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**Report PE 01.637**

22 August 2001

File: TP/2/2/3

[01637.ns]

Report to the Policy and Finance Committee

By Nick Sargent, Senior Transport Planner, Transport Policy

## **Wellington Transport Strategy Model - Provision of Transportation Modelling Services (Contract No 3044): Acceptance of Tender**

### **1. Purpose**

To obtain authority to enter into a contract for the provision of Transportation Modelling Services.

### **2. Exclusion of the Public**

Grounds for the exclusion of the public under section 48(1) of the Local Government Information and Meetings Act are:

*That the public conduct of the whole or relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding exists (ie to preserve commercial confidentiality).*

### **3. What is the Wellington Transport Strategy Model (WTSM)**

The Regional Council maintain a strategic transportation model. This is a custom designed traditional four stage model based upon the use of the EMME/2 software package. The four stage sequential model is the most widely used form of model for transport planning applications. For the record, the four stages are trip generation, trip distribution, mode split and assignment. A feature of this type of model is the ability to investigate any number of alternative future scenarios.

Output from the model is used as an aid to decision making in relation to the Regional Land Transport Strategy.

The model deals with the complex interrelationships between factors such as:

- household categories
- car ownership
- estimation of trip attractions and productions
- location of trip attractions and productions
- choice of travel mode
- peak spreading
- commercial vehicles
- trip route choices

#### 4. **How WTSM Will Assist the Transport Policy Department and Transport Division**

WTSM was the primary analysis tool used to develop the Wellington Regional Land Transport Strategy 1999 to 2004: Realistic Transport Choice. It has also been used to enhance the strategy through a series of corridor studies. The RLTS will be reviewed in 2002-2003.

WTSM can be used to examine a range of issues relevant to the work of the Department and Division:

- road, rail and bus infrastructure changes
- rail stock improvement
- mode transfer
- long and short stay parking capacities
- tolls and other road charges
- the relationship between transport and economic development

WTSM is a practical, flexible, transparent and relatively simple tool for producing travel forecasts and policy analysis.

#### 5. **Background**

In the early 1990s the Regional Council maintained and developed a 'TRACKS' transport model. This had been created from a 1988 Household Interview Survey (HIS) and the 1986 and 1991 Census of population. In 1996 WRC appointed Symonds Travers Morgan to update WATSM (as it was then known) to take account of the 1996 Census of population. At this time the decision was taken to alter the

software platform from 'TRACKS' to 'EMME/2'. It was felt that this change would allow the model to be more transparent than previously and would facilitate an easier procedure for changing modelling relationships and implementing new model developments.

However, in 1997 the individuals working on the project left to join other consulting firms. The individuals did, however, continue to work on the project with contractual responsibility being transferred to Booz Allen and Hamilton. In 1999 David Ashley of SKM undertook a peer review of the model (a Transfund New Zealand requirement and best practise). As a result, a number of changes were made to the model, the significant ones being the zone system and land use data inputs.

As discussed, the current model is largely based upon the 1988 HIS. Since 1988 there have been significant changes in New Zealand society, particularly relevant here are car ownership and usage patterns, home and work locations. The 2001 Census of population provides an appropriate opportunity to review the model using more up to date information.

Given the forward work load of the Department, there is a significant requirement for a robust and up to date analysis tool. The importance of public transport in the Region and the need for large infrastructure projects such as Transmission Gully and rail renewal add to the urgency of this matter.

Throughout 2000 it became apparent that there were a number of consortia of consultants that were available to provide the required services. It was therefore felt on this occasion that it was appropriate to test the market through a fully competitive tendering process.

The rest of this report therefore describes the approach and process adopted in the tendering of the contract.

## 6. Approach

The delivery of a new transport model for the Region is an extremely complex task and requires a large amount of time and data. It was decided to structure the work in a way that would make one lead consultant responsible for the entire project including the day to day supervision of sub-consultants. This was done so that a consultant could not blame their shortcomings on another party.

The delivery of a new WTSM will therefore be split into a number of contracts

- Contract 3044 Lead Consultant (transportation modelling services)
- Contract 3054 Sub-Consultant (travel survey services)
- Minor Works (associated surveys)

This report discusses the selection of the lead consultant as contract 3044. The selection of the sub-consultant as contract 3054 is the subject of a separate report to Committee.

Tenderers were asked to describe how they proposed to review the existing model, identify survey and recalibration requirements, coordinate survey and recalibrate (renew) the model. Council sought innovative proposals particularly with respect to the collection of survey information being a large component of overall cost. The successful consultant was required to take full responsibility for the development of the model and quality of forecasts produced, consistent with good international practice. This would require the consultant to work closely with the Regional Council and other organisations.

## 7. **Process**

To facilitate the tendering of Contract No. 3044 advice was sought from an independent transportation planning consultant, who helped to prepare the 'Request for Proposal' document. This consultant (Tim Kelly) worked with Nick Sargent, Senior Transport Planner at the Regional Council throughout the process and consequently specifically excluded himself from being a member of any of the bidding consortia. Tim Kelly and Nick Sargent were joined by Mike Mueller of Auckland Regional Council for the formal evaluation processes which included consideration of the submitted written proposals and a verbal presentation by each of the bidding consortia.

## 8. **Expression of Interest**

An advertisement was prepared for publication in Local Transport Today, a specialist transportation journal (unfortunately this never appeared). However, concurrently to this process the advertisement was faxed directly to the offices of ten leading transportation consultants in New Zealand and Australia. The advert specified the requirements of Council in broad terms and invited Expressions of Interest (EOI) from consultants.

A total of 5 EOIs were received in response to the advertisement;

- BECA / Sinclair Knight Merz (Australia)
- Booz Allen & Hamilton / Steer Davies Gleave (UK)
- Opus International Consultants
- SERCO / Oscar Faber Consultants (UK)
- Traffic Design Group

The EOIs were assessed in general terms on relevant experience, track record, management skills and technical skills criteria. Scores were applied by two evaluators, Nick Sargent (WRC) and Tim Kelly (independent consultant) and averaged.

The intention was to select three tenderers for the submissions of detailed proposals. Assessment of the scores showed that consultant TDG scored consistently low, particularly in relation to the track record and management skills attributes. Therefore this consultant was not shortlisted. Beca/SKM and BAH were 1<sup>st</sup> / 2<sup>nd</sup> and hence these consortia were included on the shortlist. Scores for Opus and SERCO were

similar, both consortia were therefore included on the shortlist, it being reasoned that there was not enough information to warrant their exclusion at that stage. This gave a shortlist of four tenderers invited to submit more detailed proposals.

## 9. Detailed Tenders

A detailed Request for Proposal (RFP) document was prepared in November 2000, and the four short-listed consortia were invited to submit proposals in response. The tenders were to be considered in accordance with the Weighted Attribute Method as specified in the Transfund New Zealand Competitive Pricing Procedure (CPP) Manual (tenders were requested in two sealed envelopes, one containing non-price attributes and the other the price).

On 6 December 2000 the SERCO consortium stated its intention not to submit a detailed proposal, citing other commitments.

By the stated deadline of 12 noon, Thursday 7 December 2000, bids were received from 3 consortia:

- BAH/SDG – Booz Allen Hamilton/Steer Davies and Gleave (Australia)
- Opus International Consultants / Halcrow (Malaysia)
- BECA/Sinclair Knight Merz (Australia)

Copies were circulated to and read by the members of the selection panel prior to presentations.

Presentations were requested from all three tenderers on Monday 11 December 2000. The BAH/SDG consortia requested a presentation on Thursday 14 December 2000 in order that Dick Bullock could attend; this request was granted.

The three members of the selection panel were present at all presentations; Nick Sargent (WRC, Mike Mueller (Auckland RC) and Tim Kelly (independent consultant). In addition, Tony Brennand, Manager Transport Policy, and Nick Manson, Transport Analyst, attended all of the presentations.

## 10. Result of Tender Evaluation

The evaluation panel were unanimous in their ranking of the three tenderers, the panel also achieved a clear differentiation between the scores of the three tenderers. As a consequence the panel concluded that contract 3044 should be awarded to the BECA/SKM consortium.

The conclusion of the evaluation panel was confirmed by Tony Brennand, Manager, Transport Policy.

The scores are summarised in the table below:

Attribute	%	Scores			
		BCHF/SKM	Opus	BAH	Range
Relevant Experience	15	13.3	10.8	13.2	10.8 – 13.3
Track Record	15	12.8	10.5	11.5	10.5 – 12.8
Technical	25	22.5	16.8	20.9	16.8 – 22.5
Management Skills	10	9.0	7.6	6.6	6.6 – 9
Methodology	25	22.6	15.7	19.5	15.7 – 22.6
Price	10	5.0	4.2	4.2	4.2 – 5
<b>Total</b>	<b>100</b>	<b>85</b>	<b>65</b>	<b>76</b>	<b>65 - 85</b>

## 11. Total Project Costs

The projected expenditure is broken down in the following way between the project components:

Contract	Role/Task	Value
C3044	Lead Consultant :Transportation Modelling Services	\$636,000
C3054	Survey Consultant :Travel Survey Services	\$382,000
Minor Works	Associated Surveys	\$126,000
		\$1,144,000

Contact C3044 is a two stage project, stage one has already been delivered for a lump sum fee of \$79,804 plus GST. Stage two has been divided into a number of tasks, a lump sum fee will be agreed for each task in advance. Both stages will amount to approximately \$636,000 based on the agreed charge out rates for the consultants. The contract with the consultant can be terminated at any time without penalty.

Contract C3054 is the subject of a separate report to the Committee. Funding for the full project has been included in the current Annual Plan and the indicative plan for 2002/03.

## 12. Programme

The provision of WTSM 2001 will be made to the Regional Council by 31 December 2002. The target delivery date is 31 July 2002, a grace period has been built into the contract because the earlier date will only be achievable if Statistics New Zealand keep to their timetable for the provision of data from the 2001 Census.

Once delivered, the Regional Council will want to subject the new model to a rigorous peer review process. The final payment to the lead consultant should be subject to a positive outcome from this process.

### 13. A Key Issue

Members will appreciate that WTSM is an expensive but valuable tool. WTSM should be the pre-eminent tool for travel forecasting in the Region. To this end, the Transport Policy Department is discussing with Transfund New Zealand and Transit New Zealand the role of WTSM in this context. Previously many different forecasts have been used in traffic models in the region, when individual scheme appraisals have been carried out. This approach is not sustainable and is not economic from Transfund's point of view.

In this context, the outputs from WTSM are a valuable commodity and parties seeking information from WTSM should be charged for them. In this way, the Regional Council can recoup a small part of the development costs from other parties.

### 14. Communication

It is not appropriate to release externally any of the contents of this report.

### 15. Recommendations

*That the Committee recommend that Council:*

- (a) *approve the acceptance of the tender of \$636,000 from Beca Carter Hollings & Ferner in association with Sinclair Knight Merz for the provision of Transportation Modelling Services*
- (b) *authorise an allowance of 10 percent of the indicative price for any extra work or changes in the project scope should this become necessary.*
- (c) *authorise the affixing of the common seal of the Council to the contract documents*
- (d) *authorise the project manager to draw up a schedule of charges for the provision of information from WTSM 2001.*

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