

LANDSCAPE DESIGN FOR  
PARK ROAD RESIDENTIAL  
EXTENSION, KATIKATI PENINSULA

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APRIL 2003

Contract Report No. 643

Report prepared for:

WESTERN BAY OF PLENTY DISTRICT COUNCIL  
PRIVATE BAG 12-803  
TAURANGA



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## 1. INTRODUCTION

Western Bay of Plenty District Council are considering options for residential expansion at Katikati. One option, between Park Road and the Tauranga Harbour, involves subdivision within relative close proximity to the margins of Tauranga Harbour. (Refer to Figure 1.) The harbour has significant ecological values, and a high quality example of mangrove shrubland and saltmarsh in this area also has high values for marsh birds. A recent review of ecological issues associated with this urban growth option included a recommendation for a predator exclusion fence (Wildland Consultants 2001).

This report provides a landscape concept plan for the proposed works.

## 2. PREDATOR EXCLUSION FENCE

It is recommended that an Xcluder pest fence is used. These are c.2 m tall, with a smooth overhanging tin or aluminium sheet lip at the top to stop cats getting over the fence. A 50 mm mesh will exclude cats and dogs (and possums).

An illustration of a section of fence is provided below. Note that this example is 6 mm mesh (to exclude mice and larger pests) and has been built using powder coated mesh and galvanised mesh.



Plate 1: Example of Xcluder fence at Maungatautari, 2003.

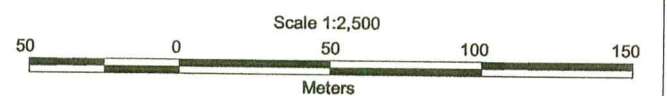




**KEY**

- Property boundaries
- Position of figures

**Figure 1. Park Road Study Area and Property Boundaries**



### 3. FENCE ALIGNMENT

The alignment was traversed on 4 April 2003 in the company of a representative of Western Bay of Plenty District Council. An alignment was selected that minimises visual intrusion and provides opportunities for vistas of the adjacent estuary, which is a significant landscape feature. It will be necessary to undertake earthworks to form some sections of the proposed fence alignment. The proposed alignment is shown on Sheets 1-3 (refer to Figure 1 for the coverage of Sheets 1-3).

### 4. PLANTING PLAN

A planting plan is presented on Sheets 1-3 and the proposed planting mixes are set out below:

#### Planting Mix A

Main buffer planting to edge of estuary margin. Provides a visual and physical break between the residential area and the wetland margin. Species include manuka (*Leptospermum scoparium*) (main species 50-60%), *Coprosma propinqua*, toetoe (*Cortaderia fulvida*), flax (*Phormium tenax*), and ti kouka (cabbage tree; *Cordyline australis*).

#### Planting Mix B

Lower planting on poorly drained sites and wetland margins to allow views from prominent points on the walking track. In estuarine wetland areas searush (*Juncus kraussii* subsp. *australiensis*) and oioi (*Leptocarpus similis*) could be planted, with *Carex secta* and *C. virgata* in freshwater wetland areas.

#### Planting Mix C

Lower planting to edge of walking track and residential area. Lower planting will allow views from residential area to be kept open to the harbour from the high side of the scarp. Lower planting also ensures that predators are not able to climb to a height which will allow them to get over the predator exclusion fence. This planting will be managed to ensure that no taller plants colonise these areas. Species include toetoe, flax, koromiko (*Hebe stricta*), karamu (*Coprosma robusta*), and small pockets of ti kouka (cabbage trees). Some margins on flatter terrain could be left open (in grass) and mown.

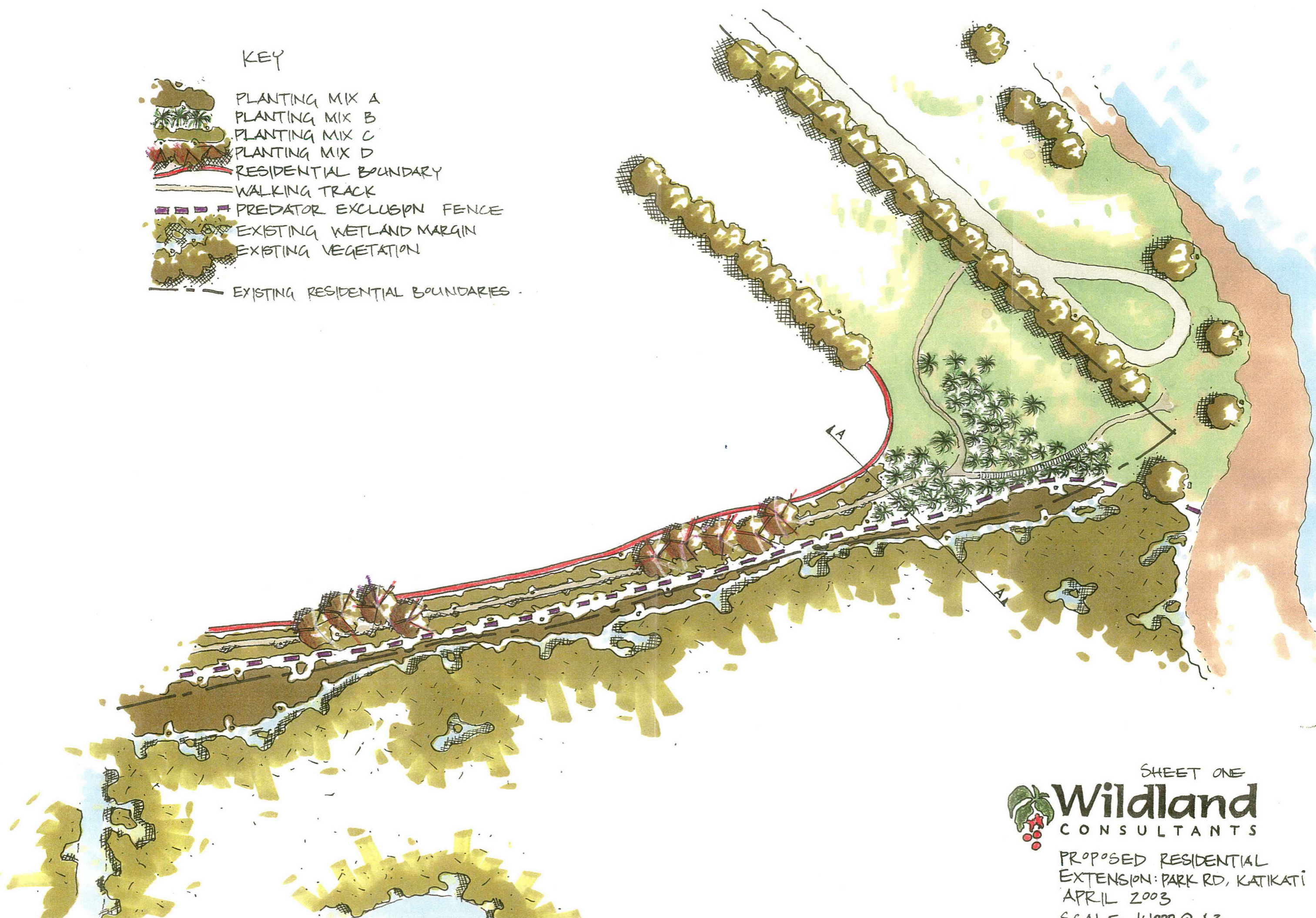
#### Planting Mix D

Small pockets of larger indigenous species to provide a break in the walking track planting and to provide a canopy for habitat diversity. Species include karamu, and manuka, inter-planted with puriri (*Vitex lucens*), ngaio (*Myoporum laetum*), pohutukawa (*Metrosideros excelsa*), karaka (*Corynocarpus laevigatus*), rimu (*Dacrydium cupressinum*), and kahikatea (*Dacrycarpus dacrydioides*).



KEY

-  PLANTING MIX A
-  PLANTING MIX B
-  PLANTING MIX C
-  PLANTING MIX D
-  RESIDENTIAL BOUNDARY
-  WALKING TRACK
-  PREDATOR EXCLUSION FENCE
-  EXISTING WETLAND MARGIN
-  EXISTING VEGETATION
-  EXISTING RESIDENTIAL BOUNDARIES



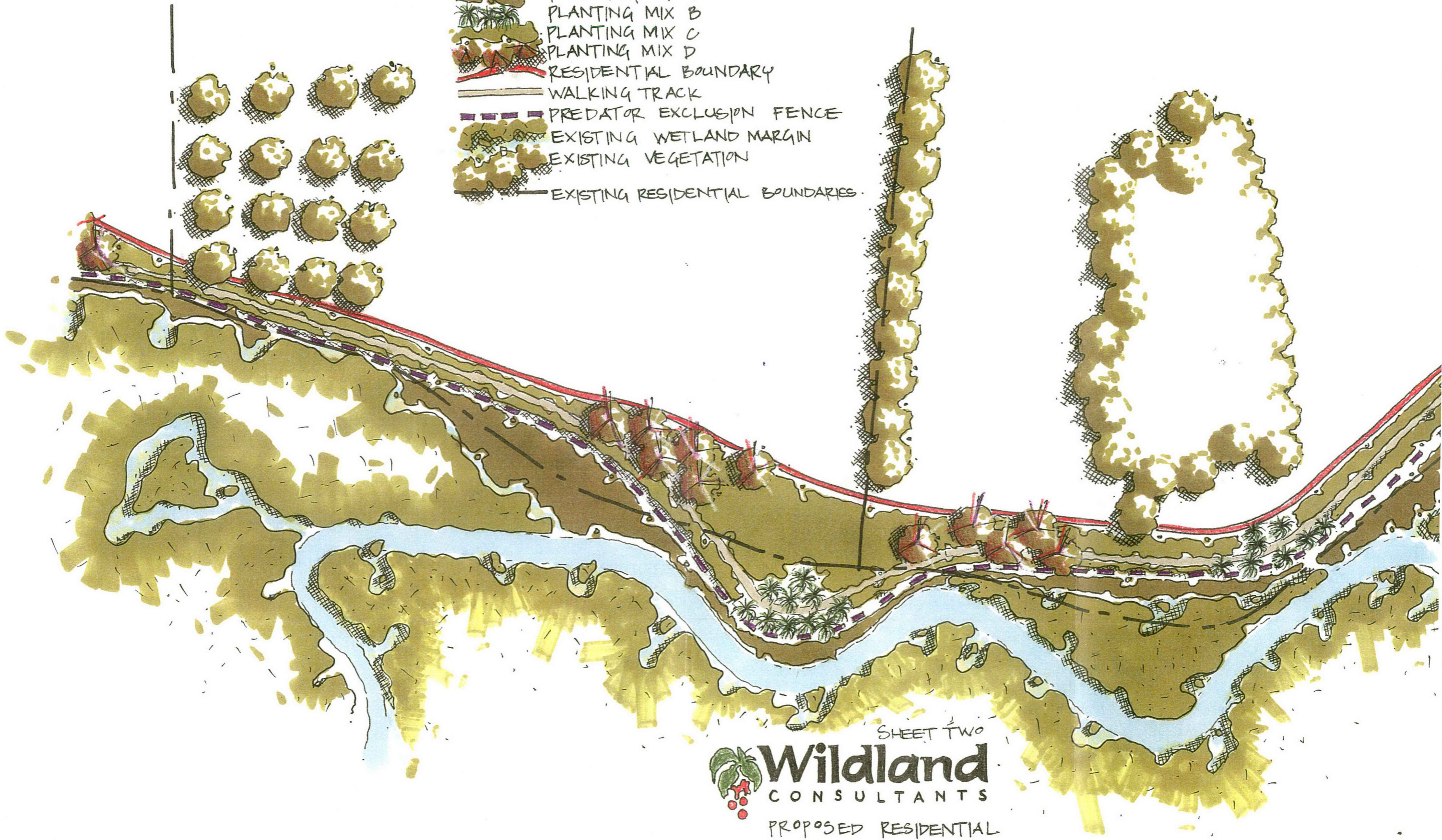
SHEET ONE



PROPOSED RESIDENTIAL  
EXTENSION: PARK RD, KATIKATI  
APRIL 2003  
SCALE 1:1000 @ A3

KEY

-  PLANTING MIX A
-  PLANTING MIX B
-  PLANTING MIX C
-  PLANTING MIX D
-  RESIDENTIAL BOUNDARY
-  WALKING TRACK
-  PREDATOR EXCLUSION FENCE
-  EXISTING WETLAND MARGIN
-  EXISTING VEGETATION
-  EXISTING RESIDENTIAL BOUNDARIES













SHEET TWO

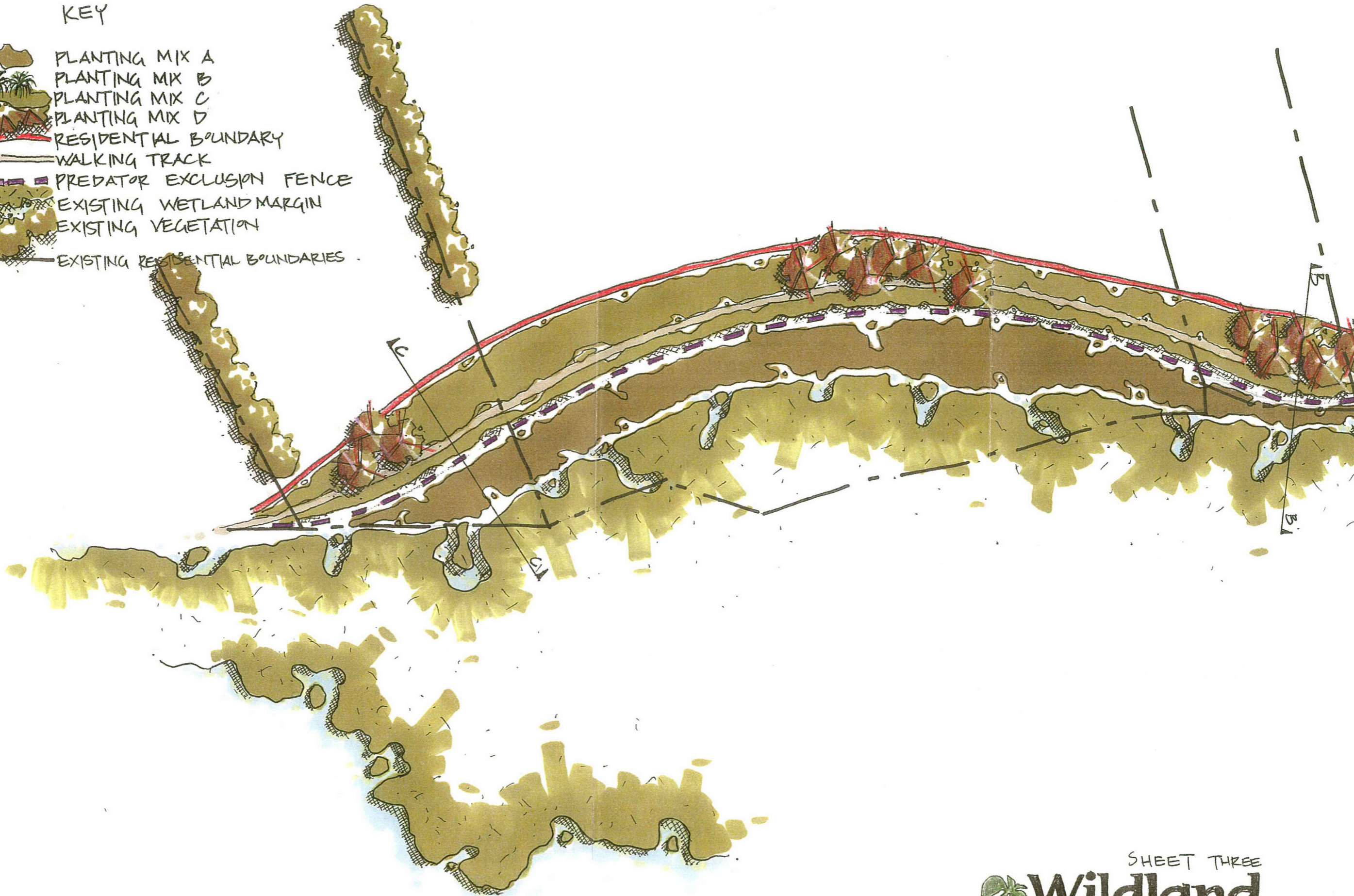


PROPOSED RESIDENTIAL  
EXTENSION: PARK RD, KATIKATI  
APRIL 2003  
SCALE 1:1000 @ A3



KEY

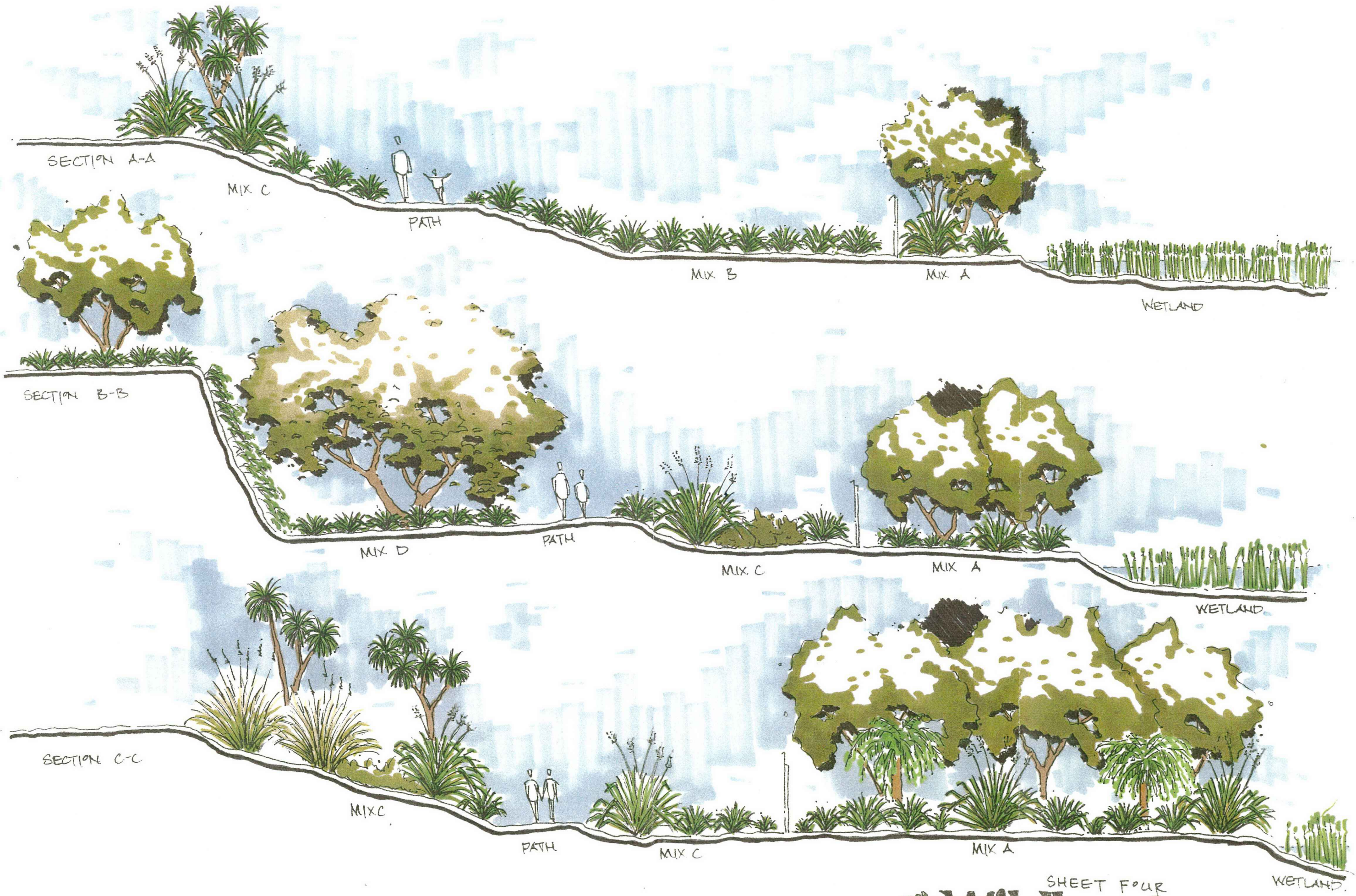
-  PLANTING MIX A
-  PLANTING MIX B
-  PLANTING MIX C
-  PLANTING MIX D
-  RESIDENTIAL BOUNDARY
-  WALKING TRACK
-  PREDATOR EXCLUSION FENCE
-  EXISTING WETLAND MARGIN
-  EXISTING VEGETATION
-  EXISTING RESIDENTIAL BOUNDARIES



SHEET THREE



PROPOSED RESIDENTIAL  
EXTENSION PARK RD, KATIKATI  
APRIL 2003  
SCALE 1:1000 @ A3



SHEET FOUR  
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NOT TO SCALE. SECTIONS ARE INTENDED TO INDICATE PLANTING CHARACTER. PROPOSED RESIDENTIAL EXTENSION: PARK RD. KATIKATI 10011 7002

### Planting Mix E

This part of the site will be subject to earthworks prior to fence construction, and this area could be grassed or planted in toetoe.

### Cross Sections

Three cross sections are presented on Sheet 4, illustrating the type and relative heights of the proposed plantings in relation to a walking track and predator exclusion fence - refer to Sheets 1 & 3 for the location of these.

### Plant Stock

All plants should be locally sourced, from within the Western Bay of Plenty. Plants should generally be propagated from seed.

## 5. INDICATIVE COSTS

Likely costs were assessed by Wildland Consultants (2001) and these have been reviewed below. The project includes the following components:

- Removal of large exotic trees prior to formation of fence alignment.
- Formation of fence alignment.
- Construction of predator-exclusion fence.
- Planting of estuary buffer inside fence with locally-sourced indigenous species (including site preparation and maintenance until plantings are established). Planting costs include the following elements:
  - Pest control (if required)
  - Plants
  - Site preparation (labour, herbicide)
  - Planting costs (labour and supervision)
  - Post-planting maintenance (4 years)
- Establishment of walking track.
- Establishment of grassed areas outside fence.
- Establishment of local indigenous plantings outside fence.
- Surveying and other costs associated with establishment of reserve.



A summary of indicative costs is provided below. It should be noted that these costs require confirmation based on on-site assessments of each element of a final project design.

Table 2: Indicative costs associated with predator fencing, revegetation, amenity planting, and recreational development of the margin of the Park Road estuary

<b>Task</b>	<b>Indicative Costs</b>
Removal of exotic trees	10,000
Formation of fence alignment (\$10/m)	10,500
Construction of fence (\$85/m)	90,000
Planting - Mix A	30,000
- Mix B	8,700
- Mix C	14,000
- Mix D	7,500
- Mix E*	10,000
Establishment of walking track*	40,000
Surveying of reserve boundary	8,000
<b>Total</b>	<b>\$228,700</b>

\* Estimate only.

Note: Costs are GST exclusive.

## ACKNOWLEDGMENTS

Phillip Martelli (Western Bay of Plenty District Council) provided project liaison.

## REFERENCES

Wildland Consultants Ltd 2001: Review of ecological aspects of option for further subdivision at Park Road, on the Katikati Peninsula. *Wildland Consultants Ltd Contract Report No. 419*. Prepared for Beca Carter Hollings and Ferner Ltd and Western Bay of Plenty District Council. 22 pp.

