



## MEMORANDUM

**To:** CMAP Board

**From:** Angela Manning-Hardimon  
Deputy Executive Director, Finance and Administration

**Date:** October 7, 2015

**Re:** Contract Approval for Activity-Based Model Component  
Estimation and Calibration

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The development of advanced modeling tools at CMAP over the past five years has been guided by the *CMAP Strategic Plan for Advanced Model Development* published in June 2010. The agency's goal is to develop advanced travel modeling tools in response to the agency's planning and policy priorities as established by GO TO 2040. CMAP has implemented the Strategic Plan in an incremental fashion, both to allow for the relatively rapid development of prototype models that can begin to address specific policy questions asked by GO TO 2040 and to retain flexibility in model design to take advantage of developments occurring within the modeling field.

Adhering to this incremental development approach, CMAP's activity-based travel model (ABM) has been developed in three phases. However, the budget and scope of the initial ABM development project did not allow for the complete design (i.e., estimation-calibration-validation) of the model for the Chicago region, and instead borrowed certain sub-models from other existing ABM applications. With the maturing of the ABM and greater awareness of its capabilities in answering more sophisticated policy questions, calibration of the model is essential to providing quality project and program-level evaluations. The purpose of this RFP was to re-estimate and calibrate components of the ABM to observed data for the Chicago region.

### **Review Process**

A Request for Proposals (RFP) was sent to potential contractors and posted to the CMAP website on July 7, 2015. Staff held a non-mandatory on-line pre-bid information session for consultants on July 16th. Questions posed during the on-line session and CMAP's responses were documented and posted on the CMAP website following the pre-bid session. On August 7th, CMAP received proposals from two consultants: Parsons Brinckerhoff and RSG.

The proposals were reviewed and scored by a team of three CMAP staff members from the agency's core travel demand modeling staff. The review team scored each of the proposals based on the following five criteria listed in the RFP:

1. The quality of the proposal's independent articulation of the scope of work.
2. The quality of the proposal's demonstrated understanding of CMAP's objectives for advanced modeling practice and our strategy for implementation.
3. The quality of the proposal's demonstration of familiarity with the modeling problem as it applies to the Chicago region.
4. The quality of the team's professional and technical capacity to address the problem and deliver high-quality technical products and professional documentation.
5. Cost to CMAP, including consideration of all project costs, and per-hour costs.

CMAP's modeling staff is well-acquainted with the work and capabilities of key members of both consultant teams, as they have each participated in advanced modeling contracts for CMAP over the last five years. In lieu of conducting formal interviews with each of the consultants, the review team developed follow-up questions for each firm seeking additional clarity on specific technical components of their proposals and requested written responses. Following receipt of the responses, the review team members each independently scored the proposals based on the evaluation criteria. The individual scores were combined to develop a final composite score for each of the proposals, which are shown in the following table:

Criteria	Maximum Score	Parsons Brinckerhoff	RSG
Articulation of the scope of work	20	12.0	17.3
Understanding of CMAP's advanced modeling objectives and implementation strategy	20	14.0	16.0
Familiarity of the modeling problem as it applies to the Chicago region	20	16.0	16.0
Team's professional and technical capacity to address the problem	20	20.0	20.0
Cost	20	16.0 \$124,999	15.3 \$124,452
Total	100	78.0	84.7

### Recommendation for contractor selection

The review team recommends **RSG** as the contractor for the ABM estimation and calibration project. RSG ranked highest of the two submittals, both with and without cost considerations. The RSG team is highly-qualified to perform this work, as the project manager, principal-in-charge and lead analyst have all been deeply involved in the development of CMAP's ABM. This proposal offered an optional task, which is included in the cost listed above, to modify certain procedures within the model in order to significantly reduce the amount of time it takes the model to run (currently multiple days). This improvement will not only benefit the work for this contract but also CMAP's future modeling efforts. Additionally, RSG proposed conducting sensitivity testing of several scenarios as part of the model validation component of

this contract. While this process is considered to be “best practice” when determining the reasonableness of travel demand model results, it is oftentimes not done.

Parsons Brinckerhoff submitted a competitive proposal as well. Its staff is equally qualified to perform the work, as it has been the lead consultant on all three phases of ABM development at CMAP. While the costs between the two bids are nearly identical, Parsons Brinckerhoff received a slightly higher score due to the fact that it proposed more work hours for the contract and had a somewhat lower per-hour cost than RSG.

It is recommended that the Board approve a contract with RSG to perform the activity-based model component estimation and calibration work in the amount of \$124,452. Support for this contract is included in the FY16 budget. All of the work associated with this contract will be completed no later than June 30, 2016.

**ACTION REQUESTED:** Approval





# Chicago Metropolitan Agency for Planning

## Agenda Item No. 6.2

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## MEMORANDUM

**To:** CMAP Board

**From:** Angela Manning-Hardimon  
Deputy Executive Director, Finance and Administration

**Date:** October 7, 2015

**Re:** Contract Approval for Interactive Public Engagement Tool

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Following the adoption of GO TO 2040, CMAP initiated the Local Technical Assistance (LTA) program to provide assistance to local governments to advance the implementation of GO TO 2040. The LTA program utilizes interactive public engagement tools to educate the general public and local stakeholders of local planning activities as well as to gather public input on a variety of planning and policy alternatives.

A Request for Proposals (RFP) for this Scope of Services was issued to public engagement software firms and posted on the CMAP website. Six responses were received.

Public Engagement Software Firms

Civic Artworks  
Community Remarks  
DLT-Oracle  
Kona Company  
Envision Sustainability Tools  
Urban Interactive Studio

Proposals were reviewed and scored by CMAP staff Berenice Vallecillos, Nora Beck, and Ricardo Lopez based on the qualifications and the following criteria.

1. The demonstrated record of experience of the consultant as well as identified qualified staff in providing the professional services in the Scope of Services.
2. The consultant's understanding that the tool must provide functionality to educate the general public and stakeholders in addition to collecting public input on a variety of planning and policy alternatives.

3. The consultant's approach to delivering the Scope of Services, including a visually appealing, customizable, self-guided, and educational tool that works on a variety of online platforms and includes mapping features.
4. The quality and relevance of the examples of similar work.
5. The quality of the option(s) submitted.
6. Cost to CMAP, including consideration of all project costs and per-hour costs.

The CMAP team reviewed and scored the six RFP responses. The three highest scoring firms were interviewed: Civic Artworks, Envision Sustainability Tools and Urban Interactive Studio. The final scores were as follows:

<b>Firm</b>	<b>Experience</b>	<b>Understanding of Goals</b>	<b>Approach to Scope and Sample Projects</b>	<b>Cost to CMAP</b>	<b>Total</b>
<i>Maximum Score</i>	<i>20</i>	<i>20</i>	<i>40</i>	<i>20</i>	<i>100</i>
Civic Artworks (\$32,340)	16.3	17.7	28.0	14.9	76.9
Community Remarks (\$40,800)	13.0	12.7	24.3	13.0	63.0
DLT-Oracle (\$38,416)	7.0	4.3	10.3	13.5	35.1
Kona Company (\$158,000)	9.3	3.3	8.0	3.4	24.0
Envision Sustainability Tools (\$48,000)	19.3	19.0	33.7	11.9	83.9
Urban Interactive Studio (\$49,800)	18.7	18.0	31.0	11.6	79.3

The review team selected Envision Sustainability Tools as the preferred vendor. The Envision Sustainability Tools team presented a comprehensive approach to public education and engagement through the use of a straightforward and self-guided online tool.

It is recommended that the Board approve a contract with Envision Sustainability Tools for two years with a one-year option for renewal. Support for this contract is included in the FY15 UWP Contracts budget. The option renewal year will be dependent on performance and the level of approved funding for this purpose. It is estimated that the services will be a maximum of \$48,000.00 each fiscal year. The maximum of the three-year contract will be \$144,000.00.

ACTION REQUESTED: Approval

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