CITY OF CHATTANOOGA
Classification Specification Title: Transportation Analyst

Department: City Planning	**Pay Grade: GS.10**
Supervision Received From: Director Research and Information	**FLSA Status: Exempt**
	Established: 4/18/18
Supervisory Responsibility For: None	**Revision Dates: 4/4/25; 10/18/24; 10/20/23; 8/23/23**

CLASSIFICATION SUMMARY:

Incumbents in this classification provide transportation modeling, land use modeling, and complex data analytics necessary for the Chattanooga-Hamilton County/North Georgia Transportation Planning Organization (TPO), the federally designated Metropolitan Planning Organization for the Chattanooga, TN-GA Urbanized Area to receive federal and state transportation funding. This position will provide expertise and project leadership for the development, calibration, validation, and maintenance of the activity-based travel demand model (TDM) while integrating the TDM with the Land Use Model (LUM).

SERIES LEVEL: This is a stand-alone classification in the Planning Department.

ESSENTIAL FUNCTIONS:
(*The following duties ARE NOT intended to serve as a comprehensive list of all duties performed by all employees in this classification, only a representative summary of the primary duties and responsibilities. Incumbent(s) may not be required to perform all duties listed and may be required to perform additional, position-specific duties.*)

Provide transportation modeling, land use modeling, and complex data analysis necessary for the TPO, the federally designated Metropolitan Planning Organization for the Chattanooga, TN-GA Urbanized Area to receive federal and state transportation funding.

Lead the development, maintenance, calibration, validation, and applications of the TDM; runs and trouble-shoots the TDM; codes and maintains the routable street network, transit networks, and scenarios for the evaluation of future projects.

Coordinates the integration of the LUM with the TDM; provides expertise and assistance in the development of the LUM; identifies processes and methods to facilitate land use forecasting; reviews forecasts and population estimates for logic and reasonableness.

Analyze and interpret the impacts of different transportation or land use scenarios; provides model output by producing and contributing to the presentation of technical memorandums, analysis reports, and formal/informal technical presentations on model development, applications, and results. Formulates, prioritizes, and recommends policies based on outputs.

Create a process and maintains a transportation monitoring system using a dashboard, other interactive web graphics, and other applicable visualizations to share information; analyzes and monitors the transportation system, including Big Data manipulation, probe data analytics (such as NPMRDS), travel survey data, and Census data (ACS /CTPP); identifies methods and objectives for the region to meet performance management goals.

Coordinate and guide the development and maintenance of the Congestion Management Process (CMP); identifies transportation and land use strategies and objectives in the region to address challenges and issues; performs research and analysis for congestion, reliability, travel time, and performance measures.

Convey technical information in a meaningful way to assist decision makers; prepares thorough documentation of work products; writes reports describing work completed, processes used, results observed, and support/justification for any recommendations and conclusions.

Develop a process and perform complex and advanced analyses to evaluate the effectiveness of transportation strategies/programs/projects by collecting data and information from various data sources, running a TDM, using sketch planning tools, or other traffic analysis tools.

Maintain in-depth and advanced knowledge and use of GIS, specifically ESRI and TransCad; understands Python (general programming) to develop or manipulate tools, scripts, and applications to improve and enhance data collection, data quality, data analysis, and visualization products.

Prepare data visualizations to be used in technical reports, policies, ordinances, regulations, grant applications, and/or requests for proposals related to land use, transportation, and capital improvements; incorporating community values and priorities, planning principles, and research to formulate recommendations based on findings.

Design and conduct complex and advanced level research projects for, but not limited to, statistical surveys, feasibility and impact studies, and policy evaluations; identifies and evaluates challenges and opportunities related to land use development, planning projects, and transportation planning.

Create, update, maintain, and manage GIS databases and features to conduct complex spatial analyses, develop feasibility and impact studies, and evaluate policies using GIS programming and/or other analytical tools; extract, clean, transform, load, organize, integrate, and analyze various datasets; implement and monitor workflow for timely data collection, and ensure data quality.

Serve as a lead or resource to other staff, coordinating work assignments, providing work direction, mentoring, and providing GIS training for staff; perform essential GIS administrative tasks for agency users; coordinates with TPO, City, County GIS, and technical services.

Develop and organize appropriate public participation processes; prepares technical reports and presents the analysis results using visualization tools such as StoryMap, Tableau, and dashboards to communicate and share transportation data; creates a variety of materials such as maps, charts, graphics, reports, brochures, and visual presentations for meetings and to facilitate community education and outreach activities with interest groups, neighborhood associations, advisory boards, and elected officials.

Represent the Agency, TPO, County, and/or jurisdictions; serves as a technical resource and consensus builder for a variety of meetings, Commissions, Councils, Boards, public events, training sessions, committees, task forces, and other related groups.

Participate in the RFP process for consultant selection including a consultant selection committee; reviews timelines, scope of work, and contractual deliverables; provide guidance and monitor consultant deliverables for accuracy and ensure the contract terms are met.

Review, interpret, and apply federal, state, and local regulations as they relate to transportation and land use planning; ensure the TDM and CMP meet both federal guidelines and transportation analysis objectives for the TPO and the state.

Research, review, and evaluate data and software purchases, applications, and process improvements; provides purchase recommendations to managers and/or decision-makers.

Keep abreast of current planning applications and application tools such as Census Apps and NPMRDS; participates and presents in professional peer groups such as TNMUG (TN Model Users Group) to stay tuned to modeling trends, modeling data developments, best practices, issues, and innovations; collaborates with other professionals, consultants, and TPO jurisdictions and partners to assess and implement the TDM and other TPO projects.

Must meet regular attendance requirements.

Must be able to maintain good interpersonal relationships with staff, co-workers, managers, and citizens.

Must accomplish the essential functions of the job, with or without reasonable accommodations, in a timely manner.

Perform other duties as assigned.

DEPARTMENT SPECIFIC DUTIES (if any):

MINIMUM QUALIFICATIONS: A Master's Degree and at least five (5) years of professional level experience in, Transportation Engineering, Transportation Planning, Urban Planning, Geography, or closely related field. A combination of appropriate education and experience may be substitutes for the education.

Experience should include geospatial analysis; GIS applications targeting the Esri software suite; land use modeling; activity-based travel demand modeling; computer programming and Python scripting; advanced qualitative and quantitative research methods and design; development, maintenance; and/or statistical analyses for land use and transportation planning. Experience with population projections and Federal Highway Administration (FHWA) transportation planning requirements preferred.

LICENSING AND CERTIFICATIONS: Valid class D driver's license and GISP Certification.

SUPPLEMENTAL INFORMATION:

In-depth knowledge of the principles of transportation, land use, statistical methods, and computer science that is applicable to transportation modeling and travel forecasting; experience

with activity-based TDM, operation and function of TDM; forecasting and application tasks; scenario planning and land use modeling; policy analysis and management; developing and testing models; multi-modal transportation analysis tools and methods; quantitative and qualitative research techniques and methodologies.

Knowledge of forecasting and trend analysis as applied to population and land use planning; cost-benefit analysis; impact analysis; statistical survey; descriptive statistics and statistical analysis; large database development and administration principles, methods and techniques including quality control methods and practices; compiling data from multiple external sources, Census and other data products; GIS principals, practices, and applications; urban planning principles, theory, methods, practices and techniques; spatial analysis concepts and techniques; customer service and public relations principles; budgeting principles; project management principles and practices; applicable federal, state and local laws, ordinances, codes, rules, regulations, standards, policies, and procedures.

Skill in performing advanced computerized transportation computations and analyses, using statistical/analytical/deterministic tools; cartographic principles as it relates to GIS; developing visualizations such as dashboards, StoryMaps, annotated maps, graphs, photographs, and illustrations; developing and maintaining large database; maintain and manipulating GIS data; performing mathematical calculations; designing and executing surveys; developing and modifying computer programming, and scriptwriting; installing and maintaining GIS software.

Skills in managing complex projects; using computers and related software applications; facilitating training; reading and interpreting engineering drawings; reading maps and scales; interpreting and applying applicable laws, ordinances, codes, rules, regulations, policies and procedures; organizing, collecting, analyzing and interpreting data; managing multiple priorities simultaneously; prioritizing and assigning work; resolving conflict; creating and making presentations; speaking in public; effective writing techniques, preparing reports and documents, and communication and interpersonal skills as applied to interaction with co-workers, supervisor, and the general public, sufficient to exchange or convey information and to receive work direction.

PHYSICAL DEMANDS: Positions in this class typically require: reaching, standing, walking, pushing, pulling, lifting, fingering, grasping, feeling, talking, hearing, seeing, and repetitive motions.

WORK ENVIRONMENT: Light Work: Exerting up to 20 pounds of force occasionally, and/or up-to 10 pounds of force frequently, and/or a negligible amount of force constantly to move objects. If the use of arm and/or leg controls requires exertion of forces greater than that for Sedentary Work and the worker sits most of the time, the job is rated for Light Work.

SPECIAL REQUIREMENTS:

Safety Sensitive: N

Department of Transportation - CDL: N

Child Sensitive: N

The City of Chattanooga, Tennessee is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the City will provide reasonable accommodations to qualified

individuals with disabilities and encourage both prospective and current employees to discuss potential accommodations with the employer.