



CITY OF WASILLA

290 E. HERNING AVE.
WASILLA, ALASKA 99687
PHONE: (907) 373-9050
FAX: (907) 373-0788

COUNCIL MEMORANDUM NO. 91-81


FROM: Deputy Administrator

DATE: October 23, 1991

RE: Engineer Review of Proposed RGMF

As requested by Council, a request for letters of interest and statements of qualifications to perform a review of Gilfilian's preliminary plans was published locally and in Anchorage. Copies of the three (3) responses received are attached.

Recommend that Council or a Council sub-committee select one or more of the respondents to interview and, once a consultant is selected, more precisely state the tasks to be performed and establish a not-to-exceed cost. The Mayor can then enter into a professional services contract with the selected firm for the tasks and dollar amounts established by Council direction.



Robert E. Harris
Deputy Administrator

*Selected Alaska
Rim Eng for interview
& hire 10/28/91*

Alaska
Rim
Engineering



Phone (907) 745-0222
Fax (907) 746-3299

P.O. Box 2749
Palmer, Alaska 99645

October 22, 1991

Bob Harris
Deputy Administrator
City of Wasilla
290 E. Herning Avenue
Wasilla, Alaska 99654

Re: Request for Professional Engineering Services

Dear Mr. Harris:

It is with the greatest of pleasure that Alaska Rim Engineering submits the following proposal for professional services. This letter is in response to your advertisement in the Anchorage Times for professional services with regards to the City's expansion of the sewage treatment facility.

It is our understanding that the City is requesting a one time review of plans and specifications for the expansion project. The plans are to be reviewed to assure that they are biddable and constructible. The specifications are to be reviewed to assure that they are complete and will assure that the expansion is properly constructed.

The above reviews will be conducted by me, personally. I am a registered Civil Engineer in the State of Alaska and have a Masters Degree in Sanitary Engineering from the University of Colorado. My specific expertise includes municipal upgrades for the City of Palmer, sewage treatment plant upgrades for the U.S. Navy on Adak Island and various designs throughout the Borough. I am on the mailing list for the National Small Flows Clearinghouse and I do stay current with the recent developments such as new recirculating filters.

While a firm scope of work has not been established, I feel that the amount of money mentioned in the advertisement is excessive for the proposed tasks. We would propose to complete the reviews for approximately \$2,000.00. All work would be on a time and materials basis billed per our standard billing rates. We would be happy to increase the scope of work, but would leave this issue to you and the Council.



Michael Richard Mark Anthony, M.S.
Consulting Placer Mining Engineer and Ore Dresser
2622 Lovejoy Drive
Anchorage, Alaska 99508 ph. (907) 272-2087

October 23, 1991

Mr. Bob Harris
City of Wasilla
290 E. Herning Avenue
Wasilla, Ak. 99654

Subject: Letter of Interest to Provide Engineering Services

Dear Bob:

As we discussed, my associates (Gus Andress and Eugene C. Lacy, Jr.) and I are ready to provide the necessary review and recommendations pertaining to the preliminary plans to construct the recirculating granular media filter. We believe that our expertise on other sewage and construction projects will be of great benefit to the City of Wasilla. (Attached for your review are copies of our resumes.)

If you have any questions regarding our qualifications, please call. (Fax Number - 277-2562.)

Yours Truly,

A handwritten signature in black ink that reads "Mike R. Mark Anthony".

Mike R. Mark Anthony
P.E.

GUS ANDRESS, P.E.
P.O. Box 92782
Anchorage, AK 99509

EDUCATION:

M.S.C.E. Environmental Engineering
University of Southern California, 1977
B.S.C.E. Water Quality Engineering
California Polytechnic University, 1975
B.S.C.E. Structural Engineering
California Polytechnic University, 1975
Seminar Managing Asbestos Abatement Projects
Georgia Institute of Technology, 1986
Cert. - Wastewater Treatment Plant Operator
Level III

ACTIVE REGISTRATION:

Alaska, 1979; California 1978

EXPERIENCE:

1988 - present **Project Engineer**
BROWN & ROOT, USA., Inc. Anchorage, AK.
Provide engineering services for operation of remote 400-man camp during construction of 135 MW hydroelectric project near Bradley Lake, Alaska. Responsibilities included: operation of 40,000 gpd sewage treatment facility and water chemistry lab; operation of two water treatment plants; maintain solid waste incineration/disposal facility; provide engineering support for hazardous material storage/disposal and implementation of spill prevention contingency plan; interfaced directly with regulatory agencies on all environmentally related issues; provide structural evaluation of new and existing facilities.

1986-88 **Manager-Water Quality/On-Site Services Division**
MUNICIPALITY OF ANCHORAGE, Anchorage, AK
Directed staff of 11 professionals and technicians for management and regulation of program to evaluate contamination of surface and ground water as related to underground storage tanks and hazardous material storage/disposal. Coordinated the development of hazardous material storage/disposal program for small generators under RCRA guidelines. Assisted EPA and ADEC in preliminary site assessments of two superfund sites. Selected contractors for emergency response to hazardous material spills. Administered \$9 million in water quality bonds and interfaced with Mayor and Municipal Assembly on major issues.

1982-86 **Engineering Manager/Marketing Director**
CENTURY ENGINEERING, INC., Anchorage, AK.
Supervised engineering staff and drafting department on structural and environmental design projects. Developed Environmental Engineering Division for Anchorage Office. Responsibilities included client contact, proposal preparation, design reviews, preparation of specifications, interface with public and regulatory agencies, construction inspection/management and development of marketing services. Responsible for acquisition of approximately \$700,000 in design fees during 1984 - 1986.

RESUME

Eugene C. Lacey, Jr.
Director, Hazardous Waste Group
AeroVironment Inc.

Registrations

Professional Engineer: Maryland 10528; Delaware 5301; Pennsylvania 027989-E; Florida 0020983; Virginia 010898; Illinois 062-045088; Washington D.C. 7220; California; Alaska CE-7348

Asbestos Management and Abatement: EPA-AHERA 89-291; Maryland 69-75; Georgia 1925; Alaska 1056; Illinois PD 2051

Health and Safety Trained for Hazardous Waste Operations – 29 CFR 1910.120

Technical Expertise

Site Investigation and Remediation Studies/Designs/Implementation (RI/FS)
RCRA Permits, Compliance and Action Plans
Asbestos Surveys and Abatement Specifications
Water and Wastewater Treatment Facility Design and Operations
Design and Closure of Sanitary and Hazardous Waste Landfills
Hazardous Waste Minimization and Reuse Audits
Environmental Compliance Audits
Industrial Water Reuse Design and Operations

Professional Experience

Mr. Lacey has over 23 years of sanitary, civil and environmental engineering experience. His knowledge of regulatory laws and design specifications is extensive and includes RCRA, CERCLA, SARA, CWA, and state, county and city design specifications throughout the United States.

Mr. Lacey has prepared RCRA permits, including one for storage, disposal and treatment of hazardous waste materials at an industrial facility. In connection with this project, he conducted chemical and physical analysis of the waste products, prepared health and safety plans, developed exposure and risk assessment plans, and designed construction documents including cost estimates for a treatment/disposal facility. Other projects involving RCRA regulations include design and supervision of the demolition and dismantling of the Norris Farm Chemical Processing Centers and design of hazardous waste classification, close-out, and remedial corrective action plans for materials generated by General Instrument, FMC Corporation, and Tate Manufacturing. He conducted a compliance audit and engineering assessment of a chemical manufacturing plant, in which he evaluated facility operations and hazardous materials/waste management practices with respect to federal, state and local regulations. For a

EUGENE C. LACEY, JR., P.E.
Engineering Manager

Comprehensive Engineering Planning Director - provided supervision for the administration and implementation of the Comprehensive Water, Sewerage and Solid Waste Disposal Plan as mandated by state law to ensure (a) operational data and details on water, sewerage and solid waste treatment facilities are satisfactorily covered in the Comprehensive Plan with regards to accepted engineering practices; (b) construction of various environmental projects over a ten-year period proceed according to varying planning stages as shown in the Plan; (c) conformance of project funding, and the establishment of priorities for water, sewerage and solid waste facility as outlined in Comprehensive Plans.

Selected Project Experience

- o Remedial System Design, Monsanto Chemical Company, Long Beach, California
Senior engineering design.
- o Waste Water Pilot Study and Design, T-Chem Products, Burbank, California
Senior engineering design of waste water treatment system and implementation.
- o Asbestos Survey/Abatement Oversight, Confidential Client, Sanitarium Whittier, California
- o A-1 Ornamental Iron, Industry, California
Project manager for subsurface sampling of heavy metals.
- o World Port of Los Angeles, Port of L.A., San Pedro, California
Project manager for hazardous waste minimization review and plans.
- o Design of 1.0 mgd Water Treatment Facility, City of Fruitland, Fruitland, Maryland
Design of 1.0 mgd Water Treatment Facility for the city of Fruitland, Wicomico County, Maryland, incorporating iron and manganese removal systems, filtration systems, with well water supply, and treated water reservoir with variable speed service discharge pumps and elevated storage tank including in-plant piping systems with appurtenances.

EUGENE C. LACEY, JR., P.E.
Engineering Manager

- o Design of 0.6 mgd Wastewater Collection and Treatment Facilities, Town of Pittsville, Pittsville, Maryland
 - Design of 0.6 mgd (peak flow - 1.0 mgd) Wastewater Collection and Treatment Facilities for the Town of Pittsville, Wicomico County, Maryland, incorporating Oxidation Ditch Treatment System, Tertiary Sand Filtration System and Ultra-Violet Disinfection System as well as sewage pneumatic lift stations and main duplex pumping station in accordance with CWA requirements.
- o Hydro-Geological Reports, Various Locations, Florida, Maryland, and Pennsylvania
 - Prepared the Hydro-Geological Report including design of parameters utilizing Spray Irrigation Facilities at:
 - a. Showell Farms, Inc. - DeFuniak Springs, Florida, Wastewater Treatment System (0.75 mgd).
 - b. Various private residential developments throughout Maryland and Pennsylvania.
- o Comprehensive Water, Sewerage, and Solid Waste Plans, Wicomico, Charles, and Harford Counties, Maryland
 - Development of Comprehensive Water, Sewerage and Solid Waste Plans for Wicomico, Charles, and Harford Counties, Maryland, in order to develop utility installation and extension plans coinciding with orderly growth patterns.
- o Facilities Plan, City of Salisbury, Towns of Woodsboro, Thurmont, Fruitland, and Pittsville, Maryland
 - Development of Facilities Plan for sewage treatment, final disposal, and wastewater collection facilities for the City of Salisbury, Towns of Woodsboro, Thurmont, Fruitland, and Pittsville, in accordance with EPA regulations (CWA).
- o Wastewater Treatment, Tilghman Island Board of Education
 - Development of the engineering feasibility report for upgrading the wastewater treatment facility serving Tilghman Island Board of Education property, including site evaluations, alternate onsite wastewater treatment and disposal options and remedial corrective measures.
- o Two-Compartment Septic Tank Disposal System
 - Design utilizing onsite serial two-compartment septic tank disposal system, treated effluent discharge pumping station, evapo-transpiration disposal beds for groundwater characteristics determinations.

EUGENE C. LACEY, JR., P.E.
Engineering Manager

o Potable Water System, Talkeetna

Design of potable water system to serve the Talkeetna Central town limits with storage and treatment facilities for well water supplies.

o AWWU, Anchorage, Alaska

Design of Raspberry Road Water Main Improvement (Chevigny to Arlene Streets) incorporating 12-inch D.I. water pipe with fittings, valves, and related appurtenances interconnecting to existing system, AWWU, Anchorage, Alaska.

o Water and Sewer Systems, Allstate Building, Anchorage, Alaska

Design of water and sewer systems (1100 LF) to serve the Allstate Building along with the civil site layout and grading plan, Anchorage, Alaska.

o "C" Street Roadway System

Design of the "C" Street Roadway System including drainage, bike trails, landscaping and lighting for 300 L.F. (Minnesota to Klatt Rds.), 63 feet wide, divided asphalt roadway with curb and gutter.

o North Klatt Roadway System

Design of North Klatt Roadway System including drainage, storm water management systems, landscaping and lighting for 2800 L.G. (Timberlane to Victor Roads), 46 feet wide, divided asphalt roadway with curb and gutter.

MICHAEL R. MARK ANTHONY, P.E.
2622 LOVEJOY DRIVE
ANCHORAGE, AK. 99508
(907) 272-2087

EDUCATION:

B.S. - Mining Engineering, 1979
University of Alaska

M.S. - Mineral Preparation Engineering,
1982, University of Alaska

WORK EXPERIENCE:

7/90 to 6/91

Project/Senior Field Engineer:
Ebasco, Bradley Lake Hydroelectric
Project. Responsibilities:
Construction of Dam facilities
including 3.5 miles of tunnel,
contract submittals, construction,
concrete, safety, etc.

1/82 to present

Mining Consultant: Self-employed.
Providing environmental permitting,
soil investigations, plant design
surveys, mineral evaluations and
development, safety instruction,
contract negotiations, and economics.

10/86 to 11/89

Mining Engineer/Land Planner:
Bristol Bay Native Corporation,
Resource inventory, land selection,
title conveyance, contracts, surveys,
exploration, etc.

7/84 to 12/84

Chief Mining Engineer: S.U.M.
Resources Inc., Valdez Creek,
Alaska. Supervised 100 man crew.
Pit design, plant design, inventory
control, cleanups, surveying and
mine safety. Reviewed drilling
data and made exploration
recommendations.

4/84 to 7/84

Mining Engineer: Ranchers Exploration
and Development Corp., Treasure
Creek, Fairbanks vicinity. In full control
of entire drilling project which
included field operations, crew

LETTER OF INTEREST
WASILLA SEWAGE TREATMENT SYSTEM
PLAN REVIEW

October 21, 1991

For

City of Wasilla
290 East Herning Avenue
Wasilla, AK 99687

Submitted By

VEI Consultants
1345 Rudakof Circle, Suite 201
Anchorage, AK 99508

VEI Consultants

Architectural, Engineering and Surveying Consultants
Serving All of Alaska
Offices: Anchorage, Eagle River, and Palmer

1345 Rudakof Circle, Suite 201
Anchorage, Alaska 99508
Fax: (907) 338-5386
Phone: (907) 337-3330

October 21, 1991

City of Wasilla
290 East Herning Avenue
Wasilla, AK 99654

Re: Letter of Interest and Statement of Qualifications,
Plan Review, Wasilla Sewage Treatment System

Dear Mayor Stein and Council Members,

VEI Consultants is interested in providing professional engineering services to the City of Wasilla on the above referenced plan review project. By way of introduction, we have enclosed a Statement of Qualifications describing the firm and its capabilities.

Briefly, VEI is an Alaskan firm licensed to practice civil engineering, land surveying, and architecture. Our firm was founded in 1981 and is headquartered in Anchorage. We have approximately 15 employees, including a sanitary engineer, three civil engineers, an architect, several surveyors, technicians and clerical staff.

PROJECT UNDERSTANDING

As we understand this project, Gilfilian Engineering has prepared a preliminary set of plans for a recirculating granular media filter (RGMF) treatment plant to replace the City of Wasilla's leach field system, which is failing at this time. The RGMF is considered new technology, and understandably the City would like an independent review to determine whether the RGMF is appropriate for Wasilla.

APPROACH

Our approach would be to review available literature and operating data from RGMF treatment units installed at other locations. Several operational granular filter systems are located in the Pacific Northwest, where the technology first originated. We propose to gather information from those plants, as well from a local unit designed by Gilfilian and installed at the Mother Lode Restaurant (Hatcher Pass). Additionally, about 6 months ago the Municipality of Anchorage was considering funding several prototype units. We would check on the progress of these, also.

**STATEMENT
OF
QUALIFICATIONS**

VEI Consultants

Architectural, Engineering and Surveying Consultants
Serving All of Alaska
Offices: Anchorage, Eagle River, and Palmer

1345 Rudakof Circle, Suite 201
Anchorage, Alaska 99508
Fax: (907) 338-5386
Phone: (907) 337-3330

VEI CONSULTANTS is an Alaskan corporation licensed to practice civil engineer, land surveying, and architecture. The principals of the firm together have nearly 50 years of professional experience in Alaska, dating back to the early 1960's. *VEI* is headquartered in Anchorage, with field offices in Eagle River and Palmer. The firm began operation in May of 1981 and offers services in civil and sanitary engineering, architecture, design, materials, inspection, land surveying, planning, and project management.

VEI employs approximately 15 professionals, including civil engineers, geologists, surveyors, architects, technicians and clerical personnel, and has on call another 10 employees, available when needed. Projects include design of roads, buildings, utilities, water/sewer lines, water/sewage treatment facilities, storm drains, harbors, and riprap/erosion control; materials investigations; land surveying; subdivisions; arctic engineering; planning; studies; and technical reports.

Principal Robert O. Eder, PE, LS, has a strong background in project development, particularly roadway design. Principal Vernon L. Roelfs, PE, LS, has special training in civil/sanitary engineering, including design of water and sewer systems. In addition to their areas of expertise, both of *VEI*'s principals have extensive design and management experience.

Mr. Timothy P. Krug, Architect, heads *VEI*'s architectural practice. Mr. Krug is a registered professional architect in Alaska with 10 years of experience covering a full range of architectural services. *VEI* has provided architectural services on a variety of projects, including offices, schools, industrial plants, hospitals, and other public and private buildings or complexes.

Dr. Jim Brown, PhD, CPG, oversees our geological services. Dr. Brown is a certified professional geologist with 23 years of Alaskan experience. Services have included seismic analyses, subsurface investigations, groundwater monitoring, and slope stability analyses.

VEI's clients are typically local governments and private businesses, as well as other consulting firms that require specialized services. The size of our firm allows us the flexibility to work closely with our clients, and yet the capability to handle larger projects. *VEI* strives to provide professional services, in a timely manner, to each of our clients.

VEI is equipped to provide surveying, materials investigations, and plans and report production, with resources as noted on the following page. For your convenience, we have included the following information: staff resumes, a comprehensive project list, and a list of references/clients.

A current fee schedule and/or Standard Form 254 are available on request.

ENVIRONMENTAL ENGINEERING

Project

Chester Creek Improvements Study, Anchorage, AK
"C" Street Oil/Grease Separator, Anchorage, AK
Juanita Loop/Santa Maria Drive Water/Sewer Improvements
Eagle River, AK
Fire Lake Sewage Trunk Line Routing Study, Eagle River
Drinking Water Source, Study of Alternative, Point Hope
Water Treatment Plant Upgrade, Point Hope, AK
Water Treatment Process Design, Kotzebue, AK
Seward Sewage Treatment Plant Study, Seward, AK
Community Offal Line Feasibility Study, Valdez, AK
Drainage Study, Robe River Subdivision, Valdez, AK
Harbor Drive Water/Sewer Feasibility Study, Valdez, AK
Fidalgo Water Line Extensions and Computer Model, Valdez
Chitina Drive Water/Sewer Extensions, Valdez, AK
Valdez Sewer System Rehabilitation, Valdez, AK
Ahtna Lodge Sewage Treatment Plant Modification, Glennallen
Drainage Study, Kulis Air National Guard Base, Anchorage
Northway Sewage Treatment Study, Northway, AK
Air Quality Monitoring, Valdez
Eaglecrest Roadway/Drainage Study, Eagle River, AK
Springbrook Vista Sub'd Water Line Extension, Eagle River
Pippel Sub'd Water Line Extension, Eagle River
Drainage Plan and 5 Oil/Grease Separator Designs,
Cottonwood Creek Center, Wasilla, AK
Cottonwood Creek STEP Sewer Design, Wasilla, AK
D&A Mall Fire Line Sizing/Design, Wasilla, AK
Radon STEP Sewer Design, Wasilla, AK
Nancy Lake Village STEP Sewer Design, Nancy Lake, AK
Eagle River's Best Car Wash, Eagle River, AK

Client

Municipality of Anchorage
Municipality of Anchorage
Anchorage Water & Waste-
water Utility
Anchorage Water & Waste-
water Utility
North Slope Borough
North Slope Borough
City of Kotzebue
City of Seward
City of Valdez
City of Valdez
City of Valdez
City of Valdez
City of Valdez
City of Valdez
Ahtna, Inc.
Alaska Air Nat'l Guard
Alaska Gateway School Dist.
Alaska Pacific Refining
Eaglecrest Homeowners Assn.
Hamann Construction
Paul Jones

Olympic, Inc.
Olympic, Inc.
Olympic, Inc.
Radon Corporation
Tipton Development
Jin S. Yu

VERNON L. ROELFS, PE, LS
Principal, VEI Consultants

Vernon L. Roelfs graduated from St. Martin's College with a Bachelor of Science Degree in Civil Engineering and from Oregon State University with a Master's Degree in Environmental Engineering. Mr. Roelfs is a registered professional engineer in Alaska, Oregon, and Washington, and a licensed surveyor in the state of Alaska. He is also a registered sanitary engineer in Washington. Mr. Roelfs is a member of the following professional organizations: American Society of Civil Engineers; Water Pollution Control Federation; Alaska Water Management Association; American Water Works Association; Alaska Groundwater Association.

The following is Mr. Roelfs' professional work history:

January 1985 to Present Principal and partner of VEI Consultants, a full service architectural, engineering, and surveying consulting firm.

The firm employs fifteen architects, engineers, surveyor and technicians. Projects include design and construction administration of roads, bridges, buildings, utilities, sewer, eater, storm drains, harbors, and riprap and erosion control; materials investigations; surveying; subdivisions; arctic engineering, planning; and technical reports. Major clients include Matanuska-Susitna Borough, Municipality of Anchorage, City of Valdez, Valdez School District, Valdez Fisheries Development Association, State of Alaska, HUD Copper Center, and a number of contractors and private developers.

Project specific positions that Mr. Roelfs has held range from project manager and civil designer, to environmental engineer. Representative projects include:

Water Quality and Water/Sewer

- o Valdez Sewer Rehabilitation, for City of Valdez
- o Point Hope Water Treatment Plant Upgrade, for North Slope Borough
- o Eaglewood Drainage Study, Eagle River, for Eaglewood Homeowners' Association
- o Northway Sewage Treatment Alternative, for Alaska Gateway School District
- o Juanita Loop/Santa Maria Drive, Water/Sewer, Eagle River, for AWWU
- o Water Extensions for Birch Hills Terrace, Springbrook Vista, and Pippel Subdivisions, Eagle River, for Private Clients
- o Fire Lake Trunk Sewer Route Study, Eagle River, for AWWU
- o Point Hope Water Facilities Plan, for North Slope Borough
- o Springbrook Vista Subdivision Water Extension, Eagle River, for AWWU
- o Radon Subdivision Utilities Extensions, Wasilla, for Radon, Inc.
- o Harbor Drive/Fidalgo Water Line and Channel Crossing, for City of Valdez

Vernon L. Roelfs (Continued)

1975 to 1980 Civil/sanitary engineer for Whiteley-Jacobsen and Associates, Portland, Oregon. Mr. Roelfs performed sanitary designs and was involved with several sewer facility plans and sewer system evaluation surveys in the Portland area. He was also chief investigator on an EPA demonstration grant project studying the combined effluent treatment plant in Clatskanie, Oregon. Projects included:

- o St. Helen's Sewer Facility Plan, Oregon
- o Redmond Sewage Treatment Plant and Effluent Irrigation System, Oregon
- o Netarts-Oceanside Sewage Treatment Plant, Oregon
- o Corvallis (Oregon) Drinking Water Taste/Odor Study, for City of Corvallis

Publications Mr. Roelfs has published the following technical reports:

- o "Joint Dry/Wet Weather Sewage Treatment for Clatskanie, Oregon", Coauthored; EPA Demonstration Grant.
- o "Barrow, Alaska Sewage Disposal - A Facultative Lagoon For Arctic Conditions", Coauthored.

Continuing Education Mr. Roelfs has taken additional course work in the following areas:

- o Hydrology
- o Pump Hydraulics
- o Sewage Treatment Operation
- o Arctic Engineering
- o Earthquake Loading
- o Environmental Law
- o Surface Water Treatment Rule

ROBERT O. EDER, PE, LS
Principal, VEI Consultants

Robert O. Eder graduated from the University of Wisconsin in 1962 with a Bachelor of Science Degree in Civil Engineering. Mr. Eder is a registered professional engineer and registered land surveyor in the state of Alaska. He is a member of the following professional organizations: American Society of Civil Engineers; National Society of Professional Engineers; and American Military Engineers.

The following is Mr. Eder's professional work history:

June 1981 to Present Principal and partner of VEI Consultants, a full service architectural, engineering and surveying consulting firm.

The firm employs fifteen architects, engineers, surveyors and technicians. Projects include design and construction administration of roads, bridges, buildings, utilities, sewer, water, storm drains, harbors, and riprap and erosion control; materials investigations; surveying; subdivisions; arctic engineering, planning; and technical reports. Major clients include Matanuska-Susitna Borough, Municipality of Anchorage, City of Valdez, Valdez School District, Valdez Fisheries Development Association, State of Alaska, HUD Copper Center, and a number of contractors and private developers.

Project specific positions that Mr. Eder has held range from project manager to lead civil designer. Representative projects include:

Roads and Streets

- o Citation Road Improvements for Municipality of Anchorage (MOA). Grading, drainage, storm drain, curb and gutter, and paving.
- o Santa Maria/Springbrook Improvements for MOA. Grading, drainage, storm drain, curb and gutter, and paving.
- o Eagle River and Chugiak/Birchwood LRSA Street Improvements for MOA. Grading and drainage.
- o Point MacKenzie East/South Port Access Road for MatSu Borough (MSB). Grading and drainage.
- o Wolf Lake Access Road for MSB. Grading and drainage.
- o Old Glenn Highway (Eklutna to Palmer) Mile 0 to 18 for Alaska DOT&PF. Reconnaissance Study.
- o Pioneer and Chitina Drive Street Improvements for City of Valdez. Grading, drainage, storm drain, water and sewer, curb and gutter, and paving.
- o North and South Harbor Drive for City of Valdez. Grading, drainage, water and sewer, and paving.

Robert O. Eder (Continued)

- o Richardson Highway, Mile 81 to 90, 1978.
- o Richardson Highway, Mile 35 to 40, 1979.
- o Copper River Highway, Mile 29 to 33, 1979.
- o Richardson Highway, Mile 16 to 19, 1980.
- o Richardson Highway, Mile 129 to 186, 1980.

Construction Positions held: Southcentral Regional Construction Engineer. As Construction Engineer, Mr. Eder was in responsible charge of all of the highway and bridge construction projects in the Southcentral Region, a \$30 million annual program. During this period he administered about 15 projects of varying magnitude throughout the District in a wide variety of settings.

Continuing Education

Mr. Eder has taken additional course work in the following areas:

- o Geometric Design for Intersections
- o Soil Stabilization

KENNETH M. MORTON, EIT
Civil Engineer, VEI Consultants

Mr. Morton is a 1991 cum laude graduate from the University of Alaska, Fairbanks with a bachelor's degree in civil engineering. He works for VEI as a civil engineer and engineering technician. He is a registered Engineer-In-Training.

The following is Mr. Morton's professional work history:

1991 to Present

Civil engineer for VEI Consultants. Mr. Morton's duties include assisting in the preparation of plan and profile drawings for road and drainage design; surveying for drainage and roadway improvements; work on water/sewer studies; preparing permit applications for submittal to the Army Corps of Engineers; computations; design/drafting of plan and profile drawings using AutoCAD and DCA.

Several of his recent projects include:

- o Knight's Way/18th Avenue Street Improvements, for Municipality of Anchorage, AK
- o Hundred Hills Subdivision, Eagle River, AK
- o Mill Bay Road Improvements, Kodiak, AK

Summer 1990

Inspector, materials technician, office engineer for Alaska Department of Transportation & Public Facilities (ADOT&PF). Worked on an airport extension and resurfacing project in Teller, Alaska.

Summer 1989

Rear chainman for ADOT&PF. Performed reconnaissance, bathymetric, and as-built surveys for proposed projects in several bush communities of Alaska. In addition to rear chainman, Mr. Morton performed the duties of head chainman and instrument man.

Summers 1987 and 1988

Engineering aide for Alaska Gold Company, Nome, Alaska. Positions held included chainman and instrument man. Duties included calculations, note reduction, concentration and delivery of gold, supervision of save-all clean-up operation on gold dredge, performed temperature surveys to map thaw progress, assisted in weekly thaw progress reports, and performed field labor.

Jim Brown (Continued)

Project Geologist/Internal Review on several highway route reconnaissance, road feasibility, and design studies in Alaska, including: Susitna Hydro Project Access Routes; Old Glenn Highway (Eklutna to Palmer); Kenai River Bridge Crossing.

Professional History

1983 to Present Principal geologist, Arctic Geo-Terrain Consulting, Wasilla, Alaska; Chief Geologist (on call), VEI Consultants, Anchorage, Alaska; Professor, University of Alaska Anchorage.

1974 to 1983 Senior engineering geologist, technical services manager, special project manager, resident geologist and head of Earth Sciences Department for R&M Consultants, Anchorage, Alaska.

1967 to 1974 Assistant professor at Indiana University, Indianapolis (1969-1974); Saint Louis University, Missouri (1968-1969); University of Wisconsin, Madison (1967).

1964 Senior assistant geologist, Ontario Department of Mines, Lake St. Joseph, Ontario, Canada.

1962 Geologist, US Geological Survey, Fairbanks, Alaska.

1960 Junior geologist, Pan American Petroleum Corporation, Anchorage, Alaska.

Publications and Reports

Dr. Brown has authored or coauthored more than 30 publications and major project reports. A detailed bibliography may be obtained upon request.

REFERENCES

Mr. John Olnes, PE, Design Supervisor
Municipality of Anchorage
P.O. Box 196650
Anchorage, AK 99519-6650
(907) 786-8101

Mr. John Harris, Mayor
City of Valdez
P.O. Box 307
Valdez, AK 99686
(907) 835-4313

Mr. Jason Wells, Manager
Valdez Fisheries Association
P.O. Box 125
Valdez, Ak 99686
(907) 835-4874

Mr. Pat Day, Maintenance Supervisor
Valdez School District
P.O. Box 398
Valdez, AK 99686
(907) 835-4706

Mr. Hugh Bevan, PE, Director
City of Homer
Department of Public Works
P.O. Box 335
Homer, AK 99603
(907) 235-8121

Mr. Keith Morberg, PE, Regional Design Engineer
State of Alaska, DOT&PF, Southcentral Region
P.O. Box 196900
Anchorage, AK 99519-6900
(907) 266-1500

Ms. Cassandra (Kim) Rice, PE, Project Manager
State of Alaska, DOT&PF, Southcentral Region
P.O. Box 196900
Anchorage, AK 99519-6900
(907) 266-1500