V[redacted]CTION

VULNERABILITY ASSESS SELECTION

**From:** Jim Pierce
**Sent:** Tuesday, November 19, 2002 10:30 AM
**To:** Sedi Toumani (E-mail); Clarence Daugherty (E-mail)
**Cc:** Michael Murphy; Jerry Davis
**Subject:** Water System Vunerability Assessment

Your firms were the only preselected small fee firms to indicate interest in performing a vunerability assessment of our water system. This is to request that each of you submit a statement of your qualifications and experience in this type of work for evaluation by staff. Please submit no later than 5 PM December 9, 2002. Give me a call if you have any questions.

Jim Pierce, P.E.
Assistant Public Works Director
P.O. Box 9010
Addison, TX 75001-9010
972-450-2879

**From:** Jim Pierce
**Sent:** Tuesday, November 05, 2002 10:05 AM
**To:** Clarence Daugherty (E-mail); Dick Perkins (E-mail); Bruce Grantham (E-mail); John Birkhoff (E-mail); Sedi Toumani (E-mail)
**Cc:** Michael Murphy
**Subject:** Water System Security

A September 2002 letter from the Environmental Protection Agency describes actions the Town of Addison must take in order to comply with the Bioterrorism Preparedness and Response Act (PL 107-188). The Act requires Addison to certify and submit a Vunerability Assessment of our water system by June 30, 2004, and, prepare an Emergency Response Plan that incorporates the Vunerability Assessment, and certify the plan by December 31, 2004.

The Town of Addison wishes to begin work on these requirements now and submit the required documents as soon as practicable.

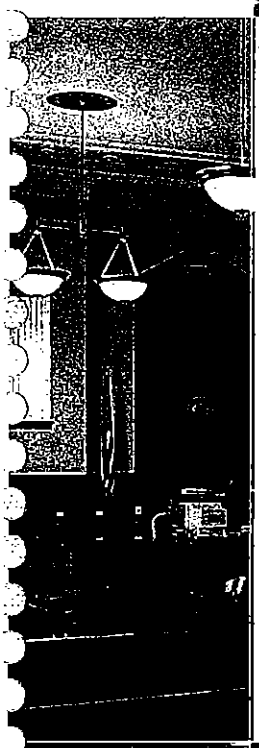
Please give me a call if your firm has qualifications and experience in this area.

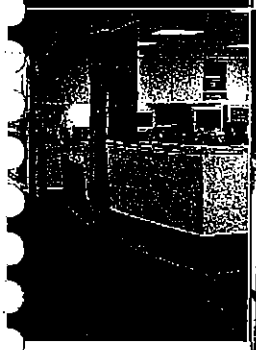
Jim Pierce, P.E.
Assistant Public Works Director
P.O. Box 9010
Addison, TX 75001-9010
972-450-2879

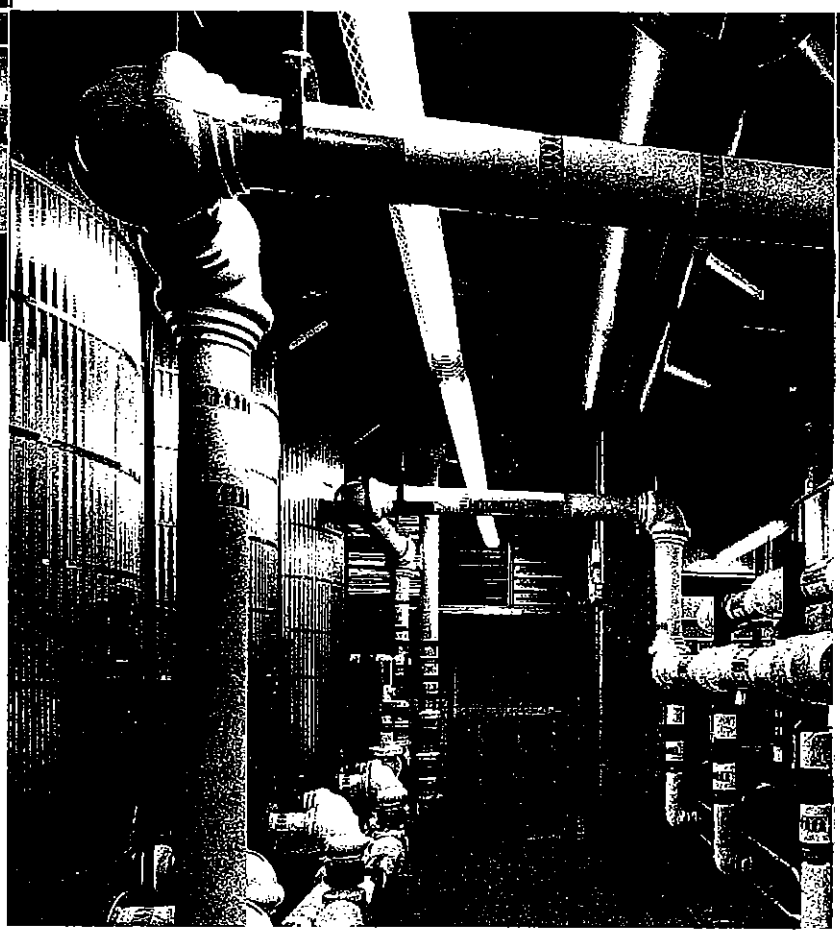
# QUALIFICATIONS

TO PROVIDE

**ENGINEERING DESIGN SERVICES**







Ross&Baruzzini

# COMPANY PROFILE

Ross & Baruzzini, Inc. (R&B) provides professional engineering, consulting and construction administration services to clients in a variety of industries. R&B employs a staff of 114 mechanical engineers, electrical engineers, plumbing engineers, systems integration personnel, and support personnel.

Ross & Baruzzini is committed to producing the highest level of design, documentation quality, follow-up and project integration. We strive to exceed our clients' expectations, while staying within their budgets. By listening closely to our clients' needs and incorporating unique solutions to their specific problems, we develop a long-term relationship based on trust, commitment and quality.

Our engineers practice design integration, working together to ensure optimum aesthetics, construction integrity and an efficient bottom line. Even when a project is divided up into pieces, with specific work being done by different teams, our design integration method gives the entire project a coordinated, consistent finish.

Ross & Baruzzini is organized around specialty groups serving the education, healthcare, government, transportation, and utilities markets. Because we have specialists in each of these sectors, we are able to focus the appropriate resources, technology and experience to handle even the most complex projects successfully.

Founded in 1953, Ross & Baruzzini has been consistently ranked as one of the premier engineering companies in the country, most recently in Building Design & Construction's Top 40 engineering companies in the United States. Also, we have been recognized among the Top 500 design and construction firms in Engineering News-Record, as well as a Top 40 plumbing engineering company in PM Engineer.

**Office Locations:**


Texas Office-Houston:
505 North Main
Conroe, TX 77301
T: 936.756.9531
F: 936.756.9532

Texas Office-Dallas:
511 E. John Carpenter
Frwy
Suite 210
Irving, TX 75062
T: 469.759.5850
F: 496.759.5855

Missouri Office:
6 South Old Orchard
St. Louis, MO 63119
T: 314.918.8383
F: 314.918.1766

Florida Office:
7200 NW 19th Street
Suite 316
Miami, FL 33126
T: 305.477.8338
F: 305.477.3378

## COMPANY PROFILE, *CONTINUED*

**Website:**

www.rossbar.com

**Ross&Baruzzini is an Engineering Firm specializing in:**

- Government
- Utilities Infrastructure
- Healthcare
- Education
- Transportation
- Commercial

**Honors Include:**

- 2003 Top 500 Design and Construction Firm by *Engineering News Record*
- 2003 Top 500 Engineering and Architecture Firm by *Building Design & Construction*
- 2000 Illuminating Engineering Society National & Regional, Illumination Design Award for Civil Courts Building Renovation

# mechanical engineering

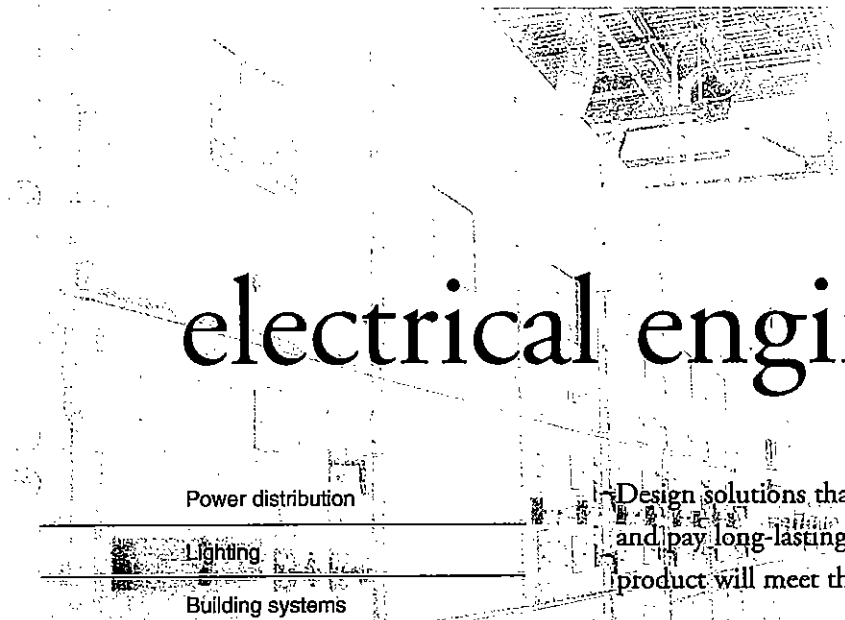
- HVAC
- Central energy plants
- Building automation systems
- Air handling
- Energy audit, cost benefit analysis and conservation
- Life-cycle cost analysis
- Indoor air quality analysis
- Heat recovery
- Chilled water, heated water and steam distribution
- Domestic water and waste
- Laboratory systems
- Specialized laboratory piping
- Specialized waste and venting
- Specialized gas systems
- Fuel distribution
- Fire protection
- Wet, dry and pre-action sprinklers
- Chemical-based fire extinguishing
- Smoke control
- Softened water/reverse osmosis
- Vibration and noise control
- Due diligence assessment
- Redundancy and failure mode analysis
- Earthquake preparedness

Full service consulting, design, construction documents, and construction administration services in the fields of heating, ventilating, and air-conditioning, plumbing, and fire protection engineering are functions provided by Ross & Baruzzini's mechanical engineers.

In addition, Ross & Baruzzini offers services related to Health and Safety Under Extraordinary Incidents, a field of risk management assessments and design advice with respect to outdoor air intakes, drinking water supplies, fuel supplies, and fire protection systems for possible accidental incidents, natural disasters, and intentional incidents, such as terrorism.

Ross & Baruzzini's technical strength grows out of recruiting and retaining the most talented people. Our engineers, designers, and technicians all participate in enrichment opportunities, both formal and informal. We participate actively and regularly in local and national organizations such as the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE), the American Society of Mechanical Engineers (ASME), the National Fire Protection Association (NFPA), the U.S. Green Building Council, and the National Society of Professional Engineers (NSPE).

There are crucial considerations that go into every Ross & Baruzzini mechanical project. Beginning with planning and ending with construction administration services, we design mechanical systems which complement, not oppose, the architect's vision and the owner's long-term needs. Coordination with the owner and within the design team a hallmark of the Ross& Baruzzini process.



# electrical engineering

- Power distribution
- Lighting
- Building systems
- Motors and controls
- Generators and paralleling
- Communications systems
- Energy conservation
- Substations
- UPS
- Life-cycle analysis
- Grounding and lightning
- Fault and coordination studies
- Power system disturbance
- Load flow and voltage drop
- Radio propagation
- Waveform analysis
- Acoustics

Design solutions that result in a facilitie's effective and efficient electrical usage and pay long-lasting dividends to our clients, assuring them that the finished product will meet their goals, is a trademark of the Ross& Baruzzini process.

Ross & Baruzzini's electrical engineering group designs and specifies electrical systems for healthcare, education, government, industrial, high-tech commercial, and transportation facilities. This consists of, but is not limited to: substations, switchgear, medium and low voltage distribution, motors and motor controls, fire alarm and signaling systems and low voltage systems, such as intercom, paging, telephone and data systems.

Ross & Baruzzini directs unique problem-solving abilities to a wide variety of challenges facing our clients, including those mission-critical clients who demand 24/7 operations. The electrical engineering group includes an award-winning lighting department, instrumentation and controls engineers and designers of low voltage systems of all types.

Our clients' interests are paramount in our approach. We work with our clients to ensure that their interests, such as life safety, economics, functionality, maintainability, aesthetics and comfort, are met.

# security

- Access control systems
- Closed-circuit television
- Security planning
- Consolidated communications centers
- Emergency operations facilities
- Digital video recording
- Radio communications
- Perimeter security
- Dispatch and event management
- Systems integration
- Security assessments and plans
- Security checkpoint design
- System redundancy design
- Cost benefit analysis
- System testing and commissioning
- Vulnerability assessments
- Grant writing

The continually evolving security environment requires solutions that meet the demands of today combined with flexibility for the vision of tomorrow. Ross & Baruzzini security technology group develops these solutions through close working relationships with facility operators and managing agencies, helping them meet the unique security requirements of their facility.

For more than fifteen years, we have been involved with security and information technology projects for airports, seaports, rail, pipeline, surface transportation, healthcare, education and government facilities. We provide full service planning, design and construction management services for command centers, emergency operations facilities, security and electronic systems, and systems integration.

Ross & Baruzzini also provides security consulting and engineering services for projects that require security assessments; threat and vulnerability analysis; access control/CCTV/digital recording systems and integration; security master planning; vehicle access points; security screening; security procedural reviews; interface with government agencies and security grant writing. Our personnel are thoroughly familiar with regulatory requirements and interpretation of current security programs.

We focus on initial in-depth planning phases and security assessments geared to define standards and regulatory requirements, operational goals, interfaces with other disciplines, and project budget. Based on R&B's engineering strength, our well-detailed construction documents thoroughly coordinate with other site and facility disciplines. Our construction management services include on-site inspections, detailed testing requirements and final acceptance reports to the owner.

# technology consulting

- Management consulting
- Business strategies
- Master planning
- White papers
- Technology assessment
- Process re-engineering
- Functional requirements
- Concepts development
- Requests for proposals
- Risk analysis & value engineering
- Systems architecture
- Systems integration
- Funding & grant requests
- Feasibility studies
- Cost & benefit analysis

Expertise in planning and concept development of all business related technologies allows Ross & Baruzzini to offer consulting services for various industries including airports, seaports, education, healthcare and government.

Ross & Baruzzini brings strong analytical and planning skills necessary to conduct user interviews, prepare high-level needs assessments, conceptual reports and data flow analyses. We maintain a strong staff of information technology consultants that are widely experienced in working directly with users and making arcane technical subjects accessible. We work closely with the design team leadership to develop applicable concepts for information technology projects. Our approach is to view the project goals through the eyes of the user; a major component of the Ross & Baruzzini process.

Our strength lies in our highly knowledgeable staff with real experience in operations, engineering and information technology. Utilizing our business oriented approach; our team identifies business, operations, technology and funding requirements.

Since many information technology initiatives are intended to enhance customer service, our experience has yielded design trends that will typically assist the conceptual development. In many instances we can offer conventional wisdom having implemented successful solutions from previous projects.

# systems engineering

- Access control systems
- Closed-circuit television
- Digital video recording systems
- Fire alarm systems
- Local area networks
- Multi-user flight Information display systems
- Premise distribution systems
- Public address systems
- Structured cabling aystems
- Survey and study of existing systems
- Telecommunication systems
- Video advertising systems
- Visual paging systems
- Nurse call systems
- Intercom systems
- CATV systems
- Telephone systems
- Master clock systems
- Common use systems
- ADA electronic systems

Ross & Baruzzini provides engineering services for assessment, design, construction documents, and construction administration for low-voltage communications, security, and information technology systems.

Our goal is to provide the client with systems to meet today's needs while enabling future growth. We educate our clients and work together as a team to determine systems requirements that result in designs tailored to the client's needs and individual facility.

Ross & Baruzzini designs detailed sets of construction drawings and specifications for systems engineering. Our team of engineers, designers, and technicians stay current with new technologies and standards, and have a proven track record of successful projects. We retain the best and brightest professionals across all systems engineering disciplines including registered Professional Engineers (PE), Registered Communications Distribution Designers (RCDD), Certified Protection Professionals (CPP), and Physical Security Specialists (PSS). Our active memberships include the American Society for Industrial Security (ASIS), and the National Society of Professional Engineers (NSPE).

Communications, security and information technology systems design impact how the client's facility will operate. Ross & Baruzzini understands how these systems can benefit the owner's daily operation, and designs and delivers cost-effective, proven solutions that provide the owner with the latest technology advancements.

# program management

- Closed-circuit TV
- Access control
- Fire/Life safety
- Explosive detection systems
- CUTE
- FIDS
- CATV
- Paging
- PDS/Wireless
- BMS

Ross & Baruzzini brings critical program management skills in cost estimating, budgeting, phasing and construction packaging necessary to implement projects. Having served many major facilities in this role, we provide assistance to assure that infrastructure, network, and IT systems projects are effectively integrated into ongoing development/construction programs.

A program management role begins with the identification and understanding of individual projects. The true benefit of our approach is the full integration and reliance of these projects to work in a harmonious business environment enhancing the total output of the client's vision.

Information Technology project integration, driven at a program management level, requires sharing of data between systems at various levels. A program level approach allows consistent system-wide adoption of the business functions to each project, providing seamless program solutions to our client's business.

# wireless

- In-building RF distribution design
- Wireless LAN (802.11a/b/g) design
- Wireless access point detection
- Surveys
- RF spectrum analysis
- Cellular/PCS carrier identification and traffic monitoring
- Two-way radio system design
- Radio system coverage studies (Prediction)
- Radio system coverage surveys (Measurement)
- FCC licensing assistance
- Studies/Reports:
  - Wireless tech/Recommendations
  - Electromagnetic energy (EME) safety
  - Wireless LAN security
  - RF policies & procedures
- Other RF system design capabilities:
  - Telemetry/SCADA/Security
  - Microwave/Point-to-point
- Broadband data: Point-to-multipoint Towers (design, siting)

Conveying information, sensing activity, and/or remotely controlling devices without the use of traditional wired media are the functions of wireless technologies. Almost all of the radio spectrum, ultraviolet to infrared, can be used to accomplish important tasks efficiently, quickly, and cost effectively.

By helping our clients gain control of their wireless environment, Ross & Baruzzini maximizes efficiency of mission-critical radio communications. Further, we help clients capitalize on this valuable resource to create new revenues and provide new services to their customers.

Ross & Baruzzini provides complete wireless solutions, from design assessment to construction administration, which allows our clients to maintain one dependable point of contact. As we provide these services, system reliability and information security are always a top priority.

Our wireless technology staff includes registered engineers, licensed by the Federal Communications Commission (FCC), and accredited by the wireless industry to perform complete network assessments and designs.

Ross & Baruzzini is entirely vendor-neutral, although we are well aware of the latest products and their capabilities. We pride ourselves in "out-of-the-box" thinking, and strive to achieve the most creative, efficient, and cost-effective wireless solutions.

# material handling

- Baggage handling systems planning
- Explosive detection systems planning
- Concept design
- Design development
- Technical specifications
- Cost estimates
- Construction documents
- Bid evaluation and recommendations
- Commissioning services
- On-site technical support
- Life cycle cost analysis

Ross & Baruzzini's expertise in material handling provides clients with tangible and measurable improvements in customer service, operations and overall efficiency. Our experience in baggage handling dates back to 1990 when Trans World Airlines chose Ross & Baruzzini to develop the design and technical specifications for the automated baggage system at their headquarters in St. Louis, Missouri.

Ross & Baruzzini's material handling experience includes various types of projects containing significant challenges. Each project has dealt with planning, design and construction phases and has included new, re-configured and expanded systems for outbound, interline and inbound systems. Our designs require the coordinated effort of mechanical, electrical and software disciplines and the specific knowledge of conveyor equipment, as well as providing design and/or integration with information technology systems.

Creative material handling design takes vision to conceive and to develop cost effective solutions. It also takes knowledge to integrate explosive detection systems into the complex environment of today's facilities. Our ability to deliver at a consistently high level comes from the quality of our innovative and forward thinking people. A growing knowledge base and an approach to serving others provides our clients with the latest technologies in material handling and unparalleled customer service.

# architecture

- Urban design
- Master planning
- Site planning
- Programming
- Phasing
- Design
- Interior design
- Furniture selection and specification
- Signage and wayfinding
- Construction documentation
- Construction administration
- Cost projections
- Existing conditions assessment

Planning, programming, design, interior design and construction services for existing facilities and new built environments are the functions of Ross & Baruzzini's architecture group. We combine architecture and interior design to weave structure and interior elements into a cohesive and dynamic environment. We provide solutions that address our clients' functional, economic and aesthetic goals, while providing innovative and technically responsive solutions.

Ross & Baruzzini provides clients with a specialized understanding of their needs and a coordinated knowledge of how engineering systems integrate with creative architecture, melding the art and science of architecture and engineering.

Our staff blends experience in urban planning, programming, and interior design, incorporating Leadership in Energy and Environmental Design (LEED) standards into the design of healthcare environments, education facilities, laboratories and technical environments, government and commercial projects, historic preservation, and specialty work for transportation facilities.

Through an interactive relationship and partnership with our clients, Ross & Baruzzini's designers bring their expertise in design and construction together as an instrument to help evolve each client's visions into reality. By building consensus, working collaboratively, and understanding the relationship of needs and desires with technology and human issues, we strive for excellence and turn obstacles and challenges into opportunities and successes.

**STANDARD FORM 254**
Architect-Engineer and Related Services Questionnaire

**1. Firm Name/Business Address:**

FEIN: 430787438

ROSS & BARUZZINI, INC.
6 SOUTH OLD ORCHARD
WEBSTER GROVES, MISSOURI 63119

**1a. Submittal is for** ☐ **Parent Company** ☐ **Branch or Subsidiary Office**

**2. Year Present Firm Established:** Incorporated 1962

**3. Date Prepared:** 03.05.04

**4. Specify type of ownership and check below, if applicable.**

| | |
|---|---|
| | A. Small Business |
| | B. Small Disadvantage Business |
| | C. Women-owned Business |

**5. Name of Parent Company, if any:**
ROSS & BARUZZINI, INC.

**5a. Former Parent Company Names(s), if any, and Year(s) Established:**

DONALD K. ROSS & ASSOCIATES, 1953

**6. Names of not more than Two Principals to Contact: Title/Telephone**

1) MICHAEL E. SHEA, AIA, PRINCIPAL 314/918-8383
2) WILLIAM H. OVERTURF, PE, CHIEF OPERATING OFFICER 314/918-8383

**7. Present Offices: City/State/Telephone/No. Personnel Each Office** **7a. Total Personnel** 110

St. Louis / Missouri / 314.918.8383 / 73
Houston / Texas / 936.756.9531 / 17
Miami / Florida / 305.477.8338/ 14
Dallas/ Texas / 469.759.5850 / 6

**8. Personnel by Discipline: (List each person only once, by primary function.)**

| | | | |
|---|---|---|---|
| 18 Administrative* | 13 Electrical Engineers | ___ Oceanographers | 1 Industrial Engineers |
| 8 Architects | ___ Estimators | ___ Planners: Urban/Regional | 25 Security/Telecommunications |
| ___ Chemical Engineers | ___ Geologist | 3 Sanitary Engineers | 11 Project Managers |
| ___ Civil Engineers | ___ Hydrologists | ___ Soils Engineers | 6 Designers |
| 2 Construction Inspectors | 2 Interior Designers | ___ Specification Writers | 2 IS Administrators |
| 3 Draftsmen | ___ Landscape Architects | ___ Structural Engineers | 2 IT Specialist |
| ___ Ecologists | 13 Mechanical Engineers | ___ Surveyors | 1 Graphic Artist |
| ___ Economists | ___ Mining Engineers | ___ Transportation Engineers | 110 Total Personnel |

* includes marketing, clerical, acctg, h.r.

9. Summary of Professional Services Fees
Received: (Insert index number)

| | Last 5 Years (most recent year first) | | | | |
|---|---|---|---|---|---|
| | 2003 | 2002 | 2001 | 2000 | 1999 |
| Direct Federal contract work, including overseas | 3 | 3 | 3 | 3 | 3 |
| All other domestic work | 8 | 8 | 8 | 8 | 7 |
| All other foreign work* | 1 | 1 | 3 | 1 | 1 |

*Firms interested in foreign work, but without such experience, check here: ☐

Ranges of Professional Services Fees
INDEX
1. Less than $100,000
2. $100,000 to $250,000
3. $250,000 to $500,000
4. $500,000 to 1 million
5. $1 million to $2 million
6. $2 million to $5 million
7. $5 million to $10 million
8. $10 million or greater

10. Profile of Firm's Project Experience, Last 5 Years

| Profile Code | Number of Projects | Total Gross Fees (in thousands) | Profile Code | Number of Projects | Total Gross Fees (in thousands) | Profile Code | Number of Projects | Total Gross Fees (in thousands) |
|---|---|---|---|---|---|---|---|---|
| 1) 001 | 3 | 180 | 11) 036 | 40 | 700 | 21) 062 | 12 | 200 |
| 2) 005 | 27 | 2,025 | 12) 039 | 3 | 350 | 22) 063 | 2 | 160 |
| 3) 006 | 151 | 11,325 | 13) 043 | 56 | 3,360 | 23) 072 | 6 | 450 |
| 4) 008 | 3 | 225 | 14) 048 | 72 | 5,400 | 24) 080 | 40 | 600 |
| 5) 010 | 2 | 550 | 15) 049 | 2 | 150 | 25) 083 | 112 | 8,400 |
| 6) 016 | 15 | 900 | 16) 055 | 14 | 420 | 26) 084 | 26 | 6,300 |
| 7) 018 | 60 | 5,000 | 17) 057 | 5 | 1,200 | 27) 089 | 27 | 2,025 |
| 8) 019 | 16 | 1,800 | 18) 058 | 9 | 625 | 28) 094 | 48 | 3,600 |
| 9) 029 | 86 | 6,450 | 19) 060 | 3 | 225 | 29) 106 | 7 | 84 |
| 10) 035 | 8 | 400 | 20) 061 | 32 | 800 | 30) 109 | 1 | 700 |

11 Project Examples, Last 5 Years

| Profile Code | "P","C", "JV", or"IE" | Project Name and Location | Owner Name and Address | Cost of Work (in thousands) | Completion Date (Actual or Estimated) |
|---|---|---|---|---|---|
| 018, 023, 036, 043, 048, 055, 061, 066, 079, 083, 089, 094, 095, 105 | P | 1 Renewal of Maternal/Infant Services<br>General Leonard Wood Army Base Hospital<br>Ft. Leonard Wood, Missouri | General Leonard Wood Army Hospital<br>Ft. Leonard Wood Building 310<br>Ft. Leonard Wood, Missouri 63473 | 5,250 | 2004 |
| 044, 043, 048, 055, 061, 080, 083, 089 | P | 2 Primary Care Clinic Renewal<br>General Leonard Wood Army Base Hospital<br>Ft. Leonard Wood, Missouri | General Leonard Wood Army Hospital<br>Ft. Leonard Wood Building 310<br>Ft. Leonard Wood, Missouri 63473 | 8,500 | 2003 |
| 023, 030, 036, 043, 048, 080, 083, 089 | P | 3 Emergency Power Systems<br>Evans Army Community Hospital<br>Ft. Carson, Colorado | Evans Army Community Hospital<br>1650 Cochrane Circle, Room 7507<br>Ft. Carson, Colorado 80913 | 1,200 | 2005 |
| 030, 048, 083 | P | 4 Electrical Upgrades<br>Veterans Administration Hospital<br>Marion, Illinois | VA Medical Center<br>2401 West Main Street, Building #16<br>Marion, Illinois 62959 | 850 | 2004 |
| 030, 048, 066, 083 | P | 5 Facility-Wide Electrical Upgrades<br>Harry S. Truman Hospital, Veterans Administration, Columbia, Missouri | Harry S. Truman Memorial Veterans Hospital, 800 Hospital Drive<br>Columbia, Missouri 65201 | 800 | 2004 |
| 019, 023, 030, 036, 043, 055, 061, 066, 069, 072, 078, 080 | C | 6 Indefinite Delivery Order Contract<br>National Geospatial Intelligence Agency<br>St. Louis, Missouri | National Geospatial Intelligence Agency<br>3200 South Second Street<br>St. Louis, Missouri 63118-3399 | 4,500 | 2005 |
| 008, 018, 027, 029, 030, 036, 043, 049, 067, 080, 083, 112 | C | 7 The Leadership Center, Phase II<br>Conference/Training Facility<br>St. Louis, Missouri | The Boeing Company<br>Building 100, PO Box 516<br>St. Louis, Missouri 63166 | 20,000 | 2002 |

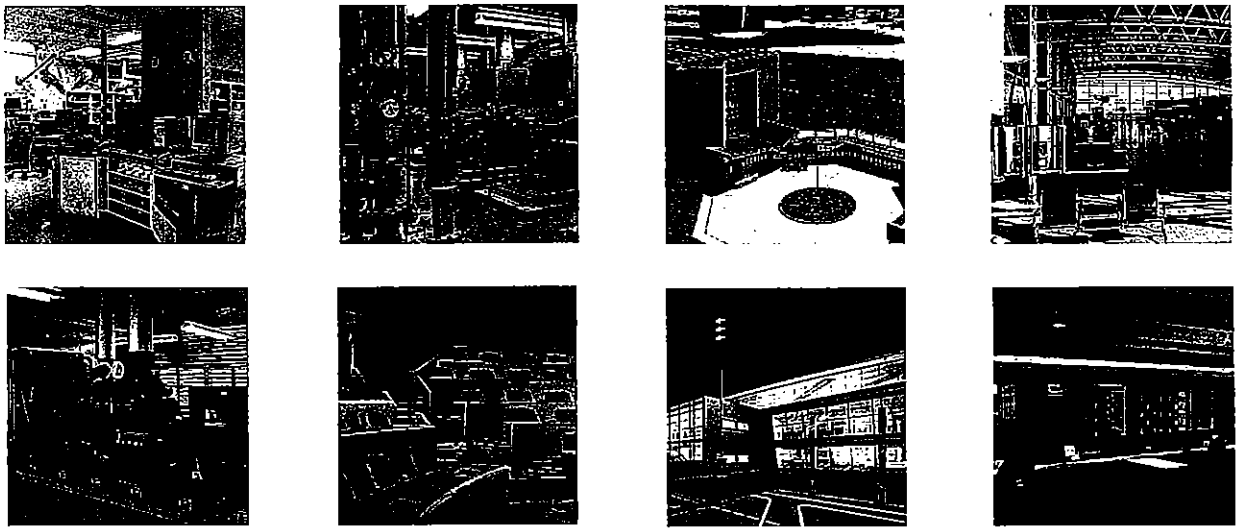
| | | | | | |
|---|---|---|---|---|---|
| 008, 018, 027, 036, 043, 061, 080, 083 | C | 8 128,000 SF Convention Center<br>City of St. Charles<br>St. Charles, Missouri | City of St. Charles<br>200 N. Second Street<br>St. Charles, Missouri 63301 | 25,000 | 2004 |
| 089, 006, 015, 018, 019, 030, 032, 036, 043, 061, 062, 063, 079, 080, 083, 094, 111, 112 | P | 9 Open-Ended A/E Services<br>Lambert-St. Louis International Airport<br>St. Louis, Missouri | City of St. Louis<br>Board of Public Address, City Hall<br>St. Louis, Missouri 63103 | 20,800 | Ongoing |
| 023, 029, 030, 036, 043, 048, 058, 061, 079, 083 | P | 10 Multiple Projects<br>Washington University School of Medicine<br>St. Louis, Missouri | Washington University School of Medicine, Design and Construction<br>St. Louis, Missouri 63110 | 60,000 | 2004 |
| 006, 023, 030, 034, 036, 043, 063, 094 | P | 11 Explosion Detection System<br>Lambert-St. Louis International Airport<br>St. Louis, Missouri | Lambert-St. Louis International Airport<br>P.O. Box 10212<br>St. Louis, Missouri 63145 | 50,000 | 2005 |
| 023, 030, 036, 043, 057, 061, 062, 079, 083, 084, 094 | C | 12 Community Supervision Center Prototype<br>State of Missouri | State of Missouri<br>301 West High Street, P.O. Box 809<br>Jefferson City, Missouri 65102 | 3,000 | N/A |
| 018, 023, 029, 030, 034, 036, 041, 043, 055, 061, 062, 072, 079, 080, 083, 094 | P | 13 25,000 SF 911 Call Center<br>City of Tulsa Public Safety & Communications Division, Tulsa, Oklahoma | City of Tulsa Public Works Division<br>2317 S. Jackson<br>Tulsa, Oklahoma 74107 | 8,000 | 2005 |
| 006, 015, 018, 019, 023, 036, 043, 055, 061, 083, 094, 105, 106 | P | 14 Consolidated Command/Communications Center<br>Pittsburgh International Airport<br>Pittsburgh, Pennsylvania | Pittsburgh Int'l Airport<br>P.O. Box 12370, Suite 4000<br>Pittsburgh, PA 15231-0370 | 12,000 | 2002 |
| 005, 018, 023, 036, 080, 043, 055, 061, 080, 089, 094, 019 | P | 15 Communications & Emergency Operations Center<br>Sarasota Bradenton International Airport<br>Sarasota, Florida | Sarasota Manatee Airport Authority<br>600 Airport Circle<br>Sarasota, Florida 34243-2105 | 700 | 2003 |
| 002, 022,, 023, 043, 080, 084, 089, 106, 111 | P | 16 Facility Wide Steam System Upgrade<br>Farmington Correctional Center<br>Farmington, Missouri | State of Missouri<br>301 West High Street<br>Jefferson City, Missouri 65102 | 4,600 | 2001 |
| 023, 029, 043, 055, 058, 062, 079, 080, 083 | P | 17 Tyson Warehouse Lab Study<br>Washington University<br>St. Louis, Missouri | Washington University<br>One Brookings Drive<br>St. Louis, Missouri 63130 | 1,200 | 2005 |
| 043, 048, 080, 083 | P | 18 Energy Center<br>St. John's Mercy Hospital<br>Washington, Missouri | St. John's Mercy Hospital<br>200 Madison Avenue<br>Washington, Missouri 63090 | 7,600 | 2002 |
| 008, 018, 023, 029, 036, 043, 061, 080, 083, 089 | P/C | 19 Multiple Projects from 1983-2002<br>University of Missouri<br>St. Louis, Columbia, and Rolla, Missouri | University of Missouri<br>General Services Building<br>Columbia, Missouri 65211 | 90,000 | On-Going |

| | | | | | |
|---|---|---|---|---|---|
| 005, 015, 023, 036, 046, 059, 062, 080, 083, 094, 109 | C | 20 1500 Foot Lindbergh Tunnel<br>Under Runways at Lambert Airport<br>St. Louis, Missouri | City of St. Louis<br>1206 Market Street<br>St. Louis, Missouri 63103 | 62,000 | 2003 |
| 006, 013, 023, 036, 043, 055, 061, 072, 079, 080, 083, 113 | P | 21 60,000 SF Central Stores Facility<br>Lambert-St. Louis International Airport<br>St. Louis, Missouri | The SPK Team<br>4610 North Lindbergh, Suite 280<br>Bridgeton, Missouri 63044 | 4,800 | 2003 |
| 018, 019, 030, 036, 043, 055, 061, 080, 083, 089, 094, 095 100, 105, 106 | P | 22 101,000 SF Data Center and World Headquarters for Intira<br>Pleasanton, California | Intira Corporation<br>5167 Gilbraltar<br>Pleasanton, California | 18,000 | 2000 |
| 015, 029, 031, 036, 043, 045, 061, 062, 080, 111, 112 | C | 23 Learning and Teaching Center<br>Washington University<br>St. Louis, Missouri | Washington University School of Medicine, Design and Construction<br>St. Louis, Missouri 63110 | 35,000 | 2004 |
| 029, 023, 036, 043, 058, 061, 055, 089, 094, 100, 112 | P | 24 Chemistry Building Renovation<br>McMillen Hall<br>Washington University, St. Louis, Missouri | Washington University<br>One Brookings Drive<br>St. Louis, Missouri 63130 | 3,650 | 2000 |
| 018, 057, 072, 084, 094 | P | 25 Security System Study of 9 Buildings<br>St. Louis County<br>St. Louis, Missouri | St. Louis County Public Works<br>41 South Central<br>St. Louis, Missouri 63105 | N/A | 2003 |
| 043, 048, 061, 080, 083 | C | 26 East Campus Expansion<br>Cox Medical Center<br>Springfield, Missouri | Cox Health Systems<br>3801 South National Avenue<br>Springfield, Missouri 65807 | 14,000 | 2004 |
| 061, 032, 036, 043, 080, 089, 094 | C | 27 Expansion of St. Louis Children's Hospital<br>St. Louis Children's Hospital<br>St. Louis, Missouri | St. Louis Children's Hospital<br>One Children's Place<br>St. Louis, Missouri | 24,000 | 2000 |
| 023, 030, 036, 043, 062, 080, 083, 115 | P | 21 Emergency Generators<br>City of St. Charles Water Division<br>St. Charles, Missouri | City of St. Charles Water Division<br>3600 Elm Point Road<br>St. Charles, Missouri 63301 | N/A | 2004 |
| 023, 030, 062, 094, 115 | P | 29 Security Analysis and Design<br>Missouri American Water Company<br>Throughout the State of Missouri | Missouri American Water Company<br>535 North New Ballas Road<br>St. Louis, Missouri 63141 | 7,800 | 2004 |
| 018, 006, 079, 094, 005, 083 | C | 30 Northwest Airlines, Midfield Terminal<br>Detroit Metropolitan Airport<br>Detroit, Michigan | SH&G<br>150 West Jefferson Avenue<br>Detroit, Michigan 48226 | 20,000 | 2000 |

12. The foregoing is a statement of facts

Signature: _____ Typed Name and Title: Michael E. Shea, AIA, Principal

Date: March 5, 2004



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Vulnerability Assessment 12-20-02
Selectmen Meeting with Mike Murphy, Jerry Davis and Jim Pierce.

Committee Members Voted as follows

| | Murphy | Davis | Pierce |
|---|---|---|---|
| PBS&J | 2nd | 2nd | 2nd |
| Dal-Tech | 1st | 1st | 1st |

Dal-Tech was selected with 3 out of 3 first place votes.

J Pierce

DAL-TECH
ENGINEERING, INC.
CONSULTING CIVIL ENGINEERS / SURVEYORS
CONSTRUCTION MANAGERS

December 9, 2002

Mr. Jim Pierce, P.E.
Assistant Public Works Director
Town of Addison
16801 Westgrove
Addison, Texas 75024

Re: **Statement of Qualifications**
**Water System Vulnerability Assessment**

Dear Mr. Pierce:

DAL-TECH Engineering, Inc. (DTE) is pleased to submit the following Statement of Qualifications for performing a Water System Vulnerability Assessment for the Town of Addison. Although this skill and process are new to everyone including DTE and the Town of Addison, DTE staff have gained a tremendous amount of education in this field and have a great understanding of the Federal regulation and we are confident that we could perform the work in a competent manner.

DTE has, over the years, been an integral part of many major public works projects throughout the DFW Metroplex. We offer an impressive track record of success on a wide variety of projects with local agencies. Our past services to the Town of Addison include completion of a base map and boundary survey of the Airport, the selection of DTE to provide Indefinite Delivery engineering services for the Town, and several other small projects. DTE has extensive experience in utility design and relocation, as well as a strong background in searching for and bringing data together, mapping, and presentation.

DTE offers unique owner/agency-side experience and understanding, which equips our team with specific understanding of the Town's needs and the daily challenges faced by the Town staff. Our vast public sector experience ensures that our work product is of the highest quality.

- **Mr. Matt Stevens, P.E., Project Manager**, served for three years as a Project Manager at North Texas Municipal Water District (NTMWD), where he participated with the District's water security assessment. Mr. Stevens also spent seven years as a senior member of the Dallas County Department of Public Works, in the roles of Project Manager and Design Engineer. Prior to that, Mr. Stevens performed design, inspection and construction management of large diameter water mains (54-inch – 24-inch). Mr. Stevens is very familiar with how a water system operates.

- **Ms. Sedi Toumani, P.E., Principal-In-Charge of DTE,** is the sole owner and founding principal. She brings twenty-five years experience in engineering design, construction and management, which included ten years as City Engineer for the City of Mesquite. As Principal-In-Charge, she has also been gaining an impressive amount of knowledge in the field of water security and will be involved in aspects of this study.

If selected, DTE proposes to include representatives of **Teng & Associates, Inc.** (Teng), a national A/E development and design-build firm with experience across the United States. Teng has performed extensive security consulting for both the public and private sector. Mr. Troy Lapetina, C.E.M., Director of Security and Safety, and Mr. Jon Hale, Security Consultant, will contribute their considerable security consulting expertise to this project.

All of these reasons to select DAL-TECH Engineering, Inc. to perform a Vulnerability Assessment of the Town of Addisons's water system are discussed more fully in the following Statement of Qualifications.

We feel well suited for this task and look forward to working with you and your staff on this important project. As always, we will apply all of our expertise and energies to meeting your goals and all federal requirements for this project.

Sincerely,

DAL-TECH Engineering, Inc.
Sedi A. Toumani, P.E.
President

Location?
12801 N. Central Expressway
Suite 1170
Dallas 75243
972-991-4900

# TABLE OF CONTENTS

# FIRM INTRODUCTION

**DAL-TECH Engineering, Inc. (DTE)**, a Texas corporation, was founded in 1990 by Ms. Sedi Toumani, P.E., as a full-service civil engineering firm providing quality consulting engineering and surveying services to both the public and private sectors in the Dallas/Fort Worth Metroplex.

**DTE** is located in North Dallas just blocks from the Town's offices, with a staff of twenty-two, including four Registered Professional Engineers, three Engineers-in-Training and three CADD technicians, two of whom have engineering degrees. This is supplemented by two Registered Professional Land Surveyors, Surveyor-in-Training, four survey crews, and associated support staff. **DTE** is also a ***certified M/WBE firm***, NCTRCA Certification #WFDB11119Y0502, and a ***Historically Underutilized Business (HUB)***. **DAL-TECH Engineering, Inc.** strives to partner and serve the Town of Addison as an extension of their staff.

Over the past twelve years, **DAL-TECH Engineering, Inc.** has worked with a number of clients on a wide variety of projects. These clients include the Town of Addison, Dallas County Public Works, Dallas Water Utilities, Dallas Area Rapid Transit (DART), Texas Department of Transportation (TxDOT), DFW International Airport, City of Dallas Public Works, the Cities of Dallas, Plano, McKinney, Frisco, Prosper, Mesquite and other local municipal agencies. In addition, we have provided design and survey services for other public and private entities, and many engineering firms.

## FIRM SERVICES

**DTE** offers a broad array of site development and civil engineering services, including:

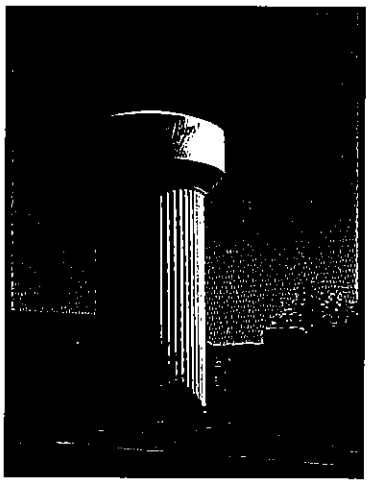
- Transportation Engineering
- Municipal Utility Design
- Construction Management
- Construction Inspection
- Site Development / Design
- Land Planning
- Flood Analysis / H & H Study
- Pollution Prevention Design
- Subsurface Utility Engineering

Additionally, **DTE** surveying capabilities run the gamut from very simple tasks to highly complex surveying activities, including:

- Design Survey
- Plats & Easements
- Right-of-Way Acquisitions
- GPS Surveys
- GIS Services
- Topographic Surveys
- Boundary Surveys
- Construction Staking

By providing a wide range of services, **DTE** can provide a total solution for most any site development project. Our qualified design team has experience in all civil engineering areas, and our surveying staff has years of experience collecting the field data engineers and designers need. From the field to the final plans, as much of the process is automated as is feasible, minimizing errors and expediting the design process.

# BACKGROUND



On June 12, 2002, the President signed a new federal law intended to protect the safety and supply of drinking water against threats from terrorist attacks or other intentional actions. The new law amends the Safe Drinking Water Act (Title XIV) of the Public Health Service Act to include Section 1433, pertaining to Terrorist and Other Intentional Acts. Community water systems (serving more than 3,300 people) are now required to conduct a Vulnerability Assessment (VA) to be submitted to the EPA, to prepare or revise an Emergency Response Plan incorporating their V/A, and to certify completion of these plans to the EPA. The deadlines for performing the assessments are as follows.

| | |
|---|---|
| Populations over 100,000 | March 31, 2003 |
| Populations between 50,000 and 100,000 | December 31, 2003 |
| Populations between 3,300 and 50,000 | June 30, 2004 |

The Town of Addison, with a population of about 14,700, has responded to this Federal directive by soliciting consultants to perform a Vulnerability Assessment of the Town's water systems. The Town will then contract with consultants to complete the Assessment and systematically incorporate safety measures to protect the residents of Addison.

## Vulnerability Assessment Requirements

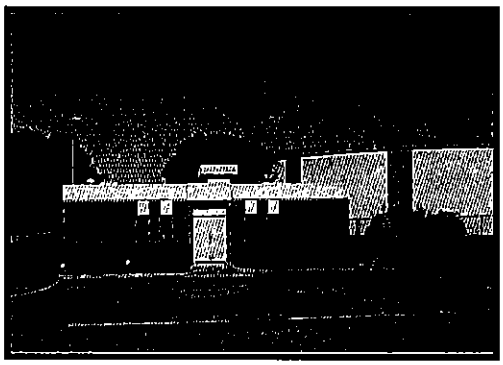
**DTE** understands and is equipped to take necessary steps to perform and prepare documents under the Town of Addison to include the following Amendment requirements:

**"A. Vulnerability Assessments —**
"(1) Each community water system serving a population of greater than 3,300 persons shall conduct an assessment of vulnerability of its system to a terrorist attack or other intentional acts intended to substantially disrupt the ability of the system to provide a safe and reliable supply of drinking water.

***"The Vulnerability Assessment shall include, but not be limited to, a review of pipes and constructed conveyances, physical barriers, water collection, pretreatment, treatment, storage and distribution facilities, electronic, computer or other automated systems which are utilized by the public water system, the use, storage, or handling of various chemicals, and the operation and maintenance of such system.***

"The Administrator, not later than August 1, 2002, after consultation with appropriate departments and agencies of the Federal Government and with State and local governments, shall provide baseline information to community water systems required to conduct Vulnerability Assessments regarding which kinds of terrorist attacks or other intentional acts are the probable threats to—

"(A) substantially disrupt the ability of the system to provide a safe and reliable supply of drinking water; or
"(B) otherwise present significant public health concerns.



"(2) Each community water system referred to in paragraph (1) shall certify to the Administrator that the system has conducted an assessment complying with paragraph (1) and shall submit to the Administrator a written copy of the assessment.

**"B. Emergency Response—**
"Each community water system serving a population greater than 3,300 shall prepare or revise, where necessary, an emergency response plan that incorporates the results of Vulnerability Assessments that have been completed. Each such community water system shall certify to the Administrator as soon as reasonably possible after the enactment of this section, but not later than 6 months after the completion of the Vulnerability Assessment under subsection (a), that the system has completed such plan.

***"The emergency response plan shall include, but not be limited to, plans, procedures, and identification of equipment that can be implemented or utilized in the event of a terrorist or other intentional attack on the public water system. The emergency response plan shall also include actions, procedures, and identification of equipment which can obviate or significantly lessen the impact of terrorist attack or other intentional actions on the public health and the safety and supply of drinking water provided to communities and individuals.***

"Community water systems shall, to the extent possible, coordinate with existing Local Emergency Planning Committees established under the Emergency Planning and Community Right-to-Know Act (42 U.S.C. 11001, et seq.) when preparing or revising an emergency response plan under this subsection.

**"C. Record Maintenance—**
"Each community water system shall maintain a copy of the emergency response plan completed pursuant to subsection (b) for 5 years after such plan has been certified to the Administrator under this section.

## EPA GUIDELINES

**DTE** is aware and very knowledgeable in all elements required to perform this requested VA. Following is our understanding of the program: The United States Environmental Protection Agency (EPA) has determined six basic elements to be addressed within the Vulnerability Assessments. The following list includes the six basic elements, along with suggested items for inclusion.

- **Characterization of water system, including its mission and objectives**
  - State clearly the water system's mission and objectives (such as being able to meet fire flow conditions--at a minimum).
  - Prioritize objectives.
  - Consider single points of failure (in some cases it is more than likely that the whole system is a single point of failure) since the inventory table does not provide criticality of components in the water system. All inventoried components are considered equally critical in the checklist.
- **Identification and prioritization of adverse consequences to avoid**
  - Identify specific adverse consequences by suggesting that systems use the Baseline Threat Document to identify consequences and allow priorities to be set. Could also be a generic set of consequences that are assumed by the document and then are prioritized.
- **Determination of critical assets that might be subject to malevolent acts which could result in undesired consequences**
  - Identify simple assets (like offices, personnel, etc.) and list by each system.
  - Communicate protection of system critical assets to law enforcement.
  - Expand checklist to cover critical components specified in the Bioterrorism Act (checklist does not address operation and maintenance of critical components).
  - Again, consider single points of failure.
- **Assessment of the likelihood (qualitative probability) of such malevolent acts from adversaries**
  - Make clear what "base" level (vandalism, insider, terrorist attack, etc.) of malevolent acts the vulnerability checklist is aimed at deterring.
  - Introduction or mention of the concept of "design base threat" would be useful since it would provide a tie to the Baseline Threat Document.
- **Evaluation of existing countermeasures**
  - All countermeasures should not be assumed equal; systems should have a mechanism of prioritizing countermeasures through some sort of evaluation.
- **Analysis of current risk and development of a prioritized plan for risk reduction**
  - The document ultimately needs to lead the user/system to set priorities based on the system's assets and risks while considering single points of failure and design basis threat.

# PROJECT UNDERSTANDING & APPROACH

The overall goal of the Vulnerability Assessment is to develop recommendations that lead to a cost-effective, balanced security protection system with regards to the malevolent acts identified. **DTE** is prepared, and our Project Manager is equipped with the necessary skills to follow the requirements. Our understanding and approach is as follows.

A community's water system is critical to the functioning and well-being of the community. An uninterrupted water supply is essential for the protection of public health (safe drinking water and sanitation) and safety (fire fighting). The protection of public drinking water systems must be a high priority for local officials and water system owners and operators to ensure an uninterrupted water supply.

Given the new understanding of the threats faced by the nation's critical infrastructure, it is imperative that adequate security measures are implemented which will help prevent loss of service through terrorist acts, vandalism, or pranks. Adequate preparation may even prevent such actions. The level of security necessary is of immeasurable importance to the local community and must be determined by the water system at the local level.

**DAL-TECH Engineering, Inc.**, having worked on numerous projects throughout the Town of Addison, is familiar with the Town's water system, and has visited the pump station and reservoir at Surveyor Road and Celestial Road. The One Million Gallon elevated storage tank is located in a strategic location to provide adequate water pressure and storage in case of emergency. **DTE** understands that the Town staff is in constant communication with the current status of pumping facilities through a SCADA system. Because the Town of Addison purchases their water from the City of Dallas, no investigation of raw water or treatment facilities is required. However, City of Dallas involvement may prove necessary.

**DTE** intends to undertake a Vulnerability Assessment (VA) designed to help the Town of Addison determine possible vulnerable components and identify security measures that should be considered. The VA will identify weaknesses in the Town's water system security, focusing on defined threats that could compromise its ability to provide adequate drinking water, and/or water for firefighting. **DTE** understands the steps required for this effort:

Listed below are some of the major steps that will to be completed by **DTE** in performing the Vulnerability Assessment:

1. List all major Water System components, i.e. reservoirs, size, location, in-ground, elevation, etc., primary power, emergency power, pumps, piping, line valves, hydrants,

blow-off valves, delivery points, buildings, computers, files, work vehicles, and communication including telephones, radio and SCADA system.

2. Perform an extensive investigation of all water system facilities. This would include, but is not limited to, the existence of an emergency plan, policies and procedures of all facilities. The existence of locking and secure vents, hatches, windows, gates and fences in facilities, well-lit facilities, warning signs, and warning alarms. Also, the existence of security background check for employees.
3. Prepare Emergency Response Plan.
4. Finally, submit Emergency Response Plan.

**DTE** believes that this VA should be developed around a Water System Base Map. This map would include all major elements of the water system including reservoirs, pumping facilities (showing primary and secondary power), line valves, hydrants, Town delivery points.

This Base Map would then be used to implement a Maintenance Program, a Security Program, and Future Design Recommendations. Based on the Base Map plus the Maintenance, Security and Design Plans, an Emergency Response Plan would be developed.

Upon our selection, **DTE** proposes to include representatives of **Teng & Associates, Inc. (Teng),** a national A/E development and design-build firm with experience across the United States. **Teng** has performed extensive security consulting for both the public and private sector. Their representatives are familiar with security matters and their resumes are included.

- **Update Water System Map**
  - ✓ Investigate existing pumping facilities.
  - ✓ Map existing mains; show sizes, meters, hydrants, Town delivery points and pumping facilities

  Based on the updated Water System Map, maintenance, security and design issues will be investigated. The map will be the central elements of this study.

- **Maintenance**
  - ✓ Valve-Fire Hydrants – Develop maintenance guidelines and schedules for operation.
  - ✓ Water Sampling – Develop guidelines and schedules for water sampling.
  - ✓ Pumping Facilities – Develop maintenance program to operate backup generator(s), electrical, mechanical and communication facilities.

- **Security**
  - ✓ Security Personnel – Develop patrol guidelines and schedules.
  - ✓ Security Devices – Make use of security related technology, including cameras, alarms, etc.

- ✓ Physical Barriers – Propose improvements to fences, locks, etc.
- ✓ Water Facilities Monitoring – Develop guidelines and schedules for water facilities monitoring.

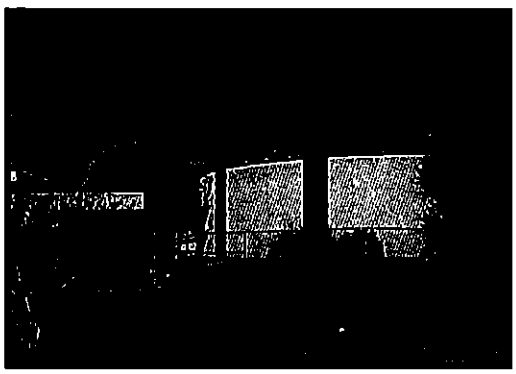
➢ **Future Design Recommendations**

- ✓ Eliminate One-Way Feed – Build redundancies and flexibility into system to ensure capability for uninterrupted services while addressing problems.
- ✓ Standard Details and Requirements – Evaluate and revise Town standards to minimize all potential security related weaknesses.
- ✓ Redundant Systems – Build back-up systems into designs for power and communications for pumping facilities for adequate pumping.
- ✓ Water Storage Facilities – Investigate storage facilities for both volume and security, and revise design as necessary.
- ✓ Water Dependent Industries – Investigate security implications at water dependent industries.

The Base Map plus the investigation of the Maintenance, Security and Design Plans, would be used to develop an Emergency Response Plan.

➢ **Emergency Response Plan and Public Involvement**

- ✓ Coordinate with local staff, surrounding communities, security and the Federal Government to develop a multi-faceted response to any potential catastrophic incident, which will minimize disruption, illness/injury, property destruction and panic.
- ✓ Develop an interagency approach to security throughout the community.
- ✓ Maintain frequent contact between individuals from the police and fire departments, water department, and other city agencies with the FBI, the national infrastructure protection center, and the association of metro water agencies to optimize security efforts.
- ✓ Public Relations – Everyone plays a role in keeping the community safe. Develop two-way communication between the Town and local citizens, businesses and merchants. Educate and encourage the public to remain more vigilant and alert to suspicious activities, and develop programs to inform and educate the public about threats and also the security steps the Town has taken.



# CLOSING

In a community such as the Town of Addison, public safety and first class public facilities have always been very important. Keeping the public safe and preparing for emergencies, such as acts of terrorism or severe weather emergencies, have also been top priorities since long before September 11. However, certain issues have been heightened in the aftermath of the terrorist attacks and have included concerns about the safety of public drinking water. In addition, over the past year, events such as bombings in foreign countries, the anthrax scare, and the possibility of war with Iraq, have heightened citizens concerns.

During this time of unforeseeable threats, it is critical that the Town of Addison take actions to improve the security of the Town's water system. The steps being taken by the Town to conduct a Vulnerability Assessment are critical to preparing for long-term security – ensuring the safety of the water supply is not compromised.

Results of this Assessment could be released to the public so that local residents will be aware of the actions that Addison has undertaken. An informed public would benefit the Town through citizen involvement.

**DAL-TECH Engineering, Inc. (DTE)** intends to undertake a Vulnerability Assessment (VA) develop recommendations that lead to a cost-effective, balanced security protection system with regards to the malevolent acts identified. In addition to fulfillment of EPA applications, **DTE** will identify weaknesses in the Town's water system security and make recommendations for improvements.

**It is our great desire to be given this opportunity to perform this very important and close to home project for you.**

# KEY PERSONNEL

**DAL-TECH Engineering, Inc.** is prepared to dedicate an impressive, experienced, and highly qualified team from our staff of twenty-two to work on this Vulnerability Assessment. Each of the individuals identified is available to begin work on this project at Notice to Proceed and will remain on this contract for its duration.

## MATTHEW STEVENS, P.E. — PROJECT MANAGER

**BS Civil Engineering – Texas A & M University, College Station, Texas**
**Professional Engineer, State of Texas – Registration #72229**

Mr. Stevens offers 15 years experience in civil engineering, including design, project management and construction management. He has extensive experience with public sector site development, including design, oversight of construction plans and specifications, inspection, coordination with cities and municipalities and administration of construction contracts. Mr. Stevens offers recent owner-side experience, having served for 3 years as a Project Manager with the North Texas Municipal Water District (NTMWD) where he participated with the District's water security assessment. His previous experience also includes 7 years as a senior member of the Dallas County Department of Public Works, in the roles of Project Manager and Design Engineer. Prior to that, Mr. Stevens performed design, inspection and construction management of large diameter water mains (54-inch – 24-inch). Mr. Stevens is very familiar with how a water system operates. This recent experience equips him with specific understanding of owner needs and interpretation of procedures and processes.

**Water and Wastewater Main Replacements, Various Locations – Dallas Water Utilities** – Project Engineer for design and Survey of 33,000 LF of 6, 8, 10, 12, and 16-inch water main and associated wastewater main replacements at various locations. Project included preliminary investigation, right-of-way acquisition, horizontal and vertical alignment, preparation of design report, plans and specifications, evaluation and recommendation of bids and construction services.

**Water Treatment Plant III, Expansion No. 1 – NTMWD** – Project Manager for construction of 105 MGD (million gallon per day) expansion of Water Treatment Plant III, including 3 settling basins, 15 filters and associated piping.

**Cockrell Hill Water Main Infiltration/Inflow Reduction Study – Cockrell Hill, Texas** – Project Manager for Infiltration/Inflow Study for entire City. Required coordination with City Staff.

**Cockrell Hill Water Distribution Study – Cockrell Hill, Texas** – Project Manager for water distribution study for strategic City-wide sizing of water mains. Project required coordination with City Staff.

**Cockrell Hill Water Main Replacement, Phase I – Cockrell Hill, Texas** – Project Manager for replacement, design and survey of 10,000 LF of water line, primarily 8" to replace existing 2" mains. The design was based on the results of the Cockrell Hill Water Distribution Study. The design included replacement of lines along the north side of the city, as Phase 1 of an ongoing program to upgrade the city's water system.

**Water Treatment Plant III, Expansion No. 2– NTMWD** – Project Manager for engineering design contract of 105 MGD (million gallon per day) expansion of Water Treatment Plant III, including 3 settling basins, 15 filters, 6 million gallon clear well and associated piping.

**Elam Road South Sanitary Sewer Main Replacement – Dallas County Water Control and Improvement District No. 6 (DCWDID#6)** – Project Manager for design and construction of 5,000 LF of new 6 and 8-inch sanitary sewer gravity main replacing existing sanitary sewer main. This project served residents living in city of Balch Springs and being served by DCWCID#6.

**Breezewood Sanitary Sewer Main Installation – Lancaster, Texas** – Project Manager for design and construction of 2,000 LF of new 6 and 8-inch sanitary sewer gravity main serving a community of 100 residents in the city of Lancaster. The project also included new private connections to the mains and abandonment of existing septic tanks.

**Meadowlake Water Main Replacement – Dallas County Water Control and Improvement District No. 6 (DCWDID#6)** – Project Manager for design and construction of 12,000 LF of new 6 and 8-inch water replacing existing 2 and 4-inch pipe. This project served 150 residents living in an unincorporated area of eastern Dallas County and served by DCWCID#6.

**High Services Pump Station 2-1 Rehabilitation – NTMWD** – Project Manager for construction of rehabilitation improvements of the existing High Service Pump Station 2-1 (HSPS 2-1) facility. Improvements included installation of ball valves and controllers, associated piping, baffle wall, associated electrical facilities, dewatering pump facilities and interior painting.

**High Services Pump Station 2-1 Improvements – NTMWD** – Project Manager for design and construction of the existing High Services Pump Station 2-1 (HSPS 2-1) facility. Improvements included installation of 25 MGD (million gallon per day) high service pumps, associated piping modification, dewatering pump facilities and installation of 60" and 72" butterfly valves required to pump water into the NTMWD North System to the cities of Plano and McKinney.

**Wood Oak Water Main Replacement – Dallas County Water Control and Improvement District No. 6 (DCWDID#6)** – Project Manager for design and construction of 2,500 LF of new 6 water main replacing an existing water main. This project served residents living in city of Balch Springs and being served by DCWCID#6.

**Gant and McKinney Drive – Lancaster, Texas** – Project Manager for design and construction management of 2,000 LF of new 6 and sanitary sewer gravity main serving a community of 100 residents in the city of Lancaster. The project also included new private connections to the mains and abandonment of existing septic tanks.

**Greene Road – Lancaster, Texas** – Project Manager for design and construction management of 10,000 LF of new 6 and 8-inch water main serving a community of 50 residents in the city of Lancaster. The project also included new water meters and private connections to the mains. The residents had been previously receiving water from wells or by water tank delivery.

## SEDI TOUMANI, P.E. — PRINCIPAL/QUALITY CONTROL

**B.S. Civil Engineering – Auburn University, Auburn, Alabama**
**Professional Engineer, State of Texas – Registration # 50070**
**Professional Sanitary Engineer, State of Texas – Registration #3092**

Ms. Toumani offers over 25 years professional experience in civil engineering and public works related design, with responsibility for managing and coordinating major projects. She has worked in both the public and private sectors, and her experience includes all aspects of project development in both technical and managerial roles in public works and consulting engineering. Ms. Toumani, as president of **DTE**, has served as Principal-In-Charge of all **DTE** projects during the past 12 years. Prior to founding **DTE** in 1990, Ms Toumani served as the City Engineer for Mesquite for 10 years. In this capacity, she managed the review and/or design and construction management of major Capital Improvement Programs, including over 10,000,000 LF water and sewer improvements, paving, drainage, and many other projects.

**Boundary Survey and Base Map of Addison Airport – Addison, Texas** – Principal-In-Charge for performance of boundary survey, including locating approximately 65 ground leases on the airport, the through-the-fence leases, joint use agreements, and easements affecting the property. Created base map showing all buildings, taxiways, runways, fences, streets, and utilities within or immediately adjacent to the airport boundary. Utilized Subsurface Utility Engineering (SUE) to provide extensive information relating to all utilities.

**Indefinite Delivery Contract for Engineering Services – Addison, Texas** – Principal-In-Charge for providing engineering services on a task order basis as part of an indefinite delivery contract throughout the Town of Addison.

**Dallas Water Utilities Water and Wastewater Main Rehabilitation and Replacement, Various Locations – Dallas, Texas** – Principal-In-Charge for providing pipeline design for approximately 85,000 LF of water and wastewater line replacement and rehabilitation. Projects included topographical survey, right-of-way survey, coordination of all utilities, preparation of design reports, preparation of construction contract packages for destructive and non-destructive design, both as prime consultant and in association with several other prime consultants. The design reports were prepared to identify site conditions, describe the condition of the pipe, and make recommendations to replacement/rehabilitation methods for the pipe segment.

**Wastewater and Water Main Replacement – Dallas Water Utilities** – Principal-In-Charge for providing engineering and surveying services for estimated 15,000 LF of water main replacement and associated wastewater main replacement, as subconsultant to APM. **DTE**'s responsibilities involved total segments survey and design, including design reports, SUE, and preparation of construction plans for each segment including open cut replacement and trenchless replacement of wastewater mains.

**Southside Clarifier Improvements – Dallas Water Utilities** – Principal-In-Charge for design and survey for clarifier and other improvements at Southside Wastewater Treatment Plant, Dallas, Texas. The project included survey of five clarifiers, improvements to the irrigation system and construction drawing preparation for substantial improvements to the existing structures.

**Wastewater and Water Main Replacement – Dallas Water Utilities** – Principal-In-Charge for design survey of 40,000 LF and design of 20,000 LF of water and wastewater main replacements in Dallas. This included development of design reports for each of the segments designed, evaluation of the pipe segment, identification of acceptable rehabilitation methods and development of plan and profiles for each of the wastewater segments.

**Trinity River Authority, Ten Mile Creek Relief Interceptor Sewer Line – City of Dallas, Texas** – Principal-In-Charge responsible for all topographic and right-of-way survey, base mapping, assisting with finalization of alignment and deed research, abstracting, preparation of right-of-way documents, utility coordination, locating existing interceptor lines in the field and right-of-way construction staking for 23,000 LF of 108" sanitary sewer replacements.

**Kidd Springs Water and Wastewater Main Rehabilitation and Replacement – Dallas, Texas** – Principal-In-Charge for preparation of design report, design and survey for approximately 21,000 LF of water and wastewater main replacement and rehabilitation in Basin 2 and Basin 5 of Kidd Springs. These services consisted of all phases of design such as the preliminary design phase, preliminary design report, and the final design, including design standards, survey, general civil planning, preparation and construction documents. The design report was prepared to identify site conditions, describe the condition of the pipe, and make recommendations for replacement/ rehabilitation methods for the pipe segment. From that report, the segments were designed using DWU standards. Design of the wastewater main segments by open cut and trenchless replacement, including preparation of final construction documents and construction administration.

**J.J. Lemmon Avenue – Dallas, Texas** – Project Manager for design of 4-lane concrete urban thoroughfare including pavement, drainage, field survey, and preparation of construction and right-of-way documents. The project was produced in two phases – Phase 1 consisted of 1.2 miles from Newton Creek to Memory Lane and Phase 2 consisted of 1 mile from Newton Creek to IH-20. The project required coordination with both the City of Dallas and TxDOT for both design and right-of-way preparation.

**Dual Sludge Force Main from Southside to Central Treatment Plant – Dallas Water Utilities** – Principal-In-Charge for the control, topographic and right-of-way survey for the 63,000 LF force main from Southside Wastewater Treatment Plant to Central Wastewater Treatment Plant in Dallas.

**Mexicana Drive and Canada Drive – Dallas, Texas** – Principal-In-Charge for preparation of preliminary, final and construction documents for design of 3 petitions paving contract. Project consisted of residential and collector type street pavement with curb and gutter, many driveway approaches, sidewalks and upgraded storm drainage systems. Project also included utility relocations utilizing Subsurface Utility Engineering (SUE), upgrades for a total of 5,500 LF of water line and 4,900 LF of sanitary sewer line, creek crossing for water line loop connection and study of sanitary sewer for most feasible and shortest gravity connection.

## MORI AKHAVAN, P.E. — DESIGN ENGINEER

**B.S. Electrical Engineering – University of Texas at Arlington, Arlington, Texas**
**Professional Engineer, State of Texas – Registration #79174**

Mr. Akhavan has served as a Senior Design Engineer with **DTE** for the past 12 years. He brings to this project 18 years of professional experience in civil engineering with specific experience in water and sewer design, survey and management of projects ranging in size from individual site developments to major municipal projects. He has successfully designed many private and public utility projects, and demonstrated tremendous ability to perform any task involved within a project. The majority of Mr. Akhavan's experiences involve projects in old subdivisions and central business districts of various cities.

**Wastewater and Water Main Replacement, Various Locations – Dallas Water Utilities** – Project Manager for preparation of design report, design and survey for approximately 17,000 LF of water and sanitary sewer main replacements at various locations, as subconsultant to Halff Associates. As above, the design report was prepared to identify site conditions, describe the condition of the pipe, and make recommendations to replacement / rehabilitation methods for the pipe segment. From that report, **DTE** prepared construction plan and specifications and participated in partnering meetings with contractors and utility companies and made site visits during construction.

**J.J. Lemmon Avenue – Dallas Water Utilities** – Project Engineer for design of 4-lane concrete urban thoroughfare including pavement, drainage, field survey, and preparation of construction and right-of-way documents. The project was produced in two phases – Phase 1 consisted of 1.2 miles from Newton Creek to Memory Lane and Phase 2 consisted of 1 mile from Newton Creek to IH-20. The project required coordination with both the City of Dallas and TxDOT for both design and right-of-way preparation.

**Wastewater Main Rehabilitation, Various Locations – Dallas Water Utilities** – Mr. Akhavan served as Project Manager for providing approximately 46,000 LF of survey and 18,000 LF of design for various wastewater replacement in several locations, as a major subconsultant to CDM. **DTE** responsibilities involved review of TV video inspection, existing I/I report plans and specifications for replacement.

**Kidd Springs Basin 2 & 5 – Dallas Water Utilities** – Project Manager for preparation of design report, design and survey for approximately 6,800 LF of various sizes water and wastewater main replacements in the Kidd Springs Basin. The design report was prepared to identify site conditions, describe the condition of the pipe, and make recommendations to replacement / rehabilitation methods for the pipe segment. From that report, the segments were designed using DWU standards.

**Unserved Area Water Line – Dallas Water Utilities** – Project Manager for design and survey of 13,500 LF of 16" water line in Cities of Dallas and Lancaster from Hutchins to Cleveland Road. The project included preparation of easements and parcels for line through private properties.

**Southside II – Water Transmission Main – City of Fort Worth** – Mr. Akhavan served as Project Manager for design and survey of 36" water line for Bolt Street from Travis and Fog Streets to St. Louis Street. Performed utility and paving design and survey services, including horizontal/ vertical controls, topographic survey for design, R.O.W. survey, and subsurface investigation survey. Also performed preliminary and final design for preparation of this 36" water line and associated sanitary sewer and paving improvements. Project also included public meetings, coordination with major utility companies, railroad crossings, preparation of necessary parcels, legal descriptions and construction staking.

**Dallas County CDBG – East Fork S.U.D. – Dallas, Texas** – Mr. Akhavan, as Project Manager, was responsible for water distribution study for sizing the 9,000 LF of new system (12" line) to provide the capacities required and the alignment study and design of the systems. This complex design project traversed crowded areas, tight easements and rights-of-way, as well as the Lake Ray Hubbard flood plain. It also included a section which was bored and encased to cross-creeks and existing roadways. This project involved preparation of 39 parcels of easements, right-of-way documents and specific provisions for reconnection of existing services to the new line.

**Dallas County CDBG – Dorothy Lane – Rowlett, Texas** – Survey and design of 7,000 LF of a sanitary sewer main installation, 6", 8" & 12" diameter gravity force main with a lift station including the preparation of right-of-way documents and coordination of utilities.

**Wastewater Main Rehabilitation – Dallas Water Utilities** – Project Manager for preparation of design report, design and survey for approximately 10,000 LF of various sizes water and wastewater main replacements in several locations. The design report was prepared to identify site conditions, describe the condition of the pipe, and make recommendations to replacement / rehabilitation methods for the pipe segment. From that report, the segments were designed using DWU standards.

**Meadow Addition Sewer Rehabilitation** – Project Manager for the design of 13,000 LF of wastewater main rehabilitation in the City of Plano. The project included design and survey including determination of new alignment for relocation of certain sanitary sewer mains due to restricted access.

**Cockrell Hill Water Improvements – Cockrell Hill, Texas** – Project Manager for the replacement, design and survey of 10,000 LF of water line, primarily 8" to replace existing 2" mains. The design was based on the city master plan. The design included replacement of lines along the north side of the city, as Phase 1 of an ongoing program to upgrade the city's water system.

**Douglas Basin Wastewater Rehabilitation – Plano, Texas** – Project Manager for design and survey for replacement / rehabilitation of 2,000 LF of wastewater main in Plano, Texas. Project included both open cut and trenchless technologies.

**Military Parkway From Jim Miller Road to Urban Avenue – Dallas, Texas** – Project Manager for design, survey, utility coordination and project management for improvements to 2,000 LF of 4-lane divided roadway and drainage improvement. Project included design of major signalized intersection and left and right turn lanes in each direction. Required design of drainage structures to accommodate significant flow.

## ROBERT HANEY, E.I.T. — CIVIL DESIGNER

**B.S. Civil Engineering – Texas A & M University, College Station, Texas**

Mr. Haney offers 10 years experience in the areas of design, civil engineering and survey. Prior to joining **DTE**, he worked with Dallas County Public Works and was a member of the United States Air Force Reserve. In addition to his engineering experience, Mr. Haney has served as a Party Chief, which has given him a clear understanding of the relationship between field data and design. Additionally, through his years of experience with various metroplex cities, he is very familiar with various design criteria and standards. Mr. Haney's experience offers a unique perspective both in field and office design work.

**Wastewater Main Rehabilitation, Various Locations – Dallas Water Utilities** – Project Designer for providing approximately 46,000 LF of survey and 18,000 LF of design for various wastewater replacement in several locations, as a major subconsultant to CDM. **DTE** responsibilities involved review of TV video inspection, existing I/I report plans and specifications for replacement.

**Wastewater and Water Main Replacement, Various Locations – Dallas Water Utilities** – Project Designer for survey and design for 45,000 LF of water and wastewater mains for numerous project segments for Dallas Water Utilities. Design included both open-cut and trenchless.

**Wastewater and Water Main Replacement – Dallas Water Utilities** – Project Designer for design survey of 40,000 LF and design of 20,000 LF of water and wastewater main replacements in Dallas. This included development of design reports for each of the segments designed, evaluation of the pipe segment, identification of acceptable rehabilitation methods and development of plan and profiles for each of the wastewater segments.

**Dallas County CDBG Program – East Fork S.U.D. – Dallas, Texas** – Project Designer for water distribution study for sizing of the 9,000 LF of new system. This complex design project traversed crowded areas, tight easements and R.O.W., as well as the Lake Ray Hubbard flood plain. It also included a section which was bored and encased to cross-creeks and existing roadways. This project also involved the preparation of 39 parcels of easements and right-of-way documents and acquisitions.

**Wastewater and Water Main Replacement – Dallas Water Utilities** – Project Designer for providing engineering and surveying services for estimated 15,000 LF of water main replacement and associated wastewater main replacement, as subconsultant to APM. **DTE**'s responsibilities involved total segments survey and design, including design reports, SUE, and preparation of construction plans for each segment including open cut replacement and trenchless replacement of wastewater mains.

**Meadow Addition Sewer Rehabilitation** – Project Engineer for the design of 13,000 LF of wastewater main rehabilitation in the City of Plano.

**City of Plano** – Project Engineer for the design of 13,000 LF of various water and wastewater main rehabilitation and alley paving improvements. This project included design, survey, construction inspection and construction management.

**Mexicana Drive and Canada Drive – Dallas, Texas** – Project Designer for preparation of preliminary, final and construction documents for design of 3 petitions paving contract. Project also included utility relocations utilizing Subsurface Utility Engineering (SUE), upgrades for a total of 5,500 LF of water line and 4,900 LF of sanitary sewer line, creek crossing for water line loop connection and study of sanitary sewer for most feasible and shortest gravity connection.

**Cockrell Hill Water Improvements – Cockrell Hill, Texas** – Project Designer for the replacement, design and survey of 10,000 LF of water line, primarily 8" to replace existing 2" mains. The design was based on the city master plan. The design included replacement of lines along the north side of the city, as Phase 1 of an ongoing program to upgrade the city's water system.

**Douglas Basin Wastewater Rehabilitation – Plano, Texas** – Project Designer for design and survey for replacement / rehabilitation of 2,000 LF of wastewater main in Plano, Texas. Project included both open cut and trenchless technologies.

**Dallas/Fort Worth International Airport Automated People Mover – Irving, Texas** – Project Engineer. **DTE** as a Sub-consultant to Brown & Root provided general civil engineering services related to grading and drainage for the Maintenance and Storage facility, as well as production support services for general structural needs related to the APM.

**Dallas/Fort Worth International Airport Terminal D – Irving, Texas** – Project Engineer for traffic-engineering/civil engineering design services for construction of International Parkway and Elevated Service Road between Terminal D and C. Coordinated all utility relocations including water and wastewater lines and electric and communication duct banks. Project included preparation of schematic drawings, plan profiles and construction documents.

**Military Parkway From Jim Miller Road to Urban Avenue – Dallas, Texas** – Project Designer for survey, utility coordination and design for improvements to 2,000 LF of 4-lane divided roadway and drainage improvement. Project included design of major signalized intersection and left and right turn lanes in each direction. Required design of drainage structures to accommodate significant flow.

**Colorado Boulevard From Blaylock to Jefferson – Dallas, Texas** – Responsible for coordination and production of all drawings for design and survey associated with improvements for 2,000 LF 4-lane roadway. The key factors within this assignment were the steep grades and major sight distance problems, drainage inadequacies and limited Right-of-Way in a highly urbanized and congested area in the Oak Cliff area of Dallas. **DTE** performed an alignment study along with surveying, design, preparation of construction documents, paving/drainage design and specifications. The alignment study, design and Right-of-Way takes were prepared with specific attention to property acquisitions and relocation.

Home office location



## TROY LAPETINA, C.E.M. (TENG & ASSOCIATES) DIRECTOR OF SECURITY & SAFETY

**Occupational Safety & Health – Thomas Nelson Community College, Hampton, Virginia**
**Fire Science – Thomas Nelson Community College, Hampton, Virginia**
**Certified Emergency Manager**
**Certified Explosives Handler**

Mr. Lapetina's duties from 1988 to 1991 within the United States Secret Service Security Division included developing chemical, biological, radiological and explosive counter-measures to protect the President and Vice President of the United States, and other high-ranking government officials. He was Coordinator of the installation and maintenance of all fire detection, suppression, and other physical security systems in the White House, and many other Federal facilities. He traveled worldwide undertaking top security, protective/investigative assignments; conducting threat assessments/vulnerability analyses of government and non-government facilities. Mr. Lapetina's breadth of experience encompasses private industry, federal agencies, federal facilities worldwide, national security, international facilities, U.S. Secret Service facilities and other government facilities/agencies, and budget management. He has maintained a Top Secret security clearance.

**United States Army Corps of Engineers** – Ft. Eustis Armory Alarms, Virginia

**United States Army** – TRADOC Risk Assessments

**Williamsburg Emergency Operations Center** – Risk Assessment and Security Implementation

**Virginia State Fire Training Center – Commonwealth of Virginia**

**Springfield Public Safety Facility – Springfield, Missouri**

Home office location Chicago 312-616-4141



## JON HALE (TENG & ASSOCIATES) — SECURITY CONSULTANT

**B.S. Management – University of Illinois, Chicago, Illinois**

Mr. Hale brings 16 years of comprehensive experience in security assessments as well as the design of access control, CCTV, intrusion alarm and related security systems. As a former security consultant, Mr. Hale worked with clients ranging from Fortune 500 corporations to the United States government to recommend changes to improve the physical security of facilities. His experience includes estimating costs and developing schedules to effectively implement client requirements while maintaining cost and quality controls. Mr. Hale also brings project management skills in organizing large teams to assure timely completion of goals within overall project requirements.

**City of Chicago, Department of Water – Chicago, Illinois** – Entry Gate Perimeter, Crib and Security Enhancements

**City of Milwaukee, Department of Water – Milwaukee, Wisconsin** – Risk Assessment and Security Improvements

**Holy Cross Hospital – Chicago, Illinois** – Security Audit

**Paddock Publications – Arlington Heights, Illinois**

**Bank of America Major Operating Centers – San Francisco, California**

**Department of State, Office of Foreign Buildings – Washington, D.C.**

**University of Chicago Graduate School of Business – Chicago, Illinois**

**Lucent Technologies – Basking Ridge, New Jersey**

# REFERENCES

Mr. Bob Johnson, P.E.
Dallas Water Utilities
1500 Marilla Street,
Room 4A North
Dallas, TX 75201
(214) 670-3144

Mr. Randy Nelson, P.E.
Dallas Water Utilities
1500 Marilla Street,
Room 4A North
Dallas, TX 75201
(214) 670-3144

Ms. Alberta Blair-Robinson, P.E.
Dallas County Public Works
411 Elm Street, 4th Floor
Dallas, Texas 75202
(214) 653-7151

Mr. Tom Morris, P.E.
City of Dallas Public Works
320 East Jefferson Boulevard, Room 309
Dallas, Texas 75203
(214) 948-4612

Mr. Jack Hedge, P.E.
Dallas County Public Works
411 Elm Street, 4th Floor
Dallas, Texas 75202
(214) 653-6420

Mr. Tom Guillory, P.E.
City of Garland
800 Main Street
Garland, Texas 75046
(972) 205-9002

Mr. Jerry Cosgrove, P.E.
City of Plano
1520 Avenue K
Plano, Texas 75074
(972) 941-7152

Mr. Larry Taylor
Taylor-Duncan Interests
5000 Quorum Drive, Suite 395
Dallas, Texas 75254
(972) 404-8500

## Jim Pierce

**From:** Daugherty, Clarence [CDaugherty@pbsj.com]
**Sent:** Friday, December 13, 2002 12:59 PM
**To:** 'jpierce@ci.addison.tx.us'
**Subject:** RE: Vunerability Assessment

References in Tomball:

Mark McClure, Dir. of Public Works
(281) 351-2570

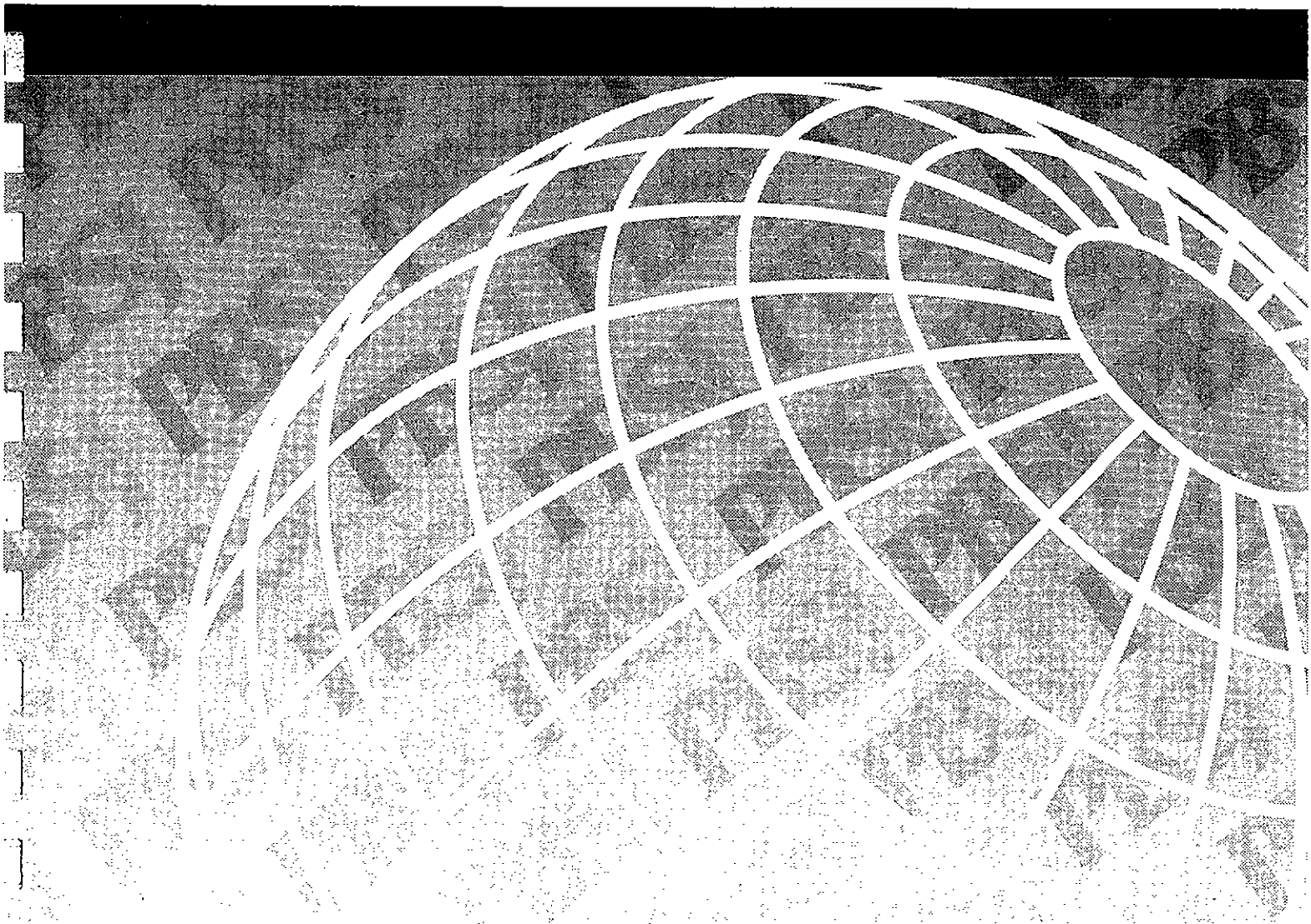
David Kelly, City Engineer
(281) 351-5484

Tim Aschoff is in our Houston office. Hank Schneider is in our Tampa Office. Our company is very "practiced" at working with several offices; we feel we reduce redundancy and overhead to develop specialties like this nationally rather than in many of the offices. We don't feel you would see a difference in either cost or responsiveness with them not being in Dallas.

-----Original Message-----
From: jpierce@ci.addison.tx.us [mailto:jpierce@ci.addison.tx.us]
Sent: Friday, December 13, 2002 9:21 AM
To: CDaugherty@pbsj.com
Subject: Vunerability Assessment

Clarence: Please provide a reference for the Tomball Vunerability Assessment project. Also, please furnish the home office locations for Schneider and Aschoff. Thanks,

Jim Pierce, P.E.
Assistant Public Works Director
P.O. Box 9010
Addison, TX 75001-9010
972-450-2879



# Statement of Qualifications
# Water System Vulnerability Assessment

PBS&J

# Statement of Qualifications
# Water System Vulnerability Assessment

PBS&J

An employee-owned company

December 9, 2002

Mr. James Pierce, P.E.
Assistant Director of Public Works
Town of Addison
P.O. Box 9010
Addison, TX 75001-9010

Dear Mr. Pierce:

Thank you for another opportunity to serve the Town of Addison. We have prepared a brief packet to explain our capability to perform the "Vulnerability Assessment" for the Town's water system. PBS&J has a great deal of interest in emergency and security assessments growing out of its extensive work in assisting the communities in the southeastern United States in assessment and recovery efforts from tropical storms. As the need to be more diligent about the security of our utility systems became more evident over the last year, PBS&J was quick to focus on this need of our clients. PBS&J has vast resources and a coast-to-coast perspective that allows the company to support the local offices with well-trained, experienced specialists for such programs as this.

We propose that Scott Forbes, P.E., in our Dallas office, manage the project, using the resources out of several other PBS&J offices as outlined in the attached Statement of Qualifications. I will personally monitor our efforts in this project to assure the Town that we are truly responsiveness to your needs. I bring the commitment of the corporate management of PBS&J that this will be a quality project that meets the Town's expectations.

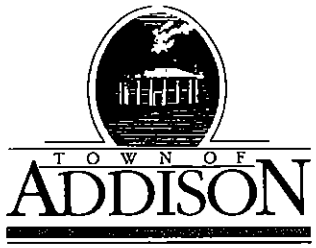
We appreciate you allowing us to present you with our qualifications and stand ready to answer any additional questions that you may have.

Respectfully submitted,

Clarence Daugherty

Clarence T. Daugherty, P.E.
Director of Public Works

5999 Summerside Drive, Suite 200, Dallas, TX 75252 • Phone: 972-380-2605 • Fax: 972-380-2609 • www.pbsj.com




# Statement of Qualifications

*to provide*

# Water System Vulnerability Assessment

## INTRODUCTION

PBS&J is pleased to submit this statement of qualifications for a vulnerability assessment of the Town of Addison's Water System. The vulnerability team personnel identified in this proposal are committed to this project and to meeting or exceeding the quaility and expectations of the Public Works Department of the Town of Addison.

PBS&J proposes utilizing a merging of the AWWA Risk Assessment Methodology for Water Surety process and the EPA recommended "Security Vulnerability Self-Assessment Guide for Small Drinking Water Systems." We are confident that this approach, along with our vulnerability assessment team, will provide the Town of Addison with a high-quality product consistent with our tradition of excellence and cost effectiveness.

PBS&J has been serving municipalities, counties, and other governmental agencies throughout Texas for over 30 years. Our Dallas office, which has supported previous Addison projects, is 10 minutes from the Addison offices. This allows our firm to offer the Town of Addison a local office with nationwide experience and customized client services on water/wastewater projects.

Founded in 1960, PBS&J is a full-service, employee owned, professional consulting services firm. Services provided by PBS&J include aviation, civil engineering, construction services, emergency management services/homeland security force protection, environmental engineering and sciences, information solutions, intelligent transportation systems, program management, and transportation engineering and planning. From individual buildings to institutional campuses, public infrastructure to military installations, telecommunications to utility facilities, PBS&J has provided program management services, planning studies, conceptual and final design and engineering, environmental studies, instrumentation and technology controls, information management, and construction inspection and management.

PBS&J is proud of our national reputation, which has been established by providing innovative total solutions through diversified multidisciplinary services, consistent high-quality work, on-time project delivery within budget, and by deploying innovative practices in support of public and private clients. This reputation is demonstrated by our long track record of repeat clients and our position in industry. We are currently the 29th largest U.S. architecture/engineering/construction management consulting firm, according to *Engineering News Record*'s year 2002 rankings.

## PROJECT TEAM

PBS&J has assembled a solid vulnerability assessment team of experienced, knowledgeable professionals that offers the highest quality of service and sensitivity to the Town of Addison's needs.

The following paragraphs provide brief descriptions of each team members' background. Detailed resumes are located in the Appendix.

**Scott Forbes, P.E.**, will serve as Project Manager and the primary point of contact with the Town of Addison for this project. Mr. Forbes has 18 years of experience in the water and wastewater area of civil engineering working primarily with municipal clients. His diverse background consists of projects related to water mains, sanitary sewers, force mains and pump stations, storm sewers, paving improvements, and stormwater detention basins. In addition, he is experienced in project cost estimating and construction contract administration, detailed design, preparation of plans, specifications and contract documents, surveying, and construction inspection.

**Hank Schneider, Jr., EIT**, will serve as the Homeland Security Expert. Mr. Schneider has over 20 years of experience in engineering, environmental compliance, and program management with the U.S. Marine Corps. He has specialized experience in homeland security force protection, including developing and integrating construction standards to meet terrorist attacks, performing vulnerability studies, and assisting in security system design. Additionally, he has completed the AWWA Risk Assessment Methodology for Water Surety (RAM-W).

At United States Central Command, Mr. Schneider was program manager for Anti-terrorism Force Protection Construction Standards to protect U.S. service personnel in the Middle East, the Horn of Africa, and the United States. He coordinated the annual validation of construction standards to defeat or mitigate terrorist tactics, techniques, and weapons. As resource manager, he prepared the annual budget, monitored its execution, and justified emergent financial requirements to receive additional funding.

**Timothy Aschoff, P.E.**, has been appointed the Project Engineer. Mr. Aschoff has 10 years' experience in the analysis and design of municipal wastewater treatment and collection facilities and municipal water treatment and distribution facilities. His experience includes project planning, project scheduling, cost estimating, design calculations, specification and construction drawing production, approval by review authorities, project bidding, shop drawing review, and periodic observation of construction. Duties have also included preparation of wastewater discharge permit applications, amendments, and renewals as required to complete the project.

Mr. Aschoff has extensive experience in the preparation of bond application reports, sludge management plans, water reuse reports, odor control studies, and wastewater treatment plant analysis/evaluation reports. He also has extensive experience in responding to wastewater discharge permit violations, including enforcement orders and administrative orders.

**Trent Slovak, P.E., DEE,** is the project's QA/QC Professional. Mr. Slovak has over 18 years experience in environmental engineering, with experience in the planning, permitting, evaluation, design, construction management, and operation of municipal and industrial water and wastewater facilities. Mr. Slovak currently serves as a manager in the PBS&J Houston office's Public Works Division.

The PBS&J team also includes a specialized subconsultant to complete the cyber-terrorism protion of this vunerability assessment:

SCIENTECH has significant experience computer security. They have specialized experience in network design, network operation, network administration, and network system security.

**SCIENTECH** provides *complete* security solutions for nuclear power plants. SCIENTECH's staff combines an in-depth operational background withyears of security system design, installation,

operation, and maintenance experience. In addition, the firm's electrical, mechanical, civil, and structural engineering capabilities help provide the best performing security solution at the most economical cost. Frequently provided SCIENTECH security services include: vulnerability and risk assessment; security planning; emergency and disaster planning; cost-benefit analysis; security systems integration security system design, including: security perimeter upgrade, replacement, or extension, intrusion detection (IDS), closed circuit television (CCTV), including quantitative view area and resolution criteria, pre-event video recording of all CCTV signals, security and general area lighting, including controlled lighting gradients and bright/dark spot protection, access control, personnel processing, fire protection system design, specification development; system procurement; installation oversight; testing; and training.

## PROJECT EXPERIENCE

Through the leadership of PBS&J's Emergency Management and Environmental Divisions, our assembled team members will provide the City of Addison with the highest quality product – a list of vulnerabilities to the design basis threat, a list of recommended corrective actions (including an implementation plan), and potential sources for funding these projects.

PBS&J's national-level Emergency Management Division incorporates all of the multidisciplinary experience across our firm and focuses it to meet the diverse needs of our clients to prevent, prepare for, mitigate, and recover from manmade and natural disasters.

In the context of this proposal, PBS&J has been providing water resources services to clients for 42 years. We have been involved in water treatment design and plant upgrades and modifications to meet the ever more stringent U.S. Environmental Protection Agency (EPA) and local requirements for drinking water. Monitoring for induced biohazards and chemical hazards is a refocusing of our previous experience to meet EPA and local requirements for drinking water quality. One of PBS&J's first homeland security related projects was to design and install a toxic biomonitoring system for the City of Houston Southeast Water Treatment Plant.

PBS&J brings extensive experience in design, upgrades, and modifications to water treatment plants and supporting systems; creation and maintenance of SCADA systems; design and maintenance of monitoring and sensor systems; EPCRA and HAZWOPPER; design of airports and seaports; and emergency management and homeland security force protection.

A list of recent homeland security related projects follows.

### Vulnerability Assessment of Water and Wastewater Systems - City of Tomball, Texas

This project is in the draft report phase. The PBS&J team assessed two water treatment plants two wastewater treatment plants, and the supporting distribution and collection systems. The City of Tomball utility serves a population of approximately 10,000. The assessment included site visits of all treatment facilities and distribution and collection system components. The vulnerability assessment team guided the development of local threat analysis, identification of critical assets, assessed status of existing physical protection systems, developed threat attack scenarios, and provided recommended corrective actions.

### Southeast Water Purification Plant, Toxics Bio-monitoring System - City of Houston, Texas

For this water treatment plant, PBS&J designed and installed a toxics biomonitoring system to monitor influent raw water and finished effluent water distributed to homes and businesses. It is a continuous flow system containing eight tanks in each unit with trained operators monitoring toxicity levels every two hours.

### Panama City, Bay County, International Airport Master Security Plan

The PBS&J Aviation and Emergency Management Divisions were chosen to complete this security master plan. Work begins January 2, 2003. The existing Panama City Airport will close with the completion of the new airport. This project requires an assessment of the current Security Master Plan against the new regulations governing airport security and development of a Security Master Plan for the new airport complex.

## U.S. Postal Facilities Environmental Compliance Services - Mid-Atlantic Division

PBS&J is in the second year of an Indefinite Quantity Contract with the U.S. Postal Service for A/E Environmental Services in the states of Virginia and West Virginia. One of the projects assigned under this contract included providing biological and chemical testing services for postal facilities including the recent bio-terrorism Anthrax bacteria events.

## Center for Disease Control and Prevention (CDC) - Atlanta, Georgia

PBS&J provides engineering design and master planning services incorporating security design for the three CDC campuses located in the Atlanta, Georgia metropolitan area. The three campuses range from 35 to over 100 acres. Current engineering design efforts are directed toward providing perimeter security for the main CDC campus within the guidelines established for Comprehensive Force Protection by the U.S. Department of State. Facility security planning includes redesign of the existing roadway network to provide perimeter routing of vehicular access, elimination of public traffic through the site, and design of limited gate access requiring all visitors to pass through security checkpoints prior to campus access. New utility systems were designed to provide perimeter service to proposed facilities and to allow for maximum flexibility for future building locations within the interior portion of the campus. PBS&J designed the renovation of approximately 35,000 square feet of a building conversion into a transshipping facility. The facility supports the security forces at CDC and provides a security checkpoint for all incoming shipments. Incoming receivables are off-loaded from the non-secure (off campus) side of the facility, screened for potential security threats, and on-loaded to the secure (on-campus) side of the facility at the CDC Clifton Campus.

## Palm Beach International Airport Bomb Blast and Vulnerability Analysis - West Palm Beach, Florida

PBS&J completed a blast analysis and threat and vulnerability assessment for the Palm Beach International Airport in spring 2002. The work involved a vulnerability and threat analysis of the Airport's existing facilities in order to assess potential threats, identify areas that may be vulnerable to both external and internal threats, and determine the overall capability and effectiveness of security resources. This included studies on physical security, access control, security and police operations and administration, and other security post procedures.

## St. Petersburg-Clearwater International Airport Vulnerability and Threat Assessment - St. Petersburg and Clearwater, Florida

PBS&J prepared an inventory of current facilities, assessing potential threats, reviewing and evaluating existing security systems and potential new and alternative equipment, reviewing perimeter and access control, evaluating security policies and procedures including tenant security plans, and providing recommendations including cost estimates and financial analysis to meet FAR Part 107, FAA recommended Security Guidelines for New Airport Construction and Major Renovations, the RCTA Standards for Airport Security Access Control Systems, and the FAA New Airport and Transportation Security Act (S.1447). PBS&J services for the terminal building security enhancements included passenger screening measures, space planning and utilization, checked baggage screening/EDS, CA of bomb blast effects, access control to SIDA/AOA, biometric systems evaluations, and centralized OPS/Communication Center.

Resumes

PBS&J TEAMWORK - WORKS

# Wm. Scott Forbes, P.E.

14 pages

***Senior Project Manager***
*PBS&J*

## Education

B.S., Civil Engineering, Iowa State University, 1984

## Registrations

Professional Engineer
Texas - No. 87223
Iowa - No. 11443

## Professional Affiliations

American Public Works Association (APWA)
American Water Works Association (AWWA)
Water Environment Federation (WEF)

Mr. Forbes has 18 years of experience in the water and wastewater area of civil engineering working primarily with municipal clients. His diverse background consists of projects related to water mains, sanitary sewers, force mains and pump stations, storm sewers, paving improvements, and stormwater detention basins. In addition, he is experienced in project cost estimating and construction contract administration, detailed design, preparation of plans, specifications and contract documents, surveying, and construction inspection.

**Previous Professional Experience**

**Water Distribution and Supply Experience**

**Kaufman, Texas**

Project Manager for elevated storage, pump station, pressure reducing station and water distribution system improvements to the southwest portion of the City including an elevated storage tank with a capacity of approximately 250,000 gallons, one pumping station, three pressure reducing stations, 4,200 LF of 12 inch to 16 inch water main, augured highway crossing and miscellaneous associated work. Responsible for client contact, preparation of plans and specifications, bidding and construction administration.

**McKinney, Texas**

Project Manager for water distribution improvements along Community Avenue including 2,950 LF of 12 inch water main and miscellaneous associated work. Responsible for client contact, preparation of plans, bidding and construction administration.

**Carroll, Iowa**

- Project engineer for water distribution system improvements to serve an urban revitalization area along Highway 30 including 3,680 LF of 6 inch to 8 inch water main and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

- Project engineer for water distribution system improvements along 10th Street and 13th Street including 5,960 LF of 8 inch to 10 inch water main, augured street and highway crossings and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

- Project engineer for raw water and finish water transmission main improvements to water treatment facility including 7,760 LF of 16 inch water main, augured street crossing and miscellaneous associated work. Responsible for preparation of plans and specifications and bidding.

- Project engineer for two gravel-packed Dakota sandstone wells south of Clark Street and miscellaneous associated work. Responsible for preparation of plans and specifications and bidding.

PBS&J

**Cedar Falls, Iowa**

Project manager for water distribution system improvements for the Briarwood Hills 5th Addition including 3,753 LF of 6 inch to 12 inch water main, site grading, subdrain, storm sewer, sanitary sewer, paving and miscellaneous associated work. Responsible for preparation of plans and specifications and construction administration.

**Cherokee, Iowa**

- Design engineer for water distribution system improvements along 11th Street including 2,840 LF of 8 inch water main and miscellaneous associated work. Responsible for preparation of plans and specifications.

- Design engineer for raw water and finish water transmission main improvements to water treatment facility including 5,360 LF of 16 inch water main, augured highway crossing and miscellaneous associated work. Responsible for preparation of plans and specifications.

**Clive, Iowa**

Design engineer for water distribution system improvements along NW 114th Street including 5,825 LF of 8 inch and 12 inch water main, sanitary sewer, storm sewer, grading, paving and miscellaneous associated work funded in part by RISE and special assessments. Responsible for preparation of plans and specifications and special assessments.

**Colfax, Iowa**

- Design engineer for water distribution system improvements along Highway 117 including 1,535 LF of 6 inch and 10 inch water main, augered railroad crossing and miscellaneous associated work. Responsible for preparation of plans and specifications.

- Design engineer for water distribution system improvements throughout the city including 12,535 LF of 6 inch to 10 inch water main, augered street and highway crossings and miscellaneous associated work funded in part by CDBG. Responsible for preparation of plans and specifications.

**Coralville, Iowa**

- Project manager for water distribution system improvements along James Street including 2,450 LF of 12 inch water main, grading, subdrain, storm sewer, paving and miscellaneous associated work. Responsible for client contact, preparation of plans and specifications, bidding and construction administration.

- Project manager for water distribution system improvements throughout the southern portion of the City including 13,360 LF of 12 inch to 18 inch water main, augered street crossings, connection to water treatment building, and miscellaneous associated work. Responsible for client contact, preparation of plans and specifications, bidding and construction administration.

**Des Moines Water Works**

Design engineer for water distribution system improvements to extend service to the City of Waukee from the City of Urbandale including 18,610 LF of 12 inch and 16 inch water main, augured street and highway crossings, creek crossing, meter pit and miscellaneous associated work. Responsible for preparation of plans and specifications.

**Grimes, Iowa**

- Project engineer for water distribution system improvements to the south industrial area including 17,040 LF of 12 inch water main, augured railroad crossings and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

- Project engineer for water distribution system improvements along Ewing Street including 3,610 LF of 8 inch water main, augured highway crossing, sanitary sewer, storm drainage, paving and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

**Indianola Municipal Utilities**

- Project engineer for water distribution system improvements along Highway 92 east including 10,600 LF of 8 inch to 16 inch water main, augured highway crossings and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

- Project engineer for water distribution system and raw water transmission main improvements throughout the City of Indianola including 20,100 LF of 8 inch to 12 inch water main, augured highway crossings and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

- Project engineer for water distribution system improvements along Highway 92 west including 2,630 LF of 12 inch water main and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

**Marengo, Iowa**

Project engineer for water distribution system improvements west of Cherry Street including 1,280 LF of 8 inch water main, sanitary sewer, lift station and force main, storm sewer, grading, paving and miscellaneous associated work funded in part by CDBG. Responsible for preparation of plans and specifications, bidding and construction administration.

**Marshalltown Water Works**

Design engineer for water distribution system improvements along Summit Street including 4,675 LF of 12 inch water main, augured street and railroad

crossings and miscellaneous associated work. Responsible for preparation of plans and specifications.

**Nevada, Iowa**

Project engineer for raw water transmission main improvements from well site near Interstate 35 north and Highway 30 east to the City of Nevada including 43,085 LF of 16 inch water main, augured street, highway, railroad and gas pipeline crossings and miscellaneous associated work. Responsible for preparation of plans and specifications and bidding.

**Postville, Iowa**

Project manager for water distribution system improvements in the southeast portion of the City and along Aspen Avenue including 4,855 LF of 8 inch water main, sanitary sewers, force mains, wastewater pumping stations and miscellaneous associated work. Responsible for client contact, preparation of plans and specifications, bidding and construction administration.

**Shell Rock, Iowa**

Project engineer for water distribution system improvements throughout the city including 12,150 LF of 6 inch water main and miscellaneous associated work funded in part by CDBG. Responsible for preparation of plans and specifications, bidding and construction administration.

**Urbandale Water Works**

Design engineer for water distribution system improvements along Douglas Avenue including 2,555 LF of 8 inch to 12 inch water main, augured street crossings and miscellaneous associated work. Responsible for preparation of plans and specifications.

**Waukee, Iowa**

- Design engineer for water distribution system improvements along East Street including 1,965 LF of 8 inch and 12 inch water main and miscellaneous associated work. Responsible for preparation of plans and specifications.

- Design engineer for water distribution system improvements from the Southfork development west to the City of Waukee including 17,070 LF of 12 inch water main, augured street and railroad crossings and miscellaneous associated work. Responsible for preparation of plans and specifications.

- Design engineer for water distribution system improvements along Walnut Ridge Drive including 2,965 LF of 8 inch and 12 inch water main, augured street crossing and miscellaneous associated work. Responsible for preparation of plans and specifications.

- Project engineer for water distribution system improvements along Boone Drive including 2,740 LF of 12 inch water main, augured street crossing and miscellaneous associated work. Responsible for preparation of plans and

specifications, bidding and construction administration.

- Design engineer for water distribution system improvements to serve the Waukee Industrial Park including 7,110 LF of 8 inch to 12 inch water main, augured street, railroad and highway crossings and miscellaneous associated work. Responsible for preparation of plans and specifications.

- Design engineer for water distribution system improvements along 4th Street including 2,080 LF of 6 inch to 12 inch water main, augured highway crossing, sanitary sewer, lift station and force main, storm sewer and miscellaneous associated work. Responsible for preparation of plans and specifications.

- Design engineer for water distribution system improvements along Sixth Street including 4,145 LF of 8 inch to 12 inch water main and miscellaneous associated work. Responsible for preparation of plans and specifications.

- Project engineer for water distribution system improvements to serve the Hickman West Industrial Park including 1,460 LF of 8 inch water main, sanitary sewer, storm sewer, grading, paving and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

**Wastewater Collection and Pumping Systems Experience**

**Carrollton, Texas**

Project Manager for sanitary sewer improvements to the Hutton Branch Sewer Main including replacement of approximately 2,500 LF of an existing 12 inch diameter sanitary sewer with a 15 inch diameter sewer line. Responsible for client contact and preparation of plans and specifications.

**Farmers Branch, Texas**

Project Manager for sanitary sewer rehabilitation improvements including 1,100 LF of 4 inch water line replacement and 6,400 LF of sewer line rehabilitation by pipe-bursting within 10-feet wide and 12-feet wide alleys. Responsible for client contact and preparation of plans and specifications.

**Greenville, Texas**

- Project manager for sanitary sewer system rehabilitation improvements to six sanitary sewer collection subsystems located within the southern portion of the City including manhole casting improvements for 84 manholes, 686 VF of interior manhole lining, removal and replacement of 57 manholes, 8 new precast manholes, interior drop connections, locating end of line and installing a new sewer cleanout at 91 locations, 1,590 LF of 4 inch to 18 inch sewer pipe replacement near manholes, 4,727 LF of pipe replacement by pipe-bursting, reconnecting existing services and miscellaneous associated work. Responsible for client contact, preparation of plans and specifications, bidding and construction administration.

- Project Manager for sanitary sewer improvements to provide additional

sanitary sewer system capacity to collect and convey Infiltration/Inflow during storm events to the WWTP. The project includes 146 manholes, removing and abandoning manholes, interior drop connections, 36,459 LF of 6 inch to 36 inch sanitary sewer replacement, 3,322 LF of 18 inch to 27 inch sanitary sewer replacement by pipe-bursting, augured highway and roadway crossings, service reconnections and miscellaneous associated work. Responsible for client contact, preparation of plans and specifications, bidding and construction administration.

**Kaufman, Texas**

- Project Manager for sanitary sewer improvements to serve Climbing Tree area including 2,462 LF of 6 inch and 8 inch sanitary sewer, augured sanitary sewer in a steel carrier pipe, manholes, sewer service extensions, 1,300 LF of 4 inch force main, pump station and valve vault, electrical and miscellaneous associated work. Responsible for client contact, preparation of plans and specifications, bidding and construction administration.

- Project Manager for sanitary sewer improvements to serve an annexed portion of the City including 22,400 LF of 6 inch to 24 inch sanitary sewer, augured highway crossing, 3,550 LF of 8 inch force main, pump station and valve vault, electrical and miscellaneous associated work. Responsible for client contact, preparation of plans and specifications, bidding and construction administration.

**Ankeny, Iowa**

Design engineer for sanitary sewer system improvements in the southeast part of Ankeny including 2,230 LF of 8 inch to 18 inch sanitary sewer, augured railroad crossing and miscellaneous associated work. Responsible for preparation of plans and specifications and construction administration.

**Cedar Falls, Iowa**

Project manager for sanitary sewer improvements for the Briarwood Hills 5th Addition including 3,500 LF of 8 inch sanitary sewer, site grading, subdrain, storm sewer, water main, paving and miscellaneous associated work. Responsible for preparation of plans and specifications and construction administration.

**Colfax, Iowa**

Design engineer for sanitary sewer system improvements along Spring Street and south of Lincoln Street including 1,580 LF of 8 inch sanitary sewer and miscellaneous associated work. Responsible for preparation of plans and specifications.

**Coralville, Iowa**

- Project engineer for sanitary sewer improvements along 20th Avenue and James Street including 4,820 LF of 8 inch to 36 inch sanitary sewer, augured street, railroad and highway crossings, storm sewer and miscellaneous associated work funded in part by CDBG. Responsible for preparation of

plans and specifications, bidding and construction administration.

- Project manager for sanitary trunk sewer improvements to serve the west portion of the City including 2,450 LF of 48 inch to 54 inch sanitary sewer, augured railroad and highway crossings, creek crossings and miscellaneous associated work. Responsible for client contact, preparation of plans and specifications, bidding and construction administration.

- Project manager for sanitary trunk sewer improvements to serve the west portion of the City including 11,860 LF of 12 inch to 48 inch sanitary sewer, augured railroad, highway and interstate crossings, creek crossings and miscellaneous associated work funded in part by CDBG. Responsible for client contact, preparation of plans and specifications, bidding and construction administration.

**Des Moines, Iowa**

- Design engineer for sanitary trunk sewer improvements from Beaver Avenue to Merle Hay Road including 5,670 LF of 36 inch and 42 inch sanitary sewer and miscellaneous associated work. Responsible for preparation of plans.

- Design engineer for sanitary trunk sewer improvements from Merle Hay Road west to the Urbandale Wastewater Treatment Plant including 3,220 LF of 30 inch and 36 inch sanitary sewer, augured interstate and highway crossings and miscellaneous associated work. Responsible for preparation of plans.

- Design engineer for sanitary trunk sewer improvements near NW Sixth Drive north of Aurora Avenue including 12,550 LF of 30 inch sanitary sewer, augured street crossings and miscellaneous associated work. Responsible for preparation of plans.

**Grimes, Iowa**

- Project engineer for sanitary sewer improvements along Ewing Street including 3,270 LF of 8 inch to 12 inch sanitary sewer, augered highway crossing, water main, storm drainage, paving and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

- Project manager for sanitary sewer system improvements along Gateway Drive and Highway 141 including 1,600 LF of 12 inch sanitary sewer, 2,890 LF of 12 inch force main, lift station and miscellaneous associated work. Responsible for design review and assistance and client contact.

**Marengo, Iowa**

Project engineer for sanitary sewer system improvements along South Street and to serve the area west of Cherry Street including 3,160 LF of 8 inch to 18 inch sanitary sewer, lift station and force main, storm sewer, water main, grading, paving and miscellaneous associated work funded in part by CDBG. Responsible for preparation of plans and specifications, bidding, and construction

administration.

**Postville, Iowa**

Project manager for sanitary sewer, pumping station and force main improvements in the southeast portion of the City and along Aspen Avenue including 6,800 LF of 8 inch sanitary sewer, 5,385 LF of 6 inch to 10 inch force main, augured street and highway crossings, two submersible pumping stations, water mains and miscellaneous associated work. Responsible for client contact, preparation of plans and specifications, bidding and construction administration.

**Washington, Iowa**

Project engineer for sanitary sewer and storm sewer separation improvements throughout the city including 2,450 LF of 8 inch to 15 inch sanitary sewer, storm sewer, water main and miscellaneous associated work funded in part by CDBG. Responsible for preparation of plans and specifications and bidding.

**Waukee, Iowa**

- Design engineer for sanitary sewer system improvements along 4th Street and to serve the Waukee Industrial Park including 9,520 LF of 8 inch to 30 inch sanitary sewer, augured railroad and highway crossings, lift station and force main, storm sewer, water main and miscellaneous associated work. Responsible for preparation of plans and specifications.

- Design engineer for sanitary trunk sewer improvements along Highway 6 including 3,190 LF of 18 inch sanitary sewer and miscellaneous associated work. Responsible for preparation of plans and specifications.

- Project engineer for sanitary sewer system improvements to serve the Hickman West Industrial Park including 4,110 LF of 8 inch to 12 inch sanitary sewer, storm sewer, water main, grading, paving and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

**West Des Moines, Iowa**

- Design engineer for sanitary sewer system improvements to serve the South Slope area including 7,970 LF of 10 inch force main, augured street and railroad crossings, lift station and miscellaneous associated work. Responsible for preparation of plans and specifications.

- Design engineer for sanitary trunk sewer improvements along Jordan Creek including 7,850 LF of 36 inch sanitary sewer, augured street and interstate crossings, multipurpose trail improvements, and miscellaneous associated work funded by SRF loan. Responsible for preparation of plans and specifications.

- Design engineer for sanitary trunk sewer improvements to provide relief to the West Des Moines Outfall including 6,860 LF of 42 inch and 54 inch sanitary sewer, tunneled railroad and highway crossings, special structures and miscellaneous associated work. Responsible for preparation of plans and

specifications.

**Stormwater Collection and Planning Experience**

**Ankeny, Iowa**

Design engineer for storm sewer system improvements along Delaware Avenue including 2,100 LF of 12 inch to 36 inch storm sewer, subdrain, grading, paving and miscellaneous associated work funded in part by FAUS. Responsible for preparation of plans and construction administration.

**Burlington Municipal Water Works**

- Project manager for flood protection levee improvements at the Burlington Municipal Water Works including 70,000 CY of borrow material for exploration trench and levee construction, storm sewer, surfacing removal and replacement and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

- Project manager for flood protection improvements at the Burlington Municipal Water Works including concrete retaining walls and stop logs, earthwork, three above ground packaged lift stations and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

**Cedar Falls, Iowa**

Project manager for storm sewer improvements for the Briarwood Hills 5th Addition including 3,685 LF of 12 inch to 30 inch storm sewer, site grading, subdrain, sanitary sewer, water main, paving and miscellaneous associated work. Responsible for preparation of plans and specifications and construction administration.

**Clive, Iowa**

- Design engineer for storm sewer system improvements along NW 114th Street including 5,940 LF of 12 inch to 36 inch storm sewer, sanitary sewer, water main, grading, paving and miscellaneous associated work funded in part by RISE and special assessments. Responsible for preparation of plans and specifications and special assessments.

- Design engineer for storm sewer system improvements along NW 100th Street including 1,025 LF of 15 inch to 30 inch storm sewer, water main, grading, paving and miscellaneous associated work funded in part by RISE. Responsible for preparation of plans and specifications.

**Colfax, Iowa**

Design engineer for storm sewer system improvements along Maple Street including 1,830 LF of 15 inch and 36 inch storm sewer and miscellaneous associated work. Responsible for preparation of plans and specifications.

**Coralville, Iowa**

- Project engineer for stormwater drainage study along Morrison Creek. Project included determining present and future flows and recommended improvements where required.

- Project engineer for storm sewer improvements along 9th Street including 2,680 LF of 12 inch to 48 inch storm sewer, sanitary sewer and miscellaneous associated work funded in part by CDBG. Responsible for preparation of plans and specifications, bidding and construction administration.

- Project engineer for box culvert and storm drainage improvements under Highway 6 and the Iowa Interstate Railroad including one 7' x 5' twin precast concrete box culvert augured under railroad and one 8' x 4' precast concrete box culvert installed in open cut under highway, rip-rap, channel excavation, surfacing removal and replacement and miscellaneous associated work. Responsible for preparation of plans and specifications, coordination of structural subconsultant, bidding and construction administration.

- Project manager for box culvert and storm drainage improvements along Morrison Creek including two twin precast concrete box culverts installed in open cut, one twin precast concrete box culvert augured under railroad track and one single barrel precast concrete box culvert installed in open cut, rip-rap, 21, 000 CY of channel excavation, seven gabion structures, surfacing removal and replacement and miscellaneous associated work funded in part by CDBG. Responsible for client contact, preparation of plans and specifications, coordination of structural subconsultant, bidding and construction administration.

- Project manager for storm sewer improvements along James Street including 1,820 LF of 12 inch to 36 inch storm sewer, grading, subdrain, water main, paving and miscellaneous associated work. Responsible for client contact, preparation of plans and specifications, bidding and construction administration.

**Cedar Rapids, Iowa**

Project engineer for stormwater drainage modeling for a portion of McClouds Run. Project involved HEC2 modeling to determine stormwater levels during flood stage.

**Marengo, Iowa**

Project engineer for storm sewer system improvements along South Street including 2,610 LF of 8 inch to 54 inch storm sewer, sanitary sewer, lift station and force main, water main, grading, paving and miscellaneous associated work funded in part by CDBG. Responsible for preparation of plans and specifications, bidding and construction administration.

**Marion, Iowa**

Project engineer for stormwater drainage modeling for a portion of Squaw Creek. Project involved HEC2 modeling to provide flood profile analysis and stream encroachment limits.

**Montrose, Iowa**

Project manager for box culvert and paving improvements along 5th Street including one 12' x 5' precast reinforced concrete box culvert, rip-rap, sanitary sewer relocation, water main relocation, grading, paving and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

**Washington, Iowa**

Project engineer for storm sewer and sanitary sewer separation improvements throughout the city including 5,850 LF of 12 inch to 54 inch storm sewer, sanitary sewer, water main and miscellaneous associated work funded in part by CDBG. Responsible for preparation of plans and specifications and bidding.

**Waukee, Iowa**

- Project engineer for storm sewer system improvements to serve the Hickman West Industrial Park including 2,000 LF of 15 inch to 42 inch storm sewer, sanitary sewer, water main, grading, paving and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

- Project engineer for storm sewer system improvements to serve Mary Ann Estates including 500 LF of 24 inch storm sewer, augered railroad crossing and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

**West Des Moines, Iowa**

Project engineer for stormwater drainage study to prepare a master plan for stormwater management along Jordan Creek. Project involved TR20 and HEC2 modeling to determine present and future flows and flood levels.

**Pavement Design Experience**

**Ankeny, Iowa**

Design engineer for PCC street improvements along Delaware Avenue including 11,150 SY of 9 inch PCC pavement, grading, storm sewer, subdrain and miscellaneous associated work funded in part by FAUS. Responsible for preparation of plans and construction administration.

**Burlington Municipal Water Works**

Project manager for flood protection improvements at the Burlington Municipal Water Works. Improvements include concrete retaining walls and stop logs, earthwork, 550 SY of 8 inch PCC pavement, three above ground packaged lift stations and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

**Carroll, Iowa**

Design engineer for PCC paving and utility improvements for water treatment facility.

**Cedar Falls, Iowa**

Project manager for Briarwood Hills 5th Addition street and utility improvements within the City of Cedar Falls. Improvements include 13,680 SY of 7 inch PCC pavement, site grading, subdrain, storm sewer, sanitary sewer, water main and miscellaneous associated work. Responsible for preparation of plans and specifications and construction administration.

**Clive, Iowa**

- Design engineer for PCC street improvements along NW 114th Street including 26,940 SY of 8 inch reinforced and 9 inch PCC pavement, grading, sanitary sewer, storm sewer, water main and miscellaneous associated work funded in part by RISE and special assessments. Responsible for preparation of plans and specifications and special assessments.

- Design engineer for PCC street improvements along NW 100th Street including 20,650 SY of 8 inch reinforced PCC pavement, grading, storm sewer, water main and miscellaneous associated work funded in part by RISE. Responsible for preparation of plans and specifications.

- Design engineer for PCC street improvements along NW 100th Street including 4,145 SY of 8 inch reinforced PCC pavement, reinforced bridge approach sections, grading, storm sewer, sanitary sewer, water main and associated work funded in part by RISE. Responsible for preparation of plans and specifications for paving and utility improvements and coordination with structural subconsultant.

- Project engineer for PCC street improvements along NW 142nd Street including 14,750 SY of 7 inch PCC pavement, grading, culverts, sanitary sewer, water main and miscellaneous associated work. Responsible for preparation of plans and specifications and bidding.

**Colfax, Iowa**

Design engineer for PCC intersection improvements along Highway 117 including 325 SY of PCC pavement, grading and miscellaneous associated work funded in part by USTEP. Responsible for preparation of plans and specifications.

**Coralville, Iowa**

- Project engineer for joint street and wastewater department control/maintenance building funded by SRF loan. Responsible for PCC site paving and utility improvements and coordination of architectural, electrical/mechanical and structural subconsultants.

- Project manager for PCC street improvements along James Street including 6,190 SY of 8 inch PCC pavement, grading, subdrain, storm sewer, water main and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

**Knoxville, Iowa**

- Project engineer for ACC and PCC street improvements throughout the city including 3,700 tons of ACC strengthening and surface course, 1,230 SY of 6 inch and 8 inch PCC pavement, milling, tennis court surface and miscellaneous associated work funded in part by special assessments. Responsible for preparation of plans and specifications, special assessments, bidding and construction administration.

- Project engineer for PCC street improvements throughout the city including 4,740 SY of 6 inch to 8 inch PCC pavement and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

**Marengo, Iowa**

Project engineer for ACC and PCC street improvements along South Street and the area west of Cherry Street including 610 tons of ACC strengthening and surface course, 6,700 SY of 6 inch to 8 inch PCC pavement, grading, milling, sanitary sewer, lift station and force main, storm sewer, water main and miscellaneous associated work funded in part by CDBG. Responsible for preparation of plans and specifications, bidding and construction administration.

**Montrose, Iowa**

Project manager for PCC street and culvert improvements along 5th Street including 535 SY of 6 inch PCC pavement, 12' x 5' Precast Reinforced Concrete Box Culvert, sanitary sewer relocation, water main relocation, grading and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

**Nevada, Iowa**

Design engineer for PCC street improvements along H Avenue including 5,050 SY of 7½-inch PCC pavement, grading and miscellaneous associated work funded in part by FAUS. Responsible for preparation of plans and construction administration.

**Schaller, Iowa**

Project engineer for ACC and PCC street improvements along Second Street including 1,685 SY of 6 inch ACC street parking, 12,565 SY of 8 inch PCC pavement and miscellaneous associated work. Responsible for design review and assistance in preparation of plans and specifications.

**Waukee, Iowa**

- Design engineer for ACC street improvements throughout the city including 1,340 tons of ACC surface course and full depth patching and miscellaneous associated work. Responsible for preparation of plans and specifications.

- Design engineer for PCC street improvements along Alice's Road including 2,750 SY of 8 inch PCC pavement, grading, culverts and miscellaneous associated work. Responsible for preparation of plans and specifications.

- Design engineer for ACC and PCC street improvements throughout the city including 1,050 tons of ACC surface course and full depth patching, 295 SY of 8 inch PCC pavement and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

- Project engineer for PCC street improvements to serve the Hickman West Industrial Park including 5,940 SY of 8 inch PCC pavement, grading, sanitary sewer, storm sewer, water main and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

- Project engineer for PCC street improvements along Alice's Road including 4,710 SY of 8 inch PCC pavement, grading and miscellaneous associated work funded in part by RISE. Responsible for preparation of plans and specifications, bidding and construction administration.

- Project engineer for ACC and PCC street improvements throughout the city including 1,720 tons of ACC strengthening and surface course, PCC pavement, sidewalks and miscellaneous associated work. Responsible for preparation of plans and specifications, bidding and construction administration.

**West Des Moines Parks and Recreation**

- Design engineer for ACC multipurpose trail improvements along Jordan Creek including 880 tons of ACC surface course, granular base, pedestrian footbridge, sanitary trunk sewer improvements and miscellaneous associated work. Responsible for preparation of plans and specifications.

- Project engineer for ACC multipurpose trail improvements along Jordan Creek near 60th Street including 130 tons of ACC surface course, granular base, 1,130 SF of modular retaining wall and miscellaneous associated work. Responsible for preparation of plans and specifications and bidding

Office Location ?

# Henry "Hank" J. Schneider Jr., EIT

***Senior Project Manager***
*PBS&J*

## Education

M.S., Civil/Environmental Engineering, George Washington University, 1997
B.S., Ocean Engineering, United States Naval Academy, 1982

## Registrations

Engineer-in-Training
Florida

## Professional Affiliations

American Water Works Association (AWWA)
Society of American Military Engineers (SAME)

Mr. Schneider has over 20 years of experience in engineering, environmental compliance, and program management with the U.S. Marine Corps. He has specialized experience in homeland security and force protection including performing vulnerability studies, security system designs, and developing and integrating construction standards to meet terrorist attacks.

Mr. Schneider's work history consists of the following projects:

**City of Tomball, Texas, Vulnerability Assessment of Water and Wastewater Systems for City of Tomball, Texas** – Force protection subject matter expert on this vulnerability assessment (VA) team. Conducted site visits of all treatment facilities and distribution and collection system components. Guided team development of local threat analysis, identification of critical assets, assessed status of existing physical protection systems, developed threat attack scenarios, and provided recommended corrective actions.

**U.S. Central Command (CENTCOM), Antiterrorism Force Protection/Joint Security Directorate, MacDill Air Force Base, Tampa, Florida** – Served as the program manager for antiterrorism force protection construction standards (FPCS) to protect U.S. service personnel in the Middle East, the horn of Africa, and the United States. Coordinated the annual validation of construction standards to defeat or mitigate terrorist tactics, techniques, and weapons. As resource manager, he prepared the annual budget, monitored its execution, and justified emergent financial requirements to receive additional funding. Specific force protection experience includes:

- Program manager for CENTCOM's FPCS developed to protect U.S. Service members serving in facilities and installations in the United States and Middle East.
- Annually validated FPCS against terrorist techniques, tactics, and weapon systems. Reviewed and validated annual component waiver requests to the FPCS. Assisted component commanders to achieve compliance with FPCS or implement mitigating measures to reduce vulnerabilities and waivers.
- Based upon trend analysis of vulnerability assessments and the waiver request packages, recommended resource allocation or policy changes to eliminate or mitigate deficiencies.
- Completed site assessment of Kuwaiti Military Hospital.
- Deployed to Kuwait as part of Coalition Joint Task Force in support of Operation Desert Thunder in Spring 2000 as the Base Defense Liaison Team Leader to coordinate FP issues with all bed-down sites in Kuwait.
- Developed force protection reporting requirements to provide CINC with in-depth theater assessment of anti-terrorism posture. Refined reporting requirements during crisis operations and exercises.
- Assisted in re-write and editing of CENTCOM's Force Protection Operations Order, OPORD 97-10A.

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- Formulated, developed, and briefed concepts for CINC control of the Joint Rear Area (JRA) battle based upon joint and service doctrine. Initiated Joint Rear Area Coordinator (JRAC) Goes to War concept. Proposed command and control relationships in JRA. Successfully tested many concepts as part of component-sponsored exercises LUCKY SENTINEL 99 and 00. Worked with component and major subordinate commands to develop JRA procedures and responsibilities for JRAC. Wrote JRA command and control annex to OPORD 97-01A.

- Completed bottom-up mission and task analysis of Directorate peace-time and war roles, responsibilities, missions, and tasks; briefed senior commanders on proposed concepts.

- Wrote two force protection annexes with three supporting tabs for each of the CENTCOM OPLANs and CONPLANs.

- As Directorate Resource Manager, coordinated and maneuvered JCS Chairman's Combating Terrorism Fund packages through CINC and Component staff receiving $4.5 million in additional funding for CENTCOM and components.

- Security Clearance – TS/SCI.

- First active duty action officer in the newly established U.S. Central Command JRAC Directorate.

- As Assistant Operations Officer, G3A, MARCENT, continued as subject matter expert on FPCS to CENTCOM's JSD, coordinated exercise and operational FP issues between CENTCOM and MARCENT Hawaii, and completed FP vulnerability assessment of Mount Kenya Safari Club in support of the African Crisis Response Initiative (ACRI).

**U.S. Marine Corps Headquarters, Washington, DC** – Environmental compliance officer responsible for planning and conducting environmental compliance evaluation of all Marine Corps installation in the U.S. and Japan. Team leader for 60 evaluations. Conceived and supervised the creation and implementation of the Automated Compliance Evaluation (ACE) database, integrating requirements of evaluators, installations, and higher headquarters. Wrote scopes of work, developed cost estimates, negotiated and monitored delivery schedules, evaluated deliveries, and certified the contractor's monthly billing statements.

**Defense Mapping School, Fort Belvoir, Virginia** – Operations officer and facilities manager responsible for scheduling and monitoring the execution of all resident and mobile training team courses, reaching over 2,700 students annually. Developed estimates; justified and received project funding; wrote scopes of work; negotiated and monitored building projects with higher headquarters, host installations, and contractors. Also supervised the production of a five-year real property master plan for $10 million in facilities.

**Commanding Officer and Officer in Charge of Various Units - Camp Lejeune, North Carolina; Twenty-Nine Palms, California; Guantanamo**

**Bay, Cuba; Okinawa, Japan; and Norway** – Commanded engineer units varying in size from 33 to 241 marines and sailors performing horizontal and vertical construction projects, purifying drinking water, generating electricity, and distributing bulk fuel. Supervised operation and maintenance of 600+ pieces of motor transport, heavy construction, utilities (water purification, refrigeration, generators), and bulk fuel equipment. Supervised utilization, repair, and maintenance of 100+ structures housing 1,500 to 4,000 personnel spread across 1,000 acres of environmentally sensitive terrain. Estimated and prepared projects, maintenance, and operational budgets; monitored expenditures to control costs; and completed tasks within the scope, budget, and assigned resources. Utilized CPM as a planning tool.

## Courses/Seminars

AWWA Risk Assessment Methodology-Water Utilities (RAM-W) Course
Dynamics of International Terrorism, U.S. Air Force Special Operations School, Florida
Security Engineering Training Course, U.S. Army Corps of Engineers, Protective Design Center, Fort Belvoir, Virginia
Engineer Officer Advanced Course, U.S. Army Engineer School, Fort Belvoir, Virginia
U.S. Marine Corps Combat Engineer Officer Course, Marine Corps Engineer School, North Carolina
Environmental Officer Management Course, Naval School, Civil Engineer Corps Officers, California

Office Location

# Timothy M. Aschoff, P.E.

***Senior Staff Engineer***
*PBS&J*

## Education

M.E., Civil Engineering, Texas A&M University, 1988
B.S., Civil Engineering, Texas A&M University, 1987

## Registrations

Professional Engineer
Texas

## Certifications

TxDOT Precertification for Pump Stations

Mr. Aschoff has 10 years' experience in the analysis and design of municipal wastewater treatment and collection facilities and municipal water treatment and distribution facilities. His experience includes project planning, project scheduling, cost estimating, design calculations, specification and construction drawing production, approval by review authorities, project bidding, shop drawing review, and periodic observation of construction. Duties have also included preparation of wastewater discharge permit applications, amendments, and renewals as required for completing the project.

Mr. Aschoff has extensive experience in the preparation of bond application reports, sludge management plans, water reuse reports, odor control studies, and wastewater treatment plant analysis/evaluation reports. He also has extensive experience in responding to wastewater discharge permit violations, including enforcement orders and administrative orders.

Mr. Aschoff has experience in the preparation of inflow/infiltration studies, surface water conversion reports, annexation studies, and Toxicity Reduction Evaluation programs.

Specific project experience includes:

**Vulnerability Assessment of Water and Wastewater Systems for City of Tomball, Texas** - Completed Vulnerability Assessment for the City of Tomball, Texas (population 9,000), including conducting site visits of two wastewater treatment plants, two groundwater production plants, two elevated storage tanks, numerous sewage lift stations, and the water distribution and wastewater collection systems. Assisted with assessing the status of existing physical protection systems, identifying critical assets, developing a local threat analysis, developing attack scenarios, and recommending corrective actions. Worked closely with City staff (Director of Public Works, City Engineer, Water Superintendent) as well as emergency response officials to develop the Vulnerability Assessment.

**Water Well No. 3 for Louetta Road Utility District (Harris County, Texas)** - Project Engineer responsible for design of a 1,000 gpm groundwater well. Duties included design of the water well, coordination of land acquisition required for the project, and coordination with the Texas Water Development Board (the project was funded with a water supply account loan). Also responsible for coordinating with the electrical subcontractor. Estimated construction cost: $925,000

**Improvements to the Alabama and Dickinson Water Plants for the City of League City, Texas** - Project Engineer responsible for design of booster pump upgrade, a 500,000 gallon ground storage tank, and modifications to an existing elevated storage tank. Estimated construction cost: $200,000.

**Water Distribution System and Water Well Siting Study for the City of Orange, Texas** - Project Engineer responsible for computer modeling of the City of Orange water distribution system using the MWSoft H20Net modeling program to identify the source of low water pressures and to determine the optimum location for a proposed water well and elevated storage tank.

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**Water Distribution System and Elevated Storage Tank Siting Study for the City of League City, Texas** - Project Engineer responsible for computer modeling of the City of League City water distribution system using the MWSoft H20Net modeling program. Duties included identifying improvements to the water supply facilities and water distribution system to equalize water pressures during peak demands, and siting of a proposed 1,000,000 elevated storage tank. Numerous water plant and water distribution system upgrades were identified and presented in a report, including prioritizing the improvements and producing preliminary construction cost estimates.

**Michael & Coffield Units Potable Water System Evaluation for the Texas Department of Criminal Justice (Anderson County, Texas)** - Project Engineer responsible for completing a hydraulic analysis of the existing potable water distribution system of the units, including building a complete hydraulic model of the system using Cybernet, to determine why the units were experiencing excessive swings in potable water system pressure. Also responsible for modeling changes to the distribution system to eliminate the high pressures, and for providing construction cost estimates for the recommended improvements. Estimated Construction Cost: 300,000

**69th Street Wastewater Treatment Plant Rehabilitation for the City of Houston, Texas** - Project Engineer responsible for implementing projects identified in previously prepared Preliminary Engineering Report. Duties included design and design oversight for 22 individual projects and coordination of remaining drawings and specifications. Major work items included design of a 3,000-HP, 14,000-CFM air compressor and a 12-MGD gravity flow waste sludge line, as well as replacement of 12 pumps and 14 blowers throughout the plant. Estimated construction cost: 15,000,000

**Ruwais Housing Complex Expansion for Abu Dhabi National Oil Company (Abu Dhabi, United Arab Emirates)** - Project Engineer responsible for layout of a 2.6-MGD tertiary wastewater treatment plant, and design of the first 1.3-MGD phase, including coordination with electrical and structural engineers. The process included biological nutrient removal using an anoxic basin, chemical flocculation and sedimentation, and gravity sand filters to allow the entire plant effluent to be used for irrigation of the desert climate. Also included in the project was a sewage pump station to the plant and approximately 2 miles of dual 12O force mains to the plant. Also responsible for design of a water supply plant, including site layout, pump selection and sizing, hydropneumatic tank sizing, and control schemes for the plant. Estimated construction cost: 10,000,000

**Almeda Sims WWTP West Lift Station Modifications for the City of Houston, Texas** - Project Engineer responsible for upgrading an existing wet pit/dry pit sewage lift station to 60 MGD capacity, including replacing the pumps, constructing a new 30-inch force main to the plant headworks, designing a surge relief system to prevent damage to existing lift station piping and equipment, and installing a personnel elevator. Also responsible for coordinating with electrical and structural subcontractors. Estimated construction cost: 2,100,000

**Wastewater Treatment Plant (325,000 GPD) for Fort Bend County Municipal Utility District No. 81 (Fort Bend County, Texas)** - Project Engineer responsible for construction of a new 325,000-GPD municipal

wastewater treatment plant and influent lift station. Duties included preparing wastewater discharge permit applications, site layout and process selection, preparation of initial cost estimates, preparation of construction plans and specifications, coordination with electrical and structural subcontractors, and construction phase services.

**Wastewater Treatment Plant Phase 3 for Pecan Grove Municipal Utility District (Fort Bend County, Texas)** - Project Engineer responsible for determining required improvements, preparing initial cost estimates and construction plans and specifications, coordinating with electrical and structural subcontractors, and providing construction phase services for modifications to a 1.4-MGD wastewater treatment plant and expansion to 1.9 MGD. Existing plant utilized rotating biological contactors for treatment process and the plant was out of compliance with its discharge permit for over six consecutive months, resulting in an Administrative Order from the Texas Water Commission (now TNRCC). Prepared and obtained approval of Preliminary Engineering Report detailing improvements that would correct permit violations. Consisted of converting existing 1.4-MGD rotating biological contactor plant to a two-step process consisting of rotating biological contactors and primary sedimentation, followed by a completely mixed activated sludge process and final sedimentation, and finally disinfection. Permit violations stopped as soon as construction was completed.

**Master Facility Plan for the Fort Bend County Water Control & Improvement District No. 2** - Project Engineer responsible for updating the 6,800-acre district's existing 20-Year Master Facilities Plan to reflect changes in development patterns. Evaluated existing water supply facilities, water distribution system, wastewater treatment facilities, and wastewater conveyance system for current capacities versus future projected capacities. Required upgrades to water and wastewater systems were determined, along with cost estimates and projected construction dates. Information was compiled into a series of projected future bond issues.

**Industrial Pretreatment Program for Fort Bend County Water Control & Improvement District No. 2 (Fort Bend County, Texas)** - Project Engineer responsible for updating an existing industrial pretreatment program as required by the Environmental Protection Agency. Included testing wastewater treatment plant influent, effluent, and sludge to determine which pollutants were of concern. Also included calculation of removal efficiencies for the pollutants' allowable discharge concentrations into the receiving stream, and thus allowable discharge concentrations from each individual industrial user discharging to the collection system.

**Wastewater Treatment Plant Modifications (1989) for Fort Bend County Water Control & Improvement District No. 2 (Fort Bend County, Texas)** - Project Engineer responsible for determining required improvements, preparing initial construction cost estimates and construction plans and specifications, coordinating with electrical and structural subcontractors, and providing construction phase services for modifications to an existing 4.5-MGD wastewater treatment plant. The existing contact stabilization, activated sludge, and fixed film (rotating biological contactors) treatment processes had to be modified to meet new permit requirements. Modifications included converting the contact stabilization process to completely mixed process, adding additional rotating biological contactors to the treatment process, and derating the plant

from 4.5 MGD to 3.7 MGD. Other modifications included improvements to the existing influent lift station, headworks, sludge pumping equipment, chlorination equipment, dechlorination equipment, and process air equipment.

**Cravens Road Sanitary Sewer for Fort Bend County Water Control & Improvement District No. 2 (Fort Bend County, Texas)** - Project Engineer responsible for completion of construction plans and specifications and construction phase services for construction of 3,100 lf of 42-inch diameter sanitary sewer.

**Sanitary Sewer System Study for Fort Bend County Water Control & Improvement District No. 2 (Fort Bend County, Texas)** - Project Engineer responsible for coordinating the sanitary sewer system investigation of an existing district system to identify sources of inflow and infiltration, to identify any significant structural problems in the collection system, and to recommend rehabilitation projects in order of priority.

**Design of Utilities to Serve Annexation Tracts for Harris County Water Control & Improvement District No. 110 (Harris County, Texas)** - Project Engineer responsible for determining required improvements, preparing initial cost estimates and construction plans and specifications, and coordinating with the electrical subcontractor for a 300-gpm sanitary sewer lift station, 3,000 lf of 6 and 12inch water line, 2,000 lf of 8inch sanitary sewer force main, and 1,000 lf of 8inch gravity sanitary sewer.

**Sanitary Sewer System Study for Harris County Water Control & Improvement District No. 110 (Harris County, Texas)** - Project Engineer responsible for coordinating a sanitary sewer system investigation of the district's collection system to identify sources of inflow and infiltration, as well as identifying significant structural problems in the collection system. Recommended improvements to the system, including cost estimates, and prioritized the projects based on the funds available to complete the project.

**State Highway 146, South of Pipeline Corridor for the City of Baytown, Texas (Baytown, Texas)** - Project Engineer responsible for preparing initial cost estimates and construction plans and specifications, coordinating with electrical and structural subcontractors, and providing construction phase services for six sanitary sewer lift stations. Four of the lift stations were grinder pump lift stations with capacities of 35 gpm each. The other two lift stations were a 700-gpm submersible pump lift station and a 1,200-gpm submersible pump lift station.

**Oyster Creek Water and Sewer Modifications for Thunderbird Utility District (Missouri City, Texas)** - Project Engineer responsible for determining required improvements, preparing initial cost estimates and construction plans and specifications, coordinating with electrical and structural subcontractors, and providing construction phase services for water line and sanitary sewer force main aerial crossings of Oyster Creek. Due to widening and deepening of the creek, three existing water lines and two existing force mains crossing under the creek had to be reconstructed as aerial crossings. Also included design and construction of a 340-gpm sanitary sewer lift station.

**Construction of Water Plant Improvements for Harris County Water Control & Improvement District No. 110 (Harris County, Texas)** - Project

Engineer responsible for determining required improvements, preparing initial cost estimates and construction plans and specifications, coordinating with electrical and structural subcontractors, and providing construction phase services for improvements to an existing groundwater supply plant. Included the addition of a 1,000-gpm booster pump, replacement of an existing 10,000-gallon hydropneumatic tank, removal of an underground diesel fuel storage tank, construction of an above-ground diesel fuel storage tank, and replacement of the plant electrical controls, including the entire motor control center.

**Recoating of Elevated Storage Tank for Harris County Water Control & Improvement District No. 110 (Harris County, Texas)** - Project Engineer responsible for preparing initial cost estimates and construction plans and specifications, and providing construction phase services for recoating of a 400,000-gallon elevated water storage tank. Included removal of lead-based paint from the interior of the tank, using appropriate lead abatement activities, and recoating of the tank.

# Trent J. Slovak, P.E., DEE

***Associate Vice President***
*PBS&J*

## Education

BCE, Civil Engineering, University of Houston, 1983
B.S., Environmental Science, Sam Houston State University, 1975

## Registrations

Professional Engineer
Texas
Louisiana

## Licenses

Licensed Wastewater Operator, Grade B,
Louisiana and Texas

## Certifications

Diplomate, American Academy of Environmental Engineers (DEE)

## Professional Affiliations

Association of Consulting Municipal Engineers (ACME), Houston
American Society of Civil Engineers (ASCE)
American Water Works Association (AWWA)
Texas Society of Professional Engineers (TSPE)
Water Environment Federation (WEF)
University of Houston Engineering Alumni Association, President

Mr. Slovak has over 18 years experience in environmental engineering, with experience in the planning, permitting, evaluation, design, construction management, and operation of municipal and industrial water and wastewater facilities. Mr. Slovak currently serves as a manager in the PBS&J Houston office, in the Public Works Section.

He has a wide-range of experience with water supply and treatment, distribution, and storage facilities. He has designed high-capacity water wells and water well rehabilitation projects, high service pumping facilities, and elevated storage tanks. He has experience as the Owner's Representative Project Manager for a design/build/operate surface water treatment plant project in the Houston area.

Mr. Slovak's wastewater engineering experience includes the design of wastewater and biosolids treatment and disposal facilities, wastewater lift stations and force main, and odor control facilities. He has also permitted wastewater facilities, and has conduced performance evaluations and audits. Mr. Slovak has previous employment experience with the predecessor agencies of the Texas Natural Resource Conservation Commission, in the enforcement and field operations group in the Houston area. Utilizing his experience as a licensed wastewater treatment plant operator, he has diagnosed problems at treatment facilities, performed plant start-up and operator training programs, and written operation and maintenance manuals.

He has completed the Risk Assessment Methodology for Water (RAM-W) training program and has participated in vulnerability assessments for water utility systems.

**Specific Project Experience**

- **City of Tomball, Texas -** Managed the vulnerability assessment that was conducted for the water and wastewater systems. The process included security evaluations of water supply and storage facilities, distribution systems, and wastewater treatment and collection systems.

- **City of Orange, Texas** - Performance evaluation of 7-MGD trickling filter/activated sludge wastewater treatment plant. Areas of concern included grit removal system performance and trickling filter snail problems. Plant evaluation included the piloting of a demonstration cyclone-type degritting unit. Corrective action for snail infestation included developing a chemical treatment plan using sodium hydroxide.

- **City of Houston, Texas -** Design of improvement project for the 60-MGD capacity Southwest Wastewater Treatment Plant. Components of the project included the design of a biofilter type odor control system which replaced an existing wet scrubber system, modification of headworks building to enhance odor control, final clarifier upgrades to improve solids and scum removal, and modifications to influent lift station to modulate peak flows to treatment trains.

- **Harris County WCID No. 133** - Design of plant expansion of activated sludge facility from 1.5 to 3 MGD capacity that included treatment and solids handling facilities. Special project challenges included

- **Ormond Beach, Florida** - Preparation of risk management plans for water and wastewater treatment facilities for the use of chlorine and sulfur dioxide gas systems.

- **West Harris Co. MUD No, 10, Houston, Texas** - Design of diffused aeration system, dechlorination facilities, and chlorine gas storage and control facilities for a 1.5-MGD wastewater treatment plant.

- **West Harris Co. MUD No. 21, Sam Houston Race Park, Houston, Texas** - Project included the planning and design of wastewater lift station, wastewater treatment plant all civil site, paving and drainage, and utility systems to serve a horse racing complex. Due to the project's aggressive schedule, portions of the design were performed simultaneously with its construction. The facility opened on the planned date.

Mr. Slovak has over 18 years experience in environmental engineering, with experience in the planning, permitting, evaluation, design, construction management, and operation of municipal and industrial water and wastewater facilities. Mr. Slovak currently serves as a manager in the PBS&J Houston office, in the Public Works Section.

He has a wide-range of experience with water supply and treatment, distribution, and storage facilities. He has designed high-capacity water wells and water well rehabilitation projects, high service pumping facilities, and elevated storage tanks. He has experience as the Owner's Representative Project Manager for a 40-million gallon per day, design/build/operate surface water treatment plant project in the Houston area.

Mr. Slovak's wastewater engineering experience includes the design of wastewater and biosolids treatment and disposal facilities, wastewater lift stations and force main, and odor control facilities. He has also permitted wastewater facilities, and has conduced performance evaluations and audits. Mr. Slovak has previous employment experience with the predecessor agencies of the Texas Natural Resource Conservation Commission, in the enforcement and field operations group in the Houston area. Utilizing his experience as a licensed wastewater treatment plant operator, he has diagnosed problems at treatment facilities, performed plant start-up and operator training programs, and written operation and maintenance manuals.

In the role of chairman, he directed a committee of the Association of Consulting Municipal Engineers - Consulting Engineers Council, for the development of design standards for lift stations within the City of Houston's extraterritorial jurisdiction.

# Clarence Travis Daugherty, P.E.

***Senior Program Manager***
*PBS&J*

## Education

M.E., Public Works Administration, Texas A&M University, 1970
B.S., Civil Engineering, Texas A&M University, 1969

## Registrations

Professional Engineer
Texas

## Professional Affiliations

Texas Society of Professional Engineers (TSPE), Preston Trail Chapter, State Director
Texas Association of County Engineers and Road Administrators (TACERA), Honorary Member
American Public Works Association (APWA)
American Society of Civil Engineers (ASCE)
American Water Works Association (AWWA)
National Society of Professional Engineers (NSPE)

Mr. Daugherty has 30 years of public works experience with cities and counties in Texas. He now directs PBS&J's services for municipalities in the greater Dallas area. PBS&J's projects in the Dallas area consist of a wide range of types and sizes of projects. The size of projects varies from the design of mile of six-lane thoroughfare including an 1100-foot tunnel under a runway to small street, drainage, water and sewer projects in the surrounding cities and counties. PBS&J (specifically Mr. Daugherty) serves as the City Engineer for the City of Kaufman.

Mr. Daugherty was Assistant Director of Public Works for the City of San Antonio from 1995 to 1998, providing a wide spectrum of city services. Prior to San Antonio, he was Director of Public Works in Collin County and the City of Plano, Assistant City Manager in the City of DeSoto as well as a capital project manager/engineer for the City of Dallas and a design engineer-in-training with the City of Bryan. His primary responsibilities throughout his career have been managing capital projects, growth management and the general business management of the operations of the city or county. All of the cities and the county in which Mr. Daugherty was employed were high growth areas that required attention to planning, management of new development, construction of new infrastructure, rehabilitation of old infrastructure, careful management of operations to respond to growth and a high level of public involvement. His experience results in a keen sensitivity to planning, an appreciation for the need for projects to be managed well, the recognition of the maintenance needs in the design of new projects and the determination to involve the public in projects that affect them.

As Assistant Director of Public Works for the City of San Antonio, Mr. Daugherty was directly responsible for Capital Programs Management, Drainage Engineering, Streets and Drainage Maintenance, Building Maintenance and Downtown Parking. In addition he was "second in command" to the Director over the entire department, which also included Solid Waste Management, Environmental Services and Streets and Traffic Engineering. One of Mr. Daugherty's accomplishments was the re-structuring of the Capital Programs Division. His insight from many years of project management experience guided the development of teams of project managers, engineers, public information specialists and technicians to properly manage $30-$40 million in streets and drainage projects annually. The re-organization and direction by Mr. Daugherty has resulted in the close attention to project schedules, budgets, design issues, public information and conflict resolution necessary to initiate and complete the projects on time and within budget. Mr. Daugherty also directly managed projects that were sensitive due to public interest and environmental concerns. Examples of such projects are Woodlawn/Lake Streets reconstruction - $2,400,000 (public environment concerns about stormwater discharge into municipal lake) and the proposal and ultimate adoption of increased street standards for new developments. Mr. Daugherty also personally coordinated the various aspects of the NPDES Stormwater Phase I permit program, including the regulatory, engineering, operations, maintenance and budgetary aspects.

As Director of Public Works for Collin County, Mr. Daugherty was responsible for planning, subdivision regulations, the capital improvements program, road maintenance, the Open Space Program, building facilities management, the Fire Marshal's Office and building inspections. Under his direction the County's

first transportation and bridge bond program was developed and implemented and the only rural building inspection program in the State was established. The $55 million transportation and bridge bond program was a combination of County-administered projects and coordinated efforts with the Texas Department of Transportation and the Cities within the County. A high level of project management and coordination was required for the successful implementation of the bond program. Mr. Daugherty led a task force made up of the cities, counties, TxDOT and the property owners along S.H. 121 for four years to coordinate the planning and development of S.H. 121 from a two-lane rural highway through staged improvements that will ultimately be a freeway section.

All aspects of the development of a new "justice center" for Collin County was implemented under Mr. Daugherty's direction. The project included site alternative analysis and selection, development of a master plan, installation of utilities, design and construction of access streets and the design and construction of the first phase of the buildings, a $32 million adult detention facility. Public information was a major task that was woven throughout the project's planning/design and construction phases. Mr. Daugherty's guidance included aligning the thoroughfare to maximize the preservation of the large trees on the site and optimization of the terrain and vegetation on the entire site.

Mr. Daugherty was responsible for the County Open Space Program approved by the Collin County voters. An Open Space Plan was developed as well as an award-winning public information video. Implementation included the acquisition and development of a rare virgin blackland prairie, the construction of an equestrian trail in the Corps of Engineers easement adjacent to Lake Lavon and the participation with cities in acquisition of open space and green belts.

When Mr. Daugherty was Director of Public Works for the City of Plano, he was actually serving as one of five "Executive Directors" answering directly to the City Manager. His responsibilities included Water and Wastewater Operations, Street Maintenance, Solid Waste Management, Equipment Maintenance, Building Maintenance and Traffic Control. The result of his four-year tenure was the development of each of these functions into a well-managed organization that was able to handle the current operational demands while planning for the record-setting growth that was occurring. Mr. Daugherty also managed associated special projects such as the planning, acquisition and development of a master-planned service center designed to be able to respond to the growing needs of the Public Works operations.

As Assistant City Manager in the City of DeSoto, Mr. Daugherty was responsible for all planning & zoning, engineering (he was the City's first City Engineer) and general operations, including animal control, building inspection and facility and equipment maintenance. He was heavily involved with the Planning and Zoning Commission, the City Council and citizen groups in responding to the pressures of growth.

During the early 1970s the City of Dallas Public Works Department established a new project management system to respond to the need to more adequately manage the streets and drainage bond program. Mr. Daugherty was one of the four project managers appointed to manage the Dallas program.

Mr. Daugherty began his career as a design engineer for the City of Bryan while getting his Master of Engineering at Texas A&M. This experience included

design of streets, storm sewers and sanitary sewers as well as coordination with the Texas Department of Transportation.