

Email Message

To : Tweed Shire Council	Attn : Paul Morgan	paulm@tweed.nsw.gov.au
cc. :		

Date : 07 / 02 / 05
From : Gary Hunter

Our Ref : 03-001_E29
Pages : 2

Subject : Tugun Bypass – Cobaki Interchange

I provide outputs, as requested, regarding the 'with' / 'without' Cobaki Interchange.

Updated Base Case (with Interchange at Cobaki Parkway)

Figure 1-1 : Daily Volumes

Figure 1-2a : AM Peak Hour Volumes

Figure 1-2b : PM Peak Hour Volumes

Without Interchange

Figure 2-1 : Daily Volumes

Figure 2-2a : AM Peak Hour Volumes

Figure 2-2b : PM Peak Hour Volumes

Change in Volumes ('Without' minus 'With')

Figure 3-1 : Daily Volumes

Figure 3-2a : AM Peak Hour Volumes

Figure 3-2b : PM Peak Hour Volumes

Origins of Users

Figure 4 : Origins of Vehicles using the northbound on-ramp (over 24 hours)

Table 4-1 : Origins of Vehicles using the northbound on-ramp

From	Daily Volume	% of Total Users
Cobaki Lakes	4,782	50.5%
Bilambil Heights	2,384	25.2%
Rest of West Tweed Heads	878	9.3%
Rest of Tweed Shire	1,429	15.1%
TOTAL	9,473	100%

Road User Benefits

As summarised in the following table, the disbenefits of removing the ramps (or benefits of adding the ramps) is about \$30,500 per day (in the ultimate development scenario). This would equate to about \$9m annually, at this time horizon.

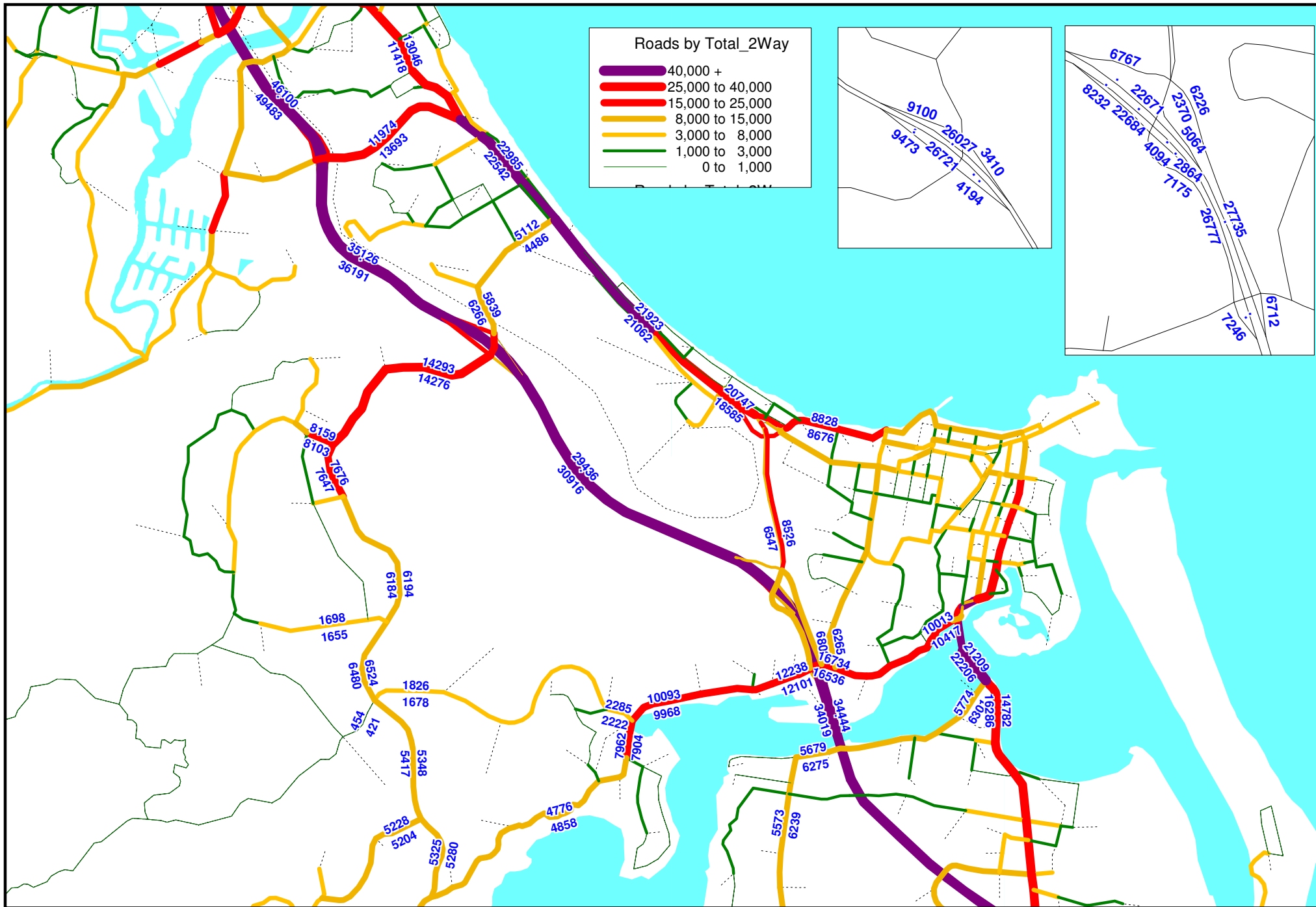
Table 5-1 : Change in Daily Road User Costs

Travel Indicator	Change in Parameter (‘Without’ ramps minus ‘with’ ramps)
Vehicle Hours	+1,080 hours
Person Hours	+1,550 hours
Vehicle Kilometres	+28,900 vkm
Travel Time Costs ⁽¹⁾	+\$14,780
Vehicle Operating Costs	+ \$9,200
Accident Costs	+ \$6,500
Total Costs	+ \$30,480

Notes : 1. Calculated using \$9.80 per person-hour for private travel and \$15.00 per commercial vehicle hour.

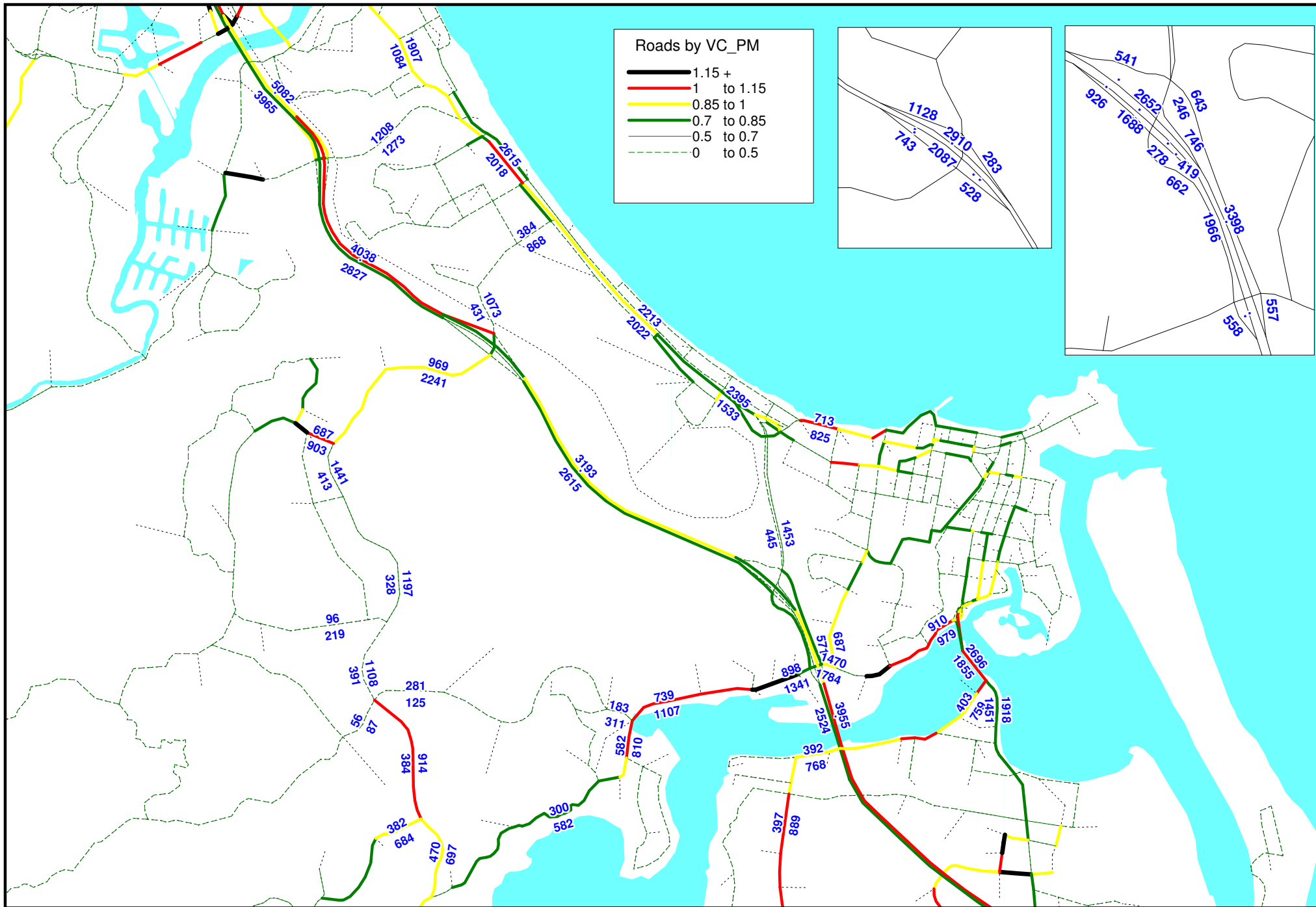
Regards,

Gary Hunter.



Daily Volumes - on Ultimate Development (New Base Network)

Figure 1

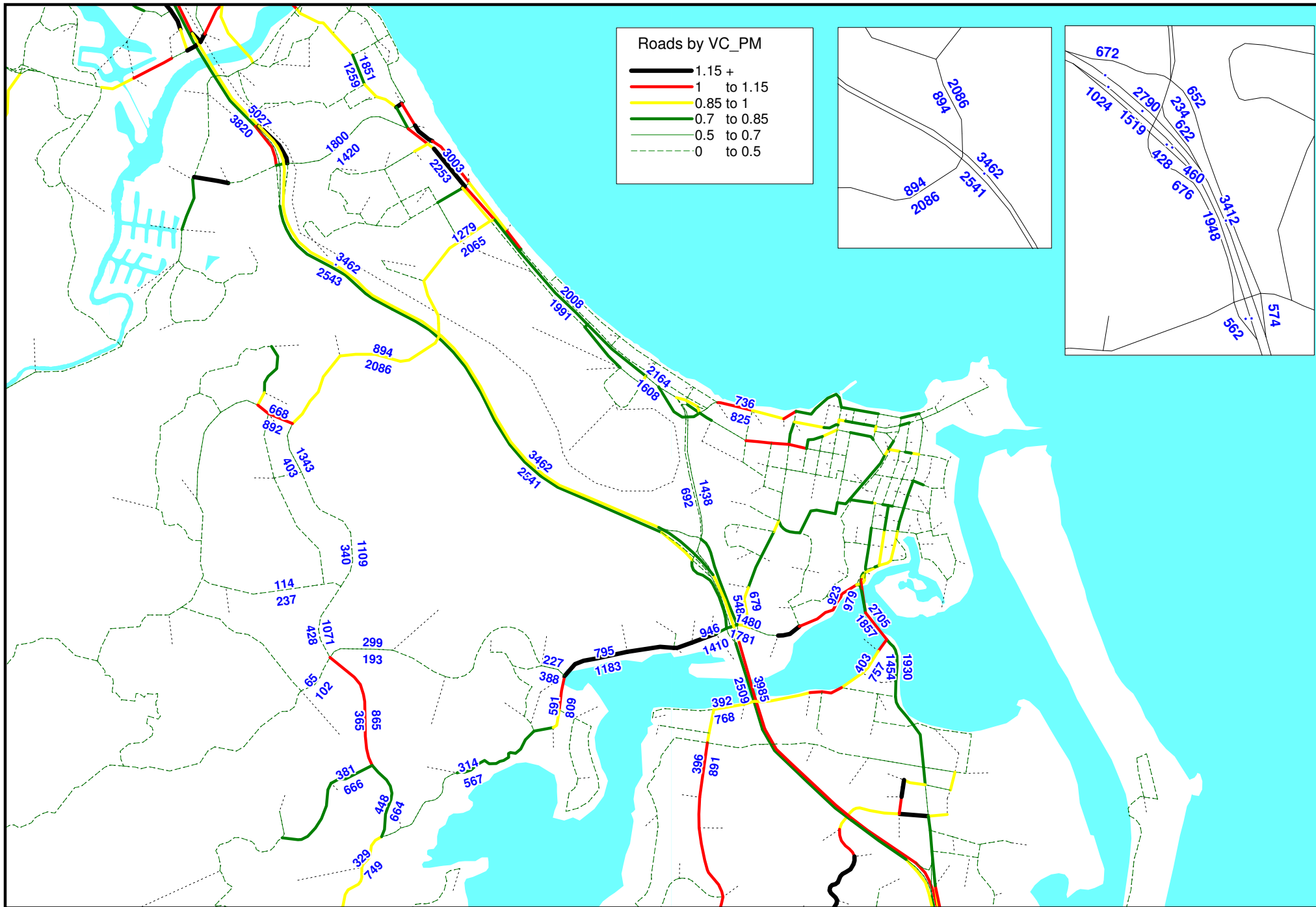


PM Peak Hour Volumes - on Ultimate Development (New Base Network)

Figure 1.2

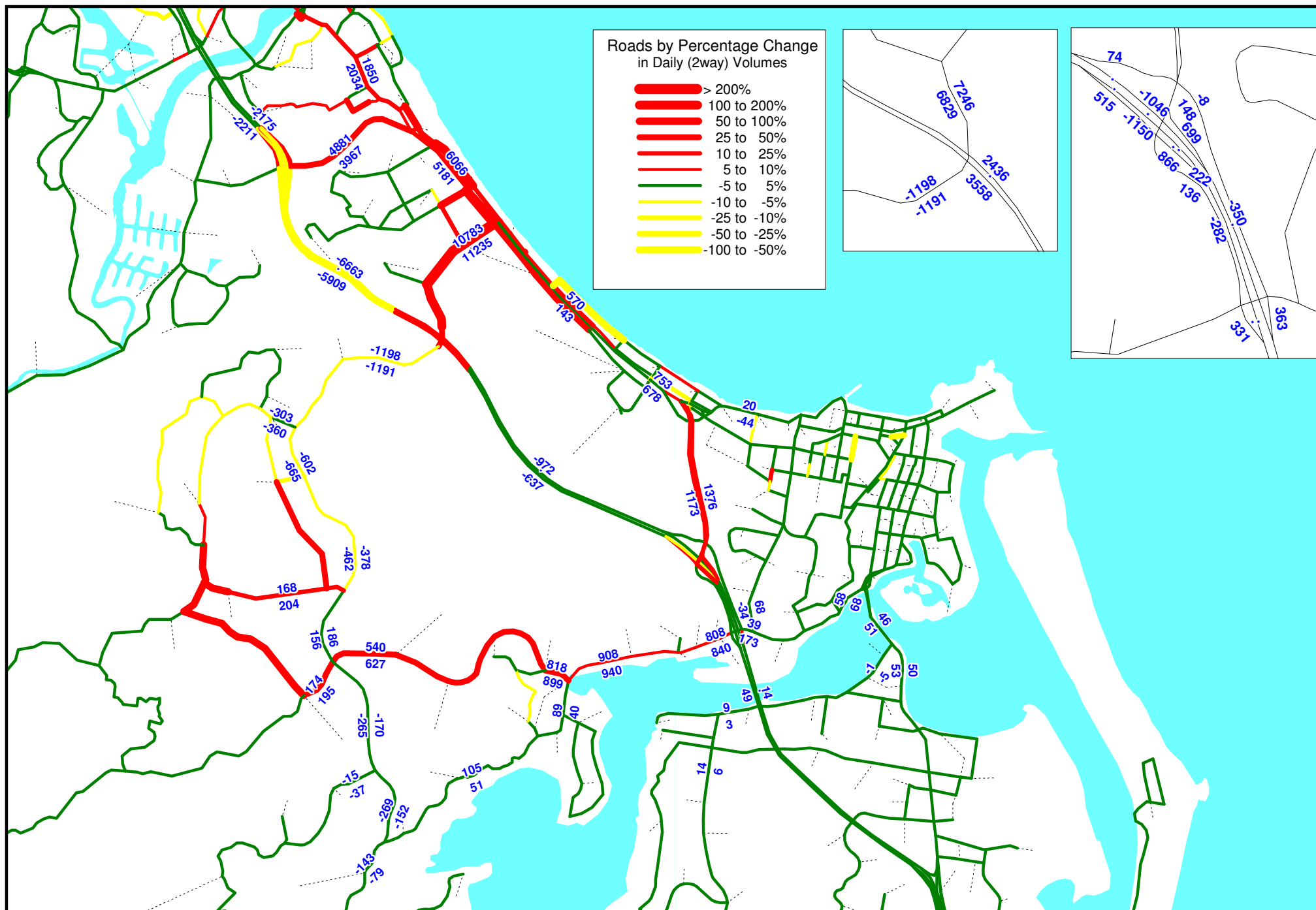
Daily Volumes - on Ultimate Development (without Cobaki Interchange)

Figure 2



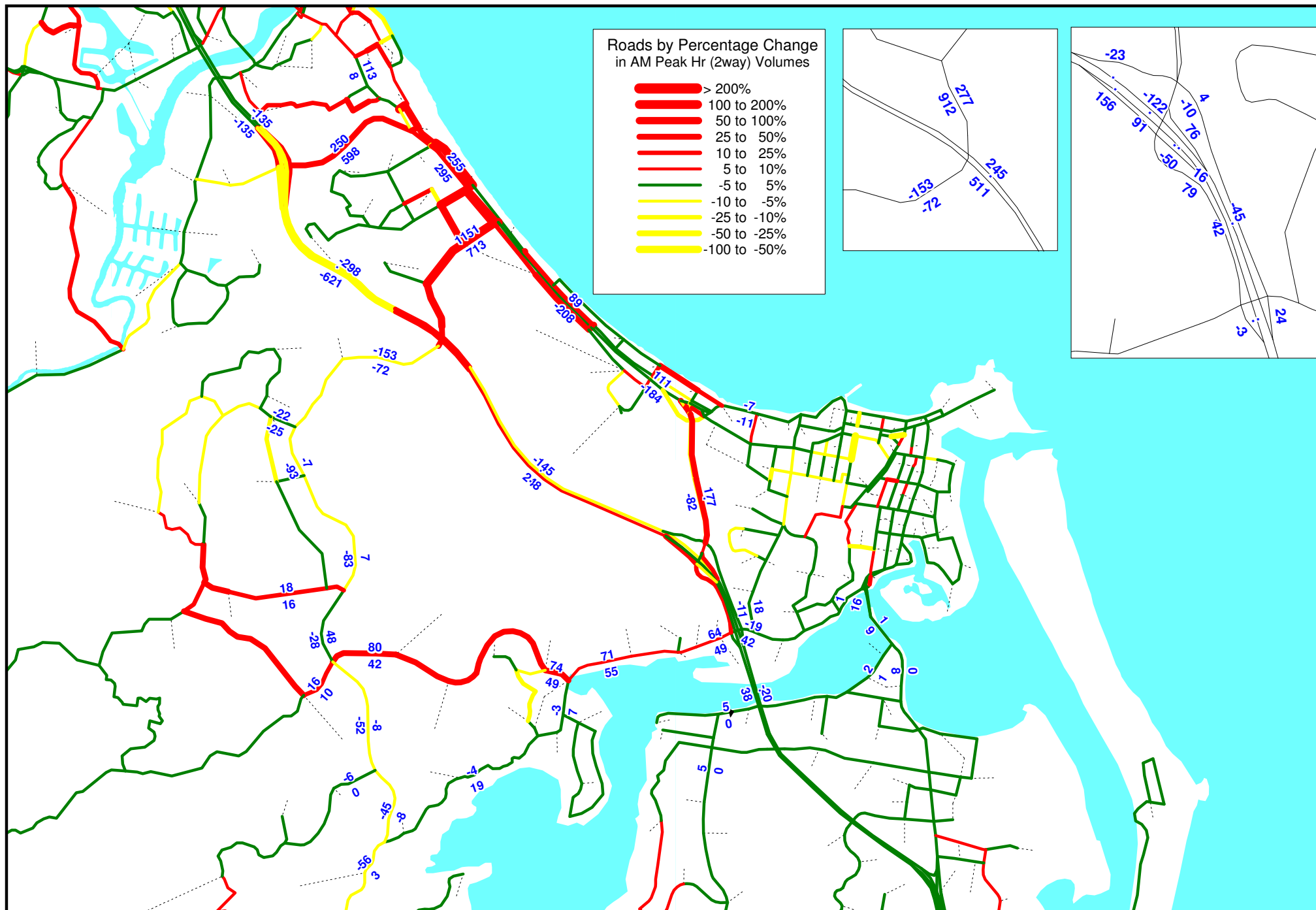
PM Peak Hour Volumes - on Ultimate Development (without Cobaki Interchange)

Figure 2.2



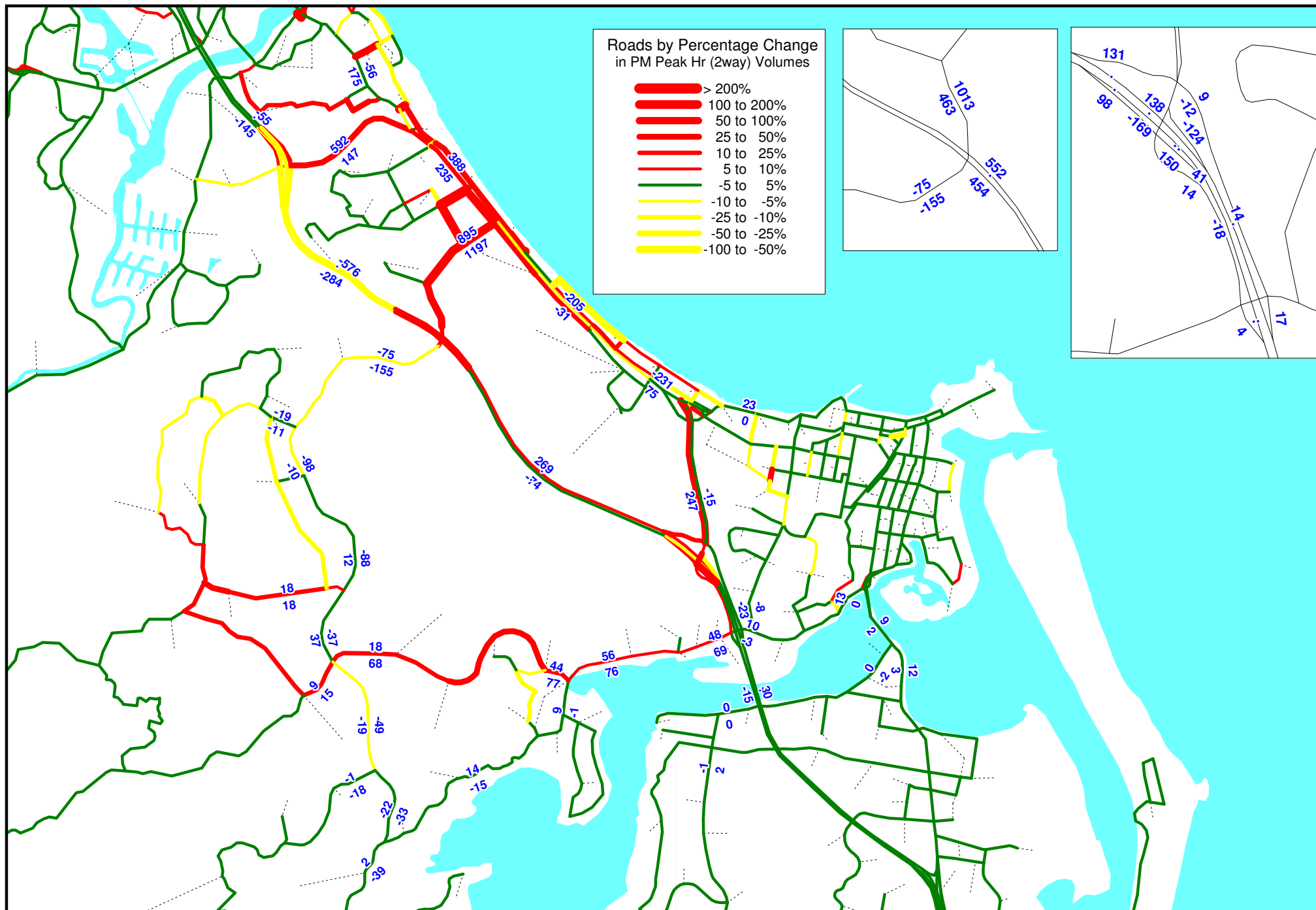
Change in Daily Volumes (without Cobaki Interchange) - on Ultimate Development

Figure 3



Change in AM Peak Hour Volumes (without Cobaki Interchange) - on Ultimate Development

Figure 3.2

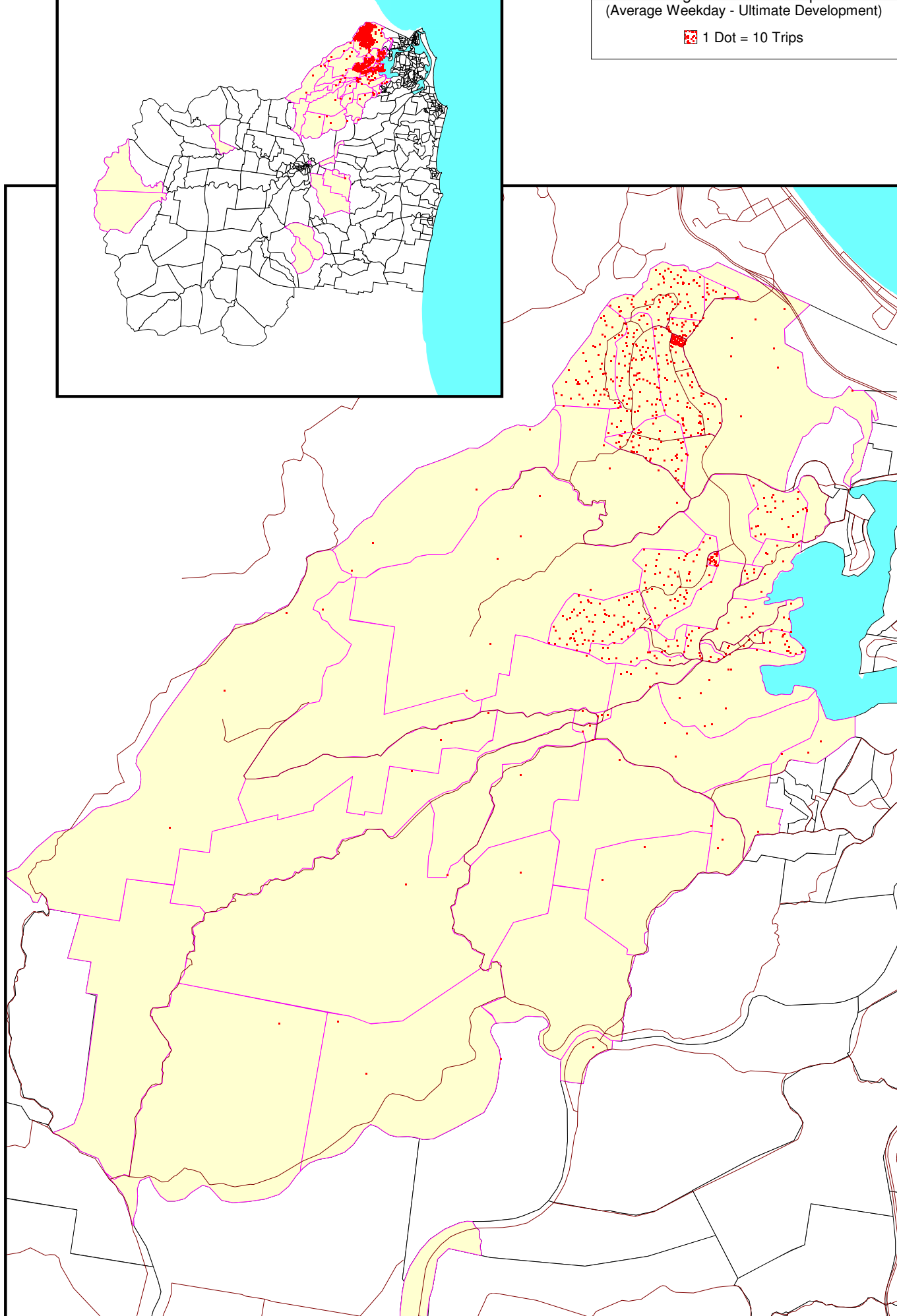


Change in PM Peak Hour Volumes (without Cobaki Interchange) - on Ultimate Development

Figure 3.2

(Average Weekday - Ultimate Development)

1 Dot = 10 Trips



Origins of Traffic Using Northbound On-Ramp of Cobaki Interchange

Figure 4