Corridor Management Plan
Guideline and Simplified Procedure

October 2012
Version 2

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Auckland Transport
An Auckland Council Organisation
NOTES TO THE USER

1 This guideline (Version 2) replaces Version 1 and shall be effective from October 2012. Periodic revisions and further reviews will be undertaken by Auckland Transport based on its own analysis of Corridor Management Plans and feedback received from stakeholders over time. Please contact Auckland Transport in the event that there is any doubt over whether this version of the guideline remains the current one.

2 All Corridor Management Plans undertaken on behalf of Auckland Transport shall be undertaken in accordance with this guideline and simplified procedure, unless an alternative approach is agreed with Auckland Transport (note (3)).

3 The content of this document is not intended to be a fixed set of rules although it is envisaged to be appropriate in most circumstances. Consultants that identify a more effective way of achieving the outcomes sought based on the specifics of the corridor under study are encouraged to recommend alternatives as part of their proposal to Auckland Transport.

4 Auckland Transport will require a record to be submitted as part of any Corridor Management Plan confirming that this guideline and simplified procedure (or any agreed alternative) was used. The record shall include feedback to Auckland Transport outlining issues (if any) that arose through the use of the guideline and simplified procedure.

5 It is essential in the preparation of Corridor Management Plan reports that an emphasis is placed on communicating the logic behind why and how final preferences were reached. This must include recording the progression of thinking, options considered, and other background decisions made through the project process. Summaries of recommended actions or “end points” alone will be insufficient for Auckland Transport and its stakeholders to use Corridor Management Plan outcomes into the future, especially if recommended outcomes are contested.
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## APPENDIX 1: CORRIDOR MANAGEMENT PLAN METHODOLOGY TROUBLESHOOTING GUIDE

## APPENDIX 2: ARTERIAL STREET TYPOLOGIES

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## APPENDIX 4: KEY REFERENCE TEXTS
INTRODUCTION

THE OVERARCHING PURPOSE AND DESIRED OUTCOMES

The purpose of Corridor Management Plans (“CMPs”) shall be to contribute to the achievement of the Auckland Plan and any associated subordinate plans or strategies prepared by Auckland Council, Auckland Transport, NZTA, and other stakeholder organisations.

This includes notably the Regional Land Transport Strategy; Integrated Transport Plan; plans prepared by Auckland Transport’s tactical work-streams including the Forward Utilities Programme; Auckland Council’s Local Area Plans; and NZTA’s transport funding requirements.

CMPs shall set out an integrated transport and land use preference, and an associated phased implementation plan for the management and development of Auckland’s transport corridors. It is also critical that CMPs be undertaken without spatial or technical bias; arterial streets are often subject to equally significant movement and place demands. There is no inherently ‘right’ or ‘better’ function and a workable satisfaction of both is critical to Auckland’s long term prosperity. CMPs must explicitly set out the rationale that justifies why recommended spatial allocations are desirable. Key deliverables expected of CMPs are set out in this guideline.

Auckland Transport is responsible for the preparation and review of arterial CMPs in Auckland.

CMPs require careful collaboration with Auckland Council and major stakeholders including the New Zealand Transport Agency (“NZTA”) and infrastructure service providers. CMPs are also particularly important in improving land use and transport integration in Auckland. Due to these important roles and the quantity of CMPs that will be prepared, Auckland Transport wishes to avoid the unnecessary consumption of resources duplicating methodologies between one project to the next, and/or the preparation of several plans with unhelpfully inconsistent methodologies.

This guideline shall form the basis of all CMPs. It has been written as a summary of the basic methodology (based on eight Steps) Auckland Transport expects to be appropriate for most, if not all, CMPs. It is expected that in achieving these Steps each CMP may involve subtle differences in the detail and on occasion variations will be appropriate. The methodology should be modified on a case-by-case basis where the circumstances demonstrate an alternative approach will be more appropriate. As one example, if a CMP is undertaken for a number of corridors together reflecting the particular interrelationships between them, a project-specific variant methodology may offer an opportunity for greater project efficiencies than the ‘typical’ approach presented in this guideline.

As part of its ‘one (transport) network’ approach, Auckland Transport will continue to work closely with Auckland Council, NZTA and other stakeholders as it develops CMP requirements. CMPs will be developed, managed and implemented through a joint process to ensure transport and land use solutions identified are mutually compatible and otherwise account for likely consequences that may cross the normal boundaries of organisational responsibility.

Each arterial street needs to be approached flexibly. In particular, the balance of Auckland Transport and Auckland Council leadership of each CMP needs to reflect the balance of transport and land use issues facing each arterial. The content of this Version 2 guideline draws on a comprehensive review of arterial CMPs prepared across Auckland in the last 5 years, practitioner experience over the 2011-2012 year using a Version 1 methodology, as well as existing strategic plans and strategies including the Auckland Plan, 2012.
ABOUT CORRIDOR MANAGEMENT PLANS

CMPs normally relate to one arterial corridor and the land uses that directly relate to it. They must respond to the future role of that corridor in the wider transport and land use network.

The issues facing each corridor may justify the necessary inclusion of an extended area of land use or road network around and beyond the corridor. In such cases more than one corridor may be considered in the same CMP. While this guideline applies to arterial streets it is envisaged that, as circumstances allow, it could be an appropriate tool to help planning for certain collector streets or State Highways.

Generally speaking CMPs are:

- Based on a 20–30 year time horizon but include consideration of at least the next 5 years of high level operational issues for the corridor(s) and illustrations of how a 20–30 year scenario could be implemented over time from today.
- Focused on long-term strategic scenario testing rather than on short-term operational management. Operational considerations are a secondary rather than a primary driver of CMPs. While they need to relate to and comment on ‘today’s issues’, CMPs are not intended to deliver fully resolved or detailed scheme plans for immediate implementation.
- Essential tools in identifying areas of likely physical or other change; future spatial demands and tensions between them; operational and policy challenges; and opportunities for multi-organisational cooperation that could be addressed by Auckland Transport and CMP stakeholders in both the near and longer terms.
- A key mechanism to integrate (and understand the consequences of integrating) the different spatial demands that have an interest in arterial streets. These are primarily transportation, land use planning, economic development, community and open space development, liveability aspirations, and infrastructure service interests.
- Guided by existing public policies and strategic (transport and land use) models. CMPs should not normally involve the preparation of new project-specific traffic models or speculation on future policy directions, although in some circumstances new work may be commissioned by Auckland Transport, Auckland Council or other stakeholders in support of or as a part of a CMP. CMPs should not involve economic cost-benefit analyses or the calculation of benefit / cost ratios (“BCRs”).
- Focused on an arterial street but are equally informed by the relevant land use ‘area of influence’ acting on it from the adjoining urban form and the local network of streets within this.
- Focused on maximising the productive use of arterial space in enabling social, cultural and economic exchange and wellbeing. CMPs are based on negotiating between all demands for the use of arterial space. This is not the same as adjudicating a simple trade-off between demands or simply presupposing what the most sustainable or appropriate outcome is for the street without a balanced consideration of the consequences occurring.

Other relevant principles for corridor management planning can be found in:

- Section 8 of the Auckland Regional Arterial Road Plan (February 2009).

Significant change is expected in Auckland over the next thirty years.

CMPs will be significantly influenced by the change context facing the District. Auckland will experience significant change as a consequence of growth over the next 20–30 years and beyond. It is likely that many arterial streets will inherently also have to change. Auckland Transport considers that pursuing a ‘business as usual approach’ towards arterial street planning will not be viable in most cases.
Accordingly, CMPs are a key opportunity for Auckland Transport and other stakeholders to be proactive in anticipating the issues these changes may give rise to and innovating new ways of thinking about the challenges ahead. Key challenges identified in the Auckland Plan include:

- **400,000 additional homes** will need be accommodated by 2040, at least 60% of which will be in the existing urban area served by existing (and constrained) arterials.
- 19% of the 2040 population will be over the age of 60, with at least 65,000 persons over the age of 85. This group in combination with children under the age of 15 will create the largest non vehicle driver population Auckland’s transport network has ever catered for.
- Over **270,000 additional jobs** will need to be created and then accessed by employees and customers.
- A **40% reduction in greenhouse gas emissions** from 1990 levels is targeted by 2040 - of which the transport system is a major contributor.
- 45% of morning peak trips by 2040 are targeted to be made by non car-based travel modes.
- Passenger transport trips are targeted to be doubled by 2040.

### THE INTEGRATED TRANSPORT PROGRAMME

The Integrated Transport Programme (“ITP”), developed by Auckland Transport with significant involvement from the Auckland Council and NZTA, aims to deliver the transport elements of the Auckland Plan. The goal of the ITP is that Auckland’s transport system is effective, efficient and provides for the region’s social, economic, environmental and cultural wellbeing.

Its six supporting outcomes are:

- Better use of transport resources to maximise returns from existing assets
- Auckland’s transport network moves people and goods efficiently
- Increased access to a wider range of transport choices
- Improved safety of Auckland’s transport system
- Reduced adverse environmental effects from Auckland's transport system
- Auckland’s transport network effectively connects communities and provides for Auckland’s compact urban form.

CMPs are one of the tools expected to provide the detail to justify and achieve the ITP outcomes. To this end the ITP sets out 4 key priority areas:

1. A single system transport network approach that manages current congestion problems and accommodates future business and population growth.
2. Integrate transport planning and investment with land-use investment
3. Prioritise and optimise investment across transport modes.
4. Implement new transport funding mechanisms.

CMPs are particularly aligned with the second priority but are also important for the first and third priorities. The key CMP consequence arising from the ITP is that capacity increases (such as road widening) are to be contemplated only as a last resort. Emphasis is instead to be in favour of travel demand management, innovative design solutions that bring new ways of thinking to address old problems, whole-of-network thinking, and land use / transport integration. The CMPs proposed for the 2012-2015 period are consistent with the strategic priorities outlined in the ITP.
THE STATUS OF CORRIDOR MANAGEMENT PLANS

CMPs are non-statutory documents. They will however help guide future transport and associated land use planning decisions for the corridor(s) concerned. They may be in whole or part relied on in the preparation of statutory policies and plans.

Their outputs will be used by Auckland Transport, in its role as the Road Controlling Authority, to better and more strategically manage arterial streets and the allocation of scarce road space. It is expected that CMPs will also assist Auckland Council to promote land use change and development along key transport corridors.

CMPs shall as appropriate identify locations where route protection measures would be desirable or are required to enable a preferred future concept to be implemented. They will assist in the development of policies in the Unitary Plan (RMA 1991) relating to the sustainable management of transport resources. It is anticipated that they will also be implemented through Local Area Plans. CMPs will contribute to the identification and prioritisation of projects for inclusion in the Regional Land Transport Programme (a 3-year detailed programme within a 10-year timeframe) (LTMA 2003) and to the preparation and review of the Council's Long Term Plan (LGA 2002), a statutory document with a 10-year timeframe.

A CMP or a part thereof could also be identified as a reasonably relevant matter in the consideration by the Council of applications for resource consent under section 104(1)(c) RMA 1991. An example could be if a developer sought to introduce a major signal-controlled access on an arterial where a CMP had flagged a need to manage cumulative signal placements to safeguard future passenger transport efficiency objectives and coordinate pedestrian crossings.

RELATIONSHIP TO OTHER PLANNING DOCUMENTS

CMPs are a type of ‘integrator’ plan in that they are primarily based on bringing together, reconciling and otherwise connecting many other (primarily strategic) plans and policies. They create the opportunity to test the cumulative consequences of different potential actions against a number of distinct and sometimes competing benchmarks.

In this sense, CMPs can be thought of as helping create key feedback loops vertically (in the case of individual plans) and horizontally (between several plans). It is important to note that in bringing together existing plans, they offer a unique opportunity to identify new ideas and different ways of doing things that may not otherwise come to light.

To be successful, CMPs therefore need the input of a high-order, regional perspective to ground the intended future challenges facing each corridor. CMPs need to take a number of existing planning documents into account in order to fully understand the range of transport and land use roles that may be desirable. In particular, explicit links are expected between CMPs and the Auckland Plan, Regional Land Transport Strategy, Passenger Transport Network Plan, and Regional Arterial Road Plan.

Other regional transport network strategies and land use plans may also be created over time that will likewise help lead CMPs. Local Area (Spatial) Plans and the Unitary Plan will also provide key input to CMPs. Land use change and intensification along urban arterials will require particular analysis and testing as part of the development of a preferred corridor preference especially in respect of property access and speed environment considerations. Auckland’s strategic transport planning framework is shown as Figure 1.
Figure 1. Auckland’s strategic transport planning framework.

**Auckland Plan**
- 30 Year timeframe
- Statutory
- A spatial blueprint to build Auckland over the next 30 years
- AC led
- AT provides input

**Integrated Transport Plan**
- 30 Year timeframe, 10 years in detail
- Gives effect to the transport components of the Auckland Plan
- Focuses on integrating all transport modes into a single transport system
- AT led
- AC provides input

**Regional Land Transport Programme**
- 10 Year timeframe, 3 years in detail
- Statutory
- Prioritized list of transport projects to describe funding requirements
- AT led
- AC provides input

**Long Term Plan**
- 10 Year timeframe
- Statutory
- Sets out the activities, services and projects and the required funding
- AT led
- AC provides input

* NZTA provide input
(AT) = Auckland Transport
(AC) = Auckland Council

Purpose | Role
---|---
30 Year timeframe, Statutory | AC led
A spatial blueprint to build Auckland over the next 30 years | AT provides input

Purpose | Role
---|---
30 Year timeframe, 10 years in detail | AT led
Gives effect to the transport components of the Auckland Plan | AC provides input

Purpose | Role
---|---
10 Year timeframe | AT led
Regional Public Transport Plan and Regional Asset Management Plan are Statutory Plans | AC provides input

Purpose | Role
---|---
10 Year timeframe | AT led
Prioritized list of transport projects to describe funding requirements | AC provides input

Purpose | Role
---|---
10 Year timeframe | AT led
Sets out the activities, services and projects and the required funding | AC provides input

Purpose | Role
---|---
AT is required to give effect to the Long Term Plan | AT provides input

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Purpose | Role
---|---
Integrated Transport Plan | AT led
AC provides input

Purpose | Role
---|---
Regional Land Transport Programme | AT led
AC provides input

Purpose | Role
---|---
Long Term Plan | AT led
AC provides input

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* NZTA provide input
(AC) = Auckland Council

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**Auckland Transport**
- Corridor Plan Guideline and Simplified Procedure - Version 2
SCOPE OF CORRIDOR MANAGEMENT PLANS

Spatially, CMPs shall be based on and include consideration of the following:

- The **arterial street** itself, defined as the area between (usually) private allotments, legally defined as road but often known as the ‘road reserve’. The three major spaces within this are the *road* or *carriageway*, being the pavement between kerbs made available for the movement of vehicles; *berms* or *verges*, including footpaths and any off-road cycle paths; and raised *medians* or *islands*. Street furniture and landscaping are normally found within berms. Traffic control signals and signs are located on berms or islands, and may overhang the carriageway. CMPs shall include at least one preferred concept for the arterial street on the basis of design responses to identified issues. Refer to Figure 2.

- The arterial street’s **land use edge**, defined as the allotments that directly abut (including those that do not have direct vehicle access from) the arterial street. CMPs shall include a proposition for or at least identify implications on the land use edge that would arise from the preferred arterial street design scenario(s). Refer to Figure 2.

- The arterial street’s **catchment**, defined as the area of local transport (street) network and land use activity that derives its most direct and convenient access to / from the wider city from the subject arterial street. The catchment will generally range from a minimum distance of 200m *length* measured perpendicular to the arterial street boundary to a maximum *mid-point* between the nearest adjacent arterial street (the arterial super block which is defined as the area of land enclosed by arterial streets). There may also be a practical need to recognise *additional influences*, such as major facilities or traffic routes (such as motorway on-ramps or a segment of an adjacent arterial) that create relevant demands on the subject arterial. Refer to Figure 3. In instances where an arterial street is not bounded by another arterial street (for example the coastline or a State Highway), the area of influence may extend entirely to that edge. The catchment for each corridor shall be confirmed during each CMP with stakeholders.

- CMPs shall include consideration of **local transport networks** in the catchment and their ability to support innovative solutions to arterial street use demands (such as better traffic circulation or the accommodation of passenger transport or cyclist movement). CMPs should not usually include detailed land use commentary within the catchment but should identify land use implications arising from any preferred use of local transport networks identified.

Accordingly the scope of each CMP will vary. In some instances the scope will be closely focused on the subject arterial street but in others it may involve a large area of local transport (street) network and land use activity. While a CMP must have a focus on the subject arterial street it shall also include, as appropriate, consideration of that wider catchment.

Part of each CMP should be devoted to a justification of why the extent of catchment identified was appropriate and how this influenced the balance of technical issues and options identified. This has a particular bearing on the extent to which land use tests have been undertaken as part of a CMP.
HOW TO USE THIS GUIDELINE AND SIMPLIFIED PROCEDURE

This guideline has been put together to be as easy to use as possible. It is designed to point the consultant project team and Auckland Transport / Auckland Council staff in the right direction and to achieve consistency between CMPs.

There are eight CMP steps explained in this guideline.

## EACH STEP IS LABELLED LIKE THIS

Each step is summarized in a shaded box like this at the beginning of each new section heading. This box helps explain the key outcomes, the purpose of the step and notes any other important information such as whom is expected to lead its delivery.

The process to be followed will then be set out like this

- This will include an explanation of the way in which the step is to be undertaken.
  - a) It will include a combination of output requirements and process suggestions.
  - b) It will include discussion on how particular things should happen including, where appropriate, in what order.

  Any particular tips or recommendations are set out like this. They will generally be hints for undertaking the CMP based on Auckland Transport's preferred methodology, or risk management tools for the consultant team to consider.

### Minimum outputs / deliverables will be set out like this

1) Key Corridor Management Plan outputs and deliverables are presented at the conclusion of each step in a box like this.

2) This box explains the **minimum** outputs expected by Auckland Transport of the consultant project team. Additional outputs may be required depending on the nature of each CMP.

Issues that may arise during each step are discussed in a separate troubleshooting Appendix (Appendix 1).
A WORKSHOP-BASED APPROACH

A collaborative workshop-based approach shall be used to anchor stakeholder participation and foster innovation, particularly where there are a number of complex issues in the corridor or its catchment.

A workshop is more interactive and inclusive than a conventional silo-based process. The latter is usually longer and can be more expensive. Multi-disciplinary workshops are able to bring stakeholders from various technical disciplines and groups together so issues can be explored, tested and negotiated directly and over shorter (time and budget) horizons. They allow the advantages and disadvantages of possibly competing interests to be openly and fairly compared, and ideas to be shared amongst a wide audience. This helps ensure all implications of one outcome over another are understood by all participants. Workshops typically help participants to better understand opposing points of view and reach more genuinely negotiated consensus agreements.

Critically, a workshop gives participants and stakeholders greater opportunities to maintain ownership of the issues being put on the table and the solutions being advanced to address them. While alternative means of working are also encouraged, such as focus groups and other meetings, Auckland Transport will not support processes that lead to stakeholders being talked to rather than being worked with. As a CMP will rely on more than just Auckland Transport to be implemented, it is essential that stakeholders feel that the preferred outcomes work for them as well.

Although the guideline outlines a stand-alone process for each of the eight steps, consultants making a proposal to undertake a CMP with Auckland Transport are encouraged to think laterally and if a more efficient or appropriate approach presents itself recommend it.

CMP PROJECT LIMITATIONS

While a workshop-based approach is expected by Auckland Transport, each CMP process should take into account the reasonable limitations of working in such an integrated fashion.

When a great deal of information is brought together and successfully integrated, expectations can be raised amongst participants that the outcomes will comprehensively take account of that full body of information irrespective of organizational boundaries. This will not always be a reasonable or achievable outcome unless a CMP has been carefully coordinated as a joint project committed to and resourced by all of the relevant interests - it would need to be “their” plan just as much as it would be Auckland Transport’s. For example, it is not anticipated that a typical CMP, in helping Auckland Transport meet its statutory and other obligations, will have the scope to tie infrastructure providers or Auckland Council to specific outcomes or timeframes (although every effort should be made to agree, coordinate and align the works between different jurisdictions).

Of particular relevance to CMPs are Corridor Development Plans, led by Auckland Council and which focus on land use intensification and revitalization strategies. While CMPs will necessarily entail a high degree of land use input led by Auckland Council, they are not intended to supplant or replace the Council’s central role in determining a preferred land use approach. Where an adopted CDP is in place, it should be seen as an authoritative input to the CMP process, and vice versa.

On corridors where land use (and specifically a high degree of land use change) is likely to be a very significant issue it may be desirable to consider a jointly-led and resourced CMP / CDP between Auckland Transport and Auckland Council.
The following steps will be suitable for almost every CMP. However should Auckland Transport, Auckland Council or a consultant project team identify specific reasons why an alternative approach would better address the issues affecting a particular corridor, these should be made clear and an alternative approach agreed on. The steps are presented in sequential order - the current step should be completed ahead of the next. However the process followed in a CMP should not on this basis be strictly linear. Feedback loops and validations between the steps is encouraged and should occur whenever the need arises. The basic methodology is as follows:

### USE OF APPENDICES

| Appendix 1: Troubleshooting | Appendix 2: Typologies | Appendix 3: Street elements |
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* The size of ticks represents the significance of technical stakeholder involvement. Large tick means technical stakeholders are involved and critical to the step, small tick means they are likely to be involved in some form.

** Auckland Transport will exercise its authority to approve steps 1, 2, 6 and 7.
1. Expected Process for Auckland Transport (project initiation)

a) Auckland Transport to consult as appropriate with Auckland Council, NZTA, and other stakeholders and:
   - Agree on the corridor(s) to be studied and nominate a provisional catchment area. A *default catchment area may be the midline maximum perimeter described on page 8 of this guideline where there are arterials around the subject arterial, or where there is no such perimeter arterial(s) it may extend to a natural boundary (e.g. coastline).*
   - Establish any project-specific issues or deliverables that must be addressed in addition to the requirements of this CMP guideline.
   - Identify key impending or current works or major resource consents / plan changes (including Court decisions) likely to impact or otherwise impose constraints on the corridor(s).
   - Gather and collate existing data and resources. This should include:
     - Base material.
     - Relevant data and monitoring / surveys which inform the existing situation.
     - The identification of future land use and transport infrastructure plans, or known issues. This includes strategic and other relevant model outputs. *Auckland Transport's Strategy and Planning team will provide a document that identifies the relevant region-wide strategies, plans, programmes and workstreams that the CMP needs to take into account, and the timing of any known updates.*
     - Any existing CMPs completed or under development in the locality to ensure the current CMP is integrated and consistent in respect of network or route-wide requirements.
     - Crash analysis data.
     - Project-specific transport modelling - Auckland Transport will indicate whether it anticipates any additional modelling will need to be undertaken for the CMP and if so provide for this as part of any RFP and fee ceiling issued to consultants.

b) Identify applicable outputs from the Auckland Plan relevant to the CMP study area (this may include directions for an area of Auckland larger than the actual CMP catchment). Examples could include:
   - Population or employment growth;
   - Transport mode splits and passenger transport patronage;
   - Public space quality or amenity expectations; or
   - Traffic volumes or travel characteristics (free flow / congestion / Levels of Service / speed environment).

c) Identify the current Unitary Plan or District Plan provisions affecting the corridor, including any Plan Changes being developed at the time of the CMP.
d) Identify any Local Area Plan, Precinct Plan, Centre Plan, Corridor Development Plan, or other land use planning document(s), including whether such exists before or will be prepared after the completion of the CMP.

e) Define the project governance structure including any involvement of agency stakeholders (e.g. Auckland Council, New Zealand Transport Agency, or others).

f) Define the composition of the agency team (Auckland Transport, Auckland Council, NZTA, or others) including the mix of expertise anticipated to be required to address the CMP. This should include the provisional identification of:
   - High-level decision makers.
   - Relevant technical stakeholders who will be directly involved throughout the project. Since CMPs have the potential to impact on a variety of outcomes (not all of which are transport related), units from Auckland Transport, Auckland Council and other agencies will need to be involved. Typical inclusions will be Auckland Transport’s Investigation and Design, Road Corridor Operations, and Passenger Transport Network Operations units; Auckland Council’s PMO Environment and Sustainability, Regional and Local Planning (Area Spatial Planning and Unitary Plan), Built Environment, Regional Strategy, Community and Cultural Policy units and others as required e.g. storm water.
   - The set up of project governance also determines the sign off process for the CMP and the use of a technical working group, steering group or other co-ordination / decision-making approach.

  - Make contact with the relevant Local Board(s) and confirm the approximate timeframe of the project.

  h) Begin coordinating internal resources to carry out the future work and give guidance on the preferred methodology for the particular corridor in question.

  i.) Confirm project budget and timeframes, and prepare formal RFP document.

Minimum CMP Outputs / Deliverables

1. Prepare and issue RFP / procurement documents to market

2. Expected Process of Consultant (preparing proposal)

   a) As part of preparing a proposal, particular emphasis must be placed on forming the right team:
      - The project personnel and their fields of expertise and experience must be prioritised.
      - The project structure must be identified including in particular what technical expert(s) will lead the CMP. 
        Auckland Transport sees no reason why traffic engineers should automatically lead a CMP, especially if the corridor being studied faces significant and complex land use or other issues relative to transport challenges. Transport planners, urban designers, strategic planners, or professional project managers could also appropriately lead a CMP.
      - A rationale must be included within the proposal that outlines why the proposed team and structure will best address the issues affecting the corridor.
      - Any history of team members working with each other and Auckland Transport / NZTA / Auckland Council or other stakeholders will be helpful.
      - The consultant should explain in each methodological step how it sees the different team members contributing, including where it sees different skill sets playing a greater or lesser role than others based on the consultant’s view of the issues at hand.
b) The consultant will be expected to outline a project methodology either by using the process outlined in this guideline, or proposing an alternative methodology. It will be acceptable to also propose a hybrid methodology whereby some of the steps in this guideline are relied on but some are replaced with alternative approaches. It is also anticipated that during a CMP there may be justified variations that arise in response to circumstances that unfold during the project. These will be negotiated between Auckland Transport and the consultant as the need arises however a key criterion for Auckland Transport will be whether the works to be provided by way of the proposed variation were apparent to the Consultant when the original CMP proposal was submitted.

c) The consultant will be expected to identify the risk it anticipates, based on the experience of the proposed project team and the uncertainty presented in the base information package, that variations or additions to the work needing to be undertaken in the CMP may be required, and for what reason(s).

d) The consultant shall submit a fee estimate for each step of the guideline inclusive of the minimum deliverables required of each step, plus any additional deliverables specified within the RFP. In the event that the consultant proposes an alternative methodology, the fee estimate shall be broken down for each deliverable to be provided. Auckland Transport may seek a more detailed fee breakdown from consultants in the event it makes a shortlist of candidate consultants.

Minimum CMP Outputs / Deliverables

1. Preparation and submission by the consultant of a proposal document in the required format

3. Expected Process of Auckland Transport (evaluating proposals)

a) When Auckland Transport is evaluating proposals, on the basis that the use of this guideline will lead to a degree of similarity in methodology between consultants and that the RFP will additionally include a price indication (removing further variation), it will place particular emphasis and weighting on the following matters:
   - The consultant team’s understanding of the corridor and its issues based on the proposal and any track record of work in the area (not restricted to transport work).
   - The proposed team structure including mix of personnel and skills, and including the background of the technical lead and the appropriateness of this in light of the corridor’s known issues.
   - Any innovations or suggestions expressed in the proposal that the consultant envisages applying in the CMP as a solution to a specified issue.
   - Auckland Transport will not appoint consultants primarily on the basis of lowest price; getting the right team for the corridor is the imperative.

Minimum CMP Outputs / Deliverables

1. Auckland Transport appoints a consultant team
NETWORK ROLE OF CORRIDOR(S) AND CONFIRMATION OF CATCHMENT AREA

About this step:

The project should commence with high level analysis of the existing policy, strategy and modeling base and, in consultation with technical stakeholders, the consultant shall identify the future (20-30 year) network role of the corridor(s). As a part of this, the provisional CMP catchment area suggested by Auckland Transport in the project initiation shall be confirmed, also in consultation with technical stakeholders.

Expected Process

a) With the input of technical stakeholders, establish the provisional future (20-30 year) network role(s) for the corridor as a short / desktop exercise based on existing strategies and known future demands. This should start with a description of the current situation including lane allocations, land use and transport issues and operational policies. *There should be no more than between five to seven key network roles for any corridor.*

b) The network role(s) should outline functional goals for the CMP, identifying current expectations / priorities for the arterial street(s) including anticipated travel lane demands and future operational characteristics / issues including for the most significant intersections on the corridor. It should also include any assumptions being made about the operation of adjacent transport corridors on which the proposed CMP network role(s) will be in at least part dependant.

c) The network role(s) shall be discussed with Auckland Transport and, through Auckland Transport, with the agency team (Auckland Council, NZTA etc). Auckland Transport may require the network role(s) to be clarified or modified if necessary prior to Step 3 commencing.

d) Confirm the catchment of the CMP in consultation with technical stakeholders as a part of analysing the existing information base and establishing the corridor's network role(s).

Minimum CMP Outputs / Deliverables

1. A confirmed list of authorities (plans and policies) on which the CMP will be based. This will include the references identified by Auckland Transport in its original RFP but may be expanded based on the consultant's initial investigation of the corridor and discussions with technical stakeholders. It shall include a summary of what the CMP must include (if anything) to respond to each authority.

2. Provisional future (20-30 year) network role(s) of the corridor(s) under study that includes:
   - Input from technical stakeholders; and
   - A statement of the future travel lane demands (for each travel mode) for the corridor(s); and
   - Identification of any high level future access management or speed environment issues that may need to be considered in accommodating the identified network role(s); and
   - Diagrams and text identifying the future network role(s) and the rationale for each; and
• Consequences and assumptions made for adjacent transport corridors relating to the proposed network role; and
• An initial comment on the likelihood that road reserve widening may need to be considered if identified demands are to all be ideally accommodated.

3. Confirmation of the CMP catchment that includes:
   • Input from technical stakeholders; and
   • Diagrams and text identifying the catchment area and the rationale for this.

4. A response to any modifications sought by Auckland Transport, including as appropriate additional written rationale, diagrams, or work with technical stakeholders.

Refer to Appendix 1 for a discussion of possible issues associated with this step.
LOCAL BOARD CONSULTATION

About this step:

Once the project team has confirmed the corridor network role(s) including agreement of the high level issues and demands facing the corridor(s), the relevant Local Board shall be consulted so that as the voice of the local community it is able to also raise issues and comments on the network role(s) and high level demands facing the corridor(s).

This step is undertaken early so that the Local Board is able to have an influence on the project at the input stage, allowing its comment to be carried through into solutions and later project outputs.

Expected Process

a) Consultant to prepare a summary presentation of the corridor future network role(s) and submit it to Auckland Transport for approval.

b) Auckland Transport to provide introductory slides and release presentation back to consultant.

c) Consultant to present to the Local Board accompanied by Auckland Transport representative and invite comments or suggestions from the Board in a working session format.

d) Consultant to outline project process from that point, what opportunities there will be for the Board’s input to be included in the development of options, and when the consultant envisages returning to the Board later in the project.

The Consultant may, in consultation with Auckland Transport, invite Local Board participation in the CMP project work, specifically the technical stakeholder workshops and presentations, or other on-going project-related contact.

Minimum CMP Outputs / Deliverables

1) A 15-20 minute presentation prepared by the consultant team outlining the work undertaken in Step 2 relating to the future network role, catchment area, demands facing the corridor, and key authorities being relied on in the CMP. The presentation shall include:
   • A slide outlining what a CMP is, taken from this guideline.
   • A slide outlining the CMP project and its extent.
   • A slide outlining the project timeframe and key dates of workshops, report submission etc.
   • A slide outlining any known works or consents affecting the corridor.
   • Slides summarising the key authorities, plans and policies informing the CMP.
   • A slide identifying the technical stakeholders that contributed to the future network role.
   • Slides explaining the deliverables completed in Step 2.
   • Slides outlining the “next steps” and when the Board should expect another round of consultation on proposed corridor outcomes.
   • Other slides the consultant feels are relevant.

Auckland Transport may provide a standard presentation template to the consultant.

2) Comments from the Local Board, to be made available to technical stakeholders for information.

Refer to Appendix 1 for a discussion of possible issues associated with this step.
IDENTIFICATION OF DESIRED CORRIDOR OUTCOMES

About this step:

This step involves technical stakeholders and the consultant canvassing the range of outcomes that would be desirable to achieve the identified future network role(s) and relevant existing plans and policies. It is necessary that each technical stakeholder is able to identify its own “ideal” outcomes for the corridor, so that a fair and informed process of integration can occur that can account for all identified interests.

The use of standardized arterial typologies is required to help allow the process of integration to occur from a level playing field where all participants, irrespective of technical background, use the same language to compare and contrast different corridor aspirations.

Expected Process

It is anticipated that this step will be undertaken via multi-disciplinary workshops supported by issue-specific focus groups as necessary. Auckland Transport will require a very compelling justification from a consultant to depart from this approach. The consultant project team should include an appropriately experienced workshop facilitator if necessary to help work with technical stakeholder groups.

It is essential that in whatever process is followed for involving technical stakeholders, they are given an understanding of the work produced by the other technical stakeholders and the outcomes each other group prefers. For those areas of the corridor where there exists the greatest variation between desired outcomes, the nature of the inconsistencies in terms of the preferred priority for space / use should be discussed among the technical stakeholders with them given the opportunity to develop a less opposing alternative outcome between themselves.

a) Prior to commencement of the workshop process, the project workflow and timeframes are to be confirmed between the consultant CMP team and Auckland Transport.

b) Technical stakeholder groups to be worked with shall be agreed with Auckland Transport. Typically these will be discipline or department-based groups including transportation (possibly in sub-groupings such as passenger transport, pedestrian and cycle etc); land use; community and open space / recreation; any relevant CCOs such as Watercare; and economic development.

c) A three-stage process is proposed for each technical stakeholder or group that builds on the outputs of Steps 2 and 3:

i) Any preferences for the local network around the corridor within the identified catchment area need to be identified and explained.

- Each technical stakeholder group identifies relevant changes within the arterial catchment that could be explored or are signalled within their policy base. Changes that might impact on local movement networks and the distribution of traffic for each of the major modes on the subject arterial itself are of greatest interest. Local movement network changes can have operational implications for the arterial, particularly at intersections. Access and capacity changes can influence land use development. Land use change aspirations may have implications for the characteristics of trips and movement patterns generated, or may give rise to the identification of a new local service or facility need. Access management options on the arterial corridor may be reliant on a workable alternative existing on adjacent...
ii) Ideal future outcomes for the arterial corridor itself need to be identified and explained.
   - Each technical stakeholder group is to produce a summary of their existing models and adopted policy aspirations over the project timeframe (20-30 years), and is to articulate what impacts (if any) these would have for the corridor and its catchment. This should include a discussion of what that spatial allocation would or could mean for other potentially competing demands.
   - This information must include for each technical stakeholder:
     - A brief assessment of the current state of affairs and how the corridor is performing relative to expectations;
     - An identification of the key functions expected of the corridor;
     - Implications arising from their ideal prioritisation of arterial street space;
     - Identification of the traffic and land use models and policy documents relied on (and acknowledgement of their limitations);
     - Summary of any known projects likely to impact on the arterial street or its catchment;
     - Any major assumptions being made in respect of data and future predictions.

   The consultant project team should also input into this step based on their knowledge of Auckland Transport (or other agency) work.
   - Where technical stakeholders are in an advanced state of policy review they should be encouraged to add that latest knowledge where deemed appropriate.
   - As the major technical stakeholder group Auckland Transport will provide or ensure provision of appropriate resources to enable identification and communication of its existing information (including traffic models) and policies as it relates to the corridor.
   - Auckland Council would normally lead the identification of land use issues and typologies for testing, and provide the results of those tests as part of its input.

iii) Allocation of place / context typologies that reflect each technical stakeholder's ideal future outcomes for the corridor.
   - Using the arterial street typologies identified in Appendix 2 of this guideline, each technical stakeholder group allocates typologies along the corridor in a manner that would best achieve their ideal corridor outcome(s).
   - Street function (passenger transport / freight / cycle / general travel) should be based on existing transport policies and strategies where available. Street functions can have priorities of equal value. Technical stakeholder groups should focus primarily on allocating the place / context typologies to the corridor as it is these that are likely to vary most along a corridor.
   - It may be useful to take into account potential changes in street space use priorities at different times of day (e.g. peak versus inter-peak periods) in allocating typologies.
   - Detail of possible land use typologies (density, built form, access and traffic generation for all modes) based on land use policies and strategies should be given where available. Land use implications should be identified (i.e. no or limited access, a need for large building setbacks and so on).
   - If alternative solutions are proposed, these should be detailed. Specific cross-sections can be proposed by technical stakeholders if considered appropriate.

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**Minimum CMP Outputs / Deliverables**

1. Confirmation or amendment of the identified network role(s) taking into account information received through the consultation process, and feedback from discussion of any proposed...
2. Diagrams and (optional) cross-sections with annotations prepared by each stakeholder group. Diagrams should be of the same scale and extent between technical stakeholder groups for easy comparison and integration later in the process. The material is to include:

- annotated diagrams and supporting notes identifying preferred network changes (including land use changes) within the corridor catchment area;
- a written rationale explaining the network changes identified including key assumptions and consequential knock-on limitations arising from the proposed configuration or changes;
- current issues and ideal future corridor outcomes with written annotations and supporting notes as appropriate;
- A written rationale explaining the corridor outcomes identified including key assumptions and consequential knock-on limitations arising from the proposed configuration or changes;
- the allocation of the appropriate place / context typologies along the corridor that best achieves the ideal future outcomes along with the rationale behind allocation decisions and written commentary as appropriate.

Where the consultant project team feels one or more technical stakeholder groups are struggling to identify corridor influences, discuss this with Auckland Transport and agree on the continued involvement of the technical group(s) in question in the CMP process. This may lead to one-on-one focus group sessions to bring that group to the level of contribution required.

Refer to Appendix 1 for a discussion of possible issues associated with this milestone.

Refer to Appendix 2 for the place / context typologies to be used in CMPs.
IDENTIFICATION OF KEY LOCATIONS OF TENSION AROUND FUTURE PRIORITISATION OF SPACE

About this step:

In this step the consultant project team leads a process of synthesis whereby each technical stakeholder group’s ideal typology allocations are aggregated together. This is a key step as it will reveal which segments of the arterial enjoy relative agreement, and which segments need the greatest attention as a consequence of overlapping (and different) user demands. This will influence the nature and number of options / scope of design tests to be taken forward later in the process.

Expected Process

a) Using the outputs of step 4, the consultant team identifies areas of consistency and areas of inconsistency or conflict between how the technical stakeholder groups consider arterial street space should be prioritised. This should be achieved in the first instance by overlaying the stated arterial typology allocation drawings, and then followed up by analysis of supporting rationales and as appropriate discussion with affected technical stakeholder groups.

b) Those areas where there is doubt over whether a single design solution or management emphasis could accommodate or resolve tension between use preferences (such as accommodating both bus lanes and attractive high amenity pedestrian / land use edge outcomes) should be referred back to the relevant technical stakeholders for further input. These groups should work together to look to agree on a single acceptable solution or outcome for that part of the corridor, or to at least narrow the differences involved. This process may lead to revised diagrams and rationales being prepared to supersede earlier ones.

c) It is essential that the stakeholder groups are given an understanding of:
   - The work produced by the other stakeholder groups including Auckland Transport and the outcomes each prefers (and why);
   - Where on the corridor and in the corridor catchment there exists greatest consistency and inconsistency between the stakeholders. This should involve discussion around the nature of the consistency or inconsistency in terms of the preferred spatial and management priority for space / use.

d) To assist with this process it may be appropriate to identify the ‘level of service’ for each transport mode, both existing and future. These could assist with the identification of appropriate facilities or improvements that should desirably be provided, and subsequently with the appropriate allocation of road space along sections of the corridor, taking adjacent land uses into account. The identification of appropriate pedestrian facilities should take into account desire lines, potential pedestrian flows, the land use context, necessary amenity improvements, and movement along as well as across corridors. Possible means of measuring levels of service for different modes are set out in the Australian Smart Roads Guidelines, and the Highway Capacity Manual 2010 however these should not be seen as the only information sources.

e) The consultant team shall then synthesise the ideal typologies developed through the above process into a single corridor typology plan, identifying the areas where the different technical groups have reached relatively consistent outcomes and those with the greatest remaining inconsistency. This process will also have the effect of disaggregating the corridor into a number of segments based around the typologies. Depending on the nature and number of
typology variations it may be more advantageous to continue the CMP on the basis of examining each segment as a ‘sub-corridor’, or continue treating the corridor as a single whole.

Review

f) At this point a formal review should be undertaken with Auckland Transport to determine if the work to date identifies:
   - Any serious conflict between technical stakeholder group outputs and preferences.
   - Any serious information or policy deficiencies across the technical stakeholder groups.

g) The consultant team should consider whether there is sufficient information on which to progress the identification of broad corridor concepts, select a preferred concept, and advance strategic design tests. If not, there may be a need to revisit earlier steps.

Minimum CMP Outputs / Deliverables

1. A synthesis by the consultant team of the outputs of the allocation of ideal arterial street typologies into a single corridor map identifying the relative degrees of consistency and inconsistency that have been identified by the stakeholder groups. (Areas of inconsistency should in general be those that receive the greatest emphasis and attention during the later design tests).

2. A synthesis by the consultant team of the identification of local network preferences into a single corridor catchment with identified preferences and / or outcomes documented.

3. Facilitated working sessions with affected technical stakeholder groups to address areas of greatest tension or conflict between typologies, including any revised diagrams, rationales, assumptions or other outputs that may arise from these sessions.

4. Preparation and analysis of the ‘final’ typology allocation plan for the corridor detailing remaining areas of conflict, the nature of the conflict itself and any relevant stakeholder commentary pertaining to it. This shall be circulated to all technical stakeholders.

5. A formal review meeting with Auckland Transport of the work to date and its sufficiency to progress the project, and agreement to either continue or revisit earlier stages (this may entail a project variation).

Refer to Appendix 1 for a discussion of possible issues associated with this milestone.

The process by which the key points of tension are identified is likely to vary between corridors and would be influenced by the level of detail and information available.

Consideration should be given to making a broad assessment of the “level of service” for various transport modes including pedestrians and cyclists as well as public transport and general traffic. An attempt should also be made to quantify the land use and amenity levels of service based on how close different segments of the corridor are to the identified ideal.

The assessment would apply to the existing situation as well as potential or projected future conditions. It could assist with the identification of the appropriate quality, scale or type of facilities that should be provided, and subsequently with decisions on the appropriate allocation of road space along sections of the corridor, taking adjacent land uses into account.
1. **Process to Identify and Develop Corridor Concepts**

a) The consultant project team identifies key corridor concepts available to progress the CMP. Corridor concepts shall address the desired outcomes identified earlier in the process by the consultant. Multiple concepts may be required not only to reflect different ways of achieving a given outcome, but also where identified desired outcomes may involve trade offs in functionality to be made between demands.

b) These concepts should each be represented by a ‘typical’ and/or ‘hypothetical’ mid-block cross section(s) and other diagrams as appropriate that capture the key elements considered necessary to progress a corridor solution. Key requirements for each concept are:

- A view on typically required corridor width(s) - both carriageway and reservation.
- A view on typically required travel lanes per mode and the envisaged (linked to land use) access and speed environment.
- A view on the extent to which identified mode demands can or cannot be accommodated, and the consequences that may arise from this (for instance, a proposition to not provide a cycle lane or an additional vehicular travel lane).
- A view on the provision of facilities for pedestrians and cyclists.
- A view on how any supporting street networks may functionally contribute to the concept.
- A view on the land use consequences or any changes (if any) that are assumed or anticipated - especially in any identified growth or intensification area, or town centre.
- Any other critical information describing how the concept would function and/or the key assumptions being made, for example the physical components of the street; bus stops, crossings, medians, intersections, special treatment areas, connections to off-corridor amenities and so on.
- Views on the opportunities and other issues facing mid-block design transitions (between one cross section and another) are considered important.
- Identification of the relative road safety implications of potential changes compared with each other and the current situation.

c) Key intersections or other corridor lengths of particular sensitivity shall be subjected to more detailed investigation and concept design.

- Key intersection footprints shall be drawn showing existing and any potential changed future layouts.
- Any changes to intersection control (give way / roundabout / signals) shall be identified and likely consequences discussed.
- Where significant change is anticipated, plans, cross sections, elevations and other diagrams as appropriate shall be provided illustrating how that change could eventuate. This must include any land use change and be supported by a description of the change and how this may impact positively or adversely on the corridor.

d) To assist with the process the consultant project team should ask and answer the following...
key questions (refer to Figure 4):

- What extent of corridor is affected by significant spatial competition between desired outcomes identified by technical stakeholders? Generally, in areas of a corridor where there is agreement by all technical stakeholders it may be possible to develop only one concept that is in turn subject to minor variants (such as minimum / medium / maximum quality outcomes etc). In areas of a corridor where there is greatest disagreement between the technical stakeholders, multiple concepts will be required, and for each there may also need to be variants depending on the issues at hand.

- To what extent can user demands be accommodated without reservation widening?
- To what extent can local networks help accommodate user demands?
- What extent of reservation widening would be desirable and how could this be best achieved? The consultant project team should identify any existing building lines designated for road widening purposes and identify where building line designations can be used.
- What typical mid-block cross-sections should be tested further to respond to user demands?
- What are the potential road safety issues and effects associated with each concept?

e) In developing options for testing, particular attention should be placed on the transitions between corridor segments with different typologies. For example, the transition into a main street condition with slower traffic speeds should be considered to ensure that speed reduction is self enforcing through modifying driver behaviour prior to vehicles entering main street areas.

f) The potential effects on upstream and downstream arterial segments of anticipated traffic conditions at key intersections should be considered in the option development process.

g) There is the potential in the option development process to set outcomes that may not in practice be readily achievable, for example due to affordability or value-for-money considerations. This particularly applies to short-to-medium term measures. Innovative ideas or options should, however, have a place in developing longer term concepts.

h) The consultant may include technical stakeholders in the concept design process.

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Minimum CMP Outputs / Deliverables

1) A summary plan of the corridor(s) identifying the number of concepts that have been developed and what parts of the corridor they apply to.

2) Dimensioned cross-section(s), plan(s) and other relevant diagrams of proposed corridor concepts including at key intersections.

3) A supporting document of information about the concepts that includes a rationale justifying the spatial allocations proposed and how they address identified demands or challenges.

4) A map that identifies any existing road widening designations and any areas of proposed road widening that would be needed by the concept(s).

5) A supporting document including any relevant diagrams of land use changes and related assumptions considered as part of the corridor concept(s).
2. Process to identify preferred corridor concept

a) Consultant project team working sessions and workshops including key Auckland Transport and Auckland Council project personnel to discuss and evaluate the design concepts and accompanying variants (including land use consequences and tests).

b) A multi-disciplinary workshop (strongly preferred) or issue-specific focus groups should be used to share concept options with technical stakeholders and allow them the opportunity to propose amendments, changes or other commentary (positive or negative).

c) The consultant shall recommend a preferred design concept to Auckland Transport and Auckland Transport shall approve this. In some cases Auckland Transport may require more than one concept to be carried forward, either for an entire corridor or (more likely) for a particular segment or segments of a corridor.

d) The corridor concept(s) shall be drawn along the entire corridor (excluding if appropriate key intersections or other locations if those have already been tested and drawn) by way of relevant lines overlaid onto existing cadastral and/or aerial photographs on the basis of three filters: low, medium and high degrees of change (not based on timeframe). These filters are considered helpful proxies for staging / implementation and timeframe as well as low vs. high growth or investment outcomes. Each of the filters should be accompanied by corridor drawings although it is noted that only the high degree of change filter may necessitate designs across the entire corridor length. The low degree of change filter may not identify any changes to the current design and operation of the corridor (other than at some key points), hence few if any drawings may be necessary.

Minimum CMP Outputs / Deliverables

1) Consultation between the consultant and technical stakeholders and a record documenting feedback received and amendments made to concepts.

2) Agreement with Auckland Transport on the preferred corridor concept to be taken forward.

3) Scaled corridor drawings for the preferred concept. The corridor concept should be drawn on the basis of three filters: low, medium and high degrees of change (not based on timeframe). Each drawing shall be accompanied by appropriate annotations and a written summary explaining and justifying the concept.

4) Key principles, outcomes, risks, assumptions or issues should be identified on the corridor drawings and as appropriate in supporting documentation.

5) More detailed concept drawings of key locations along the corridor identified for the most significant change and/or a particularly innovative or complicated outcome, including key intersections that would need to change to deliver the concept. This may include an urban design concept plan and possibly include three-dimensional representations.

Refer to Appendix 1 for a discussion of possible issues associated with this milestone.
Figure 4. Flowchart outlining key decision-making steps that inform the testing of corridor concepts.

**SPATIAL COMPETITION**
What percentage of the corridor’s length is affected by significant spatial competition?

- **≥50%**
  - Normally aim to have at least 2 corridor concepts to progress

- **<50%**
  - Normally aim to have at least 1 corridor concept to progress

**THE NEED FOR CORRIDOR WIDENING**
Can user demands be accommodated without reservation widening?

- **no**
  - Identity the typical mid-block cross-section

- **yes**
  - Identity the typical mid-block cross-sections

**CONSIDER LOCAL NETWORKS**
Will local networks influence the design of the corridor concept?

- **no**
  - Consultation with technical stakeholders and recommend preferred concept.

- **yes**
  - Consultation with technical stakeholders and recommend preferred concept.

**CONSIDER LOCAL NETWORKS**
Can local networks accommodate user demands and avoid the need for widening?

- **no**
  - Consultation with technical stakeholders and recommend preferred concept.

- **yes**
  - Consultation with technical stakeholders and recommend preferred concept.

**Determine the extent of corridor widening required**

- **in full**
  - Auckland Transport to approve preferred concept

- **in part**
  - Consultant develops corridor-wide concept with associated reporting

- **no**
  - Consultation with technical stakeholders and recommend preferred concept.

**CONSIDER DESIGNATIONS**
Are there existing road widening designations which could be used?

- **no**
  - Auckland Transport to approve preferred concept

- **in full**
  - Auckland Transport to approve preferred concept

- **in part**
  - Consultant develops corridor-wide concept with associated reporting

**LEGEND**
- Consultant project team key action
- Auckland Transport key action
7 SEQUENCING AND IMPLEMENTATION PLAN

About this step:

In this step the consultant team takes the CMP from a preferred concept to an achievable reality. Implementing a CMP can be a complex task, particularly given its long term vision. For the CMP to be rolled out in a timely, collaborative and resource efficient way by Auckland Transport and Auckland Council, it needs to be supported by an Implementation Plan. This Plan should outline delivery tools, assumptions, interdependencies, responsibilities, staging and key milestones. The Implementation Plan forms an integral component of the CMP.

1 Expected Process for Implementation Plan - General

a) The Implementation Plan forms an integral part of the CMP and is to be based on how the preferred corridor concept(s) could be logically delivered over time. It should outline delivery tools, assumptions, interdependencies, responsibilities, risks, staging and key milestones. Particular emphasis should be on identifying those actions that have a significant potential impact on the concept and for which decisions may need to be made in the near term (such as whether to pursue designations for future widening).

b) The Implementation Plan should differentiate between Auckland Transport actions, and actions of other agencies such as NZTA or Auckland Council. Those agencies cannot be compelled by a CMP and as such any actions for those parties shall be presented as suggested actions, with clear consequences that would arise from any failure to act specified.

c) The Implementation Plan is to be a framework setting out how the preferred corridor option could be delivered starting from today. It should be succinct, use tables where possible (but not to the point where important information is buried or lost), and be jargon free. It must include:

- The inclusion of a section on 0-5 year operational impacts and opportunities developed in close collaboration with Auckland Transport (see next page).
- The inclusion of a section on planning and policy issues arising from the CMP (see next page).
- Identification of future works and / or studies needed to validate any key parts of the preferred concept.
- An outline explanation of how the existing corridor condition could transition into the low, then medium, and then high change outcomes over time. Key transition points can be based on specific periods of time (for example 2016, 2026, 2040) or on trigger points where certain conditions may require the corridor to transition in order to accommodate the change - for example when bus frequencies reach a critical level permanent 24 hour bus lanes may be required.
- Determination and definition of the major phases of physical works that could be undertaken to achieve the desired network roles and the associated deliverables for a corridor. The Plan needs to document a logical sequence of events over time to take the CMP from concept to reality.
- A breakdown of the related activities and tasks, responsibilities and timelines for delivery. This may include identification of:
  - Key staging or future-proofing actions that may need to be made and an indication of when such may need to be in place.
  - Key assumptions and contingent actions by stakeholders (if any) needed to underpin the approach described.
Preparation of high-order cost estimates in order to prioritise work and enable appropriate assessment of the case for funding. Where standard or typical costs are known, these should be used. In the case of very complex proposals where an estimate of costs is not readily achievable, an indication of low (less than $100,000), medium ($100,000-$5M), high (greater than $5M) or very high (greater than $10M) should be used and applied across all actions to allow some comparability.

d) In order to ensure a CMP is appropriately progressed over its lifespan there is a need for the Implementation Plan to identify key milestones needed by (at least) years 5, 10, and 20. Interim periods of 15 years, 25 years and/or 30+ years may be additionally appropriate depending on the nature and complexity of the preferred design concept. The milestones may include key infrastructure requirements, funding matters, further studies required or it may be to progress actions from the wider stakeholder group.

e) For each period, the key actions which are assumed or needed to be undertaken by stakeholder groups, implementation partners and Auckland Transport must be identified. The consequences and risks of those actions not occurring should be made clear.

f) The Implementation Plan should include reference to the potential need for route protection where appropriate.

g) In preparing the Implementation Plan, reference should be made to the Council’s Long Term Plan and the Regional Land Transport Programme, as well as any relevant NZTA funding requirements or other known policy issues.

h) Auckland Transport may provide guidance with respect to its wider programme of works. This would highlight where the particular CMP sits in line with other transport priorities or projects.

i) Auckland Transport should be closely consulted in developing the Implementation Plan and must approve the Plan.

2 Short Term Opportunities and Operational Implications

a) The 0-5 year period of short term works for the CMP is a critical output and any actions falling within this period must be clearly specified and explained. Clear reference must be made for how each action either contributes to the long-term concept, or will not undermine it from being delivered in the future (if the works are more in the nature of maintaining an existing functionality rather than changing it).

b) These actions will also likely be more detailed than medium or longer term actions identified in the CMP and may address issues such as the introduction of no stopping lines along a carriageway edge or improvement of signage at a particular intersection.

c) These actions shall be developed in close collaboration with Auckland Transport.

3 Longer Term Policy and Planning Implications

a) Analysis of the preferred design concept against existing policies (as identified by technical stakeholder groups at project commencement) by way of coarse sensitivity analysis. This should identify the extent to which the preferred scenario could change depending on changes
to key policies (i.e. such as the removal of a requirement for passenger transport priority or an over-dimension route assignment from a corridor).

b) Instances where multiple options or alternatives have been prepared in recognition of diverse or conflicting user priorities should be assessed in terms of the policy decisions or changes that could lead to one being preferred over others.

c) Where policy decisions relate to implementation or sequencing goals identified in developing the Implementation Plan - and their relative urgency - these should be identified.

d) Policy implications that could be relevant to technical stakeholder groups should be also identified in the form of suggestions to those stakeholders. Those policy implications should be explained briefly in terms of their relationship and significance to the preferred design scenario.

e) The identification of likely costs associated with implementing/constructing works and/or policy changes to understand the feasibility.

<table>
<thead>
<tr>
<th>Minimum CMP Outputs / Deliverables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) An implementation schedule with particular detail given for short term (0-5 year) operational actions which includes the following:</td>
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<tr>
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<td>- Likely costs associated with implementing/constructing any works including further studies that may be required to justify a project, or to seek a benefit cost ratio.</td>
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<td>2) Other operational changes identified during the process relevant for a 0-5 year implementation should also be identified and explained in terms of the above matters. These should include any appropriate road safety improvements.</td>
</tr>
<tr>
<td>3) All projects should be indicatively ranked in order of urgency / need and strategic significance. A higher ranking should be given to projects which lead to greater longer term benefits.</td>
</tr>
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<td>4) Projects should be supported with a rationale describing why the project is considered appropriate and a summary of the assumptions that have been made supporting it. A clear link must be provided illustrating how the short term actions are compatible with the long term vision.</td>
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<td>5) Short-term actions that could be complimentarily undertaken by technical stakeholder groups should be also identified in the form of suggestions to those stakeholders. Those actions and / or projects should be explained briefly in terms of their relationship and significance to the preferred design scenario.</td>
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</table>
| 6) Short term actions may also involve progressing planning or policy changes that may be needed in order to realise the corridor vision. Planning and policy changes can have time implications that need to be addressed early on in order to lay the necessary foundations /
framework for which to achieve the goals identified in the medium and long term.

7) A section discussing and assessing the preferred concept(s) against existing policies that identifies the consequences arising from the CMP concept on those policies, and likewise the sensitivity of the concept to possible future policy changes. Any policy changes that could help resolve areas of undesirable corridor spatial tension should also be explicitly identified.

8) The Implementation Plan is to be developed in close collaboration with and shall be approved by Auckland Transport.

Refer to Appendix 1 for a discussion of possible issues associated with this milestone.
LOCAL BOARD CONSULTATION AND ASSESSMENT OF NEED FOR FURTHER CONSULTATION

About this step:

The consultant and Auckland Transport report back to the Local Board with a summary of the options developed, the preferred option, and the key implementation and sequencing issues that would arise from pursuing it. Any specific content that was developed in response to earlier Local Board commentary shall be highlighted.

Any feedback and commentary from the Local Board shall be recorded and included in the final CMP document prepared by the consultant.

With Auckland Transport, the consultant shall identify the overall CMP output and make a recommendation as to the nature of additional if any public consultation that should be undertaken.

Expected Process

a) Consultant to prepare a draft 15-20 minute presentation summarising the process followed, options developed, preferred option and key operational and implementation issues that have arisen. This shall be approved by Auckland Transport prior to being shown to the Local Board.

b) In light of the detail which has emerged over Steps 1 to 6, and in particular, the long term policy testing of Step 6, the consultant CMP project team shall assess the need to further consult on the preferred concept or any specific short term / operational CMP outcomes. The team should give consideration to:
   - Key opportunities that need to be protected and the extent to which consultation could help achieve this.
   - Views which emerged during consultation and engagement with technical stakeholders and the Local Board.
   - The ability to build on, rather than duplicate, consultation that has been undertaken previously (or to be undertaken) in the arterial street catchment already (associated with other land use or transport projects).
   - Timeframes for the delivery of CMP outcomes.
   - Whether Auckland Transport’s Investigation and Design Team have budget confirmation for the outcome in question.

c) If consultation specific to the corridor plan is required and it is desirable to undertake it prior to completing the CMP, the consultant project team in collaboration with Auckland Transport should:
   - Reach agreement on the scope of services, budget and fee variation.
   - Ensure in conjunction with technical stakeholders and agencies that the matters to be consulted have not been previously consulted on.
   - Agree the ‘division’ of consultation responsibility between technical stakeholders, especially if a land use or other non-transport issue is to be consulted on.
   - Undertake consultation and record process and outcomes.

d) Technical stakeholders should be advised of the consultation approach to be taken once agreed with Auckland Transport.
e) Consultation may be shared or co-delivered with technical stakeholder divisions of Auckland Council or Auckland Transport.

**Minimum CMP Outputs / Deliverables**

1) A 15-20 minute presentation prepared by the consultant team outlining the work undertaken in the CMP. The presentation shall include:
   - Slides summarising the process.
   - Slides summarising the initial consultation and feedback received.
   - Slides summarising the key outcomes sought by technical stakeholders.
   - Slides summarising the key design concepts identified and the characteristics of each.
   - Slides summarising the preferred concept and additional detail on it.
   - Slides summarising key features from the sequencing and implementation plan.
   - Other slides the consultant feels are relevant.

   *Auckland Transport may provide a standard presentation template to the consultant.*

2) Assess need for further consultation. If further consultation is deemed necessary, this is to be agreed with Auckland Transport and undertaken, as well as communicated to and coordinated with the relevant technical stakeholders.

3) Undertake and document any revisions made to recommended CMP outputs based on Local Board and other feedback.

4) Feedback from both the Local Board and any additional consultation shall be recorded and included in the final CMP documentation.

Refer to Appendix 1 for a discussion of possible issues associated with this step.
SUMMARY OF MINIMUM CMP OUTPUTS / DELIVERABLES FROM CONSULTANTS

The consultant shall prepare CMP documentation for Auckland Transport that includes the following critical components:

a) The process followed (and any related commentary on that process or general CMP guideline feedback);
b) The options identified and the outcomes recommended;
c) The logic / rationale and justification that underpins preferred actions and recommended outcomes (including why certain options were not pursued further than they were).
d) All outputs shall be of a format and size that can be readily circulated to technical stakeholders. In addition, the format and size shall be such that Auckland Transport can readily extract data for its own use in presentations and reports.
e) The documentation shall be structured in the manner seen by the consultant as most directly and logically presenting findings. This may be a ‘whole of corridor’ approach, or one that addresses different segments at a time.

In summary, the CMP reporting shall include at least the following from the consultant:

STEP 1:  
Not applicable.

STEP 2:  
1. A confirmed list of authorities (plans and policies) on which the CMP will be based. This will include the references identified by Auckland Transport in its original RFP but may be expanded based on the consultant’s initial investigation of the corridor and discussions with technical stakeholders. It shall include a summary of what the CMP must include (if anything) to respond to each authority.

2. Provisional future (20-30 year) network role(s) of the corridor(s) under study that includes:
   - Input from technical stakeholders; and
   - A statement of the future travel lane demands (for each travel mode) for the corridor(s); and
   - Identification of any high level future access management or speed environment issues that may need to be considered in accommodating the identified network role(s); and
   - Diagrams and text identifying the future role(s) and the rationale for each; and
   - Consequences and assumptions made for adjacent transport corridors relating to the proposed network role; and
   - An initial comment on the likelihood that road reserve widening may need to be considered if identified demands are to all be ideally accommodated.

3. Confirmation of the CMP catchment that includes:
   - Input from technical stakeholders; and
   - Diagrams and text identifying the catchment area and the rationale for this.

4. A response to any modifications sought by Auckland Transport, including as appropriate additional written rationale, diagrams, or work with technical stakeholders.

STEP 3:  
1) A 15-20 minute presentation prepared by the consultant team outlining the work undertaken in Step 2 relating to the future network role, catchment area, demands facing the corridor, and key authorities being relied on in the CMP. The presentation shall include:
   - A slide outlining what a CMP is, taken from this guideline.
   - A slide outlining the CMP project and its extent.
   - A slide outlining the project timeframe and key dates of workshops, report submission etc.
   - A slide outlining any known works or consents affecting the corridor.
   - Slides summarising the key authorities, plans and policies informing the CMP.
   - A slide identifying the technical stakeholders that contributed to the future network role.
2) Comments from the Local Board, to be made available to technical stakeholders for information.

STEP 4:

1. Confirmation or amendment of the identified network role(s) taking into account information received through the consultation process, and feedback from discussion of any proposed changes with the technical stakeholders.

2. Diagrams and (optional) cross-sections with annotations prepared by each stakeholder group. Diagrams should be of the same scale and extent between technical stakeholder groups for easy comparison and integration further in the process. The drawings are to identify:
   - annotated diagrams and supporting notes identifying preferred network changes (including land use changes) within the corridor catchment area;
   - a written rationale explaining the network changes identified including key assumptions and consequential knock-on limitations arising from the proposed configuration or changes;
   - current issues and ideal future corridor outcomes with written annotations and supporting notes as appropriate;
   - A written rationale explaining the corridor outcomes identified including key assumptions and consequential knock-on limitations arising from the proposed configuration or changes;
   - the allocation of the appropriate place / context typologies along the corridor that best achieve the ideal future outcomes along with the rationale behind allocation decisions and written commentary as appropriate.

STEP 5:

1. A synthesis by the consultant team of the outputs of the allocation of ideal arterial street typologies into a single corridor map identifying the relative degrees of consistency and inconsistency that have been identified by the stakeholder groups. (Areas of inconsistency should in general be those that receive the greatest emphasis and attention during the later design tests).

2. A synthesis by the consultant team of the identification of local network preferences into a single corridor catchment with identified preferences and / or outcomes documented.

3. Facilitated working sessions with affected technical stakeholder groups to address areas of greatest tension or conflict between typologies, including any revised diagrams, rationales, assumptions or other outputs that may arise from these sessions.

4. Preparation and analysis of the ‘final’ typology allocation plan for the corridor detailing remaining areas of conflict, the nature of the conflict itself and any relevant stakeholder commentary pertaining to it. This shall be circulated to all technical stakeholders.

5. A formal review meeting with Auckland Transport of the work to date and its sufficiency to progress the project, and agreement to either continue or revisit earlier stages (this may entail a project variation).

STEP 6:

Concept Options

1) A summary plan of the corridor(s) identifying the number of concepts that have been developed and what parts of the corridor they apply to.

2) Dimensioned cross-section(s), plan(s) and other relevant diagrams of proposed corridor concepts including at key intersections.

3) A supporting document of information about the concepts that includes a rationale justifying the spatial allocations proposed and how they address identified demands or challenges.

4) A map that identifies any existing road widening designations and any areas of proposed road widening that would be needed by the concept(s).

5) A supporting document including any relevant diagrams of land use changes and related assumptions considered as part of the corridor concept(s).
Preferred Option

1) Consultation between the consultant and technical stakeholders and a record documenting feedback received and amendments made to concepts.

2) Agreement with Auckland Transport on the preferred corridor concept to be taken forward.

3) Scaled corridor drawings for the preferred concept. The corridor theme should be drawn on the basis of three filters: low, medium and high degrees of change (not based on timeframe). Each drawing shall be accompanied by appropriate annotations and a written summary explaining and justifying the concept.

4) Key principles, outcomes, risks, assumptions or issues should be identified on the corridor drawings and as appropriate in complimentary reporting.

5) More detailed concept drawings of key locations along the corridor identified for the most significant change and/or a particularly innovative or complicated outcome, including key intersections that would need to change to deliver the concept. This may include an urban design concept plan and possibly include three-dimensional representations.

STEP 7:

1) An implementation schedule with particular detail given for short term (0-5 year) operational actions which includes the following:
   - The nature of the outcome.
   - The degree of simplicity or complexity surrounding it (including its familiarity in operational terms).
   - Corroborating or validating work still required.
   - Other project-specific information identified in consultation with Auckland Transport.
   - Likely costs associated with implementing/constructing any works including further studies that may be required to justify a project, or to seek a benefit cost ratio.

2) Other operational changes identified during the process relevant for a 0-5 year implementation should also be identified and explained in terms of the above matters. These should include any appropriate road safety improvements.

3) All projects should be indicatively ranked in order of urgency / need and strategic significance. A higher ranking should be given to projects which lead to greater longer term benefits.

4) Projects should be supported with a rationale describing why the project is considered appropriate and a summary of the assumptions that have been made supporting it. A clear link must be provided illustrating how the short term actions are compatible with the long term vision.

5) Short-term actions that could be complimentarily undertaken by technical stakeholder groups should be also identified in the form of suggestions to those stakeholders. Those actions and/ or projects should be explained briefly in terms of their relationship and significance to the preferred design scenario.

6) Short term actions may also involve progressing planning or policy changes that may be needed in order to realise the corridor vision. Planning and policy changes can have time implications that need to be addressed early on in order to lay the necessary foundations/framework for which to achieve the goals identified in the medium and long term.

7) A section discussing and assessing the preferred concept(s) against existing policies that identifies the consequences arising from the CMP on those policies, and likewise the sensitivity of the concept to possible future policy changes. Any policy changes that could help resolve areas of undesirable corridor spatial tension should also be explicitly identified.

8) The Implementation Plan is to be developed in close collaboration with and shall be approved by Auckland Transport.

9) The Implementation Plan including short term operational and longer term policy implication sections is to be of a size and format that can be emailed to stakeholders and that allows Auckland Transport to easily extract information for presentations.

STEP 8:

1) A 15-20 minute presentation prepared by the consultant team outlining the work undertaken in the CMP. The presentation shall include:
   - Slides summarising the process.
2) Assess need for further consultation. If further consultation is deemed necessary, this is to be agreed with Auckland Transport and undertaken, as well as communicated to and coordinated with the relevant technical stakeholders.

3) Undertake and document any revisions made to recommended CMP outputs based on Local Board and other feedback.

4) Feedback from both the Local Board and any additional consultation shall be recorded and included in the final CMP documentation.

Following the delivery of the CMP, Auckland Transport will conduct periodic updates of each corridor. Given that the CMP process takes a 20-30 year view of a future corridor(s) function, these plans must remain ‘alive’ and be able to respond to changes in land use, intensification and technology for example. The need to periodically update a CMP may arise in response to changing conditions and/or needs. Minor updates may include the addition or deletion of recommended actions. Major updates may include significant re-prioritization of corridor strategies, for example, based on rapidly changing conditions in the corridor, an evolving vision of the corridor, or changes in funding availability.

Changes to the wider network or in the catchment of influence may also have a direct bearing on the operation of the corridor in question. It is important that conditions on the network are monitored so that the timing of any investment can be optimized and the Implementation Plan revised accordingly.
Appendices

Appendix 1: Corridor Management Plan Methodology Troubleshooting Guide

Appendix 2: Arterial Street Typologies

Appendix 3: Street Element Design Guideline

Appendix 4: Key Reference Texts
## APPENDIX 1

Corridor Management Plan Methodology Troubleshooting Guide

### STEP 1: PROJECT SET UP

<table>
<thead>
<tr>
<th>Issue:</th>
<th>There are differences in opinion about which stakeholders should be involved and when the right time to involve them is.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response:</td>
<td>Auckland Transport to carefully consider the strategic and operational context of the corridor i.e. is it an identified growth corridor, does it have strong communities of interest, are there significant pedestrian movements, is it a place of high ecological sensitivity etc?, and to make a decision on that basis.</td>
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<table>
<thead>
<tr>
<th>Issue:</th>
<th>Request for Proposal respondents have alternative views on Auckland Transport’s priorities for the corridor.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response:</td>
<td>Respondents will need to reach their own view on Auckland Transport's priorities (including as they see fit any alternative position) and set it out in their proposal.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Issue:</th>
<th>A previous CMP exists - in what circumstances should it be comprehensively reviewed by way of a de-facto new CMP process?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response:</td>
<td>CMPs should be reviewed at most every 10 years, but in many cases a 5 year review will be appropriate. It is recommended that:</td>
</tr>
<tr>
<td></td>
<td>• On the 3rd anniversary of a CMP’s completion, Auckland Transport should initiate a very brief assessment of the CMP’s currency. This should involve a confirmation with CMP stakeholders that their policy positions and technical data remains broadly consistent with that relied on in the CMP. If significant change has occurred that is likely to impact on the CMP outputs, in the opinion of Auckland Transport, then a full CMP review should be initiated. It is anticipated that most CMPs will not require a full review after 3 years.</td>
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<tr>
<td></td>
<td>• If at the 3rd anniversary review the CMP is considered to remain current, the CMP should be rolled-over and subjected to the same brief assessment on its 5th anniversary. It is anticipated that many CMPs will require a full review after 5 years, typically on the basis of refinements made to:</td>
</tr>
<tr>
<td></td>
<td>• Regional transport models, strategic network investments, and local network improvements;</td>
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<td></td>
<td>• Regional land use models, land use and development policies and plans.</td>
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<td></td>
<td>• Any CMP not otherwise reviewed by its 10th anniversary should be automatically programmed for comprehensive review.</td>
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</table>

It is expected that at the completion of each CMP there will be a view on the likely need for review in either a 3, 5 or 10 year period. It is anticipated that stakeholders involved in a CMP will advise Auckland Transport when significant issues relating to the CMP arise over time.
STEP 2: NETWORK ROLE OF CORRIDOR AND CONFIRMATION OF CATCHMENT AREA

| Issue: | There is uncertainty about outputs required to be completed by individual technical stakeholder groups. |
| Response: | Technical stakeholders need expert facilitation to manage delivery expectations and inconsistencies between groups:  
- Appropriate coordination and organisation to attend beforehand.  
- Appropriate briefing of the purpose and scope of the project and how their input is needed. Awareness of what other technical stakeholders’ priorities are, and where possible factor these in (where compatible) to their own priorities. |

| Issue: | Technical stakeholder participants are not able to speak on behalf of the group or organisation they represent. |
| Response: | It is critical that appropriately skilled and experienced senior practitioners attend milestones 3A-C. Technical stakeholders should be able to effectively and fairly represent the viewpoints within their agency / organisation or the concerns of their constituents, and should be expected to discuss project issues and communicate findings with others in their agency or jurisdiction. |

| Issue: | There is variance in inputs between individual technical stakeholder groups. |
| Response: | It is anticipated that there will be variance between the input from each group both during and between different corridor plan projects. This will depend on the information held by each group at the time of the corridor plan project. |

| Issue: | Technical stakeholders reject the interpretation of adopted policies provided by Auckland Transport in Step 1. |
| Response: | It is important that technical stakeholders have an opportunity at this step to put their own interpretation of policies down. |

| Issue: | Technical stakeholders are concerned about imperfect information. |
| Response: | It is accepted that there will be some uncertainty with existing information. Where there are significant doubts or a lack of ideal information on which to base a firm preference, an indicative view should be put forward with limitations and assumptions identified. |
STEP 3: LOCAL BOARD CONSULTATION

| Issue: | Consultation with the Local Board may create unrealistic expectations about what may be delivered. |
| Response: | Consultation facilitator(s) need to carefully explain that the work is preliminary and subject to design testing and technical validation through the CMP development process. Likewise, ideas to come out of consultation will also go through the technical process. |

| Issue: | The Local Board feels it should be involved during the course of the CMP development process. |
| Response: | It is anticipated that further consultation with the Local Board occurs again at Step 8 and beyond. This is where the Board is given the opportunity to understand and comment on the proposed concepts and short term actions. Give consideration to the merit of involving any of the Local Board members in the technical workshop sessions. Give advance notice of any consultation activity. |

STEP 4: IDENTIFICATION OF DESIRED CORRIDOR OUTCOMES

| Issue: | There is uncertainty about outputs required to be completed by individual technical stakeholder groups. |
| Response: | Technical stakeholders need expert facilitation to manage delivery expectations and inconsistencies between groups:  
  - Appropriate coordination and organisation to attend beforehand.  
  - Appropriate briefing of the purpose and scope of the project and how their input is needed.  
  - Awareness of what other technical stakeholders’ priorities are, and where possible factor these in (where compatible) to their own priorities. |

<p>| Issue: | Technical stakeholder participants are not able to speak on behalf of the group or organisation they represent. |
| Response: | It is critical that appropriately skilled and experienced senior practitioners attend milestones 3A-C. Technical stakeholders should be able to effectively and fairly represent the viewpoints within their agency / organisation or the concerns of their constituents, and should be expected to discuss project issues and communicate findings with others in their agency or jurisdiction. |</p>
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<tr>
<th>Issue:</th>
<th>Technical stakeholders reject the interpretation of adopted policies provided by Auckland Transport in Steps 1 and/or 2.</th>
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</thead>
<tbody>
<tr>
<td>Response:</td>
<td>It is important that technical stakeholders have an opportunity at this Step to put their own interpretation of policies down.</td>
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<tr>
<th>Issue:</th>
<th>Existing policies, plans or models are in a cycle of review or are about to be updated and as a result, technical stakeholders wish to defer their inputs or are uncertain about the relative weight to give to new information.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response:</td>
<td>Technical stakeholders need to take the adopted policy position as the starting point. Participants must take an informed position on any information which is pre-approved or partially completed based on their understanding of its significance to the process. This step of the process is dependant on the quality of the technical stakeholder participants. This is why appropriately skilled and experienced participants need to attend the process.</td>
</tr>
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<tr>
<th>Issue:</th>
<th>Technical stakeholders or the project team wishes to undertake new modeling or research.</th>
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</thead>
<tbody>
<tr>
<td>Response:</td>
<td>The project team should explain that no new models or research is normally appropriate / expected unless it will be finished soon, in line with project timeframes and budgets.</td>
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<th>Issue:</th>
<th>Some technical stakeholder groups may not have a preference or priority for the corridor.</th>
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<tr>
<td>Response:</td>
<td>If this is the case, the rationale behind this should be documented.</td>
</tr>
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</table>
### Issue:
In some places it will be clear to technical stakeholders and the project team that there are multiple demands for a segment of arterial.

**Response:**
This is acknowledged and a highly likely outcome. Rather than asking technical stakeholder groups to second guess a ‘reconciled’ outcome from a position which is deficient in full knowledge / expertise, it should be left up to the synthesis and detailed corridor plan option phases of the process (Steps 5 and 6) to resolve these competing demands. At this point in the process all adopted policies and identified roles for the corridor have equal legitimacy.

### Issue:
Technical stakeholders are concerned the use of the arterial toolbox provides ready-made solutions.

**Response:**
Technical stakeholders need expert facilitation to explain the purpose and use of the toolbox and street / place typologies. Typologies are a mechanism to prioritise the use of space and should be read as an algorithm - step 1 do this, step 2 do this, and so on, until available space is consumed. The toolbox purposely does not include indicative cross-section illustrations envisaged for each typology. Instead it outlines a number of design considerations, design priorities and cross-section elements for consideration. The toolbox should not stifle creative thinking.

### Issue:
Some technical stakeholder groups may not have any preference affecting the local network within the corridor catchment.

**Response:**
If this is the case, the rationale behind this should be documented.

### Issue:
Technical stakeholders have identified an influence or issue within the corridor catchment but do not have a view of what the network implications may be.

**Response:**
Technical stakeholders need expert facilitation by the project team.

### Issue:
Technical stakeholders who are given the opportunity to work together in conflict area are unable to resolve disagreement.

**Response:**
Even if the tension is unable to be designed out, the nature of the tension should be identified by technical stakeholder groups. The segment will be specifically looked at in Step 6 - design scenario testing.

## STEP 5: IDENTIFICATION OF KEY LOCATIONS OF TENSION AROUND FUTURE PRIORITIZATION OF SPACE
### Issue:
The technical stakeholders identify information gaps which may have a significant influence on the corridor.

**Response:**
Any gaps need to be addressed by technical stakeholders in consultation with Auckland Transport (communicating any implications to project timeframes).

### STEP 6: DEVELOPMENT AND TESTING OF CORRIDOR DESIGN CONCEPTS

<table>
<thead>
<tr>
<th>Issue:</th>
<th>Arterial street widening is deemed necessary but the project team considers this would result in a less than ideal land use or transport response.</th>
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</thead>
<tbody>
<tr>
<td>Response:</td>
<td>The project team should identify non-widening option(s) for the corridor whereby user demands are reconciled within the existing arterial street.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Issue:</th>
<th>The issues identified in earlier steps do not justify either of a low, medium and high change scenario.</th>
</tr>
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<tbody>
<tr>
<td>Response:</td>
<td>Segments of the corridor will all have different change scenarios depending upon considerations such as: scale of change, policy and cost implications, level of support, and level of certainty around particular issues. Supporting documentation should address the rationale behind why particular change scenarios are proposed and others not. For example if the low change scenario is ‘do nothing’ document why this is the case. To ensure efficient use of resources the project team should focus on change scenarios within areas of tension as identified in Step 5.</td>
</tr>
</tbody>
</table>

### STEP 7: SEQUENCING AND IMPLEMENTATION PLAN

<table>
<thead>
<tr>
<th>Issue:</th>
<th>There are several different ways of staging and delivering the CMP.</th>
</tr>
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<tbody>
<tr>
<td>Response:</td>
<td>Select the most simple method and document the key assumptions.</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>Issue:</th>
<th>Many of the phases of work needed to future-proof the corridor design concept are out of Auckland Transport’s direct control. For example Unitary Plan changes or the actions of a Council Controlled Organisation,</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response:</td>
<td>Document the contingent actions by stakeholders which underpin the corridor approach including who is responsible for each action going forward, and why it is important that it happens.</td>
</tr>
<tr>
<td>Issue:</td>
<td>Response:</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-----------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>The CMP provides only the highest level rationale around future projects.</td>
<td>This is appropriate as a CMP is designed to focus on long-term strategic scenarios with more specific validation undertaken as the project progresses.</td>
</tr>
<tr>
<td>The validation process (undertaken after the delivery of the CMP) indicates particular projects may not be as workable as intended.</td>
<td>It is critical that Auckland Transport’s Strategy and Planning team are involved in the process.</td>
</tr>
<tr>
<td>The CMP highlights significant policy issues.</td>
<td>The CMP should focus on the key policy requirements that have the greatest impact on corridor outcomes and constraints. Reporting should focus on how the plan could be different as a consequence of different policy, especially in terms of availability of space for other user demands.</td>
</tr>
<tr>
<td>Influential policy directions are not Auckland Transport’s.</td>
<td>Acknowledge the significance of the external stakeholder’s policy and provide an outline of why it is important to the CMP.</td>
</tr>
<tr>
<td>The corridor plan raises new issues in an area of the catchment where consultation has previously occurred. Specific CMP consultation may lead to consultation fatigue within the community.</td>
<td>Look to minimise the need for more or new consultation. Consider opportunities to use the consultation results of other processes.</td>
</tr>
<tr>
<td>Other issues and planning processes also have to do consultation in the area. For example through the consultation exercises associated with Local Area Spatial Plans, Operational Scheme Assessments, or the Unitary Plan.</td>
<td>Look to minimise or avoid the need for more or new consultation. Consider integrating with other consultation vehicles or sharing results.</td>
</tr>
</tbody>
</table>

**STEP 8: LOCAL BOARD CONSULTATION AND ASSESSMENT OF NEED FOR FURTHER CONSULTATION**
<table>
<thead>
<tr>
<th><strong>Issue:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>There is uncertainty about whether the CMP is a public document and at what point does the content become public.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Response:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPs are non-statutory documents that are not confidential but are not necessarily made publicly accessible given that they do not necessarily commit Auckland Transport or the Council to a specific plan of action. Each CMP will need to be assessed on its own merits in this regard, and also in light of the extent of any consultation that is undertaken during its preparation. It is expected that every CMP could be made available to the public subject to clear guidance on the purpose and role of the CMP.</td>
</tr>
</tbody>
</table>
APPENDIX 2
Part 1: Arterial Street Design Typologies

1. INTRODUCTION

The proposed arterial street design typology is aimed at producing a design which is appropriate for the arterial function of the route and its primary transport role or roles, while adapting the design according to the appropriate “Place” context applying the particular arterial segment. This is aimed at ensuring that the arterial can meet its primary transport functions, while supporting liveability objectives and adjacent land uses.

2. FUNCTION

Regional and Strategic Arterial Road
- Emphasis on moving people and goods between the major centres of the region safely and efficiently, while also supporting Auckland’s liveability objectives.
- Design speed 20-40km/h in town centres, 50-70km/h in urban areas, 60-80km/h in rural areas.
- Transport model projections for design year used to assist in determining number of traffic lanes and intersection design requirements, but not on a predict-and-provide basis.

Also:
- District Arterial Road
- Collector/Connector Road
- Local Street

3. PRIMARY TRANSPORT ROLE & DESIGN IMPLICATIONS

Pedestrians
Pedestrian are expected across the network under all movement functions and accordingly, are part of every arterial street. On a project by project basis, pedestrian movement on an arterial (as opposed to pedestrian concentration) may be reflected more strongly in the place function types which in turn give rise to further pedestrian priority. This is often just as much about getting pedestrians across an arterial or its side streets rather than along the midblock.

<table>
<thead>
<tr>
<th>Primary Transport Role</th>
<th>Design Implications</th>
</tr>
</thead>
</table>
| Public Transport (QTN route or high demand PT route) | Bus priority measures including bus lanes, peak period initially then permanent long term. Possible central bus lanes where width allows.  
A minimum of two general traffic lanes (one per direction).  
Wider footpaths (more pedestrian space) at least at bus stops.  
Appropriate bus stop infrastructure.  
Bus stop spacing approximately 300-350m with location near pedestrian desire lines where feasible. Bus stops and pedestrian crossing locations integrated as far as practicable.  
Consideration of the accessible catchment area approximately 400 m. |
| Cycling (part of the regional or local cycle network or is a high demand route) | High quality treatments should be provided suitable to accommodate the anticipated users, recognising the range of skill level for cyclists (children, less confident, confident).  
Slow speed environments (<30 km/h) may suit cyclists sharing with general traffic. |
| Freight (part regional freight network or high demand freight route) | Provision of freight priority measures where appropriate and feasible.  
An emphasis on the efficient movement of general traffic on key freight routes through traffic management measures and route upgrading where appropriate. |
| General Traffic (traffic movement has highest priority) | Provision of an appropriate number of mid-block traffic lanes, plus appropriate intersection designs (and locations).  
Traffic management measures aimed at moving traffic efficiently along the arterial route. |
### 4. PLACE/ CONTEXT PRIORITISATION OF DESIGN ELEMENTS

For a full explanation of the place / context design typologies refer to Part 2 of this Appendix. Please note typologies are based on arterial - land use tensions and not existing activity types, zones or classifications).

<table>
<thead>
<tr>
<th>Street Type</th>
<th>Essential elements</th>
<th>Priority elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Main Street</td>
<td>• Minimum lane requirements (agreed with Council)</td>
<td>• High priority</td>
</tr>
<tr>
<td></td>
<td>• Speed management to reduce speeds (desirable operating speed 30-40 km/h)</td>
<td>• On-street parking (possibly indented)</td>
</tr>
<tr>
<td></td>
<td>• Narrower carriageway</td>
<td>• Appropriate cycle facilities if on an identified cycle route plus cycle parking at key people generating locations</td>
</tr>
<tr>
<td></td>
<td>• Wider footpaths/berms</td>
<td>• Median (where appropriate) - Solid median to control turning movements, provide shelter for pedestrians, and for landscaping. Flush median to accommodate access and cater for pedestrian refuges. Both improve safety.</td>
</tr>
<tr>
<td></td>
<td>• Pedestrian crossings at approx. 100-200m intervals</td>
<td>• Priority</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Additional edge amenity/high quality landscaping</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Street trees</td>
</tr>
<tr>
<td>Mixed Use</td>
<td>• Minimum lane requirements (agreed with Council)</td>
<td>• High Priority</td>
</tr>
<tr>
<td>Street</td>
<td>• Narrower traffic lanes</td>
<td>• Wide footpaths</td>
</tr>
<tr>
<td></td>
<td>• Wider footpaths/berms</td>
<td>• Appropriate cycle facilities along the corridor and cycle parking at key locations</td>
</tr>
<tr>
<td></td>
<td>• Pedestrian crossing facilities related to desire lines and near schools</td>
<td>• On-street parking</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reduced pedestrian crossing distances (kerb extensions, medians/ refuges)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Medians (where appropriate)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Street trees</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Priority</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Service lanes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Landscaped medians</td>
</tr>
<tr>
<td>Living</td>
<td>• Minimum lane requirements (agreed with Council)</td>
<td>• High Priority</td>
</tr>
<tr>
<td></td>
<td>• Sufficient width footpaths/berms for pedestrian needs and to provide separation between land uses and traffic</td>
<td>• Wide footpaths</td>
</tr>
<tr>
<td></td>
<td>• Pedestrian crossing facilities related to desire lines and near schools</td>
<td>• Traffic signal controlled pedestrian crossings or zebra-type crossings on 2-lane routes or pedestrian refuges depending on circumstances</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Flush medians to accommodate traffic turning into or out of driveways</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Berms to separate pedestrians from traffic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Appropriate cycle facilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Priority</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Solid medians to prevent turning movements into driveways and/or other management measures to restrict direct access onto arterial</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Street trees</td>
</tr>
<tr>
<td>Industrial</td>
<td>• Lane requirements meeting traffic demands to extent practicable</td>
<td>• High Priority</td>
</tr>
<tr>
<td>Street</td>
<td>• Accommodating freight vehicles swept paths</td>
<td>• Flush medians to facilitate safe access to/from adjacent properties.</td>
</tr>
<tr>
<td></td>
<td>• Wide traffic lanes</td>
<td>• Footpath/ berm widening to provide an improved buffer between pedestrians and traffic , and for amenity purpose</td>
</tr>
<tr>
<td></td>
<td>• Footpaths</td>
<td>• Priority</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• On-street parking to support land uses and separate pedestrians from industrial traffic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• High quality landscaping strips</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Appropriate cycle facilities</td>
</tr>
<tr>
<td>Commercial</td>
<td>• Lane requirements meeting traffic demands to extent practicable</td>
<td>• High Priority</td>
</tr>
<tr>
<td>Street</td>
<td>• Standard traffic lanes</td>
<td>• Traffic signal controlled pedestrian crossings or zebra-type crossings on 2-lane routes or pedestrian refuges depending on circumstances</td>
</tr>
<tr>
<td></td>
<td>• Sufficient width footpaths/berms for pedestrian needs and to provide separation between land uses and traffic</td>
<td>• Flush medians to accommodate traffic turning into or out of driveways</td>
</tr>
<tr>
<td></td>
<td>• Pedestrian crossing facilities (including refuges)</td>
<td>• Priority</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Appropriate cycle facilities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• High quality landscaped strips</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Solid medians and/or other management measures to limit direct access to arterial</td>
</tr>
</tbody>
</table>

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### 4. PLACE/ CONTEXT PRIORITISATION OF DESIGN ELEMENTS (continued)

<table>
<thead>
<tr>
<th>Street Type</th>
<th>Essential elements</th>
<th>Priority elements</th>
</tr>
</thead>
</table>
| Rural Arterial | ● Two-lane or 4-lane road as appropriate  
● Design appropriate for the speed of travel along route | ● High Priority  
● Design features appropriate for relatively high speed travel including appropriate sight distances, clearances to obstacles and adequate separation of opposing traffic.  
● Appropriate cycle facilities or consistent wide shoulders free of pinch points.  
● Designs that encourage drivers to automatically reduce speeds through townships, past schools etc.  
● Footpaths near schools and in townships  
● Priority  
● Separate pedestrian facilities |

**Notes:**

**On-street parking**
The Regional Arterial Road Plan supports and encourages the use of parking restrictions on regional arterial roads between town centres to allow the free movement of people and goods and improve the safety and efficiency of the network. It accepts, however, that through town centres it may be appropriate to retain on-street parking as it can support business vitality; enhance amenity; enhance the place function; and, by helping slow traffic down, can also improve pedestrian crossing safety.

**Medians**
The need for a median and the type of median provided should be carefully considered. While medians have a number of advantages depending on whether they are flush or raised, they take up valuable road space. Solid medians can improve safety by controlling turning movements, but require provision for u-turns or alternative means of catering for right-turn movements into and out of driveways or minor intersections that are prevented by a raised median.
Part 2: Arterial Place / Context Design Typologies

1. COMMUNITY FOCAL POINT

This category includes main streets and community facilities. It is typified by locations where land uses should be given greater emphasis than movement imperatives.

In the case of main streets this applies over the full length and throughout the day. However, in the case of community facilities, it may apply to only a short length of the arterial or to only at specific times of day when pedestrian activities peak (e.g. school opening and closing times). Consequently the design considerations and design priorities can vary considerably within this category.

1.1 Main Street

Design Considerations

Key objectives of arterial road design on main streets are:

1. To maintain movement along the arterial road while reducing vehicle speeds to improve safety and facilitate pedestrian movement across the road.
2. To support the economic vitality of the main street.
3. To enable the amenity of the main street to be enhanced.
4. To ensure the design and operation of the arterial supports any relevant land use intensification and growth objectives.

Design priorities

1. Providing the minimum traffic lane requirement set by the Council.
2. Encouraging reduced traffic speeds.
3. Facilitating easy and safe pedestrian crossing movements along and across the arterial.
4. Providing for cyclists (speed environments less than 30km/h may enable cyclists to safely share the road with vehicles).
5. On-street parking, interspersed with landscaping/street trees where feasible.
6. Well designed footpaths providing high pedestrian amenity.
7. Avoiding provision of direct access to the arterial from fronting properties where feasible. Possible means of achieving this include rear site access, amalgamating accesses and proving frontage roads (slip lanes).
8. Minimising vehicle-based nuisance at the carriageway edge (including noise, fumes, wind shear).
9. Creation of settings that will attract and support any land use changes desired by the Council.
10. A low speed environment, ideally between 30km/hr (preferred) and 40km/hr (maximum).
11. Transition zones at the approach to a main street assist in reducing vehicle speeds prior to entering a low speed environment. They also provide the opportunity to introduce elements (landscaping, narrow traffic lanes etc.) that signal to the driver a change in environment.

During the design of a main street cross section the composition of flow and nature of land use activity should be carefully considered:

- In the busiest arterials where there is no opportunity to disperse flow, there may be an argument to prioritise ‘edge’ land uses towards commercial and business, with more sensitive residential and ‘densification’ activity preferred in streets around but back from the main street.
- On arterials where volumes are less than 16,000vpd through the main street, are projected to remain below 20,00vpd in the future, and are composed primarily of light passenger vehicles it may be more feasible to promote densification and mixed-use residential development directly on the main street.
- On arterials where the cross section width is greater than 25m there may be more opportunity to mitigate and manage vehicle flow nuisance and land use edge amenity, and hence be less sensitivity to ‘mixing’ sensitive land uses with high vehicle flows.

Cross-section Elements

On QTN bus routes or other routes carrying high bus numbers, it should be ensured that through bus movement is relatively unimpeded. This can be difficult to achieve where traffic is reduced to a single lane in each direction. The inclusion of kerbside bus lanes can ensure a good level of service for buses,
but effectively requires a 4-lane road. Where there is potential conflict between the main street and QTN bus route objectives, alternative solutions should be investigated. These could include investigating a possible alternative route for the buses, and investigating other means of giving buses the required priority which avoid the need for bus lanes along the main street, such as giving buses priority at the beginning of the main street.

In situations where it is clearly demonstrated that an acceptable satisfactory alternative cannot be found, it will be necessary to accept that bus lanes must be accommodated along the main street. Whatever solution is adopted, the speeds of any buses travelling along a main street should be low in common with all other traffic and bus stops should be carefully located.

Ideally the main street in a local centre should have a traffic flow of approximately 16,000 and 20,000 vpd. This provides enough traffic to create a sense of vitality and to contribute to an economically successful centre, while enabling the number of traffic lanes to be kept to (or reduced) to one per direction. A traffic flow above approximately 24,000 vpd generally requires two lanes per direction.

The main advantages of a two-lane main street are:

- It can considerably reduce pedestrian crossing distances reducing the severance effect of the arterial road and facilitating social and economic connections on both sides of the street.
- Depending on the arterial street width available (being between property boundaries) and the main street’s priorities, the width not required to cater for moving traffic can be used to provide some or all of the following:
  - permanent on-street parking (possibly indented);
  - wider footpaths;
  - a wider median - if, for example, street trees are proposed;
  - street trees (in the footpath/ between parked cars/ in the median);
  - in all instances where landscaping, amenity and buffering is applied this should not promote visual appearance at the expense of pedestrian accessibility and ease of movement.

These advantages are particularly significant where the arterial street width is only 20.1m.

Where traffic flows exceed approximately 20,000 vpd, the ability to reduce traffic flow on the main street through improving an alternative (parallel) route or routes should be investigated. For the largest and busiest centres, a multi-lane main street maybe less of an issue as the scale means that there is less dependence on visitors/shoppers crossing the street.

Permanent on-street parking should be indented into the footpath, or accompanied by kerb extensions at appropriate locations. The parking strip design should ensure that road widths are minimised:

- just after and just prior to intersections to reduce pedestrian crossing distances and/or help reduce traffic speeds;
- at pedestrian crossings (including pedestrian refuges) to reduce pedestrian crossing distances;
- at bus stops to reduce delays to buses (this may be restricted to bus stops on 4-lane roads);
- where they are used, street trees should be prominent. Species should be carefully selected so as not to obscure visibility between 500mm and 1800mm above the road surface. Tree selection should be undertaken in consultation with the Parks Department.

In circumstances where permanent on-street parking is not provided, an alternative means of providing visitor parking on or close to the main street should be identified.

Travel lanes should be narrow to help reduce the width of the carriageway and encourage drivers to travel slowly along the main street.

Pedestrian crossing opportunities should be located at approximately 100m intervals along main streets to facilitate pedestrian movement across the arterial.

Appropriate cycle facilities should be provided. The decision on the appropriate treatment should take into account the speed environment and number of traffic lanes. On multi-lane roads which are key cycle routes, a separate cycle lane between the footpath and the on-street parking may be an appropriate solution.

Wide footpaths can improve pedestrian amenity. They can potentially accommodate seating and tables at cafes and restaurants, street trees, street furniture, bus shelters etc. while providing adequate width for pedestrian movement along the footpath or to stop and look into shop windows.

A median take up valuable road space and its inclusion should be justified in common with other road elements. Flush medians can provide space for
pedestrian refuges (desirable minimum width 1.8m) or shelter for vehicles turning into side roads or driveways (desirable minimum width 2.4m).

Solid medians can be appropriate where the aim is to prevent or restrict right-turn movements into and out of driveways and side roads, and/or to accommodate landscaping opportunities in the centre of the road. A minimum width of 1.8m is desirable to provide a safe place for pedestrians to complete their crossing. The provision of street trees in a median can enhance amenity and may be appropriate in locations where the median width and resulting horizontal clearances are adequate. Horizontal clearance requirements should take into account whether the arterial segment concerned is part of an overdimension route.

‘Gateway’ treatments at the ends of or approaches to a Main Street are generally appropriate to help signal the change in the speed environment.

1.2 Community Facilities

The community facilities category includes large scale community facilities such as hospitals, technical colleges, university campuses, schools, regional sport and community centres plus smaller scale facilities such as halls and local libraries.

Design Considerations

A number of the large community facilities have tended to be heavily dependent on access by car due to their location and the nature of their activities. However, this is changing and there is an increasing emphasis on access by other modes. In a number of instances moves towards reducing the emphasis on access by car have been driven by pressures on the available car parking and difficulties in increasing the supply of car parking on site or in the surrounding area.

The traffic related design issues for large community facilities are similar to shopping malls in so far as it is necessary to cater for traffic generated by the facility while ensuring that the arterial's primary function of effectively moving people and goods is protected. Careful attention must be given to traffic access location and design. Public transport access requires provision of quality services giving good access to the facility, and well-located bus stops (or station) with direct, safe pedestrian access to the main public entrance or entrances. Ideally public transport should penetrate into the site.

Around schools particular attention needs to be given to the provision of safe, well located and appropriate pedestrian facilities, both for crossing the arterial and for walking along the arterial itself. Bus stops should be conveniently located with adequate width provided at footpaths for peak pedestrian demands in the vicinity of bus shelters as well as adequate length to cater for the appropriate number of buses. Traffic speeds should be reduced. Road narrowing and other "self-explaining" measures that encourage drivers to automatically reduce speed should be introduced where feasible, supported by speed reduction school zone signing. Pick-up/drop-off areas should be carefully located to minimise pedestrian safety risks. Where feasible, such facilities should not be located on the arterial road. Parking by pupils and staff on the arterial road should only be permitted where this does not interfere with the safe and effective functioning of the arterial road. Safe cycle access to the school should be prioritised.

**Design Priorities**

1. Providing the minimum traffic lane requirement set by the Council.
2. Careful design and location of access to the property ensuring that the primary function of the arterial is protected.
3. Appropriate location of bus stops on the arterial serving the facility with a view to providing safe, direct access by public transport users to the main public entrance(s).
4. Where feasible, the provision of direct public transport close to the entrance to the facility.
5. Safe, convenient access to the site by pedestrians and cyclists.
6. Outside schools pay particular attention to:
   - measures to improve pedestrian crossing safety including appropriate pedestrian crossings at appropriate locations;
   - measures to reduce traffic speeds;
   - the location and design of pick-up/drop-off facilities;
   - bus stop locations and associated footpath design.

**Cross-section Elements**

Requirements can vary significantly depending on the nature, scale and location of the facility.
2. HIGH SENSITIVITY ENVIRONMENT

This category includes mixed use and high density residential. It is typified by locations where land use and movement imperatives need to be carefully balanced.

2.1 Mixed Use

Mixed use streets are associated with high amenity, high density development which is predominantly but not exclusively residential.

Design Considerations

From the road design perspective, mixed use streets have a number of similarities with main streets. There are, however, two key differences:

1. Four traffic lane designs are likely to be required in most instances (traffic volume dependant).
2. Bus priority measures including bus lanes are required on QTN routes and other selected high frequency bus routes.

Design Priorities

1. Providing the minimum traffic lane requirement set by the Council.
2. Facilitating easy and safe pedestrian crossing movements.
3. Providing appropriate bus priority measures on QTN routes and other selected high frequency bus routes.
4. Providing for cyclists.
5. Well designed footpaths providing high pedestrian amenity.
6. Avoiding provision of direct access to the arterial from fronting properties where feasible. Possible means of achieving this include side street access, rear site access, amalgamating accesses and proving frontage roads. Publicly owned rear lanes can assist in reducing the number of access points onto arterial streets, and can provide opportunities to carry services, and provide for car park access, rubbish collection etc.

Cross-Section Elements

Where bus lanes are provided and operate only during peak periods, on-street parking may be available outside the peak traffic periods. However, this should not be seen as an enduring solution as permanent bus lanes are to be introduced on QTN routes in the longer term. Bus lanes should preferably be 4.2 to 4.5m wide to permit buses and cyclists to share the lane without the need to move into the adjacent lane. Where this is not feasible, bus lanes should be between 3.0 and 3.2m and a separate cycle facility provided (where feasible). Bus lanes between 3.3m and 4.1m should be avoided.

Depending on advice received from the Council, where the arterial street width permits it may be appropriate to include the option of enabling central bus lanes or light rail to be provided in the longer term.

Cyclists are able to use all arterial routes and dedicated facilities are usually preferred to create a safe space for cyclists.

Wide footpaths can improve pedestrian amenity. They can potentially accommodate seating and tables at cafes and restaurants, street trees, street furniture, bus shelters etc. while providing adequate width for pedestrian movement along the footpath or to stop and look into shop windows.

A median takes up valuable road space and its inclusion should be justified in common with other road elements. Flush medians can provide space for pedestrian refuges (desirable minimum width 1.8m) or shelter for vehicles turning into side roads or driveways (desirable minimum width 2.4m).

Solid medians can be appropriate where the aim is to prevent or restrict right-turn movements into and out of driveways and side roads, and/or to accommodate landscaping opportunities in the centre of the road. A minimum width of 1.8m is desirable to provide shelter for pedestrians. The provision of street trees in a median can enhance amenity and may be appropriate in locations where the median width and resulting horizontal clearances are adequate. Horizontal clearance requirements should take into account whether the arterial segment concerned is part of an over dimension route.

Pedestrian crossing opportunities should be provided at no less than a spacing of approximately 200m. Where possible, they should be aligned with key movement desire lines to businesses, community facilities, open spaces, passenger transport interchanges and stops.

Wherever feasible direct access to the arterial should be avoided and access should be located on side roads or from parallel local roads. Other measures to reduce or minimise direct frontage access include amalgamating driveways and provision of service roads.
2.2 High Density Residential

Design Considerations

High density residential streets should be served by quality, high frequency public transport services. To provide high pedestrian amenity, footpath design should facilitate landscaping and place-making.

Design Priorities

1. Providing the minimum traffic lane requirement set by the Council.
2. Facilitating easy and safe pedestrian crossing movements.
3. Providing appropriate bus priority measures.
4. Good, direct pedestrian access to bus stops from the surrounding residential area.
5. Providing for cyclists.
6. Footpath design which can provide a high amenity pedestrian realm.
7. Avoiding provision of direct access to the arterial from fronting properties where feasible. Possible means of achieving this include side street access, rear site access, amalgamating accesses and providing service roads.

Cross-Section Elements

Refer to mixed-use streets.

Pedestrian crossing opportunities should be ideally provided at no more than 200m intervals and should take into account pedestrian desire lines. There should be an emphasis on convenient and direct public transport and community facility access. In these more predominantly residential environments there is less of an imperative to provide the most convenient access to properties. Left-in/left-out type access with permanent restrictions on right turn movements into or out of property accesses may be appropriate in these environments.
3. LIVING ENVIRONMENT

This category consists of low density residential and medium density residential (defined as up to 3 storeys). Land use considerations influence movement imperatives, but the emphasis is on the arterials movement function.

3.1 Low Density Residential

Design Considerations

Low density residential development on arterial routes typically has direct access to the arterial road. Home businesses can increase the traffic generation and parking requirements. However, on-street parking on the arterial may not be permitted where it reduces the effectiveness of the arterial in moving people and goods or is a safety hazard.

Design Priorities

1. Providing the minimum traffic lane requirement set by the Council.
2. Providing appropriate bus priority measures.
3. Good, direct pedestrian access to bus stops from the surrounding residential area.
4. Providing for cyclists.
5. Footpath and berm design which contributes to quality streetscapes.
6. Providing safe access to fronting properties.
7. The role of private front yards in providing landscaping and visual amenity (in addition to off-street parking) should be acknowledged (although not directly controlled).

Cross-Section Elements

Bus lanes, if required, should preferably be 4.2 to 4.5m wide to permit buses and cyclists to share the lane without the need to move into the adjacent lane. Where this is not feasible, bus lanes should between 3.0 and 3.2m. Bus lanes between 3.3m and 4.1m should be avoided.

The key issues influencing the suitability of shared paths relate to appropriate width and intersecting roads. Higher numbers of pedestrians and cyclists can safely share a path subject to the provision of an appropriate width.

Flush medians can provide space for pedestrian refuges (desirable minimum width 1.8m) or shelter for vehicles turning into side roads or driveways (desirable minimum width 2.4m).

Solid medians can be appropriate where the aim is to improve the efficiency and safety of the arterial route by controlling the locations where right-turn movements into or out of the arterial can take place. A minimum width of 1.8m is desirable to provide shelter for pedestrians or 4.5m to provide a right-turn slip lane plus adequate width for pedestrians.

3.2 Medium Density Residential

Refer to mixed use and low density categories as appropriate.
4. AMENITY WORKING ENVIRONMENT

This category includes commercial/business uses and town centre fringe development. In these locations land use considerations need to influence movement imperatives.

4.1 General Business

Design Considerations

This type of land use development includes businesses who desire a high visual exposure and with quality frontage/presentation to the arterial to create a strong presence. Business nodes design should include active street frontage with ground floor commercial space fronting the arterial. Over time these uses are transitioning away from light-industrial type areas towards more premier 'cleaner' and higher-skilled commercial uses. This means that there is often a demand for high amenity street environments that support high-tech, corporate images and highly trained staff looking for a quality of life component in their employment choice.

Good public transport service for employees and visitors reduces reliance on access by car and car parking demands.

Design Priorities

1. Providing the minimum traffic lane requirement set by the Council.
2. Providing appropriate bus priority measures on QTN routes.
3. Providing for cyclists, particularly arterials on the regional cycle network.
4. Footpath widening for active frontage at business nodes and at corners.
5. Avoiding provision of direct access to the arterial from fronting properties where feasible. Possible means of achieving this include side street access, rear site access, amalgamating accesses and providing frontage roads (slip lanes). Publicly owned rear lanes can assist in reducing the number of access points onto arterial streets, and can provide opportunities to carry services, and provide for car park access, rubbish collection etc.
6. A clear view on signage particularly on streets or at front boundaries is required.
7. Carefully coordinating long-term vehicle access between multiple sites where possible and where this will contribute to logical pedestrian crossing opportunities and efficient and safe traffic flow interruptions.
8. Landscaping and street amenity can be significantly provided by land use activities rather than exclusively in the street.

Cross-section Elements

Bus lanes, if required, should preferably be 4.2 to 4.5m wide to permit buses and cyclists to share the lane without the need to move into the adjacent lane. Where this is not feasible, bus lanes shared with bicycles should between 3.0 and 3.2m. Bus lanes between 3.5m and 4.1m should be avoided.

Depending on advice received from the Council, where right-of-way width permits it may be appropriate to include the option of enabling central bus lanes or light rail to be provided in the longer term along arterial sections with high density land use generating high person trip demands.

Flush medians can provide space for pedestrian refuges (desirable minimum width 1.4m) or shelter for vehicles turning into side roads or driveways (desirable minimum width 2.4m).

Solid medians can be appropriate where there are no driveway or side road accesses, or where the aim is to prevent or restrict right-turn movements into and out of driveways and side roads. A minimum width of 1.4m is desirable to provide shelter for pedestrians. The provision of street trees in a median can enhance amenity and may be appropriate in locations where the median width and resulting horizontal clearances are adequate.

Frontage roads (slip lanes) are particularly appropriate in these environments, including 'private' slip lanes coordinated across multiple site frontages.

4.2 Town Centre Fringe

This is described as providing superior business settings close to town centres. It is typified by high density development with ground floor commercial development to provide active street frontage.

Design Priorities

1. Similar to General Business but with a greater emphasis on public transport.
2. Direct access from adjacent properties should be avoided wherever feasible to avoid or minimise
the need to cater for turning vehicles along the arterial.

3. High priority should also be given to catering for cyclists and for bus passengers at bus set down areas.

4. Wide footpaths are appropriate along active frontages.

5. A good supply of on-street short-stay/visitor parking

6. A clear view on signage particularly on streets or at front boundaries is required

**Cross-section Elements**

Refer to General Business but give higher priority to separate facilities for cyclists and on-street car parking for visitors/customers.
5. TRAFFIC MOVEMENT ENVIRONMENT

This category consists of industrial and out-of-centre retail, these being locations where the land use has minimal influence on the movement function.

5.1 Industrial

Design Considerations

The priority in industrial areas is the efficient movement of freight and the provision of access by freight vehicles into adjacent land uses. Pedestrian numbers are likely to be low, but care should be taken to minimise pedestrian/truck conflicts.

For those industrially zoned areas where office use predominates (as an office park), the priority is typically the efficient movement of vehicles, except for locations on QTN routes. In such areas amenity considerations are of greater importance.

Design Priorities

1. Providing the minimum traffic lane requirement set by the Council. This is likely to be based on projected general traffic demands.
2. Providing medians.
3. Catering for safe cycle movement.
4. Providing adequate width footpaths/berms for amenity purposes and to cater for pedestrian movement including key pedestrian routes to/from public transport.
5. Consider the use of mountable kerbs and differential turning radii such that large vehicles can take wider turns, but smaller vehicles are encouraged to take tighter, slower turns.
6. Ensuring that there is adequate on-site loading provision and that vehicles, and in particular heavy commercial vehicles do not have to reverse onto the arterial (or from the arterial onto the site).
7. Providing appropriate bus priority measures if/where required Auckland Transport.

Cross-section Elements

Lane widths, turning radii, kerb crossings etc. are to be appropriate for the design freight vehicle(s) in industrial areas.

Medians will generally be flush and of sufficient width to shelter trucks turning into fronting industrial properties.

A dedicated cycle facility should be provided where feasible.

5.2 Out of Centre Retail

This category includes large format retail and stand alone shopping centres or malls. This type of development is strongly dependent on access by car.

Design Considerations

Large format retail is conventionally associated with arterials whose prime transport function is the movement of general traffic, although there are a number of instances in Auckland where this type of development is located on what is also a QTN route. In such situations it is essential that the needs of general traffic be carefully balanced against public transport considerations. Catering for both forms of transport can result in relatively wide multi-lane roads which can act as a barrier to pedestrian movement.

Care should be taken to avoid creating a layout which discourages pedestrian access, such as locating a large area of off-street parking between the footpath and the entry to the centre. To avoid bus passengers having to weave their way through a large number of parked cars, a pedestrian walkway should be provided between the main bus stop on the arterial serving the centre and the main pedestrian access to the centre.

For large shopping malls, the possibility of re-routing buses into the centre close to a pedestrian entrance should be investigated. Locating a public transport interchange next to a shopping mall can advantage both public transport and the mall.

As large format retail and shopping malls can generate high traffic volumes, particular care must be taken to ensure that traffic accesses are designed and located to avoid compromising the effectiveness of the arterial as a through traffic route.

Design priorities

1. Providing the minimum traffic lane requirement set by the Council.
2. Careful design and location of access to the property ensuring that the primary function of the arterial is protected.
3. Appropriate location of bus stops on the arterial serving the facility with a view to providing safe,
direct access by public transport users to the main public entrance(s).
4. Where feasible, the provision of direct public transport close to the entrance to the facility.
5. Safe, convenient access to the site by pedestrians and cyclists.

Cross-section Elements

No specific requirements.

6. RURAL

Design Considerations

The primary objective of rural arterial road design is the safe and efficient movement of vehicles. Design speeds vary but typically are intended to accommodate vehicles travelling at speeds up to the open road speed limit of 100km/h. Truck movements can form a high proportion of the traffic in some locations and at various times such as the harvesting of trees near forestry areas. Cyclists can be significant road users, particularly on recreational routes. Pedestrian numbers are generally low and footpaths are generally only provided in village and town centres or near schools located outside town centres.

Design Priorities

1. Providing the minimum traffic lane requirement set by the Council
2. Careful design and location of property access ensuring adequate sight distance. Some sections of state highways may be declared limited access routes.
3. Wide traffic lanes suited to higher speed travel and freight vehicles
4. Hard shoulders, of sufficient width to provide a cycle lane on the main recreational or commuter cycle routes
5. Horizontal and vertical geometry appropriate for the design speed
6. A separation between opposing traffic flows, ideally including a safety barrier
7. Consistent conditions along a route (design speed, cross-section etc)
8. Speed reduction measures at the entrances to any town or village along the route

Townships

A town or village along a rural arterial route should be treated as a rural community focal point. The balance between land use and movement imperatives will vary according the nature and size of the township. Wherever feasible, physical gateway treatments should be implemented at the township entrances supplemented by speed limit signs to encourage motorists to automatically slow down in response to the road narrowing and in recognition of the changed driving environment.

Footpaths should be of adequate width. Appropriate pedestrian crossing facilities should be provided at suitable locations.

On-street parking should be provided where carriageway width and road safety considerations permits. Alternatively well signposted, well laid out, sealed off-street parking should be provided.
## Part 3: Summary of Common Typology Tensions

<table>
<thead>
<tr>
<th></th>
<th>Main Street</th>
<th>Community Facilities</th>
<th>Mixed Use Streets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Transport Priority</strong></td>
<td>Bus lanes require at least a 4-lane layout with potential loss of on-street parking and separate cycle facilities, plus greater pedestrian crossing widths. May need to look at alternatives such as limiting bus priority to bus advance lanes at intersections plus signal pre-emption, or seeking an alternative route for buses (or cyclists). Location of bus stops may need careful consideration. Very high frequencies of bus service can detrimentally impact on main streets, and in general the edge condition must be very carefully planned.</td>
<td>No major tensions. Important to provide good PT access and well located bus stops. Decisions on the location of new facilities should take current and likely future PT accessibility into account.</td>
<td>Bus lanes broadly compatible with mixed use streets, but can produce relatively poor edge conditions (unless located in centre of road). Important to identify if on a FN route and, if so, to take this into account in design of footpaths/edge. Investigate solutions that provide dedicated cycle facilities where needed. Look to provide convenient pedestrian crossings near to bus stops or other desire lines.</td>
</tr>
<tr>
<td><strong>Freight Priority</strong></td>
<td>Not compatible with Main Streets</td>
<td>Generally undesirable</td>
<td>Undesirable due to environmental effects</td>
</tr>
<tr>
<td><strong>General Traffic Priority</strong></td>
<td>Potentially compatible provided general traffic management is not allowed to dominate street design and speeds are kept relatively low. Aim for traffic flows below about 20k vpd to enable 2-lane solutions where feasible. Possible measures include diverting through traffic to another route or otherwise constraining traffic growth through the main street. Include cycle lanes where feasible. Need to ensure provision of frequent pedestrian crossing opportunities.</td>
<td>No major tensions. Reduce traffic speeds outside sensitive areas such as schools. Avoid need for parking and drop-off/pick-up areas on arterial roads, by ensuring provision of adequate off-street facilities which preferably do not directly access the arterial road.</td>
<td></td>
</tr>
<tr>
<td><strong>High Density Residential</strong></td>
<td>No major tensions. Good, direct pedestrian access to bus stops from surrounding area required. Look to locate pedestrian crossing opportunities near desire lines and bus stops. Important to provide wide footpaths/berms for pedestrian needs and to adequately separate land uses and traffic.</td>
<td>No major tensions. Provide good, direct pedestrian access to bus stops from the surrounding area. Shared pedestrian/ cycle facilities may be appropriate particularly near schools etc. where are inexperienced cyclists. Look to provide sufficient width footpaths/berms for pedestrian needs and to adequately separate land uses and traffic.</td>
<td></td>
</tr>
<tr>
<td><strong>Low Density Residential</strong></td>
<td>Generally not compatible with high density residential. If unavoidable, provide wide footpaths/berms.</td>
<td>Undesirable to have freight priority through a residential area.</td>
<td></td>
</tr>
<tr>
<td><strong>Mixed Use Streets</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>General Business</strong></td>
<td>No major tensions. Bus lanes can be compatible with this land use as quality, frequent PT service is a potential benefit. Need to provide sufficient width footpaths/berms for pedestrian needs and to adequately separate land uses and traffic. Provide appropriate cycle facilities.</td>
<td>Generally undesirable that a major freight route passes through general business area.</td>
<td></td>
</tr>
</tbody>
</table>

*Note: Community Facilities are generally compatible with mixed use streets, but can produce relatively poor edge conditions (unless located in centre of road). Important to identify if on a FN route and, if so, to take this into account in design of footpaths/edge. Investigate solutions that provide dedicated cycle facilities where needed. Look to provide convenient pedestrian crossings near to bus stops or other desire lines.*
<table>
<thead>
<tr>
<th></th>
<th>Town Centre Fringe</th>
<th>Industrial Area</th>
<th>Out of Centre Retail</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Transport Priority</strong></td>
<td>Greater emphasis on public transport than General Business. Bus lanes likely to be appropriate measure in many locations. Give high priority to bus passengers at bus set down areas. Look to locate pedestrian crossing opportunities near desire lines and bus stops. Need to ensure provision of appropriate cycle facilities.</td>
<td>Not generally an issue. However, if bus priority measures needed then consider combining bus and freight vehicle priority measures with priority changing by time of day.</td>
<td>Bus priority can conflict with high traffic generation of the activity coupled with a focus on access by car. Look to avoid construction of wide roads/intersections providing for both high traffic flows and bus priority measures. Look to provide good, direct access to main pedestrian entrance to development from the bus stops (including possibly diverting bus services into the site).</td>
</tr>
<tr>
<td><strong>Freight Priority</strong></td>
<td>Not compatible</td>
<td>Fully compatible.</td>
<td>May not be an issue provided through traffic movement on arterial is adequately catered for.</td>
</tr>
<tr>
<td><strong>General Traffic Priority</strong></td>
<td>Generally compatible. Ensure direct access to arterial street is limited as far as practicable.</td>
<td>Compatible. Ensure street design standards appropriate for freight vehicles. Look to provide high quality landscaping strips and appropriate cycle facilities</td>
<td>Generally compatible. Control access design and location to protect through traffic movement function of arterial route.</td>
</tr>
</tbody>
</table>

1 For medium density residential, refer to mixed use and low density categories as appropriate.
APPENDIX 3

Street element design guideline

1. OVERALL URBAN STREET DESIGN

Many of the following contain elements of the entire street design process, including walking, cycling and passenger transport:

1. Manual for Streets, Department for Transport, Chapter 6 (Street User Needs) Chapter 7 (Street Geometry), Chapter 8 (Parking) and Chapter 9 (Traffic Signs and Markings), UK, 2007

   Manual for Streets 2, Chartered Institution of Highways and Transportation, September 2010
   www.ciht.org.uk

2. Liveable Arterials, Auckland City Council, February 2008

3. North Shore City Key Corridors Strategy, September 2010

4. Design of Streets Handbook produced by North Shore City Council

   http://www.ite.org/bookstore/RP036.pdf


7. Street Design Manual: New York City, Department of Transport, USA, 2009


2. URBAN STREET DESIGN: USERS

The following provides a list of more “specific” design guidelines for the various road users:

Bicycles


13. NSW Bicycle Guidelines, RTA, July 2005

14. Vic Roads: Cycle Notes: Design Standards for Bicycle Facilities, Australia

15. Cycling Infrastructure Design, Department of Transport, UK, October 2008
   http://www.dft.gov.uk/pgr/roads/tpm/ltnotes/ltn208.pdf


20. Manual of Traffic Signs and Markings (MOTSAM), NZTA


22. AS 2890 – Australian Standard Parking Facilities
3. LAND USE / TRANSPORT INTEGRATION

Auckland Council will be primarily responsible for identifying the range and nature of land use issues relevant to a CMP. However, it is important that as part of a successful CMP an integrated view on land use and transport matters is reached. The following references may be of assistance:

23. Liveable Neighbourhoods, Western Australia Planning Commission, 2007 (updated 2009),

24. New South Wales Integrated Transport and Land Use package

25. Beyond the Pavement, RTA, 2009
   beyond_the_pavement_2009.pdf

Note: There may be other guidelines which may also be applicable to a particular study.
APPENDIX 4

Key reference texts

1. EXISTING AUCKLAND GUIDES AND MANUALS

The following provides a summary of the relevant guidelines and manuals used in the Auckland region for road/corridor design. This provides some context as to where the new CMP guidelines have been derived from.

1.1 Existing Auckland District Plans

The existing District Plans for the various former Councils in the Auckland Region¹²³, and all include a roading hierarchy. The establishment of a roading hierarchy is designed to achieve the following environmental outcomes:

- Reduced adverse effects of through traffic on the amenity of local roads
- A transportation system which supports the District Plan’s development policies and provides for the efficient movement of people and goods
- A framework under which the primary roading network can be protected from the adverse effects of adjacent land use activities.

The road types included in the roading hierarchies in the various District Plans vary slightly in road type names but generally include the classifications described in Table 1.

Table 1: Existing Road Classifications

<table>
<thead>
<tr>
<th>Name</th>
<th>Function</th>
<th>Traffic</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic (National)</td>
<td>Roads of National Significance (state highways)</td>
<td>Can be in excess of 40,000 vehicles per day</td>
<td>2-6 lanes of traffic Access control</td>
</tr>
<tr>
<td>Regional (Primary)</td>
<td>Carry major traffic movements between the principal sections of the region not catered for by strategic routes</td>
<td>Can be in excess of 40,000 vehicles per day</td>
<td>2-6 lanes of traffic Access control</td>
</tr>
<tr>
<td>District (Secondary)</td>
<td>Primarily cater for traffic movement between the major areas of the City, a function partly shared with the regional arterials</td>
<td>Generally 5,000 – 20,000 vehicles per day</td>
<td>2-4 lanes wide Facilitate movement and road safety</td>
</tr>
<tr>
<td>Collector Roads</td>
<td>Collect and distribute traffic to and from the arterial road network, and also act as local main roads supplementing the primary network</td>
<td>Generally 3,000 – 10,000 vehicles per day</td>
<td>2 lanes of traffic (sometimes 4 are required) On-street parking footpaths</td>
</tr>
<tr>
<td>Local Roads</td>
<td>Provide direct access to abutting properties and (with the exception of cul-de-sacs) collect and distribute traffic to and from the local area</td>
<td>Generally less than 1,000 vehicles per day (through can be up to 5,000)</td>
<td>2 lanes of traffic On street parking Good pedestrian amenity</td>
</tr>
<tr>
<td>Service Lanes</td>
<td>Provides side or rear access for vehicular traffic to any land from district arterials or collector roads in business areas</td>
<td>Varies</td>
<td>1-2 lanes of traffic</td>
</tr>
</tbody>
</table>

1. Auckland City Council, 1999, Auckland City District Plan Isthmus Section
2. North Shore City Council, 2002, North Shore City District Plan
3. Manukau City Council, 2002, Manukau City District Plan
Commentary

The existing District Plan documents are generally dated and are based on previous industry standard roading hierarchies which are classified using movement focussed criteria such as traffic volumes and the role of the route within the transport network. Generally the existing District Plan documents do not align with a corridor management plan process for the following reasons:

- There is very limited acknowledgement of the importance of providing for place as well as movement functions.
- There is very limited acknowledgement that the relative importance of movement may change along a single route.
- The District Plan provides standardised advice on the ideal form of the different roading classifications. This guidance on form does not generally consider the potential place function of the route.

The District Plan roading hierarchies do, however, address the importance of considering the road network as a whole.

1.2 Regional Arterial Road Plan

The Regional Arterial Road Plan (RARP) was published by the former Auckland Regional Transport Authority (ARTA) in collaboration with the region’s road controlling authorities and other key transport stakeholders in 2009. The purpose of the RARP is as follows:

- To define the existing and future role and function of regional arterial roads.
- To provide a framework for the integrated management of regional arterial roads, and their interaction with surrounding land uses and other parts of the road network.
- To provide a basis for project prioritization.
- To develop rationale for more appropriate funding for regional arterial roads.

The RARP recognises the important role that regional arterial roads play in Auckland’s transport network. The definition for the regional arterial roads is taken from the Auckland regional land Transport Strategy (RLTS) which is:

“Roads which link districts or urban areas within the region and connect regionally significant facilities.”

The RARP states that it is essential that regional arterial roads operate efficiently, and are managed and developed in a manner that is sensitive to the surrounding road environment. The following principles are recommended for the management of regional arterial roads:

- The movement of people and goods should generally have priority over the access function of the road.
- Provision should be made for pedestrians and cyclists to move safely and conveniently.
- The movement of heavy vehicles should be facilitated.
- All roads should be designed to accommodate public transport and provide priority for public transport vehicles, where warranted by demand and traffic conditions.
- The design and operation should support the amenity of communities they pass through.
- Where roads pass through high density centres and corridors, the balance of travel and land use demands should be carefully considered to ensure that the road network supports the growth strategy in an integrated manner.
- Consistent, coherent and high-quality signage should be implemented.

Using these principles a future functional classification has been identified for each section of the regional arterial network. This takes into account the predicted future requirements for general traffic, public transport, freight and cycling. It also reflects the relative importance of these movement functions in relation to sensitive places adjacent to the regional arterials.

Commentary

The RARP effectively provides an assessment of the relative importance of the movement function of the regional arterial road network for different road users and identifies where there is likely to be a conflict between this movement function and the place function. The place function is assessed at a relatively high level and is based on existing land use as well as that anticipated by the Auckland Regional Growth Strategy.

- The objectives of the RARP recognise the multi dimensional nature of regional arterial corridors and that a number of sensitive land use activities such as schools and town centres, are located on regional arterial roads.
- The RARP recommends the use of Corridor Management Plans which include a
multidisciplinary approach to street design taking into account place and movement functions of the route.

It is noted that the place function in the RARP has been assessed by using existing planning documents only and does not include a comprehensive assessment by a planner or urban designer. The assessment of the movement function is comprehensive and includes separate assessments of different “movement” user groups including freight and public transport.

1.3 The Liveable Arterials Plan

The Liveable Arterials Plan was developed and published by the former Auckland City Council in October 2007. The plan aims to establish a functionality plan and street network that will best enable good land use and development decisions. The purpose of the Plan is:

- To ensure that the arterial street network responds to the need of all people using it, movement and non-movement related.
- To develop a greater understanding of transport in the context of the (Auckland) city's wider aspirations for a more liveable urban structure and form.
- To develop a network management strategy for the next 25 years with a 50 year context.
- To develop design guidance and tools to enable the realisation of the Plan.
- To ensure that decisions affecting the road environment in its totality, both the road reserve and the land use activities adjacent to it can be made in an informed holistic manner.

The Plan states that the network must ultimately perform the function of reliability and conveniently moving people and goods to facilitate social and economic exchange. However, it is also important that the network is managed to:

- Provide high quality urban environments for users of all modes.
- Achieve equity between road users in the allocation of scarce road space.
- Ensure that the potential of the network, and provision for through movement, to facilitate social and economic prosperity is maximised.
- Protect critical city wide freight movements.
- Respond to regional needs and modelled future volumes keeping in mind supply limitations.
- Managing the effects of road widening projects and potential redevelopment returns.

The Plan analyses the regional and district arterial routes located within the former Auckland City Council boundaries and allocates each route a functional role classification. The functional role of an arterial road depends on the range of influences acting upon it. It is not physically possible to simultaneously accommodate all user groups and often they actively compete against each other for space and the very elements that will help one will undermine the other. To manage these roles and the conflict between them four key arterial segment types have been developed. The four main arterial types are:

- General vehicle emphasis (GV)
- Community emphasis (C)
- Passenger Transport emphasis (PT)
- Freight emphasis (F)

Specific design guidance on the form of each arterial road type is provided. However these are high level strategic suggestions only and the Plan recommends the use of Corridor Management Plans to develop solutions on a case by case basis.

Commentary

The Liveable Arterials Plan can be seen to be closely linked to the principles outlined in Manual for Streets in the following ways:

- The Plan acknowledges the importance of providing for movement and place functions.
- The Plan moves away from the idea of a standard roading hierarchy resulting in a single corridor focus to a more network focus, allowing local roads to manage vehicle volumes in conjunction with main corridors.
- The Plan’s arterial functional types are aligned with the MfS’s recommendation of developing street character types.
- The plan acknowledges that the relative importance of the movement and place functions may change along a single route.
- The Plan recommends the use of Corridor Management Plans which include a multidisciplinary approach to street design taking into account place and movement functions of the road.

As with the RARP, the assessment of the movement function is comprehensive as it includes separate assessments of different “movement” user groups including freight and public transport.
1.4 Key Corridors Strategy

The Key Corridors Strategy was published by the former North Shore City Council (NSCC) in September 2010. The strategy aims to provide a long term (50 year plus) framework for the development of the key corridor network. The strategy includes an assessment of the future types of land uses and road functions, along with a guide on how planning for change might occur, both at a project level and high order level, and develops a priority listing of when planning and implementing specific corridors should be addressed.

A strategic arterial corridor network has been identified, and each road on the network assigned a transport link function and a land use place function for the future. The “place” types (land use) and “link” types (movement) are shown in Figure 1. Each corridor has then been prioritised for investigation for action.

The land use type was assessed through a detailed assessment process undertaken by the former NSCC land use planning team. This was based on existing District Plan zoning, strategic plans for the area and consideration of general constraints and opportunities of each corridor. As an additional review a set of independent criteria were developed and applied to a draft set of typology decisions for the whole (former North Shore City) network and key corridors identified.

The transport typologies were determined through analysing the NSCC roading hierarchy, the NSCC Transport Strategy High Capacity Network, the Quality Transit Network (QTN) and the NSCC cycle network. These routes were refined into the three typologies outlined in Figure 1, namely key transport routes, key passenger transport routes and other key routes.

The types of land use and key corridor outcomes that are desired in the future have been described in terms of ideal attributes for the form of the network. The final task was the collaborative process of assessing, identifying and integrating priorities. This was achieved through workshop and debate.

Commentary

In terms of overarching principles, the Key Corridors Strategy can be seen to be relatively similar to the Liveable Arterials Plan:

- The strategy acknowledges the importance of providing for movement and place functions.
- The strategy moves away from the idea of a standard roading hierarchy resulting in a single corridor focus to a more network focus, allowing local roads to manage vehicle volumes in conjunction with main corridors.
- The strategy’s road typologies are aligned at developing street character types.
- The strategy acknowledges that the relative importance of the movement and place functions may change along a single route.
- The strategy recommends the use of Corridor Management Plans which include a multidisciplinary approach to street design taking into account place and movement functions of the road.

The place function in the Key Corridors Strategy is more fully assessed than in the RARP or the Liveable Arterials Plan as different future land use typologies are also identified. The link function also considers different movement types such as cyclists and public transport but is not as developed as the functions included in the Liveable Arterial Plan.

1.5 Design of Streets Handbook

The Design for Streets Handbook was developed and published by the former NSCC in 2009. The handbook is intended to be used by anyone involved in the design of roads and streets as a best practice source document. Generally the handbook focuses...
on the form of the roads and provides specific design advice to aid users of the place function of the road. This includes ideas on how to create walkable neighbourhoods, balancing the needs of different street users, how to enhance the pedestrian experience, designing for cycling, public transport, on street parking, stormwater, street furnishings and lighting. Finally the handbook includes a checklist to be used by practitioners to ensure they have considered all of the vital ingredients in good street design.

Commentary

The Design of Streets handbook:

- States the importance of multidisciplinary working in the design of streets.
- States the importance of considering the place function as well as the movement function (for all road users).
- Recommends a move away from standard roading hierarchies based on solely movement functions and that classifying street types should always consider how movement of every road user can be accommodated as well as the role of the street in the urban realm.
- States that risk aversion can have a negative effect on street design.

The handbook provides thorough advice on how to design for the place function of a street and the movement function of pedestrians, cyclists and public transport. However the handbook does not address the importance of the transport network connecting as a whole and ensuring a design considers the potential impact on the entire roading network.