

**Job Title:** Senior Development Engineer

**Location:** Service Center

**Department:** Water Engineering

**Job Status:** Full-Time

**Reports To:** Chief Engineer of Water Systems

**Job Grade:** 705

**Pay Status:** Exempt

**Date Created/Updated:** 3/8/2023

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### Position Summary

The Senior Development Engineer is responsible for providing professional engineering expertise to the water systems line of business, project management, implementing systems design criteria, standards, and master plans, and supervisory duties for the Water Systems Engineering Division. Primarily, this position would focus on reviewing and approving complex civil engineering construction and private development engineering plans and documents for conformance to NBU design and construction standards, codes and ordinances. This position will be the first point of contact for all outside developers and developer's engineers. In addition, this position would be responsible for managing outside consultants, contract negotiation, providing water and sewer modeling services, continuously updating NBU specifications, design criteria, standards, as well as coaching, training, and developing Water Engineering personnel.

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### Essential Duties & Responsibilities

#### SUPERVISORY DUTIES

- Responsible for completing performance reviews, counseling and recommending disciplinary action for direct reports
- Prepares staff schedules to ensure adequate coverage, backs up duties when needed
- Conduct regular meetings with direct reports covering topics such as project updates, policies/procedures and safety
- Verify accuracy and completeness of time entries by direct reports
- Ensure personnel are safety conscious and adhere to NBU safety guidelines and practices at all times and in all situations

#### GENERAL DUTIES

- Performs overall supervision and review of detailed and complex engineering calculations, plans, specifications, and additional required submittals for private development projects; and coordinates with consulting engineers performing staff augmentation for the Water Engineering department
- Reviews cost sharing agreements between NBU and the development community, plat review, plan review, master plan review, and letter of certification review
- Attends pre-development meetings and continuously updates NBU's design criteria, standard specifications, standard details, and standard products list
- Evaluates design of water systems, sewer systems, lift stations, pump stations, ground storage tanks, elevated storage tanks and other infrastructure needed for development
- Manages and supervises development review and construction inspection operations to achieve goals within available resources; plans and organizes workloads and staff assignments; trains, coaches and evaluates assigned staff; reviews progress and directs changes as needed
- Conducts inspections of work-in-progress and ensures projects are completed in compliance with applicable codes, regulations and standards
- Responds to questions and inquiries from the public and other agencies regarding water/sewer issues.
- Coordinates with the City of New Braunfels Engineering Division on permit applications for work within City rights-of way as they apply to development proposals
- Conducts and/or attends pre-application and pre-construction conferences and explains permit conditions and

requirements.

- Plans, directs, coordinates and reviews the work plan for staff; assigns work activities, projects and programs; reviews and evaluates work products, methods and procedures; meets with staff to identify and resolve problems.
- Develops agendas, organizes meetings, prepares staff reports, communicates official plans, policies and procedures to staff and the general public; makes private and public presentations to supervisors, boards, commissions, civic groups and the general public
- Coordinates assigned engineering projects with outside contractors, government agencies and organizations and the public, and provides assistance to internal NBU staff
- Meets with citizens, developers, contractors, other agencies, and City departments. Responds to questions and complaints from the public concerning water/sewer projects and other related issues
- Coordinates with other NBU departments including Water Operations and Treatment & Compliance to troubleshoot issues and define design standards
- Manages outside consultants as needed

#### PROJECT MANAGEMENT

- Manage diverse project teams to accomplish project scope, schedule, quality, and budget
- Prepare Earned Value workbooks to track project performance with respect to schedule and budget
- Prepare various project management documents including: Project Charters, Project Plans, Authorizations for Expenditures, schedules, budgets
- Coordinate with consulting engineers, contractors, and other NBU divisions regarding project status, Requests for Information, change orders or other issues
- Coordinate project communication and visit job sites as needed
- Provide regular updates on scope, schedule, quality, and budget of all projects

#### WATER AND WASTEWATER ENGINEERING

- Perform engineering design calculations for various water and sewer projects
- Produce construction plans and specifications
- Review engineering documents of consulting engineers for adherence to federal, state, and local standards
- Work with NBU ROW Division on engineering requirements for securing required easements and permits

#### NEW DEVELOPMENT

- Review plans submitted by developer for compliance with NBU's Water Systems Connection and Construction Policy, all applicable regulations and systems availability and capacity
- Meet with developers during planning stage regarding water & sewer capacity and feasibility for service
- Perform calculations and modeling to determine pressure/flow, capacity data, and all other water and wastewater system characteristics related to service. Identify required system improvements to serve proposed developments.
- Create maps and figures of the water and sewer system for developers and consulting engineers
- Perform preliminary and final plat review with respect to water and sewer availability and future system needs
- Assist NBU Water System Inspectors in working with developers on issues involving NBU's Water Systems Connection and Construction Policy and plans approved for construction
- Conduct site visits to observe developers when necessary

#### UTILITY ENGINEERING

- Provide design, analysis, troubleshooting, and other engineering services for the Water Services Line of Business
- Analyze system /operations issues and design solutions
- Maintain the Water Systems Connection and Construction Policy
- Develop design alternatives and recommendations based on technical considerations and cost/benefit analysis

## GENERAL RESPONSIBILITIES

- Exercise sound problem solving and judgment
- Possess and utilize technical skills capable of analyzing numerous choices and alternatives, and determining the best overall solution
- Explore creative and innovative ways of performing tasks and solving problems
- Gather and assimilate complex technical information on NBU's water and wastewater systems and assemble into concise professional reports, drawings, and presentations which illustrate any necessary changes to the current infrastructure
- Maintain regular attendance; leave schedule should be managed so as to not interfere with ability to accomplish tasks, including special projects and assignments with deadlines
- Adhere to NBU safety guidelines and practices at all times and in all situations
- Maintain a clean and safe work area, office, field site and vehicle as applicable
- Develop & maintain effective customer service skills for communications with co-workers, customers and the public in general
- Maintain strict confidentiality of business, employee and customer information in written and oral communications and safeguard sensitive documents
- Adhere to NBU policies and procedures
- Participate in and support initiatives to reach annual NBU Performance Measures
- Shows initiative-takes ownership of work, does what is needed without being asked, follows through
- Establishes priorities and multi-tasks so that assigned duties are completed under pressures of time constraints and deadlines
- Adapt and respond well to change; manages pressure effectively and copes with setbacks and changes in priorities.
- Demonstrates effective oral and written communication skills with peers, employees, superiors, and appropriate entities.
- Ability to deal effectively with matters of a highly visible and confidential nature when applicable
- Conversations are kept on matters related to NBU business so as to maximize efficiency and productivity
- Shows evidence of clear analytical thinking; gets to the heart of complex problems/issues; applies own expertise effectively
- Open to new ideas and experiences; seeks out learning opportunities; supports and drives organizational change
- Seeks opportunities for self-development and career advancement
- Goes out of the way to be helpful and pleasant to internal and external customers
- Supports others and shows respect and positive regard for them; works effectively with individuals, groups, and customers via positive interpersonal skills.
- Successfully persuades and influences others
- Focuses on customer satisfaction and delivers a quality service or product to the agreed standards
- Resolves conflict by applying expert knowledge of customer or employee situations to identify disparities and recommend sound solutions.
- Helpful, respectful, approachable and team oriented; builds strong relationships and a positive work environment.
- Demonstrates receptivity to new ideas and approaches and adapts with flexibility to accommodate any changes in priorities, circumstances or schedule.
- Is receptive to feedback, willing to learn
- Exemplifies NBU Core Values of Integrity, Stewardship, Team, Culture and Safety

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### Formal Education and Work Experience Requirements

Degree/Diploma Obtained: Bachelors

Field of Study: Engineering General

Work Experience Time Frame: Five Years or More

Other: Professional Engineering License from the State of Texas

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## Certification and Licensures Requirements

Professional Engineer License from the State of Texas

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### Other Minimum Qualifications

- Accredited Civil, Mechanical, or Environmental Engineering degree is required.
- Five years of experience in the design and construction of water and wastewater systems is required. Experience gained in a municipal setting is preferred.
- Thorough knowledge of principle and practices of civil engineering; knowledge of principles and practices of project management, methods and techniques used in engineering plan review; knowledge of standard specification compliance methods, the development community and contractor construction methods; knowledge of federal, state, and local codes, laws and regulations; knowledge of supervision, training, and performance management; working knowledge of the principles and practices of land development; considerable knowledge of infrastructure inspection principles and practices.
- Familiarity with basic computer software programs such as Microsoft Excel, Microsoft Word, Access, and PowerPoint is required.
- Familiarity with Engineering computer software such as AutoCAD, water and wastewater modeling, and GIS is required
- A valid Texas Driver's License is required to operate a company vehicle when necessary.
- Flexibility in available hours, including holidays, weekends, and/or after hours, is required.

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### Knowledge of Computer Software

	No Knowledge	Beginner	Intermediate	Expert
Arc GIS	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
AutoCAD	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Crystal Reports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Microsoft Access	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Microsoft Excel	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Microsoft Word	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Microsoft Publisher	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Microsoft PowerPoint	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Other Software Knowledge

[Click or tap here to enter text.](#)

### Experience with Machines, Tools, Equipment and Other Work Aids

Telephone, calculator, copier, fax machine, scanner, camera, motor vehicle, computer, printer

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## Physical Demands

### **Standing:** Occasionally

- Making Presentations
- Observing Work Sites
- Observing Work Duties
- Communication with Co-Workers

### **Fine Dexterity:** Frequently

- Computer Keyboard
- Telephone Keypad
- Calculator
- Calibrating Equipment

### **Walking:** Occasionally

- To Other Departments/Office/Office Equipment
- Around Worksite

### **Carrying:** Rarely

- Supplies
- Equipment
- Files

### **Sitting:** Frequently

- Desk Work
- Meetings
- Driving

### **Reaching:** Rarely

- For Supplies
- For Files

### **Handling:** Rarely

- Paperwork
- Monies

### **Kneeling:** Rarely

- Filing in Lower Drawers
- Retrieving Items from Lower Shelves/Ground

### **Pushing/Pulling:** Rarely

- File Drawers
- Equipment
- Table and Chairs
- Hose

### **Climbing:** Rarely

- Stairs

- Ladder
- Step Stool
- Onto Equipment

### **Vision:** Constantly

- Reading
- Computer Screen
- Driving
- Observing Worksite

### **Foot Controls:** Rarely

- Driving
- Operating Heavy Equipment
- Dictaphone

### **Balancing:** Rarely

- On Ladder
- On Equipment
- On Step Stool

### **Bending:** Rarely

- Filing in Lower Drawers
- Retrieving Items from Lower Shelves/Ground
- Making Repairs

### **Crouching:** Rarely

- Filing in Lower Drawers
- Retrieving Items from Lower Shelves/Ground

### **Crawling:** Rarely

- Under Equipment
- Inside Attics/Pipes/Ditches

### **Hearing:** Occasionally

- Communication Via Telephone/Radio/To Co-Workers/Public
- Listening to Equipment

### **Twisting:** Occasionally

- From Computer to Telephone
- Getting Inside Vehicle

### **Talking:** Frequently

- Communication Via Telephone/Radio/To-Co-Workers/Public

**Other:** Click or tap here to enter text.

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## Environmental Factors

	Never	Seasonally	Several Times Per Year	Several Times Per Month	Several Times Per Week	Daily
Extreme Temperature (Heat, cold, extreme temp. change)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wetness and/or humidity (bodily discomfort from moisture)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Respiratory Hazards (Fumes, gases, chemicals, dust, and dirt)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Noise and Vibration (sufficient to cause hearing loss)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical Hazards (High voltage, dangerous machinery, aggressive Customers)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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## Health and Safety Conditions

	Never (Never Occurs)	Rarely (Less than 1 hour per week)	Occasionally (1/3 or more of the time)	Frequently (From 1/3 to 2/3 of the time)	Constantly (2/3 or more of the time)
Mechanical Hazards	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Chemical Hazards	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Electrical Hazards	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fire Hazards	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Explosives	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communicable Diseases	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical Danger or Abuse	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Other:** Click or tap here to enter text.

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**Primary Work Environment:** Office Environment

Other: [Click or tap here to enter text.](#)

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**Overall Strength Demands**

- Sedentary - Exerting up to 10 pounds occasionally or negligible weight frequently, mostly sitting
- Light - Exerting up to 20 pounds occasionally, 10 pounds frequently, walking or standing often
- Medium - Exerting 20 - 50 pounds occasionally, 10 - 25 pounds frequently, or 10 pounds constantly
- Heavy - Exerting 50 - 100 pounds occasionally, 25 - 50 pounds frequently, or 10 - 20 pounds constantly
- Very Heavy - Exerting 50 pounds constantly

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**Non-Physical Demands**

	Never	Rarely	Occasionally	Frequently	Constantly
Time Pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Emergency Situations	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frequent Change of Task	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Irregular Schedule/Overtime	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Performing Multiple Tasks Simultaneously	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Working Closely with Others as Part of a Team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tedious or Exacting Work	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Noisy/Distracting Environment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other: [Click or tap here to enter text.](#)

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**Employee Statement of Understanding**

THIS JOB DESCRIPTION DOES NOT CONSTITUTE AN EMPLOYEE AGREEMENT BETWEEN NEW BRAUNFELS UTILITIES (NBU) AND THE EMPLOYEE. Nothing in this position description restricts NBU's ability to assign, reassign or eliminate duties and responsibilities of this job at any time.

I HAVE READ AND RECEIVED A COPY OF THIS JOB DESCRIPTION.

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Employee's Signature

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Employee's Printed Name

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Date