



## NORTHERN MORAIN W R D

### JOB DESCRIPTION

#### Engineering Intern

Effective Date: February 16, 2024

Position Start Date: May 13th, 2024

FSLA Status: Non-Exempt

Pay Range: \$17.94 – \$24.27 per hour; Unit II, Grade 1

#### **Nature of Work:**

The Engineering Intern is a confidential part-time employee responsible for assisting in engineering functions for the District, including responsibilities for resident engineering, development of computer-based mapping, operations, maintenance, laboratory and SCADA programs. Work also includes data collection, data entry, plan reviews, preparing bids and plans, reviewing work for compliance with bidding documents, plans and specifications, reviewing payment requests and making recommendations for payment, measuring quantities and general troubleshooting work. Work is performed in accordance with established engineering practices and procedures and standard Illinois governmental procedures and rules.

Work includes responsibility for assisting the District Manager, Director of Operations and Junior Engineer in activities related to the District's business functions including basic operational tasks on an as needed basis.

Work is performed under the general supervision of the Junior Engineer, who reviews work for results obtained.

This position should be mutually beneficial for both the Engineering Intern and the District. The Engineering Intern shall develop valuable engineering experience while helping the District achieve the goals set forth by the District Manager.

#### **Examples of Essential Job Functions:**

- Perform JULIE locates that help identify District infrastructure before underground construction occurs.
- Assist in resident engineering work on District projects, including observing construction for compliance with District approved plans and specifications, measuring quantities and verifying payment requests.
- Assist in the development and execution of the District's Capital Improvement Plan. Assist in developing project goals, scope, and budget estimates by working with operating staff and others to determine functional needs.
- With assistance, develop plans, specifications, and bid documents for the District's capital equipment repair, replacement or renewal program. Apply for required permits.



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- Assist in all aspects of construction phase of the District's capital projects, including review/approval of submittals, construction inspections, processing progress payments and recommending approval of payments and construction close out documents.
- Evaluate options, provide cost estimates and develop engineering plans, specifications and bid documents to extend sewer service to unserved areas within the FPA. Seek low cost options for existing, nearby businesses and residents in need of service in advance of an area wide development program.
- Assist in planning, designing, and developing implementation plans for a phased SCADA system for all District facilities. Determine instrumentation, metering and monitoring needs.
- Assist in the development of the District's Computerized Maintenance Management System.
- Complete ongoing evaluation of all collection system assets and help manage the District's Cartegraph/CMOM asset management system.
- Assist in maintaining our existing GIS data, and use field accessible GIS system to record newly constructed assets (e.g. manholes and sewer).
- Assist in revising and updating development, sewer use and other ordinances and policies of the District.
- Assist with District sewer service connection inspections.
- Assist in studies, evaluation of data and development of models to maximize operating efficiencies of the Districts wastewater collection, conveyance and treatment facilities.
- Assist in the troubleshooting of processes, equipment and systems to restore proper operations or overcome operating deficiencies.
- Attend and participate in professional network meeting; stay informed of new trends and innovations in the area of wastewater management
- Communicates with residents by telephone, email and in person, answering questions and providing them with information in a timely manner; resolve problems.
- Provide effective and efficient customer service and promote and maintain responsive community and intergovernmental relations.
- Respond to difficult and sensitive public inquiries and complaints; disseminate or explain information and assist with resolutions under guidance of the District Manager.





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- Assist with preparing packet information for trustees before each board meeting.
- Assist in delivery of Board Packets to board members on a monthly basis, as directed by District Manager.
- Fills in for and performs miscellaneous duties of other operations and clerical staff, as needed.
- Follows safe work practices.
- Perform other duties as assigned.
- Maintains professional conduct; adhere to District code of ethics; maintain/strive for a work environment of teamwork, cost consciousness, and excellence.

### **Other Job Functions**

Performs related duties as assigned.

### **Requirements of Work**

- Current enrollment in an accredited college while pursuing a Bachelor of Science Degree in either Civil or Environmental Engineering, or related major.
- Knowledge of basic principles involved in computerized drafting and maintenance management software.
- High level knowledge of mathematics and engineering principles.
- Ability to troubleshoot and utilize logic and sound problem solving skills to solve issues.
- Ability to operate a personal computer with the software and programs necessary to perform the work of the District.
- Ability to communicate effectively, both orally and in writing.
- Ability to establish and maintain effective working relationships with other employees.
- Skill in the operation of devices using alphanumeric keyboards.
- Knowledge of business English, grammar, and punctuation.
- Knowledge of standard office practices, procedures and equipment.



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- Ability to make decisions in accordance with district procedures and regulations and apply these to work problems.

### **Necessary Special Requirements**

None.

### **Physical Demands**

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Work is performed mostly in an office setting; hand-eye coordination is necessary to operate computers and various pieces of office equipment.

While performing the duties of this job, the employee frequently is required to stand and talk or hear; use hands and fingers to handle, feel, or operate objects, tools, or controls and reach with hands and arms. The employee is occasionally required to walk; sit; climb or balance; stoop, kneel, crouch, or crawl; and smell.

The employee must frequently lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision and the ability to adjust focus.

The employee will be required to climb ladders and may be required to enter and exit confined spaces, such as manholes and perform critical functions, once proper training is obtained.

While performing the duties of this job, the employee regularly works in outside weather conditions. The employee is frequently exposed to noisy environments, tight, dusty and sewage and sludge containing spaces, odors, fumes and vibration.