



MANUKAU
City Council

Road and Traffic Information Signs

Policy and Guidelines

IMPORTANT NOTE FOR THE READER

DOCUMENT STATUS

This document has the status of a Manukau City Council Engineering Quality Standard.

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1. Introduction

The purpose of this document is to provide standard Policy and Guidelines for road information signage throughout Manukau City.

This document is not intended to cover all aspects in detail but rather to provide general guidance to the reader. There are unique situations that arise from time to time which will require a specific design.

The various standards referred to in this document cover the majority of situations and it is intended that this document be read in conjunction with these recognised standards. No attempt has been made to rewrite the standards.

Four other documents need to be read in conjunction with the Policy and Guidelines and these are:

ODP: The Manukau City Council Operative District Plan, 2002, Volumes I, II and III, MCC

MOTSAM: Manual of Traffic Signs and Markings, Part I, TNZ & LTSA

RTS2: Guidelines for Street Name Signs, LTSA

NZCP 34: Code of Practice for Clearance of Electrical Wires, 2001

2. Background

Road signs are a vital component of the roading environment. Road users rely on signs to assist them in travelling along the roading network in a safe and efficient manner. Signs are able to provide this assistance by giving advance warning, by highlighting hazards or other obstructions, by providing information about road names, place names and distances.

A motor vehicle journey along any unfamiliar route will require at least some planning on the part of the road user. This is usually achieved by reference to maps or other publications. It is not the responsibility of the road controlling authority to provide road signs as the only source of guidance to the road user.

The use of road signs should be limited to those signs that are legally required under the Traffic Regulations and those that the road controlling authority believe are essential for the safe and efficient movement of traffic.

The use of internationally recognised symbolic signs should be encouraged. The wording of all road signs should be of a generic nature with no commercial advertising or trading names permitted. It should be noted that illuminated street signs are installed in Manukau City but these are the exception rather than the rule and are required to meet the design specifications for size, colour, location, installation, height and need outlined in the Policy and Guidelines.

The most important element of any policy relating to roading information signage is consistency. This relates to the colour, location, hierarchy of signs and also the application of the Policy and Guidelines.

The aim of this Policy and Guidelines is to provide a comprehensive guideline for the installation of Street Name Signs, Guide Signs, Tourist Signs and Local Facility Signs within Manukau City. It also promotes the use of Motorist Service Signs on Strategic Routes and Regional Arterial Roads.

3. Summary of Standards and Signs

The following is a summary to be used for reference for signs under Manukau City Council jurisdiction:

Table 1 – Sign Types and References

Sign Type	References
SNS - Street Name Signs	<ul style="list-style-type: none"> ▶ This Document-Section 5 ▶ RTS2-All Sections
GS - Guide Signs ¹	<ul style="list-style-type: none"> ▶ This Document -Section 6 ▶ MOTSAM-Section 7
TS - Tourist Signs	<ul style="list-style-type: none"> ▶ This Document -Section 7 ▶ MOTSAM-Section 9
MSS - Motorist Service Signs	<ul style="list-style-type: none"> ▶ This Document -Section 8 ▶ MOTSAM-Section 8
LFS - Local Facility Signs	<ul style="list-style-type: none"> ▶ This Document -Section 9 ▶ MOTSAM-Sections 7 & 10

Note 1: there are five types of Guide Signs (GS). These are used in the following manner:

Before an intersection	ADS	Advance Direction Signs
At an intersection	IDS	Intersection Direction Signs
Past an intersection	CDS	Confirmation Direction Signs
At a destination (rural)	PNS	Place Name Signs
Along a route	URSS	Urban Route Shield Signs

The following Sections describe each sign individually with respect to size, colour, location, installation height and need.


4. Signs Hierarchy

A specific hierarchy has been adopted to prioritise the sign types covered by the Policy and Guidelines. The hierarchy ensures that low priority signs such as local facility signs are not installed at the expense of the essential and high priority signs such as street name signs. The hierarchy also ensures a consistent arrangement of signs on any post or pole.

As the roading environment is dynamic, the signs hierarchy enables Council to update and modify road signage in a logical and consistent manner.

The hierarchy for signs covered by this document is as follows:

Table 2 – Signs Hierarchy

Sign Type	Priority	Priority
SNS - Street Name Signs	Highest	1
GS² - Guide Signs		2
TS - Tourist Signs		3
MSS - Motorist Service Signs		4
LFS - Local Facility Signs	Lowest	5

Note ²: Guide Signs include ADS, IDS, CDS, PNS and URSS, refer to Section 3 for definitions.

5. Street Name Signs – SNS

5.1 Description

SNS	Street Name Signs
Background Colour	Green
Lettering	White
Length	Varies, Refer to RTS2 – Section 3.5
Depth	225 mm for Local & Collector Roads 250 mm for National Routes & Arterial Roads
Installation Height	3.0 metres minimum clearance
Priority	1
Reference	RTS2



5.2 General

The design, location and erection of street name signs generally conforms to the recommendations as described in the Ministry of Transport Land Transport Division publication Road and Traffic Standard RTS 2 “Guidelines for Street Name Signs” (November 1990) (RTS2) with the following provisions.

Typically, all roads should have SNS that name each road at that intersection i.e. a street named at its commencement and end may have repeater signs where other roads intersect somewhere along its length. However, where the side road is a short cul-de-sac, one SNS naming the cul-de-sac only would be required.

5.3 Location

Signs must be located where they are visible over a distance appropriate to the operating speed and where possible within the area of the intersection road reserve boundaries of the streets to which they apply. The minimum number of signs to be installed per intersection is as follows :

5.3.1 At “T” Intersections

- ▶ National Routes, Regional Arterials, or District Arterials intersecting with National Routes, Regional Arterials, or District Arterials shall have two signs for each intersecting road.
- ▶ Minor or Collector Roads intersecting with National Routes, Regional Arterials, or District Arterials shall have two signs identifying the Minor Road and one sign identifying the National Route, Regional Arterial or District Arterial.
- ▶ Minor or Collector Roads intersecting with Minor or Collector Roads shall have one sign for each intersecting road except where the intersecting road is a short cul-de-sac in which case only the cul-de-sac shall have a sign.

5.3.2 At “X” Intersections

- ▶ National Routes, Regional Arterials, or District Arterials intersecting with National Routes, Regional Arterials, or District Arterials shall have two signs for each intersecting road.
- ▶ Minor or Collector Roads intersecting with National Routes, Regional Arterials, or District Arterials shall have two signs for each intersecting road.
- ▶ Minor or Collector Roads intersecting with Minor or Collector Roads shall have one sign for each intersecting road.

The positioning of the street name signs will be generally in accordance with Section 9 of RTS2. Consideration regarding the number of signs will also be dependent on the total kerb to kerb width. Where central medians exist, additional signs will be required.

5.3.3 Lateral Offset

While signs should generally be mounted within 1500 mm of the kerb face or shoulder edge, the sign and/or post is to be placed such that any part of the sign and/or post is at least 450 mm from the kerb face on kerbed roads, at least 500 mm from the kerb face on islands or medians, and at least 600 mm from the shoulder edge on unkerbed roads.

5.3.4 Longitudinal Offset

Signs should generally be mounted no more than one metre beyond the zone of the intersecting boundary lines of the intersecting streets.

5.3.5 Height

Street Name Signs should be mounted with the underside of the sign at least 3.0 metre high except at traffic signals where the sign should be located immediately above the primary, secondary or tertiary (if present) signal head.

5.4 Sign Positioning

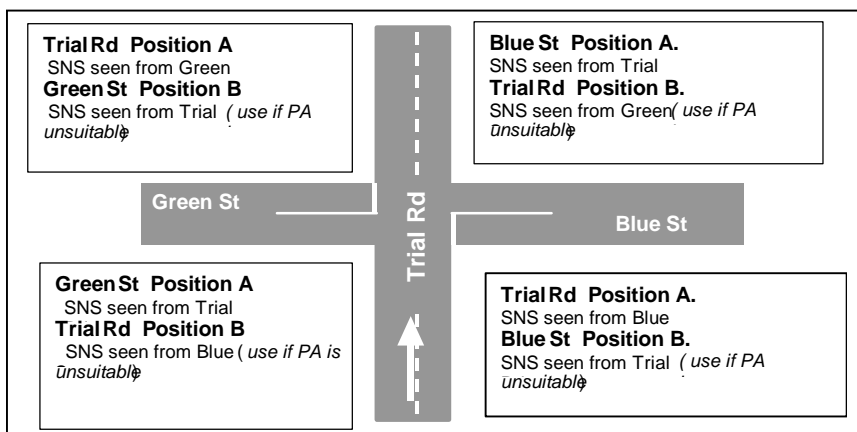
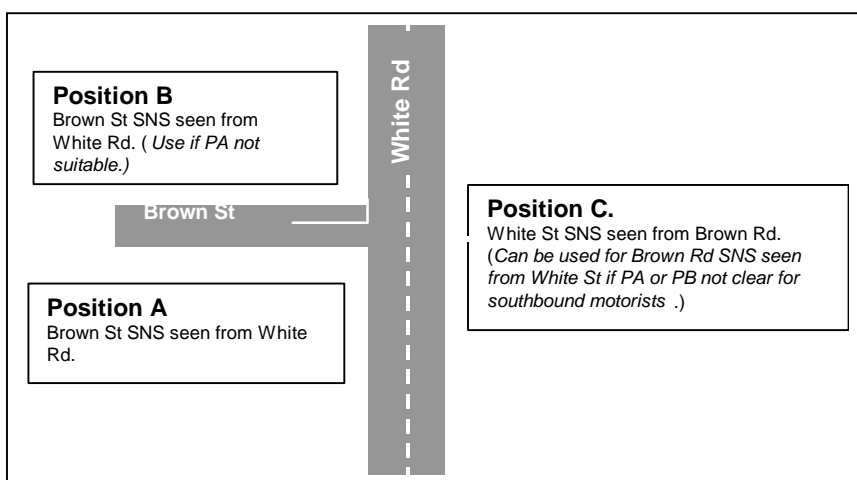
The most important issues to be considered when locating Street Name Signs and Local Facility Signs are visibility and consistency. The sooner the motorist sees the sign, the more time they will have to read and react appropriately. Motorists should not be expected to search all corners of an intersection in order to receive guidance.

Motorists on Manukau City roads will quickly become accustomed to seeing the majority of signs in the set Positions A, B or C (PA, PB or PC - see sketches below).

At intersections not controlled by traffic signals, the PA position will be used except where circumstances make this position not practical or desirable. The sign will then be located at PB. At "T" intersections the sign will be immediately across the road in Position C (PC).

At intersections controlled by traffic signals the SNS will be located on the signal pole located at PA (or PB if necessary, or at PC if at a "T" intersection) with the SNS immediately above the signals. A specialist extension pole may be used.

Where roads are multi-lane or have divided medians, the positioning of signs shall be as per Section 4.7 of RTS2 Guidelines for Street Name Signs (LTSA 1990).



5.5 Blades

Street name blade depths will be nominally:

- ▶ 250 mm for all intersections on and with National Routes, and Regional and District Arterial Roads as classified in the Manukau City Operative District Plan, and
- ▶ 225 mm for all other local and collector road intersections.

Blades are to be extruded aluminium of 3 mm web thickness with a strengthening flange top and bottom (I section), and ends cut parallel to the chevron.

The blade finish shall be such as to provide a completely weather resistant and corrosion proof finish for the life of the sign.

In urban areas the signs will typically be between 600mm and 1500 mm long and in rural areas signs will typically be between 900mm and 1800mm long. The actual length of the sign with a single chevron will be determined by the length required for the lettering plus spacing plus 100mm from the end of the blade to the first letter plus 50mm to the chevron. For a sign with a chevron at either end, the length of the sign will be the length required for the lettering plus the spacing plus 50mm to each chevron. All signs longer than 1200 mm or having two chevrons are to be mounted centrally or supported on two posts.

5.6 Lettering

Lettering shall be Modified Series E 80% length and 120% spacing.

Letters shall be central on the blade and be:

- ▶ 140 mm high on 250 mm blades; and
- ▶ 110 mm high on 225 mm blades.

5.7 Abbreviations

The following street name abbreviations are to be used.

Table 3 – Name Abbreviations

Avenue	- Ave	Glade	- Glade	Road	- Rd
Circle	- Circle	Heights	- Hts	Square	- Sq
Circus	- Circus	Highway	- Hwy	Street	- St
Close	- Cl	Lane	- Ln	Terrace	- Tce
Court	- Ct	Parade	- Pde	Track	- Track
Crescent	- Cres	Place	- Pl	Views	- Views
Drive	- Dr	Rise	- Rise	Way	- Way

5.8 Street Numbers

Street numbers are not to be used except in special circumstances and only at the direction of the City Traffic Engineer.

Where used for the main sign on arterial roads, they shall be 100 mm high on 250 mm blades and 75 mm high on 225 mm blades and located equally about the central horizontal axis of the blade (Refer [Appendix B](#), Drawing 1). Where used for Local and Collector Roads, they shall be 75 mm high and located on a supplementary sign mounted below the street name sign (Refer [Appendix B](#), Drawing 2). In all cases, they shall have the same letter type and colour combination as the main sign.

5.9 No Exit Supplement

No Exit situations are to be indicated by supplementary signs mounted below the street name sign and having the same letter type, reflectivity and colour combination as the main sign. The letter height to be used shall be 75 mm capital (Refer to [Appendix B](#), Drawing 2). All “No Exit” streets shall have the supplementary “No Exit” sign attached.

In some situations a larger stand alone ‘No Exit’ traffic sign (MOTSAM IG1) may be installed at the direction of the City Traffic Engineer.

5.10 Mounting

Mounting for street name signs shall ensure that the blades are held rigidly in position. Signs shall be mounted and maintained with the blades horizontal and with the blade faces in a vertical plane, even when the supporting pole is tapered.

Signs longer than 1200 mm shall be centrally mounted. Where a sign is to be centrally mounted and it is to be double sided, then two single sided blades shall be installed so that no part of the sign is obscured.

Single sided signs at the head of ‘T’ intersections shall be centrally mounted.

5.11 Sign Colours

Street name sign design will generally follow the recommendations from RTS2 Guidelines for Street Name Signs (LTSA 1990). The colour will be white legend on original green background (as distinct from Transit New Zealand standard green).

5.12 City Identification

The city logo or any other identifiers are not to be placed on the sign.

6. Guide Signs – GS

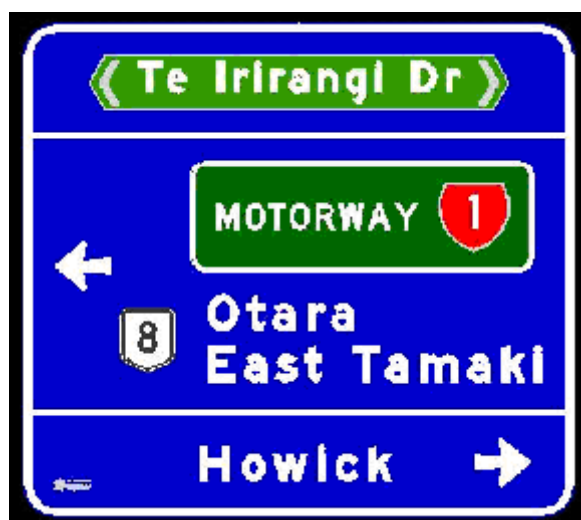
As indicated in [Section 3](#) there are five types of Guide Signs. These are:

Before an intersection	ADS	Advance Direction Signs
At an intersection	IDS	Intersection Direction Signs
Past an intersection	CDS	Confirmation Direction Signs
At a destination (rural)	PNS	Place Name Signs
Along a route	URSS	Urban Route Shield Signs

Relevant information regarding lettering, layout and mounting of all types of Guide Signs is found in MOTSAM – Sections 7-10/11/12.

6.1 Advance Direction Signs – ADS

Background Colour	Blue
Lettering	White
Length	Varies between 1.5 and 2.5 metres
Depth	Varies
Installation Height	2.5 metres minimum clearance
Priority	2
Reference	MOTSAM – Section 7.2



Advance Direction (or Destination) Signs (ADS) are located on the approaches to significant intersections and they indicate the destinations on each road leading away from the intersection including, where appropriate, the next major destination. In Manukau City, Advance Direction Signs are generally only used in advance of key intersections on Strategic Routes and Arterial Roads. Only those approved destinations recognised in **Appendix C** will be indicated on these signs, with priority given to those acknowledged destinations that are defined as Principal Localities.

Advance Direction Signs will be either a 'map' sign or a 'stack' sign. 'Map' signs show a simplified diagram of the layout of the intersection being signed with the destinations whereas 'stack' signs show the destinations and directions using a column or 'stack' layout. While 'stack' signs are the more commonly used sign, they are not appropriate at complicated intersections such as roundabouts, where there are successive junctions, or where a 'stack' sign can not adequately show an unusual intersection or roading layout e.g. 'Y' intersections.

Manukau City will predominantly use the "Stack" type sign as the ADS. However on Arterial Roads that lead into Auckland City, where Auckland City's ADS (TOP Sign) 'map' signs are already erected, Manukau City will endeavour to maintain the consistency of this design.

Should direction inserts be required to direct motorists to a State Highway then that insert shall be Transit New Zealand's standard green and should include the State Highway Shield in brackets.

Street Name on ADS (for Urban Area only)

Incorporated on the ADS signs at the top shall be the next approaching street name. This shall be in white lettering on a green background with the SNS having the same dimensions as per SNS specification. The remainder of the background will be a blue with a white border.

6.2 Intersection Direction Signs – IDS

Background Colour	Blue
Lettering	White
Length	Varies between 1.5 and 3.5 metres
Depth	Varies
Installation Height	3.0 metres minimum clearance
Priority	2
Reference	MOTSAM – Section 7.4



Intersection Direction (or Destination) Signs (IDS) are located at intersections and show destination on the roads leading away from the intersection or the street names. All destinations shown on Advance Direction Signs ([Section 6.1](#)) must be repeated on the relevant IDS.

Intersection Direction Signs in Manukau City will generally be designed to conform to MOTSAM for Stack type signs, showing destinations that conform to the list shown in [Appendix C](#).

Direction and destination signs need to be set high to the left of the road. Generally the height will be between 2.5 and 3.5 meters from ground level to the bottom of the sign, in order to straddle pedestrian walkways and footpaths. In some instances they may need to be placed over the carriageway.

The colour shall be white legend on a blue background. Should direction inserts be required to direct motorists to a State Highway then that insert shall be Transit New Zealand's Standard Green and should include the State Highway shield in brackets.

6.3 Confirmation Direction Signs – CDS

Background Colour	Blue
Lettering	White
Length	Varies
Depth	Varies
Installation Height	3.0 metres minimum clearance
Priority	2
Reference	MOTSAM – Section 7.5



Confirmation Direction Sign is located approximately 400 metres past an intersection to reassure motorists that they are travelling towards their intended destination and the distance to it. Destinations shown must be the same as those on the ADS and IDS.

Manukau City will continue the Auckland City Council's "TOP Sign" design (i.e. the next street name is located at the top of the destination sign) for destination signs on those Arterial routes that transverse Manukau City, from Auckland City. This is to maintain sign design consistency on these key approaches.

6.4 Place Name Signs – PNS

Background Colour	Blue
Lettering	White
Length	Varies
Depth	Varies
Installation Height	3.0 metres minimum clearance
Priority	2
Reference	MOTSAM – Section 7.7



Place Name Signs are used to indicate that a location shown on a prior guide sign has been reached. It is important to indicate to road users that they have actually reached their intended destination. This is particularly true if the road user has been following Direction Signs along the route.

In the urban area, the loss of a place name or suburb name on a subsequent Direction Sign indicates to the road user that they have arrived in that place or suburb and hence Place Name Signs are not required in urban areas.

In the rural area, townships or settlements are served by the rural arterial network and tend to be isolated. In such cases, Place Name and Threshold Signs located on the rural arterial road would be appropriate.

Manukau City Council will allow individual townships to install Place Name Signs in accordance with the list of Acknowledged Place Name for Rural Areas in [Appendix C](#). These signs will generally conform to the requirements and specifications set out in MOTSAM – Section 7.7. Other than that, the background is to be reflectorised blue.

6.5 Urban Route Shield Signs – URSS

Background Colour	White
Lettering	Black
Length	310 mm or 410 mm
Depth	410 mm or 480 mm
Installation Height	3.0 metres minimum clearance
Priority	2

Reference

MOTSAM – Section 7.9



Urban Route Shield Signs (URSS) are used to guide road users around the City using the most suitable, convenient and effective routes. They are ancillary guide signs. They may be separate signs or alternatively may appear on an ADS. The use of specified routes also enables Council to direct traffic along roads that are designed for such volumes of traffic. This eases pressure on other less suitable roads and residential streets.

Manukau City will strategically erect Urban Route Shields in keeping with any route currently approved and or sign post any current route that has ADS or IDS signage.

The design will largely comply with the specifications set out in MOTSAM – Section 7.9. However they may be placed on an additional blue background to gain an enhanced appearance.

7. Tourist Signs – TS

7.1 Description

TS	Tourist Signs
Background Colour	Brown
Lettering	White
Length	Varies
Depth	Varies
Installation Height	3.0 metres minimum clearance
Priority	3
Reference	MOTSAM – Section 9



7.2 General

Tourist Signs (TS) are used to acknowledge a major tourist attraction in Manukau City. The number of these signs and qualifying attractions across the City will be strictly limited and must fully meet the requirements set out in MOTSAM – Section 9. Manukau City will also approve any tourist attraction gaining Transit NZ Approved Signage on the State Highway network.

While generic signs will be encouraged, specific signs (e.g. Rainbows End) may be permitted where the activity meets the requirements set out in MOTSAM. A list of activities recognised by this policy is included in [Appendix D](#). Any subsequent activity developed or commenced in the City must be approved by the Manukau City Council and meet the requirements of MOTSAM. The list in [Appendix D](#) shall be reviewed annually.

7.3 Tourist Routes and Heritage Trail Signs

Council's Corporate Policy acknowledges the need for signage to support tourist routes such as the Pacific Coast Highway. Any other local tourist highway or heritage trail will be approved on its merits in a manner similar to the approval of Tourist Signs.

These signs can then be accommodated within the road reserve where they compliment the aims of the Policy and Guidelines and are approved by the appropriate Community Board.

8. Motorist Service Symbols – MSS

8.1 Description

MSS	Motorist Service Symbols
Background Colour	Blue
Lettering	White
Length	Varies
Depth	Varies
Installation Height	3.0 metres minimum clearance
Priority	4
Reference	MOTSAM – Section 8



8.2 General

Motorist Service Signs (MSS) provide internationally recognised symbolic signs to indicate services commonly required by travellers. These signs are only used when the services are not obvious to passing motorists.

While Motorist Service Signs are most appropriate on National Routes and Regional Arterial Roads there may be occasions where these signs are useful on roads with high seasonal traffic volumes (for example Whitford-Maraetai Road).

MSS are generally incorporated with Direction Signs and Tourist Signs or combinations of these. However they can be installed in “stand alone” locations if necessary.

MSS are preferable to LFS provided that services are available during most travelling periods. Applicants for LFS should be encouraged to consider MSS as an alternative that will be recognised by non-English speaking motorists.

MSS shall meet the requirements and specifications set out in MOTSAM – Section 8.

9. Local Facility Signs – LFS

9.1 Description

LFS	Local Facility Signs
Background Colour	White
Lettering	Green
Length	Varies, 900 mm maximum
Depth	200 mm
Installation Height	3.0 metres minimum clearance
Priority	5
Reference	MOTSAM – Sections 7 & 10



9.2 General

Traditionally, the area of Local Facility Signs (LFS) is the most difficult to set a fair and equitable policy. Historically many of these signs have appeared in order for a motorist to be able to find the service or location in the absence of suitable and reliable Street Name Signs. With Council's Policy to provide and upgrade the SNS many of these facilities will be able to provide street addresses and thus the LFS may no longer be required.

It is important to note that it is not the responsibility of the road controlling authority to provide advertising for local facilities. LFS are only used when, due to the layout of the road network, a significant number of non-local road users require assistance in finding that facility.

9.3 Application & Assessment

In order to be eligible for Local Facility Signs, the facility must:

- ▶ be one of the facilities listed in [Appendix E](#)
- ▶ cater primarily for a significant number of non-local road users
- ▶ be located with easy access from an arterial or strategic route

- ▶ use only generic identifiers (trading names will not be permitted). Exemptions may be permitted where it can be demonstrated that the name has become well known through common usage across the Auckland Region (for example “Pine Harbour”).
- ▶ not be acknowledged as a tourist facility (such facilities would be covered by the Policy for a Tourist Sign)

Local Facility Signs are assigned as Priority 5 in the signs hierarchy and are therefore only permitted on a sign post or pole where the maximum number of signs has not already been exceeded.

Applications for LFS will be considered for approval on a “first-come first-served” basis. The maximum number of signs permitted for any particular facility is two (2).

Approvals for LFS will be given by Council following consultation with the Network Management Consultant and subject to compliance with the Policy and Guidelines, and the Manukau City Council Consolidated Bylaw.

The Local Facilities Signs acknowledged by this policy are listed in [Appendix E](#). The list will be reviewed annually.

9.4 Installation & Removal

The cost of manufacturing and installation of any approved sign must be met by the applicant, with installation facilitated through the Council's Signs Maintenance Contract. ***The sign will become the property of the Council, will be included in its “Signs Inventory” and will be maintained at Council’s cost.***

On some occasions LFS may need to be removed when a higher priority sign is approved for a location that already holds the maximum number of signs. If this occurs the redundant facility sign will be relocated or held in storage until such time as it can be accommodated at another locality.

LFS must be manufactured to a similar but not necessarily identical appearance to SNS. Its length will generally be shorter than an SNS mounted on the same pole and always located below the SNS. LFS are distinguished from SNS by the reverse colours.

10. Other Signs

Other guide signs in Manukau City will generally meet the design specification set out in MOTSAM, and will typically be Stack or Fingerboard signs. Exceptions are where the City Traffic Engineer decides that the complexity of the intersection suggests a Map Sign will be more appropriate.

11. General Policies

A number of general rules apply to signs in this Policy and Guidelines and should be included in all contracts for sign maintenance and installation. These rules aim to provide a consistent regime to meet the expectations of road users and minimise the effects of visual clutter. For clarity this policy should be read in conjunction with the following documents:

1. Manual for Traffic Signs and Markings - Part I (MOTSAM) (TNZ/LTSA)
2. Standard for the Manufacture and Maintenance of Traffic Signs, Posts and Fittings. (RSMA Manual)
3. Australia and New Zealand Standard for Retro-reflective materials and devices for traffic control purposes. Part 1: Retro-reflective materials (AS/NZS 1906.1:1993)

This Policy and Guidelines will apply to all new signs immediately following adoption by Council. Existing road information signage will be progressively upgraded as funding permits, both during routine maintenance and as programmed upgrade projects on a route by route basis, commencing with the higher classification roads.

The criteria and specifications set out in the documents above (and future amendments) will generally be adopted for use in Manukau City except where changes or alternatives are detailed in this Policy and Guidelines.

11.1 Signs Conforming to National Standards.

Regulatory Signs (RS), Guide Signs (GS), Tourist Signs (TS) and Motorist Service Signs (MSS) are detailed in MOTSAM (Part I).

The standard of manufacture and maintenance of all signs, including materials preparation, substrates, posts and fittings and manufacturing methods are detailed in the RSMA Manual.

11.2 Reflectivity and Manufacturing Specifications

Manukau City will maintain a sign quality policy commensurate with cost effectiveness to provide a lasting durable asset. All signs will be manufactured by a recognised road sign manufacturer who holds an official certified quality manufacturing status (QMS) awarded to the sign manufacturer by the retro-reflective sheeting manufacturer.

All signs will be manufactured using retro-reflective sheeting that is independently certified as complying with the Australia and New Zealand standard AS/NZS 1906.1:1993. The reflective sheeting manufacturer will warrant, in writing, finished signs for a period of no less than ten (10) years. The minimum reflectivity level for all sheeting materials shall be Class 1 except for LFS which shall be Class 2.

Such certification will be by way of a Test Certificate issued by an independent qualified testing laboratory.

The sign manufacturer shall be officially certified and approved by a reflective sheeting manufacturer. The sign manufacturer shall offer a Sheeting Manufacturer's ten year warranty for all signs that the firm manufactures. Such warranty shall be in writing.

All retro-reflective materials used in the manufacture of road signage shall be independently certified as complying with AS/NZS 1906.1:1993.

All signs shall be to a minimum reflectivity of "High Intensity" (HI). The exception is LFS which shall be in 'engineering' grade standard as discussed in Section 11.2.3.

11.2.1 Street Name Signs

The **minimum** reflective standard for all Street Name Signs shall be Class 1 High Intensity (HI), white legend on a High Intensity original green background (i.e. not the Transit New Zealand standard green) except at the intersection of two arterial roads.

Typically intersections of two arterial roads are controlled by traffic signals and are in well-lit areas. The standard for the reflectivity at these intersections shall be Class 1 Wide Observation Angle (WOA), trihedral cube corner prismatic sheeting, with a white legend on original green background. The application of WOA sheeting shall be at the discretion of the City Traffic Engineer.

All signs shall have a Class 1 high intensity retro-reflective white background with green E.C. film overlay with letters cut out. The background and lettering shall be colourfast.

The Street Name Signs shall be warranted, in writing, by the sheeting manufacturer to retain specified minimum levels of brightness for new sheeting for a period of ten (10) years.

The minimum level of brightness for HI after ten years shall be 80% and for WOA shall be 70%.

White retro-reflective sheeting shall be used to create the white legend of the sign and become the retro-reflective medium for the green background colour upon the application of Electronic Cuttable Colour Overlay film. This colour overlay film shall be a durable, transparent, film. It shall be compatible with the retro-reflective sheeting and shall be included in the sheeting manufacturer's ten (10) year warranty.

11.2.2 Guide Signs/Tourist Signs/Motorist Service Signs

These signs can straddle footpaths (especially Guide Signs) and may be installed at a height that will allow an approaching motorist to see the sign in plenty of time. Such signs may not always be clearly seen by motorists at night due to the surrounding environment especially in urban areas.

The standard for the reflectivity of Guide Signs shall be Class 1 Wide Observation Angle (WOA), trihedral cube corner prismatic sheeting, with a white legend on the blue background except in the case of a State Highway destination which will have a Transit New Zealand Standard Green background or a tourist destination which will have a brown background.

Guide Signs/Tourist Signs/Motorist Service Signs shall be warranted, in writing, by the sheeting manufacturer to retain specified minimum levels of brightness for new sheeting for a period of ten (10) years.

The minimum level of brightness for the WOA sheeting after ten years shall be 70%.

White retro-reflective sheeting shall be used to create the white legend of the sign and become the retro-reflective medium for the background colour upon the application of Electronic Cuttable Colour Overlay film. This colour overlay film shall be a durable, transparent, film. It shall be compatible with the retro-reflective sheeting and shall be included in the sheeting manufacturer's ten (10) year warranty.

The addition of a protective film to safeguard the sign against graffiti shall be required. This sheeting will be required to be a sheeting matched for use on the reflective sheeting and approved by the sheeting manufacturer to meet the ten year warranty performances.

11.2.3 Local Facility Signs

All local facility signs will be manufactured using Class 2 Engineer Grade (EG) sheeting. The legend shall be original green on a white background. However the City Traffic Engineer may request a higher grade.

11.3 Colours

Colours for all signs are as shown for individual signs in the previous Sections.

All Guide Signs will be White legend on a Blue background except SNS and URSS. SNS are to have White legend on a Green background as indicated above. URSS are to have Black legend on a White background.

Note that Advance Direction Signs will show a white legend on a blue background, rather than the standard green background colour selected by Transit New Zealand for State Highways.

11.4 Sign Mounting

At any location, Street Name Signs (SNS) and Local Facility Signs (LFS) will generally be mounted on a single metal post or pole, using specified, matching fittings, except where the intersection is controlled by traffic signals. In such instances the SNS and LFS will be mounted on the traffic signal post immediately above the signal lights. This may require an extension to be added to the signal pole and should be fitted with appropriate clamp fittings to maintain clearance from the pole top assembly on the signal pole.

There should be no location where a LFS is mounted on it's own post. This sign is only to be used to give guidance at intersections where it must be located below a SNS.

The maximum number of signs facing in a single direction on any post is four. Where a post supports signs facing in more than one direction, the maximum number of signs to be supported by that post is eight.

11.5 Sign Positioning

Unless directed otherwise by the City Traffic Engineer all SNS and LFS shall be positioned in accordance with “Guidelines for Street Name Signs”, November 1990, Land Transport Division, Ministry of Transport, except as modified by this document in **Section 5.4**.

All ADS, TS and MSS shall be positioned in accordance with MOTSAM – Sections 7, 8 and 9.

11.6 Sign Support Poles

11.6.1 ADS, IDS and CDS

These support poles are to be specifically designed in accordance with MOTSAM – Section 7, and will vary according to size, location, speed zone etc. They are generally designed by a Registered Structural Engineer.

11.6.2 SNS, LFS, URSS and Other Signs

These signs can only be fixed on the following supports:

1. 76 mm diameter white powder coated steel or fluted aluminium pole. Note that in some cases e.g. Mainstreet projects, powder coated poles of the underlying Mainstreet project theme colour may be used.
2. round or octagonal steel streetlight pole (tapered)
3. round concrete streetlight pole (tapered)
4. traffic signal pole
5. on the face of a building (only in the case where there is insufficient space to install a steel or fluted aluminium powder coated pole).

At traffic signals, signs shall be mounted on or attached to the primary, secondary or tertiary (if present) signal pole immediately above the signal head. With the approval of the City Traffic Engineer, street name signs may be mounted on overhead mastarms.

Fixing onto steel or aluminium shall be by self tapping screws, banding, or other suitable clamping system except that self tapping screws shall not be used on traffic signal poles and mastarms or on street lighting poles.

Fixing onto concrete shall be by banding or other suitable approved clamping system.

All mounting components shall be rust proof.

11.6.3 Poles

Where the sign is not able to be fixed to either a traffic signal pole or an appropriate service pole, it is to be fixed on its own free-standing pole. These poles shall be either white powder coated steel or aluminium round poles and shall have a plastic end capping, unless otherwise specified. In some cases

e.g. Mainstreet projects, powder coated poles of the underlying Mainstreet project theme colour may be used. Timber posts are not to be used under any circumstance.

The bottom of the pole will extend into the ground extension post for a distance of 500 mm.

The extension post (sleeve) shall be embedded into the ground with 17.5 mPa concrete which will fill all of the 300 mm diameter hole to a level 50mm below the finished ground level. The extension post will extend 25 mm past this level so that the retaining pin or Allen screws can easily be installed or removed.

The retaining pin shall be 5 mm diameter stainless bar, coated with a suitable release agent.

Once the pole is in place and secured, the remainder of the hole shall be formed to a 300 mm square box and the ground or pavement returned to the original surrounding ground level finish.

12. Council Approvals

All roading information signage shall conform to this standard and Policy.

Approvals for changes, alterations and other queries shall be at the discretion of the City Traffic Engineer, or his/her representative.

Appendix A

List of Relevant Documents

References

- Manual for Traffic Signs and Markings – Part 1 (MOTSAM) (TNZ/LTSA) – Sections 7, 8, & 9
- Land Transport Safety Authority, Road and Traffic Standard Publication – RTS 2 “Guidelines for Street Name Signs” November 1990

Bibliography

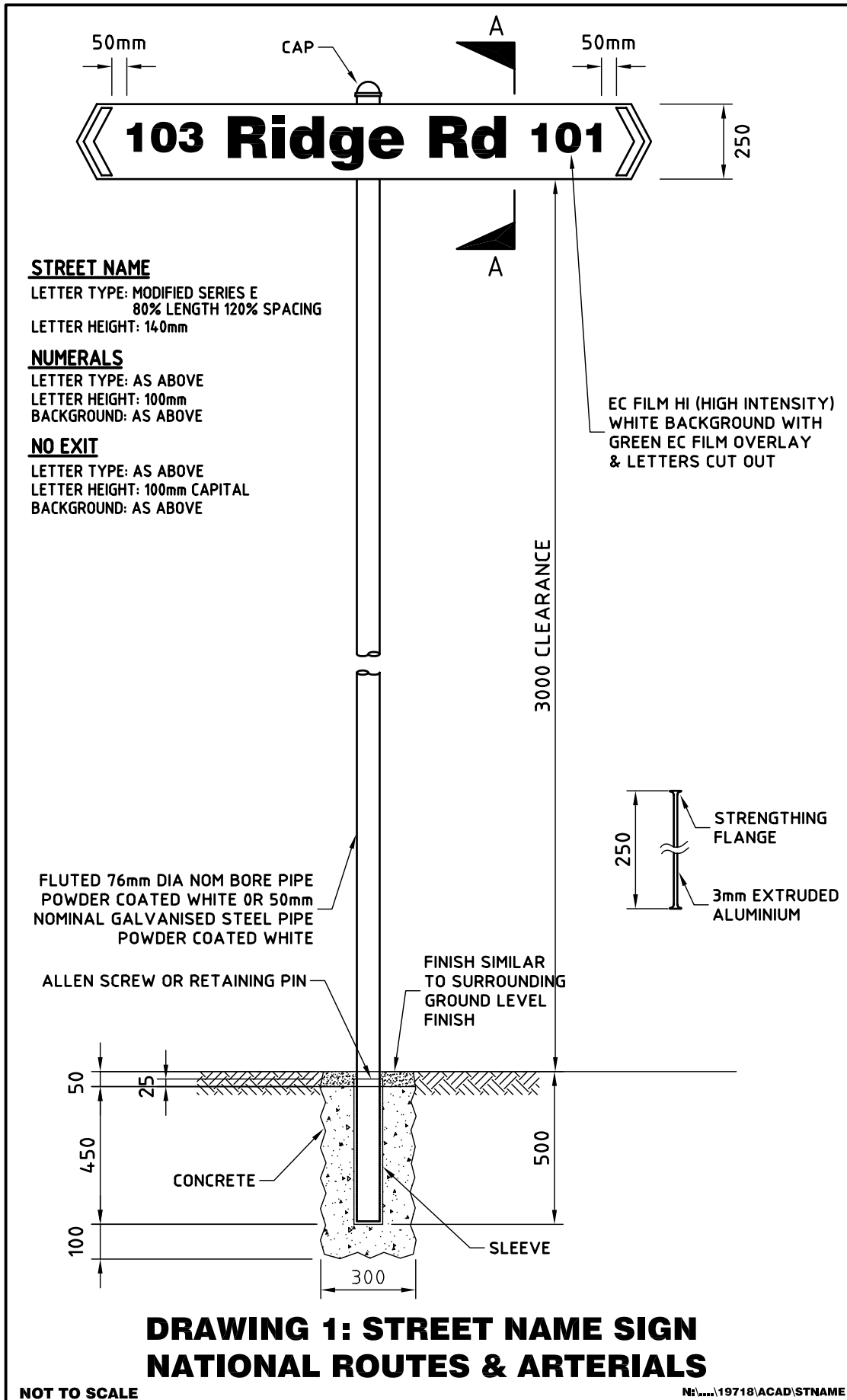
- Australia and New Zealand Standard for Retro-reflective materials and devices for traffic control purposes. Part 1: Retro-reflective materials (AS/NZS 1906.1:1993)
- Manukau City Council Operative District Plan, 2002 – Intersection Definition, Chapter 8
- New Zealand Electrical Code of Practice for Electrical Safe Distances, Ministry of Consumer Affairs, 2001 (NZCP 34:2001)
- Standard for the Manufacture and Maintenance of Traffic Signs, Posts and Fittings. (RSMA Manual)

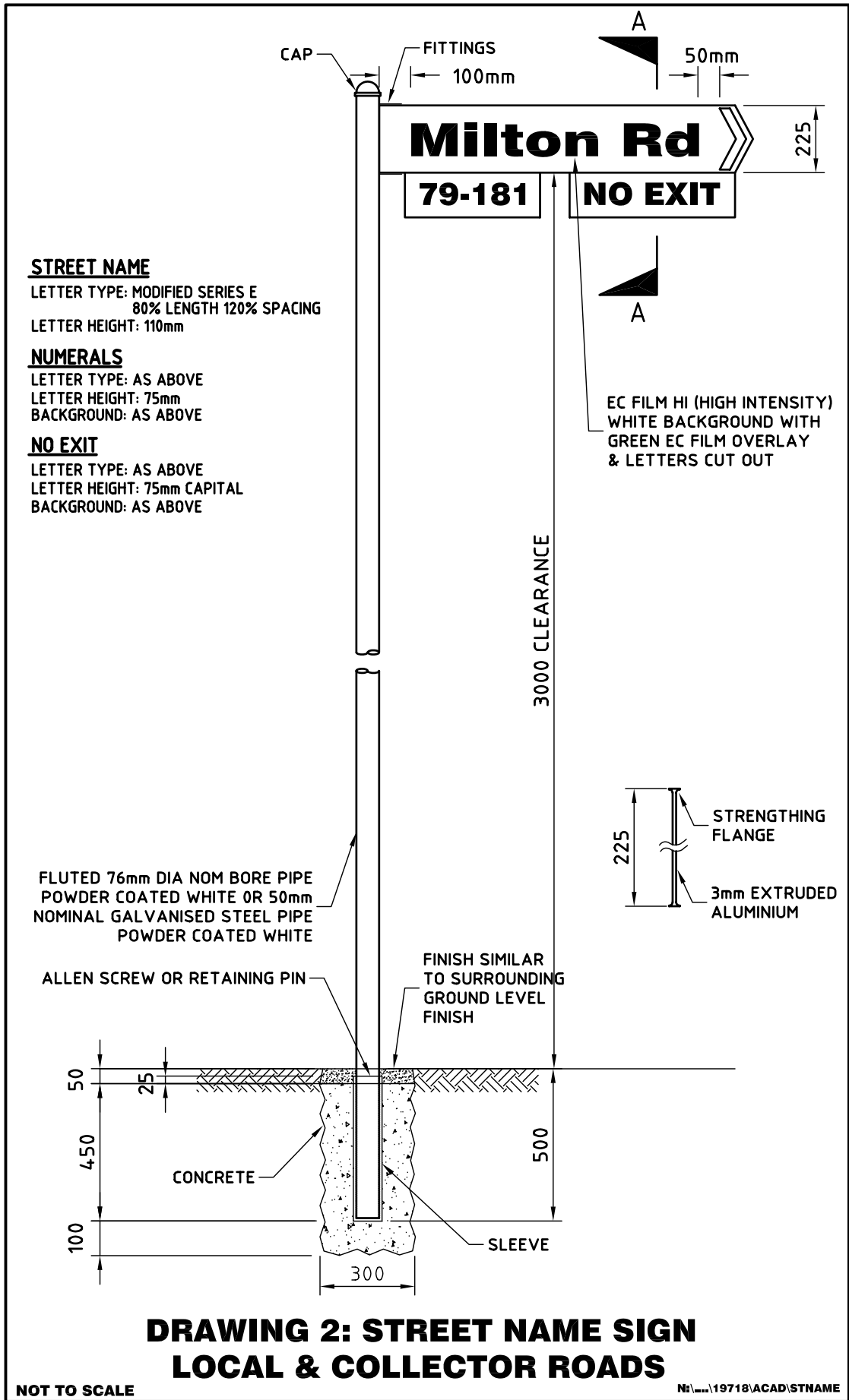
Appendix B

Drawings

Drawing 1: Street Name Sign – National Routes and Arterials

Drawing 2: Street Name Sign – Local and Collector Roads





Appendix C

Acknowledged Destinations

Acknowledged Destinations

Urban Areas

- Airport
- Botany Downs
- Bucklands Beach
- Clendon Park
- Clover Park
- Cockle Bay
- Conifer Grove (Papakura)
- East Tamaki Heights
- East Tamaki
- Eastern Beach
- Farm Cove
- Favona
- Flat Bush
- Halfmoon Bay
- Highland Park
- Hill Park
- Homai
- Howick
- Ihumatao
- Mangere Bridge
- Mangere
- Mangere Town Centre
- Mangere East
- Manukau
- Manukau Central
- Manurewa
- Manurewa East
- Mellons Bay
- Middlemore
- Otara
- Pakuranga
- Papatoetoe
- Papatoetoe West
- Puhinui
- Shelly Park
- Sunnyhills
- Totara Heights
- Wattle Downs
- Weymouth
- Wiri

Rural Areas

- Alfriston
- Beachlands
- Brookby
- Clevedon
- Kawakawa Bay
- Maraetai
- Matingarahi
- Ness Valley
- Omana Beach
- Orere
- Orere Point
- Whitford

Appendix D

Acknowledged Tourist Attractions

Acknowledged Tourist Attractions

All Areas

- Auckland International Airport
- Botanic Gardens
- Howick Historical Village
- Musick Point
- Pacific Coast Highway
- Rainbows End
- Totara Park

Appendix E

Acknowledged Local Facilities

Acknowledged Local Facilities

Generic Terms

- Accommodation
 - Bed & Breakfast
 - Hotel
 - Motel
 - Hostel
 - Camping Ground
 - Caravan Park
 - Lodge
- Airfield
- Ambulance Station
- Beach Access
- Boat Ramp
- Bowling Club
- Cemetery
- Chapel
- Church (Denomination)
- Cinema Complex
- Community Hall
- Community Centre
- Council Offices
- Crematorium
- Equestrian Centre
- Ferry Service
- Golf Course
- Historic Site
- Hospital
- Industrial Area
- Library
- Marina
- Medical Centre
- Museum
- Police Station
- Railway Station
- Rest Home
- Returned Service Associations
- School
- Sports Centre
- Sports Field
- Telephone
- Theatre
- Thermal pools
- Toilets
- Vineyard
- Wharf

Local Passive & Active Reserves of Note by Ward

Clevedon

- Beachlands Domain
- Clevedon Scenic Reserve
- Clevedon Showgrounds
- Maraetai Park
- Murphys Bush
- Omana Esplanade
- Pointview Reserve
- Sunkist Bay Reserve
- Te Puru Park
- Whitford Domain

Howick

- Garden of Memories
- Howick Domain
- Meadowland Park
- Millhouse Park
- Paparoa Park
- Stevensons Reserve
- Stockade Hill
- William Green Park

Mangere

- David Lange Park
- House Park
- Mangere Centre Park
- Mangere Domain
- Moyle Park
- Walter Massey Park
- Williams Park

Manurewa

- Finlayson Park
- Gallaher Park
- Hayman Park
- Jellicoe Park
- Leabank Park
- Mountford Park
- Nathan Homestead
- Netball Complex
- Puhinui Reserve
- Totara Park
- War Memorial Park
- Weymouth Domain

Otara

- East Tamaki Reserve
- Israel Avenue Sports Reserve
- Manukau Sports Bowl
- Ngati Otara Park
- Ngati Otara Park

Papatoetoe

- Allenby Park
- Aorere Park
- Kingswood Reserve
- Kohuora Park
- Murdoch Park
- Omana Park
- Recreation Grounds
- Robert White Park

Local Passive & Active Reserves of Note by Ward

Pakuranga

Ara Tai Reserve

Bell Reserve

Eastern Beach Reserve

Elm Park

Fisher Parade

Lloyd Elsmore Park

Macleans Reserve

Pigeon Mountain

Riverhills Park

Rogers Park

Ti Rakau Park