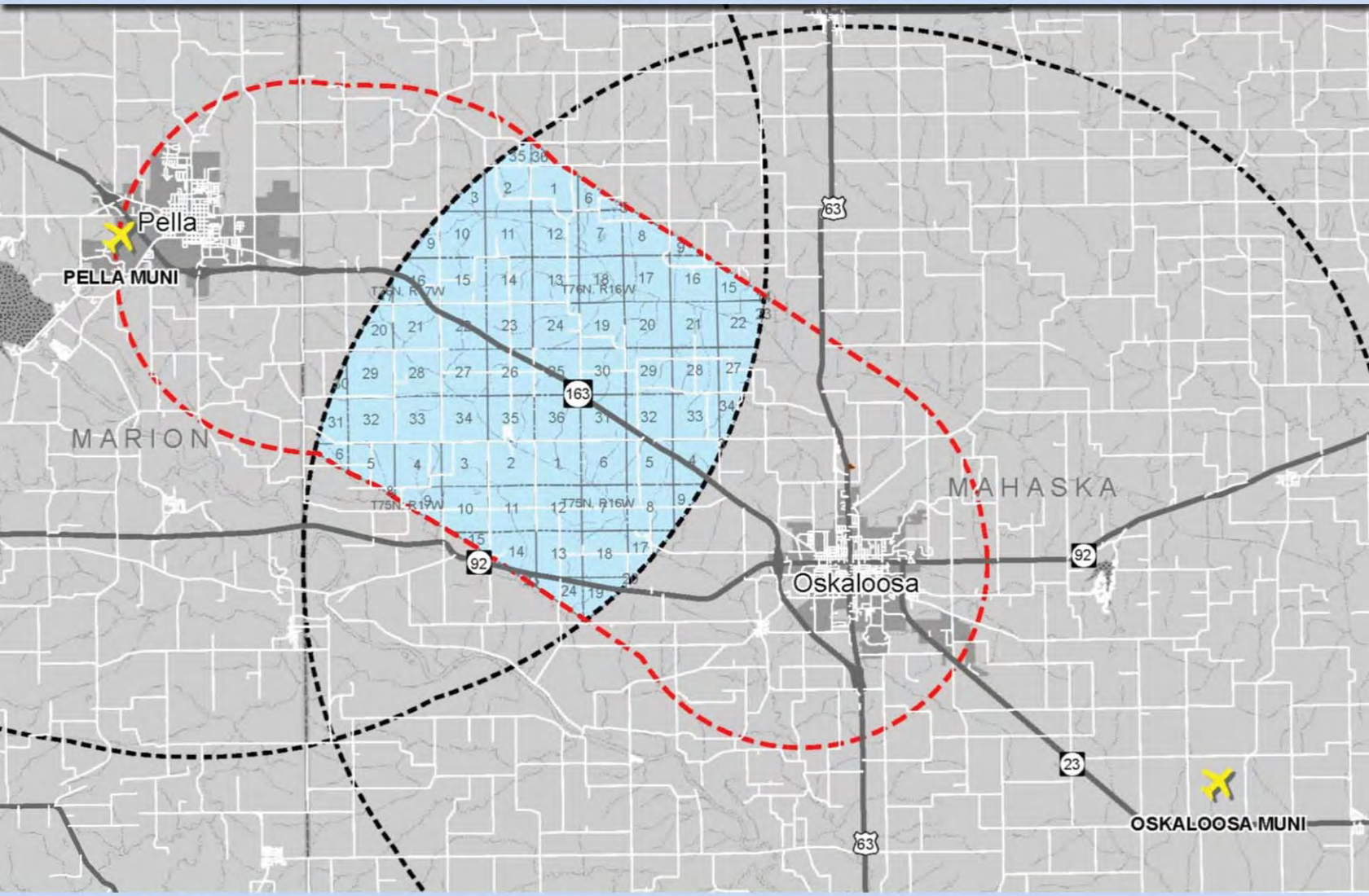
QUALIFICATIONS & EXPERIENCE

SOUTH CENTRAL REGIONAL AIRPORT AGENCY (SCRAA)



REGIONAL CLASS C AIRPORT FACILITY

JULY 6, 2012

aerometric

GARDEN & ASSOC.

LT LEON ASSOCIATES·INC

SNYDER & ASSOCIATES
Engineers and Planners

INTRODUCTION

Snyder & Associates, Inc. is pleased to submit this Statement of Qualifications to provide airport services related to the development of a regional class C airport. The Request for Qualifications issued by the South Central Regional Airport Agency (SCRAA) sets forth the following objectives:

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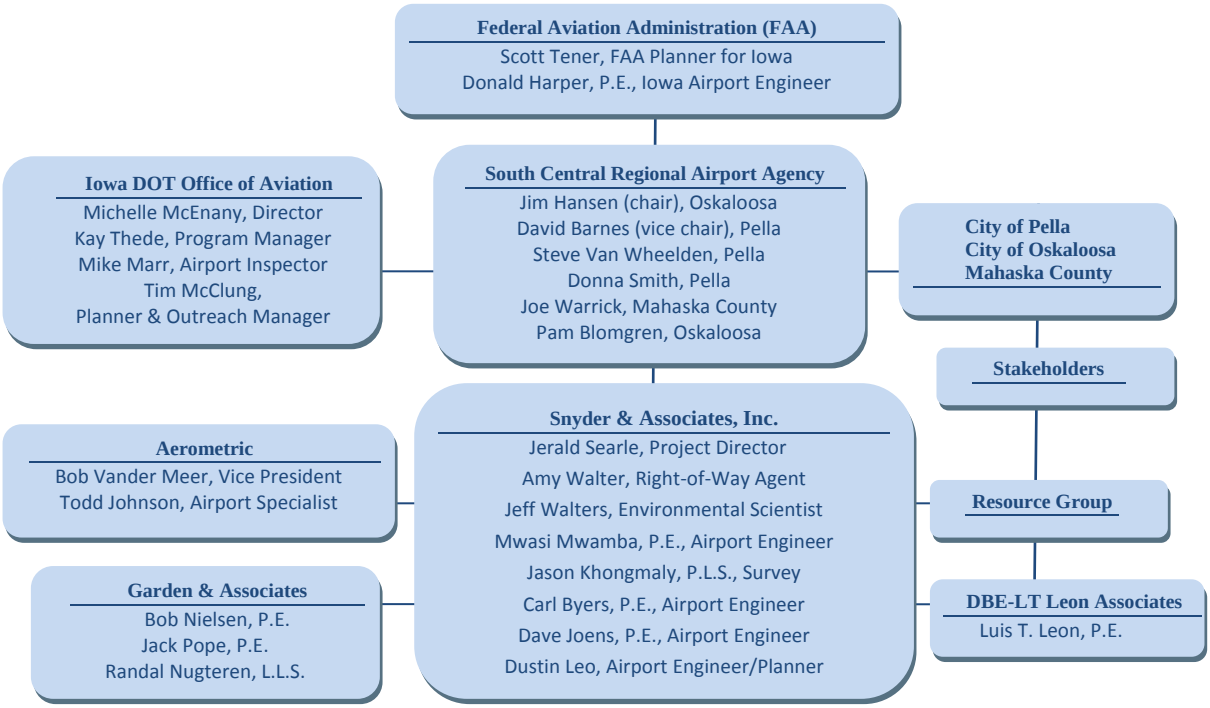
- Airport Site Selection
- Airport Layout Plan and Narrative/Master Plan
- Environmental Documentation and Mitigation
- Land Acquisition
- Preliminary and final design associated with the construction of runways, taxiways, aprons, landing and navigational aids.
- Preliminary and final design associated with the construction of aircraft storage facilities, fuel facilities, utilities, vehicle access and parking facilities, terminal building and other landside infrastructure improvements
- Obstruction mitigation

ORGANIZATIONAL STRUCTURE

Snyder & Associates, Inc. has assembled a team of highly qualified professionals to provide the SCRAA with the technical expertise and public relations experience required to successfully complete the above referenced proejcts.

The following organizational chart depicts how the team will interact with the governing bodies and stakeholders.



SNYDER & ASSOCIATES, INC.

Snyder & Associates, Inc. was founded in 1977 with the goal of being a consulting firm that provides comprehensive engineering, environmental and planning services. The firm has developed expertise in complex transportation projects and has considerable experience in airside and landside improvements at airports throughout the Midwest. Snyder & Associates, Inc. has established a track record of project success based on the ability to recognize key elements and assign the most qualified staff to complete each project. As a result of strong goal oriented leadership on the part of the ownership of Snyder & Associates, Inc. and through retention of quality individuals at key positions within the organization, the firm continues to expand its service area. The firm maintains office locations in Ankeny, Council Bluffs, Atlantic, and Cedar Rapids, Iowa, St. Joseph and Maryville, Missouri, Omaha, Nebraska, Madison, Wisconsin and Sioux Falls, South Dakota.

Corporate Office
2727 SW Snyder Blvd.
Ankeny, IA 50023
Telephone: 515-964-2020
Fax: 515-964-7938

The designated Snyder & Associates, Inc. staff for this project is supported by nearly 220 full time employees, which include over 60 engineers, 8 environmental planners, 10 landscape architects, 8 licensed land surveyors with field support, 3 right-of-way specialists, and over 40 CADD technicians.

The proposed professional services offered by Snyder & Associates, Inc. will be provided through the specialized Aviation Services Group located in the Ankeny office at 2727 SW Snyder Boulevard.

Snyder & Associates, Inc. utilizes MICROSTATION which provides three-dimensional computer-aided drafting and design (CADD) capability for all types of projects. The Snyder & Associates, Inc. team will perform all design functions using state of the art software. This includes GEOPAK for designing taxiways, aprons, runways, and other transportation infrastructure, StormCAD for designing storm sewer networks, and ArcGIS for geospatial analyses and map production.

Snyder & Associates, Inc. has adopted a non-discrimination/affirmative action policy. The firm will make an effort to include targeted small business and disadvantaged business enterprise (DBE) qualified persons. To complement and satisfy federal DBE requirements, Snyder & Associates has invited the participation of LT Leon Associates, Inc. In addition to LT Leon Associates, Inc. (DBE), we have invited the participation of AeroMetric (page 4) and Garden & Associates, LTD (Page 6).

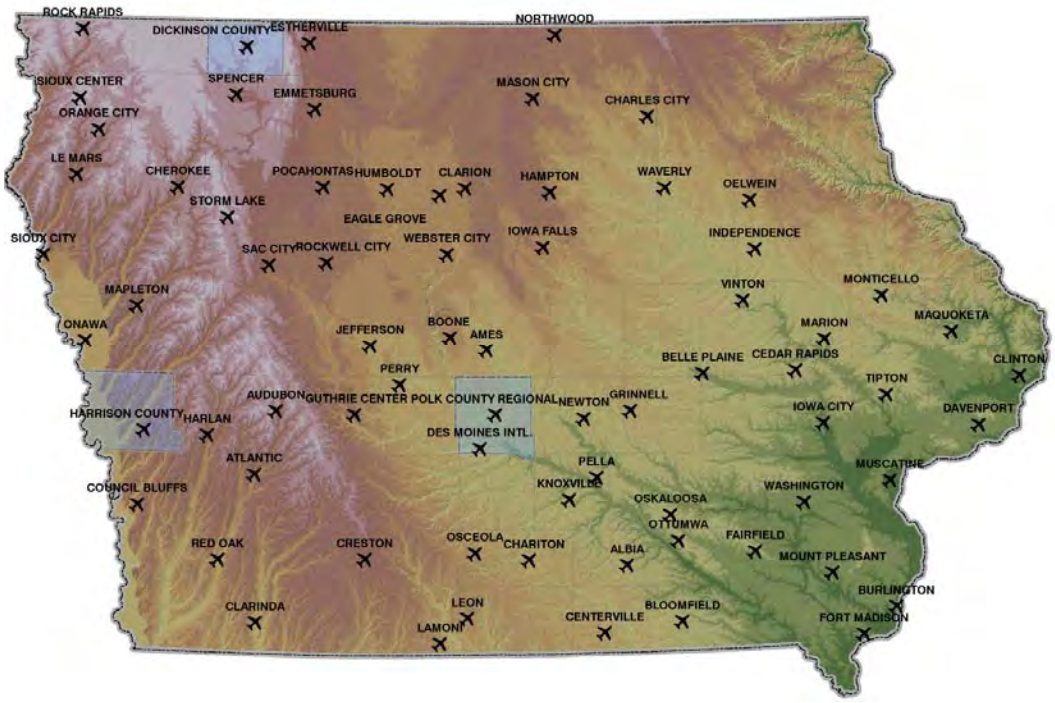
Our Aviation Service Group also includes supporting staff members that specialize in environmental assessments, and land acquisition and relocation services.

Our Aviation Services Group staff has completed projects in Iowa, Missouri, South Dakota, Wyoming and Colorado. Snyder & Associates, Inc. has an abundance of experience in performing the tasks associated with development.

Airport Site Selection
Benefit/Cost Analysis
Environmental Documentation (CE,EA,EIS Phase I ESA)
Land Acquisition/Relocations
Construction Observation
Construction Management

Airport Master Plans
Airport Layout Plans
Survey (land, topographic, obstruction)
Preliminary Field Design (plans, specifications, bid documents)

Snyder & Associates, Inc. Aviation Services Group
Staff Project Experience-Airport Engineering & Planning



The Aviation Service Group within Snyder & Associates, Inc. has completed within the past three (3) years projects at the airport locations listed below:

- Pella
- Ankeny
- Council Bluffs
- Jefferson
- Fort Madison
- Perry
- Boone
- Clarion
- Rockwell City
- Sioux County
- Storm Lake
- Davenport
- Guthrie County
- Tipton
- Sac City
- Cherokee
- Atlantic
- Clarinda
- Monticello
- Maquoketa
- Burlington

Specific project experience by key staff is referenced on each individual resume. All of the above referenced projects (21) have received federal assistance under the FAA Airport Improvement Program (AIP). In addition to federal assistance seven of the airports have received assistance from the Iowa Department of Transportation.

AEROMETRIC

HEADQUARTERS

Sheboygan, Wisconsin

REGIONAL OFFICES

Anchorage, AK
Dulles, Virginia
Minneapolis, Minnesota
Seattle, Washington

SATELLITE OFFICES

Easton, Maryland
Albuquerque, New Mexico
Pittsburgh, Pennsylvania
Tulsa, Oklahoma
Overland Park, Kansas
Lake Oswego, Oregon
Apollo Beach, Florida
Madison, Alabama
Virginia Beach, Virginia
Buffalo, New York

BACKGROUND

AeroMetric, founded in 1969, is one of the nation's largest and most experienced full-service geospatial firms. AeroMetric provides comprehensive aerial mapping and GIS services including state-of-the-art photogrammetric, lidar, satellite, airborne imaging, and mapping technology. Our client base includes a host of airport authorities; local, county, state, regional, and federal agencies; and many of the top engineering and industrial firms in North America. We have completed projects in all 50 states and in over 30 foreign countries.

STAFF AND LOCATIONS

AeroMetric's staff of 270 personnel includes certified and licensed photogrammetrists, lidar specialists, professional engineers, licensed surveyors, image processing specialists, GIS specialists, CADD designers, and image analysts. As a corporation, we strive to provide a healthy work environment where our staff is continually challenged and offer an atmosphere for professional growth and development.

Headquartered in Sheboygan, Wisconsin is also one of our production facilities. Other production facilities are in Seattle, Washington; Dulles, Virginia; Maple Grove, Minnesota; and Anchorage, Alaska. We also have additional offices throughout the United States.

EQUIPMENT

As a full-service geospatial firm, AeroMetric has an extensive variety of equipment. Our in-house equipment includes:

- 8 airborne GPS-equipped mapping aircraft
- 3 Z/I Imaging Digital Mapping Cameras (DMCs), 5 Zeiss RMK-TOP cameras, 4 Zeiss RMK-A cameras, and 4 Jena LMK cameras
- 2 Optech ALTM Gemini lidar sensors
- 2 fully equipped photographic laboratories, with enlarger sizes up to 40" x 60
- 4 precision photogrammetric scanners
- Z/I Imaging Post Processing System for DMC imagery
- 40+ soft-copy compilation and aerotriangulation workstations with software from INPHO, Z/I Imaging (ImageStation suite), BAE (SOCET SET), and DAT/EM (Summit Evolution)
- 10+ analytical stereoplotters with software from Boeing Autometric (SoftPlotter) and DAT/EM
- 40+ orthophoto, remote sensing, and image processing workstations with software from Z/I Imaging (ImageStation suite), INPHO, PCI Geomatics, ERDAS, Geographic Imager, and Adobe (Photoshop)
- 15+ lidar processing workstations with software from GeoCue and Terrasolid (TerraScan)
- Internal gigabit network infrastructure with over 120 TB of storage capacity for active projects
- 30+ GIS and CADD workstations with software from ESRI (ArcGIS), Intergraph (GeoMedia), Global Mapper, Bentley (Microstation), and Autodesk (AutoCAD)

AIRPORT MAPPING SOLUTIONS

Over the past 20 years, AeroMetric has provided airport mapping solutions to some of the busiest facilities in the country, U.S. military bases, and small municipal-owned and university-owned airports. AeroMetric's airport mapping services include three main service specialties:

- **Base and facilities mapping:** AeroMetric supports airport planners, design-and-build engineers, and facilities managers with high-accuracy mapping and aerial imagery such as electronic Airport Layout Plans (eALPs). Our staff is continuously learning and implementing the newest Federal Aviation Administration (FAA) standards.
- **Obstruction surveys:** AeroMetric applies a consistent methodology to locating and mapping any feature that may pose an obstruction hazard to approaching or departing aircraft. For a typical facility mapping project, the solution consists of color aerial photography and preparation of skeleton maps by planimetric procedures to measure positions and elevations of obstructing or near-obstructing objects such as tree tops, structures, antennas, and utility poles.

AeroMetric offers a comprehensive selection of mapping and geospatial services, including:

- Imaging and Elevation Data Acquisition
- Photogrammetry
- Surface Modeling
- Geographic Information Systems (GIS)
- Remote Sensing
- Simulation
- Program Management

GARDEN & ASSOCIATES, LTD

OFFICE

1701 3rd Avenue E, Suite 1, PO Box 451
Oskaloosa, IA 52577

Garden & Associates, Ltd., with offices in Oskaloosa and Creston, Iowa, was founded in 1948 to serve the engineering and land surveying needs of public entities and private interests within Iowa. With more than 60 years of service, G&A continues to provide their clients with assistance in water treatment and distribution, wastewater collection and treatment, street and airport construction and renovation, storm water management, land surveying, and residential, commercial and industrial developments, in addition to a variety of specialty projects. Services include performing engineering investigations, reviewing utility rates and identifying sources of project financing, completing engineering designs, construction management and inspection, and lending guidance with the operation, maintenance and rehabilitation of facilities and infrastructure.

Garden & Associates has a long established reputation of working with clients to identify and develop an approach that is practical and based on sound engineering principles. Our engineers and land surveyors possess a wide range of project experience with company owners working directly with clients to provide high quality services, including airport facility improvements.

- Construction Observation/Management
- Vertical Infrastructure Design
- Landside Improvements (access roads, parking, drainage, pavement marking)
- Land Acquisition Plats
- Survey Control, Construction Staking
- Utility Infrastructure

LT LEON & ASSOCIATES, INC.

OFFICE

500 East Locust Street, Suite 400
Des Moines, Iowa 50309

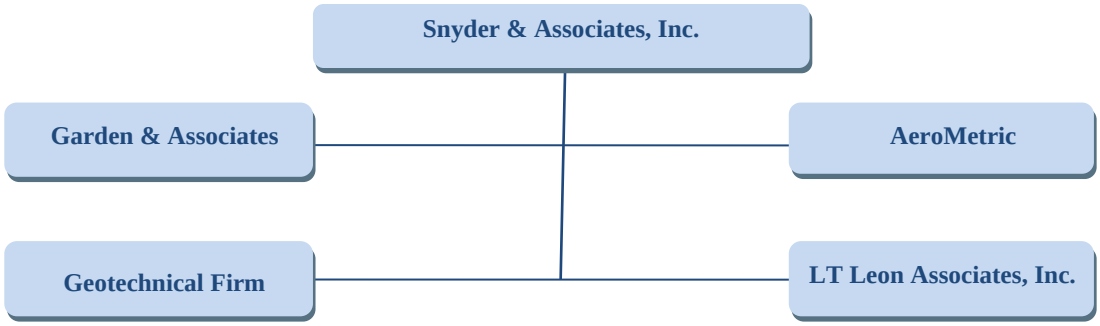
L T Leon & Associates is certified as a Disadvantaged Business Enterprise (DBE) in Iowa, Minnesota, Missouri and Nebraska. The firm is also certified by the State of Iowa as a Targeted Small Business. The firm will assist Snyder & Associates, Inc. in preparing elements of the Environmental Assessment as it relates to flood plains, hydrology and water quality.

The Des Moines, Iowa firm has a staff of four (4) persons and has assisted Snyder & Associates, Inc. on past projects related to flood plain mapping and storm water management.

Resumes of key staff and support staff are included on pages seven (7) through sixteen (16).

PROJECT TEAM RESUMES

Snyder & Associates, Inc. will be the lead firm responsible for completion of each work assignment. Snyder & Associates will utilize the services of AeroMetric and Garden & Associates to complete various elements that require their technical expertise or is most cost effective.



FAA will require a Disadvantaged Business Enterprise (DBE) when the grant amount exceeds $250,000 participation. DBE participation on land acquisition projects is not required. Snyder & Associates has prepared a number of DBE and Targeted Small Business programs for submittal to the FAA. FAA has indicated that they will most likely review each project separately and amend the grant accordingly.

Jerald Searle will serve at the Project Director for those work assignments associated with:

- Site Selection
- Airport Master Plan/ALP
- Environmental Assessment
- Land Acquisition

Mr. Searle will coordinate with Bob Vander Meer on photogrammetry requirements and Bob Nielsen on airfield infrastructure, road mitigation actions, utility infrastructure and land acquisition plats. Mr. Vander Meer will assist with FAA program requirements associated with the “eALP”, primary and secondary airport control (PACS, SACS) and obstruction mapping to support the development of instrument approach procedures to each runway end.

AeroMetric's extensive experience providing mapping and obstruction surveys under the current FAA guidelines has allowed us the opportunity to work closely with the FAA and National Geodetic Survey (NGS) and understand the durations and requirements associated with the numerous types of airport projects that are covered by these guidelines. Our understanding of the FAA’s and NGS's review times allow us to schedule people and equipment to ensure that we maximize the critical time periods when data is required for acquisition, creation, and submittal for review.

AeroMetric’s obstruction mapping for the William R. Fairchild International Airport at Port Angeles, Washington, was the first project in the United States approved by the NGS under the FAA AC 150/5300-18B guidelines.

AeroMetric’s eALP project at Valley International Airport was one of the FAA’s original 6 eALP pilot projects, and was the first eALP under the new guidelines to be submitted to and approved by the FAA.

The Snyder & AeroMetric staff has completed the Integrated Distance Learning Environment (FAA IDLE) training in current FAA guidelines.

JERALD L. SEARLE, PROJECT DIRECTOR
SNYDER & ASSOCIATES

Education:

- Master of Arts
  Urban Studies, Mankato State University-1972
- Bachelor of Arts
  Urban Studies, St. Cloud State University-1968

Technical Specialties:

- Airport Site Selection
- Airport Zoning and Land Use
- Multi-jurisdictional Airport Governance
- Approach Development
- Airport Master Plans
- Airport Layout Plans
- Environmental Assessments
- Airport management
- Aviation forecasting
- Benefit/cost analysis

5 years served as a member of the Ankeny Planning and Zoning Commission.

Active duty (4 years, 11 months) in the U.S. Air Force – Civil Engineering.

Mr. Searle has completed more than 100 airport planning and aviation related projects. Projects ranged in size from airport layout plan updates to development of new airport sites in Colorado, Wyoming and Iowa. He has established an excellent working relationship with the FAA. His involvement will primarily focus on the airport planning process to include aviation forecasts, aeronautical needs, airport geometrics, capital improvement programming and environmental documentation.

Aviation Planning project experience includes:

Pella Municipal Airport-Existing Site. Mr. Searle was the project manager and principal assigned to update the existing Pella Municipal Airport Airport Layout Plan. At the request of FAA, he was directed to conduct an in-depth assessment of constraints associated with the development of an ARC C-II airport.

Pella Replacement Airport. Mr. Searle was the principal planner assigned to work with the City of Pella Aviation Task Force in identifying candidate airport sites. He and the Aviation Task Force identified eight candidate sites and ranked each site based on 31 scoring criteria. He coordinated the FAA Airspace Study which ultimately led to the selection of a preferred site. (Otley site)

Mr. Searle prepared an Airport Master Plan to include aviation forecasts, facility needs, alternatives and capital improvement costs. The FAA approved the Airport Layout Plan/Airport Master Plan on May 4, 2011.

Request for Release from Federal Obligations. Mr. Searle was retained by the City of Pella and the City of Oskaloosa to prepare a Request for Release from federal obligations associated with the Pella Municipal Airport and the Oskaloosa Municipal Airport. The document was submitted to FAA Central Region for approval by FAA Headquarters.

Sioux County Regional Airport, Project Manager. Forecast, facility needs, benefit/cost analysis, runway alignment alternatives, terminal development, ALP, capital improvement program, environmental assessment, life cycle assessment of existing facilities: preservation, reconstruction, expansion, and obstruction mitigation. Mr. Searle has been retained by the SCRAA to manage the acquisition of land for the new airport.

Ankeny Regional (Reliever) Airport, Polk County, Iowa–Project Manager. Feasibility Study of a new airport designed to accommodate turbo prop and jet aircraft (C-II), NPIAS justification, ALP, Environmental Assessment (EA), development schedule and cost estimates, multi-jurisdictional ownership and implementation strategy, applications for FAA funding assistance, and preparation of minimum FBO standards. Updated ALP and Master Plan (2005).

Council Bluffs Municipal Airport, Council Bluffs, Iowa – Project Manager. Prepared Airport Master Plan, Environmental Assessment (EA), and Benefit/Cost Analysis (BCA) in accordance with FAA and Office Management and Budget criteria.

JERALD L. SEARLE
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Des Moines International Airport, Iowa-Project Manager. Mr. Searle, under the direction of Coffman Associates, prepared the Section 4(f) Statement, Environmental Assessment (EA) and general aviation component of the Airport Master Plan.

Monticello Airport, Monticello, Iowa-Project Manager. Prepared an inventory of existing conditions, forecasts, facility requirements, alternatives, Airport Layout Plan, Financial Plan, Environmental Assessment (EA), and ACIP Data Sheets.

Iowa State Aviation System Plan 2004-2024 (SASP)-Project Manager for 2004 Iowa SASP. Prepared statewide inventory of airport facilities and services, aviation forecast, facility needs, systems analysis, performance measures, and capital costs. Prepared individual airport reports for 110 public owned airports.

Ames Municipal Airport, Iowa–Project Manager. Prepared the 1997 and 2006 Airport Master Plan Update. Work elements included aviation forecasts, facility requirements and airport layout plan.

SE Iowa Regional Airport-Burlington, Iowa-Project Manager. Prepared Aviation forecasts, Exhibit A property map, obstruction mitigation, Airport Layout Plan and financial plan.

- **Riverton, Wyoming**-Airport Master Plan
- **Kit Carson County, Colorado**-Airport Master Plan, Site Selection, Environmental Assessment (new airport).
- **Converse County, Wyoming**-Airport Master Plan, Site Selection, Environmental Assessment (new airport)
- **F.E. Warren AFB, Wyoming-**Base Master Plan
- **Marion, Iowa –**Airport Feasibility Study, Airport Master Plan, Site Selection, CIP
- **Sioux Center, Iowa-**Airport Development Plan/ALP
- **Orange City, Iowa-**Airport Development Plan/ALP
- **Albia, Iowa**-Airport Development Plan/ALP
- **Airport Authorities**-Polk, Guthrie, Audubon County Airports
- **Audubon, Iowa**-Airport Development Plan, Airport Authority, CIP
- **Bloomfield, Iowa**-Airport Development Plan/ALP
- **Chariton, Iowa**-Airport Development Plan/ALP
- **Cherokee, Iowa**-Airport Master Plan, ALP, EA
- **Clarinda, Iowa**-Airport Development Plan/ALP
- **Clarion, Iowa**-Airport Master Plan/ALP
- **Des Moines, Iowa**-Broadlawns Heliport-Layout Plan
- **Eagle Grove, Iowa**-Airport Development Plan/ALP
- **Emmetsburg, Iowa**-Airport Development Plan/ALP
- **Estherville, Iowa**-Airport Mater Plan, ALP
- **Fairfield, Iowa**-Airport Master Plan, ALP

JERALD L. SEARLE
PAGE 3

Benefit Cost Analysis
Ankeny Regional Airport
Council Bluffs Airport
Des Moines International
Sioux County Regional

Multi-Jurisdictional Airport Authority, 28-E
Audubon County
Cherokee County
Guthrie County
Polk County
Sioux County

Airport Business Park
Metro North I-Ankeny

Site Selection
Kit Carson County-CO
Converse County-WY
Guthrie County-IA
Osceola Municipal-IA
Ankeny Regional-IA
Pella Replacement-IA
Sioux County-IA

- **Grinnell, Iowa**-Forecasts, Facility Needs, Site Selection, Benefit/Cost Analysis
- **Guthrie County, Iowa**-Airport Development Plan, ALP, Authority (new airport)
- **Hampton, Iowa**-ALP Update & Narrative, CIP
- **Harlan, Iowa**-Airport Development Plan/ALP
- **Iowa City, Iowa**-Airport Master Plan, ALP
- **Iowa DOT**-Iowa weather and NAVAID Plan
- **Iowa Falls, Iowa**-ALP Update & Narrative, CIP
- **Jefferson, Iowa**-Airport Mater Plan, ALP, EA
- **Lamoni, Iowa**-Airport Master Plan, ALP
- **LeMars, Iowa**-Airport Development Plan/ALP
- **Maquoketa, Iowa**-Airport Master Plan/ALP, EA
- **Maryville, Missouri**-Airport Master Plan/ALP
- **Muscatine, Iowa**-Airport Master Plan
- **Onawa, Iowa**-Airport Development Plan/ALP
- **Osceola, Iowa**-Airport Development Plan, Environmental Assessments, Site Selection, ALP (new airport)
- **Oskaloosa, Iowa**-ALP Update & Narrative, CIP
- **Sac City, Iowa**-Airport Master Plan, ALP
- **Tarkio, Missouri**-Airport Master Plan/ALP
- **Tipton, Iowa**-Airport Master Plan, ALP, EA, NPIAS
- **Trenton, Missouri**-Airport Master Plan/ALP
- **Washington, Iowa**-Airport Master Plan/ALP

Education:
- Bachelor of Science

Agr. Engineering, Iowa State University –1983

Registrations:
- Professional Engineer Civil-Iowa-1989
- Professional Land Surveyor-Iowa-2001

DAVE L. JOENS, P.E., P.L.S., AIRPORT ENGINEER
SNYDER & ASSOCIATES

Mr. Joens has served as project manager for numerous runway/taxiway/apron reconstruction projects, AWOS installation projects, automated above-ground fuel systems, land acquisition projects and other airfield and off-site (mitigation) projects. His familiarity with airport administration, the Iowa DOT Office of Aviation administration and the Federal Aviation Administration processes and relationships provide an essential link to the successful development of any airport related project.

- **Oskaloosa Municipal Airport.** Design and construction administration of an AWOS IIIP installation.
- **Storm Lake Municipal Airport.** Design and administration for the joint and crack cleaning and sealing project.
- **Guthrie County Regional Airport.** Grading, drainage, and pavement layout for an airport access road, including construction administration.
- **Pella Municipal Airport.** PCC full-depth patching on Runway 16/34. Airport Snow Removal Equipment acquisition.

Education:

- Real Estate Salesperson Pre-Licensing Courses
- Bachelor of Arts, Business Management, Luther College, Decorah, Iowa-1992

License:

- Real Estate -Iowa #S41828000
- Notary Public

Technical Specialties:

- Parcel Identification
- Timely Negotiations with Property Owners
- Prepare Acquisition Documents
- Relocation Advisory Assistance

AMY J. WALTER, RIGHT OF WAY AGENT
SNYDER & ASSOCIATES

Ms. Walter is a licensed real estate agent for the State of Iowa and has over 13 years of experience providing right-of-way acquisition services and assisting with public involvement processes. She is responsible for the preparation of acquisition documents to acquire real and personal property and/or property rights in conformance with project plans and to meet the needs of the client. She reviews plans with property owners to assist with problem solving negotiations. Ms. Walter is also knowledgeable of eminent domain laws as they relate to the acquisition process and the requirements of a federally funded project having worked with FHWA and FAA funded projects.

Iowa DOT June 1998 – July 2000

Right of Way Acquisition. Represented the State in the capacity of a trainee. Produced documents in accordance with the policies of the Office of Right of Way.

Airport Land Acquisition/Relocation Projects:

- ❖ Cherokee County Airport Authority-Cherokee Regional Airport
- ❖ Clarinda Municipal Airport-Clarinda, Iowa
- ❖ Council Bluffs Airport-Council Bluffs, Iowa
- ❖ Jefferson Municipal Airport-Jefferson, Iowa
- ❖ Maquoketa Municipal Airport-Maquoketa, Iowa
- ❖ Monticello Regional Airport, Monticello, Iowa
- ❖ Polk County Aviation Authority-Ankeny Regional Airport
- ❖ Sioux County Regional Airport Agency (SCRAA), Sioux County, Iowa
- ❖ Storm Lake Municipal Airport-Storm Lake, Iowa

Ms. Walter is currently involved in negotiation for a sufficient property interest (36 parcels) for the new Sioux County Regional Airport, located 3 miles south of Sioux Center and 3 miles west of Orange City, Iowa.

Ms. Walter is a member of the team developing a new road between Iowa 92 and U.S. 6 to provide improved access to the Council Bluffs Airport.

Education:

- Bachelor of Science Civil Engineering, Iowa State University –2010

DUSTIN J. LEO, E.I., AIRPORT ENGINEER/PLANNER
SNYDER & ASSOCIATES

Mr. Leo's experience is focused on aviation related planning and design. His project involvement consists of land acquisition, pavement design and rehabilitation, hangar facilities, terminal building design, as well as construction observation and overall project management. Mr. Leo has been assigned as the principal contact for projects ongoing at the Ankeny Regional Airport. He is also the project manager of the Ottumwa Regional Airport and Independence Municipal Airport.

- Ottumwa Regional Airport
- Independence Municipal Airport
- Ankeny Regional Airport

JEFF WALTERS, ENVIRONMENTAL SCIENTIST
SNYDER & ASSOCIATES

Mr. Walters has 12 years of environmental consulting and project management experience. He has an extensive background in wetland delineation, mitigation, permitting, and understanding of US Army Corps of Engineers and Iowa Department of Natural Resources requirements.

Mr. Walters has completed wetland delineation and permitting work throughout the Midwest. He regularly acts as the authorized agent for clients when preparing and submitting flood plain development permits from the Iowa Department of Natural Resources and 404 Water Quality permits from the U.S. Army Corps of Engineers.

Project experience includes:

EPA Levee Inspections for MidAmerican Energy Company surface impoundments at various coal-fired plants in Iowa (2010).

US Army Corps of Engineers permitting for Pony Creek levee modifications at the MidAmerican Energy Company Walter Scott Jr. Energy Center, Council Bluffs, Iowa (2009-2010).

US Army Corps of Engineers and Iowa Department of Natural Resources permitting for coal pile runoff pond levee improvements at the MidAmerican Energy Company Walter Scott Jr. Energy Center, Council Bluffs, Iowa (2009).

Water resources manager for all SWPPP, NPDES, and 401/404 projects, MidAmerican Energy Company (2008-2010).

Document manager and regulatory liaison, Eastern Hills Drive Environmental Impact Statement, Council Bluffs, Iowa (2010-2011).

Phase I ESA and Wetland Documentation on various wind farm projects – Environmental Scientist.

Environmental Impact Statement–NE Beltway, Polk County, Iowa – Project Manager. Performed field work including wetland delineation, threatened and endangered species study, sensitive habitat study for the DEIS.

Environmental Assessment – 33rd Avenue SW, Cedar Rapids – Project Planner. Performed field work including wetland delineation, threatened and endangered species study, sensitive habitat study for the EA. Documentation of EA. Wetland mitigation plan and Army Corps of Engineers Individual Permit.

Environmental Assessment – Des Moines International Airport Runway 13R-31L, Des Moines, Iowa - Project Planner. Delineated wetlands on 400-acre site. Assisted in surveying wetland boundaries and developing base maps. On-going consultation with Army Corps of Engineers regarding determination and permitting of jurisdictional wetlands.

Environmental Assessment-Other Airport Locations:

- Council Bluffs Airport
- Jefferson Municipal Airport
- Denison Municipal Airport
- Sioux County Regional Airport

Education:

- Bachelor of Science, Agronomy, Iowa State University-1998
- 38 hours, Basic Wetland Delineation Training, Richard Chinn Environmental Training
- 32 hours, Advanced Wetland Delineation Training/Permitting, Richard Chinn Environmental Training
- 8 hours, Army Corps of Engineers Regional Supplement Wetland Delineation Training, Midwest, Richard Chinn Environmental Training
- 40 hours, ASCE Wetlands and 404 Permitting

Technical Specialties:

- Wetland Delineations, Section 401/404 Permitting, Design, Mitigation, and Monitoring
- Phase I Environmental Site Assessments (ESAs)
- Phase II Environmental Site Assessments
- Document writer of various NEPA studies

Education:

- Master of Science-Geology, University of South Carolina, Columbia-2001
- Bachelor of Science, Civil Engineering, University of South Carolina-1997

Registration:

- Professional Engineer-Civil, Iowa-2007
- Professional Engineer, Alaska-2007

MWASI MWAMBA, P.E., SENIOR AIRPORT ENGINEER SNYDER & ASSOCIATES

Mr. Mwamba is a senior project engineer assigned to manage the design and construction of airport improvement projects. These projects include design associated with grading and drainage improvements, airfield pavement, marking and lighting projects. Prior to employment with Snyder & Associates, Inc. he was employed by AECOM, CH2M-Hill and Alaska DOT, where he prepared plans and specifications for airport improvements at the following locations:

- **Iliamna Airport** Paving and Fencing Project (AK, 2002), Alaska Central Region Snow Removal Equipment Building Construction Project at Chevak, Levelock, Napakiak, Nondalton and Pilot Point (AK 2003).
- **Fort Greely Airport Runway** 7-25 Reconstruction Project (AK, 2008)
- **Andrews Airforce Base** Runway 1L-19R Reconstruction Project (MD, 2009-2010)
- **Chicago O'Hare** Modernization Program RW 32L Threshold Relocation
- **Waterloo Regional Airport** RW 18/36 Rehabilitation Project (IA, 2009).
- **Clarinda Municipal Airport** Airfield Lighting
- **Council Bluffs Airport –**Master Plan
- **Rockwell City Municipal Airport-**Taxiway Improvements
- **Southeast Iowa Regional** Airport Hangar Taxiway Rehabilitation Project

Education:

- Bachelor of Science, Urban & Regional Planning, University of Iowa-1999

Registration:

- Professional Land Surveyor

JASON KHONGMALY, P.L.S., SURVEY PROJECT MANAGER SNYDER & ASSOCIATES

Mr. Khongmaly has been practicing surveying since 2001. His background includes field experience in various types of surveys including highway and subdivision construction staking, boundary and topographic surveys. He now serves as a project manager for the survey department. He has experience in managing survey projects with an emphasis in airport and boundary surveys, subdivision platting, topographic surveys and right-of-way acquisitions. Mr. Khongmaly also assists in cost estimating, survey field crew coordination and scheduling.

- **Ames Municipal Airport-**Aerial Control Survey
- **Ankeny Municipal Airport-**Boundary Survey, Construction Survey
- **Boone Municipal Airport-**Prelim. Design Survey, Lease Agreement Survey
- **Council Bluffs Municipal Airport-**Obstruction Chart Survey, UDDF creation
- **Gould Peterson Municipal Airport-**Obstruction Chart Survey, UDDF creation
- **Lamoni Municipal Airport-**Preliminary Design Survey
- **Rockwell City Municipal Airport-**Preliminary Design Survey
- **Sioux County Regional Airport-**Aerial Control Survey

Education:

- Bachelor of Science Civil Engineering U.S. Air Force Academy-1979

Registration:

- Professional Engineer-Civil, Iowa-1994

CARL L. BYERS, P.E., SENIOR AIRPORT ENGINEER SNYDER & ASSOCIATES

Mr. Byers has over 25 years in engineering and management with specialization in aviation. His experience includes project management, engineering design, construction services from conceptual design through final construction, and client service. He is well versed in both airside and landside design. Mr. Byers was the program manager for all airside engineering projects at The Eastern Iowa Airport in Cedar Rapids for ten years. He has completed a wide variety of projects, including runway overlays at Oskaloosa, Webster City, and Maquoketa, Iowa airports, runway extensions at Cedar Rapids, Boone, and Davenport, Iowa airports, fueling facilities at Cedar Rapids and Iowa City, Iowa airports, new hangar facilities at Cedar Rapids, new taxiways at Boone and Clinton, and runway/apron rehabilitation at several airports. Mr. Byers is the principal engineer assigned to 30 million in airport improvements at Council Bluffs.

Prior to an engineering career, Mr. Byers spent ten years as an Air Force pilot, flying varied aircraft ranging from the Boeing B-52 bomber to the supersonic Northrop T-38 trainer.

Education:

- Bachelor of Science, Michigan Technological University-1996

BOB VANDER MEER, DIRECTOR OF AVIATION AEROMETRIC

Mr. Vander Meer serves as the Director of Aviation Programs, and is responsible for client relations and satisfaction at Aerometric. As the project manager for airport projects, Mr. Vander Meer is responsible for all internal project management activities, including overseeing that the airport ground surveys and collection of aerial imagery of the survey area are performed in accordance with the appropriate Federal Aviation Administration (FAA) guidance. He is currently the project manager for more than 25 airports under FAA 150/5300-16A, -17C, -18B guidelines.

Texas Department of Transportation Airport Obstruction Survey 5-Year Contract: AeroMetric has provided photogrammetry services for projects throughout Texas. Obstruction surveys are currently underway at Bridgeport Municipal Airport (XBP) and Navasota Municipal Airport (60R).

San Antonio International Airport (SAT) eALP: AeroMetric provided detailed photogrammetric mapping, obstruction analysis, and orthophotography.

Rockford International Airport (RFD) eALP: AeroMetric provided detailed photogrammetric mapping and obstruction analysis. The project also included planimetric mapping.

Valley International Airport (HRL) eALP: This project is one of six pilot programs for the FAA. AeroMetric produced very detailed photogrammetric mapping and obstruction analysis with orthophotography at 1-foot resolution for the entire project area and 3-inch resolution for the airport property area. This is the first eALP under the new FAA guidelines to be submitted to and approved by the FAA.

- Pursuing Bachelor of Science Degree in Civil/Mechanical Engineering from Arizona State University

TODD JOHNSON, AIRPORT SOLUTIONS SPECIALIST AEROMETRIC

Mr. Johnson is well-versed in aviation rules, regulations, and procedures for both visual flight rules (VFR) and instrument flight rules (IFR) and procedures governing airport management and the aviation industry. He has exceptional knowledge and expertise in the area of GIS/CADD systems, FAA survey requirements, the Air Traffic Control (ATC) system, airport environments, instrument procedure design, airspace development, and regulatory guidance and requirements for FAA airport surveys.

Todd has over 26 years of airport-related work experience which includes: four years of direct working experience with the Federal Aviation Administration (FAA) Office of Airports Safety & Standards and Airports Engineering Division; over 22 years in ATC tower/radar facility operations; over 10 years of National Instrument Flight Procedure design; over six months of Pans-Ops (GNSS) International Instrument Flight Procedure design; and over 12 years of experience in applying CADD/GIS software to airport environments.

Mr. Johnson was the Operations Research Specialist/Training Facilitator (FAA). In this role he managed and developed FAA Airports GIS program integration projects and tasks. He reviewed and provided client feedback on technical survey drawings (AutoCAD), submitted airport data features, airport obstructions, feature associated attributes (metadata), and ensured that submitted airport data was compliant with all established FAA criteria. He then became the Task Lead for the Airport Data Verification Program and Air Traffic Control SME. In this role he provided contract support to the FAA Office of Airport Safety and Standards, reviewed and approved or rejected submitted Airports GIS associated project documents, created quality control checklists, and was selected as the FAA's program lead for the Electronic Airport Layout Plan (eALP). In his third role at ISI, Mr. Johnson was the Task Lead for the Airports GIS Training Programs and Development.

Education:

- Bachelor of Science, Civil Engineering, University of Iowa-2002

Registrations:

Professional Engineer-IA, IL, MN, MO, NE

LOUIS T. LEON, P.E., LEED AP, CFM, TSP
PRINCIPAL ENGINEER/OWNER-LT LEON ASSOCIATES, INC.

Mr. Leon is the Principal Engineer and Owner at LT Leon. He earned his Bachelor Degree in Civil Engineering from the University of Iowa in 2002; and is a licensed professional engineer in Iowa. He has provided civil engineering services to clients that include cities, government organizations, consultants and others. He has experience with municipal infrastructure projects, roadway design, sustainable stormwater management, floodplains, regulatory permitting, and LEED certified projects.

SE Basin Stormwater Study – West Des Moines, Iowa

SW Connector Location Study – West Des Moines, Iowa

Mississippi Drive Corridor Phase I Environmental Study & Preliminary Engineering – Muscatine, Iowa

Education:

- Bachelor of Science, Civil Engineering, Iowa State University-1977

Registration:

- Professional Engineer-Civil, Iowa

ROBERT A. NIELSEN, P.E., PROJECT ENGINEER PRESIDENT-GARDEN & ASSOCIATES

Bob Nielsen is a Project Manager and President of Garden & Associates, Ltd. He is responsible for all phases of a project including initial client contact, preliminary and final design, and construction administration.

Mr. Nielsen's expertise is in the field of transportation engineering and land development including roadway and airport design with over 34 years of experience in these fields. During that time he has worked extensively with many communities across Iowa including Oskaloosa and Pella. Past project experience includes multiple urban roadway improvement projects in both communities and runway and taxiway projects at the Oskaloosa Municipal Airport.

Education:

- Bachelor of Science, Iowa State University-1984

Registration:

- Professional Engineer-Civil, Iowa

JACK POPE, P.E., PROJECT ENGINEER GARDEN & ASSOCIATES

Mr. Pope is a Project Manager and Partner with Garden & Associates, LTD. He is responsible for design and administration of civil engineering projects. Mr. Pope has a strong background in design and construction.

Mr. Pope has 23 years of experience in municipal transportation, water and wastewater engineering. He has a strong background in construction and working with contractors. Recent project experience includes project management and design of several projects for Pella that involved street reconstruction and utility replacement. Mr. Pope was also the project manager and design engineer for recent water system improvements and sanitary sewer replacement projects in Oskaloosa.

Mr. Pope is very familiar with the local public works staffs, and community leaders.

Education:

- Associate of Arts Degree, Dordt College, Sioux Center, Iowa

Registration:

- Licensed Land Surveyor

RANDAL NUGTEREN, L.L.S., SURVEYING COORDINATOR GARDEN & ASSOCIATES

Mr. Nugteren is a Survey Crew Chief of Garden & Associates surveying department. He is responsible for leading the surveying team in topographical, boundary and retracement surveys, plus construction staking throughout the construction process. Mr. Nugteren is instrumental in application of current survey technology and equipment continuing Garden & Associates' high standard of quality.

Mr. Nugteren has over 30 years of experience in the field of land surveying and construction staking. He has extensive experience in preparation of land acquisition plats for urban and rural roadway improvements working with local government and IDOT officials on projects in Marion and Mahaska Counties. Mr. Nugteren has worked extensively coordinating with engineers, architects, local government officials, attorneys, abstractors, utilities and contractors.

PROJECT DEVELOPMENT AND UNDERSTANDING

SITE SELECTION

- Develop scope of work, coordinate with **SCRAA Board** and FAA
- Establish site selection parameters, confirm search area
- Identify candidate sites
- Develop site screening criteria: Pella Replacement Airport identified nine sites for screening based on 31 criteria
- Request FAA conduct airspace study for candidate sites to be carried forward
- Rank sites based on screening criteria
- Identify a preferred site; secondary site

AIRPORT MASTER PLAN/AIRPORT LAYOUT PLAN

- Prepare Aviation Forecasts-FAA Approval Required
- Develop facility needs; Alternative geometry
- Obtain required photogrammetry and mapping
  - Fly leave on; leave off condition
- Prepare Airport Layout Plan
  - FAA Review/revision
- Develop implementation schedule, capital cost and financial plan

ENVIRONMENTAL ASSESSMENT-FAA ORDERS: 1050.1E; 5050.4

- Prepare Scope of Work; Early Coordination
- Purpose and Need
- Alternatives
- Environmental Consequences
  - Noise
  - Induced Socioeconomic
  - DOT Section 4(f)
  - T & E Species
  - Farmland
  - Solid Waste
  - Compatible Land Use
  - Air Quality
  - Historic, Archaeological
  - Wetlands
  - Energy Supply
  - Construction Impacts
  - Social Impacts
  - Water Quality
  - Biotic Communities
  - Floodplains
  - Light Emissions
  - Environmental Justice
- Draft EA, Public Hearing
- Final EA, FAA Determination

LAND ACQUISITION

- Evaluate for National Environmental Policy Act (NEPA) conformance before the acquisition process is initiated
- Prepare and maintain a current Exhibit "A" property map of airport owned land
- Development of a Quality Control Program (QCP) that details the methods and procedures that will be taken to assure conformance with the Uniform Act
- Prepare an Acquisition and Relocation Plan to insure the prompt and equitable relocation and reestablishment of persons displaced as a result of federally assisted airport projects
- Conduct necessary surveys and prepare plats and legal descriptions
- Procure title certificates, appraisals and review appraisals to insure fair market value of the real property to be acquired
- Submit to FAA for review and approval of appraisals
- Provide appraisal to property owners and provide the required 10 day waiting period as per the Code of Iowa
- Begin property owner negotiations
- If required, initiate relocation schedule, comparables, property inspections and submit for FAA concurrence
- Conduct title clearing and closing requirements

ENGINEERING ANALYSIS, DESIGN AND CONSTRUCTION SERVICES

Phase One – Preliminary Design

The preliminary design phase is intended to identify and evaluate alternatives to assure cost effective and practical solutions for the work items identified. The Project Team will conduct an evaluation of design alternatives to satisfy the requirements of the project as depicted on the approved Airport Layout Plan (ALP). This evaluation will take advantage of local knowledge and experience and utilize expertise from recent construction projects to design a cost-effective project and ensure competitive construction bids. Cost efficiencies will be realized in a lower initial cost and in lower long-term maintenance costs. Activities will include:

- A review of as-built or record drawings and the current ALP;
- Coordination of all subconsultants to ensure an efficient and timely design process;
- Coordination and communication with the **SCRAA**, FAA, FBO, and other airport users as necessary;
- Preparation of schematic designs and preliminary cost estimates for each design element; and
- Preparation of a construction-phasing plan to minimize the impact of construction on continuous airport operations and to coordinate with any other airport construction projects.

Phase Two – Engineering Analysis

During this phase, site specific information will be collected and used to evaluate the design alternatives. This analysis will transform the preliminary design alternatives into a single concept. Alternative construction methods and materials will be investigated and a selection will be made for inclusion in the final design. Requirements for construction drawings and technical specifications will be identified. Activities will include:

- Conducting a topographic survey of the project area and produce base maps at a scale of 1 inch = 20 feet or 1 inch = 50 feet. At that time, set any additional monuments or control points necessary for construction staking.

- Conducting a geotechnical investigation in accordance with Iowa DOT requirements and FAA Advisory Circular 150/5320-6E, including pavement coring and shallow borings to determine the thickness and composition of existing pavement and base course layers and to classify the engineering properties of the subgrade materials.
- Producing a reconstruction plan to satisfy the geometric requirements contained in Design Guides and FAA Advisory Circular 150/5300-13, Airport Design, or any negotiated design standard modifications.
- Erosion control during and after construction which will be considered during development of the overall plan.
- Producing a drainage plan in concert with the geometric reconstruction plan. All elements of the drainage system will be compatible with the drainage system currently in place for the airfield. FAA Advisory Circular 150/5320-5C surface drainage design, will be used as a design guide for all drainage items.
- Designing alternative pavement rehabilitation sections in accordance with FAA Advisory Circular 150/5320-6E and provide recommendations including:
  - A brief evaluation of the performance of the existing pavements.
  - Initial cost analysis, life cycle cost analysis, and analysis of locally available resources for each alternative.
  - Strategize bidding procedures and pavement section alternatives to assure competitive bidding.
- Completing preliminary plan and profile design for the runway, taxiway and apron.
- Considering the impacts to any adjacent runway and taxiway lighting, signing, and system circuitry layout.
- Providing recommendations for construction phasing.
- Completing opinions of probable construction costs for the design.
- Providing five sets of review documents.
- Completing the preliminary engineering design report including:
  - Geotechnical investigation
  - Topographical survey
  - Preliminary plans
  - Pavement section design and analysis
  - Drainage design analysis
  - Opinions of probable cost
  - Final summary and recommendations
  - Phasing and scheduling recommendations

Solicit comments on the preliminary design from the **SCRAA** and the Iowa DOT-Aviation Section and Central Region of the FAA where required.

Phase Three – Final Design

During this phase, the Project Team will finalize the design concept. Construction drawings and contract documents will be developed for each improvement. Exacting criteria and standards will be applied, producing accurate estimates of quantities for bidding purposes. Detailed drawings will be produced which clearly depict the extent of all work items. Contract documents will be produced using detailed FAA technical specifications in accordance with Advisory Circular 150/5370, Standards for Specifying Construction of Airports. Construction schedules will be determined in consultation with the **SCRAA**. The Project Team will assist the **SCRAA** during the bidding process and with the preparation of a final FAA grant application. Upon the receipt of the FAA grant, the Consultant will assist the **SCRAA** in awarding a construction contract. The tasks necessary to complete this phase of the project are as follows:

- Incorporate any comments from the Iowa DOT, FAA and the **SCRAA** into the final design and respond to any requests for additional information that they may have.
- Finalize the project schedule.
- Develop final construction drawings which will include as a minimum the following sheets:

- Title
- Estimated Project Quantities
- Survey Control
- Typical Cross Sections and Details
- Phasing Plan
- Grading, Drainage, & Erosion Control
- Plan & Profile
- Erosion Plan
- Airfield Marking Plan
- Cross Sections

- Develop contract documents including general provisions and technical specifications based on Iowa DOT and/or FAA Advisory Circular 150/5370-10E, Standards for Specifying Construction of Airports.
- Complete final quantity calculations.
- Provide a final Engineer's Opinion of Probable Cost.
- Submit all plans and contract documents to the **SCRAA** and Iowa DOT and FAA (where appropriate) for final review and approval.
- Assist the **SCRAA** with soliciting bids for the project, distribute bid documents to contractors, issue addenda if required, and respond to any questions by contractors during the bidding period.
- Assist the **SCRAA** with the receiving of bids and bid opening. Tabulate all bids, evaluate all bids, and make a recommendation for the award of a contract pending approval of the AIP grant by the FAA or Iowa DOT.
- Assist the **SCRAA** with the preparation of the FAA AIP grant application or Iowa DOT Grant Application.
- Upon the receipt of the AIP grant, assist the **SCRAA** in awarding a construction contract. Notify the successful bidder. Return bid bonds to unsuccessful bidders.

Phase Four – Construction Services

During construction, the Project Team will assist the **SCRAA** with the administration of the construction contract and the completion of the project in accordance with the contract documents and the conditions of the grant. The following tasks are identified for the successful completion of this phase:

- Produce a Construction Observation Plan in accordance with the FAA Central Region's requirements of ACE-1530 and/or Iowa DOT.
- Conduct a preconstruction conference.
- Review the contractor's bonds, insurance certificates, materials submittals, shop drawings and construction schedules.
- Provide construction staking.
- Provide technical assistance and recommendations to the **SCRAA** during construction.
- Provide resident inspection to monitor and document construction progress, confirm conformance with schedules, plans and specifications, measure and document construction pay quantities, document significant conversations or situations, document input or visits by local authorities, etc.
- Prepare change orders and supplemental agreements if required.
- Prepare and submit progress reports.
- Prepare and confirm Contractor's payment requests.
- Assist the **SCRAA** as necessary with the preparation of FAA and/or Iowa DOT Outlay Report and Request for Reimbursement forms.
- Conduct quality acceptance testing as specified in the technical specifications.
- Conduct and document periodic wage rate reviews.
- Conduct a final project inspection with the **SCRAA**, Iowa DOT and/or the FAA and the Contractor.
- Prepare record drawings of the completed project.
- Prepare a final project report as required by the FAA and/or Iowa DOT