

**SOUTH JERSEY TRANSPORTATION PLANNING ORGANIZATION**

**RESOLUTION 1205-24: Approving the Selection of Parsons Brinckerhoff as Consultant for the FY 2013 Air Quality Assistance Project**

**WHEREAS, the South Jersey Transportation Planning Organization (SJTPO) is the Metropolitan Planning Organization (MPO) designated under Federal law for the southern region of New Jersey including Atlantic, Cape May, Cumberland, and Salem Counties; and**

**WHEREAS, the Fiscal Year 2013-2014 SJTPO Unified Planning Work Program includes Federal Highway Administration planning funds for this project; and**

**WHEREAS, the Notice of Availability of Requests was sent to approximately 140 firms; and**

**WHEREAS, the RFP announcement and supplementary materials were also posted on the publicly accessible SJTPO website; and**

**WHEREAS, two proposals were received; and**

**WHEREAS, an evaluation committee comprised of Timothy Chelius, David Heller, and Andrew Tracy of SJTPO reviewed the proposals and evaluated them according to SJTPO's published criteria; and**

**WHEREAS, staff recommends Parsons Brinckerhoff in association with Michael Baker, Jr., Inc., AECOM (formerly Urbitrans Associates) and Stump/Hausman, Certified Disadvantaged Business Enterprise firms,**

**NOW THEREFORE BE IT RESOLVED, that the Policy Board of the South Jersey Transportation Planning Organization hereby approves the above selection for the FY 2013 Air Quality Assistance Project, with a maximum fee of \$122,524.**

**BE IT FURTHER RESOLVED, that the Policy Board authorizes the Executive Director to execute scope of work and cost modifications to the original contract amount, provided that funding is available and such modifications have been approved by the NJDOT and the SJTPO.**

**BE IT FURTHER RESOLVED, that the Policy Board requests that the South Jersey Transportation Authority execute the appropriate contractual arrangements with the consultant on behalf of the SJTPO.**

**Certification**

**I hereby certify that the foregoing is a correct and true copy of a resolution adopted by the Policy Board of the South Jersey Transportation Planning Organization at its meeting of May 21, 2012.**

  
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**Jeffrey T. Ridgway, Secretary/Treasurer**

## BACKGROUND

The transportation system in Atlantic, Cape May, Cumberland and Salem Counties is vital to the economic health of the region. To maintain this health, people and goods must be able to move throughout the region in an efficient and timely manner. As the regional Metropolitan Planning Organization, the SJTPO is responsible for helping maintain the success of the transportation system in southern New Jersey while maintaining conformance with National Ambient Air Quality Standards (NAAQS) as promulgated by the Clean Air Act of 1990. This project determines the compliance of the SJTPO with the conformity regulations.

## TECHNICAL APPROACH

There are several factors that must be taken into account to perform the Conformity assessment. These factors are directly addressed below.

### 8-HOUR OZONE STANDARD

In 1997, the USEPA established an 8-hour ozone standard of 0.08 ppm. The USEPA finalized attainment/nonattainment designations for the 1997 8-hour ozone NAAQS on June 15, 2004. Under these Standards, all four counties in the SJTPO region are in non-attainment and classified as "moderate". The PB Team has worked closely with the NJDEP and the USEPA to ensure that the analysis process properly meets these requirements as they have become available.

The USEPA revised the 8-hour ozone NAAQS on March 12, 2008. The primary 8-hour ozone standard was lowered from 0.08 ppm to 0.075 ppm, with the secondary standard strengthened to make it equal to the primary standard. On July 16, 2009, the USEPA announced that it would initiate a rulemaking to reconsider the standard for various reasons including the fact the 0.075 ppm level fell outside of the range recommended by the Clean Air Scientific Advisory Committee. Pending the outcome of that reconsideration, the USEPA suspended further work on designating areas, including developing a classification approach for areas that would be designated nonattainment. In September 2011, the Office of Management and Budget (OMB) returned for further consideration the USEPA's draft rulemaking to reconsider the 2008 ozone NAAQS. The current NAAQS for ozone thus remains at 0.075 ppm, as established in 2008. The 2008 NAAQS retains the same general form and averaging time as the 0.08 ppm NAAQS set in 1997, but is set at a more stringent level.

The USEPA continues to release information on how this new standard is to be implemented. Two notices of proposed rulemaking have been released acting as guidance on the implementation of the new standard, while final designations themselves were signed April 30<sup>th</sup>, 2012. Designations will go into effect 60 days after they are published in the Federal Register (with a marginal designation for the SJTPO region), thus beginning the one-year countdown in which SJTPO has to demonstrate conformity under the new standard. The USEPA has announced their intention that the existing ozone standard will not be revoked until one year following the promulgation of the new standard; hence, SJTPO's conformity requirements under the old standard are likely to remain in effect during this transition. In the proposed rulemaking, the USEPA states it will consider the attainment date as the end of the calendar year rather than an exact number of years from the promulgation of the standard. This is a significant change from previous implementations where, when an attainment date fell within the ozone season, regions effectively had to show attainment of the standard the year before the actual attainment date. For SJTPO this means that data from the 2013, 2014 and 2015 ozone seasons can be used to demonstrate attainment under the new standard. The PB team will continue its ongoing analysis of all rulemaking to assist SJTPO in its air quality planning efforts.

## **MOBILE6.2 AND MOVES**

In February 2004, the final version of MOBILE6.2 was released by USEPA. The PB Team implemented MOBILE6.2 with PPSUITE at SJTPO and applied it for the FY 2004, 2005, 2006, 2007, 2008, 2009, and 2011 Conformity Analysis determinations for the SJTPO. Through interagency coordination, and subsequent coordination with the NJDEP and the USEPA, we were able to obtain the emissions program descriptions appropriate for South Jersey. We anticipate repeating this process for the FY 2040 RTP and FY2013 TIP conformity analyses to capture further changes that should be included in our analysis.

The PB Team will keep track of the development and implementation of the USEPA's latest release of the Motor Vehicle Emission Simulator (MOVES) program. MOVES is slated to replace MOBILE as the emissions forecasting program for conformity determination being initiated in or after March 2013. PB Team members AECOM and Baker have worked extensively with pre-release and current versions of MOVES, supporting NJDOT's Air Quality Working Group in planning, evaluating and implementing the transition to MOVES in New Jersey. This working group has included NJDOT, NJDEP, SJTPO, NJTPA and DVRPC, and interactions of group members have provided a useful forum for AECOM and Baker to achieve a thorough understanding of MOVES methods, data, and results. In conjunction with this work and similar work for other states, AECOM's PPSUITE post processing software has been thoroughly renovated, tested, and validated in its support of the MOVES software. Testing under MOVES version 2010a was complete, and the release of the latest version 2010b in April 2012, led to further testing and updates to the PPSUITE software that will be complete by mid-May 2012. The updated PPSUITE/MOVES2010a package has already been installed at SJTPO and the 2010b version will be installed once testing is complete. It is expected that by spring of 2013, when SJTPO will be required to conduct FY2014 TIP Conformity determinations, an updated MOVES 2013 emission model will be available and required to be used.

Together PPSUITE and MOVES provide the most comprehensive and flexible platform for transportation network and emissions analysis available today. The fact that it is being used by NJDEP to analyze emissions for the next (as well as past) SIP revisions, and by the NJDOT and the NJTPA for their emissions modeling activities, and by neighboring states and MPOs as well (PennDOT, NYMTC, Lehigh Valley, PA and Baltimore MD), indicates both its acceptance in the broad emissions analysis community and the depth of support that is offered not only by the consultant team, but also by peer users. We will continue to actively monitor the USEPA's progress in updating MOVES and related modeling requirements. In response, we will continue to prepare appropriate software updates and input data.

## **MOBILE AND MOVES DRIVERS**

The PB Team will continue to work closely with the NJDEP and the USEPA so that the proper settings and inputs are used for emission models, MOBILE and MOVES. Settings include the proper inspection and maintenance program, vehicle registration data, vehicle mix data, anti-tampering program, fuels, meteorology, source type population, centralized and decentralized inspection mixes, and travel activity data from the transportation model.

## **HPMS VMT ADJUSTMENTS**

Before emissions estimates can be calculated, the vehicle miles traveled (VMT) calculated from the travel demand model's traffic assignment process must to be adjusted to match VMT from the Highway Performance Monitoring System (HPMS). The current data for FY 2010 and FY 2011 are in AECOM's possession. They have been used for prior conformity determinations and will be recalculated for the new travel demand model and PPSUITE/MOVES setup. The PB Team will coordinate with NJDOT to capture the HPMS VMT data and to prepare updates to these adjustments as they become available.

## CMAQ PROJECTS

The SJTPO annually manages the Congestion Management and Air Quality (CMAQ) Initiatives Program that requires project-level analysis of CMAQ proposals for potential air quality benefits. The results of these project analyses help inform SJTPO when selecting projects for further consideration, as well as provide the analysis and documentation required by FHWA when applying for CMAQ funds. The PB Team, along with SJTPO staff, will use the NJ-AQONE analysis tool in conjunction with local data, detailed studies and identified standard and best practice methods (as available) to evaluate project-level impacts of these "off-model" projects. The PB Team will provide telephone support to SJTPO staff to aid in the analysis process. NJ-AQONE was developed specifically for New Jersey and the air quality impacts calculated by the software use the same models, inputs and default settings as the conformity calculations, making the results from NJ-AQONE fully compatible with other mobile source air quality analyses. In cases of unique projects that are not specifically addressed in NJ-AQONE, the PB Team will identify the applicable guidance and/or relevant research to calculate project impacts independently. The PB Team has provided SJTPO, NJDOT, NJ Transit and other agencies both in New Jersey and nationally with CMAQ and similar analyses including projects used for credit in the air quality conformity demonstrations. This breadth of experience enables us to quickly and effectively evaluate general roadway and traffic signal improvements, transit projects (including shuttle services), Transportation Demand Management (TDM), ITS projects as well as Transportation Control Measures (TCM's) that cannot be handled by the regional model.

The PB Team estimates a total of six (6) projects to be analyzed for transportation and air quality benefits. To minimize costs, the PB Team will look to SJTPO for assistance in obtaining additional data and clarification from project sponsors should their funding application/request not contain the needed detail. The PB Team anticipates a similar effort to prior years in terms of man hours and the amount of research required, and should the project applications in 2011 prove to be more intensive, SJTPO will be alerted to discuss ways the analysis can be completed within the available budget. Travel is not anticipated under this task and follow-up consultation with SJTPO staff will be provided via email and teleconferencing.

## INTERAGENCY COORDINATION

Coordination is an ongoing effort throughout this process to keep parties informed of the progress, methods, and products. The SJTPO Project Manager (PM) will convene up to four (4) meetings of the Interagency Consultation Group (ICG) as necessary. These meetings may be via conference call or in person. The PB Team will work directly with the SJTPO PM to coordinate with the ICG members (i.e., other SJTPO staff, USEPA, NJDEP, NJDOT and representatives from the involved counties). If other work is required to meet CAAA standards, such as updates to the HPMS files, the PB Team will work closely with the PM and member agencies to identify and implement solutions to keep the project on track.

## SCOPE OF SERVICES

This scope of services is arranged into four phases:

- ▶ *Phase I: Conformity Determination with MOBILE6 to support 2040 Regional Transportation Plan (RTP)*
- ▶ *Phase II: Update of emission estimate post-processing, MOVES installation, training, and documentation to support FY 2014 TIP*
- ▶ *Phase III: Implementation of post-processing for emissions estimates for the new SJTPO Travel Model to support FY 2014 TIP*
- ▶ *Phase IV: Conformity Determination with MOVES to support FY 2014 TIP*

## PHASE I: CONFORMITY DETERMINATION WITH MOBILE6 TO SUPPORT RTP (2012)

The Request for Proposals (RFP) specifies that the Consultant will support the conformity determination for the 2040 RTP, and that the work must be complete by the end of July 2012. Notice to Proceed (NTP) is scheduled for July 1, 2012, leaving a maximum of one (1) month for this Phase I effort. A draft of the conformity determination for the 2040 RTP has already been prepared by SJTPO staff and has been submitted to the Interagency Consultation Group for review. The PB Team anticipates only limited involvement in preparation of this conformity determination. However, we remain fully prepared to assist SJTPO in completing a successful RTP conformity determination. To that end, the following describes the steps that the PB Team will undertake to complete the RTP conformity analysis if necessary. If the submitted 2040 RTP is accepted by USEPA, thus making these tasks unnecessary, then the remaining funds will be utilized to support Phases II through IV.

### 1.1.1 Confirmation of TIP/CMAQ Projects

The PB Team will coordinate with SJTPO to obtain the final project list for the Transportation Improvement Program (TIP) and CMAQ projects. The PB Team assumes that these projects have been through a rigorous cross-acceptance process of the ICG and will participate in and coordinate ICG discussions.

### 1.1.2 Code and Run Models

Projects from the TIP list will be coded into the model using the PB developed project tracking and network development process. This process allows us the flexibility of developing scenario networks in a quick and efficient manner and minimizes input errors. The CMAQ projects, by definition, are considered "off-model" in the sense that the travel demand model cannot directly account for the benefits of these types of projects. These projects will be analyzed using PB Team member's (Baker) NJ-AQONE off-model analysis or other best-practice methods, as appropriate. The resulting project benefits can be reported separately, or they can be plugged into the post-processing step as a group so that they are reflected in the final emissions estimates.

### 1.1.3 Emissions Calculations for Conformity Determination

Combinations of computer programs centered on MOBILE6.2 and the PPSUITE post-processor programs are used to test TIP and RTP conformity in the SJTPO region. PPSUITE is a PB Team member's (AECOM) proprietary software package that is used to pre-format and post-format data to and from MOBILE6.2 and MOVES. PPSUITE provides a linkage between the South Jersey Travel Demand Model (SJTDM) and MOBILE6.2 or MOVES. Emissions are calculated for two categories of pollutants: volatile organic compounds (VOC) and oxides of nitrogen (NOx). Under the CAAA, the CO NAAQS in the region were attained in 1996. The attainment designation was followed by a 10-year planning period for the attainment maintenance plan ending in 2007. Therefore, CO does not need to be reported and is not necessary for this conformity determination.

Emissions calculations are generated in a four-step process:

- ▶ *Step 1- The travel model's traffic assignment process generates the roadway volumes that are used in the emissions calculations. The network file also contains facility type definitions, both of which are passed on to Step 2.*
- ▶ *Step 2 - The vehicle miles of travel (VMT) totals estimated by the travel model are reconciled to reported HPMS totals.*
- ▶ *Step 3 - The PPSUITE pre-processor for MOBILE6.2 is run. PPSUITE formats the roadway link volumes, calculates for each link a capacity and loaded speed, and places them in a format that is readable by MOBILE6.2. It also creates the proper MOBILE6.2 input files that include vehicle*

*registration data, central/decentralized inspection and maintenance mixes, and various other flags/switches.*

- ▶ *Step 4 - Actual MOBILE6.2 emissions are calculated. Emissions are estimated for twenty-four hours of the day for both summer and winter scenarios and summarized by pollutants. These estimates are then formatted and output into database files by PPSUITE for reporting.*

For projects that cannot be evaluated directly “on-model,” NJ-AQONE or other best-practice methods, as appropriate, will also be used to estimate their emissions impacts.

## **PHASE II: UPDATE OF EMISSION ESTIMATE POST-PROCESSING, MOVES INSTALLATION, TRAINING, AND DOCUMENTATION**

### **1.1.4 Emissions Calculations with MOVES**

The USEPA released its current working version of MOVES in April 2012 (MOVES2010b version), and has recommended it be used for official emission estimates for SIP and conformity. Following a grace period, this software (or an updated MOVES2013) will be required to be used in conformity determinations initiated in or after March 2013. PB Team member, AECOM, is currently enhancing its PPSUITE software to support this latest MOVES version (the required modifications are small). Input data – statewide and county specific – have been prepared by AECOM with support and guidance from the NJDOT and the NJDEP, and will be used for these runs. AECOM has gained significant experience in PPSUITE/MOVES runs for emission estimates in New Jersey generally, and SJTPO specifically, and have amassed a substantial understanding of MOVES model issues.

The PB Team will prepare and execute test runs of the PPSUITE/MOVES model and will compare results with emissions estimated using MOBILE6.2 in the official conformity determination. This work will build on prior work for NJDOT and the statewide Air Quality Working Group. Testing will include criteria pollutants, such as VOC and NO<sub>x</sub>, using the most recent MOVES version available (currently 2010b). The test is intended to assist SJTPO in the transition from MOBILE 6.2 to MOVES. We will exercise the most current version of MOVES to identify the changes in emission quantities, sensitivities to transportation system changes, and effects on/consistency with emissions budgets. No additional MOVES input data will be prepared for this task.

The PB Team will continue planning of the transition to MOVES with respect to technical analysis, data collection, evaluation and refinements. We will prepare a technical memorandum describing updates to the 2011 implementation process for MOVES in the SJTPO region, and laying out the necessary steps to successfully implement MOVES for conformity in 2013. This could include recommendations relating to hardware requirements, staff training, data sources and preparation, data and parameter translations, as well as modifications to the regional model data sets that may be required. The recommendations will be presented in a brief technical memorandum providing a summary review of the conversion requirements and it will supplement the CENTRAL/PPSUITE/MOVES Users guide created by AECOM for SJTPO in 2011.

This project budget includes provision of a complementary PPSUITE/MOVES software license (a site license only, for SJTPO’s Vineland office), and installation of PPSUITE/MOVES on SJTPO computers, linked to the existing TP Plus-based SJTDM. Per the RFP, this proposed scope of services assumes two working days at the SJTPO Vineland office for the installation update of CENTRAL and PPSUITE and staff training.

No support for NJDEP’s SIP, motor vehicle emission budget estimates, or additional MOVES data preparation work will be provided within this scope of services.

### **PHASE III: IMPLEMENTATION OF POST-PROCESSING FOR EMISSIONS ESTIMATES USING THE NEW SJTPO TRAVEL MODEL**

SJTPO is updating its regional travel demand model that will be used to forecast regional travel, evaluate effects of transportation projects, and provide activity data for the emissions estimates. The updated model will become the basis for future TIP and RTP conformity determinations. It is assumed that this model will be available for production use by approximately December 2012, and that it will be used, along with the then-current version of MOVES, for the FY2014 (spring of 2013) TIP conformity determination.

The PB Team will support SJTPO in transitioning to using the new travel demand model with the post-processing tools that will be used for emissions estimates and other performance analyses. The current setup of CENTRAL/PPSUITE/MOVES will be modified to incorporate travel activity data from the new travel model as well as the latest non-activity data provided by NJDEP and/or estimated by the PPSUITE software. It is also anticipated that a new version of USEPA's emissions model, MOVES2013, will become available in the first quarter of 2013 and will be required to be used for conformity determinations beginning in March 2013. The changes that will result in MOVES2013 are not known at this time, although the USEPA has hinted that the changes will be substantive. The PB Team will implement changes to mechanically implement MOVES2013 with PPSUITE. This budget does not, however, include extensive comparative or sensitivity analyses, or extensive studies to respond to higher emissions levels produced by the new MOVES2013 that might result in a failing conformity determination.

This project budget includes installation of the updated travel model post-processing at SJTPO's office, testing of the software execution, evaluation of the performance and emissions estimates results, and training of SJTPO staff. The PB Team will ensure that SJTPO staff will gain sufficient knowledge and experience to conduct analyses required to support TIP and RTP conformity.

### **PHASE IV: CONFORMITY DETERMINATION WITH MOVES TO SUPPORT TIP (2013)**

The following describes the steps that will be undertaken to complete the FY2014 TIP Conformity analysis that is expected to take place in the spring of 2013. This will be the first conformity determination requiring the use of MOVES. At the same time, SJTPO will have an updated travel demand model and an operational CENTRAL/PPSUITE post-processor associated with that model in support of the emissions estimates using MOVES2010b or MOVES2013 (if available), as was discussed above in Phase III.

#### **1.1.5 Confirmation of TIP/CMAQ Projects**

As in the preparation for the RTP analysis in Phase I, the PB Team will coordinate with SJTPO to obtain the final project list for the Transportation Improvement Program (TIP) and CMAQ projects. The PB Team assumes that these projects have been through a rigorous cross-acceptance process of the ICG and will participate in and coordinate ICG discussions.

#### **1.1.6 Code and Run Models**

Projects from the TIP list will be coded into the model using the PB-developed project tracking and network development process. (It is assumed that only minor revisions will be needed to accommodate the new model data). This process allows the flexibility to develop scenario networks in an efficient manner and to minimize input errors. The CMAQ projects, by definition, are considered "off-model" in the sense that the travel demand model cannot directly account for the benefits of these types of projects. These projects will be analyzed using the NJ-AQONE off-model analysis or other best-practice methods, as appropriate. The resulting project benefits can be reported separately, or they can be

plugged into the post-processing step as a group so that they are reflected in the final emissions estimates.

#### 1.1.7 Emissions Calculations for Conformity Determination

Combinations of computer programs centered on MOVES and the PPSUITE post-processor programs will be used to test TIP conformity in the SJTPO region. PPSUITE is AECOM's proprietary software package that is used by the NJDOT and the NJDEP for emissions estimation in New Jersey. In addition, PPSUITE is used by other state DOTs, including Maryland and Pennsylvania, for their statewide analysis and emissions inventories. PPSUITE is also used to conduct conformity determinations by MPOs such as NYMTC, NJTPA, and Baton Rouge Capital Region Planning Commission. It is currently being evaluated by the Tennessee DOT and by the Quebec Ministry of Transportation for the implementation with its regional travel models.

The SJTPO emissions estimation process will strongly benefit from the use of non-activity MOVES input data developed by the NJDOT and the NJDEP as inputs to PPSUITE and MOVES. The NJDOT has historically provided support for the data preparation for emissions estimates and evaluation of federal policy and guidance related to regional air quality analysis. The PPSUITE/MOVES software package as employed by the NJDOT/NJDEP can expedite SJTPO's transition to the latest releases of MOVES.

Emissions calculations will be generated with the four-step process described in Phase I, but with the use of SJTPO's new travel demand model; the latest release of MOVES; and related non-activity data. It is anticipated that SJTPO staff will perform these calculations in-house. However because this will be the first implementation of the new travel demand model and new software (MOVES), for quality assurance purposes the PB Team will perform independent calculations of the TIP scenario.

As for the RTP, for projects that cannot be evaluated directly "on-model," NJ-AQONE or other best-practice methods, as appropriate, will also be used to estimate their emissions impacts.

#### 1.1.8 Reporting

Project deliverables for all Phases will include the following:

- ▶ *The PB Team will develop a table of overall emissions estimates for scenarios of VOC and NOx for summer seasons. This table will compare the estimates to the established budgets and a Pass or Fail grade will be given for each pollutant for the 2040 RTP and the FY 2013 TIP scenario.*
- ▶ *For CMAQ project evaluations, the PB Team will prepare a CD containing the final documentation, publically available studies/research used (if any), NJ-AQONE input and output files, spreadsheets and other documentation containing sufficient detail such that SJTPO could replicate the analysis if needed. A summary table of the results for the projects will also be provided.*
- ▶ *The PB Team will assist the SJTPO PM in drafting and updating the conformity document that will be issued to the USEPA and the NJDOT for the 2040 RTP and the FY 2013 TIP scenario*
- ▶ *The PB Team will prepare a Technical Memorandum identifying issues and strategies for the SJTPO's consideration to the update of the MOVES model and CENTRAL/PPSUITE/MOVES users guide, technical observations, and emission summary.*
- ▶ *The PB Team will assist SJTPO with adapting the post-processing for the emission estimates for the new travel demand model.*
- ▶ *The PB Team will provide a process CD to the SJTPO. The CD will provide sufficient backup such as process inputs, programs and raw outputs.*



## PROJECT SCHEDULE

DAY #	PROCESS	EST. DATE
<b>EXISTING MODEL and MOBILE Phase I</b>		
1	Notice to Proceed	07/02/12
3	Kickoff Meeting	07/03/12
5	Confirm Project List	07/05/12
6	Teleconference with Interagency Consultation Group and request concurrence of attendees on SJTPO's proposed schedule, latest planning assumptions, relevant budgets, required pollutant tests, latest emission model, analysis years, preliminary project lists, etc.	07/06/12
8	Start of Travel Demand Model Process. (gives ICG a week to respond after initial ICG meeting)	07/09/12
26	Initial Conformity Determination due from consultant (MOBILE only)	07/27/12
29	Provide Interagency Consultation Group with draft Conformity Determination. Request concurrence with findings using email and/or a conference call.	07/30/12
33	Publish Public Notice for Public Hearing & Comment Period.	08/03/12
47	Begin 30-Day Public Review Period.	08/17/12
72	Public Hearing (within Public Review Period)	09/11/12
78	TIP Adoption	09/17/12
82	Board Approval / Final Changes to document will be made between end of Public review and Board Approval.	09/21/12
<b>NEW MODEL and MOVES Phases II, III, IV</b>		
228	Confirm Project List	02/15/13
242	Teleconference with Interagency Consultation Group and request concurrence of attendees on SJTPO's proposed schedule, latest planning assumptions, relevant budgets, required pollutant tests, latest emission model, analysis years, preliminary project lists, etc.	03/01/13
249	Start of Travel Demand Model Process. (gives ICG a week to respond after initial ICG meeting)	03/08/13
270	Start of MOVES analysis	03/29/13
287	Provide Interagency Consultation Group with draft Conformity Determination. Request concurrence with findings using email and/or a conference call.	04/15/13
287	Publish Public Notice for Public Hearing & Comment Period.	04/15/13
301	Begin 30-Day Public Review Period.	04/29/13
315	Completion of MOVES analysis updates if needed	05/13/13
322	Public Hearing (within Public Review Period)	05/20/13
361	TIP Adoption	06/28/13
400	Board Approval / Final Changes to document will be made between end of Public review and Board Approval.	08/06/13

**FY 13 Air Quality Assistance**  
**South Jersey Transportation Planning Organization**  
**Cost Proposal**  
**May 9, 2012**

Parsons Brinckerhoff

Phase	TASK	ASCE Grade	PVIII SR. ENGR. MANAGER	PVII Sr. SUPV. ENGINEER	PVI SUPV. ENGINEER	PV LEAD ENGINEER	PV SENIOR ENGINEER	PIII ENGINEER II	PI ASST. ENGINEER	CLERICAL CLERICAL*	TOTAL LABOR (HRS)	LABOR BUDGET (\$)
I	1	Confirmation of TIP/CMQAQ Projects	8					16			24	\$1,125
I	2	Code and Run Model	12			12		28			52	\$2,326
I	3	Emissions Calculations for Conformity Determination	4								4	\$278
II	4	Emissions Calculations with MOVES	4								4	\$278
III	5	Post Processing for New Model	8								8	\$556
IV	6	Confirmation of TIP/CMQAQ Projects New Model				12		12			24	\$923
IV	7	Code and Run Models New Model	16			58		65			139	\$5,821
IV	8	Emissions Calculations for Conformity Determination for New Model									0	\$0
IV	9	Reporting	8			6					22	\$1,230
		Subtotal Labor	60			88		121			277	\$12,537
		Actual Rates as of April 2012	\$69,480		\$53,340	\$41,310		\$35,590				

TOTALS	
<b>PB Direct Expenses</b>	
Postage, FedEx	\$ 100
Printing	\$ 110
Mileage	\$ 186
Miscellaneous	\$ -
<b>Total</b>	<b>\$ 396</b>
<b>Direct Labor</b>	<b>\$ 12,537</b>
<b>Overhead @ 158.2%</b>	<b>\$ 19,834</b>
<b>Fee @ 12%</b>	<b>\$ 3,885</b>
<b>Direct Expenses</b>	<b>\$ 396</b>
<b>PB Total</b>	<b>\$ 36,652</b>
<b>Subconsultants</b>	
<b>AECOM</b>	<b>\$ 57,418</b>
<b>Stump/Hausman (DBE)</b>	<b>\$ 17,842</b>
<b>Michael Baker</b>	<b>\$ 10,612</b>
Percent DBE Participation	14.56%
<b>Grand Total</b>	<b>\$ 122,524</b>

**FY 13 Air Quality Assistance**  
**South Jersey Transportation Planning Organization**  
**Cost Proposal**  
**May 9, 2012**

AECOM

Phase	TASK	ASCE Grade	PV/III Chief Engineer II	PVI Chief Engineer	PV Senior Engineer II	PIV Senior Engineer	P/III Engineer	*P/II Assistant Engineer	PVI System Programmer	TOTAL LABOR (HRS)	LABOR BUDGET (\$)
I	1	Confirmation of TIP/CMAQ Projects	4		8					12	\$817
I	2	Code and Run Model								0	\$0
I	3	Emissions Calculations for Conformity Determination	6		38	22	9			75	\$3,916
II	4	Emissions Calculations with MOVES								0	\$0
III	5	Post-Processing for New Model			24	30				54	\$2,662
IV	6	Confirmation of TIP/CMAQ Projects New Model			4					4	\$216
IV	7	Code and Run Models New Model								0	\$0
IV	8	Emissions Calculations for Conformity Determination for New Model	12		60	40	8		7	127	\$6,911
IV	9	Reporting	10		40	40				90	\$4,942
		Subtotal Labor	32		174	132	17			362	\$19,463
		Actual Rates as of April 2012	\$96.03		\$54.08	\$45.46	\$31.58		\$63.27		

TOTALS	
PB Direct Expenses	\$ 125
Postage, FedEx	\$ 110
Printing	\$ 223
Mileage	\$ -
Miscellaneous	\$ -
Total	\$ 458
Direct Labor	\$ 19,463
Overhead @ 161.3%	\$ 31,394
Fee @ 12%	\$ 6,103
Direct Expenses	\$ 458
Total	\$ 57,418

**FY 13 Air Quality Assistance  
South Jersey Transportation Planning Organization  
Cost Proposal  
May 9, 2012**

Michael Baker, Jr., Inc.

Phase	TASK	ASCE Grade		PIX Principal	PVII Chief Planner	PIV Chief Planner	PIV Senior Engineer	PIII Transportation Planner	PII Assistant Engineer	PVI System Programmer	TOTAL LABOR (HRS)	LABOR BUDGET (\$)
		DESCRIPTION										
I	1	Confirmation of TIP/CMAQ Projects									0	\$0
I	2	Code and Run Model									0	\$0
I	3	Emissions Calculations for Conformity Determination	2		2	30	2				36	\$1,834
II	4	Emissions Calculations with MOVES									0	\$0
III	5	Post Processing for New Model									0	\$0
IV	6	Confirmation of TIP/CMAQ Projects New Model									0	\$0
IV	7	Code and Run Models New Model									0	\$0
IV	8	Emissions Calculations for Conformity Determination for New Model	2		2	30	2				36	\$1,834
IV	9	Reporting										\$0
		Subtotal Labor	4	0	4	60	4				72	\$3,669
		Actual Rates as of April 2012	\$90.33		\$56.16	\$48.89	\$37.38					

TOTALS	
PB Direct Expenses	\$ 50
Postage, FedEx	\$ 50
Printing	\$ 62
Mileage	\$ -
Miscellaneous	\$ 162
<b>Total</b>	<b>\$ 3,669</b>
<b>Direct Labor</b>	<b>\$ 5,831</b>
<b>Overhead @ 158.94%</b>	<b>\$ 950</b>
<b>Fee @ 10%</b>	<b>\$ 162</b>
<b>Direct Expenses</b>	<b>\$ 10,612</b>
<b>Total</b>	<b>\$ 10,612</b>

**FY 13 Air Quality Assistance  
South Jersey Transportation Planning Organization  
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May 9, 2012**

**Stump/Hausman Partnership**

Phase	ASCE Grade		PVI PROJECT ENGINEER	TOTAL LABOR (HRS)	LABOR BUDGET (\$)
	TASK	DESCRIPTION			
I	1	Confirmation of TIP/CMAQ Projects			\$0
I	2	Code and Run Model	28	28	\$1,960
I	3	Emissions Calculations for Conformity Determination		0	\$0
II	4	Emissions Calculations with MOVES		0	\$0
III	5	Post Processing for New Model		0	\$0
IV	6	Confirmation of TIP/CMAQ Projects New Model			\$0
IV	7	Code and Run Models New Model	54	54	\$3,780
IV	8	Emissions Calculations for Conformity Determination for New Model			\$0
IV	9	Reporting	9	9	\$630
		Subtotal Labor	91	91	\$6,370
		Actual Rates as of April 2012	\$70.000		

TOTALS	
<b>PB Direct Expenses</b>	
Postage, FedEx	\$ 70
Printing	\$ 55
Mileage	\$ 199
Miscellaneous	\$ -
<b>Total</b>	<b>\$ 324</b>
<b>Direct Labor</b>	<b>\$ 6,370</b>
<b>Overhead @ 150%</b>	<b>\$ 9,555</b>
<b>Fee @ 10%</b>	<b>\$ 1,593</b>
<b>Direct Expenses</b>	<b>\$ 324</b>
<b>Total</b>	<b>\$ 17,842</b>