# MUNICIPALITY OF ANCHORAGE

# ASSEMBLY MEMORANDUM

CLERK'S OFFICE
APPROVED
Date: 2-15-11

No. AM 94-2011

**Meeting Date:** February 15, 2011

**From:** Mayor

**Subject:** **GEOTECHNICAL ADVISORY COMMISSION APPOINTMENTS (Dennis L. Berry, PE, President; and Keith F. Mobley)**

I have appointed the following individuals to the Geotechnical Advisory Commission:

| | | |
|---|---|---|
| Dennis L. Berry, PE, President | Term Expired: (Reappointment) | 10/14/2010 |
| | Term Expires: | 10/14/2013 |
| Keith F. Mobley | Term Expired: (Reappointment) | 10/14/2010 |
| | Term Expires: | 10/14/2013 |

Resumes and attendance records are attached for your information. Confirmation is requested at the regularly scheduled meeting on February 15, 2011.

Respectfully submitted;

Daniel A. Sullivan
Mayor

Attachments

BBFM Engineers Inc.

510 L Street Suite 200
Anchorage, AK 99501-1949
(907) 274-2236
(907) 274-2520 Fax

**Dennis L. Berry, PE, President**

*Registrations*: Alaska CE 4838 Washington #25562
*Education*: BSCE, Stanford University 1975
MSCE, Stanford University 1975
Arctic Engineering, University of Alaska, Anchorage
Engineering Management Courses, University of Alaska

Mr. Berry is BBFM Engineer's Senior Principal and President. Mr. Berry has been a principal in structural engineering firms in Alaska since 1984. His extensive experience in structural analysis and design encompasses structural steel, reinforced concrete including precast and prestressed concrete, masonry, wood aluminum and fiberglass His experience includes design and bid projects with normal and accelerated schedules, fast track projects and design-build projects. Mr. Berry has significant experience with parking garages and large office buildings. His involvement with projects from concept through completion of construction has given him practical knowledge of cost-effective, constructible design. Mr. Berry is well known for his structural engineering ability and his arctic engineering expertise. The latter resulted in his selection as the structural designer for the Amundsen-Scott South Pole Station Replacement Project He has considerable training and experience in seismic analyses of both new and existing structures.

Mr. Berry is a member of many professional organizations, and has held various board positions during his career. These organizations include: CECA, ASPE, NSPE, PEPP, SEAA, APDC, ASCE, EERI, and ACI

Awards: In 1995, Mr. Berry was voted *Engineer of the Year*. Mr. Berry was fortunate to have been nominated twice for that honor: once by the Structural Engineers Association of Alaska in 1990 and again by the Anchorage Chapter, Alaska Society of Professional Engineers in 1995.

Featured Speaker/Presentations:
"Foundation Design for the New South Pole Station", 8th International Conference on Cold Regions Engineering 1996 and 10th International Conference on Cold Regions Engineering 1999
"Foundation Design for the Elevated Station", by Dennis L. Berry and Forrest T. Braun, *Civil Engineering Magazine*, ASCE, December 2000. One of three articles regarding the redevelopment of the Amundsen-Scott Station, Antarctica
"Structural Considerations on a Moving Polar Plateau", American Society of Civil Engineers Annual Meeting 2000

*References*(3):
Ray Amsden, Anchorage School District, 907-348-5127
Kyle Randich, Davis Constructors & Engineers, 907-562-2336
Steve Peterson, Senior Historical Architect, National Park Service, 907-644-3475 (direct)
General # 907-644-3510

Antarctica Projects:
New Elevated Amundsen Scott South Pole Station, Antarctica
McMurdo Clinic, McMurdo Station, Antarctica
Addition and Remodel of Power Plant & Water Plants, McMurdo Station, Antarctica
Science Support Center, McMurdo Station, Antarctica
Cryogen / Balloon Inflation Facility, South Pole, Antarctica
Garage Shops Building, South Pole, Antarctica
Cargo Facility, South Pole, Antarctica
New Power Plant, Amundsen-Scott Station, Antarctica
Radio Frequency Building, South Pole, Antarctica

Remote Projects:
Summit Camp Jacking, Greenland
Summit Camp Flux Facility, Greenland
Koyuk School, Koyuk
Adak Middle School, Adak
Shishmaref School Renovations & Additions, Shishmaref
Golovin School Renovations & Additions, Golovin
Elim School Renovations & Additions, Elim

Major Projects:
Convention Center, Anchorage
Anchorage Museum Expansion, Anchorage
JL Towers, Anchorage
Integrated Science Facility UAA, Anchorage
Centerpoint Office Building, Anchorage
Frontier Building II, Anchorage
Glenn Square Office Building, Anchorage
Court System Mixed Use Facility, Anchorage
APU Office Building, Anchorage
National Park Service Office Building, Anchorage
3000 C Street Office Building & Parking Garage, Anchorage
Arctic Slope Regional Corporation Headquarters Building, Anchorage
HealthSouth Medical Plaza office Building, Anchorage
ANTHC Office Building, Anchorage
Change Point Church, Anchorage
Fairbanks International Airport, Fairbanks
South Anchorage Area High School, Anchorage
3 Anchorage area High Schools: East, Service and Chugiak
Phillips/ARCO Corporate Headquarters Seismic Evaluation, Anchorage
Alyeska Pipeline Service Co. Headquarters Seismic Evaluation, Anchorage
Anchorage International Airport, Concourse C Investigation, Anchorage
NIBS (National Institute of Building Sciences) Study of Application of FEMA 273, Elmendorf AFB

**New Elevated Amundsen-Scott South Pole Station, Antarctica**
BBFM is currently working on the ten year Amundsen-Scott South Pole Station Replacement Project in Antarctica; a building designed to be built above a 10,000 foot deep snow field which is settling, moving and accumulating. To accommodate for the snow accumulation (the snow never melts as the temperature varies between –120 degrees and 5 degrees Fahrenheit), the structure is being designed to be jacked up 12 feet, a story height, twice during its life. Other projects in Antarctica include:

- Support Science Center, McMurdo Station, Antarctica
- New Power Plant, Amundsen-Scott South Pole Station, Antarctica
- Maintenance Facility, Amundsen-Scott South Pole Station, Antarctica

**New Power Plant, McMurdo Station, Antarctica**
Replace existing generator sets with new In the existing Power Plant; locate new backup generator sets in the Water Plant, and locate backup Water Treatment tanks in Power Plant This work included additions for radiator enclosures in both buildings to protect from drifting and blowing snow, additions in the Water Plant to house Switch Gear and the new generator sets, and a new mezzanine in the Power Plant. The additions were steel frame with steel plate for the floors and metal panels for the walls and roof. Approx $5 6 million

**Science Support Center, McMurdo Station, Antarctica**
An elevated 19,800 s.f. two-story frame structure encompassing offices, shops and warehouse space used to provide support for remote science activities. Project included evaluation of an existing two-story building plus a two-story addition. The foundations were pre-cast concrete footing pads allowing the foundations to be either cast elsewhere and shipped in or cast locally in a heated building. Pre-cast concrete slab planks supported on steel framing were used for the first floor and steel roof deck with steel plate supported on steel framing were used for the second floor. Approx. $4 million.

**New Anchorage Convention Center**
This project is still pending funding and design has not yet begun. New Convention Center will be a steel frame structure with 50,000 sf of convention display space with a clear height of 25 feet, ballroom, meeting rooms and support spaces filling a whole city block. It will have covered sidewalks linking it to the existing Egan Center.

**JL Tower, Anchorage**
This design-build project established a landmark fourteen-story, 280,000 square foot, office building. The building features an entry façade that curves back as it moves up the building. Vertical loads are resisted by the composite steel floor deck, composite wide flange steel beams and girders and wide flange columns The lateral load resisting system is a dual system of concentric steel braces at the elevator core and moment frames at the perimeter. A 5"-8" deep concrete mat foundation supports the building. The design for this fast-track project began in December 2005, and, on schedule, the foundations were completed in October 2006
Cost: approx $45 million

**Centerpoint II, Anchorage**
The Centerpoint Financial Center is a five-story office building with floor area of 97,915 square feet. Exterior granite tile walls and curving curtain walls create a dynamic visual appeal. Radiused canopies are positioned at two entrances. Structurally, the building is a composite

structural steel frame laterally supported by a special concentrically braced frame. In addition to typical office loads, the structure was designed to support several filing rooms, a high-density filing system, and an operable partition. Assymetrical bracing was required to accommodate doorway openings and mechanical ducts, due to tight space constraints. This design/build project provided high quality design and construction despite a very aggressive time schedule. Construction to be completed fall/winter 2004

**Dimond Center Office Tower, Cinemas and Mall Expansion, Anchorage**
A 6-story steel structure with a basement which included offices, shops, central atrium, health club, and ice rink. The principals of BBFM have completed numerous projects over the years: additions, remodels, tenant improvements, and an addition of a multi-cinema complex (29,968 s.f.). The second-floor, 9 theatre, cinema complex was designed and constructed without renovation or disruption of first-floor tenants. Most recently, we completed a major renovation to meet the needs of the retail store, Gap.

**National Park Service Office Building, Anchorage**
Five-story 84,000 square foot braced steel frame office building. The upper levels cantilever over the entrance to the building. Design/build project on an accelerated schedule with completion one year after notice to proceed.

**3000 C Street Office Building & Parking Garage, Anchorage**
53,000 s f. steel frame, 4-story office building and 136,000 s.f. post-tensioned flat slab 3½ story parking garage. Design/build, fast-track project. This is a four-story Class A office building and a 3½ story parking garage that will hold more than 400 cars. The office building is a free-standing north wing of the existing two-story office building at 3000 C Street. The buildings will share an entrance Mr. Berry was Principal-in-Charge and Mr. Feller was the Project Manager.

**Arctic Slope Regional Corporation Headquarters Building, Anchorage**
Ten-story 210,000 square foot braced steel frame office building with a two-story high entrance atrium. The building features a curving southeastern façade interrupted at the main entry by a canopy and an overhanging "waterfall" element composed of glass. The two-story entry vestibule sports a large custom chandelier and a curing staircase with translucent screen wall Two sculptures commissioned for this building also required engineering support. Vertical loads are resisted by the composite steel floor deck, composite wide flange steel beams and girders and wide flange columns The lateral load resisting system is a concentrically braced steel frame situated around the elevator core. Foundations are spread footings and, under the core, a heavily reinforced 4"-0" deep concrete mat foundation. This fast-track design/build project was completed in August 2002

**UAA Integrated Sciences Building, Anchorage**
This project is a 120,000 s f., $63.5 million building to provide space for offices, teaching labs, specialty labs, a planetarium and a large atrium area. The building is three stories with an additional mechanical penthouse level The structural support for the office and teaching lab wings is braced steel frame founded on a combination of pilings and spread footings; the specialty lab is concrete moment frame founded on spread footings.

**APU Medical Office Building, Anchorage**
This is a 3-story steel framed structure supported on a pile foundation system. The building is 60,000 square feet of multi-tenant space including imaging, physical therapy space, medical offices and minor day surgery The steel structure resists vertical loads by means of its composite steel beams and steel columns, which carry loads to the concrete footings. A steel braced frame, detailed for ductility, resists seismic and wind forces. Because the grade slopes

nearly a full story over the width of the building, a large concrete retaining wall was required, both at the building and along the parking lot Completed in 2005.

**3 Anchorage Area High Schools: East, Service and Chugiak**
Major additions and remodels incorporating seismic upgrade in accordance with UBC or IBC for the remodeled areas In many cases, the additions were connected to the existing facilities, and new seismic resisting elements in conjunction with upgrades to existing seismic resisting elements resist the overall seismic forces.

**Chugiak High School Gym**
A multiphase project which, to-date, has included the following:
1) Renovation of House 2: Conversion of the multipurpose room into new classrooms including restructuring a portion of the roof. (approx. 22,500 s.f.).
2) Renovation of House 3: A 40,000 s.f. project converting existing cafeteria into classrooms.
3) Gym Cafeteria: Demolished classroom area and constructed a new 60,000 s.f gym and cafeteria area.
4) Building Services Relocation: Converted a weight room into a mechanical room.
5) Performing Arts Wing: Conversion of original gymnasium to a performing arts area.

**East High School Auditorium**
East High School Renewal, Phases 1, 2 & 3, Anchorage
1) The first phase is a 20,000 s.f. project to include converting the existing cafeteria into classrooms, the original gymnasium into a new commons/cafeteria/kitchen with a running track above the cafeteria area. This project also includes adding elevators and a new mechanical room. The next phase includes 30,500 s.f. auditorium/performing arts area and a 8500 s.f. classroom addition
2) The second phase of the work included two new entry canopies, each more than 1000 s.f., and a new 8500 s.f. science building, to be used as a temporary library during later phases of construction. The building is a steel frame comprised of steel deck supported by steel joists and wide flange steel beams, which are in turn supported by tube steel columns and spread concrete footings. Lateral stability is provided by tube steel bracing. The canopies are similar, except concrete columns cantilever from the foundation to support the roof framing.
3) The third phase of the work at East High involves demolition of 26,000 s.f. of the existing school's interior. The new construction in that area will be an auditorium, computer room, drama/dance room, and music suite. A second floor provides a mechanical room and an area for storage. This floor is isolated from the structure to minimize transmission of the mechanical vibrations into the acoustically sensitive auditorium nearby. The structure will be steel deck supported by steel joists and wide flange steel beams. These are supported by tube steel columns and concrete bearing/shear walls. Lateral stability is provided by the concrete walls and some tube steel bracing. Another addition, 1,100 s.f , will be used as a deaf and hard of hearing classroom. The construction work is to occur while classes are in session.

**South Anchorage Area High School, Anchorage**
250,000 square foot two story steel frame school for a student population of 1,200. Down the length of the school is a two-story commons space with educational houses on one side and gymnasium, cafeteria/auditorium, administrative spaces, instructional materials center, and music rooms on the other.

**HealthSouth Medical Plaza Office Building, Anchorage**
This is a 3 story steel framed structure supported on a pile foundation system completed in 2001. The building is 43,000 square feet of multi-tenent space including imaging and physical therapy space It was a design/build project.

**Fairbanks International Airport, Fairbanks**
BBFM Engineers performed analysis of the portions of the airport based on a Tier 3 ASCE/SEI 31-03 "Seismic Evaluation of Existing Buildings" (ASCE 31) Analysis which required either a FEMA 356 "Prestandard and Commentary for the Seismic Rehabilitation of Buildings" (FEMA 356) Life Safety Analysis or a International Building Code 2000 Edition (IBC) Analysis at 75% force levels.

**Change Point Church, Anchorage**
Originally a seafood plant, this building was converted into a church. Preliminary design began in September of 2004, with the owner stressing that the church wanted to open its doors by Easter of 2006. The change in occupancy resulted in a code-mandated seismic upgrade. The original building was laterally supported by an eccentric steel braced frame. The most cost-effective upgrade proved to be adding concentric steel braces to the building. These braces, approximately as stiff as the eccentric frame, reduced the load in the original members so that they were acceptable At the owner's request, BBFM Engineers also quickly developed several alternative designs: removing a number of existing columns, removing a mezzanine, adding in another floor in a third of the building. When the owner's budgetary negotiations and future growth schemes were finalized, these options were taken out of the project. This design-build project was a success, resolving the structural challenges within budget and opening in time to celebrate Easter 2006.

**NIBS (National Institute of Building Sciences) Study, Elmendorf AFB**
Study of Application of FEMA 273 for Seismic Evaluation and Upgrades to Warm Vehicle Storage Building, Elmendorf AFB; Comparison of upgrades using FEMA 273 and the Uniform Building Code. BBFM Engineers was the only engineering firm selected in Alaska for this study.

**Phillips/ARCO Corporate Headquarters Seismic Evaluation, Anchorage**
Evaluation of all four structures which make up the complex: a 4-story concrete shear wall building, a 12-story structure with concrete shear walls below the 6th floor and steel braced frames and steel plate shear walls above, a 9-story steel building with moment frames and braced frames, and the 22-story steel moment frame tower.

**Alyeska Pipeline Service Co. Headquarters Seismic Evaluation, Anchorage**
Evaluation of a five story steel frame building with concrete shear walls, a three story steel frame building with steel braced frames, and a two story wood framed building with recommendations for upgrades.

**Anchorage International Airport, Concourse C Investigation, Anchorage**
Vertical and lateral analysis of a steel framed structure with steel bracing and masonry walls. Study was to determine feasible upgrade schemes to adequately address life safety issues and programmatic changes

GEOTECHNICAL ADVISORY COMMISSION
ATTENDANCE RECORD
DENNIS L. BERRY
TERM EXPIRATION: 10/14/2010
DATE OF ORIGINAL APPOINTMENT: 2/12/2008

| YEAR | PRESENT | ABSENT |
|---|---|---|
| 2008 | | |
| | 02/26/08 | |
| | 03/25/08 | |
| | | 04/22/08 |
| | 05/27/08 | |
| | 06/24/08 | |
| | | 07/22/08 |
| | 08/26/08 | |
| | 09/23/08 | |
| | No October Meeting | |
| | | 11/25/08 |
| | 12/23/08 | |
| 2009 | | |
| | No January Meeting | |
| | No February Meeting | |
| | 03/24/09 | |
| | No April Meeting | |
| | 05/26/09 | |
| | 06/23/09 | |
| | | 07/28/09 |
| | 08/25/09 | |
| | No September Meeting | |
| | No October Meeting | |
| | 11/24/09 | |
| | | 12/22/09 |
| 2010 | | |
| | 1/26/10 | |
| | 2/23/10 | |
| | | 3/23/10 |
| | No April Meeting | |
| | 5/25/10 | |
| | No June Meeting | |
| | 7/27/10 | |
| | | 8/24/10 |
| | | 9/28/10 |
| | 10/19/10 (Special Meeting) | |
| | 10/26/10 | |
| | 11/23/10 | |
| | 12/28/10 | |
| 2011 | | |
| | 1/25/11 | |

# Keith F. Mobley

**Education** B.Sc. Civil Engineering, Montana State University, 1976
M.E., Emphasis in Geochemical Engineering, Dartmouth College, 1988

**Registration** P.E., Civil Engineering: Alaska (CE 5066)
P.E., Civil Engineering: California (CE 30683)
G.E., Geotechnical Engineering: California (GE 2389)

**Affiliations** American Society of Civil Engineers
Earthquake Engineering Research Institute

## Experience

2000 to date **Golder Associates** **Anchorage, Alaska**
*Senior Geotechnical Engineer*
Mr. Mobley is the project manager for the design to raise the Monashka Creek Dam in Kodiak, including the construction inspection. Other projects include a geothermal analysis of Pump Station 2 and the North Slope Borough landfill.

1991-2000 **Shannon & Wilson** **Anchorage, Alaska**
*Senior Associate Engineer*
Mr. Mobley managed the geotechnical practice for the Anchorage office. His responsibilities included marketing, proposal preparation, project scheduling and management. He completed the final engineering and report review for most of the 1000 geotechnical projects completed in the office. He was also the project and design engineer for several large projects, including an earthfill dam constructed in Petersburg, Alaska, a thermal analysis for a landfill closure in Prudhoe Bay, and the foundation design for a 17-story hotel in Anchorage.

1989-1991 **Golder Associates** **Anchorage, Alaska**
*Geotechnical Engineer*
Mr. Mobley was responsible for engineering and management of several pipeline repair projects for Alyeska Pipeline Service Company. Work included design and construction monitoring for reinsulation of 4700 feet of mainline pipe in Atigun Pass.

1981-1989 **Woodward-Clyde Consultants** **Anchorage, Alaska**
*Geotechnical Engineer*
Mr. Mobley worked primarily as a field geotechnical engineer with a wide variety of projects in all parts of Alaska. Significant projects included the foundation for the Oliktok Seawater treatment facility where he developed a frost jacking isolation system, repair and thermal monitoring of the TAPS pipeline in Atigun Pass. He completed over 100 geotechnical exploration programs, most in remote parts of Alaska. A 1-½ year sabbatical was taken to earn as Masters degree.

1980-1981 **Ted Forsi & Associates** **Anchorage, Alaska**
*Civil Engineer*
Mr. Mobley worked on several water improvement projects, street designs and conducted geotechnical explorations as needed for on-going projects in the office. He completed a geotechnical evaluation of a 9 mile road alignment and material source siting study for the construction.

1977-1980 **San Dieguito Engineering** **Rancho Sante Fe, California**
*Geotechnical Engineer*
Mr. Mobley conducted field and laboratory soils testing, data report preparation, and septic disposal system designs. He was responsible for up to 7 laboratory technicians. He was also responsible for conducting geotechnical explorations and preparing recommendations, including seismic issues, sea bluff stability and foundation sizing.

GEOTECHNICAL ADVISORY COMMISSION
ATTENDANCE RECORD
KEITH MOBLEY
TERM EXPIRATION: 10/14/2010
DATE OF REAPPOINTMENT: 10/09/2007

| YEAR | PRESENT | ABSENT |
|---|---|---|
| 2007 | | |
| | | 10/23/07 |
| | 11/27/07 | |
| | No December Meeting | |
| 2008 | | |
| | 01/22/08 | |
| | | 02/26/08 |
| | 03/25/08 | |
| | 04/22/08 | |
| | 05/27/08 | |
| | | 06/24/08 |
| | 07/22/08 | |
| | 008/26/08 | |
| | 09/23/08 | |
| | No October Meeting | |
| | | 11/25/08 |
| | | 12/23/08 |
| 2009 | | |
| | No January Meeting | |
| | No February Meeting | |
| | 03/24/09 | |
| | No April Meeting | |
| | 05/26/09 | |
| | 06/23/09 | |
| | 07/28/09 | |
| | 08/25/09 | |
| | No September Meeting | |
| | No October Meeting | |
| | 11/24/09 | |
| | 12/22/09 | |
| 2010 | | |
| | 01/26/10 | |
| | 02/23/10 | |
| | 03/23/10 | |
| | No April Meeting | |
| | | 05/25/10 |
| | No June Meeting | |
| | | 07/27/10 |
| | 08/24/10 | |
| | 09/28/10 | |
| | 10/19/10 (Special Meeting) | |
| | 10/26/10 | |
| | 11/23/10 | |
| | 12/28/10 | |
| 2011 | | |
| | 01/25/11 | |

AM 94-2011

**Content ID:** 009849
**Type:** MayorAppointments -
**Title:** GEOTECHNICAL ADVISORY COMMISSION APPOINTMENTS (Dennis L. Berry, PE, President; and Keith F. Mobley)
**Author:** croxtonm
**Initiating Dept:** Mayor
**Date Prepared:** 2/2/11 12:43 PM
**Assembly Meeting Date:** 2/15/11

| Workflow Name | Action Date | Action | User | Security Group | Content ID |
|---|---|---|---|---|---|
| Clerk_Admin_SubWorkflow | 2/4/11 10:36 AM | Exit | Joy Maglaqui | Public | 009849 |
| MuniManager_SubWorkflow | 2/4/11 10:36 AM | Approve | Joy Maglaqui | Public | 009849 |
| Mayor_SubWorkflow | 2/4/11 10:36 AM | Approve | Joy Maglaqui | Public | 009849 |
| BoardCommissionApptWorkflow | 2/2/11 12:45 PM | Checkin | Mary Croxton | Public | 009849 |