



**CIVIL ENGINEER CHIEF
(Water)**

DEPARTMENT: James City Service Authority/Engineering

NATURE OF WORK:

Performs complex engineering work; supervises engineering technicians and inspectors either in design, construction, and administration of capital improvement projects or programs, or in the approval and review of development projects; does related work as required such as: oversees the commercial and residential site plan review for water design, studies, and analyses for the water systems, designs for water projects, studies and analyses for the James City Service Authority (JCSA) operations, and inspections for development and capital improvement projects private and public related to water facilities. Responsible for development of five-year Capital Improvement Program for water system. Work is performed under the direct supervision of the JCSA General Manager and is reviewed through conferences, reports, and analyses of results obtained. Supports JCSA Chief Engineer Wastewater as needed.

ESSENTIAL FUNCTIONS OF THE JOB:

Coordinates, directs, supervises, and participates in highly technical and complex engineering areas such as erosion and sediment control, construction and development administration, water operations and maintenance, water source development, water distribution, collection and transmission systems, hydrology, hydraulics, and the like.

Provides comprehensive engineering support in all areas of civil engineering for development of the JCSA capital improvement projects, including cost estimates, and related items in the development of the JCSA budget for the Capital Improvement Program.

Reviews, and recommends revisions to complex construction plans for subdivisions and site plans for compliance with standards, codes and ordinances, and adherence to acceptable engineering principles and practices.

Develops and implements regulations and standards to ensure water services and systems are operated in accordance with applicable State and Federal regulations.

Supervises design and inspection activities on a number of complex projects in order to ensure staff engineering technicians and inspectors meet JCSA standards.

Provides technical response to citizen inquiries concerning specific projects in order to properly inform them as well as incorporate their input.

Provides training, supervision, and assistance to the professional staff in preparation or review of design drawings to ensure the JCSA standards are adhered to and that good engineering practices are being followed.

Supervises and evaluates the work of JCSA Engineering Division personnel under his/her supervision.

Coordinates the work of consulting engineers, County departments, and governmental agencies affected by or assigned to the designated project.

Prepares budgets, records, and reports related to assigned projects.

Practices continuous learning through individual study, classroom training, seminars, and conferences.

Performs work safely in accordance with department safety procedures and the County Safety Program. Operates equipment safely and reports any unsafe work condition or practice to Supervisor.

May be required to report to work to serve customers during emergency conditions. May be assigned to report at a different time and location and to perform different duties as necessary.

Performs related work as required.

JOB LOCATION AND EQUIPMENT OPERATED:

Duties are primarily performed in an office setting. Operates computer keyboard and telephone. Drives County vehicle to construction or other work sites. Requires occasional walking over rough terrain.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

Thorough knowledge of the principles, practices, and methods of civil engineering as applied to planning, location, inspection, design, construction, and maintenance of water and sanitary sewer facilities and relates projects.

Thorough knowledge of the principles, practices, and techniques of supervision and management.

Thorough knowledge of land and engineering survey systems, methods, and techniques.

Considerable knowledge of departments, policies, procedures, and technical standards.

Ability to supervise the work of subordinate engineering technicians and inspectors.

Ability to plan and design complex water projects.

Ability to manage complex water projects.

Ability to establish and maintain effective working relationships with County officials, employees, contractors, developers, and the public.

Ability to communicate effectively, both orally and in writing.

Ability to prepare complex technical reports.

MINIMUM QUALIFICATIONS:

Bachelor's Degree in Civil Engineering or related field, and five years of professional experience, including two years of supervisory and/or project management experience; registration as a Professional Engineer is required (P.E. required for in-house designs, review, and approvals).

NECESSARY SPECIAL QUALIFICATIONS

Must possess a valid Virginia driver's license and have an acceptable driving record based on James City County's criteria.

Requires a post-offer drug test.

July 2006

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IDENTIFICATION OF GENERAL APTITUDES AND PHYSICAL REQUIREMENTS

Position Title: Civil Engineer Chief Position Number: 783
Department: James City Service Authority Division: Water

The Americans with Disabilities Act requires that we identify the general aptitudes and physical requirements needed to perform the job listed above. Individuals who have the position must be able to perform all essential job functions unaided or with reasonable accommodation.

I. *Mental Abilities:* General learning ability. The ability to “catch on” or understand instructions and underlying principles.

- Ability to understand and follow oral instruction
- Ability to understand and follow written instruction
- Ability to guide and/or give instructions
- Ability to make decisions in accordance with established procedures and policies
- Not essential to job function

II. *Verbal Abilities:* Ability to understand meanings of words and ideas associated with them and to use them effectively. To comprehend language, to understand relationships between words, and to understand meanings of whole sentences and paragraphs. To present information or ideas clearly.

1. Speaking/Talking:

- Answer telephone, radio or switchboard
- Communicating with County officials
- Communicating with general public
- Communicating with vendors
- Communicating with supervisors and/or with other employees
- Communicating with other _____
- Not essential to job functions

2. Hearing/Listening:

- Ability to distinguish between different tones
- For communication with County officials, public, vendors, supervisors and/or other employees
- Not essential to job function.

3. Reading: (ability to read and understand text)

- Essential to job function
- Not essential to job function

III. Numerical: Ability to perform arithmetic operations quickly and accurately.

- Ability to mentally perform accurate two digit calculations
- Ability to perform accurate calculations aided by a calculator, adding machine or measurement device

IV. Spatial Abilities: Ability to comprehend forms in space and understand relationships of plane and solid objects. May be used in such tasks as blue print reading and in solving geometry problems. Frequently described as the ability to “visualize” objects of two or three dimensions, or to think visually of geometric forms.

- Essential function
- Not essential function

V. Motor Coordination: Ability to coordinate eyes and hands or fingers rapidly and accurately in making precise movements with speed. Ability to make a movement response accurately and quickly.

1. Manual Dexterity: Ability to move the hands easily and skillfully. To work with the hands in placing and turning motions.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use telephone | <input checked="" type="checkbox"/> Manipulate computer keyboard and mouse |
| <input type="checkbox"/> Use switchboard | <input type="checkbox"/> Use postage machine |
| <input checked="" type="checkbox"/> Use radio/console | <input checked="" type="checkbox"/> Use hand tools |
| <input checked="" type="checkbox"/> Use a calculator | <input type="checkbox"/> Use power tools |
| <input checked="" type="checkbox"/> Use a copy machine | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Use a fax machine | <input type="checkbox"/> Not essential to job function |

2. Finger Dexterity: Ability to move the fingers and manipulate small objects with the fingers rapidly or accurately. For example: electrical wiring.

- Essential to job function
- Not essential to job function

Explain: _____

VI. Physical Demands:

1. **Strength:** The quality, state or property of being strong. The power to withstand strain, force or stress.

Please check (✓) in appropriate boxes below.

	Ability to manipulate materials and/or equipment (lbs)						Frequency of Manipulation		
	5-	5-10	10-15	15-25	25-50	50+	Occasionally	Frequently	Continuously
Lift					✓		✓		
Push/Pull					✓		✓		
Hold/Carry					✓		✓		

Manipulation done from: ground to waist waist level waist to shoulder above shoulder
(Check all that apply)

Not essential to job function: Lift Push/Pull Hold/Carry (Check all that apply)

2. **Climbing:** To move up or mount by using the hands or feet.

- | <u>Ladders</u> | <u>Stairways</u> | <u>Steps</u> |
|---|--|--|
| <input checked="" type="checkbox"/> Step stool | <input type="checkbox"/> 1 flight | <input type="checkbox"/> 1-2 |
| <input checked="" type="checkbox"/> 8' to 10' step ladder | <input type="checkbox"/> 2 flights | <input type="checkbox"/> 2-3 |
| <input type="checkbox"/> Extension ladder | <input checked="" type="checkbox"/> 3 or more flights | <input checked="" type="checkbox"/> 4 or more steps |
| <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Not essential to job function | <input type="checkbox"/> Not essential to job function | <input type="checkbox"/> Not essential to job function |

3. **Ability to Stand, Sit, Walk, and Run:**

Please check (✓) in appropriate boxes below.

	Duration (hours/day)						Occasionally	Frequently	Continuously
	0-1	1-3	3-5	5-7	7-9	9+			
Stand	✓						✓		
Sit				✓				✓	
Walk	✓						✓		
Run									

If walking or running, over what type of terrain? flat rough both

Not essential to job function: Stand Sit Walk Run (Check all that apply)

4. Stooping, Kneeling, Crouching, and /or Crawling:

To bend forward or down from the middle of the waist or the middle of the back, to bend downwards, to lower oneself and/or to move freely on hands and knees.

Daily Amounts

- 0-5x 5-20x 20-50x 50+x
- Other _____ Not essential to job function

5. Reaching, Handling, Fingering, and/or Feeling:

To stretch out, extend, or put forth a bodily part. To touch or grasp something, by extending or stretching. To touch, lift, hold or operate with the hands.

Daily Amounts

- 0-5x 5-20x 20-50x 50+x
- Other _____ Not essential to job function

6. Seeing: To perceive or comprehend by the sense of sight.

Essential to job function: These characteristics are necessary (Check all that apply)

- Peripheral vision
- Night vision
- Focus (distinctness or clarity)
- Color perception (discriminate between colors)
- Depth perception (determine distance relationship between objects)
- Not essential to job function

VII. Driving: The ability to transfer or convey in a vehicle.

<u>Transmission</u>	<u>Standard</u>	<u>Automatic</u>	<u>Multi-Gears</u>
Car	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Van	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Small Truck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Medium Truck	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Large Truck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Truck w/Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heavy Bus Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Not essential to job function	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other (list) _____			