

HIGHWAY ENGINEER

DEFINITION

Under direction of the Highway Commissioner or Assistant Highway Commissioner, performs professional highway engineering functions in field and office including supervision and quality control of all work performed by field construction crews; major design of construction projects; and other related work as required.

EXAMPLES OF DUTIES

Design: Supervises the design and preparation of plans for the development of complete road construction or reconstruction plans and specifications, including recommended route locations, minimum design standards, laying grades and computing quantities of materials; determines right-of-way widths to be acquired and writes legal descriptions for their acquisition; works with other Highway and Transportation Personnel to explain engineering requirements to property owners for right-of-way purchases and sees that legal documents are properly executed; assigns work to survey crew and other engineer staff; makes estimates for all types of highway projects including structures and pavement design; coordinates Federal aid projects with State engineering staff/consultants to meet their minimum specifications; provides advice and estimates for local municipal projects.

Construction: In conjunction with the Highway Maintenance Superintendent, Schedules work, assigns project personnel and equipment needed to perform work constructed by Highway Department Personnel; supervises work in the field and interprets plans and specifications on job site to insure standards are met; schedules work with contracting firms; supervises and performs testing and inspection procedures; directs the work of the survey crew and may participate as a surveyor when needed at construction sites; provides advice and estimates for local municipal projects; verifies contract quantities and payments; makes inspections of highway bridges for structural condition in accordance with Federal guidelines.

Administrative: Conducts the annual road rating inventory and plans road projects to be constructed in subsequent years based on the inspection; assists in preparing budget documents including the TIP (Transportation Implementation Plan) and the CIP (Capital Improvement Plan); reviews and issues utility permits for work on highway right-of-way; assists in reviewing developer plans to insure standards are met; reviews Controlled Access Permits, Certified Survey Maps, Zoning Permits, and Board of Adjustment Appeals.

EMPLOYMENT STANDARDS

Education and Experience: A bachelor's degree in civil engineering and two years of highway construction and design experience. Experience that demonstrates knowledge of CADD is desirable.

Knowledges and Abilities: Knowledge of civil engineering principles and practices applied to highway and bridge design and construction; knowledge of the basic principles and practices of engineering field and office work, including design preparation and field surveying; ability to direct the work of subordinates in drafting and surveying; ability to make difficult engineering computations, estimates and designs; ability to make structural condition inspections of bridges in accordance with Federal guidelines; ability to prepare and interpret plans and specifications and to perform or supervise the engineering inspection of contract construction; ability to plan, organize, assign and review work performed in compliance to construction standards and project specifications; ability to work effectively with public officials, contractors and the general public.

Special Requirement: Must have or be able to obtain a valid Wisconsin driver's license. Possession of or ability to obtain a State of Wisconsin Professional Engineer license is desirable.