and symbols;
- where the sign is double-sided or made up of several parts, a diagram indicating how the sign is to be produced;
- normal speed at which the sign will be read;
- maximum distance from which the sign must be readable;
- date requested;
- date designed;
- name of the person who requested the sign;
- name of the person who designed the sign.

Once the final sign schedule has been checked and approved by the sign requester, post type, size and length details can be attached and the schedule sent to the sign manufacturer for quotation and delivery date.

Each regional conservator will nominate a person with responsibility for implementing the sign system in each conservancy.

This person will also have responsibility for auditing compliance with this manual and ensuring that professional sign construction standards are achieved.

Signs will be designed on, or have their design transferred to, computer using an approved software package such as CorelDRAW®. Sign manufacturers have different software format requirements. Check with the manufacturer before designs are supplied on disk.

Any signs proposed as common stock signs or departures from this manual will be reviewed and, where appropriate, approved by the signs coordinator in Visitor Services Division of Head Office.

Sign Requisition

Conservancy/Field Centre	<input type="text"/>	Date	<input type="text"/>
Contact person	<input type="text"/>		
Phone	<input type="text"/>	Fax	<input type="text"/>
Delivery address	<input type="text"/>		
Name/Purpose of sign	<input type="text"/>	Inventory No.	<input type="text"/>
(e.g., park entrance)	<input type="text"/>		
	<input type="text"/>		
Location	<input type="text"/>		
Location map (Enough detail to find the site)	Site diagram (features that may influence size, layout, construction)		
<input type="text"/>	<input type="text"/>		
Sign must be readable from	<input type="text"/>	metres and at	<input type="text"/>
			speed
Sketch of sign (ensure text is legible, identify and show placement of logos, symbols, arrows, times etc.)			
<input type="text"/>			
Single/Double sided	<input type="text"/>	Post length	<input type="text"/>
Other information	<input type="text"/>		

6. Siting and Installation

Siting

The following factors should be considered when designing signs. They should be reconsidered before sign installation.

- *Integration with other facilities*
Build signs into other facilities if possible.
- *Cultural and historic sites*
Do not compromise the integrity of historic and cultural sites or features. Never apply signs to historic buildings, monuments or relics. Consult with tangata whenua over design and installation of signs at wahi tapu.
- *Visual impact*
Signs need to be easily noticed. Undue visual impact can be reduced where the sign has a backdrop of vegetation or land-form. Avoid silhouetting a sign against the sky and consider what single-sided signs look like from behind.
- *Context*
Relate signs to their message by siting them close to site of interest.
- *Circulation pattern*
Observe the way visitors move around the site and where they slow down and stop. Avoid placing signs where they will be obscured by visitors or their vehicles.
- *Line of vision*
Site signs at 90 degrees to the likely line of sight. Signs should generally be sited on the left side of roads.
- *Reading and reaction time*
Ensure visitors have sufficient time to notice and read the sign before it passes from their field of vision. Also ensure they have time to react to the message wherever this is required. The tables in the "Roadside Signs" section are guides to siting signs for motorists.
- *Safety*
Do not site signs where they obscure a hazard, distract visitors from a hazard or become a hazard themselves. Install shear posts as appropriate on roadside signs.

- *Vegetation*

Avoid sites where vegetation will obscure signs. Remove plants that will require regular trimming. Do not attach signs to trees.

Roadside Signs

Transit New Zealand

Transit NZ are responsible for signs directing motorists from State Highways to areas managed by the department. The department is responsible for signs identifying areas it manages. Where these are to be installed along State Highways, Transit NZ must be consulted.

Roadside sign visibility: minimum safe distance

Position signs so that motorists can safely read the information before passing.

MINIMUM SIGHT DISTANCE (m)		
Traffic speed (km/h)	Local road	Collector/ Arterial route
40	30	70
50	40	90
60	55	115
70	85	140
80	105	175
90	130	210
100	160	250
110	190	290
120	230	330

Distance from sign to turn-off

Position signs so that sufficient distance is available for motorists to react safely after reading them.

Traffic speed (km/h)	Distance (m) from sign to turn-off
10	30
20	50
60	100
80	150
100>	200-400

Where the speed limit is 100 km/h try to standardise siting at 400 m before visitors need to turn or stop and specify the 400 m warning on the sign. In no case should signs be placed more than 1 km in advance of the decision point.

Minimum distances between roadside signs

Position signs to avoid conflict with other signs in the vicinity, to maximise effectiveness of the message and to avoid adverse effects on traffic safety.

Traffic speed (km/h)	Distance (m)	
	Recommended minimum spacing	Desirable spacing
60	50	80
70	55	100
80	60	150
95	70	200
115	80	250

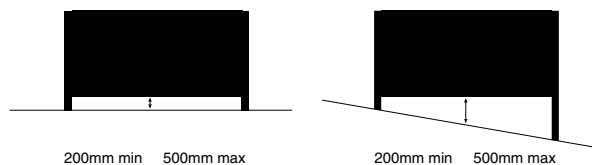
Installation

Walk or drive the route before and after installation to ensure placement is correct.

Height Above Ground

Sign height above ground is to be measured from the center of the bottom of the sign board to ground level. Observe the following:

- place signs as low to the ground as practical;
- minimum height above ground at centre of sign is 200 mm;
- maximum height above ground at centre of sign is 500 mm except where the sign board would be obscured by objects such as parked cars or the road camber. In these cases sign height should be the minimum for the sign to be seen over the top of the obstacle;



- set finger signs 500–1200 mm above ground;
- firmly install *Flexopost* boundary markers vertically with the top 900 mm above ground level. The minimum embedding length shall be 300 mm for posts with an approved retaining clip (foot) and 400 mm for posts without an approved retaining clip;

- ensure post length allows for sloping ground;
- allow for environmental changes e.g., snow coverage, sand movement.

Level

Ensure the sign is straight and level and remains so.

Observe the following:

- always use spirit level;
- brace the sign while concrete sets. Always allow at least seven days before removing bracing. Ensure bracing does not damage the sign surface;
- install permanent bracing on large signs in high wind areas if required;
- ensure adequate post length and adequate concrete anchors are used.

Securing the Sign

Observe the following:

- posts should be a minimum of 400 mm in the ground;
- attach feet to all signs;
- set signs prone to vandalism into concrete;
- clean up the site before leaving.

Safety

When installing road signs ensure that you have adequate safety equipment and be sure to advise the appropriate authorities.

Check for the presence of buried gas, power, telecommunications or other reticulated services before digging.

It is your responsibility to ensure that you do not create a road hazard and that adequate warning signs are displayed.

For roadside sign installation it is recommended that temporary warning signs are used. Staff should wear safety jerkins or safety vests.

For correct use of road warning signs and general road construction safety refer to the Transit New Zealand booklet “Working on the Roads”.

7. Inventory

Records

A printed record of all sign plans is to be kept in both conservancy and field centre offices. This will enable signs to be rapidly replaced should they be damaged or removed. Observe the following:

- a hard copy of each sign design is to be stored in the conservancy or field centre. These may be filed using the existing codafire system. It is recommended that separate sign files are used for each track or facility area;
- each sign is to be assigned a unique number which is to be noted on the inventory record. The number is to be prefixed with the conservancy identity number;
- date of installation, maintenance and removal is to be recorded for each sign.

8. Inspection and Maintenance

Inspection

Each field centre is to develop a systematic inspection system so that damaged signs are promptly maintained or replaced and redundant signs removed. This will also provide information required for budgeting maintenance and replacement.

The minimum interval for inspection and assessment is one year. Regular cleaning and repair of signs will extend their service life. If signs are damaged through accident or vandalism they should be replaced immediately.

Maintenance inspections are to ensure that:

- visual obstructions (normally vegetation) are removed;
- sign material is sound and in good condition;
- posts are firmly embedded and signs remain fixed to the posts;
- posts are maintained in a vertical position. Posts that are 10° or greater off vertical shall be straightened;
- the graphics are in sound condition;
- the message remains readable;
- the message is both accurate and relevant. Has the situation changed? Is the sign still required?
- all damage to posts or sign board is repaired and painted to professional standards or replacements are made;
- when required, all signs, posts and boundary markers are cleaned to remove road grime and other dirt to within 200 mm of ground level.

9. Replacement & Maintenance of Signs Installed before 1 January 1994

Implementation

In order to implement a consistent visual image, all previous sign systems will incorporate certain elements of the new sign system until a replacement sign is required.

While it is recognised that upgrading one sign within a larger group of signs may create a certain untidiness, the overall importance of proceeding towards national consistency as soon as possible means that this situation is unavoidable.

The following procedures are to be applied when maintaining or repairing existing signs.

Existing Signs that are Beyond Repair

All signs that are beyond repair or display incorrect information are to be replaced with signs that conform to the requirements of this manual. No other sign system or portion of another sign system (see introduction for exceptions) is to be used for outdoor sign requirements from.

Existing Signs that are in Good Repair

All existing signs that are in good repair are to be upgraded with the following elements of the new visual image as soon as possible:

- all sign boards and posts are to be painted dark green (refer to colour swatches). This includes sign boards that were previously stained or oiled;
- all lettering on sign boards is to be painted yellow (refer to colour swatches).

Where a Department logo appears on an existing sign the following will apply:

- if the central elements of the logo (Rangi and Papa) are routered, paint them the standard colours: process blue for Rangi, PMS 370 green for Papa;
- if the shield surrounding the central elements is routered, paint it white and the central elements dark green (refer to colour swatches);

- if the logo is a plastic insert and is in good repair then its use may be continued.

The yellow identity band and the new corporate signature is not to be used on existing signs. Where these elements are required a new sign should be produced.

References

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