Contact Person:
David B. Hughes, PE
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500 SW 7th Street, Ste 301
Des Moines, Iowa 50309
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October 28, 2021

Statement of Qualifications

Engineering/Architectural Services
Oelwein Municipal Airport
City of Oelwein, Iowa

AECOM
500 SW 7th Street
Suite 301
Des Moines, Iowa 50309
www.aecom.com

515.323.7910 tel
515.244.4803 fax

October 28, 2021

Mr. Dylan Mulfinger
City Administrator
City of Oelwein
20 - 2nd Avenue SW
Oelwein, Iowa 50662

RE: Statement of Qualifications: Engineering/Architectural Services
Oelwein Municipal Airport, Oelwein, Iowa

Dear Mr. Mulfinger:

AECOM is pleased to present our Statement of Qualifications and experience for Engineering/Architectural Services at the Oelwein Municipal Airport. AECOM is a full-service aviation design and planning firm with extensive experience on projects similar to yours. We are truly excited about the opportunity to continue our working relationship with the Oelwein Municipal Airport on these important projects over the next 5-year period.

This Statement of Qualifications is presented to show our interest in and ability to perform a wide variety of services on time and within the allocated budget, as well as our capabilities and experience in similar projects. AECOM offers the following significant advantages to the City of Oelwein:

Understanding of the Projects and Knowledge of the Oelwein Municipal Airport. AECOM knows the projects anticipated at the Oelwein Municipal Airport, has provided design and construction services for the recent improvements to the Airport, has built a strong database for future expansion, and has developed relationships with City staff associated with the continued development of the Oelwein Municipal Airport. The City of Oelwein benefits from our understanding and knowledge of the Airport without the need of a learning curve, and our ability to have a team ready to hit the ground running to provide as close as possible to a "turnkey" project while meeting the requirements of the FAA.

Professional Expertise Provided to the Oelwein Municipal Airport. AECOM will provide an Iowa-based team that has full and complete resources of the AECOM organization that is ranked by *Engineering News-Record* as the *No. 1 Midwest Engineering Design Firm and No. 1 in Airport Design Worldwide.* Our team includes professionals with a wide variety of airport specialties which add balance and credibility to the project development, as shown by our recent experience on similar projects. Experience at various airport levels -- with state and federal agencies -- on multi-discipline projects that include national award-winning solutions is part of our personnel qualifications. The City benefits from credible solutions to design issues and projects that will be accepted by reviewing agencies, completed on schedule and within allocated budgets.

David B. Hughes, PE, will continue to be the Project Manager and coordinate with the City staff similar to what he has done in recent years. David is the backbone of the extensive knowledge that AECOM has, and we believe that he will continue to be a valuable resource to the City of Oelwein and the Oelwein Municipal Airport as it continues to develop and expand.

We thank you again for this opportunity, and we look forward to continuing our long-established relationship in meeting the needs and requirements of the projects noted. If you have any questions after reviewing our information, please feel free to contact us.

Yours sincerely,

David B. Hughes, PE
Client Representative / Project Manager

Douglas W. Schindel, PE
Principal-in-Charge

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SECTION I
Executive Summary

I. Executive Summary

The AECOM team is the ideal choice for the Oelwein Municipal Airport to execute assignments regardless of the complexity on both airside and landside designs. The typical projects identified in the request for the Statement of Qualifications require the full breadth of engineering and architectural services that we provide. We understand these tasks will require close coordination with key stakeholders, including the Oelwein Municipal Airport, General Aviation flyers and City of Oelwein, as well as Fayette and surrounding counties. Furthermore, our strong relationship with the FAA Central Region Office and Iowa DOT Office of Aviation will be instrumental to the successful completion of assignments. With the AECOM team, there is no learning curve.

SUMMARY OF AECOM SUBMITTAL

In the following pages, we have assembled the information that has been requested in the Request for Qualifications. The following is a quick synopsis of this information, which shows that AECOM is the clear choice for the Engineering and Architectural Services at the Oelwein Municipal Airport.

Firm and Contact Information – Our firm has offices in Waterloo and Des Moines and can quickly react to any issues that require our involvement, both in-person or virtually. In addition, we have a 60-year history of providing engineering services in the Waterloo area, including the last 30-years for the Oelwein Municipal Airport.

Qualifications and Previous Experience – AECOM has experienced local staff able to complete the projects shown in your Request for Qualifications, as shown in our attached staff information. In addition, we have 54,000 employees worldwide that we can connect to if there are special challenges or unique projects that require specialized assistance. This reach-back allows us to complete any project in-house with professionals we know and trust. In addition, our previous project experience at the Iowa City Municipal Airport, the Waterloo Regional Airport and the Oelwein Municipal Airport proves why we are the best option to complete your Engineering and Architectural Services for the next 5 years.

Familiarity with the Oelwein Municipal Airport – AECOM has completed work for the Oelwein Municipal Airport for 30 years. During this time, we have completed design and construction projects, including rehabilitation and maintenance work on the taxiway, runway and apron pavement construction, a 6-bay T-Hangar, a new Snow Removal Equipment Storage /Terminal Building, new LED lighting for the runway, and for a partial parallel Connector Taxiway to Runway 13. We have also assisted in the procurement of several pieces of snow removal equipment utilizing FAA funds. The list of projects in the Statement of Qualifications requires a firm with this kind of knowledge of the existing airfield.

Approach to Proposed Projects – AECOM staff has assisted the City of Oelwein in preparing the latest Capital Improvement Project documents for review and approval of future FAA funding. AECOM has also assisted the City of Oelwein in preparing Iowa DOT State Grant Applications for select projects where State Funding is more applicable for use than FAA Funding. We know and understand the projects on this list because we have worked on the airfield and understand the improvements that are required to keep it in a useable condition while, at the same time, working toward the future growth of the facility. In addition, we have completed similar work on other projects as shown in our previous experience and as noted in our project approach section. We know the Oelwein Municipal

Airport, what is needed to complete the projects described in the Statement of Qualifications and have completed this work at other airports.

Current Workload – For the past 30 years, AECOM has partnered successfully with the City of Oelwein to complete the projects noted above at the Oelwein Municipal Airport. As has been the case for the duration of this partnership, AECOM will continue to make the City of Oelwein a valued client and a top priority. We will commit our Project Manager, David Hughes, and the rest of our highly qualified staff to meet the deadlines for the proposed projects associated with this Statement of Qualifications.

As noted above, AECOM has the right staff with the right experience, the right knowledge and the history with the City of Oelwein to make us the clear choice to continue the Engineering and Architectural Services for the Oelwein Municipal Airport. We look forward to continuing our partnership to grow this airport.

SECTION II

Introduction / Firm and Contact Information

II. Introduction / Firm and Contact Information

INTRODUCTION

This proposal presents our qualifications and experience to provide Airport Engineering / Architectural Services for a 5-year period at the Oelwein Municipal Airport. This proposal is conditioned upon the negotiation of mutually acceptable contract terms.

We are enthusiastic about these projects and have taken care to assemble a professional and qualified team to meet all of your needs.

FIRM AND CONTACT INFORMATION

AECOM Technical Services, Inc. (AECOM), is a global leader in engineering and is currently ranked by *Engineering News-Record* as the *No. 1 Midwest Engineering Design Firm and No. 1 in Airport Design Worldwide.* This honor acknowledges the spirit, passion and commitment AECOM and our employees have in building a better world. Our firm, with headquarters in Dallas, TX, provides services through a network of nearly 54,000 employees on 7 continents across a broad range of markets.

Our ***aviation services*** include airport and environmental planning, engineering and architectural design, construction and program management, and specialty systems. Projects range from general aviation airports to large international hubs, whether it is a single project or a large development program.

Through our legacy companies, AECOM has been providing consulting services to airports for nearly 50 years. With more than 500 specialists in our Aviation business line, AECOM's experience spans decades and includes airside and landside projects for airports of all sizes. We have a full understanding of airport design standards and environmental requirements, and we work closely with federal, state, and local regulators to deliver aviation projects to meet our clients' needs.

IOWA OFFICES OF AECOM / CONTACT INFORMATION

Our local Iowa firm was originally established in 1955 and, through acquisitions and mergers, joined the AECOM Team in 2008. Our local offices provide multi-discipline services to the clients we serve, including transportation (aviation, roadway and multi-modal), structures, site development, water, wastewater, water resources, environmental, survey and construction-related services. ***Our Iowa AECOM Team provides a global expertise delivered by a long-term Iowa presence.***

Our extensive experience in airport planning and design and our wide range of technical expertise allows us to provide clients with quality, cost-effective services. Our full-service capabilities mean a professionally managed and completed project from beginning to end. We are able to effectively deal with unexpected or unusual project developments, avoiding adverse impacts to project schedules and budgets.

The Iowa operations of AECOM currently has a staff of 34 full-time and 6 part-time professionals and technicians working in our Waterloo and Des Moines offices, over half of which have been with our firm for more than 15 years. *Our team is committed to providing quality service to the Oelwein Municipal Airport.* AECOM strives to win your trust one successful project at a time. ***Our staff understands that success is not measured by the size of the project, but by the quality we deliver.***

Our Iowa offices of AECOM are led by *Doug Schindel, PE*, who has over 38 years of experience in various facets of civil engineering projects and will serve as *Principal-in-Charge* for the Oelwein Municipal Airport projects.

David Hughes, PE, with 38 years of civil engineering experience, specializing in aviation, will serve as *Project Manager.* David will be the *primary point of contact* on this 5-year program.

AECOM has two Iowa office locations. Contact information for the office locations, as well as our Principal-in-Charge and Project Manager, are as shown to the right:

Main Office:
AECOM Technical Services, Inc.
501 Sycamore Street, Ste 222
Waterloo, IA 50703
Office: 319.874.6531
Fax: 319.232.0271
www.aecom.com

Contact:
Douglas W. Schindel, PE
Principal-in-Charge
Office: 319.874.6531
Doug.Schindel@AECOM.com

Branch (Aviation Work):
500 SW 7th Street, Ste 301
Des Moines, IA 50309
Office: 515.323.7910
Fax: 515.244.4803

Contact:
David B. Hughes, PE
Project Manager
Direct: 515.323.7919
David.Hughes@AECOM.com

Our Values

Mutual trust binds us to the Oelwein Municipal Airport. To continue to earn your trust as a prime consultant, you need to know our values and how we operate. The following represents our culture and how we intend to work with you:

- ***Transparency*** - we are fully open in all that we do - there are no secrets.
- ***Integrity and Honesty*** - we do not compromise our values or yours.
- ***Dedication*** - we assemble committed professionals -- their mission is to satisfy you, the owner.
- ***Agility*** - in airport business, things can change on a dime -- our staff implements and manages change.
- ***Communication*** - continuous dialogue with the Oelwein Municipal Airport and stakeholders means no surprises.

Project Approach

AECOM knows that not all airport projects are alike, so we tailored our project team to meet your specific needs. We understand that Oelwein Municipal Airport is seeking experienced partners to provide airport facilities design, engineering, and construction administration services -- a full-service firm with the resources to perform the entire scope of services but with a plan and commitment to engage smaller firms (including women and minority owned businesses) that provide local knowledge and special expertise related to the typical projects identified in the request for SOQ. ***We have the necessary expertise in the required disciplines and can consult with Oelwein Municipal Airport about cost-effective approaches, innovative designs, and emerging trends and provide a seamless project to the City of Oelwein.***

Fiscally Sensitive & Schedule Driven

With limited financial resources and continuous cuts in funding, the ability to be fiscally sensitive and schedule-driven has never been more important than it is today. ***With an eye to controlling administrative costs and empowering our Project Managers to better manage their work***, AECOM deployed ePM, a tool for Project Managers to effectively manage a project from beginning to end –- scope and fee, contracts, budgets, subconsultants, staffing, schedules, quality management, and project delivery. ePM combines separate project management and accounting software and locates your project information in one place that is easily accessible to the Project Manager, who is the focal point for success.

Innovative and Creative

AECOM promotes ***idea-sharing and creativity through its Technical Practice Network (TPN).*** It provides access and exposure to the people, tools, resources and opportunities across the company. It helps our staff to develop and spark innovative work by staying connected and receive targeted communications and trainings based on their interests. So, whatever the issue, problem or question you have, most likely someone at AECOM has addressed the issue, solved the problem, or answered the question, and the TPN gives our local Aviation staff access to these innovations and answers.

SECTION III
Qualifications and Comparable Previous Experience

III. Qualifications and Comparable Previous Experience

1) Relevant Experience with Similar Projects

a) Introduction

In this section of our qualifications, we wish to demonstrate our recent project experience with very similar projects to the projects presented in your Request for Qualifications. The following pages represent summaries of projects completed by AECOM which we feel are relevant to the 5-year development projects at the Oelwein Municipal Airport. We understand that these projects are critical for the overall development and continued operations of the Oelwein Municipal Airport and that they have many underlying concerns and design issues that must be addressed. We have included projects that show our knowledge of the local area, our knowledge of FAA Central Region standards and policies, the needs of general aviation airports, and our understanding of complex aviation projects.

Recent Experience in Similar Airport Projects

Airport engineering and planning is one of our primary services. We have been involved in numerous airport planning and development projects throughout Iowa, the Midwest and the nation; and we provide a full array of airport design and planning services.

Specific areas of AECOM's airport services relative to the upcoming projects at the Oelwein Municipal Airport are shown to the right.

FULL ARRAY OF AIRPORT PLANNING AND DESIGN SERVICES

- Airport Master Planning
- Runway, Taxiway and Apron
- Landside Development
- Construction Management
- Construction Review
- Grant Administration
- FAA Program Development and Coordination
- Equipment Acquisition Specifications
- Navigational Aids (NAVAIDS)
- ROW Documents and Acquisition
- Environmental Assessments
- Pavement Evaluation and Management
- Airport Lighting, Signage and Fencing
- Storm Water Management
- Construction Plans and Specifications

Pavement Maintenance

The primary projects identified in your request are the sealing of cracks and joints in runway, taxiway and apron pavements. AECOM is experienced in all aspects of pavement evaluation and maintenance. Our recent projects have included both pavement evaluation efforts for the planning of future rehabilitation projects and also crack and joint sealing to prolong the life of existing airfield pavements. Our staff will be able to complete joint and crack sealing bid documents that meet the needs of the Oelwein Municipal Airport and the funding requirements.

Electrical Vault Reconstruction and Runway NAVAID Installation

Two projects included in your request are the reconstruction of the airfield lighting vault, and the installation of Precision Approach Path Indicators (PAPIs) and the replacement of the Runway End Identifier Lights (REILs) on Runway 13/31. AECOM is experienced in all elements of airfield lighting systems. Our projects have included new airfield lighting construction and modification of existing lighting vaults. In addition, we have installed PAPIs and REILs on numerous projects and will design these systems in accordance with FAA and the National Electrical Code requirements. Our staff has designed airfield lighting vaults and airfield and navigation aid (NAVAID) systems for a range of airfield types, from the simple systems without lighting control panels to the complex systems that can control and monitor a single lamp. Our staff has full capabilities relative to all phases of airfield vault reconstruction and NAVAID installation projects, including conceptual planning, preliminary design, final design, construction review and grant administration.

Runway and Taxiway Design

Two other projects included in the request are for a 1,000-foot extension of Runway 31 and the extension of the connector taxiway to the Runway 31 end. AECOM has extensive experience in runway and taxiway design, including projects that have been designed with the FAA requirements for asphalt and Portland Cement Concrete (PCC) pavement design, as well as specific FAA Central Region modifications regarding requirements specific to the materials locally available.

Auxiliary Services

The remainder of your requested projects involve auxiliary services, including equipment acquisition and aircraft hangar and terminal improvements. AECOM has worked with numerous clients in preparing specifications for equipment acquisition, as well as development and administration of auxiliary programs or plans required by local, state and federal agencies for airport operations. We assist with preparing grant pre-applications and applications in accordance with Iowa DOT and FAA requirements. Our staff is familiar with the current application process as well as the grant assurances that are part of each State and FAA grant.

State-of-the-Art Services

Our varied airport services are provided using state-of-the-art approaches as well as design practices that meet Federal Aviation Administration and Iowa DOT requirements. Examples of reference materials that are maintained with current editions and electronic design tools we use are shown to the right.

AECOM uses FAA pavement design for both flexible and rigid pavements. These designs are checked with other available design systems and analyzed for life-cycle cost comparisons.

The following is a selected list of recent airport projects completed by AECOM which are similar to projects in your request. These examples are not, however, all inclusive of the numerous airport projects AECOM has completed. ***Detailed descriptions of these projects follow.***

- Pave Connector Taxiway to Runway 13 End, Oelwein Municipal Airport, Oelwein, Iowa
- Grade Connector Taxiway to Runway 13 End, Oelwein Municipal Airport, Oelwein, Iowa
- Multi-Year Engineering Services, Waterloo Regional Airport, Waterloo, Iowa
- Multi-Year Engineering Services, Iowa City Municipal Airport, Iowa City, Iowa

REFERENCE LIBRARY

- FAA Advisory Circulars (ACs)
- Federal Aviation Regulations (FARs)
- Aircraft Manufacturer's Planning Documents for Various Aircraft
- Portland Concrete Association Pavement Design Manual
- Asphalt Institute Pavement Design Manuals

ELECTRONIC DESIGN TOOLS

- FAA Airfield Pavement Design (FAARFIELD)
- FAA Flexible and Rigid Pavement Design Evaluation
- FAA Airfield Pavement Evaluation for Overlay Requirements
- MicroStation
- AutoCAD
- OpenRoads
- GEOPAK
- Civil3D
- Electronic Data Collection
- Microsoft Office Suite

b) Project Write-Ups

Pave Connector Taxiway to Runway 13 End

Oelwein Municipal Airport, Oelwein, Iowa

DESCRIPTION
Design and construction-related field review for paving the Partial Parallel Connector Taxiway to the Runway 13 End.

PROJECT MANAGER
David Hughes, PE

KEY STAFF
Todd Allyn, PE
Dave O'Loughlin, PE
Mike Fagle, PLS
Tony Hemann, EI

SERVICES
Design
Pavement Design
Construction Administration
Grant Administration

REFERENCE
Mr. Dylan Mulfinger
City Administrator
City of Oelwein
20 - 2nd Avenue SW
Oelwein, Iowa 50662
Phone: 319.283.5440

CONSTRUCTION
$340,000

AECOM provided engineering design and construction-related services for paving of the Connector Taxiway to the end of Runway 13 at Oelwein Municipal Airport. This project included the removal of existing Portland Cement Concrete panels of the existing Runway 13 turn-around, placement of the new parallel taxiway from the existing taxiway to Runway 13, and installation of a subsurface drainage system.

Both Portland Cement Concrete and Hot Mix Asphalt pavement alternatives were selected using the FAARFIELD software. Based on a life-cycle cost analysis of those alternatives, Hot Mix Asphalt was selected for the project. The pavement section included 3 inches of Hot Mix Asphalt over a 6-inch aggregate base course over a 4-inch subbase course.

The project included placement of 4,800 square yards of Hot Mix Asphalt for the Connector Taxiway. The project also included the installation of a subsurface drainage system parallel to the Connector Taxiway. Approximately 2,230 linear feet of 4-inch perforated subdrain and 115 linear feet of 4-inch non-perforated subdrain were placed. New airfield guidance signs, new pavement markings and new reflective taxiway edge markers were installed as well. At the end of construction, surface restoration was also completed.

AECOM provided construction assistance, including reviewing submittals, shop drawings, construction schedule, and contractor requests for information, as well as provided on-site construction review. AECOM was present for a final walk-through of the project; prepared a final "punch list"; prepared all necessary change orders, pay estimates, reimbursement requests and record drawings; and provided close-out documentation to submit to FAA for final project acceptance.

Grade Connector Taxiway to Runway 13 End

Oelwein Municipal Airport, Oelwein, Iowa

DESCRIPTION
Design and construction-related field review for grading the Partial Parallel Connector Taxiway to the Runway 13 End.

PROJECT MANAGER
David Hughes, PE

KEY STAFF
Todd Allyn, PE
Dave O'Loughlin, PE
Mike Fagle, PLS
Tony Hemann, EI

SERVICES
Design
Construction Administration
Grant Administration

REFERENCE
Mr. Dylan Mulfinger
City Administrator
City of Oelwein
20 - 2nd Avenue SW
Oelwein, Iowa 50662
Phone: 319.283.5440

CONSTRUCTION
$94,000

AECOM provided engineering design and construction-related services for the grading of the Connector Taxiway to the Runway 13 end at the Oelwein Municipal Airport. This project included grading the parallel taxiway between the Runway Safety Area and Taxiway Safety Area. The overall construction of the Connector Taxiway was split into separate grading and paving projects which were constructed in consecutive construction seasons to maximize FAA funding.

During the design for this project, the ultimate horizontal and vertical alignment of the Connector Taxiway was completed to ensure the future extension of the taxiway to the Runway 31 end would work with the shorter section being constructed to the Runway 13 end. The future extension of the Connector Taxiway is included in the airport's Capital Improvement Plan which was provided in the Request for Qualifications.

The taxiway grading was designed to FAA standards, and the entire disturbed area was mulched and seeded after final grading was complete to stabilize it until the paving project started. The project also included the placement of arch pipes of various sizes under the Connector Taxiway so existing drainage patterns were not cut off with the new grading work.

AECOM provided construction assistance, including reviewing submittals, shop drawings, construction schedule, and contractor requests for information, as well as provided on-site construction review. AECOM was present for a final walk-through of the project; prepared a final "punch list"; prepared all necessary change orders, pay estimates, reimbursement requests and record drawings; and provided close-out documentation to submit to FAA for final project acceptance.

Multi-Year Engineering Services

Iowa City Municipal Airport, Iowa City, Iowa

DESCRIPTION
Design and construction-related services for the federally and state funded projects at the Iowa City Municipal Airport.

PROJECT MANAGER
David Hughes, PE

KEY STAFF
Todd Allyn, PE
Mike Fagle, PLS
Shane Martin

SERVICES
Design
Construction Administration
Pavement Management
Pavement Design

REFERENCE
Mr. Michael Tharp, C.M.
Airport Operations Specialist
Iowa City Municipal Airport
1601 South Riverside Drive
Iowa City, Iowa 52240
Phone: 319.356.5045 (Ext. 5)

AECOM completed the design, construction-related services and planning projects at the Iowa City Municipal Airport since 2003 and have worked directly with FAA on the major construction improvements. Many of the rehabilitation or maintenance type projects at Iowa City were funded using Iowa Department of Transportation Vertical Infrastructure and Airport Improvement funding, or local funding sources. Below is a summary of these projects:

REMOVE OBSTRUCTIONS

The Iowa City Municipal Airport was notified by FAA that there were obstructions in the approach / departure surfaces of Runway 7/25 and Runway 12/30. If not removed, these obstructions would result in the need to displace several runway thresholds, thereby limiting the useable lengths of these runways and the aircraft that could utilize the airfield. AECOM worked with FAA to obtain funding for the removal of these obstructions. In order to locate the obstructions noted by the FAA and determine if there were other obstructions that existed, AECOM completed an obstruction survey. This survey information was used to find the current heights of the potential obstructions, compare the heights to the approach/departure services at those locations and determine which obstructions required removal. ***If the obstructions were at or within 10 feet of the surface elevations, they were removed. This was done to eliminate this issue from re-occurring due to tree growth in the near future.*** Once the list of obstructions was finalized, bid documents were completed for their removal. AECOM also completed the construction administration services for this obstruction removal project. (Approximate Construction Cost: $662,500)

RUNWAY 7/25 EXTENSION

AECOM performed design and construction-related services for the extension of Runway 7/25 at the Iowa City Municipal Airport. The project involved an 800-foot by 100-foot extension of the runway toward the southwest, relocation of the existing runway threshold, a new medium-intensity runway lighting system, obstruction removals, and construction of a box culvert through the runway safety area. AECOM prepared plans, specifications, cost estimates and provided contract administration for these various elements. In addition, AECOM provided additional services for an update of the disadvantaged business program, historic recordation of a hangar, and Section 405 surveys for the proposed approach to the relocated runway.

The runway extension project was phased over several construction seasons to meet the funding constraints of FAA and the City of Iowa City. The runway was extended to meet runway safety requirements for Aircraft Design Group C-II aircraft. The runway extension required approximately 15-foot-deep fills to be placed in the floodplain adjacent to Willow Creek. Permitting was required with the Corps of Engineers and the Iowa Department of Natural Resources to construct the runway extension.

AECOM designed a triple 10-foot by 12-foot cast-in-place concrete box culvert to relocate Willow Creek outside of the proposed runway safety area for the extended Runway 7/25. The box culvert was sized to pass the 100-year storm event. The box culvert was designed to handle anticipated settlements in excess of 6 inches without impacting the integrity of the box culvert. Computer modeling for the hydraulics was completed as part of the permitting process with the Army Corps of Engineers (COE) and Iowa Department of Natural Resources (IDNR).

Construction of the runway extension involved placing approximately 35,000 cubic yards of fill material. The majority of the fill was obtained from an on-site borrow area located in the runway protection zone. The use of on-site material allowed for economical construction of the runway extension. Since the majority of on-site materials were clay that were above optimum moisture content, land farming to allow drying of the clay was required prior to placing into the fills. The deep fill located along the runway extension was constructed to an elevation of 3 feet above final elevation to provide surcharge loading of the embankment to accelerate the anticipated settlement of the embankment. The embankment was monitored using a series of settlement plates, and excess material placed was used to backfill the box culvert area. The actual settlement of the embankment was found to stabilize after the embankment settled approximately 8 inches.

Pavement design involved the review and life-cycle costing of both flexible and rigid pavement sections. The existing runway was constructed of Portland Cement Concrete in the 1940s and was in fair condition. The life-cycle analysis not only reviewed the two pavement alternatives but also reviewed the rehabilitation of the existing pavements. An initial economic analysis was prepared to determine the preferred runway extension width. The 1940s runway was 150 feet in width. The analysis reviewed alternatives related to overlay of the existing runway, removal of excess pavements (including the need for additional storm sewer if these pavements were removed), use of excess pavements as paved shoulders, and installation of a new runway edge lighting system.

AECOM worked with the FAA Airport District Office and Flight Procedures to complete FAA Section 405 surveys for the future Localizer Performance with Vertical Guidance (LPV), non-precision approach to the relocated Runway 25 end. In addition, surveys were completed for an LPV approach to Runway 30 and a visual approach to Runway 7. The proposed LPV approach utilizes the Global Positioning System (GPS) to provide a flight approach to the airport in poor visibility conditions with the need for ground-based electronics at the airport. Data obtained from the Section 405 surveys was reviewed to determine the impacts to the FAR Part 77 imaginary surfaces and to the terminal approach procedures for the airport (TERPs). (Approximate Construction Cost: $3,350,000)

TERMINAL APRON RECONSTRUCTION

AECOM performed design and construction administration services related to reconstruction of a portion of the airport terminal apron area at the Iowa City Municipal Airport. The project involved reconstruction of approximately 5,000 square yards of existing asphalt pavement area that was being utilized to park aircraft. The project removed the existing asphalt pavement, replaced the storm sewer system under the aircraft apron, and provided for subsurface drainage and reconstruction of the apron with a Portland Cement Concrete (PCC) pavement more suitable for aircraft parking and fueling since the PCC pavement is not susceptible to damage from fueling operations. The storm sewer system included provisions for spill prevention from either aircraft fueling operations or leaking fluids from aircraft parked on the apron area.

The project utilized federal funding that was related to disposal of excess property that was purchased with Federal Aviation Administration Airport Improvement Program (AIP) funds. The FAA allowed the use of these funds at the airport for an AIP-eligible project in lieu of reimbursement of the federal portion to FAA of the income received from the sale of the property. The project was designed, constructed and administered under the same requirements as any other AIP-funded project, except that all funds were obtained locally and did not require reimbursement from FAA. (Approximate Construction Cost: $341,100).

RUNWAY 7/25 RECONSTRUCTION

AECOM performed pavement evaluation, design and construction administration associated with the reconstruction of the section of Runway 7/25 located east of Runway 12/30 at the Iowa City Municipal Airport. The project involved reconstruction of a section of the runway that is 2,500 feet in length. During the reconstruction, the runway was narrowed from the existing width of 150 feet to a usable width of 100 feet by use of runway markings and locating the new runway edge lights in-bound of the existing pavement edge.

The reconstruction consisted of a new Portland Cement Concrete pavement section designed for use by business jet aircraft currently using the airport and anticipated to use the airport in the future. The new pavement section utilized recycled base course material obtained from the removals and crushing of the old concrete pavement section. Prior to constructing the new pavement structure, a geotextile grid was installed on the subgrade materials to provide for construction of the new pavement section without extensive removals and replacement of poor subgrade materials. A subsurface drainage system was installed and tied to the existing storm sewer system.

AECOM completed a detailed pavement defect inventory and used ground-penetrating radar to evaluate possible voiding under Runway 7/25 and Runway 12/30. The project was originally identified as an asphalt overlay project; but during the preliminary design phase of the project, the pavement inventory indicated that failures were so extensive in the existing pavements that an overlay to the runway would not provide a design life that would be acceptable without extensive maintenance. ***AECOM worked with the owner and FAA to develop a reconstruction alternative that would reconstruct the section of runway that had the poorest condition to meet available funding from FAA.*** (Approximate Construction Cost: $1,468,000)

RUNWAY 7/25 PARALLEL TAXIWAY

AECOM performed design and construction administration for the construction of the parallel taxiway to Runway 7/25 designated as Taxiway A at the Iowa City Municipal Airport. The Taxiway A project was constructed in two (2) phases to meet FAA funding limitations.

The first phase of the taxiway project involved construction of the deep fill section on the west end of the project. Geotechnical information obtained during design indicated that the deep section of fill was anticipated to have an overall settlement after placement of approximately 6 inches. Therefore, during construction, settlement monitoring plates were constructed and surveyed during and after placement of the fill. The deep fill area had additional material placed and later removed to "surcharge" the fill area to accelerate the settlement. Final settlement in this area was measured to be approximately 4 inches.

The initial phase also included construction of a storm sewer system between Runway 7/25 and the parallel taxiway. The storm sewer system provided two new outlets for storm drainage. One of these was to Willow Creek and the other to the Iowa River.

The new pavement section was designed as a Portland Cement Concrete pavement using the same design criteria and pavement section as Runway 7/25. Areas of poor subgrade materials were stabilized with fly ash stabilization to accelerate construction while providing for a stable platform for construction equipment.

The project included moving approximately 29,500 cubic yards of unclassified excavation. Willow Creek was stabilized utilizing 9,300 square yards of oversize riprap material. The project also included an additional 900 linear feet of reinforced concrete pipe, 13,500 linear feet of 4-inch subdrain, and 85 storm sewer structures. The pavement consisted of approximately 25,500 square yards of 8-inch-thick PCC pavement.

The taxiway system was lighted using Light Emitting Diode (LED) low energy taxiway edge lights and guidance signage. The pre-1950s airfield lighting vault was remodeled, and airfield lighting regulators located in the airport terminal building were relocated to the remodeled lighting vault. A new regulator for the taxiway and a new pilot lighting control system was installed as part of the project. Since the airport is located in the floodplain, electrical equipment within the airfield lighting vault was set above flood elevation and flood vents installed to mitigate for potential flooding. (Approximately Construction Cost: $3,884,100)

TAXILANE PAVEMENT REHABILITATION

AECOM performed design and construction administration for Iowa Department of Transportation funded projects associated with the reconstruction of T-hangar taxilanes in the north and south T-hangar areas at the Iowa City Municipal Airport. The taxilane project was staged over a 3-year period to match available funds from the Iowa Department of Transportation and the local funds. During this 3-year period, the taxilanes, with low pavement condition indexes in the north and south T hangar areas, were reconstructed.

AECOM performed design and construction administration for Iowa Department of Transportation funded projects associated with the reconstruction of T-hangar taxilanes in the north and south T-hangar areas at the Iowa City Municipal Airport. The taxilane project was staged over a 3-year period to match available funds from the Iowa Department of Transportation and the local funds. During this 3-year period, the taxilanes, with low pavement condition indexes in the north and south T hangar areas, were reconstructed.

The north taxilane project consisted of removal of all pavements between the T-hangars, installation of a storm sewer system, and construction of a new asphalt pavement designed for use by light aircraft with weights less than 12,500 pounds. While constrained by surrounding buildings and other facilities, the project improved the surface drainage in the T-hangar area. The project was staged so that only one taxilane between hangars was impacted at a time to allow for aircraft users to relocate their aircraft either to the terminal apron or empty hangar space during the construction activities if they wanted access to their aircraft during construction.

The first phase of the north taxilane project was completed in the fall of 2006. Reconstruction of a portion of the automobile parking area at the airport terminal building was included in this project to provide the owner with a new section of automobile parking at the same time other pavement reconstruction projects were ongoing at the airport, thus reducing some of the costs that could be associated with multiple mobilizations for construction equipment.

The second phase of the taxilane reconstruction consisted of reconstruction of the asphalt pavements in the south T-hangar area. The taxilanes adjacent to Hangar G and the main taxilane leading to all hangars in the south area, including the fixed-base operator maintenance hangar, was reconstructed. ***AECOM staged the project so that the main taxilane was reconstructed over a period of 3 days. Construction started on a Friday afternoon and was completed on a Monday morning to minimize impacts to the fixed-base operator and all aircraft that were hangared in the south T-hangar area.*** (Approximate Construction Cost: $473,000)

INSTALL TAXIWAY LIGHTING

AECOM performed design and construction administration services related to the installation of taxiway edge lights and signs along the taxiways near the terminal apron and north and south hangar areas. This project was Iowa DOT

funded and included the installation of a total of 57 LED edge lights and 3 airfield guidance signs. *The project was phased to allow access to the north T-hangars and terminal apron at all times. In addition, access to the hangars south of the terminal apron was maintained for all but one phase, which was completed in 5 calendar days to limit disruption to this area. Also, the lights in the Runway 12/30 Safety Area were installed in 5 calendar days to limit the required runway closure.* (Approximate Construction Cost: $91,000)

EXPAND AIRCRAFT PARKING APRON

AECOM performed design and construction administration services related to the expansion of the airport terminal apron at the Iowa City Municipal Airport. The project involved the construction of approximately 2,500 square yards of 8-inch Portland Cement Concrete pavement which added 8 new parking positions to the apron. Construction included approximately 1,350 cubic yards of excavation, the installation of new 18-inch diameter storm sewer and a new intake adjacent to the new apron, approximately 2,600 square yards of cement treatment of the existing subgrade, installation of approximately 435 cubic yards of modified subbase, and included a subsurface drainage system. Portland Cement Concrete (PCC) pavement was chosen for this project because it is more suitable for aircraft parking and fueling operations. *This was an Iowa DOT funded project and was constructed with limited disruption to the existing terminal apron so daily operations could continue without interruption.* (Approximate Construction Cost: $191,300)

TAXILANE EXTENSION

In order to provide access for the new Hangar N at the Iowa City Municipal Airport, AECOM worked with Iowa DOT to obtain funding to perform design and construction administration services related to the extension of the existing 35-foot wide taxilane in the area. The project involved the construction of approximately 700 square yards of 6-inch Portland Cement Concrete pavement, approximately 250 cubic yards of excavation, the installation of new 18-inch diameter storm sewer and two (2) new intakes adjacent to the new pavement, approximately 750 square yards of cement treatment of the existing subgrade, installation of approximately 125 cubic yards of modified subbase, and included a subsurface drainage system. (Approximate Construction Cost: $90,300)

MISCELLANEOUS ON-CALL PROJECTS

Jet-A Self-Service Fueling System

AECOM completed the design, bidding and limited construction phase services for the installation of a new Jet-A self-service fueling system. The system was a state-funded project and developed for the fueling of Medivac helicopter operations to eliminate the need for call-out services by the fixed-base operator after hours and to shorten the turn-time necessary to get the medical helicopter back in service. (Approximate Construction Cost: $85,000)

Hangars A, B and C Concrete Floors / Pedestrian Access Doors

AECOM completed design and provided limited construction phase services for the installation of concrete floors and replacement of the pedestrian access doors in the northerly section of T-hangars at the Iowa City Municipal Airport. These projects were completed over a multi-year period with Iowa Department of Transportation (Iowa DOT) and local funding. During the construction of the floors, it was determined that available funding from the Iowa DOT was in excess of the amount required to construct the floors, so AECOM, along with the airport staff, worked with the Iowa DOT to use the remaining state funds for replacement of the pedestrian doors in these hangars. (Approximate Construction Cost: $60,000)

Multi-Year Engineering Services

Waterloo Regional Airport, Waterloo, Iowa

DESCRIPTION
Design and construction-related services for the federally and state funded projects at the Waterloo Regional Airport.

PROJECT MANAGER
David Hughes, PE
Doug Schindel, PE

KEY STAFF
Todd Allyn, PE
David O'Loughlin, PE
Mike Fagle, PLS
Tony Hemann, EI

SERVICES
Design
Construction Administration
Pavement Management
Pavement Design
Airport Master Plan Update
Property Surveys and Releases
Construction Staking

REFERENCE
Mr. Keith Kaspari
Director of Aviation
Waterloo Regional Airport
2790 Livingston Lane
Waterloo, Iowa 50703
Phone: 319.291.4483

AECOM has been involved with the Waterloo Regional Airport for over 60 years. Since 2003, we have provided planning, design and construction-related services under a multi-year engineering services agreement. During this timeframe, AECOM has worked directly on the Federal Aviation Administration funded projects, the projects funded by the Iowa Department of Transportation, Vertical Infrastructure Program, and other locally funded projects. Below is a summary of some of these projects.

RECONSTRUCT TAXIWAY B SOUTH OF RUNWAY 18/36 AND REMOVE TREES / RECONSTRUCT WEST TERMINAL APRON AND CLEAN/SEAL JOINTS EAST TERMINAL APRON

AECOM provided engineering design and construction administration services for reconstruction of Taxiway B south of Runway 18/36, the reconstruction of the west terminal apron, joint sealing on the east terminal apron, and tree removals. Initially, Bid Package #1 included the reconstruction of the west terminal apron and the resealing of joints on the east terminal apron; and Bid Package #2 included the removal and replacement of existing Taxiway B south of Runway 18/36 and the removal of trees north and west of Runway 18/36. Prior to bidding, both bid packages were combined and let as one project.

FAARFIELD software was used to complete the new alternative pavement designs. Both HMA and PCC designs were completed with the PCC alternative being selected for the construction of Taxiway B. The selected pavement section includes 13 inches of PCC pavement over a 5-inch cement-treated permeable base course over a 6-inch aggregate base course.

The apron improvements included 4,950 linear feet of joint sealant and 3,400 square yards of apron pavement. Pavement marking, subdrain, aircraft tiedowns, and catch basins were also included. The taxiway and tree clearing portion of the project included 19,570 square yards of taxiway pavement and approximately 21 acres of clearing and grubbing. Reconstruction of the taxiway included a permanent closure of Runway 06/24, replacement of guidance signs and taxiway edge lights. Installation of new subdrain storm sewer and drainage structures was also completed. (Approximate Construction Cost: $4,500,000)

RECONSTRUCT TAXIWAY C RUNWAY 12/30 PAVEMENT JOINT REPAIR / PAVEMENT MARKING RUNWAY 12/30, RUNWAY 18/36 AND TAXIWAYS

AECOM provided engineering design and construction administration services for the reconstruction of Taxiway C, the repair of a pavement joint in Runway 12/30, and the re-marking of Runway 12/30, Runway 18/36 and the taxiways. This project used FAA entitlement funds from 2017 and 2018 and was bid in two bid packages. Bid Package #1 involved the

the removal and replacement of existing Taxiway C and the removal of Taxiway C1, which connected Taxiway C to the original end of Runway 18 before it was extended. Bid Package #2 involved the removal and replacement of a section of Runway 12/30 to fix a bump at the interface between the original Runway 12 end and the extension of Runway 12. Over time, this bump had continued to propagate and was creating a safety concern for the traveling public. Bid Package #2 also included 50,100 linear feet of crack sealing of Runway 12/30 and re-marking of the entire airfield.

FAARFIELD software was utilized to create alternatives for the new Taxiway C pavement section on Bid Package #1. Based on a life-cycle cost analysis of the alternative sections, Portland Cement Concrete pavement was determined to be the most cost-effective solution for this project. The new pavement section includes 8 inches of PCC pavement over a 5-inch aggregate base course.

Bid Package #1 also included the removal of edge light and guard light bases and fixtures along Taxiway C, which were replaced with LED light fixtures. Also included was the replacement of the associated airfield guidance signs with LED signs, pavement marking, including new surface painted hold signs, and surface restoration along the edge of construction. The project included the replacement of approximately 17,800 square yards of PCC pavement, 3,200 cubic yards of aggregate base course, and surface restoration. (Approximate Construction Cost: $2,800,500)

TAXIWAY B NORTH OF RUNWAY 18/36 RECONSTRUCTION

AECOM ***provided engineering design services and construction-related services for rehabilitation of Taxiway B.*** The project involved removal and replacement of the existing taxiway that was part of the original airport construction and last overlaid in 1972. New alternative pavement sections were determined using the FAARFIELD software. Based on life-cycle cost analysis of alternative sections, Portland Cement Concrete pavement was determined the most cost-effective solution for this project. New pavement section includes 13 inches of PCC pavement over 6-inch crushed aggregate base course. The project also included removal and replacement of taxiway light bases and fixtures along this section of Taxiway B and replacement of all remaining light fixtures on this taxiway circuit with LED light fixtures. Also included was replacement of associated signs with LED signs, pavement marking, including new surface-painted runway hold marking and surface restoration along edge of construction. New light cans were precast and set to alignment and grade. The project included replacement of approximately 4,825 square yards of 13-inch PCC pavement, 5,000 square yards of 6-inch crushed aggregate base course, 104 LED taxiway lights, 2 precast handholes, pavement marking and surface restoration. (Approximate Construction Cost: $545,800)

TAXIWAY "E" REHABILITATION

AECOM has performed design and construction-related services for rehabilitation of Taxiway E. The preliminary design for this project involved numerous alternatives based on taxiway width and pavement section. Alternatives were compared by life-cycle analysis; and recommended rehabilitation resulted in milling asphalt surface to original PCC pavement constructed in 1965, repairing original PCC pavement, and placing new 6-inch asphalt concrete overlay on repaired surface. The project included milling of approximately 15,000 square yards of asphalt surface, PCC patching of 4,650 square feet of surface area on original PCC pavement, installation of geo-glass grid to reduce reflective cracking, placement of 4,500 tons of asphalt surface mix, 37 new LED taxiway lights, pavement marking, and surface restoration. (Approximate Construction Cost: $990,700)

AIRPORT ELECTRICAL VAULT

The existing airfield lighting vault dated back to the original airport construction in the mid-1940s. The vault had been updated over the years but was still powered by a 2400-volt primary system. The existing airfield lighting controls at the Air Traffic Control Tower (ATCT) were operated with a push-button system and back lighted facsimile screen. ***The new vault was designed around a 480-volt power system with the latest technology constant current regulators.*** The control system is a computer-operated lighting control and monitoring system with touch screen control units in ATCT and new vault. The interface between is a fiber optic system running between the electrical vault, airport terminal and ATCT. Included in this project was replacement of terminal apron flood lighting system with new poles, bullhorns, and 1,000-watt metal halide light fixtures. Also included in this project was installation of surface-painted runway hold markings for the airfield. (Approximate Construction Cost: $890,000)

RUNWAY 18/36 REHABILITATION

AECOM ***prepared plans, specifications, cost estimates, a DBE program, and provided construction-related services for the rehabilitation of Runway 18/36.*** The runway is 150 feet wide and 7,000 feet long. The design of the project was to accommodate a mixed fleet of aircraft that use the Waterloo Regional Airport, which included charter carriers and anticipated scheduled air carrier flights using MD-83 aircraft or equivalent. The project was to include the milling of the asphalt surface and "whitetopping" of the runway. The runway surface was in fair to poor condition prior to this project. After evaluation of the runway surface, it was determined that milling of the surface to remove the top two lifts of asphalt and then the construction of a new 9-inch-thick PCC pavement "whitetopping" was the best solution for extending the design life of this runway. The milling of the existing surface was done to grade so that a uniform overlay could be installed. A 1-inch separation layer was placed on the top of the milled surface prior to PCC paving. The intersection of Runway 18/36 and Runway 12/30 was maintained with asphalt transitions from this runway intersection to the ends of the "whitetopping." The transition sections were lengthy because the surface of the new PCC pavement was approximately 6 inches higher than the original profile. To meet the FAA runway gradient criteria, the transitions had to be extended a significant distance. The project also included storm sewer improvements, subdrain installation at the pavement edges, new runway lighting and signage systems, runway grooving, marking, grading and surface restoration. The project was funded with a combination of AIP funds and ARRA funds. The middle portion of the runway was rehabilitated with an asphalt transition section. (Approximate Construction Cost: $3,155,500)

TERMINAL APRON RECONSTRUCTION

AECOM ***prepared plans, specifications, cost estimates, DBE goals, and provided contract administration for the reconstruction of the Terminal Apron – Phase 3.*** This is a continuation of a phased replacement of the terminal apron originally constructed with Portland Cement Concrete in 1971. The area had been patched and the joints had been resealed, along with regular maintenance since the original construction. The area was severely "D-cracked"; and as a result, reconstruction was determined to be the most cost-effective rehabilitation solution. The project involved removal of the original pavement, excavation, placement of a recycled crushed granular base material, and construction of a new 13-inch Portland Cement Concrete pavement. The project had to be phased to maintain scheduled air service. The project area was marked for the taxiway, non-movement areas, and aircraft parking positions. (Approximate Construction Cost: $306,000)

GENERAL AVIATION APRON AND TAXILANES

AECOM has ***performed design and construction-related services for two phases of the general aviation apron and taxilanes at the Waterloo Regional Airport.*** The project involved the replacement of the existing general aviation apron area west of the terminal building with new Portland Cement Concrete pavement. The work involved in the

project included pavement removal, excavation and grading, storm sewer improvements, installation of granular base material, the placement of approximately 5,700 square yards of 9-inch pavement and approximately 8,500 square yards of 6-inch pavement, and the marking of the new pavement. The project was separated into two phases to accommodate the federal funding limitations. The project provides new aircraft parking for itinerant aircraft, and access to the maintenance building, a 10-bay T-hangar, and a large corporate hangar. Also included in the project was relocation of water lines, installation of telephone lines, relocation of a gas line, and relocation of electrical service lines associated with the buildings within the apron area. AECOM prepared plans, specifications, cost estimates and provided contract administration for each phase. (Approximate Construction Cost: $1,0406,500)

SNOW REMOVAL EQUIPMENT (SRE) ACQUISITION

AECOM ***prepared bid documents for acquisition of several pieces of snow removal equipment***, including 1) high-speed 4x4 snowplow vehicle with front-mounted snow sweeper and air blast system, 2) aircraft de-icing vehicle that is self-contained with aerial boom that extends 33 feet up and capable of de-icing a regional jet, 3) high-speed 4x4 snowplow vehicle with forward-mounted cab with front-mounted 20-foot displacement snowplow and 5.6 cubic yard material spreader box, and 4) 175 hp ramp tractor with

front-mounted, 11-foot displacement snowplow. The snow removal equipment acquired was specified in accordance with FAA guidance specifications, had been identified as needed by the owner, and met FAA requirements for SRE equipment. (Approximate Construction Cost: $918,000)

IOWA DOT VERTICAL INFRASTRUCTURE IMPROVEMENTS

AECOM ***provided design and construction services for a number of projects funded by the Iowa DOT Vertical Infrastructure Improvements program.*** This program is an annual program funded by the State of Iowa. Waterloo Regional Airport has used these funds to provide improvements to the following projects. All projects had approximate costs of $100,000 to match available Iowa DOT Commercial Service Vertical Infrastructure funding.

- Provide New Windows in Livingston Maintenance Hangar
- Exterior Painting of Livingston Maintenance Hangar
- Exterior Painting of Bulk Hangar #5
- Exterior Painting of Bulk Hangars #1 and #2
- Exterior Painting of SRE Building
- Replace T-Hangar Bi-Fold Doors
- Replace Siding and Roofing on T-Hangar
- SRE Building Roof Repairs
- Provide New Windows in GA Terminal
- Upgrade Generator to Meet EPA Requirements
- Repair T-Hangar B Siding and Doors
- Replace Bag Make-Up Door
- Fix Leaking Through Hangar #4 South Wall
- Install New HVAC System in GA Terminal

c) Ability to Meet Schedule Within Budget / Quality of Previous Work

AECOM prides itself in the ability to provide quality services for its clients. To achieve this goal, our staff focuses on the needs of the client, the regulatory requirements, sound design practices, preparation of professionally completed bid documents, accurate data gathering, accurate layout in the field, observation and testing during construction, and open communication with the client, users, public and construction contractors.

For AECOM, quality assurance does not simply consist of final checking the product before each submittal, but rather consists of an ongoing process that runs throughout the life of the project. Our quality system is based upon the identification of requirements for each work element of a project. This system focuses on prevention rather than correction. We look at appraisal systems to identify problems and eliminate the opportunity for errors. The system is based on planning, communication, and proofing. Our goal is to obtain zero defects -- in other words, meet all of the requirements every time.

To convey our success in achieving our goal to provide quality services, we present the noted information for your review in the following sections.

- *Ability to Meet Schedules Within Allocated Budget.* Maintaining the project schedule and developing project documents that satisfy the project needs within the funds available is extremely important to every Client. This section discusses how we achieve the goals in an airport setting and presents a recent relevant example.

  The ability to meet schedules and budget relates to multiple areas of project development. Not only must the design development be maintained on schedule within its negotiated scope and budget, but also the plans and specifications must be developed in a manner to allow the construction contractor to maintain adequate phasing within the project to meet the schedule. This is especially important when working in the environment of an active airport operation. Clear development of plans allows the Client to receive competitive bids within the estimated project costs.

  AECOM has the capability to respond quickly, efficiently and within the required timeframe by drawing on our experienced, multi-disciplined staff. Staff assigned to a project are committed through project completion. This allows the project team to be more responsive, both in time and dollar expenditures. Due to full-service, in-house capabilities for a majority of the required expertise, we do not need to accommodate extensive outside scheduling or personnel changes. A proven internal project management system, as well as the latest in engineering technology, allows project development in a timely, cost-effective manner.

  We constantly review our current and projected workload to determine our ability to perform the required services for our airport improvement projects. After completing this backlog review, we assign staff with the availability to complete your project. This provides your project with a priority staffing level that has assigned roles in seeing the project develop to completion.

  RUNWAY 18-36 REHABILITATION, WATERLOO REGIONAL AIRPORT

  - Overall project budget of $5.7 million.
  - Initial evaluation of condition and alternate pavement designs with life-cycle cost analysis.
  - Schedule flexibility to accommodate FAA and Airport reviews.
  - Phasing and construction safety planning to maintain operations at all times.
  - Designed as "Whitetopping" to utilize existing pavement section.
  - AECOM prepared bid documents in less than four (4) months.
  - The project was bid at $4,885,000 and the final construction cost was $4,957,000.

- *Performance Evaluations.* The greatest feedback from any project development comes from the view of the Client. During project development, many challenges must be resolved. At the end of the day, if the Client has a satisfaction level to provide a positive evaluation of your work, explaining the benefits provided to them, the project team knows it has met its number one goal -- ***Client Satisfaction***.

2) Assigned Staff

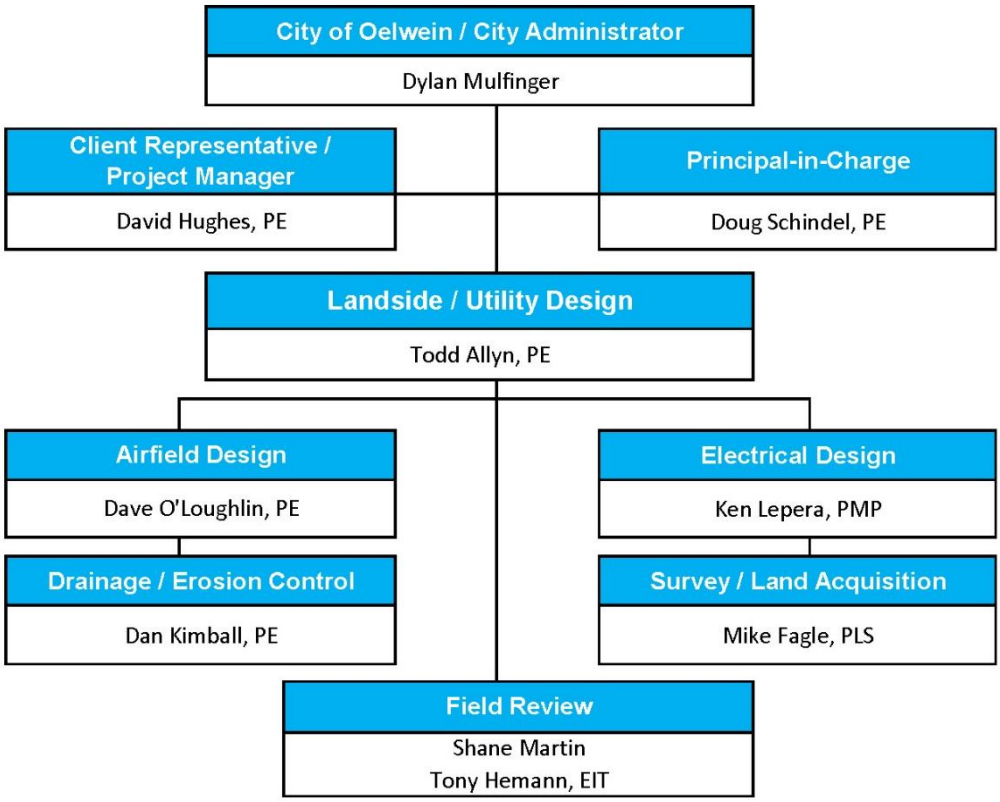
a) Introduction

This section of the Statement of Qualifications provides information about key personnel that will be assigned to your projects. These key personnel have extensive knowledge based on their previous personal experience with varied projects at numerous airport locations. Abbreviated resumes are provided here to demonstrate their knowledge of project development in an airport operation. These staff work as a balanced team to address all of the engineering, planning, coordination, and construction issues throughout project development. They each have experience in their area that specifically relates to the design or special service applicable to the needs of your project. This project team brings the following noted attributes to your project development.

ATTRIBUTES OF THE PROJECT TEAM

- **Specific expertise** in the planning and design aspects of these projects, including:
  - understanding of the FAA design standards and policies,
  - pavement design,
  - drainage evaluation and design,
  - utility coordination needs,
  - environmental assessment preparation and coordination,
  - phasing of construction for access and funding,
  - and public coordination and involvement.
- **Proven experience with developing projects according to FAA design standards.**
- **Successful completion** of similar challenging projects.
- **Team knowledge** developed through a series of successful similar projects.
- **Teammates on a long-term staff** that have built working relationships with **proven results and efficiency.**
- **Available** to commit time and be **responsive** to the project needs.

b) Organizational Chart



c) Resumes

Doug Schindel, PE

Principal-in-Charge
Education: BS / Civil Eng. / South Dakota State University - 1983
Yrs. Exp.: 38
Registration: PE - IA

Doug Schindel, PE, serves as Manager of the Iowa Operations of AECOM, covering the Waterloo and Des Moines, Iowa, offices. In this role, ***Doug is responsible for ensuring staff and other resources are available to complete each and every project, while also completing these projects within budget and on schedule.*** He is quality-minded and personally reviews contractual and scope materials for accuracy and thoroughness. In addition to his managerial duties, Doug is a respected engineer experienced in a variety of project types, with a focus on hydrology and hydraulic analysis.

David B. Hughes, PE

Client Representative / Project Manager
Education: BS / Mining Engineering / Virginia Polytechnic Institute & State Univ. - 1983
Yrs. Exp.: 38
Registration: PE - IA, VA, KY, AL

David Hughes, PE, has 38 years of experience in airport planning and design at numerous airports throughout the United States ***and will serve as the Client Representative and Project Manager for the proposed projects.*** His most recent assignment has been the Project Manager and Client Representative for projects at the Waterloo Regional Airport, including the design and construction of both the Reconstruct Taxiway C and Reconstruct Taxiway B South of Runway 18/36 projects. David has completed several Airport Master Plans and Airport Layout Plans, including the Iowa City Airport South Airfield Development Planning Study, and was responsible for the obstruction mapping and identification at the Iowa City Municipal Airport. He was the Client Representative and Lead Design Engineer for the improvements at the Iowa City Municipal Airport, including the rehabilitation and extension of Runway 7/25, the construction of the Runway 7/25 and Runway 12/30 intersection, the construction of a new taxiway parallel to Runway 7/25, and the reconstruction and expansion of the terminal apron. The construction of the parallel taxiway included a remodel and upgrade of the airfield lighting vault. David is currently servicing as Project Manager for several military airfield projects overseas as well.

Todd Allyn, PE

Design Engineer
Education: BS / Civil Eng. / University of Iowa - 1993
Yrs. Exp.: 27
Registration: PE - IA

Todd Allyn, PE, has 27 years of experience in airport, highway and municipal engineering. He will serve as a ***Project Engineer for these projects.*** His airport experience includes serving on the design team for numerous projects at the Iowa City Municipal Airport, including the Intersection of Runway 7/25 and Runway 12/30, the Parallel Taxiway to Runway 7/25, and reconstruction and expansion of the Terminal Apron at the Iowa City Municipal Airport. Todd served as a Project Engineer for the Repair Hot Cargo Pad and Repair Taxiway Bravo Ramp at Wake Island Airfield, as well as several of the airfield improvements at other overseas bases. Todd recently completed the design for the Reconstruct Taxiway B South of Runway 18/36 project at the Waterloo Regional Airport. In addition, he has

served as Project Construction Engineer for several of the projects at the Waterloo Regional Airport, including the construction of a new airfield lighting vault.

Dave O'Loughlin, PE

Design Engineer
Education: BS / Civil Eng. / Iowa State University - 2011
Yrs. Exp.: 12
Registration: PE - IA

Dave O'Loughlin, PE, will serve as a ***Project Engineer for the proposed projects*** at the Oelwein Municipal Airport. He has 12 years of design experience primarily focused on aviation projects. Dave has recently completed the design of the Taxiway B Reconstruction at the Waterloo Regional Airport and designed and modeled the grading for the Jorge Chavez International Airport in Lima, Peru. He previously designed the Oelwein Taxiway Connector Paving project at the Oelwein Municipal Airport and the GA Apron Reconstruction project at the Waterloo Regional Airport. Dave has extensive experience with 3D modeling and CAD software.

Dan Kimball, PE

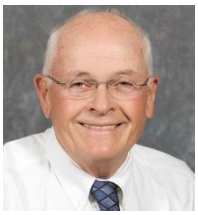
Drainage / Erosion Control Engineer
Education: BS / Civil Eng. / University of Iowa - 2006
Yrs. Exp.: 15
Registration: PE - IA

Dan Kimball, PE, has 15 years of experience in transportation projects. He is a Water Resources Engineer and a certified professional in erosion and sediment control. He is experienced in hydraulic modeling, planning and design of storm water management facilities, preparation of storm water pollution prevention plans, and preparation of permits for both Iowa Department of Natural Resources and the Corps of Engineers. He will provide ***drainage analysis and design of erosion control*** for the upcoming projects. Mr. Kimball's design experience includes numerous urban, rural and airport drainage systems, including the evaluation of the storm water system for the Iowa City Municipal Airport.

Ken Lepera, PMP

Airport Lighting Design
Education: BS / Electrical Eng. / The Pennsylvania State University - 1987
Yrs. Exp.: 32
Registration: PMP - 2015

Ken Lepera, PMP, is a Senior Airport Electrical Engineer who ***will provide airport lighting design services*** necessary for airfield lighting vault modifications, PAPI and REIL installations, and other on-call projects. Ken has 32 years of experience designing airfield lighting systems, airfield signage, NAVAIDS, and airfield power and control equipment. His expertise also includes electrical systems inspection and roadway lighting. He has completed numerous airfield lighting projects, including lighting vault work and PAPI / REIL installation at the following locations: Ocean City Municipal Airport, Ocean City, MD; Baltimore / Washington International Airport, Baltimore, MD; Igor I. Sikorsky Memorial Airport, Bridgeport, CT; Republic Airport, Long Island, NY; Dallas / Fort Worth International Airport, Dallas / Fort Worth, TX; Garrett County Airport, Garrett County, MD; and Cambridge Dorchester Airport, MD.



Mike Fagle, PLS

Survey and Land Acquisition
Yrs. Exp.: 59
Registration: PLS - IA, KS, AZ

Michael Fagle, PLS, will ***provide supervision for land and design surveying*** for the projects at the Oelwein Municipal Airport. Mr. Fagle has more than 50 years of surveying experience, including data collection, right-of-way survey, plat and description preparation, and construction layout staking. He has training in FAA safety, security clearance, communication protocol and construction project documentation. Mr. Fagle has conducted surveys at the Oelwein Municipal Airport and is very knowledgeable of right-of-way monuments, horizontal and vertical control points and runway clearance obstructions. Mr. Fagle is trained in electronic data gathering techniques to accurately and efficiently collect and transmit field data. He has worked in airport operations at Waterloo Regional Airport, Iowa City Municipal Airport, Oelwein Municipal Airport, Andrews Air Force Base, Des Moines International Airport, Ames Municipal Airport, Keokuk Municipal Airport, Dubuque Regional Airport, Fort Wayne International Airport, Capital City Airport in Lansing, Michigan, Indianapolis International Airport, and Nebraska Air National Guard Base at Lincoln Municipal Airport.

Shane Martin

Construction Field Review
Yrs. Exp.: 15 (Military 13 / National Guard Ongoing)
DOT Certs.: Agg Tech, Erosion Basics, PCC 1, Nuclear Gauge

Tony Hemann, EIT

Construction Field Review
Education: BS / Civil Eng. / University of Iowa - 2018
Yrs. Exp.: 3
Registration: EIT

Shane Martin and Tony Hemann, EIT, will provide assistance in ***field review during construction*** for the proposed projects. Shane has served as the Resident Project Representative for several of the AECOM projects at the Iowa City Municipal Airport, most recently the Obstruction Removals project. Shane has 2 years of experience with AECOM but brings 13 years of military service to draw upon.

Tony has 3 years of experience in on-site review of construction projects, including the Grading and Paving of the Connector Taxiway project at the Oelwein Municipal Airport and the Reconstruction of Taxiway B South of Runway 18/36 at the Waterloo Regional Airport. Tony has a Civil Engineering degree from the University of Iowa, which he utilizes during his construction review tasks. Both Shane and Tony are trained in FAA safety, security clearance, communication protocols, materials testing and construction documentation.

Through involvement in these many and varied projects, ***AECOM staff have developed individual knowledge and understanding of the FAA requirements and procedures***. The project team has knowledge, current information regarding the airfield and its latest projects, and is readily available to benefit the project development at the Oelwein Municipal Airport.

SECTION IV
Familiarity With Oelwein Airport

IV. Familiarity with Oelwein Airport

1) Understanding OLZ Airport

In this section of our qualifications, we wish to demonstrate the magnitude of our experience with the Oelwein Municipal Airport. Our staff has extensive, first-hand experience in working on surveying, design, special services, construction phase review, testing and administration of projects at the airport, as listed below.

This previous knowledge provides the City of Oelwein with many benefits that can be utilized in providing the services to meet the needs of your projects. Some of those benefits are noted in the table to the right.

BENEFITS

- Working knowledge of airport operations.
- No learning curve needed to start work.
- Airport site information readily available.
- Previous project history enhances solutions on new projects.
- Familiarity with regulatory and funding agencies' procedures, requirements and staff.
- Know the strengths and weaknesses of existing infrastructure.
- Understand the impact of design solutions for a given project on remainder of the infrastructure.

AECOM and its previous entities have been involved with projects at the Oelwein Municipal Airport for 30 years. Most of these projects involved Federal Aviation Administration funding. Involvement in these projects demonstrates AECOM's ability to meet the required Federal provisions, including those listed in your Request for Qualifications, and also demonstrates development of a working relationship with staff and procedures of the local, state and federal regulatory and funding agencies involved.

Our involvement with the Oelwein Municipal Airport dates back to 1991 when we designed the "whitetopping" of the existing runway and taxiway. This project involved construction of a 5-inch Portland Cement Concrete overlay of the existing runway and taxiway pavement. As part of the project, an edge subdrain system was installed and grading along the pavement edges was completed. The existing stake-mounted runway and taxiway edge lights were adjusted to match the new pavement edges, but the lighting fixtures were not replaced. This project was constructed in 1992 with Iowa Department of Transportation funding.

Since this original project, AECOM has been involved in projects at the Oelwein Municipal Airport that have been funded with Federal Aviation Administration (FAA) funding. These projects include:

- Rehabilitation of Taxilanes, Entrance Road and Vehicle Parking Area
- Joint and Crack Cleaning and Sealing on Runway 13/31
- Acquisition of Bi-Directional Tractor with Loader, Snow Blade and Snow Blower
- Re-Marking of Runway 13/31 and Taxiway; Construction of 6-Bay T-Hangar and Paved Taxilanes to Each Side of New T-Hangar
- Design of New Snow Removal Equipment (SRE)/Terminal Building
- Airport Layout Plan Update
- Design of Airport Lighting Rehabilitation
- Construction of Airport Lighting Rehabilitation
- Design of Grading for Connector Taxiway to Runway 13 End
- Construction of Grading for Connector Taxiway to Runway 13 End
- Design of paving for Connector Taxiway to Runway 13 End
- Construction of Paving for Connector Taxiway to Runway 13 End

In addition to the above specific projects, we developed the airport property map, obtained certificate of title opinion from City Attorney, prepared grant applications, developed DBE programs for larger airport projects, and provided documentation necessary for reimbursement of federal funds, all of which are required for federal grant programs.

SECTION V
Approach to Proposed Projects

V. Approach to Proposed Projects

In this section, we wish to demonstrate our understanding of and approach to the proposed projects presented in your Request for Qualifications. The projects included in the Request for Qualifications include projects that have been identified in the 5-year Capital Improvement Program as submitted to the Federal Aviation Administration by the City of Oelwein. These projects include the following:

- Seal Runway, Taxiway and Apron Surfaces and Joints
- Reconstruct or Replace Airport Lighting Vault
- Acquire Snow Removal Equipment
- Extend Runway
- Install Runway Vertical/Visual Guidance System
- Construct Taxiway
- Construct / Modify / Improve / Rehabilitate Hangar

The sealing of the runway, taxiway and apron surfaces and joints is necessary to keep the airfield pavements in useable condition. Initially, this task involves a field survey of the cracks and joints to enable the design staff to quantify the linear feet of crack and joint cleaning and sealing that will be required and determine the severity of the cracking that has occurred in the pavement surface. During this survey, any areas requiring patching will be noted so this work can also be included in the proposed project. AECOM will also survey the existing airfield pavement marking so we can include new marking in the proposed project. Using the field information, AECOM will prepare bid documents for the sealing, pavement repairs/patching and pavement marking. We will also assist in the bidding phase of the project and complete construction-related services, including project close=out with the FAA. *Our staff just completed a joint cleaning and sealing project on the east terminal apron at the Waterloo Regional Airport and also prepared plans for the re-marking of the entire Waterloo Regional Airport.* We will draw on this experience, along with our experience with the previous sealing and marking projects at the Oelwein Municipal Airport, on the pavements in question when preparing plans for this pavement maintenance project.

The reconstruction or replacement of the existing lighting vault will be vital to ensure reliable electrical service to the existing airfield and to increase capacity of the vault to allow for future airfield expansion. The current lighting vault consists of a small storage shed. Some of the equipment was upgraded when the SRE building was constructed and one constant current regulator was replaced during the runway lighting project; however, some of the equipment is old and has been partially abandoned but has not been removed. A new prefabricated building would provide beneficial security and environmental improvements for this lighting system. It would also allow for an upgrade of the vault equipment to ensure everything is up to current electrical code and would allow for the installation of an HVAC system, which would prolong the life of the equipment. AECOM would begin this project by inspecting the existing equipment, analyzing the needs of the current airfield and reviewing the needs of any future expansion. Currently, we anticipate replacing two (2) constant current regulators and the lighting controls system. We would also review the existing site to make sure we match the building size requirements to the current useable space. From there, we will complete in-house electrical, structural, mechanical and civil site design for the new facility. We will also add information in the plans that reflects how the old vault equipment will be disconnected from the system, how the new vault equipment will be located in the vault and energized after installation, and the demolition plans to remove the existing structure and outdated equipment. The construction of the new airfield lighting vault will be staged so that cutover to the new facility would be limited to one daytime outage of the airfield lighting system, having little to no impact on aircraft traffic. AECOM will complete the construction-related services

to ensure the project is constructed in conformance with the plans and specifications and then close-out the project with FAA once it is completed. *AECOM completed the design of a new airfield lighting vault for the Waterloo Regional Airport and modified the existing lighting vault at the Iowa City Municipal Airport. We have the knowledge and expertise to complete the vault work for the Oelwein Municipal Airport.*

AECOM provided the acquisition specifications for the existing snow removal equipment at the Oelwein Municipal Airport approximately 13 years ago. In addition, we have provided the snow removal equipment calculations for the Oelwein Municipal Airport as part of the capital improvement program, and we have provided acquisition specifications for snow removal equipment for several other airports. *We know the FAA requirements and are familiar with their policies on acquisition of snow removal equipment, including the Buy American provisions.* AECOM will ensure the Buy American requirements are met prior to award of the contract so there are no issues with the equipment purchase once a vendor is chosen. We will be able to use our past experience to immediately coordinate with the FAA concerning the acquisition of the upgraded tractor-mounted snow blower and displacement plow and begin timely preparation of the acquisition documents.

The proposed 1,000-foot extension of Runway 13/31 would allow for the ultimate 5,000-foot runway length to be achieved. This increase in length includes a 1,600-foot extension of the Runway 31 end but requires the Runway 13 threshold to be displaced by 600 feet due to obstructions to the approach path created by County Road C50 and County Road W13. This runway extension would allow some larger aircraft to utilize the runway in Oelwein, which would also increase the potential revenue for the facility. AECOM has completed numerous runway projects meeting FAA requirements and will design this project in the same manner. First, we will complete a design survey and create a project base map. Given the current property constraints and potential environmental impacts of the projects, land acquisition and environmental review and permitting will also be required for this project. *We have completed similar tasks on projects at the Waterloo Regional Airport and the Iowa City Municipal Airport and will have no problem assisting the City with the property acquisition, completing an environmental assessment, and preparing the environmental permitting documents for this project.* Once the design starts, we will use the FAARFIELD pavement design software to design pavement alternatives for the extension. We will then complete a life-cycle cost analysis of the proposed pavement alternatives to determine the best design for this project. Once the proposed pavement design is finalized, we will design the runway extension meeting the required FAA criteria. Re-marking of the runway will be required as part of this project since the Runway 13 threshold will be displaced and Runway 31 will be lengthened. *The installation of PAPIs and replacement of the REILs discussed later could be incorporated into this project since both runway thresholds will be moved during construction.* We will then create bid documents that meet FAA requirements and will assist in the bidding phase of the project. Once the project is bid, we will complete the construction-related services for the project to ensure it is built in conformance with the project plans and specifications. We will then complete the close-out process for the project with FAA. AECOM will also update to the current Airport Layout Plan once the project is complete.

The installation of new Precision Path Indicator Lights and the replacement of the existing Runway End Identifier Lights will increase the safety for pilots using the airport by improving their ability to line up for their approaches to the airfield. This work may be incorporated into the runway extension discussed above since both thresholds will be moved during construction and will require the need for new NAVAIDS to be installed. AECOM has installed NAVAIDS on numerous runways across the country. Our staff knows the FAA requirements to site these facilities and are also versed in their electrical requirements. We will complete design drawings using these criteria, as well as FAA project specifications. Once the bidding documents are approved by FAA, we will assist in the bidding process. Our field review staff will then ensure the installation is completed in accordance with the bid documents. Once the installation is completed, we will complete close-out documents and submit them to the FAA for final acceptance.

The Connector Taxiway expansion to the 31 end of Runway 13-31 will provide a safer facility by enabling aircraft to taxi from the 31 end of the runway to the terminal building without having to back taxi on the runway. AECOM has a significant amount of taxiway design experience, including the recent Taxiway C and Taxiway B reconstruction projects at the Waterloo Regional Airport. We will utilize this experience for this project. Initially, we will complete a design survey and base map. *We understand that current users at the Oelwein Municipal Airport are concerned*

about the location of the taxiway extension and its potential conflict with the existing grass runway located north of Runway 31. AECOM will review alternatives for the location of this taxiway to ensure the construction of this project does not adversely affect the existing airport users. Once a final alignment is established for the taxiway extension, our staff will provide alternative pavement designs using FAARFIELD and develop a life-cycle cost analysis to provide a final design that will be approved by FAA and *be cost effective for the City of Oelwein.* During the design, phasing and staging plans will be developed to minimize closures of the runway and the existing taxiway during construction. *The critical element to this work is to minimize the construction time in the intersection areas because of the potential impacts to operations at the Oelwein Municipal Airport.* Once bid documents are completed that are acceptable to the FAA, we will assist in the project bidding phase. We will also complete the construction-related services to ensure the project is completed in conformance with the project plans and specifications. After the project is constructed, we will complete FAA close-out documents and also update the Airport Layout Plan.

The construction of a new 6-bay T-hangar will increase the available hangar space at the airfield, and the potential revenue for the City. This increase in revenue would allow for additional maintenance and expansion work to be completed at the airport. Currently, all hangar space at the Oelwein Municipal Airport is full and there is a waiting list for space at the facility. This new T-hangar could be constructed between the west T-hangars and the terminal building. AECOM has completed numerous T-hangar installations, including the most recent addition at the Oelwein Municipal Airport. The staff understand the requirements for these facilities and *has the in-house expertise to complete the structural, electrical, mechanical and civil site designs for the facility.* We would create plans and specifications that would meet FAA requirements and assist in the bidding phase of the project. We would also complete the construction-related services for the project to ensure it is constructed in conformance with the bid documents. We would then complete the close-out documentation and submit it to the FAA for final acceptance. This project may also include some sheet metal, HVAC and electrical upgrades for the Maintenance Hangar. If the City chooses to incorporate this work, AECOM will coordinate with the FAA to get the appropriate approvals prior to starting design.

These projects are necessary for expansion, growth and safety concerns for the Oelwein Municipal Airport. With this understanding and background, we have identified several considerations for each of the projects and indicated our specific approach on the following pages.

Project Understanding/Approach	Benefit of AECOM
<u>Runway, Taxiway, Apron Seal Surfaces and Joints</u> • Crack and joint sealing necessary to keep pavements in useable condition. • Project will include any necessary patching and will re-mark the entire airfield.	• Completed joint sealing and re-marking project previously on these existing pavements. • Just completed similar work at the Waterloo Regional Airport. • Have working knowledge of specifications, materials, details, and field installation requirements. • Have developed standard patching details to repair spalled pavement areas.
<u>Reconstruct or Replace Airport Lighting Vault</u> • Airfield electrical service updated as part of SRE Building, but part of the distribution system is still original and needs to be updated. • Existing electrical vault is a small storage shed. New vault building would provide beneficial security and HVAC improvements. • Existing vault equipment is partially abandoned but has not been removed. • Elements of distribution system need to be upgraded to meet current Code and safety requirements.	• Have history with the electrical distribution system for this airport. • Provided partial upgrade as part of Alliant Energy service installed with SRE/Terminal Building and replaced a Constant Current Regulator (CCR) with the runway lighting project. • Know airfield lighting vault requirements and have working knowledge of the past project work. • Have experience working with utility company and designing vault work for airports at Iowa City and Waterloo.

<u>Acquire Snow Removal Equipment</u> • Existing snow removal equipment (tractor with loader, blade and blower) is city owned and was purchased through the FAA AIP program. • Oelwein is eligible for funding for snow removal equipment, and replacement of the snow blower attachment and plow attachment is needed.	• Provided bid documents for previous snow removal equipment acquisition for Oelwein Airport. • Provided acquisition documents for ARFF Vehicle, snowplow, snow sweeper, snow blower, ramp tractor, and end loader at Waterloo within the FAA Central Region. • Experienced in FAA requirements for justification of equipment and specification documents for equipment, including Buy American clause.
<u>Extend Runway</u> • Runway extension will upgrade runway to a 5,000-foot-long facility and allow larger planes to utilize the airfield. • Extension must be completed prior to installation of new REILs and PAPIs and the construction of the Connector Taxiway to the Runway 31 end. • Project will require multi-year FAA funding to complete. • Project could be constructed in separate grading and paving projects to meet funding constraints.	• Completed design of original runway "whitetopping" and subdrain system. • Familiar with FAA design standards and requirements. • Familiar with existing conditions of airport so there will be no delays due to surprises during construction. • Completed property acquisitions and environmental review and permitting on similar projects in Waterloo and Iowa City. • Project would only progress based on airport needs. Current traffic does not justify the runway extension.
<u>Install Runway Vertical / Visual Guidance System</u> • REILs are old and in need of replacement with equipment meeting current FAA lighting criteria. • Addition of PAPIs will increase safety for pilots using airfield. • Installation of NAVAIDS may be incorporated into the runway extension noted above.	• Completed similar NAVAID installations at numerous locations across the country. • Experienced in FAA siting criteria and electrical requirements of NAVAIDS
<u>Construct Taxiway</u> • Taxiway extensions will increase safety for users by allowing planes to taxi to the terminal from Runway 31 without having to back taxi on the runway. • Project will require multi-year FAA funding to complete. • Project could be constructed in separate grading and paving projects to meet funding constraints.	• Provided preliminary design and cost estimates for parallel connector taxiway section. • Familiar with FAA design standards and requirements. • Have experience in construction phasing to keep runway open to air traffic, specifically for aerial spraying operations during summer months. • Understand current user needs at the airfield and will consider these when setting the alignment for the proposed taxiway extension to allow for construction on the southern side of the runway instead of the northern to eliminate potential impacts to the existing grass runway.
<u>Construct / Modify / Improve / Rehabilitate Hangar</u> • All hangar space currently full at the airport. • Currently, there is space available west of the terminal building for T-hangar installation. • Maintenance hangar needs upgrades that could be completed as part of this project.	• Completed last T-hangar const4ruction at the Oelwein Municipal Airport. • Familiar with design standards and requirements for these facilities. • Have in-house staff that can complete all required design elements. • Have knowledge of the existing Maintenance Hangar which will make design of upgrades to this facility easier to complete.

SECTION VI

Disadvantaged Business Enterprise Participation

VI. Disadvantaged Business Enterprise Participation

AECOM recognizes that the City of Oelwein will have to develop a DBE Plan for some of the projects. The DBE goals are established based on the current capacity of DBEs in the local area and the type of work that is expected in each project. The goals are set for not only construction but engineering services. AECOM will assist the City in reviewing the DBE participation goals for each project.

AECOM has long been an advocate of teaming with and fostering meaningful relationships with DBE firms on its projects. AECOM often exceeds client DBE goals and is proud to have been honored with multiple awards and recognition within the industry.

AECOM supports the federal DBE program and will meet goals that are established for engineering services for the federally funded projects, utilizing firms that are listed in the Iowa DOT DBE directory current at the time an engineering services agreement is entered into. We have past and present relationships with the following certified DBE firms:

- LT Leon Associates, Inc.
- Robinson Engineering Company, Inc.
- Tallgrass Historians, LC

SECTION VII
Current Workload

VII. Current Workload

We have carefully reviewed our existing and anticipated workload and have determined that we can meet the expectations for staffing and responsiveness for your projects. Our large staff and in-house capabilities allow AECOM the flexibility to address the fluctuations in demand for our services. To meet your intermediate deadlines and deliverables, AECOM has a large quality resource pool to draw upon.

This section documents our current and anticipated backlog, upcoming schedules and capacity to complete new projects. Some of the key factors include the following:

1. Our project manager, *David Hughes, PE,* will have availability for the projects in this request. ***David can commit up to 100% of his time, when required, toward the upcoming projects at the Oelwein Municipal Airport.***
2. Our experience with airport design projects involving FAA funding gives us communication and organizational skills to schedule and complete these projects. These skills will be necessary to meet peak load requirements.
3. We have reviewed the backlog and schedules of our existing projects. We are confident that our design team can meet the needs of the Oelwein Municipal Airport.
4. AECOM maintains a staff of highly qualified resident project representatives that are familiar with FAA requirements. We have reviewed anticipated workload for the next construction season and have the staff availability to provide a resident project representative during the construction phases for these projects.

Based on the above assessment, we are able to commit the team members listed in our submittal. This team will be available for the Oelwein Municipal Airport on a priority basis according to your schedule requirements on each project.

We understand that this program will require both flexibility and responsiveness in our staffing levels, and we are committed to assigning our personnel accordingly. Based on our current workload and outlook, we will be able to assign additional resources, as needed, to meet intermediate and final scheduling and peak load requirements.

SECTION VIII
Benefits of AECOM

VIII. Benefits of AECOM

We are confident that the AECOM team will continue to provide the Oelwein Municipal Airport with exceptional service and qualifications, as well as the most knowledgeable and responsive team for the upcoming 5-year engineering agreement. Some of the major benefits of the AECOM team include:

UNIQUE, NATIONALLY-QUALIFIED TEAM

AECOM has a wealth of proven experience at large airports throughout the United States. These experts are a phone call away, if needed. ***Combined with our local Iowa presence and Oelwein Municipal Airport experience, our team provides outstanding qualifications to design the projects identified in the Request for Qualifications.***

PROJECT UNDERSTANDING

Past experience gained from working with the Oelwein Municipal Airport on the projects outlined in the previous section will be a major benefit to being able to provide quality services for the upcoming projects. As a result of our previous work, our project team will be efficient and will not overlook important details gained from the knowledge of our previous projects. No learning curve will be required, and our project team will be able to "hit the ground running."

FAMILIARITY WITH FAA STANDARDS AND FUNDING

The AECOM Team is extremely familiar with the FAA staff in the Central Region, in addition to their requirements, procedures and policies. ***Our extensive background in airport projects in Iowa and the nation gives our team the resources and confidence needed to tackle any assignment under the current 5-year CIP.***

QUALITY CONTROL

AECOM's serious commitment to quality control results in thorough checking and documentation of all deliverables and design activities. Our ISO-9001 certification process gives us the tools to implement and track our QC activities, and AECOM's experts bring the experience needed to competently perform our work. ***We are committed to delivering quality designs which will avoid surprises and difficulties during construction.***

KNOWLEDGE OF EXISTING INFRASTRUCTURE

Over the past several years, our project team has developed a knowledge of the strengths and weaknesses of the Oelwein Municipal Airport airfield infrastructure that will prove invaluable as additional projects are developed in the upcoming 5-year program. This is a ***tremendous advantage when developing a project and will lead to efficiencies during the design of the projects.***

CONSTRUCTIBLE SOLUTIONS

Construction staging and maintaining airfield operations during construction are extremely important to users of the airport. Our Project Team is familiar with operations of the airfield and is able to phase construction to maintain operations when possible. ***Our Project Manager has a good working relationship with City staff to avoid surprises.***

COMMITMENT AND RESPONSIVENESS

The AECOM Project Manager and entire team are committed to providing quality services to the Oelwein Municipal Airport. The AECOM team will bring the skills and experience we have described, along with a ***continued personal commitment to your project.*** The team will be responsive to your needs throughout the project, flexible in adjusting to your input and comments, and professionally competent in providing information you can trust. ***Our entire team is enthusiastic, available, and ready to make your project a success.***

SUMMARY

AECOM has provided quality aviation engineering services to our Iowa airport clients for nearly 50 years. The results are proven in many successful projects which are constructible, cost effective and sensitive to the environment. We are committed to continuing to provide the same quality services on your projects.

The entire AECOM team would greatly appreciate the opportunity to continue serving the Oelwein Municipal Airport.