Senior Transportation Modeler

Planning Division

NOACA Job Description

NOACA is an Equal Opportunity Employer

Position: Senior Transportation Modeler
Division: Planning Division
Title: Senior Transportation Modeler
Salary Range: Minimum $64,119 – $93,985 commensurate with experience

Job Description:
The Northeast Ohio Areawide Coordinating Agency (NOACA) in Cleveland is seeking a Senior Transportation Modeler with experience in travel demand modeling. NOACA and its partner agencies in Ohio are in the process of developing an activity based travel demand model, and NOACA continues to upgrade its modeling capabilities including a dynamic traffic assignment process. This position will be an integral part of NOACA’s development, implementation, and application of the Ohio 3C CT-RAMP Activity Based Model and dynamic traffic assignment process.

The primary responsibilities of this position include all aspects of travel demand modeling efforts such as preparation of model inputs, data and system management, model estimation, calibration, validation, post-processing of model outputs, project-level forecasts, project management, and technical assistance. In addition, this position will conduct sub-area and corridor level modeling and participate in maintaining a traditional 4-step travel demand model.

This position involves advanced application of planning, management, and coordination skills, under little supervision in an office environment. The position also requires the ability to write and effectively present technical information to diverse groups, ranging from professional conferences to a lay audience. This position will be located within the Planning Division as part of the Transportation Modeling group.

Duties and Responsibilities:
The duties and requirements listed below are representative of the knowledge, skills, and/or abilities required to successfully perform this job. To be considered for this position, an individual must be able to perform each duty in a satisfactory manner. Reasonable accommodations may be made to enable individuals with disabilities to perform these functions.

Specific:
- Develop, manage, and refine model input data, including preparation of networks and simulation model inputs.
- Execute model runs, evaluate model results, and conduct model validation.
- Develop, apply, and troubleshoot customized and automated transportation planning and modeling applications.
- Test new technologies and software enhancements.
- Process, manipulate, and analyze large volume data sets.
- Lead the agency’s effort towards implementation of a dynamic traffic assignment process.
- Assist in transportation studies, including application of travel demand models for sub-area and corridor level modeling and interpretation of model results.
- Prepare documentation of travel demand modeling methods and applications.
- Prepare technical reports, informational products, conference papers, and/or grant proposals when needed.
- Write highly technical RFPs, execute technical procurement processes, and manage the project when needed.
- Manage, review, and evaluate work methods and procedures, and suggest improved processes.
- Assist with developing technical aspects of the Long Range Transportation Plan and Transportation Improvement Program.
- Provide data and technical support for internal staff, local constituents and stakeholder organizations.
- Works cooperatively with the United States Department of Transportation, the Ohio Department of Transportation, local agencies, and local governments regarding transportation modeling, data, and planning issues, as appropriate.

General:
- Manage projects as assigned.
- Prepare and reviews reports/documents/records.
- Prepare and reviews project goals and objectives.
- Present transportation modeling and application-related information to NOACA Board, Committees and/or outside, organizations as required.
- Represents NOACA at meetings inside and outside of NOACA offices on work-related and policy issues, as directed.
- Work directly with Directors, group managers, staff, external business partners, consultants, and/or contractors.
- Mentor other staff as assigned.
- Monitor and participate in the training of staff.
- Attend work-related meetings inside and outside of the agency offices, as directed.
- Engage in minimal travel within the state and the continental U.S., as directed.
- Works independently, under supervision, and/or in groups on assigned tasks.
- Work on special projects as required.
- Perform other duties deemed appropriate.
**Credentials and Experience:**
- Bachelors Degree in urban or transportation planning, engineering, geography, mathematics, computer science, statistics, or a related field;
- A minimum of six years of experience with at least three years of transportation modeling experience, of which at least two years is “hands on” work on a travel demand model. A Masters Degree in a related field may be substituted for two of the six years of overall experience.

*Minimum Requirements*

**Knowledge, Skills and Abilities:**
- Extensive experience with Cube/Voyager or other travel forecasting software (such as TransCAD, VISUM, EMME, etc.);
- Familiarity with MOVES air quality simulator;
- Proficiency in the use of at least one computer/database programming language (such as JAVA, C++, Python, VB, SQL, etc.);
- Experience in the use and interpretation of micro-simulation models (such as VISSIM, CORSIM, Synchro, DynasT, etc.), considered a plus;
- Experience with ESRI GIS software;
- Knowledge of advanced practice models, such as activity based models and dynamic traffic assignment;
- Strong quantitative and interpretive abilities;
- Strong written and verbal communication skills;
- Ability to function independently in developing and maintaining a transportation model; and,
- Effective team player.

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**About NOACA and Cleveland:**
The Northeast Ohio Areawide Coordinating Agency (NOACA) is a transportation and environmental planning agency serving Cleveland and the Ohio counties of Cuyahoga, Geauga, Lake, Lorain and Medina. The agency is the federally designated metropolitan planning organization (MPO) for northeast Ohio, and is charged with determining how transportation dollars are spent, conducts transportation planning and transportation-related air quality planning and public education activities, and functions as the “areawide” water quality planning agency for the region. Additional information may be found at [www.noaca.org](http://www.noaca.org).

NOACA is based in Cleveland. The city is a vibrant economic and cultural center, with a metropolitan population of 3.5 million, 2 million of which live in the five NOACA counties. In addition to international leadership in medical research and innovation, Cleveland’s broad economy is supported by a range of economic sectors, diversifying around advanced manufacturing and aviation-related and IT industries. Long heralded as a city of progress, the city boasts leading civic institutions such as the Cleveland Museum of Art, the Cleveland Orchestra, the Rock and Roll Hall of Fame, and the Cleveland Clinic, and includes many transportation “firsts” such as first electric street light in the world, first traffic signal in the world, first airport control tower in the world, and first rail transit connection between an airport and a city’s downtown in the United States. Located on the southern shore of Lake Erie, the city enjoys waterfront living and an extensive regional park system, as well as the full range of seasons throughout the year.