

CANTERBURY STATE HIGHWAY FORECAST

EXECUTIVE SUMMARY

Transit's forecasts of expenditure in Canterbury for the next 10 years are set out in Table C1. For forecast purposes only, Transit has anticipated an indicative level of regional distribution funding. Final allocations of regional distribution funding will be determined annually.

These forecasts of expenditure are based on a 10-year forecast of maintenance and improvements, including projects for which funding is already committed. The timeframe for the development and construction of the improvements proposed in the 10-year forecast is indicative only and is likely to change depending on the project's importance within the context of the regional land transport strategy, its national priority, the resolution of any local concerns and property issues.

The Canterbury 10-year state highway forecast seeks to protect and preserve the existing asset and improve route efficiency and safety for the state highways in the Canterbury area.

Major features of the forecast are:

- › travel demand opportunities in and around Christchurch CBD
- › investigations of the Northern Arterial and QEII Four-laning at the northern entrance to Christchurch city
- › further development and construction of the Christchurch Southern Motorway
- › further development and construction of capacity improvements on (SH1) – the Western Bypass of Christchurch city
- › investigation of route improvement options between Mingha Bluff and Rough Creek on SH73
- › investigation of route options for a bypass of Woodend on SH1 north of Christchurch
- › intersection improvements at key locations within Christchurch, Rolleston, Ashburton, and Timaru
- › possible development and construction of additional passing lanes on SH1 north of Kaikoura and south of Ashburton
- › development and construction of stock effluent facilities on SH1 at Pareora and Kaikoura
- › development and construction of rural realignment improvements including Okiwi Bay (SH1), Handyside to Waterfall (SH7), Saltwater Creek (SH1), Haypaddock Hill (SH7), and Stewarts Fan (SH7)
- › bridge widening, including the bridge over the Kowai River (SH73)
- › walking and cycling improvements
- › transportation studies in Ashburton and Timaru.

KEY REGIONAL TRANSPORT ISSUES

Through Canterbury's regional land transport strategy, long term council community plans, and Transit's state highway forecast, local and central government is aiming for a sustainable land transport system that meets the objectives of the New Zealand Transport Strategy (NZTS) and the Land Transport Management Act (LTMA), i.e. assisting economic development, assisting safety and personal security, improving access and mobility, protecting and promoting public health, and ensuring environmental sustainability.

To achieve a sustainable land transport system we need to consider both land use and transport trends and behaviour. In this respect regional and local growth strategies (or emerging views where strategies have not been written) and planning documents are critical to supporting regional land transport strategies.

In meeting the objectives of the NZTS and LTMA the key regional transport issues for Canterbury include:

- › congestion management in Christchurch through TDM initiatives and roading improvements
- › consideration of the implications of the Christchurch Urban Growth Strategy
- › residential developments on the outskirts of Christchurch
- › commercial developments to the west of Christchurch around SH1
- › tourism developments around Kaikoura
- › passing opportunities on SH1 north of Kaikoura and south of Ashburton
- › road safety at key intersections
- › rural highway realignments.

TRANSIT'S CONTRIBUTION TO TRANSPORT ISSUES

The state highway network in Canterbury has seen various improvements in recent years. Mitigation of growing congestion problems in Christchurch remains an important issue for the region. The improvement of rural sections of highway with high accident rates and the provision of additional passing lanes is also a key focus of the works proposed for Canterbury.

The location of possible Canterbury projects in the 10-year forecast are shown in Figure C. The expected cost and possible timeframe for the development and construction of these activities is indicated in Table C2.

The timeframe for the development and construction of the improvements proposed in the 10-year forecast is indicative only, and is likely to change, depending on the use of additional funding from central government (known as 'regional distribution funding') to advance activities. While Transit anticipates it will have further expenditure from regional distribution funding, this is yet to be determined. Indicative construction start dates are based on expected funding levels if 50 percent of regional distribution funding for Canterbury was allocated to state highways, spread evenly over 10 years.

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

Efficient and Safe Transport Corridors

Access From The North

Schemes for improving access from the growth areas north of Christchurch are a key focus for Canterbury. These initiatives include further protection of the Northern Arterial, Western Bypass, and QEII routes as well as options for bypassing Woodend.

Access And Mobility Around Christchurch

The duplication and extension of the Christchurch Southern Motorway (SH73) south of the City and the four-laning of the western bypass route (SH1) will ensure efficient travel along these key routes.

In addition, a number of intersection upgrades within Christchurch city will maximise efficiency and safety for all road users.

Passing Lanes

Ongoing provision of additional passing lanes within Canterbury is focused on SH1 with facilities at Clarence North, Hapuku north of Kaikoura and Tirohanga. Further passing lanes south of Ashburton are proposed at the following locations: Orari, Seadown, Hinds, Ealing, Rangitata and St Andrews. These are subject to progress on other projects and regional distribution funding.

Road Safety

Transit plans to remove 'out of context' or 'surprise sections' of state highways, roadside hazards, provide a network of stock truck effluent disposal sites, and improve constraints and safety risks associated with walking and cycling. Of particular concern is the need to investigate improvement options on SH73 between Mingha Bluff and Rough Creek where narrow road widths and the demanding alignment make it a challenging route.

Rural Highways

Improvements on SH7 between Handyside and Waterfall and at Haypaddock Hill, and on SH1 at Saltwater Creek and Okiwi Bay have been developed and are ready for construction.

Other small to medium-sized projects that could be developed and possibly constructed within the next three years depending upon regional distribution funding are:

- › Rangitata South (SH1)
- › Courtenay Road Curve and Intersection (SH73)
- › Dunbars Road/SH75 Intersection (SH75)
- › Burkes Pass (SH1)
- › Windwhistle Corner (SH77)
- › Conway Bluffs Realignment
- › Engineers Camp to Boyle River
- › Travis Road Four-laning.

Stock Effluent Disposal Facilities

In accordance with the plan agreed with local authorities, stock effluent disposal facilities have been completed at Glasnevin, Tinwald, and Springfield. Additional facilities at Pareora and Kaikoura (on SH1) are currently under development.

Walking and Cycling

Improvements for pedestrians and cyclists are incorporated into all urban intersection improvements as and when they are undertaken. In addition, opportunities to improve walking and cycling on key state highway routes in Christchurch are currently being assessed. Another key walking and cycling initiative is the investigation of improvement options at various key bridges throughout Canterbury. Projects include:

- › Christchurch City Intersection Cycle Lanes
- › School River Bridge Pedestrian Facility
- › Boyle River Bridge Cyclist Facility
- › Christchurch City Cycle Lanes Safety Improvement
- › Jed River Bridge Pedestrian Facilities.

MAINTENANCE and OPERATIONS

In addition to maintaining current and future levels of service, and preserving the asset, Transit proposes to:

- › improve the availability of road condition information to road users at critical points on the network by the use of electronic variable message signposting. This signage is currently being erected on State Highway 7 (Lewis Pass and Rahu Saddle) with other parts of the network expected to follow.
- › 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, and prioritise its work accordingly, on risk analysis of rock falls and river erosion as threats to safety and route security occur.
- › 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

	05/06 (\$M)	06/07 (\$M)	07/08 (\$M)	08/09 (\$M)	09/10 (\$M)	10/11 (\$M)	11/12 (\$M)	12/13 (\$M)	13/14 (\$M)	14/15 (\$M)	Total (\$M)
Maintenance											
Structural	17.2	17.9	19.3	20.2	21.1	22.0	23.0	24.0	25.0	26.2	215.7
Corridor	7.3	7.6	8.2	8.6	9.0	9.4	9.8	10.2	10.7	11.1	91.9
Professional Services	3.6	3.7	4.0	4.2	4.4	4.6	4.8	5.0	5.2	5.4	44.9
Property Management	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.1	1.1	9.3
Preventive Maintenance	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	2.7
Emergency Works	1.1	1.5	1.8	1.9	1.9	2.0	2.1	2.2	2.3	2.4	19.3
Sub-total	30.2	31.7	34.4	35.9	37.5	39.2	40.9	42.7	44.6	46.6	383.9
Improvements											
Minor Safety Projects	2.2	2.3	2.5	2.6	2.8	2.9	3.0	3.1	3.3	3.4	28.1
Committed Projects	4.2	0.0	0.0	0.0	-	-	-	-	-	-	4.2
New Projects	6.3	10.1	11.8	11.9	15.7	33.7	60.4	54.4	48.1	44.5	297.0
Property Purchase	5.6	5.8	6.0	6.3	6.5	6.7	7.0	7.3	7.5	7.8	66.4
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	18.3	18.4	20.4	20.9	25.0	43.4	70.5	64.9	59.0	55.9	396.7
Total	48.5	50.1	54.8	56.8	62.5	82.6	111.4	107.6	103.6	102.5	780.5

Note: regional distribution funding for state highways forecast to be \$135M over 10 years