

May 26, 2010

North Dakota Public Service Commission
600 E Boulevard Avenue, Dept. 408
Bismarck, ND 58505

Re: Proposal for Engineering Services
Consulting services for post-construction siting inspections
PU-10-123

Dear Ms. Bendish:

Ackerman-Estvold Engineering & Management Consulting, Inc. is pleased to present this Proposal for Engineering Services for the ND Public Service Commission's post-construction siting inspections. We have thoroughly reviewed the Request for Proposal (RFP) and are experienced, knowledgeable, and committed to perform the required work.

Understanding of the Project

Ackerman-Estvold Engineering will perform an on-site inspection of the 23 sites identified in the RFP. These on-site inspections will specifically identify and comment on the ecological and environmental issues as listed in the project files; inspections will also review seeding, erosion control, and the avoidance provisions of environmentally or archeologically sensitive areas as identified in the permit. The on-site inspections of pipeline routes will entail the visual observance of every foot of each pipeline. Two potential challenges with this type of inspection are that these on-site pipeline inspections cannot be done until the crops have been harvested in some areas and that access to the pipeline route will need to be acquired from the landowners. Ackerman-Estvold has successfully handled similar challenges in the past.

Deliverables will consist of a written report on each project site, along with pictures, videos, and GPS positioning. The timeframe as listed in the RFP is acceptable, and the completion date of June 30, 2011, will be met. A more detailed scope of work will be defined upon award of contract.

Methodology Used for the Project

Ackerman-Estvold proposes the following methodology:

- 1) Review project files at the PSC office for specific project siting criteria
- 2) Conduct site visits and inspections as required in the RFP
- 3) Note compliance or non-compliance with the siting criteria as listed in the permit
- 4) Prepare a written report for each site of each project

Experience and Qualifications

Ackerman-Estvold Engineering has the largest local design and construction engineering staff of any consultant in the area; our staff of over twenty-five includes four professional engineers and four registered land surveyors. The key members of our project team embody a combination of experience and talents that will best represent the ND Public Service Commission. All members of our project team understand the importance of schedule for this project and are ready to commit the resources required to meet the schedule while providing the utmost quality.

The experience and qualifications of the key members are presented in the enclosed resumes. Alan Estvold, PE, will serve as Project Manager and point of contact. Quality Manager Ryan Ackerman, PE, will be charged with management of quality control and quality assurance. Project Engineer Jason Strand, PE, will be responsible for on-site inspections, documentation, and report preparation. All team members have considerable experience in the final inspections of various projects similar to those listed in the Request for Proposals. No subcontractors will be utilized.

As a firm, Ackerman-Estvold Engineering has extensive experience working with federal agencies and understands the practices and protocol involved with government projects; this has provided our team members with an in-depth understanding of federal reporting requirements and procedures for various government projects. Ackerman-Estvold has completed approximately 100 project finals per year for the past five years; these final inspections are similar in scope to the work being performed on the Public Service Commission's projects. Enclosed are several case studies outlining Ackerman-Estvold's broad range of project experience.

Additional enclosures include in-house engineering services and in-house equipment and software.

Contract Cost

We have reviewed the Request for Proposals and taken a brief look at the project files. Based on our understanding of this project and our past experience, we are able to do this work for the \$114,646.47 you have budgeted. Because of the various sizes and locations of these projects, some will take considerably more effort than the \$5,000 permit fee while others will take less. Another consideration making this budget achievable is that some of the projects are essentially modifications to other listed projects or are at the same locations; one such example is the Enbridge projects.

Ackerman-Estvold has a successful history of keeping projects on schedule to meet the defined deadlines. We understand the importance of schedule for this project as well and guarantee that the work will be completed by June 30, 2011. A list of references who can testify to our quality of service and adherence to project schedule and budget is enclosed; please feel free to contact them.

If you have any questions regarding the information contained within this proposal, please contact me at (701) 837-8737. Thank you kindly for your consideration.

Respectfully submitted,

ACKERMAN-ESTVOLD ENGINEERING &
MANAGEMENT CONSULTING, INC.

Alan Estvold, PE, RLS
President

RESUME OF ALAN ESTVOLD, PE, PLS

Alan Estvold, President of Ackerman-Estvold Engineering, has over 35 years of extensive experience in a wide variety of civil engineering projects, although his primary area of focus is transportation and municipal engineering. Mr. Estvold has been a key member of design teams since first joining the North Dakota Department of Transportation in 1973. As a County Engineer for McKenzie County, ND, and Montgomery County, IA, he was thoroughly involved in both the design and operation of major transportation facilities. As a private consultant, Mr. Estvold has been the senior engineer on a wide variety of civil engineering projects, from roadway and bridge design to municipal water and sewer.



Experience

16th Street & 37th Avenue SW Reconstruction,
Minot, ND
20th Avenue SE Reconstruction, Minot, ND
55th Street SE Overpass, Minot, ND

37th Avenue SW & US Highway 83 Reconstruction,
Minot, ND
ND Highway 23 Corridor Study, New Town, ND
Mohall Main Street / ND Highway 5 Reconstruction
Box Culvert Replacements, Ward County, ND
MAFB PRIDE Building Foundation Drainage
System, MAFB, ND

Education

Bachelor of Science, Civil Engineering, 1973, North Dakota State University, Fargo, ND.
Master of Arts, Management, 1997, Bellevue University, Bellevue, NE.

Registrations

Professional Engineer: North Dakota, Montana, Iowa, Nebraska, Missouri.
Registered Land Surveyor: North Dakota, Iowa, Nebraska, Missouri

Organizations

North Dakota Association of County Engineers
National Association of County Engineers
ND Society of Professional Land Surveyors

RESUME OF RYAN ACKERMAN, PE

Ryan Ackerman brings nearly ten years and a wide variety of experience to the project team of Ackerman-Estvold. Mr. Ackerman is a highly qualified design and construction engineer, with particular technical expertise in water resources, hydraulics and hydrology. Mr. Ackerman's design experience includes numerous city, county, and federal aid projects, as well as industrial and commercial site development projects.



Experience

Northwest North Dakota Career and Technical Center, Minot, ND
North Dakota National Guard Field Maintenance Shop, Minot, ND
Value Added Agricultural Complex, Minot, ND
Port of North Dakota, Minot, ND
16th Street & 37th Avenue SW Reconstruction, Minot, ND

37th Avenue SW & US Highway 83 Reconstruction, Minot, ND
City of Burlington Water Distribution System Improvements
First Larson, Second Larson, and Puppy Dog Coulee Flood Control, Ward County, ND
12th Street Southwest Storm Sewer Analysis, Minot, ND
16th Street Northwest Water Transmission Main, Minot, ND
City of Velva Water Treatment Plant, Velva, ND

Education

Bachelor of Science, Civil Engineering, 2003, North Dakota State University, Fargo, ND.

Registrations

Professional Engineer: North Dakota
Land Surveyor-in-Training: North Dakota

Organizations

American Society of Civil Engineers
American Water Works Association
Institute of Transportation Engineers

RESUME OF JASON STRAND, PE

Jason Strand is a skilled and experienced designer, with a wealth of knowledge in transportation systems and Urban Roads Federal Aid projects. He has been a project engineer on several corridor studies and has compiled transportation master plans for several public clients in the past six years. In addition to Mr. Strand's extensive experience with MicroStation and GEOPAK, he has completed numerous GEOPAK courses in Surveying, Drainage, and Road 1 software, as well as NDDOT courses concerning Asphalt and Aggregate Testing.



Experience

Minot Mill & Overlay (4th Avenue NW, 3rd Street NE, & 31st Avenue SW), Minot, ND
Velva Sunflower Road, McHenry County, ND
ND Highway 23 Corridor Study, New Town, ND
Williston Infrastructure Improvements, Williston, ND
20th Avenue SE Reconstruction, Minot, ND
US Hwy 83 Bypass Shared Use Path, Minot, ND

Ward County Bridge Replacements (#151-49.1 & #153-53.1), Ward County, ND
16th Street & 37th Avenue SW Reconstruction, Minot, ND
21st Avenue NW Shared Use Path, Minot, ND
31st Avenue SW Shared Use Path, Minot, ND
Minot Air Force Base Replace Family Housing Phase 12, MAFB, ND
Surrey Safe Routes to School, Surrey, ND
Missile Road Regraveling (NDDOT)
Coleharbor Chip Seal (NDDOT)
Minot Intermodal Facility, Minot, ND
Prairie Bluffs Addition, Minot, ND

Education

Bachelor of Science, Civil Engineering, 2004,
University of North Dakota, Grand Forks, ND

Registration

Professional Engineer: North Dakota

Organizations

American Society of Civil Engineers
Minot Area Chamber of Commerce
Minot Area Development Corporation

CASE STUDY

North Dakota Port Services Intermodal Facility Minot, North Dakota

Project Cost: \$2.5 million

Project Team: Ackerman-Estvold Engineering,
Ackerman Surveying & Associates

The Port of North Dakota Intermodal Facility was constructed in 2007 to address the need for intermodal shipping in North Dakota. The intermodal facility design includes approximately 4000 linear feet of rail for line storage of intermodal (truck to rail) shipping containers.



CASE STUDY

16th Street SW & 37th Avenue SW Reconstruction Minot, North Dakota

Ackerman-Estvold Engineering and Management Consulting, Inc. was retained by the city of Minot for design and construction engineering services on this 1.8 mile roadway reconstruction and utility expansion project. Our roles on this \$6.5 million urban federal aid project included geometric design of the roadways; pavement design; water, sanitary and storm sewer design; structural design of underground utility vaults, retaining walls and sound abatement walls; construction engineering and construction contract administration.

The Ackerman-Estvold team worked closely with Minot officials to develop a project concept report that outlined potential problem areas and proposed alternatives related to geometrics, constructability, right-of-way, utilities, access, noise and general compatibility with the existing facilities, with particular attention given to future expansion. In addition, members of the project team worked diligently with Minot and Ward County officials to implement a large storm sewer system that reroutes

stormwater runoff from Puppy Dog Coulee into First Larson Coulee, effectively alleviating a portion of the flood flow into Puppy Dog Coulee, Minot's critical drainage element.



CASE STUDY

37th Avenue SW & US Highway 83 Reconstruction Minot, North Dakota

Ackerman-Estvold Engineering and Management Consulting, Inc. provided design and construction engineering services for the \$4.5 million improvements on the portions of 37th Avenue Southwest and US Highway 83 that were reconstructed concurrent with Wal-Mart SuperCenter. Ackerman-Estvold's client was Buescher-Frankenberg and Associates who represent Wal-Mart Stores. The project team's roles included the geometric design of the roadways; pavement design; water, sanitary and storm sewer design; construction engineering and contract administration.

The Ackerman-Estvold team members worked closely with City of Minot and North Dakota Department of Transportation officials to determine the needs of not only the portion of 37th Avenue adjacent to Wal-Mart but also to essentially master plan the remainder of the corridor. In the design of this facility, the

Ackerman-Estvold team ensured that every facet of the transportation system would be compatible and easily integrated for future expansion of the facility.

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CASE STUDY

Water Treatment Plant Velva, North Dakota

As City Engineer for Velva, North Dakota, Ackerman-Estvold was responsible for the preliminary and final design and construction engineering for a new \$1.6 million water treatment facility designed to remove iron, manganese, sulfides and arsenic from Velva's two sources of water. Improvements included an automatic filtration system capable of producing 360,000 gallons of potable water per day, a new water storage reservoir and new high service pumps.

The system was design by Ackerman-Estvold for east of operation and is extremely user friendly. The



system relies on chlorine only for both oxidation and disinfection, meaning that operating costs



are kept to an absolute minimum and the City's operators are comfortable with the chemicals required for the treatment of the water. The system is also flexible in terms of the influent water quality that it is capable of handling. The plant is designed to treat not only the water from the City's well, but also natural spring water. The spring water is conveyed via gravity toward the plant, where it is collected in a reservoir to eventually be pumped through the filtration system and into the distribution system. The system was designed to give priority to the natural spring water because it requires lower chemical doses to achieve the desired water quality results.

CASE STUDY

Water Distribution System Improvements Burlington, North Dakota

Portions of the City of Burlington suffered from low available water pressures and flows due to the City's existing water distribution infrastructure. Among the chief concerns was the lack of available water storage and dangerously low pressures at higher elevations throughout the city. Ackerman-Estvold Engineering was selected by the City of



Burlington to complete a water distribution system

analysis and the design of several improvements to the City of Burlington's water distribution system. Among the improvements that Ackerman-Estvold was responsible for was a new 340,000 gallon water storage reservoir. In addition, Ackerman-Estvold engineers designed over 3,000 feet of water transmission line, two pressure reducing stations, and massive improvements to the City's existing treated water pumping facility.

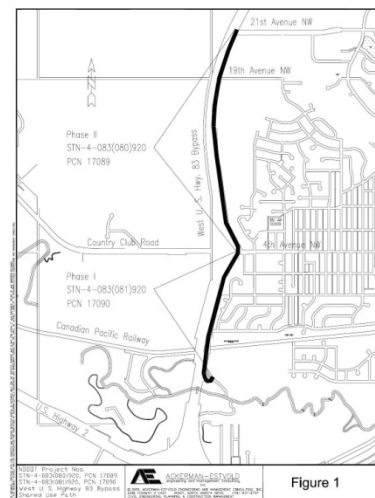
Because of demands from the North Dakota Department of Health, the project schedule was shortened, and the final design of the proposed improvements was completed in 3 months. The project was awarded in May of 2004 and was completed in November of the same year. Total project costs exceeded \$1 million, and change orders accounted for less than 0.5% of the final budget.



CASE STUDY

US Highway 83 Bypass Shared Use Path Minot, North Dakota

Ackerman-Estvold Engineering was selected by the NDDOT to perform preliminary and design engineering for a shared use path along the US Highway 83 Bypass west of Minot; the path will run from the Souris River to 21st Avenue Northwest, connecting to three existing paths in the Minot Trails System. Ackerman-Estvold is coordinating the project through the NDDOT's Local Government Division, the NDDOT's Minot District Office, and the City of Minot. The proposed 10 foot asphalt path will be approximately 2 miles in length and will include a pedestrian crossing over Canadian Pacific Railway's railroad tracks. The shared use path project is on schedule to be constructed in 2009.



CASE STUDY

Bridge Replacement (#153-53.1)

Ward County, North Dakota

Ackerman-Estvold Engineering was chosen by Ward County to complete preliminary, design, and construction engineering services for the replacement of county bridge #153-53.1 located on County Road 23 approximately five miles south of Sawyer, ND. Preliminary engineering included completion of a Project Concept Report that outlined the purpose and need of the project, the existing conditions, and five proposed alternatives. Upon selection of the pre-cast concrete box culvert alternative, design was completed for construction during the summer and fall of 2008.

Members of the Ackerman-Estvold team performed construction inspection for the demolition and removal of the existing bridge, installation of foundation fill and the pre-cast box culvert sections, backfilling, grading, paving, seeding and erosion control.



CASE STUDY (MUNICIPAL STREET IMPROVEMENTS)

City of Burlington, North Dakota



Ackerman-Estvold, City Engineer for the City of Burlington, completed the design and construction engineering of a city-wide street improvement project. The project included pavement crack sealing, patching and overlays, as well as concrete curb, gutter,

and valley gutter removal and replacement. Additional improvements included a city-wide seal coat, storm sewer improvements, new asphalt pavement, and new concrete curb and gutter in some portions of the city.

City of Max, North Dakota



Ackerman-Estvold worked closely with the City of Max on a \$170,000 street

improvement project that included a city-wide seal-coat and intermittent patching.

City of Surrey, North Dakota

Working as Surrey City Engineer, Ackerman-Estvold designed and managed the construction of \$400,000 in paving improvements for 14 blocks in the City of Surrey.

City of Kenmare, North Dakota



In 2005, Ackerman-Estvold completed design and

construction engineering for a city-wide street improvement project costing an estimated \$1.1 million. Improvements included a seal-coat, overlays, leveling courses, and removing and replacing concrete curb and gutter.

REFERENCES

Alan Walter

Minot Public Works Director
1025 31st Street SE
Minot, ND 58701
Telephone: (701) 857-4140
E-mail: pw@web.ci.minot.nd.us

Dana Larsen

Ward County Engineer
PO Box 5005
Minot, ND 58702
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Cindy Shattuck

Mayor, City of Velva
PO Box 219
Velva, ND 58790
Telephone: (701) 338-2660
E-mail: velvand@srt.com

Roger Ness

Mayor, City of Kenmare
PO Box 816
Kenmare, ND 58746
Telephone: (701) 385-4232

CONSTRUCTION ENGINEERING

We have the skills and experience to take your construction project from blueprint to reality. We're dedicated to quality and familiar with all applicable regulations to ensure that your project meets or exceeds the codes and specifications in all areas. We can work with you from conception to completion, or provide stage-specific services, such as on-site monitoring and inspection. We can even assist you with public relations, to communicate the benefits of your project and generate interest in its progress.

Services

- Construction observation
- Field engineering
- Contract administration
- As-built drawings
- Budget tracking
- Construction surveying
- Testing coordination
- Survey coordination
- Compliance inspection
- State and federal contract documentation
- Public relations
- Bidding services

LAND PLANNING & DEVELOPMENT

Careful land planning and development is the key to creating thriving communities through the best use of available resources. Our engineers can help make your vision a reality through expert land planning and development on any type of engineering project, whether it's a residential suburb, an industrial park, an agricultural plant or a center of commerce. We can work with you every step of the way, from initial conception to completion, or assist with specific stages in partnership with other firms.

Surveying

- Strategic partnership with Ackerman Surveying
- Land and boundary surveys
- Topographic surveys
- Subdivision planning
- Property platting
- Geodetic surveying
- High-accuracy control networks
- ALTA surveys
- Right-of-way surveys

Industrial, agricultural, commercial, residential

- Maximize development potential
- Fully-integrated design

Site civil engineering

- Renovation, expansion, new construction
- On-site infrastructure
 - Grading design
 - Pavements
 - Stormwater management systems
 - Storm sewer
 - Water and sanitary sewer

WATER RESOURCES

The quality of our water affects the quality of our lives. A comprehensive water resources strategy incorporates everything from supplying clean drinking water to homes, to providing water for industrial uses, to dealing with runoff from a heavy downpour. Water is as essential as it is unpredictable. Communities must be prepared to deal with the challenges of droughts, heavy rains, and everything in between. Our experienced engineers can help you manage your water resources to meet your needs today, and to meet the needs of tomorrow by keeping pace with changes in the community, water conditions and water management technologies.

Water supply, treatment, and distribution

- Source development
- Water storage
- Pumping
- Treatment
- Distribution
- Rate studies
- System optimization
- Automated control systems
- Regulatory compliance studies
- Operations and maintenance plans

Wastewater collection, treatment and disposal

- Infiltration/inflow analysis
- Wastewater treatment facilities
- Collection systems
- Regulatory compliance studies
- Lift station design
- Operations and maintenance plans

Stormwater management

- Hydrologic and hydraulic modeling
- Pump station design
- Stormwater management plans
- Stormwater detention systems
- Stormwater impact analysis
- Stormwater quality analysis
- Drainage design
- Flood control
- Floodplain management
- Floodplain mapping
- Watershed hydrology
- Floodplain hydraulics
- Bridge scour analysis
- Two-dimensional flow analysis
- Sediment transport
- Water resources permitting

TRANSPORTATION & TRAFFIC ENGINEERING

Moving people and things from here to there is essential to our economy and our lives. The quality of engineering in transportation and traffic systems makes all the difference. Quality engineering saves time and money by enabling traffic to flow smoothly and safely along routes that have been optimized for elements ranging from technical to practical to aesthetic. Our engineers have the experience and expertise to plan and implement efficient, effective transportation and traffic systems ranging from Main Street to the interstate. Our full range of services includes:

Transportation planning

- Corridor master planning
- Noise abatement strategies
- Public transit studies
- Master Planning
- Alignment alternatives
- Site development impact studies
- Noise abatement strategies
- Multi-use paths / alternative transportation
- Utility coordination

Roadway design

- Pavement
- Signing
- Marking
- Signalization, lighting
- Drainage
- Utility relocation
- Work zone traffic control
- Field survey, right-of-way mapping

Traffic engineering

- Traffic forecasting
- Traffic counts
- Traffic impact analyses
- Simulation and modeling
- Safety studies
- Signalized intersection design
- Signal timing
- Traffic data and travel behavior studies

Parking plans and facilities

- Feasibility studies
- Parking plans for municipalities, business districts, airports, universities, etc.
- Design of surface lots
- Rehabilitation plans

Funding options

Construction staging

MUNICIPAL ENGINEERING

It's in the water that flows from your faucet, the roads that get your residents to work and school, and the city park where area kids play softball.

Municipal engineering affects every aspect of life in your community. It provides the infrastructure for the homes, businesses and civic spaces that define your community and enrich the lives of residents and visitors.

We understand the importance of applying sound engineering principles to contribute to the quality of life in the towns and cities we serve. Each community is unique in its setting, character, resources and needs. We work closely with municipal leaders to ensure that our context-sensitive engineering solutions meet your current needs, and also look to the future to enable you to achieve your vision for your community. Most importantly, we deliver on schedule and on budget on a full range of municipal engineering services designed for the test of time.

Services

- Planning, design, and construction engineering
- Roadways, water, sanitary sewer, and storm sewer design
- Water treatment
- Wastewater treatment
- Water distribution
- Water storage and pumping facilities
- Wastewater pumping facilities
- Construction administration
- Construction inspection
- Land surveying
- Construction surveying
- As-built drawings
- System optimization
- Utility rate studies
- Landfills
- Contingency planning
- Financial planning
- Management consulting
- Grant writing
- Funding agency coordination
- Facility planning

STRUCTURAL ENGINEERING

At Ackerman-Estvold, our entire team is focused on engineering solutions that stand the test of time. All of our projects are engineered by skilled professionals using the latest in materials, techniques and technologies. With our reputation for excellence, we are often called upon to examine structural failure as well. With our in-depth experience and understanding of how to engineer sturdy, robust structural projects that last, we can also consult with clients to find causes for failure, and find solutions to prevent failures in the future.

Services

- Parking structures
- Retaining walls
- Utility vaults
- Steel, concrete, and composite material design
- Failure analysis
- Bridges, buildings

IN-HOUSE EQUIPMENT & SOFTWARE

While quality engineering is based on the education and experience of our highly qualified staff, we also stay in the forefront of advances in technology related to engineering and surveying. We have an impressive array of high-performance computers, high-output printers, plotters, copiers, digital cameras, scanners, software and surveying equipment. Our hardware, software and equipment includes:

- 25+ High-Performance Computers
- Two High Performance File and Application Servers
- Three HP DesignJet Plotters
- Digital Cameras, Scanners, Copiers, Projectors

Software

- PondPack, StormCAD, WaterCAD, SewerCAD
- HEC-1, HEC-HMS (Hydrologic Modeling System)
- HEC-RAS (River Analysis System)
- HCS (Highway Capacity Software)
- Civil 3D
- AutoCAD 2007
- Autodesk Civil 3D 2007
- Autodesk Land Desktop 2007
- AutoTURN

- Eagle Point Software
- MicroStation, GEOPAK
- Trimble Geomatics Office
- Delorme 3D Topo Quads, Delorme XMAP
- Microsoft Office Professional
- Deltek Vision (Project Accounting Software)
- Adobe Creative Suite II

Field Equipment

- Five Fully Equipped Surveying Suburbans
- Two Polaris Ranger XPs
- Two GPS Equipped 700 Polaris Sportsman 4X4s
- Four Sokkia Total Stations
- Seven GPS Rovers w/ Base Receiver
- Three Trimble GPS Frequency Radios
- Fourteen Sokkia and Trimble Data Collectors
- Two Jamar Traffic Data Collectors
- Two Digital Levels
- One Pipeline Locator
- Four Metal Locators
- Gas-powered Jackhammer