

EXECUTIVE SUMMARY

Transit's forecasts of expenditure in Canterbury for the next 10 years are set out in Table C1.

These forecasts of expenditure are based on a 10-year plan of maintenance and improvements, including commitments. The timeframe for the development and construction of the improvements proposed in the 10-year plan are indicative only, and might change, for example, as a result of changes in funding availability and delays in project development.

Major features of the Canterbury 10-year plan are:

- › Normanby Realignment on SH1, south of Timaru, for a construction start in 2003/04
- › a new weighstation at Glasnevin on SH1 south of the SH1/7 intersection, incorporating a stock effluent disposal facility, for construction in 2003/04
- › Main North Road Four-Laning (Stage 2), for a construction start in 2005/06
- › Christchurch Southern Motorway Duplication and Extension on SH73, for a construction start in 2010/11
- › three intersection improvements on Russley Road/Carmen Road on SH1, for construction in the next two years
- › 16 small or medium-sized rural realignments, bridge widening, guardrail and side protection projects, for development or construction in the next three years, including a project to underground the power lines between Rakaia and Ashburton
- › four intersection improvements, for development or construction in the next three years, including improvements to the Empire Road Off-ramp intersection on the Christchurch Northern Motorway
- › 13 more passing lanes on SH1, north of Christchurch, and between Christchurch and Timaru, for development or construction in the next three years
- › three more stock effluent disposal facilities, for construction in the next three years
- › a cycleway on the Boyle River Bridge on SH7, for construction in 2004/05.

BACKGROUND

The Canterbury region has amongst the most extensive network of state highways in New Zealand, albeit that much of the network is relatively lightly trafficked, and generally the highways in Canterbury are of a high standard. Apart from a few major realignments, only relatively minor safety improvements and additional passing lanes are required over the next 10 years.

Within Christchurch City, there is an ongoing requirement for improvements to the arterial road network to accommodate traffic growth and serve urban development. These improvements complement the Regional Land Transport Strategy provisions for maximising the use of public passenger transport and cycling and walking.

Recent Improvements

A number of significant rural improvements have been undertaken to state highways in Canterbury in recent years, mainly in North Canterbury and on SH73 through Arthur's Pass. The most significant of these have been:

- ▶ SH1: Siberia Ferniehurst Realignment
- ▶ SH1: Hawkswood Deviation
- ▶ SH1: Glen Colwyn Realignment
- ▶ SH73: White Bridge and Approaches

In Christchurch City, Transit has contributed to the development of Anzac Drive which will become state highway in 2004 and has upgraded to four lanes a section of Main North Road, south of Belfast.

A number of passing lanes have been constructed in recent years, on SH1 between Waipara and Woodend and between Christchurch and Ashburton to implement Transit's strategy of providing passing lanes at 5km intervals on high-volume highways.

Current Improvements

Projects currently under construction in Canterbury include:

- ▶ SH 1: Ellerton to Valhalla Realignment, north of Kaikoura

- ▶ SH 7: Hurunui Road Curve Realignment, between Waikari and Culverden

Work is also underway on upgrading the Lunns Road and Parkhouse Road intersections with SH73 and the Sparks Road intersection with SH75.

PROPOSED IMPROVEMENTS

The locations of Canterbury projects in the 10-year plan are shown on Figure C and the expected cost and timeframe for the development and construction of these projects are indicated in Table C2.

Large improvement projects (with construction costs more than \$3M) have been planned for 10 years and small and medium-sized projects (with construction costs of less than \$3M) have been planned for 3 years.

Christchurch City and Environs

Ongoing improvements are required to state highways in Christchurch City, and in Waimakariri and Selwyn Districts, to support urban growth. Within Christchurch City, it is proposed to maintain and further develop a state highway network comprising:

- ▶ a northern bypass via QEII Drive (SH74)
- ▶ an eastern bypass via the Woolston/Burwood expressway and Tunnel Road (SH74)
- ▶ a southern bypass via the existing and proposed Southern Motorway (SH73)
- ▶ a western bypass via Carmen/Russley Roads (SH1)
- ▶ a northern arterial linking the existing motorway and the northern bypass

Major projects in Christchurch City which are planned for the next 10 years include:

- ▶ SH74: Main North Road Four-Laning
- ▶ SH73: Christchurch Southern Motorway Duplication and Extension

Transit's long-term plan is to four-lane Russley Road/Carmen Road. This is not currently included within the next 10 years apart from a number of intersection improvements comprising:

- › SH1: Yaldhurst Road Intersection Signalisation
- › SH1: Buchanans Road Intersection Signalisation
- › SH1: Main South Road/Carmen Road Intersection Improvements at Hornby

Transit proposes to retain a designation for the Northern Arterial, north of QEII Drive, although this work is not planned within the next 10 years. Ultimately, the timing of the Northern Arterial is likely to be dependent on the development of an effective local road network, south of QEII Drive, to feed the Northern Arterial.

Within Waimakariri District, there are plans to duplicate the Northern Motorway and construct a bypass of Woodend on SH1, and to four-lane SH71 to Rangiora. At this stage, no route has been determined for a bypass of Woodend. None of these projects is planned within the next 10 years.

Within Selwyn District, the major long-term requirement is to four-lane SH1 between Christchurch and Rolleston with an appropriate connection into Rolleston to serve the urban growth proposed for this area. At this stage, a scheme for this section of SH1 is still being finalised.

Weighstation

An upgraded vehicle compliance station, incorporating a stock effluent disposal site, is to be built at Glasnevin 3km south of the SH1/SH7 junction. The new station will replace an existing weighbridge in the same locality.

Rural Realignments

The major rural improvement which is planned in the 10-year plan is a realignment of SH1 at Normanby in South Canterbury. This 4km realignment which will improve safety on this substandard section of SH1, just south of Timaru is planned for a construction start in 2003/04.

It is envisaged that further improvements will ultimately be required to SH73 to the West Coast to improve the alignment of the section between Klondyke Corner and Arthur's Pass and to manage the instability of rock slopes on each side of the highway between Springfield and Arthur's Pass. No substantial work on this section has been included in the 10-year plan.

Other rural highway realignments not included in the 10-year plan due to funding constraints are:

- › SH1: Okarahia Realignment, over the Hundalee Hills, south of Kaikoura
- › SH7: Hells Gate Realignment, south of the turn-off to Hanmer Springs on SH7A
- › SH 7: Haypaddock Hill Realignment, west of the turn-off to Hanmer Springs on SH7A
- › SH73: Thomas River Realignment, near the Castle Hill Village
- › SH73: Lake Lyndon Realignment, west of Springfield

Safety Projects

Small and medium-sized safety improvement plans for construction in the next three years in Canterbury include rural realignments, guardrails and intersection improvements.

Rural realignments include:

- › SH1: Omihi Twin Culverts Realignment, north of Waipara junction.
- › SH1: Saltwater Creek Realignment, north of Woodend.
- › SH1: Otumatu Point Curve Improvement, south of Kaikoura
- › SH7: Stewarts Fan Realignment, east of the Lewis Pass summit
- › SH77: Windwhistle Corner Realignment, east of the Rakaia Gorge
- › SH79: Issits Culvert Realignment, north of Fairlie

Guardrail projects include:

- › SH1: Okiwi Bay Safety Improvement, north of Kaikoura.
- › SH1: Rakaia Overbridge Guardrail, north of the Rakaia River.
- › SH1: Northern Motorway Bridge Pier Protection, north of Belfast.
- › SH7: Handyside to Waterfall Guardrail, west of Hanmer Springs Turn-off

Intersection improvements include:

- › SH1: Empire Road Off-Ramp Improvements, Christchurch Northern Motorway
- › SH1: Robinsons/ Currags Right-turn Bay, south of Templeton.
- › SH1: South St Intersection, south of Ashburton
- › SH73: Kirk Road Intersection, west of Yaldhurst

It is also proposed to widen the Kowai River No. 2 Bridge, west of Springfield on SH73 and underground the power lines on SH1 between Rakaia and Ashburton.

Passing Lanes

More passing lanes have been planned for construction in the next three years on SH1, both north and south of Christchurch, as follows.

- › SH1: Hapuku Southbound Passing Lane, north of Kaikoura
- › SH1: Clarence North Southbound Passing Lane, north of Clarence River
- › SH1: Waipapa Southbound Passing Lane, south of Clarence River
- › SH1: Omihi Southbound Passing Lane, north of the SH1/SH7 junction
- › SH1: Amberley Dual Passing Lanes, south of Amberley
- › SH1: Limestone Creek Slow Vehicle Bay, south of Oaro

- › SH1: Winslow Dual Passing Lanes, between Tinwald and Hinds
- › SH1: Seadown Dual Passing Lanes, midway between Timaru and Temuka

In addition it is proposed to commence the design of passing lanes between Christchurch and Yaldhurst on SH73 within the next three years.

Stock Effluent Disposal Facilities

In accordance with the plan agreed with local authorities, a number of new stock effluent disposal facilities are included in the 10-year plan. These are located at:

- › SH1: Glasnevin, south of the SH1/SH7 junction
- › SH1: Tinwald, Ashburton
- › SH1: Kaikoura, at the intersection with Route 70

Walking and Cycling

A number of cycling projects have been planned for construction in the next three years. It is proposed to construct a cycleway on the Boyle River Bridge on SH7 and Transit proposes to contribute to the provision of a cycleway between Christchurch and Little River on SH75. In addition, improvements to cycle facilities on state highways within urban Christchurch are being investigated.

MAINTENANCE and OPERATIONS

In addition to undertaking maintenance and improvements to meet current and future levels of service, and to preserve the asset, Transit proposes to:

- › improve the availability of road condition information to road users at critical points on the network
- › introduce thermal mapping of the inland network to better predict where icing will occur
- › introduce more road weather stations to improve road condition predictions and maintenance team responses to ice and snow, and continue to trial the use of the de-icer CMA (calcium magnesium acetate)

- › continue to work on risk analysis of rock falls and river erosion as threats to safety and route security
- › implement retrofitting works on a number of bridges on the network to reduce vulnerability in the event of a severe earthquake
- › continue to maintain and improve the coastal defences of SH1, north and south of Kaikoura
- › work with the Department of Conservation to ensure that maintenance works within the national parks represent world best practice.

Table C1

Forecasts of Expenditure on Maintenance and Improvements

Canterbury Region

	03/04 (\$M)	04/05 (\$M)	05/06 (\$M)	06/07 (\$M)	07/08 (\$M)	08/09 (\$M)	09/10 (\$M)	10/11 (\$M)	11/12 (\$M)	12/13 (\$M)	Total (\$M)
Maintenance											
Structural	11.7	12.0	12.2	12.5	12.7	13.0	13.2	13.5	13.8	14.0	128.6
Corridor	5.8	6.2	6.5	6.8	7.1	7.4	7.7	8.1	8.4	8.8	72.7
Professional Services	2.5	2.6	2.6	2.7	2.7	2.8	2.8	2.9	2.9	3.0	27.5
Property Management	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Preventive Maintenance	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	4.6
Emergency Works	0.7	1.2	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.6	13.3
Sub-total	21.1	22.4	23.0	23.7	24.3	25.0	25.7	26.4	27.1	27.9	246.6
Improvements											
Minor Safety Projects	0.8	0.8	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	9.1
Committed Projects	0.0	0.0	0.0	0.0	-	-	-	-	-	-	0.0
New Projects	14.0	14.4	15.8	15.7	11.7	11.7	12.0	16.6	27.8	33.8	173.5
Property Purchase	2.5	1.6	1.6	1.9	1.9	2.0	2.1	2.1	2.2	2.3	20.2
Walking & Cycling	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.0
Sub-total	17.4	16.9	18.4	18.6	14.6	14.7	15.1	19.8	31.1	37.2	203.8
Total	38.5	39.3	41.4	42.3	39.0	39.7	40.8	46.2	58.2	65.1	450.5