

## Town of New Milford

### JOB CLASSIFICATION DESCRIPTION

**Job Title:** Road Construction Surveyor  
**B.U:** Non-Union

**Salary Group:** 5 (\$71,711 - \$95,917)  
**FLSA:** Exempt

**Job Summary:** Make exact measurements and determine property boundaries. Provide data relevant to the shape, contour, gravitation, location, elevation, or dimension of land or land features on or near the earth's surface for engineering, mapmaking, mining, land evaluation, construction, and other purposes. Surveys will include topographic surveys, engineering surveys, forensic surveys, subdivision & land development as well as roads, bridges, rights of way, utility and flood control structures and diversion terraces using modern survey techniques and equipment.

**Supervision Received:** Reports to the Design Engineer

#### **Essential Job Functions:**

- Prepare and maintain sketches, maps, reports, and legal descriptions of surveys in order to describe, certify, and assume liability for work performed.
- Verify the accuracy of survey data, including measurements and calculations conducted at survey sites
- Direct or conduct surveys in order to establish legal boundaries for properties, based on legal deeds and titles in accordance with all applicable industry standards not limited to the DOT Design Manual as well as Town Design Standards.
- Record the results of surveys, including the shape, contour, location, elevation, and dimensions of land or land features.
- Calculate heights, depths, relative positions, property lines, and other characteristics of terrain.
- Prepare or supervise preparation of all data, charts, plots, maps, records, and documents related to surveys.
- Write descriptions of property boundary surveys for use in deeds, leases, or other legal documents.
- Plan and conduct ground surveys designed to establish baselines, elevations, and other geodetic measurements.
- Search legal records, survey records, and land titles in order to obtain information about property boundaries in areas to be surveyed.
- Coordinate findings with the work of engineering personnel, and others concerned with projects.
- Adjust surveying instruments in order to maintain their accuracy.
- Establish fixed points for use in making maps, using geodetic and engineering instruments.
- Determine longitudes and latitudes of important features and boundaries in survey areas, using theodolites, transits, levels, and satellite-based global positioning systems (GPS).
- Train assistants and helpers, and direct their work in such activities as performing surveys or drafting maps.
- Analyze survey objectives and specifications in order to prepare survey proposals or to direct others in survey proposal preparation.
- Compute geodetic measurements and interpret survey data in order to determine positions, shapes, and elevations of geomorphic and topographic features.
- Develop criteria for survey methods and procedures.
- Develop criteria for the design and modification of survey instruments.

- Conduct research in surveying and mapping methods, using knowledge of techniques of photogrammetric map compilation and electronic data processing.
- Locate and mark sites selected for geophysical prospecting activities, such as efforts to locate petroleum or other mineral products.
- Survey bodies of water in order to determine navigable channels and to secure data for construction of breakwaters, piers, and other marine structures.
- Direct aerial surveys of specified geographical areas.
- Determine specifications for photographic equipment to be used for aerial photography, as well as altitudes from which to photograph terrain.
- Researches and recommends necessary equipment for all projects.
- Performs other duties as assigned that are both necessary and appropriate.

**Knowledge, Skills and Ability:**

- Demonstrated knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
- Demonstrated knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various road projects and bridge design.
- Demonstrated knowledge of and success in applying materials, methods, and the tools involved in the construction or repair of structures such as bridges and roads.
- Demonstrated knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.
- Demonstrated success in applying the principles and methods for describing the features of land, sea, and air masses, including their physical characteristics, locations, interrelationships, and distribution of plant, animal, and human life.
- Demonstrated knowledge of and success applying all laws, legal codes, court procedures, precedents, government regulations, executive orders, and agency rules as they related to municipal road and bridge projects.
- Demonstrated experience in municipal engineering design and construction including significant experience in infrastructure design and construction.
- Demonstrated experience in project management, road construction and bridge construction.
- Demonstrated experience or training with AutoCad 2010 or newer.
- Experience in GIS and Land Use applications required.
- Demonstrated ability to effectively communicate with project managers, construction supervisors, developers, Town employees including Public Works, Zoning, Wetlands, the Mayor and Town Council.
- Demonstrated ability to clearly articulate complex information to property owners, project managers, other Town employees, the Mayor and Town Council.

**Minimum Qualifications:**

- Bachelor's degree in Mathematics or Civil Engineering, from ABET accredited college or university
- Five (5) years of surveying municipal engineering design and construction including significant demonstrated experience in infrastructure design and construction.
- Must be licensed Land Surveyor in the State of Connecticut or surveyor in training with the ability to obtain a CT Land Surveyor license within 2 testing periods or obtain a CT land surveyor reciprocity license (Class 8) at next licensing board meeting.

**Working Conditions, Physical and Mental Requirements:** Employees appointed to positions in this class must have adequate physical strength, stamina, physical agility and visual and

auditory acuity and must maintain such physical fitness as to be able to perform the duties of the class. A physical examination may be required.

**Frequency: Place an “X” in each box that is appropriate to your job.**

<b>NEVER (N)</b>	<b>OCCASIONALLY (O)</b>				<b>FREQUENTLY (F)</b>				<b>CONSTANTLY (C)</b>					
0 % of Shift	1-33% of Shift				34-66% of Shift				67-100% of Shift					
<b>Frequency:</b>	<b>N</b>	<b>O</b>	<b>F</b>	<b>C</b>	<b>Frequency:</b>	<b>N</b>	<b>O</b>	<b>F</b>	<b>C</b>	<b>Frequency:</b>	<b>N</b>	<b>O</b>	<b>F</b>	<b>C</b>
<b>Physical Demands:</b>					Depth Perception			X						
Standing		X			Color Distinction									X
Walking		X			Peripheral Vision			X						
Sitting			X		Driving		X							
Lifting		X			<b>Physical Strength:</b>									
Carrying		X			Little Physical Effort (-10 lbs.)		X							
Pushing		X			Light Work (-20 lbs.)		X							
Pulling		X			Medium Work (20-50 lbs.)		X							
Climbing		X			Heavy Work (50-100 lbs.)		X							
Balancing		X			Very Heavy Work (100+ lbs.)		X							
Stooping		X			<b>Environmental Conditions:</b>									
Kneeling		X			Cold (50 degrees F or less)		X							
Crouching		X			Heat (90 degrees F or more)		X							
Crawling		X			Temperature Changes		X							
Reaching		X			Wetness		X							
Handling		X			Humidity		X							
Grasping		X			Extreme Noise or Vibration		X							
Twisting		X			Exposure to Chemicals		X							
Feeling			X		Exposure to Gases and Fumes		X							
Talking			X		Exposure to Unpleasant Odors		X							
Hearing				X	Exposure to Bodily Fluids	X								
Repetitive Motion			X		Exposure to Dampness		X							
Hand/Eye/Foot Coordination			X		Confinement to a Small/Restricting Area		X							
Visual Acuity/Near			X		Mechanical Hazards		X							
Visual Acuity/Far			X		Physical Danger		X							

The above statements are intended to describe the general nature and level of work being performed by the employee assigned to this position. They are not to be construed as an exhaustive list of all job responsibilities and duties performed by personnel so classified.

The Town of New Milford is an equal opportunity employer. In compliance with the Americans with Disabilities Act, the Town will provide reasonable accommodations to qualified individuals with disabilities and encourage both prospective and current employees to discuss potential accommodations with the Town when necessary.

APPROVED BY TOWN COUNCIL 9/24/18