



Howard B. Sole, AICP, CVS-Life
Senior Vice-President

Qualifications

Mr. Sole has 30 years of experience as a Municipal Consultant. As a Certified Planner with practical experience in project delivery, he has served as Principal Planner, Project Manager, Program Manager, Resource Manager, and Principal in Charge for many public projects. Mr. Sole, also as a Certified Value Specialist, has participated in multiple value engineering studies as the Value Engineering Team Leader (VETL). He has also served as a small town elected official and served on his local planning and finance board.

Education

- ♦ M.B.A. – Finance, 1992 – Hood College, Frederick, MD
- ♦ B.A. – Community Development and Regional Planning, 1975 – Concord University, Athens, WV

Registration

- ♦ Certified Value Specialist – No. 930502, SAVE International
- ♦ Certified Planner, American Institute of Certified Planners No. 9106 (Inactive)
- ♦ Uniform Securities Agent, NASD, Series 63 (Inactive)
- ♦ General Securities Representative, NASD, Series 7 (Inactive)

Professional Affiliations

SAVE International

Representative Experience

Howard Sole has worked in small, medium, and large program and construction management firms, serving both public and private sector markets. Mr. Sole has participated as the VETL on multiple value engineering studies, including those for:

- ♦ Ohio Department of Transportation
- ♦ California Department of Transportation
- ♦ County of San Diego Department of Public Works
- ♦ City of San Diego
- ♦ State of Delaware
- ♦ Pennsylvania Department of General Services
- ♦ U.S. General Services Administration
- ♦ U.S. Department of State
- ♦ U.S. Department of Veterans Affairs
- ♦ U.S. Army Corps of Engineers, Fort Worth District
- ♦ U.S. Marine Corps Base, Quantico
- ♦ NAVFAC, Pacific Division
- ♦ Massachusetts Institute of Technology (MIT)
- ♦ Old Dominion University
- ♦ Virginia Commonwealth University
- ♦ Virginia Polytechnic Institute and State University (Virginia Tech)
- ♦ Montgomery County Public Schools, MD

Value Analysis/Value Engineering Project Studies

HIGHWAY AND TRANSIT PROJECTS

California Department of Transportation

- ◆ US 101 Ventura Freeway Slab Replacement, Ventura County, CA
- ◆ 24th Street Widening Improvements, Bakersfield, CA
- ◆ Magnolia Avenue/BNSF Grade Separation, Riverside County, CA
- ◆ I-5 Capital Preventive Maintenance, Yolo/Colusa Counties, CA
- ◆ Shasta I-5 Rehabilitation – Lakehead Undercrossing to Sims Undercrossing, Shasta County, CA
- ◆ I-5 Red Bluff Pavement Rehabilitation, Tehama County, CA
- ◆ Riego Road/SR 99 Interchange, Sutter County, CA
- ◆ Doyle Drive Constructibility
- ◆ Alameda Creek Bridge Replacement, Alameda County, CA
- ◆ I-5 HOV Lane South of Elk Grove, Sacramento County, CA
- ◆ New Interchange at SR 60/Potrero Boulevard, Beaumont, CA
- ◆ I-215 HOV Lane Gap Closure, Riverside and San Bernardino Counties, CA

Ohio Department of Transportation

- ◆ Widening of State Route 2, District 12, Lake County, OH. Assistant VE Team Leader for VE study on 11.5 miles and 30 structures along Route 2. Project construction cost is approximately \$157 million. Study team consisted of 20 team members.
- ◆ HEN/LUC-24-10.42/0.00, Liberty & Washington Townships, Henry County Providence, Waterville & Monclova Townships, Lucas County, OH. Assistant VE Team Leader for VE study on project for 4-lane divided road and new alignment, including various side road intersections and interchanges at SRs 109, 295, and 64. The project segment of road/highway construction is 22 miles long and construction cost is approximately \$141 million. Study team consisted of 21 team members.
- ◆ I-270, Franklin County, OH. Assistant VE Team Leader for VE study on approximately 7 miles of roadway and includes several interchanges at major intersections. Study team consisted of 14 team members.

ENVIRONMENTAL FACILITIES, WATER AND WASTEWATER TREATMENT PLANTS

Various Clients & Projects

- ◆ Mills Plant Laboratory Expansion Project, Metropolitan Water District of Southern California
- ◆ Huddersfield Sewage Treatment Works, Yorkshire Water Services, Ltd. Yorkshire, England
- ◆ Valley Center Sewerage and Water Reclamation Facilities, County of San Diego Department of Public Works, California
- ◆ Lulu Island WWTP, Greater Vancouver Regional District, Canada.
- ◆ WalCoMet Wastewater Treatment Facilities, Delavan, Wisconsin
- ◆ Service Area Number 9 Wastewater Treatment Facility, San Luis Obispo County, CA
- ◆ Pt. Loma WWTP, City of San Diego, CA
- ◆ Boston Harbor Deer Island WWTP
- ◆ Hydro Power Project Development, Nine Mile Development, Washington Water Power, Spokane, WA
- ◆ Hi-Desert Water District Water Reclamation Facility, Yucca Valley, CA
- ◆ City of Modesto, California Wastewater Treatment Phase 2
- ◆ Jensen FEC System Improvements and Trench Extension, Metropolitan Water District of Southern California
- ◆ Newburyport WWTF Modernization, Stantec

PUBLIC/GOVERNMENT FACILITIES

U.S. Army Corps of Engineers, Alaska District

- ◆ Maneuver Enhancement Brigade Complex, Ft. Richardson, AK
- ◆ Railhead Operations Facility, Ft. Richardson, AK
- ◆ Munitions Loading Crew Training Facility, Elmendorf AFB, AK
- ◆ Power Plant Facility, Clear Air Station, AK
- ◆ Railhead Operations Facility, Ft. Richardson, AK

U.S. General Services Administration

- ◆ U.S. Federal Courthouse, Wheeling, WV. VE Team Leader for VE study on \$20 million, 90,000-square-foot facility. Study team consisted of 9 team members. Two studies at Final Concept and Design Development Phases.

U.S. Department of State

- ◆ Embassy Housing Complex, Seoul, Korea. VE Team Leader for a \$40.5 million, 19,000-square-meter facility, including guard facilities and parking garage. Recommended VE savings approximately \$7.3 million.
- ◆ Embassy Compound Development, Bridgetown, Barbados. VE Team Leader for a 35% design, \$22.6 million, 89,000-square-foot facility. Recommended VE Savings \$3.7 million.

U.S. Department of Veterans Affairs

- ◆ Philadelphia Veterans Affairs Center, Philadelphia, PA. VE Team Leader for VE study on \$60 million, 432,000-square-foot facility. Study team consisted of 25 team members.

Pennsylvania Department of General Services

- ◆ Forrest County Correctional Facility, Forrest County, PA. VE team leader on 1000 bed maximum correctional facility valued at \$106 million. Recommended VE Savings approximately \$10 million.
- ◆ Keystone Office Building, Harrisburg, PA. VE Team Leader for VE study on \$120 million, 900,000-square-foot facility. Study team consisted of 12 team members.



***U.S Army Corps
of Engineers,
Honolulu District***

- ◆ Homeland Defense Fighter Alert Facility, Hickam AFB, HI

***U.S Army Corps
of Engineers,
Kansas City District***

- ◆ Joint Land Attack Cruise Missile Defense Elevated Netted Sensor System Battery Re-Site, Phase I, Fort Bliss, TX
- ◆ Terminal High Altitude Area Defense System Battery, Fort Bliss, TX

State of Delaware

- ◆ New Castle County Courts Facility, DE. VE study for multi-story \$100 million courts facility located in Wilmington. Study team consisted of 7 VE team members. Recommended VE savings approximately \$15 million.

City of New York

- ◆ Broadway Bridge Over the Harlem River
- ◆ Roosevelt Bridge Over Van Wick Expressway and Flushing River

MILITARY FACILITIES

***Various Clients &
Projects***

- ◆ U.S. Marine Corps Base, Quantico, VA. VE Team Leader for the 35% design, \$7.1 million, 79,714-gross-square-foot renovation of Building 2008. This two-day study resulted in recommendations for nearly \$0.5 million in savings.
- ◆ Hunter Army Airfield (HAAF) Fire Station, U.S. Army Corps of Engineers, Fort Worth District, Fort Hood, TX. Assistant VE Team Leader for VE study on \$4.4 million, 14,916-square-foot fire station. Study team consisted of 17 team members.
- ◆ Naval Facilities Engineering Command, Pacific Division. Open-ended Value Engineering Services Contract. Served as VETC/Planning Participant for Functional Analysis Concept Development (FACD) for the following:
 - ◇ Submarine Berthing Wharf, \$23,000,000
 - ◇ Central Receiving Facility, \$5,000,000
 - ◇ Central Receiving Facility, \$7,000,000
 - ◇ Marine Corp Bachelors Enlisted Quarters, \$10,000,000
- ◆ Joint Operations and Support Complex, Various Locations
- ◆ Military Working Dog Relocation, Apra Harbor, Guam

EDUCATIONAL FACILITIES

***Massachusetts Institute
of Technology***

- ◆ Brain and Cognitive Science Research Center. VE Team Leader for \$144 million, 100% Schematic Design. 20 to 25 VE team members. Recommended VE Savings approximately \$30 million.

Old Dominion University

- ◆ Computational Science and Engineering Building. VE Team Leader for an \$11.3 million, 83,000-square-foot. Recommended VE Savings approximately \$1.3 million.

***Virginia Commonwealth
University***

- ◆ 731-Space Parking Facility. VE Team Leader for a project consisting of four levels, three stories, and 239,000 square feet. Construction Budget \$9.0 million. Recommended capital savings of over \$0.7 million and \$5.47 million in life cycle costs.

Virginia Polytechnic

- ◆ Biology Building. VE Team Leader for a \$25 million, 72,000-gross-



***Institute and State
University***

square-foot educational facility. VE recommendations totaled \$1.7 million, along with an additional \$2.1 million in operational savings.

***Montgomery County
Public Schools, MD***

- ◆ Damascus High School Addition, Rockville, MD. VE Team Leader for study on \$5 million addition consisting of 102,000 square feet of renovation and 61,000 square feet of new construction
- ◆ Meadow Hall Elementary School, Rockville, MD. \$4.02 million, 47,600 square feet of renovation and 6,254 square feet of new construction
- ◆ Seneca Valley Elementary School No. 8. \$5.13 million new construction of 27 classrooms involving 74,084 square feet.
- ◆ Value Engineering Training Workshop. Instructor for 40-hour Module I Training Workshop of 23 students.

***Various Clients &
Projects***

- ◆ Pennridge School District, PA. VE Team leader for \$80 million High School and Middle School Complex. 60% Design Development. Recommended VE Savings \$9.7 million.

COMMERCIAL

***Various Clients &
Projects***

- ◆ Mammalian Cell Production Facility, Confidential study for a Jacobs Engineering client in the pharmaceutical industry. Estimated cost \$135 million. Implemented VE savings of \$28 million.
- ◆ Battle Creek Health System Critical Care Unit, Battle Creek, MI. A 46,750-square-foot facility. Estimated cost of \$7.8 million. Implemented VE savings of \$635,000.
- ◆ Commercial Facilities, Seoul, Korea. Confidential Client for a \$226 million facility, consisting of the following:
 - ◇ Nine-story, 569,335-square-foot commercial/retail area, including underground parking
 - ◇ 1,031,065-square-foot bus terminal
 - ◇ 28-story, 516,230-square-foot hotel complex, including four levels of underground parking

Program/Construction Management and Administration

Various Clients & Projects

- ◆ Boston Harbor Deer Island. Project Manager for the management audit of the \$4 billion wastewater treatment program.
- ◆ Tampa Bay Water. Resource Manager for construction management on the Southern Section of the Master Water Program, \$156 million.
- ◆ Springdale Arkansas, Resource Manager for Road Bond Program, \$115 million
- ◆ North Port, Florida, Resource Manager for City Hall and Police Headquarters, \$14 million
- ◆ City of Richmond, Virginia Water Program. Principal in Charge for this multi-year, \$70 million program.
- ◆ City of Richmond, Virginia. Project Executive for the renovation of the first phase of Main Street Rail Station, total project value \$48 million.
- ◆ Virginia Department of General Services. Principal in Charge for various projects within the capitol region, including office renovations, warehouses, etc.
- ◆ Charlottesville-Albemarle (CHO) Airport, City of Charlottesville, Virginia. Project Executive for this \$8 million runway extension.
- ◆ US Department of General Services: Project Executive for Region 3 GSA Task Order Assignments, including extension of staff services in the cities of Richmond and Norfolk, VA
- ◆ Virginia Department of Rail and Public Transportation: Principal in Charge of URS PMO services on rail extension to Dulles Airport
- ◆ Virginia State University. Project Executive on the 3-year, \$40 million campus-wide staff augmentation improvement program.
- ◆ Johns Hopkins University. Principal in Charge for \$109 million in construction at the Homewood Campus in Baltimore MD.
- ◆ U.S. Route 40 East Sewer, Belmont County, OH. Construction Administration.
- ◆ Central Hampshire Public Service Water District, Hampshire County, WV. Construction administration.
- ◆ Public Service Water District No. 4, Marshall County, WV. Construction administration.
- ◆ Harford County, MD. Project Manager on:
 - ◇ Wheel Road Waterline
 - ◇ Glen Ridge Tank and Booster
 - ◇ Fountain Green Water Tank
- ◆ Sod Run WWTP, Harford County, MD. Project management overview group.

Planning

Mr. Sole has participated in numerous facilities planning studies. (Projects in which he was the Principal Planner are designated with an asterisk.)

Industrial Facilities

- ◆ Preliminary industrial park plan for Belmont County Commissioners, Belmont County, OH*
- ◆ Cumberland Industrial Park for the Region I Planning and Development Council, Mercer, WV

Water & Wastewater Treatment Facilities

- ◆ Harford County Water and Sewer Master Plan, Harford County, MD. Project Manager*
- ◆ Sod Run Flows Study, Harford County, MD*
- ◆ U.S. Route 40 West, St. Clairsville, Belmont County, OH*
- ◆ Morristown Belmont Bethesda, Belmont County, OH*
- ◆ Village of Clarington, Monroe County, OH *
- ◆ City of Chester, Hancock County, WV
- ◆ City of Follansbee, Brooke County, WV
- ◆ Ohio County Public Service District, WV*
- ◆ Village of Valley Grove, Ohio County, WV*
- ◆ City of Mannington, Marion County, WV*
- ◆ City of Moundsville/Glendale, Marshall County, WV
- ◆ Friendly Public Service District, Tyler County, WV
- ◆ Union Williams Public Service District, Wood County, WV*
- ◆ Marshall County Sewerage District/Washington Lands System, Marshall County, WV*
- ◆ Claywood Park Public Service District/Cedar Grove, Wood County, WV*
- ◆ Mineral Wells Public Service District, Wood County, WV*
- ◆ Town of Harrisville, Ritchie County, WV
- ◆ Jane Lew Water Commission, Lewis County, WV
- ◆ Grant Union Public Service District, Harrison County, WV*
- ◆ Valley Sanitary District, Monongalia County, WV
- ◆ City of Grafton, Taylor County, WV
- ◆ Town of Elk Garden, Mineral County, WV
- ◆ Mountain Top Public Service District, Mineral County, WV*
- ◆ Grant County Public Service District, Grant County, WV*
- ◆ City of Petersburg, Grant County, WV
- ◆ Town of Bloomington, Garrett County, MD*
- ◆ Town of Walkill, Orange County, NY*
- ◆ Alternate Use Plan, Arlington, VA*

Land Use Studies

- ◆ Region I Planning and Development Council, six-county region of West Virginia