

WEST VIRGINIA ARMY MEDICAL CENTER AVIATION TRAINING SITE  
BRIDGEPORT, WEST VIRGINIA

APRON EXPANSION PROJECT #D11101001

STATEMENT OF QUALIFICATIONS  
AVIATION CONSULTING  
PROFESSIONAL SERVICES

August 18, 2010

WEST VIRGINIA ARMY MEDICAL CENTER  
BRIDGEPORT, WEST VIRGINIA



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Martinsburg, WV 26150  
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1155 Carnegie

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PURCHASING  
DIVISION



NGC CORP.  
1410 S. POST ROAD, SUITE 200  
INDIANAPOLIS, IN 46239  
(317) 358-0450 FAX (317) 358-0453

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August 18, 2010

Mr. Chuck Bowman  
Purchasing Division  
2019 Washington Street, East  
Charleston, WV 25305

RE: Statement of Qualifications  
Fixed Wing ARNG Aviation Training Site  
Apron Expansion Project #DEFK11008

Dear Mr. Bowman:

We would like to begin by thanking you for this opportunity to present our firm's qualifications to provide aviation consulting services for the WVARNG Apron Expansion Project. NGC has been providing full service aviation consulting within Indiana since opening our doors in 1996. Our firm dedicates 100% of our staff to aviation, ensuring that your project will be designed by engineers with years of aviation experience.

Just a few of the reasons for selecting the NGC team include:

- ✦ WVARNG will be working directly with our owners. We are a medium sized company, and as a medium sized company, we have diverse talent and the flexibility to work with your staff. We only specialize in Airport Consulting. Our clients do not pay for the layers of overhead from other departments, such as Wastewater or Transportation, which larger consultants possess.
- ✦ WVARNG will not be diluted in a large client list. Our small client base provides us the opportunity to focus on providing quality designs and customer satisfaction.
- ✦ WVARNG will be gaining another vital asset. We strive to build long-lasting relationships with our clients, by listening to your concerns and questions and then providing answers and solutions.
- ✦ WVARNG will benefit from our years of lessons-learned. We have many years of combined experience in airport engineering, planning, land acquisition, airport electrical systems, control systems, environmental issues, construction management, and grant administration. Every NGC employee has performed work in all stages of airport development, from conceptual planning to construction documentation.

Statement of Qualifications  
Fixed Wing ARNG Aviation Training Site  
August 18, 2010  
Page Two

- ★ WVARNG will be the recipient of ongoing value engineering. We have a strong belief that the client is best served when they receive the maximum value per expended dollar. Current and past involvement on similar projects reduces time and effort necessary to review and coordinate projects with the FAA.
- ★ WVARNG will have a variety of resources at its disposal. A team of professionals from different aviation consulting firms ensures your project has a fresh approach without resorting to tired ideas, or overpriced design budgets with large staff teams.
- ★ WVARNG will receive the same attention to detail and quality to every project that you see in this Statement of Qualifications. Upon request, we can provide reference letters from our clients, which are testimonials to our ongoing commitment to customer satisfaction.


We have included in this package two (2) original copies of our Statement of Qualifications. Within these documents, you will find a plethora of information about our team and a sense of the approach and dedication that we expend for each client.

We sincerely believe that we are the creative, energetic and refreshing professionals that you need for your upcoming program. We look forward to discussing your needs with you in the near future, and the opportunity to become a member and advocate of WVARNG. If you have questions or need additional information, please feel free to contact:

Mr. Ken Ross, P.E., Vice President  
NGC Corp.  
1410 S. Post Road, Suite 200  
Indianapolis, IN 46239

Toll Free: 1-877-642-2677 ext. 302  
Cell: (317) 281-9949  
Email: [kross@ngc.aero](mailto:kross@ngc.aero)

Sincerely,



**NGC**

Deanne L. Ross, PE  
President/Project Manager

Enc.

# COMPANY OVERVIEW

NGC

## Company Background

NGC (formerly New Generation Consulting) was established in 1996 when it was determined there was a need for quality aviation engineering and consulting services at a reasonable cost, with airport client satisfaction being the number one concern.

In a day when most businesses compose mission statements claiming that quality and customer service are important, we believe that it is a company's behaviors that speak more than their mission statement. With this in mind, client retention and repeat business is the truest measure of a company's behavior and worth. NGC's steady growth and 100% client retention rate speaks loudly about our client's satisfaction. Since NGC was founded in 1996, our focus has remained on providing full-service aviation consulting.



# NGC

*AVIATION CONSULTANTS*

*"ENGINEERING A BETTER WAY TO FLY"*

While other firms branch out into other fields, NGC remains focused on the industry that we know. Our staff has many years of airport consulting related experience. Although our firm may be smaller than others, our staff is comparable in size to other firms aviation departments. Our clients rest assured that they won't have a highway or environmental engineer pulled in to work on the runway project, nor worry that their inspector may not understand airfield signage and pavement markings. NGC balances workloads by cross-training all employees on every phase of airport planning, design, and construction.

We serve our clients from conceptual layouts, grant applications, design drawings, specifications, construction inspection, to grant close-out. We at NGC take pride in our projects and the level of service that we provide to you, the client. We strive for quality in design and a pro-active construction administration attitude. We endeavor to find unique value-added solutions rather than duplicate past performances or copy the performances of others.

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# COMPANY OVERVIEW

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## Company Details

### Contact Information:

**NGC Corporation**  
1410 S. Post Rd, Suite 200  
Indianapolis, IN 46239

**Website:** www.ngc.aero  
**Toll Free:** 1-877-NGC-CORP  
1-877-642-2677  
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**Deanne Ross, PE**  
President / Project Manager  
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Mobile: (317) 339-1944

**Ken Ross, PE**  
Vice-President / Project Manager  
Email: kross@ngc.aero  
Mobile: (317) 281-9949

### Firm Type and Demonstration of Longevity, and Claims:

As mentioned earlier, our company was founded in 1996 by Ken Ross as a sole proprietorship company. In March of 2004, the company was restructured as a Subchapter S Corporation with three owners, with majority ownership changing to Deanne Ross, PE.

NGC carries \$3.0 Million in Errors and Omissions Insurance and \$10.0 Million General Liability. Since forming in 1996, we have never had any claim including our workman's compensation and unemployment insurance.

### Lines of Business Conducted by NGC:

One hundred (100%) percent of our workload and billing is generated from airport engineering and planning, which means your project will be designed by an Airport Engineer that is dedicated to FAA design criteria. NGC provides airport consulting in three (3) states including Indiana, West Virginia, and Kentucky. We have the pleasure of providing engineering services in three (3) of the nine (9) FAA Regions including the Great Lakes Region, Eastern Region, and Southern Region. Staying focused on aviation allows our staff to stay current on all federal and regional design and construction standards.

### Organizational Structure:

Two of the three owners of NGC left large aviation consulting firms in order to offer airports customer service that we saw lacking in our field of work. While we currently have eight (8) total employees, our staff outnumbers many of our competitors aviation-dedicated departments. While other firms utilize non-aviation resources from their transportation, land development, and survey departments to level resources, NGC personnel step up and perform as needed to get projects completed on time. Airports that hire multi-discipline firms may find an engineer that designed highways last month designing your taxiway this month when the transportation department runs low on work. The inspector may have come from a sidewalk or sewer project only to be the main person responsible to oversee your runway rehabilitation project. You can rest assured that NGC assigns only aviation-experienced and trained personal to work on your program. An Organizational Chart outlining our staff and the tasks they will accomplish has been included in the "Project Team" Section.

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# COMPANY OVERVIEW

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## NGC Licenses:

NGC is currently licensed to provide professional engineering services in Indiana, Kentucky, and West Virginia. In addition, various members of NGC hold memberships in a variety of aviation and engineering organizations. These memberships include:

**ASCE**



NATIONAL ASSOCIATION OF  
WOMEN BUSINESS OWNERS



West Virginia Society of  
Professional Engineers

Women in Aviation  
INTERNATIONAL



**AAI**  
AVIATION ASSOCIATION OF INDIANA



Indiana Society of  
Professional Engineers

## WBE & DBE Certifications:

NGC is currently registered with the City of Indianapolis as a Woman-owned Business Enterprise (WBE). We are currently in the process of obtaining Disadvantaged Business Enterprise (DBE) certification.

We are committed to provide an equal opportunity for all businesses, regardless of race, color, religion, sex, or national origin. NGC's past performances on all of our projects is a testament to our commitment to meet and exceed all requirements of 49 CFR Part 26. As a WBE company, we understand first hand the importance of providing a level playing field for all prime contractors and subcontractors.

## Subconsultant Information:

For this project, we will utilize CTL Engineering for Surveying, Geotechnical Engineering and Construction Service assistance. NGC has partnered with CTL Engineering on 95% of our geotechnical work, due in large part to their experience with FAA construction specifications and their management's vast knowledge of FAA A/C 5300-13 and A/C 5320-6D.

CTL Engineering is currently certified as a Minority-owned Business Enterprise (MBE).

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# COMPANY OVERVIEW

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## Current Workload

<u>CLIENT</u>	<u>PROJECT</u>	<u>% COMPLETE</u>
Crawfordsville Municipal Airport	AWOS-III P/T (2010)	80%
Delphi Municipal Airport	Land Acquisition (2010)	50%
Gary/Chicago International	Runway 12 Extension, Phase 1 & 2 (multiyear)	40%
Huntington Municipal Airport**	Taxiway Rehabilitation (2010)	90%
Jasper County Airport	Drainage Improvements Design (2011 Letting)	0%
Kentland Municipal Airport ▶	Power Line Relocation, <i>by others</i> (2009)	25%
French Lick Municipal Airport**	Parallel Taxiway, Phase 1B & 1C (2010)	30%
Peru Municipal Airport**	Runway 1-19 Rehabilitation (2010)	50%
Terre Haute International	Electrical Vault Building (2011 Letting)	30%
Wabash Municipal Airport**	Runway 18-36 Widening (2010)	50%

\*\*Indicates projects under construction

▶ Indicates work performed by Subconsultants  
for example, Land Acquisition performed by Appraisers,

### Current Workload & Growth Rate:

In 2010, NGC's workload is projected to average approximately 60% of our normal project workload compared to previous years. Based on our current projects and proposed staff increases, we anticipate that our utilization rate will be between 60% and 70% for 2010 thru 2012 with an anticipated 10% client growth in the next 2 years. Since opening in 1996, we have never lost a client. Since 2005, we have been growing at an average of 2 airport clients per year, and now serve as the primary consultant for 14 airports. In 2004 we established this preferred growth rate in order to allow our projects to maintain adequate staff resources. As our client list gradually increases, our staff size has increased proportionally; thus, allowing us to adequately train new staff members while maintaining a high level of quality service. In order to keep a high level of quality service as a company grows, the company must maintain their client growth at a reasonable rate. The downfall of many engineering firms has been rapid and large growth of employees or clients. NGC has been able to maintain a successful balance for our clients and staff by not submitting our qualifications on every project and establishing a controlled growth rate. This also allows us to only submit our qualifications to airports that we believe would truly make a good fit with our staff and goals, and that is why we our submitting our qualifications to you. As stated earlier, our design projects for this year are completed and we will be able to begin immediately on design of the ARNG apron. (We have included several examples, in the following pages of this section, of projects with tight deadlines and restrictive budgets that we completed successfully.)

NGC and CTL have worked together on numerous apron projects similar to the ARNG apron. As you go through our proposal you will see the various sizes of airports we serve, ranging from the smallest to the largest. You will also see an extensive list of apron projects from general aviation to National Guard and Cargo. Our experienced Project Managers will not only bring their vast apron project experience, but also a fresh approach and new ideas that may have been overlooked.

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## Demonstrated Abilities to Meet Deadlines & Budgets

NGC has a proven track record on meeting bidding schedules, construction budgets, and consulting budgets. We have been selected by many new clients within weeks of a grant deadline and have successfully brought in great projects as well as completing them under budget. The following are just a few examples of our capabilities:

- ✦ The Louisville International Airport, Airfield Electrical Upgrade, Phase I, project was awarded to NGC on May 10th, 2005. NGC was under contract on June 7th, 2005. Approximately three weeks later, on July 1st, 2005, the project was out for bid. The bids were sufficiently below budget that we could take all of the alternates, and the airport received substantially more scope than anticipated while remaining under budget. Our fees on the project was a lump sum at \$28,000, and the contract was not amended. The project began construction in November, 2005. The construction was completed under budget, with one final change order for an overall contract decrease of approximately \$4,000. The project was so successful that LRAA has since completed a new phase with NGC every year since, as well as requested that their primary consultant contract with NGC to perform all of the electrical designs and to perform Quality Control review on all of their projects that include electrical components.
- ✦ The Gary/Chicago Apron Expansion was bid with a base bid and an alternate for additional paving lanes. The bids were low enough to accept all of the alternates. Our fees on the project were hourly rate – not to exceed and we did not expend the entire contract amount. The total FAA grant was closed out under budget (\$5,879). The Apron Expansion project was completed within the 60 days allotted in the Specifications. It is also important to point out that this project was designed and constructed simultaneously with another large runway rehabilitation project. The designs for both projects were completed in approximately 60 days. This fast tracking of design was necessary to be able to accept the discretionary grants offered by the FAA.
- ✦ The Gary/Chicago Runway Rehabilitation project was funded with both FAA and PFC funds. The construction was funded with the FAA discretionary grant and was completed 10% under budget. The professional services were funded with PFC funds and were completed 15% under the proposed budget. This was due much in part to completing the projects ahead of schedule, which reduced the required inspection time. The project was designed to have six 60 hour runway closure times for milling, paving and pavement marking. Closure times were from 6:00 PM on Fridays to 6:00 AM on Mondays. Every phase was completed ahead of schedule. The first closure was shortened by 4 hours and the remaining five closures were all completed at least 12 hours ahead of schedule.
- ✦ The Kentland Municipal Airport selected NGC in 2004 as their Engineering Consultant. Once selected, NGC was left with only 3 months to determine their immediate project needs, then design and receive bids in order to prevent the loss of their 2001 Non-Primary Entitlement funding. NGC proposed a much needed Runway Painting and Electrical Improvement project, and an Environmental Assessment for the future runway extension. After the bid opening, INDOT issued a non-compliance letter regarding their non-standard runway markings and non-frangible lighting fixtures. NGC was able to secure bids in time to prevent the loss of their Non-Primary Entitlement and their annual airport operating certificate due to incorrect runway markings. Most importantly the runway was closed for only 8 hours during the runway painting project, and their existing Low-Intensity lights remained operational during the entire Electrical Improvements project until the final change over to new Medium Intensity Lights. This project was completed under budget and without any contract amendments.

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# COMPANY OVERVIEW

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## Demonstrated Abilities to Meet Deadlines & Budgets, Cont.

✦ The Clark Regional Airport released an RFP for a planning study in mid June, 2007. The airport Board was seeking to discover ways to increase revenue and to evaluate types of management structures used at other airports around the state. The submittals were due on July 10, 2007 and the final submission of the report to the BOAC was to be August 25, 2007. The importance of completing the document in this time frame was important as the BOAC needed the supporting information so they could submit their budget request to the County Commissioners and Council by the September deadline. NGC was selected by the BOAC and received contract approval on July 16th and quickly began to create the questionnaire for the sample group of ten Indiana airports. The survey results provided a large portion of the data in the report and was followed up with interviews of the sample airports. By August 8th, survey information and interviews were complete and NGC began compiling the data for the report. Two weeks later the draft report was submitted to the BOAC for review and comments. Once the BOAC reviewed the document and NGC incorporated comments, the final report was presented. This project was 10 weeks in length from advertisement to completion. The Clark County Attorney summarized the report as, *"The most comprehensive report he has ever seen in 20 years of government."*

✦ In December of 2007, the Terre Haute International Airport began the process of seeking a consultant to design and manage the multi-phase rehabilitation project for Runway 5-23. While the statements of qualifications were due on January 18th, it was not until April 9th that a contract agreement was approved. This substantial delay used a large portion of the time available for design as the airport still needed to obtain bids in time to secure a grant before the end of the year and it was hoped that the first phase of construction could be completed before inclement weather arrived. NGC began work immediately and designed this \$3.7 million dollar project in approximately four weeks and was able to accept bids on June 10th.

Phases II and III were equally challenging as we also had to take into consideration that the successful bidder on these subsequent phases may not be the same contractor as the first phase. In addition, NGC opted to complete the design for both phases so that in the event that additional funds were available, the division line between the phases could be adjusted to make use of any available funds. This was a fortuitist move as the following spring, ARRA Stimulus funds became available. In addition, another bidder was found creating much needed competition in this market. Due to the availability of ARRA funds, a sagging economy, lower oil prices and stiffer competition, we were able to accomplish 3 times more project for only 50% more cost.

✦ The Jackson County Airport in Ravenswood, WV had a dilemma in that they wanted to construct additional hangars so that in three years they could focus on a runway extension. Unfortunately, the apron in front of the main terminal was also in need of rehabilitation which had a much higher priority rating. The CIP provided a plan to phase the apron over three years to fit within the available NPE funds and was scheduled to begin in 2010. When the ARRA Stimulus funds became reality, NGC immediately began lobbying the Eastern Region ADO to use some of these funds for the apron project. In March of 2009, we learned that the apron would indeed be funded with ARRA funds and needed to be under grant by mid May. The survey, soil exploration, and design were completed in quick succession and advertised in mid April. It is important to note that NGC accomplished three ARRA projects in addition to other work in excess of \$7 million during this hectic time frame.

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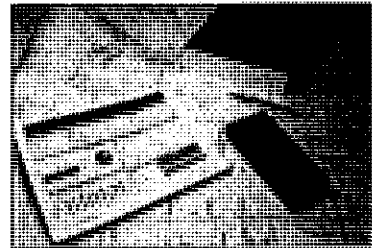
# CTL Engineering of West Virginia, Inc.

*An Employee Owned Company*

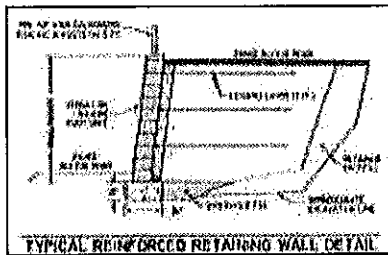


CTL Engineering of West Virginia, Inc. (CTL WV) is a full service consulting civil & geotechnical engineering, drilling, materials testing and construction observation service company. CTL WV was founded in 1983 to provide regional service to West Virginia, Maryland and Pennsylvania. CTL WV is part of CTL Engineering, Inc. formerly known as Columbus Testing Laboratory, which was established in Columbus, Ohio in 1927 as an independent engineering testing laboratory serving the local community. Since 1927 our expertise has focused mainly on foundation engineering, construction testing and inspection services.

CTL WV has a state wide staff of over 50 people; including licensed professional engineers, licensed land surveyors, environmental scientists, geologists and certified engineering technicians. Nationwide CTL Engineering sustains a staff of over 220 employees, providing additional professional expertise as well as staff and equipment resources for meeting project needs and goals.



Over our 27 years in West Virginia, CTL WV has provided numerous civil site designs, geotechnical designs, stormwater plans and surveys for commercial and residential developments and roadway projects. We have successfully prepared State and Federal 401 and 404 Permit submittals, Ms4 Phase II stormwater permits and conducted Environmental Site Assessments. CTL WV also has significant experience working on mining related projects including mine plans and permitting, mine refuse reclamation and subsidence evaluations and investigation. These projects were completed by conscientious interaction with Architects, Engineers, State and Federal Agencies and Owners.



CTL WV has certified engineering and laboratory technicians providing material testing and construction observation services. Our Charleston laboratory has been validated by the U.S. Army Corps of Engineers since 2002 and both our Morgantown and Charleston labs are annually inspected by the West Virginia Division of Highways.

CTL WV maintains a fleet of four drill rigs including truck, rubberized track and ATV mounted. Our crews have experience in steep terrain and barge drilling and deep boring exploration to depths greater than 300 feet. Additionally, CTL Engineering has a total of nine drills allowing CTL to place multiple rigs on one site, if project schedule demands.



Additional services provided by CTL include Ground Penetration Radar, GIS mapping, ALTA surveys, GPS surveys, Nondestructive Testing and Inspection, Forensic Science, Accident Re-Construction, Roof Consulting, Building Envelope Testing, Product Testing, Analytical Laboratories, Metallurgy Services, Security and Safety Systems and Telecommunication Services.

# PROJECT MANAGEMENT

NGC

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## TOTAL PROGRAM MANAGEMENT

All of the firms that submit on this RFQ are capable of basic engineering. They all prepare plans, hold pre-bid conferences, manage the construction, and complete the grant paperwork. While we believe we perform these tasks better than others, that is not the effort that differentiates NGC from most firms. It's the "other things" that our firm does that we feel sets us far and above the others. One airport manager stated that "NGC is an aviation consulting firm that also provides engineering rather than an engineering firm that also provides aviation consulting." As we have said before, aviation is not a branch of our company, aviation is our company. Therefore we strive to offer services that are never seen from your typical firm. Whether it is assisting with electrical troubleshooting, assisting with a new aircraft layout for an existing hangar, or providing sample spill prevention programs, we have the capability and the where-with-all to find the solutions that our clients desire and we make it happen. We have never shied away from a challenge or task asked of us. Our clients know that when they have a need, they only have to pick up the phone and call us. Our staff comes from a wide range of aviation backgrounds and their combined experiences in aviation throughout the World will be at your service at all times.

 **Miami County**  
ECONOMIC DEVELOPMENT AUTHORITY  
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Paris, IN 40370-3615  
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www.miamicoecondeva.com

## Hangar 200

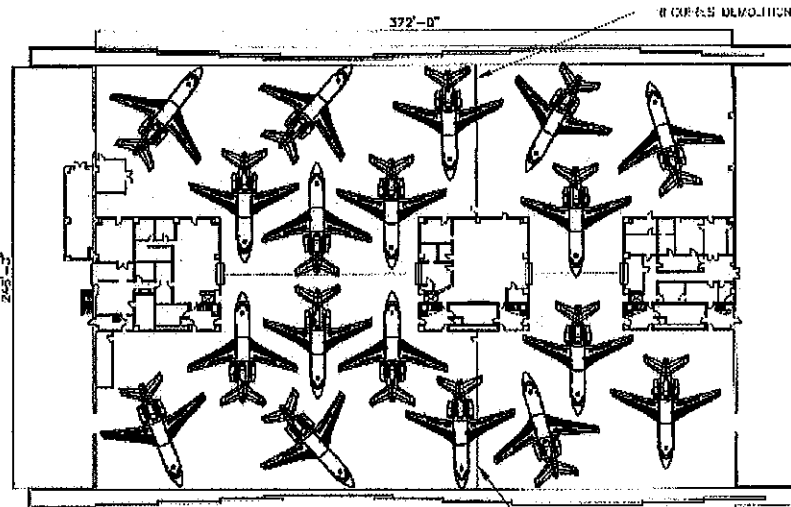


Figure 11  
Hangar Layout  
Dassault Falcon 900 EX

The Miami County Economic Development Authority (MCEDA) has a "Joint Use" Agreement with the United States Air Force to allow civilian use of Grissom Airport. The use of the airport is needed in order to connect the airport and the Grissom Aeroplex Business Park. In 1991, Grissom was put on the BRAC list, and by 1994 a large portion of the land, buildings, and Hangars were turned over to MCEDA while the base was converted into Grissom Air Reserve Base.

MCEDA requested NGC to provide assistance with showing numerous hangar / aircraft possibilities in order to market the Grissom Aeroplex buildings that are available to potential businesses looking to relocate. The layout shown on the left is just one sample of how many Falcon 900's can potentially fit into this hangar. The layouts provide aviation maintenance businesses ideas of how many aircraft can be stored while still having necessary office operations.

NGC

### **AGENCY RELATIONSHIPS**

One of the other critical elements that ensures that projects go smoothly is knowledge of FAA regulations and the relationship that is developed with the various FAA agencies. Over the years, our various projects have required that we interact with a diverse group of professionals within the FAA organization. NGC has worked several years with the FAA's Beckly office, including Mr. Kurt Blankenship and Mr. Matt DiGiulian. We have also developed strong working relationships with Ms. Susan Chernenko, Mrs. Lyn Anderson, and Mrs. Karen Myers from the WVDOT Aeronautics Commission. NGC will be a familiar face to these agencies when we begin work on your project.

### **SCHEDULING**

NGC has just completed the last design project of 2010, and we will be opening bids for our last project in three weeks. The FAA program is cyclical, and after the projects are released for letting, and our staff will then move on to work on planning or construction tasks. By staying focused on aviation year round, it requires our staff to be cross-trained on various stages of airport development from grant administration to construction record drawings.

This year, NGC had only a few design projects which means our staff will be able to begin work on the ARNG Apron Rehabilitation Project immediately upon receiving the contract. The staff assigned to your project is provided in the section titled "Project Team." NGC is utilizing CTL Engineering to perform Geotechnical, Surveying, and Construction services. Like NGC, CTL will be available to begin work on your project immediately.

After receiving any CAD files that the ARNG or airport has available, it will take between 2-3 weeks to obtain the topographic survey files and Subsurface Investigation from CTL. Shortly after receiving the files, we will immediately setup the Safety & Phasing sheets for your review and approval, typically 2-3 weeks to finalize. A quick turnaround is needed for the Safety & Phasing plans in order to obtain comments from North Central West Virginia Airport, the FAA, and WVDOT Aeronautics Commission. Our goal is to finalize the Safety & Phasing plans in order to submit 7460's for the project location, Contractor's equipment, and any potential closures.

While your staff, the airport, and the FAA review the Safety & Phasing, our Engineer's will be working on the Construction Plans and Specifications. Most apron expansion projects take between 6 to 8 weeks to design. The project can be released for letting as soon as all comments or concerns from the ARNG, NCWV Airport, FAA and State have been addressed by NGC. NGC will request all reviewing parties to type their comments into "NGC Comment Log" spreadsheet. Our Comment Log not only keeps an accurate record of who submitted the question or comment, but also tracks the date of the comment, and how NGC has addressed their concern in the next set of Review Drawings. Most of our clients request 80%, 90%, and/or 100% review sets, ARNG may establish their own percent complete review stages. By the last review set, 100%, every agency involved will have their concerns or comments addressed and have the ability to go back thru the "Comment Log" to see how NGC addressed their comments. After NGC receives ARNG's approval on the 100% review set, NGC will begin the bidding process. If this project requires "Fast Tracking", NGC is more than capable to handle those needs and meet the schedule timeframe required by the West Virginia Army National Guard.

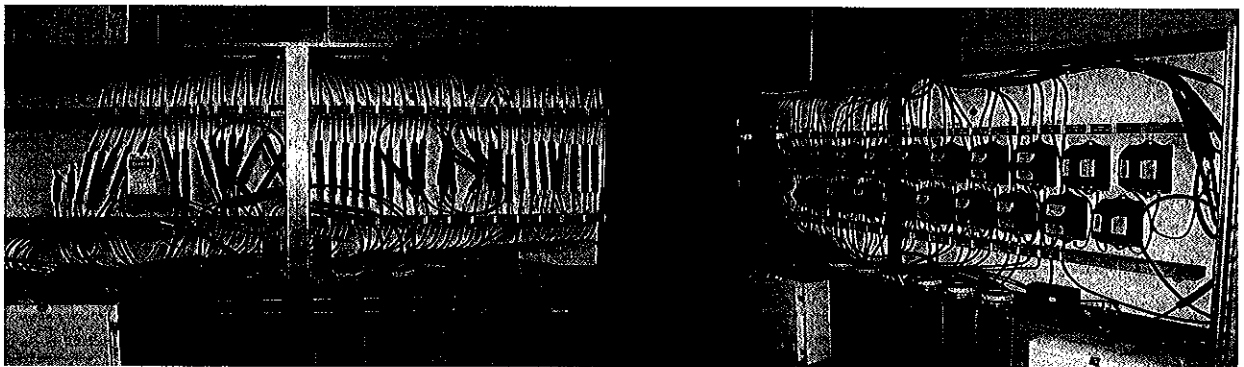
## VALUE ENGINEERING

NGC believes that value engineering is a part of the design process. We approach every project with the intent of getting the most out of every project dollar. We feel that value engineering should not be an extra cost unless it involves designs completed by others, incorporates subconsultants or requires extensive research into new technologies. As we design and plan, we are always thinking about future projects. Sometimes this may include planning ahead on dirt jobs and pre-shaping future paving projects. Sometimes it will require that you stockpile millings or dirt for future use as fill material. It might even be as simple as putting the runway edge light cable 25 feet from the pavement edge because you know there will be a 15-foot widening project in two years.

NGC continually seeks ways to assist clients in obtaining their goals at the most reasonable cost. For example, the Gary/Chicago Airport has approximately 150 acres of land that was overgrown with trees and brush. Preliminary estimates to clear this land exceeded \$300,000. NGC worked with the Airport and assisted them in the procurement of a side-boom rotary mower for approximate \$90,000. Now they clear the land in their spare time and have the capability to maintain it once finished.

Another example revolves around the airfield lighting cable at the Gary Airport. The 25 pr. cable was failing and would soon need replacement. Early estimates were \$150,000. Rather than simply take the easy way out, Ken researched and designed a radio telemetry system which used programmable logic controllers and radio transceivers to broadcast the commands from the tower to the vault. The solution was only \$30,000 and provided for unlimited expansion in the future.

At Louisville International, NGC was contracted to design an LED taxiway edge light project. During the accomplishment of that project, we immediately became concerned with the condition of a cutover cabinet in the vault building. Although it wasn't in our original scope, we convinced LRAA to install S-1 cutouts for safety reasons. Even though this increased NGC's effort, we did not request a contract amendment.



Louisville International's electrical vault included a "less than safe" method for cutting circuit loops to the field. The system did not provide adequate lock-out/tag-out safety, and users could potentially be killed if they touched a bare wire while the regulator was operating.

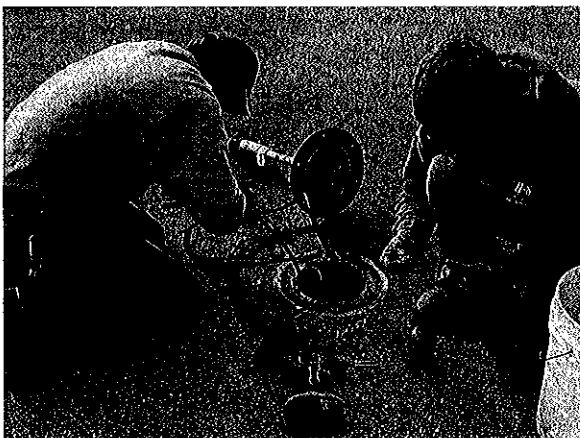
Immediately upon initial site review, NGC recommended S-1 cutouts that provided secure lock-out/tag-out methods, but also provided a clear and understandable way for users to know when the field circuits is closed and a safe method for meggering all of their circuits.

**CONTRACTOR OUTREACH**

Another opportunity that we find helps lower construction costs is to get the best competitive bid possible on construction projects. To achieve this requires many elements including, but not limited to the following:

- Prepare a quality set of construction bid documents
- Maximize the number of potential bidders
- Let the bid at the proper time of year
- Allow adequate time for contractors to prepare their bid
- Be timely in answering questions and distributing addenda
- Be fair, but firm with the successful contractor

While some of these items seem obvious to the average person, we can assure you that not all firms meet all of these elements. Every firm strives to put out a good set of plans, but some fall short. Due to workload, short schedules or allowing inexperienced personnel from other departments to prepare plans, mistakes can be made. At NGC, we implement a quality control program where at least three individuals review the plans and we allow enough time to ensure that a proper evaluation is completed. And while timing can sometimes be dictated by the State and Federal agencies providing funds, early coordination and keeping contractors informed can keep them interested in your program. While we feel that NGC rises above the others in all areas, our clients know that we expend extra effort to let contractors know what is over the horizon and when the bidding opportunities are available.



Michiana Contracting traveled from Plymouth, Indiana to Louisville, Kentucky in order to bid on NGC projects.

Another advantage is that we have many clients throughout the State and that we often deal with the same contractors at many of our airports. NGC has always been successful in developing good working relationships with contractors throughout the region. Beyond contractors, we have established relationships with many material vendors such as Siemens, Crouse Hinds, Halli-brite and more. Because of our focus on Airports, we expend a substantial amount of effort in knowing the construction industry and potential bidders. We have had contractors travel to new territories in order to bid on our projects. One such contractor, Michiana Contracting,

followed us to several communities that they had never bid in before. Surprisingly, Michiana bid on two of our electrical projects in Louisville, KY and they were the successful bidder on both. Our on-going relationship provided them with enough comfort level to place a competitive bid in a remote region. The Louisville staff was pleasantly surprised when Michiana completed the project six weeks ahead of schedule and the bids came in nearly half of that of the other bidders.

To enhance our contractor outreach, we have dedicated a portion of our website to project information in order to develop contractor interest. A portion of the site lists recently opened bids, current advertisements, plan holder lists, and notifications of upcoming project opportunities. A second section provides a site for contractors to register with NGC and receive future advertisement notices via email. Any time a new project is available for bidding, NGC sends an email to over one hundred contractors who may have interest in the project. In the future, we anticipate adding a section that allows contractors to preview and purchase bid documents on line. To view our site, go to [www.ngc.aero/bidding\\_info.htm](http://www.ngc.aero/bidding_info.htm).

RECENTLY OPENED BIDS	
Gary Grading & Drainage	GCA02002 Bid Tab

CURRENT ADVERTISEMENTS		
Project Name	Advertisement	Plan-Holder's List
Gary Grading & Drainage Division B "Landscaping"	Advertisement for Bids	Plan-Holder List
Jackson County SRE Building Expansion	Advertisement for Bids	
Jackson County Jet Fuel Farm	Advertisement for Bids	
Jackson County Snow Removal Equipment	Advertisement for Bids	Plan-Holder List
Jasper County Parallel Taxway	Advertisement for Bids	Plan-Holder List

UPCOMING OPPORTUNITIES		
Airport Name	Location	Project Name
Wabash Municipal	Wabash, Indiana	Electrical Improvements
Delphi Municipal	Delphi, Indiana	RSA Improvements
Louisville International	Louisville, Kentucky	Airfield Electrical Improvements Phase 2
*Plans/ Specs for Projects in this section are not currently available, please check back for updates to the Current Advertisements List		

This NGC webpage provides contractors with information relative to past, current and future projects. The website was designed and is maintained in house which allows us to make frequent changes.

## Bidder Registration

To be added to the Bidder's list and to receive information on bidding opportunities, please provide the following contact information:

Name

Organization

Street Address

Address (cont.)

City

State/Province

Zip/Postal Code

\*Work Phone

\*FAX

E-mail

All information must be completed to ensure inclusion to the list.

\* Include Area Code

### DISCLAIMER

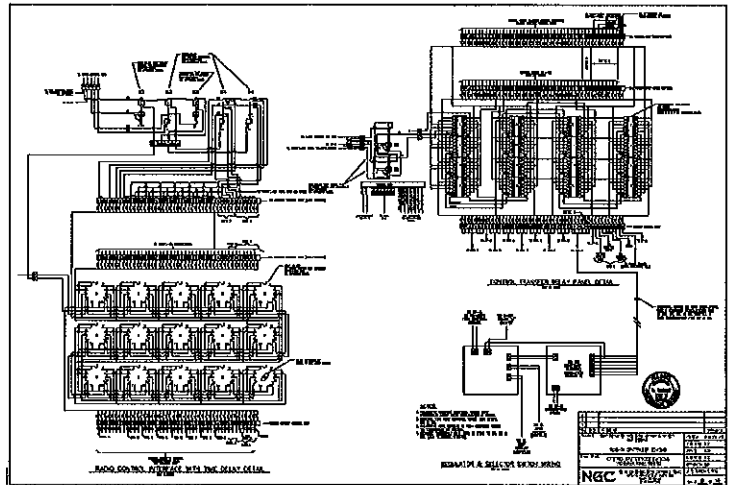
Please note that you will receive advertisements on all NGC projects regardless of location. Bidders should return to the advertisement section on a regular basis to stay informed on projects. It is the Bidder's responsibility to inform NGC of any changes to the above information.

This NGC webpage provides contractors with an opportunity to register to be added to our contractor list. Once registered, contractors are notified of any upcoming projects.

**GENERAL CONSULTATION FOR AIRPORT MANAGEMENT AND FUTURE PROJECTS**

This is the one area that we feel we truly exceed the expectations of the client. We treat every airport as if it is "our" airport. We mean as if we own the airport. We provide general services in a variety of tasks. Whether it is assisting the airport in troubleshooting electrical problems, writing hangar or land leases, procuring vehicles and equipment or simply preparing emergency plans, we are there for your use. Because we have such a diverse range of clients and a large amount of contacts, we can be your pipeline to a huge amount of information. Sometimes, these services are offered pro bono as many facilities do not have extra funds to spend on these services. We would prefer to assist them and get the best solution than have them tackle it on their own and cut corners. Some examples are as follows:

Electrical Assistance Because of our need to understand airfield electrical systems, it is not uncommon for us to roll up our sleeves and assist an airport when the time to troubleshoot comes along. There have been times when Ken would go to an airport at 4:00 A.M. to locate ground faults on a runway edge lighting circuit so that the runway would be open for a 5:30 A.M. arrival. This troubleshooting often extends to electrical vaults where the vast amount of "spaghetti" wiring can be daunting to even the most experienced. Ken has been known to take a propane-fired soldering iron and replace the resistors on a set of REILs. In addition, we often know where small caches of spare parts can be located in an emergency. We even have some taxiway lights, transformers, bulbs and globes in our possession for just such an occasion.



Part 139 Knowledge This is an area that we feel we can make claims that can be met by no others. While many firms boast about working on Part 139 airports, we have actually participated and assisted with Part 139 issues in great detail. In addition to assisting in the preparation of snow removal plans, signage plans, Part 139 Manual and other operational manuals, we have even participated in the multi-day inspection conducted by the FAA. In the past, we have been able to resolve disputes between the FAA inspector and the Airport by simply applying our knowledge of advisory circulars to a particular issue. Other manuals that we have prepared or assisted with include Spill Prevention Control and Countermeasure Plans, Storm Water Pollution Prevention Plans, Emergency Plans, and more.



# PROJECT SERVICES

NGC

## ACCESSIBILITY

Communication is a great thing, until you can't reach your project manager or another member of the team. We guarantee that you will always be able to reach one of us at anytime. We provide all of our clients a contact list which includes work, cell and home phone numbers. It is not uncommon for our clients to call after hours on their drive home to brainstorm on various project issues. When we travel, we take our portable laptops with us for easy email access and file transfer. When necessary, we will travel and stay in your area and be accessible for face to face work sessions. Having experienced pilots on staff and the fact that we are willing to travel by general aviation aircraft allows even greater flexibility to schedule on-call visits.

## CONSULTANT TRANSITION

One of the concerns in any consulting engineer selection process is how well will the transition process proceed if the incumbent firm is not selected. In addition, some members may prefer to stay with the current firm even if not completely satisfied out of fear of the unknown. The success of the transition typically depends upon the professionalism of the outgoing firm. We can safely state that we have been involved in many transitions in which we were the incoming firm. Fortunately, we have never experienced a transition away from NGC as we have had 100% of our clients return for additional services.

Elements that can ease the transition and reduce future engineering costs include the following:

- Define roles and responsibilities of existing contracts and programs.
- Obtain electronic Autocad record drawings of past projects.
- Obtain electronic Autocad files of all Master Plan drawing sheets
- Obtain electronic Autocad files of all surveys.
- Obtain copies of past soil borings.
- Obtain copies of past drainage plans.

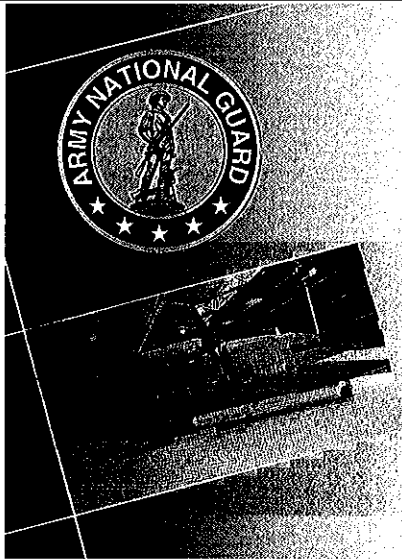
The reason for obtaining this information is simple. It reduces the amount of data collection required on future projects. There is no need to recreate data that has already been collected and paid for on past projects. Of the info requested, the Master Plan Airport Layout Plan drawing files are most vital so that they can be updated as projects are completed. If it is determined that obtaining this info is difficult or includes a heavy cost, then do not be concerned and the projects will still go on. We simply feel that all info derived during a contractual relationship is the property of the Owner and should be delivered as part of the past projects. Our contracts are written so as to make it clear that all project files and data are the property of the Owner and will be turned over upon request.

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# PROJECT TEAM

NGC



## Introduction

Whether NGC is the prime or the subconsultant, NGC only teams with firms that have many years of prior airport experience and that have our same core values. NGC expects the same level of quality of service and customer service that NGC provides to our clients. We only want to work with firms that do not hesitate to make their wrongs right. Our unmatched attention to details, quality, value engineering and customer service can be seen in our companies success. We have never lost a client or had an Errors or Omission claim filed since opening our doors in 1996.

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NGC

Ken Ross, NGC  
Vice President



Ken Ross grew up in Ripley, West Virginia and spent nearly half of his life in West Virginia before leaving the state during a down economy in the 1980's. After leaving, he quickly found his passion for airport engineering. In 1996, he obtained his license in Professional Engineering. Soon thereafter he was persuaded by the Director of the Gary/Chicago International Airport to open his own consulting business when the firm that Ken was working for at the time was not responsive to the airport's needs. Ken saw the need for customer focused aviation consulting firm with reasonable fee structures.

As an employee at a mid-sized firm, Ken knew that the only way he could control the success of his client's CIP program was to remove the layers of management between him and his client. After thinking about the Director's request for Ken to start his own firm, Ken soon created NGC and later became the consultant for the Gary/Chicago International Airport.

## Apron Expansion Project Manager Background

NGC will lead the Apron Expansion Project, under the direction of Ken Ross. Ken's years of experience with Part 139 airports and project management skills will be an excellent fit for your apron expansion project. He has successfully served as a Program Manager for Gary/Chicago International (GCIAA). At GCIAA, Ken has managed 8 various apron projects alone. The types of apron projects that he has designed and managed for GCIAA include:

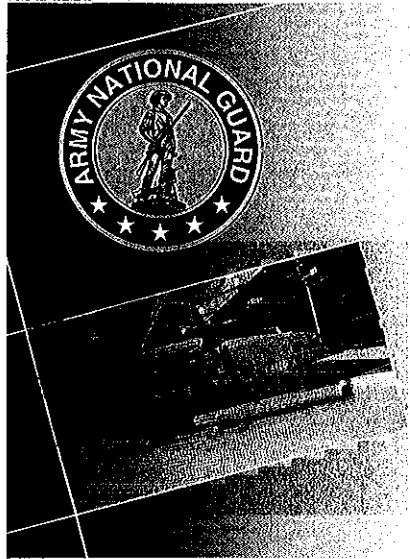
- Deicing Apron (1996)
- Terminal Apron Expansion (1999)
- W. Cargo Apron Phase I (2002)
- Terminal Apron Expansion (2002)
- W. Cargo Apron Phase II (2005)
- Terminal Apron Expansion (2005)
- Boeing Apron (2000)
- Boeing Apron Expansion (2007)

Ken's clients have all said that making the switch to NGC was the best decision they have ever made. Everyone that has the opportunity to work with Ken comes away knowing that there are always options and alternative solutions to their project. What may seem like road blocks to clients are just road bumps to Ken. Ken approaches projects as a strategical process, like a game of chess. Every move must be thought out methodically before making the next move. Your project will impact every future project down the road, and Ken's goal is to make sure that this project will help make those future projects as successful as the project he manages today. Whether it is thinking of future borrow material, or pilot accessibility during construction, every detail of the project must be orchestrated perfectly. His clients insist that Ken's niche for project and program management is un-matched in this industry. Ken brings not only alternatives and options to our clients, but also strong communication and "people" skills that many engineers lack. We are confident that Ken will exceed your expectations, and become a trusted member of your development team.

NGC

# PROJECT TEAM

NGC



## Project Subconsultant

NGC will utilize CTL Engineering to perform Preliminary Subsurface Investigations, Topographic Surveying, Construction Materials Testing and Construction Observation of the Apron Expansion Project. Small teams are better suited for individual projects such as the ARNG Apron Expansion. A small, lean team means reduced layers of upper management and quicker deliverables, while eliminating markup costs on several firms. Understandably, clients want the maximum amount of project dollars directed towards construction. We recommend that larger team structures should be reserved for multi-phase or multi-year construction programs.

CTL's personnel have thorough knowledge of the FAA's advisory circular covering pavement A/C 5320-6D "Airport Pavement Design & Evaluation", as well as the FAA's Technical Specifications. We have not found any other materials testing firm with as many experienced airport personnel that truly understand the FAA acceptance requirements. NGC has entrusted CTL to perform over 95% of our materials testing subcontracts for the past 5 years. We have provided a small list of NGC's projects that CTL provided all of the geotechnical services required before and during construction (*list provided on left side of page*).

CTL has assigned David Moore, PE for the management of the Geotechnical, Surveying, and Construction Observation Services. David has over 30 years of civil engineering consulting experience, that has spanned across many spectrums of the construction industry. David is currently managing CTL's FWAATS Facility hangar slab project.

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### Related Team Experience

- Indianapolis International Airport  
Apron Rehabilitation (2006)
- Indianapolis International Airport  
Apron Rehabilitation (2006)
- Indianapolis International Airport  
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- Indianapolis International Airport  
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- Indianapolis International Airport  
Apron Rehabilitation (2006)

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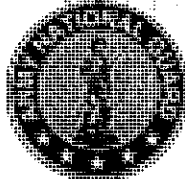


CTL & NGC teamed at Indianapolis International for the FedEx Cargo Apron Rehabilitation, Phase II project in 2006 (shown above). A "Project Highlight" has been included in the section titled "Related Experience"

NGC

# PROJECT TEAM

NGC



The West Virginia Army National Guard  
 Joint Forces Headquarters  
 Construction & Facilities Management Office



**Ken Ross**  
 Project Manager  
 Design & Construction

NGC

**Travis Garner, PE**  
 Project Engineer  
 Quality Control Plan Reviewer

NGC

**David Moody, PE**  
 Project Engineer  
 Design & Construction

NGC

**Debbie Ross, PE**  
 Assistant Project Manager  
 Design & Construction

NGC

Support Staff



Support Staff

NGC

**Arthur, Louis**  
 Project Engineer  
 Design & Construction

**Shawn Calkins**  
 Design & Construction

**Chris Hays**  
 Design & Construction

**John Hays**  
 Design & Construction

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## **BACKGROUND**

Ken has been involved in the design and inspection of many airport projects since 1992. Ken's project design and inspection experience includes concrete and bituminous paving, airfield lighting, land acquisition, master plans, electrical vaults, fuel farms, AWOS, hangars, control systems, airport security, and landside terminal development. He has worked on all size airports, but the vast majority of his career has been focused on mid to large sized airports.

Ken's administration experience has involved several of the various funding sources available to airports including Passenger Facility Charges (PFCs), Airport Improvement Programs (AIP), and State Grants. Ken works closely with the client, FAA, and INDOT to develop the best project for the grant funds available.

## **Education**

Bachelor of Science in Construction Technology  
Associate of Applied Science Civil Engineering Technology  
Highest Distinction 1992 Outstanding Graduate  
Purdue University

## **Registrations**

Registered Professional Engineer , Indiana & Illinois

## **Awards**

Aviation Association of Indiana  
President's Special Recognition Award 2008

Indiana Concrete Paving Association  
Project Excellence Award, Overlays  
Jasper County Airport 2010

Indiana Concrete Paving Association  
Project Excellence Award, GA  
Delphi Municipal Airport 2009

American Concrete Paving Association  
Project Excellence Award, Gold Honors, GA  
Delphi Municipal Airport 2009

**YEARS IN INDUSTRY** 18

## **PROJECT HIGHLIGHTS**

- **Access Taxiway Stubs—Indianapolis International Airport, Indianapolis, Indiana, \$1.9M** Responsibilities included engineering and design for a taxiway construction project. The purpose of this project was to construct taxiway and runway stubs beyond the safety area limits to ease future construction without impacting the access to the United Maintenance Facility. The project included grading, drainage, PCC paving, electrical, erosion control and maintenance of traffic elements.
- **Package No. 1 Grading & Drainage—Indianapolis International Airport, Indianapolis, Indiana, \$6.0M** Responsibilities included engineering and design for a runway and taxiway extension project. The purpose of this project was to construct as much mass excavation as possible outside of the protected wetland areas. The project also included construction of a 6,200 foot perimeter access road and a 1,200' x 100' taxiway extension. The project included grading, drainage, PCC paving, bituminous paving, electrical, erosion control and maintenance of traffic elements.
- **Package No. 2 Grading & Drainage—Indianapolis International Airport, Indianapolis, Indiana, \$7.1M** Responsibilities included engineering and design for a runway and taxiway extension project. The purpose of this project was to construct the remaining portion of the mass excavation in the permitted wetland and floodplain areas. The project included grading, drainage, erosion control and maintenance of traffic elements.
- **Package No. 3 Paving—Indianapolis International Airport, Indianapolis, Indiana, \$19.1M** Responsibilities included engineering and design for the paving portion of the runway and taxiway construction project. This package included all of the paving operations to complete the 11,200' runway, a parallel taxiway, multiple taxiway connectors, an aircraft holding

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- **Package No. 4A Electrical—Indianapolis International Airport, Indianapolis, Indiana, \$2.3M** This task included the design of all of the electrical elements of the new runway project. Major items included 981 runway edge, taxiway edge, centerline, touchdown zone and stop bar light fixtures. The design also included a new electrical vault and six elevated approach light platforms in a 100 year floodplain. The design also provided for future taxiway and surface movement and guidance control system (SMGCS) circuits.
- **Runway 14-32 Extension—Fort Wayne International Airport, Fort Wayne, Indiana, \$Unknown** This project involved the design and construction of a 1,000 foot extension of a bituminous runway and parallel taxiway. The project included grading, drainage, bituminous paving, electrical and FAA Navaid relocation.
- **Deicing Apron—Gary/Chicago International Airport, Gary, Indiana, \$800K** This task included all efforts from Conception to Completion. Responsibilities included, design, management, bidding, inspection and closeout. The project elements included grading, drainage, bituminous milling, 4,221 square yards of bituminous overlay, 5,716 square yards of 12" PCC pavement, electrical, extensive pavement marking, deicing fluid diversion and a force main system. While not included within the scope, an operation manual and employee training was also developed and provided.
- **Terminal Apron Expansion Phase I—Gary/Chicago International Airport, Gary, Indiana, \$200K** This project included the design and construction management of an emergency project to expand the existing terminal apron to accommodate a pending airline arrival. The project was designed in two weeks and let for bid. Construction was completed in approximately 3 weeks which beat the winter weather. Project elements included excavation, 1,400 square yards of 12" PCC pavement, pavement marking and restoration.
- **Boeing Apron & Taxiway—Gary/Chicago International Airport, Gary, Indiana, \$1.1M** This project included the design and construction management of a new apron and connecting taxiway for a new 30,000 square foot aircraft maintenance hangar. The project included demolition of a former barracks area, clearing & grubbing, unsuitable soil excavation, 8,950 square yards of 12" PCC pavement, pavement marking, electrical and seeding/sodding. The apron now serves the hangar that is the base for Boeing's corporate aircraft fleet.
- **West Cargo Apron Phase I—Gary/Chicago International Airport, Gary, Indiana, \$1.2M** Early in the Capital Improvement program process, it was determined that the Gary Airport would need a large apron for event and overflow parking. This project came to fruition in 2002 with the construction of the west cargo ramp. Responsibilities included the design and construction management of the project which included grading, drainage, 15,000 square yards of 14" PCC pavement, electrical and restoration. The project was completed simultaneously with a \$2.4M runway rehabilitation project which provided substantial saving on the construction management elements of the program.
- **Terminal Apron Expansion Phase II—Gary/Chicago International Airport, Gary, Indiana, \$150K** This project continued the expansion of the terminal apron in the east direction to the limits allowed by the perimeter fence. Responsibilities included the design and construction management of the project which included grading, drainage, 1,670 square yards of PCC pavement and restoration.
- **West Cargo Apron Phase II—Gary/Chicago International Airport, Gary, Indiana, \$400K** This project provided the second phase of the west apron build out. The apron expansion extended to a new \$5.0M large corporate aircraft hangar. Work elements included excavation, unsuitable soil excavation, drainage structures, 4,490 square yards of 14" PCC pavement and restoration.
- **Terminal Apron Expansion Phase III—Gary/Chicago International Airport, Gary, Indiana, \$400K** This project included the expansion of the terminal apron to the south so as to allow commercial aircraft traffic to pass while providing a deeper staging area for aircraft parked at the two passenger loading bridges. Elements included excavation, 5,392 square yards of 14" PCC pavement, electrical, pavement marking and restoration.
- **Boeing Apron Expansion—Gary/Chicago International Airport, Gary, Indiana, \$330K** In order to provide additional apron space for staging of aircraft and ground support equipment, Boeing and the Gary Airport Authority jointly expanded the apron. Work tasks included excavation, unsuitable soil removal, 2,585 square yards of 12" PCC pavement, electrical, gate modifications, retroreflective markers and mulched seeding.

NGC

## BACKGROUND

Deanne's project design and inspection experience includes concrete and bituminous paving, airfield lighting, electrical vaults, land acquisition, airport security, Capital Improvement Program Development, and landside terminal development. Deanne has received award recognition by various associations on several projects for her design and inspection accomplishments, for both Commercial (Part 139) and General Aviation Airports.

Deanne also plays a valuable role as a representative for our clients. She often is a liaison and proponent for our clients on issues regarding maintenance assistance and minimum standards. Deanne has been instrumental in obtaining free loaner fuel trucks, discounted fuel rates for Fly-Ins, free runway lenses due to shipping delays, and free replacement electrical parts on non-warranty items. It's this type of pro-active attitude that most engineering consultants won't tackle that has assisted NGC in obtaining new clients and maintaining existing clients.

## EDUCATION

BACHELOR OF SCIENCE IN CIVIL ENGINEERING  
Tri-State University, Angola, IN

INDOT Certified Testing Technician

## Registrations

Registered Professional Engineer, Indiana, Kentucky, West Virginia

## Awards

Flexible Pavement of Ohio  
Airport Smoothness & Excellence Award, GA  
Urbana Airport, Ohio 2002

Ohio Concrete Paving Association  
Project Excellence Award, Primary Airports  
Rickenbacker International 2002

Indiana Concrete Paving Association  
Project Excellence Award, GA  
Kokomo Municipal Airport 2003

Indiana Concrete Paving Association  
Project Excellence Award, GA  
Huntington Municipal Airport 2004

YEARS IN INDUSTRY 13

## PROJECT HIGHLIGHTS

- **Apron & Connector Taxiway—Kokomo Municipal Airport, Kokomo, Indiana, \$575** (*experience gained under prior employer*) Awarded 2003 Excellence in Concrete Pavement Award by the American Concrete Pavement Association, this project consisted of expanding their existing terminal ramp with P-501 PCC and constructing a new P-401 Bituminous taxiway connector between the new concrete apron and Runway "5-23". The project was phased to break the connector taxiway into 4 phases of construction to minimize the impact on the airport's longest runway "5-23" and to ensure equipment would not interfere with the ILS equipment during the phases where the runway was open to air traffic. With only one area of the project consisting of P-401 Bituminous Pavement, located on a proposed taxiway connector at the end of Runway 23, Deanne required the Contractor to install the Intermediate, Surface, and Base layer test strips between the ramp and the Runway 23 RSA. The pavement section was designed with 2 lifts of surface mix, which would allow a test strip to be located underneath the final lift of pavement. The design provided just enough room for 2 test strips (*if needed*) of Surface mix on the bottom layer, and the final layer of Surface mix would be completed without any longitudinal cold joints. Deanne's forward thinking paid off, the Contractor's 1st and 2nd Surface test strips failed. The FAA specification only requires the Contractor to remove a failed test strip IF the second test strip also fails. The airport was left with a joint free surface layer on the last lift, minimizing the areas where water and ice can penetrate and damage the pavement.

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- **FedEx Cargo Apron Rehabilitation—Indianapolis International Airport, Indianapolis, Indiana, \$675K** This project included full depth panel replacement of 50 concrete panels and partial depth replacement and crack repair on another 30 panels. The project also included sewer investigation, underdrain repair and coordination with other construction project designs. Work elements also included the preparation of a safety and phasing plan that minimized impact to FedEx's shipping schedules. The project was divided into four phases of construction with work in any critical areas to be completed on Sundays and Mondays.
- **Runway 5-23 Rehabilitation—Terre Haute International Airport, Terre haute, Indiana, \$10.2M** This project included the design and construction management of a large runway rehabilitation project. The scope of work included the mill and overlay of a 9,000' x 150' wide bituminous runway with 2,300' x 150' paved overruns. Work elements included milling, bituminous paving, paved shoulders, grooving, new edge lighting, pavement marking, grooving, mulched seeding and sodding. The project was phased to maintain an adequate runway length to facilitate large aircraft.
- **Airfield Lighting Rehabilitation Phases I thru V—Louisville International Airport, Louisville, Kentucky, \$2.0M** NGC has been providing the engineering and design for all electrical work at the Louisville Airport since 2005. The multi-year program has included replacement of nearly 2,000 taxiway edge lights with LED fixtures and several hundred thousand feet of lighting cable.
- **Apron Rehabilitation—Peru Municipal Airport, Peru, Indiana, \$225K** This project included the design and construction management of the airport's terminal apron. A unique procedure was utilized to allow access to the fueling station through the use of a PPR, or Prior Permission Request. Work elements included bituminous milling, tie-down anchors, 7,050 square yards of bituminous paving, pavement marking and a seal coat application.
- **Apron Rehabilitation—Crawfordsville Municipal Airport, Crawfordsville, Indiana, \$1.1M** This project included the construction management of a large apron rehabilitation program. The existing ramp was rehabilitated in phases so as to maintain access to the hangar area and to provide fuel for as long as possible while the pumps were being located. Work elements included pavement removal, subgrade preparation, 10674 square yards of 8" PCC pavement, fuel island relocation, taxiway construction, drainage structures and restoration.
- **Apron Rehabilitation—Jackson County, Ravenswood, West Virginia, \$590K** The 7,100 square yard apron rehabilitation at the Jackson County Airport was shown as a multi-year project in order to make use of limited funds. The FAA agreed that the project was critical; however, they were not able to fund the entire program in one year due to FAA funding issues. When the ARRA Stimulus Funding became a reality, NGC pushed for this funding to make this vital project happen. The project included pavement milling, pavement removal, drainage structures, underdrains, bituminous paving, 8" PCC paving, fuel island rehabilitation, fence replacement and grade correction. The project was phased to minimize to time that access to the community hangar would be limited. The phasing also maintained fueling operations and the down time of the fuel pumps was only 24 hours during the cut-over to the new system.



## BACKGROUND

Tony plays dual role as engineer and planner. We have found his niche is electrical designs, but he has experience with all aspects of airport design and inspection. Tony works with clients and agencies to develop project deliverables, complete permits, and all other project requirements. After the design season, Tony performs inspections until the construction season ends. One of the projects that Tony performed the majority of the design on and inspected recently was awarded an industry award for quality construction. Once you have met Tony, you will understand why NGC has received many compliments from the FAA and other agencies. His proactive administration on our planning, permitting, and environmental projects has allowed NGC to quickly implement construction projects, while also keeping our Engineer's focused on design and project management phases of our projects.

## PROJECT HIGHLIGHTS

- Runway "18-36" Rehabilitation – Jasper County Airport  
*Project Engineer & Resident Engineer*  
Awarded 2009 Excellence in Concrete Pavement Award by the American Concrete Pavement Association
- Apron Rehabilitation – Peru Municipal Airport  
*Resident Engineer*
- Boeing Apron Expansion – Gary/Chicago International  
*Resident Engineer*
- Electrical Improvements – Wabash Municipal Airport  
*Project Engineer & Resident Engineer*
- Parallel Taxiway - Jasper County Airport  
*Resident Engineer*
- Parallel Taxiway Electrical—Jasper County Airport  
*Project Engineer*
- Business Plan – Sullivan County Airport  
*Aviation Planner*

## Education

Bachelor of Science Aerospace Administration  
Indiana State University-Terre Haute, Indiana

Private Pilot Certificate

INDOT Certified Technician  
Bridge Construction and Deck Repair  
Concrete Paving  
Construction Earthworks  
Construction Procedures I & II  
Hot Mix Asphalt

Federal Highway Administration - Indiana Division  
Categorical Exclusion NEPA Training

**YEARS IN INDUSTRY** 6

**BACKGROUND**

Drew's experience in aviation includes all aspects of airfield planning and engineering, as well as Program/ Construction Management, on international and domestic projects. Drew is well-versed in the design standards of both the FAA and ICAO, and is a licensed pilot and an FAA Certified Air Traffic Controller.

Drew has been actively involved in planning and program management services for airports, airlines, and governments since 1994. These projects include planning, design, and construction programs. His experience has provided him a background in service to the client, and the ability to interact with local governments and federal authorities.

**PROJECT HIGHLIGHTS**

- Midfield Terminal Site Development – Indianapolis International Airport  
*Aviation Planner*
- Terminal Expansion Program - Terre Haute International Airport  
*Program Manager*
- Centralized Deicing Pad Study - Cleveland Hopkins International Airport  
*Program Manager*
- Master Plan – Capital City Airport  
*Aviation Planner*
- Runway 10-28 Pavement Rehabilitation Study – Gainesville Regional Airport  
*Aviation Planner*
- Airfield Lighting – LaBelle Municipal Airport  
*Project Engineer*
- North Cross-field Taxiway Project – Orlando International Airport  
*Aviation Planner*
- Master Plan Update – Naples Municipal Airport  
*Aviation Planner*

**Education**

Bachelor of Science Aviation Management  
Florida Institute of Technology, Melbourne, Florida

Private Pilot Certificate

FAA Certified Air Traffic Controller

**YEARS IN INDUSTRY** 20

## **BACKGROUND**

Anthony's career in aviation engineering took off immediately upon graduation from Ohio University. His career started by performing PCI studies throughout Florida. Shortly thereafter, Anthony began work on airport design and construction inspection projects at General Aviation, Relievers, and Commercial airports. Anthony joined NGC in 2009 and provides engineering assistance and planning support.

## **PROJECT HIGHLIGHTS**

- Wabash Runway "18-36" Rehabilitation – Wabash Municipal Airport, Wabash, IN  
*Project Engineer*
- Boeing Aircraft Stall Expansion Phases II & III – Paine Field, Everett, WA  
*Civil Engineer*
- Parallel Taxiway and Development – Paine Field, Everett, WA  
*Civil Engineer*
- Perimeter Road Relocations – Portland International Airport, Portland, OR  
*Civil Engineer*
- Parking Garage Expansion – Portland International Airport, Portland, OR  
*Civil Engineer*
- Terminal Ramp Expansion / RON Parking – Orlando-Sanford International Airport, Sanford, FL  
*Civil Engineer*
- Pavement Condition Index (PCI) Evaluation – Orlando International Airport, Orlando, FL  
*Civil Engineer*
- Gate Layout – Orlando International Airport, Orlando, FL  
*Civil Engineer*
- Utility Capacity Study – Orlando International Airport, Orlando, FL  
*Civil Engineer*
- Enhanced Makings for Runway Hold Positions – Orlando International Airport, Orlando, FL  
*Civil Engineer*
- A380 study and evaluation – Orlando International Airport, Orlando, FL  
*Civil Engineer*

## **EDUCATION**

BACHELOR OF SCIENCE IN CIVIL ENGINEERING  
Ohio University, Athens, OH

INDOT Certified Technician  
Construction Procedures I & II

**YEARS IN INDUSTRY** 4

## BACKGROUND

Gerald became involved in the airport design industry with his previous employer. Some of Gerald's airport background includes a three-year obstruction analysis study project for the Aeronautics Division of INDOT and assisting engineers with airport designs. Gerald's role with NGC will be to assist our project managers with obstruction analysis, planning, project specifications, and design.

## PROJECT HIGHLIGHTS

- Runway "18-36" Rehabilitation - Delphi Municipal Airport  
*Project Engineer*  
Awarded 2009 Excellence in Concrete Pavement Award by the American Concrete Pavement Association  
Awarded 2009 Gold Medal Award by the National American Concrete Pavement Association
- Environmental Assessment Update - Peru Municipal Airport  
*Project Engineer*
- Business Plan - Wabash Municipal Airport  
*Project Engineer*
- Parallel Taxiway - Peru Municipal Airport  
*Project Engineer*
- Runway "14-32" Modifications - Indianapolis International Airport  
*Project Engineer*
- Airfield Electrical Upgrade Phase I - Louisville International Airport  
*Project Engineer*
- Cargo Apron Rehabilitation - Indianapolis International Airport  
*Project Engineer*
- SRE Building Expansion - Jackson County Airport  
*Project Engineer*
- INDOT Obstruction Analysis Study - 3-Year Study Project  
*Project Engineer*

## EDUCATION

ASSOCIATES APPLIED SCIENCE, AUGUST 1991  
Associates Applied Science Civil Engineering Technology , Expected Graduation May 2011

INDOT Certified Technician  
Bridge Construction and Deck Repair  
Concrete Paving  
Construction Earthworks  
Construction Procedures I & II  
Hot Mix Asphalt

**YEARS IN INDUSTRY** 10

## **DAVID E. MOORE, P.E.**

### *Civil Department Manager*

#### *Expertise*

Mr. Moore has thirty two years experience in design and construction in the fields of planning, civil engineering, structural engineering, general contracting, expert testimony, land development, surveying, landscape architecture, project management, business management, construction and engineering quality control.

Mr. Moore has served as a civil engineer, structural engineer, construction engineer, associate, and vice president with other engineering consulting firms. Mr. Moore owned and operated his own engineering and construction management firm for ten years with offices in Arvada and Longmont Colorado.

Presently Mr. Moore manages the civil engineering department of the CTL Engineering South Charleston WV office. This office performs consulting engineering in the fields of civil engineering, mining engineering, environmental engineering, geotechnical engineering and construction testing.

#### *Education*

M.S., Civil Engineering, Colorado University, Boulder, CO, 1983

B.S., Civil Engineering, West Virginia University Institute of Technology, Montgomery, WV, 1978

#### *Professional Registration*

Registered Professional Engineer: Maryland; Nevada; West Virginia; Wyoming; Colorado; Alberta Canada; Kentucky; Ohio; and NCEES No. 30791.

#### *Professional Affiliations*

American Society of Civil Engineers  
American Institute of Architects  
Home Builders Association  
Society of American Military Engineers

#### *Publications*

Mr. Moore published "Union and Non Union Construction in Colorado" in 1984 a Master's Thesis commissioned by the Associated General Contractors of Colorado.

#### *Project Experience*

##### Residential Subdivisions

- VEPCO Bath County Worker Housing (Design Build), Bath County, Virginia

## **DAVID E. MOORE, P.E.**

*Civil Department Manager*

- Chevron Carter Creek Worker Housing (Design Build), Evanston, Wyoming
- Heritage Heights Single Family Subdivision, Westminster, Maryland
- Hewitt Farms Single Family Subdivision, Baltimore, Maryland
- Clearview Single Family Subdivision, Johnstown, Colorado
- Candlelight Ridge Single Family Subdivision (Design Build), Erie, Colorado

### Senior Housing

- Golden Pond Apartments, Assisted Living and Alzheimer's Facility, Golden, Colorado
- Highland Trail Retirement, Broomfield, Colorado
- Arvada Estates Retirement, Arvada, Colorado
- Orchard Gardens Senior Facility, Arvada
- Oberon House Assisted Living Facility, Arvada, Colorado

### Commercial Sites

- Koon's Toyota Car Sales Facility, Westminster, Maryland
- Empire Lakewood Nissan, Lakewood, Colorado
- Remax Alliance Office Building, Westminster, Colorado
- Comfort Inn Suites, Longmont, Colorado
- Eagle National Bank, Broomfield, Colorado
- Columbine Professional Plaza, Arvada, Colorado

### Golf Courses

- Flatirons Pro Shop at Flatirons Golf Course, Boulder Colorado
- 18 Hole West Woods Golf Course, Arvada, Colorado
- 9 Hole West Woods Golf Course Addition, Arvada, Colorado

### Water Resources and Drainage Projects

- Ralston Creek/Croke Canal Overpass, Arvada, Colorado
- Farmers Highline Canal Realignment, Arvada, Colorado
- Church Ditch Flow Limiter, Arvada, Colorado
- Ralston Creek LOMAR, Arvada, Colorado
- Drainage Reports, Plans and Storm Drain Designs on all projects.

### Water and Sewer Distribution Projects

- International Fiber Water Main Extension, Nitro West Virginia
- Ralston Creek Water and Sewer Main Extensions, Arvada, Colorado
- Clearview Sewer Main Extension, Johnstown, Colorado
- Tucker Lake Water Intake and Pipeline, Jefferson County, Colorado
- Ralston Reservoir 20" Water Main, Arvada, CO

### Landscape Architecture

- Ralston Creek Trail Design, Arvada, Colorado
- Melody Farms/Candlelight Ridge Regional Park (Design Build), Erie Colorado
- Boulder County Trail System, Boulder County, Colorado
- Jefferson County Trail Access and Parking Lot, Westminster, Colorado
- Ryan Ranch Trail System and Landscaping (Design Build), Jefferson County, Colorado

### State Highway Road Design



## **DAVID E. MOORE, P.E.**

*Civil Department Manager*

- 2 Miles of US Route 60, Johnstown, Colorado
- One Mile of US Route 119, Black Hawk, Colorado
- Highway 52, Boulder County, Colorado
- US 119 Road Improvements, Longmont, Colorado

### Land Development

- Owner Developer of Ridgeview Estates, Adams County Colorado
- Owner Developer of Moore Estates, Jefferson County Colorado
- Owner Developer of Candlelight Estates, Erie, Colorado

### Structural Engineering

- Sheridan College Dormitories and Community Buildings, Sheridan Wyoming
- Quaker Street and Ralston Creek Bridge (Design Build), Arvada, Colorado
- Platte Canyon Road Box Culvert (Design Build), Littleton Colorado
- Powerhouse Unloading Bay Superstructure, Warm Springs, Virginia
- 108<sup>th</sup> Commercial Office Building, Westminster, Colorado
- Colorado Horse Rescue Offices, Barn and Riding Arena (Design Build), Boulder County, Colorado
- Ryan Ranch Retaining Wall Design and Build, Jefferson County, Colorado
- General Residential Foundation Design and Inspections
- Structural Inspections and Reports

### Utility Projects and Pump Stations

- Hillandale Well, Water Tank and Distribution System (Design Build), Finksburg, Maryland
- Hillandale Sewer Pump Station and Wastewater Treatment (Design Build), Finksburg, Maryland
- West Woods Golf Course Non Potable Water Pump Station/Distribution System, Arvada, CO
- City of Arvada Church Ditch/Arvada Reservoir Potable Water Pump Station, Arvada, Colorado
- Town of Johnstown Regional Sewerage Pump Station, Johnstown, Colorado

### Mining Projects

- Williams Mine AML Coal Reclamation Project, Enterprise, West Virginia
- Limestone, Aggregate and Sand Quarry, Warm Springs, VA
- Aggregate and Concrete Plant Engineer, Bath County, Virginia

### Environmental Projects

- Burke Parsons Bowlby Monitoring Well/Environmental Testing, Spencer, WV
- International Fiber Storm Water and Ground Water Protection, Nitro, West Virginia
- Sigman Industrial Park Environmental Clean-up, Arvada, Colorado
- AutoZone Site Remediation, Westminster, Colorado

### Power Projects

- Bath County Pumped Storage Hydroelectric Project, Bath County, Virginia
- Chevron Carter Creek Gas Project, Evanston, Wyoming
- Wolf Creek Nuclear Power Project, Coffey County, Kansas

### General Contracting

- City of Federal Heights Municipal Building, Federal Heights, Colorado
- Mesa Village Subdivision, Louisville, Colorado
- Christian Science Reading Room, Pearl Street Mall, Boulder, Colorado



**JEFFREY T. HUFFMAN, P.E.**

*Branch Manager &  
Geotechnical Dept. Manager*

***Expertise***

Mr. Huffman serves as Branch Manager and Geotechnical Department Manager of CTL Engineering of West Virginia, Inc.'s Charleston office. Mr. Huffman currently directs all aspects of design and inspection for a staff of 13 professionals. His administration and management responsibilities include marketing, proposal preparation, scheduling, budget control and supervision of office personnel.

Projects successfully completed under Mr. Huffman's direction include: Foundation Design, Roadway & Parking Area Design, Geotechnical Investigations & Design, Slope Stability Analyses and Failure Investigations. Mr. Huffman has 20 years experience in Geotechnical Engineering and has served as Senior Geotechnical Engineer, Technical Director of Laboratory Services and Technical Superintendent with other Engineering Consultants.

Mr. Huffman currently serves as Adjunct Professor of Civil Engineering at Marshall University teaching courses in Soil Mechanics, Soil Testing Laboratory and Foundation Design.

***Education***

MSCE (Geotechnical) - Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, Virginia, 1990

BSCE - Virginia Polytechnic Institute and State University (Virginia Tech), Blacksburg, Virginia, 1988

***Professional Registration / Certifications***

Registered Professional Engineer:  
Pennsylvania, 1994; West Virginia, 2005; Ohio, 2007; Kentucky, 2007; North Carolina, 2008; NCEES Registered, 2007.

***Professional Affiliations***

Society of American Military Engineers – Director, Huntington Post  
Engineers Without Borders – USA – Faculty Advisor  
American Society of Civil Engineers  
Association of State Dam Safety Officials  
American Council of Engineering Companies  
Order of the Engineer

***Project Experience***

**Expert Witness Testimony**

- Daniels Law Firm, Cabell County, West Virginia



## **JEFFREY T. HUFFMAN, P.E.**

*Branch Manager &  
Geotechnical Dept. Manager*

- TheisenBrock, Parkersburg, West Virginia
- Francis, Nelson & Brison, Charleston, West Virginia
- Bailey & Wyant, Wheeling, West Virginia
- Steptoe and Johnson, Charleston, West Virginia

### Transportation

- Geotechnical Recommendations, Ices Ferry Bridge, Morgantown, West Virginia
- US 35 Subsurface Investigation, Mason County, West Virginia
- Corridor H Permeability Testing, Grant County, West Virginia
- Little Kanawha River Bridge, Wood County, West Virginia
- East Kingston Bridge, Pickaway County, Ohio
- Waverly South Connector, Pike County, Ohio
- Portsmouth By-pass, Portsmouth, Ohio
- Lackawanna Interchange, Scranton, Pennsylvania

### Permitting

- ESCGP-1 and 105 Permits, Susquehanna County Gas Play, Susquehanna County, Pennsylvania
- SPCC Plans, Various Counties, West Virginia

### Commercial Structures

- Slab Investigation and Repair, Bridgeport, West Virginia
- Slope Investigation and Stabilization Design, Parkersburg, West Virginia
- Slope Stabilization Design, Lewisburg, West Virginia
- VBF Foundation Recommendations, Raleigh, North Carolina
- Gassaway Armory Addition & Renovation, Gassaway, West Virginia
- Culvert Evaluation, Sissonville, West Virginia
- Snowshoe Building C-3, Snowshoe, West Virginia
- Comfort Suites Inn, West Virginia
- Belington Multi-tenant Building, Barbour County, West Virginia
- Pentagon – Officers Recreation Facility, Washington, D.C.

### Residential Structures

- Room Addition Foundation Design, Charleston, West Virginia
- Slope Failure Investigation, Poca, West Virginia
- Basement Wall Investigation, Charleston, West Virginia

### Water Resources

- Christian E. Siegrist Dam, Lebanon, Pennsylvania
- Druid Lake Dam, Baltimore, Maryland
- Loch Raven Dam, Baltimore, Maryland
- Hughes River Dam, Cairo, West Virginia
- Hershey Pond Expansion, Hersey, Pennsylvania



## **JEFFREY T. HUFFMAN, P.E.**

*Branch Manager &  
Geotechnical Dept. Manager*

### Education

- Marshall University – Scoreboard Foundation, Huntington, West Virginia
- Washington State Community College, Health Sciences Building , Marietta, Ohio
- Marshall University – Retaining Wall Tieback Evaluation, Huntington, West Virginia

### Healthcare

- Raleigh County Hospital, Raleigh County, West Virginia
- King's Daughters Medical Center, Ashland, Kentucky

### Power & Chemical Plants

- 1297 NB Nitrogen Plant, Huntington, West Virginia
- P-301 Compressor Pad, Huntington, West Virginia
- John E. Amos Power Plant - Warehouse, Putnam County, West Virginia
- Ash Pond D Expansion, Dumfries, Virginia

### Water/Wastewater Treatment Plants and Water Tanks

- Raleigh – Mecklenburg WWTP Expansion, Mecklenburg, North Carolina
- Equalization Tank Foundation Design, So. Charleston, West Virginia

### Mining

- Williams #2 AML Removal Project, Enterprise, West Virginia
- Mine Subsidence Investigation – Rogliano Home, WVBRIM, Beckley, West Virginia
- Mine Subsidence Investigation – Webber Home, WVBRIM, Beckley, West Virginia
- Transalta-Centralia, Vancouver, British Columbia, Canada
- Valley Fill Design, Vancouver, British Columbia, Canada
- Philippi AML portal drilling, Philippi, West Virginia

### Environmental

- Prenter Water Sampling, Prenter, West Virginia
- Susquehanna County Gas Play, Susquehanna County, Pennsylvania

### Aviation

- Wyoming County Airport, Wyoming County, West Virginia
- Tank Farm Foundation Design, Reagan National Airport, Washington, D.C.

### Slope Failure

- Slope Failure Investigation , Poca, West Virginia
- M. Woods Slope Failure, Kanawha County, West Virginia
- Landslide, MEG-60-17.48, Megis County, Ohio
- Landslide, MRG-60-17.48, Morgan County, Ohio
- Landslide, NOB-340-1.06, Nobel County, Ohio
- Landslide, MEG-124-63.05, Megis County, Ohio
- Landslide, WAS-7-42.34, Washington County, Ohio
- Transalta-Centralia, Vancouver, British Columbia, Canada



**PATRICK E. GALLAGHER, P.E., C.P.G.S.**

*President*

***Expertise***

Mr. Gallagher serves as President of CTL Engineering of West Virginia, Inc. Projects successfully completed under Mr. Gallagher's direction include: Civil Site Design, Foundation Design, Storm Water Management, Waste Water Design, Roadway design, Parking Lot Design, Geotechnical Investigations & Design, Site Stability Analyses, Mine Subsidence Evaluations, Failure Investigations and Environmental Investigations and Permitting.

Prior to joining CTL Engineering, Mr. Gallagher was the chief of the Abandoned Mine Reclamation Program for the State of Maryland, Department of Natural Resources, and Bureau of Mines. In addition, he was also responsible for overall engineering/geologic support to the Maryland Bureau of Mines Program.

***Education***

B.S., Civil Engineering, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 1975

B.S., Geology, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, 1975

***Professional Registration / Certifications***

Registered Professional Engineer: Ohio, # 48459; Maryland, # 13256; West Virginia, # 9297; Pennsylvania, # PG-044930-R; Wyoming, # 11033; North Carolina, # 0 32503; Kentucky, # 24988

Certified Professional Geological Scientist, # 6575

Professional Surveyor, WV

Adjunct Professor – Civil Engineering – Fairmont State College 2001 – 2002

***Career Experience***

CTL Engineering, Inc. - 29 years

Other – 6 years

***Project Experience***

***Mining Related***

Abandoned Mine Lands and Reclamation Projects

Project manager overseeing the design of various abandoned mine lands and reclamation projects for the West Virginia Department of Environmental Protection. These projects include coal refuse pile stabilization, burning refuse extinguishment and stabilization, acid mine drainage abatement plans, storm water management plans, mine permits, slope stability analysis and hydraulic analysis.

American Bituminous Power Partners, LLP

Project manager for services involving permitting and environmental issues. Conducted

on-going inspections and certifications of the impounding refuse facilities and all drainage/sediment control structures for all permitted facilities.

Ohio Valley Plaza, St. Clairsville, Ohio

Project manager for the engineering design services for the dynamic compactions of surface mine spoil for this project. This site was in need of major overhaul; no building could take place without the deep dynamic compaction activities, which made this site fit for construction, while reducing site development costs.

Newpointe Center, Clarksburg, West Virginia

Project Manager for geotechnical engineering, materials testing, and observation services and surveying services for this project. CTL is currently performing materials testing and observation for Phase II of this development.

Ohio Department of Natural Resources (ODNR)

Project manager overseeing mine subsidence investigations throughout the state of Ohio. These projects include hydrology/hydraulic evaluations, floodplain designs, wetland delineations, slope stability designs, surface and deep mine permitting, refuse pile analysis/certification, earthwork calculations, storm water management design, pressure grout abatement, and numerous emergency projects under the ODNR-AML Emergency Program.

Amigo Coal Refuse Facility, Amigo, West Virginia

Project Manager responsible for designing two 42 inch micro tunnels beneath an existing and active railroad line. The twin 42 inch culverts were for the diversion of Amigo Creek beneath the railroad. The twin culvert system was approximately 750 lf in total length and required 2 weeks to complete.

***Highway / Landslide / Slope Stability***

PENNDOT, Open-End Contract, Pennsylvania

Project Manager/Engineer responsible for overseeing geotechnical investigations for 30 separate transportation projects.

Star City Bridge, Star City, WV

Project Manager/Engineer for geotechnical investigations, borings and road relocation during construction of the Star City Bridge.

WVDOH Open-End Contract

Project Manager/Engineer providing geotechnical support to 40 separate projects including new roads and landslides.

Allegheny Restorations, West Virginia

Provided geotechnical engineering, surveying services and shoring design, in coordination with the West Virginia Department of Transportation, for 3 covered bridge projects in West Virginia.

***Foundations / Structure***

WVU Wise Library

Project Manager/Engineer provided geotechnical oversight of investigations for the



building foundation systems on the construction of a new six (6) story library, which included the design of an extensive tie-back/soldier pile wall system.

WVU Eye Institute

Project Manager/Engineer providing geotechnical oversight for the geotechnical investigations and foundation recommendations performed for this \$5 M dollar patient care facility.

Physicians Office Center, WVU Hospital

Project Engineer responsible for the oversight of the geotechnical drilling and site investigations for this project.

WVU Life Sciences Building

Project Manager/Engineer providing geotechnical oversight of the drilling and investigations and recommendations needed for the construction of the Life Sciences Building.

***Civil Site Geotechnical Design***

Suncrest Executive Plaza

Under Phase 1 of this five-story office complex project, CTL provided the following services: surveying, geotechnical and civil site design. The civil site design included sedimentation and erosion control plans and permits, storm water management design utilizing 1,600 feet of 48" GCMP for storage, grading plans, utility coordination and WV DOH entrance permits for turning lane access to the site. CTL also provided construction drawings for the project.

WVU Hospitals, Morgantown, WV

CTL provided geotechnical, surveying and civil site design support services in conjunction with WVDOH and WVU for a new access road and parking area design for surrounding hospital area.

Chaplin Hill Business Park, Morgantown, West Virginia

Responsible for site conceptual design, hydrology, storm water management, grant preparation, supervision during bidding phase, construction management, and final grant approval.

Blanchette Rockefeller Neuroscience Building, WVUHospitals, Morgantown, WV

Project included Site Plan, Site Grading, Utility Coordination, Sedimentation & Erosion Control, Bid Documents & Pre-Bid Conference. Design required close tie to existing facilities and utilities. Coordination between WVU Hospitals and architect to meet site needs and limit day to day disruptions from construction and traffic.

Glenmark Center, Shopping Plaza, Morgantown, West Virginia

CTL provided geotechnical engineering, Phase 1 environmental assessment, civil site design, "site specific" storm water management, surveying, sanitary treatment facilities for this ten plus acre plaza.

EA Development, The District, Student Housing, Morgantown, WV

This is a 30 acre development including 20 apartment buildings, clubhouse. CTL provided geotechnical investigations, conceptual and final plans, road layout, bridge



**PATRICK E. GALLAGHER, P.E., C.P.G.S.**

*President*

location, DOH permit and design for access, grading plans, retaining wall design, storm water systems and detention. CTL was responsible for permitting, including: Sediment & Erosion Control, DOH Highway Access, Stream Crossing Permit, Right of Access and License Agreement for temporary and permanent culverts and stream crossing, 100 year Flood Study for Monongalia County Development Permit, 401 Water Quality Certification and the Section 404 Permit.

Summersville Fresh Water Intake, Summersville, West Virginia

Responsible for site review and rock mechanics evaluation for North American drillers where approximately 500 lf of a 48 inch micro tunnel was constructed for the intake at the City of Summersville WV water treatment facility adjacent to Summersville Lake. The tunnel was installed through excessively hard, 25,000 psi, crystallized sandstone requiring specialized bits and techniques to overcome the difficult horizontal boring.

***Construction Observation & Testing***

Allegheny Power Systems (open-ended contract for transmission distribution and power station projects)

CTL performs construction testing and observation, material testing, structural steel and surveying for various projects under this contract.

Fayette Energy Facility, Masontown, PA

Project Manager responsible for overseeing the concrete, soils, aggregates, asphalt and bolted connections for the project site. CTL has provided specialty-testing including: soil resistivity testing and Windsor Pin testing

Cheat Lake Waste Water Treatment Plant Expansion, Morgantown, WV

Project Manager responsible for providing oversight and recommendations for this project. The project included increasing the capacity from 250,000 gallons/day to 750,000 gallons/day.

Chaplin Hill Sewer and Water System Expansion, Morgantown, WV

Project Manager responsible for overseeing quality assurance for corrosion protection, utility trenching, line expansion and construction methods for this project.

Warrior Run Generation Plant, Cumberland, MD

Project manager for the construction observation and structural steel inspection services for this project.

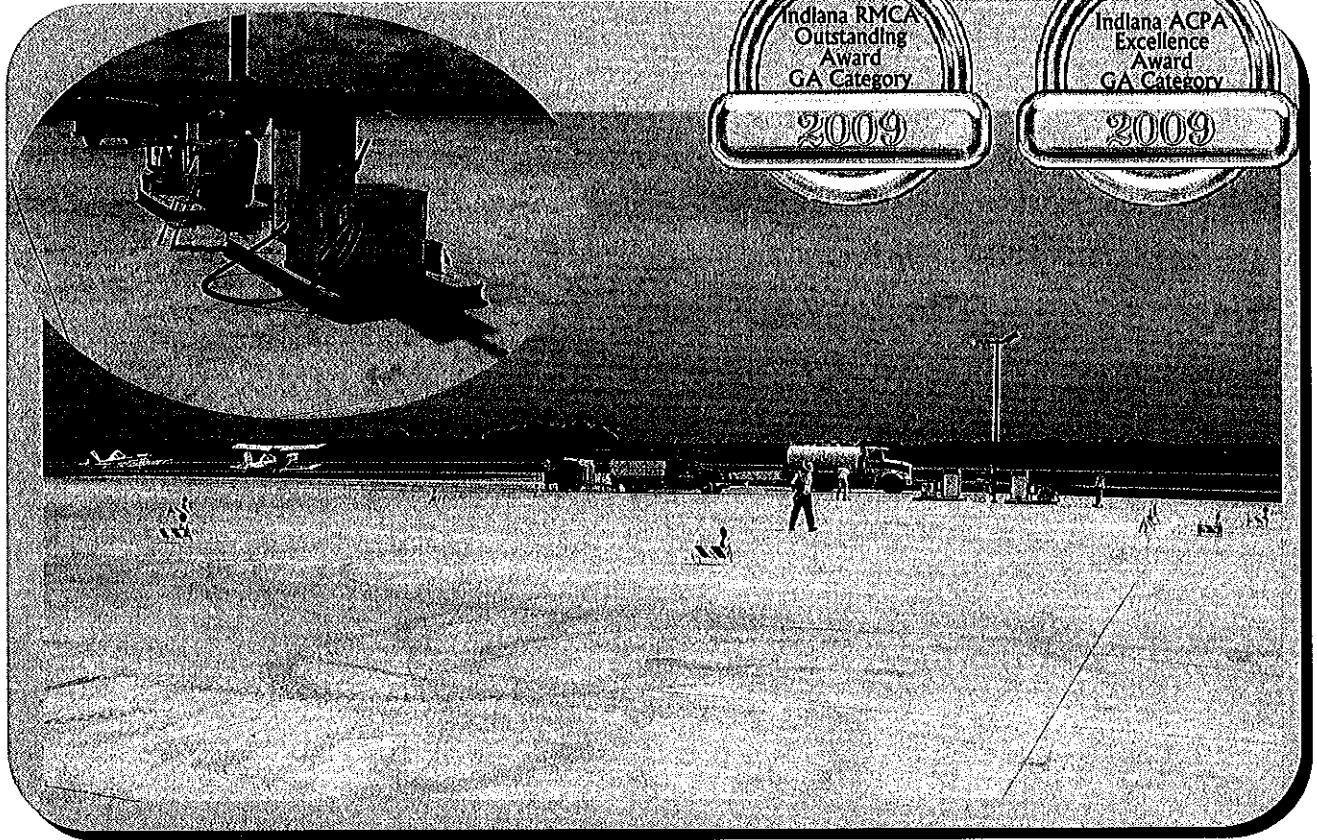
***Professional Affiliations:***

American Society of Civil Engineers  
Society of Mining Engineers, of A.I.M.E.  
Triangle Fraternity of Engineers, Architects, and Scientists  
International Society for Soil Mechanics and Foundation Engineers  
American Institute of Professional Geologists



# PROJECT HIGHLIGHTS

NGC



"ENGINEERING A BETTER WAY TO FLY"

## APRON REHABILITATION — FY 2008 CRAWFORDSVILLE MUNICIPAL AIRPORT

NGC was selected by the BOAC in 2008 to manage the construction of the CFJ terminal. Simultaneously, their general aviation consultant was supervising the apron expansion project that they designed; however, several issues happened which greatly effected both the budget and the schedule. Several decisions needed to be made quickly in order to expedite the project while also ensuring the project did not run over budget. The BOAC felt that it was critical to select NGC to complete the project in order to bring the project back on track. The project included relocation of the fuel island, installation of new fuel equipment, rehabilitation of the ramp, and taxilane construction. NGC quickly reviewed the plans and specification to determine where items could be modified in order to bring the project back within the budget. The project was completed on-time, under budget, and received two awards from the Indiana Ready Mix Concrete Association and the Indiana Chapter of the American Concrete Paving Association.

**Type of Project:** Rehabilitate P-501 PCC Apron  
Construction Management Only

**Location:** Crawfordsville, Indiana

**Construction Time:** 90 days

**Funding Source:** FAA Discretionary / NPE

**Construction Cost:** \$825,000

**Project Awards:** Indiana Ready Mix Concrete Association  
Outstanding Concrete—2009  
General Aviation

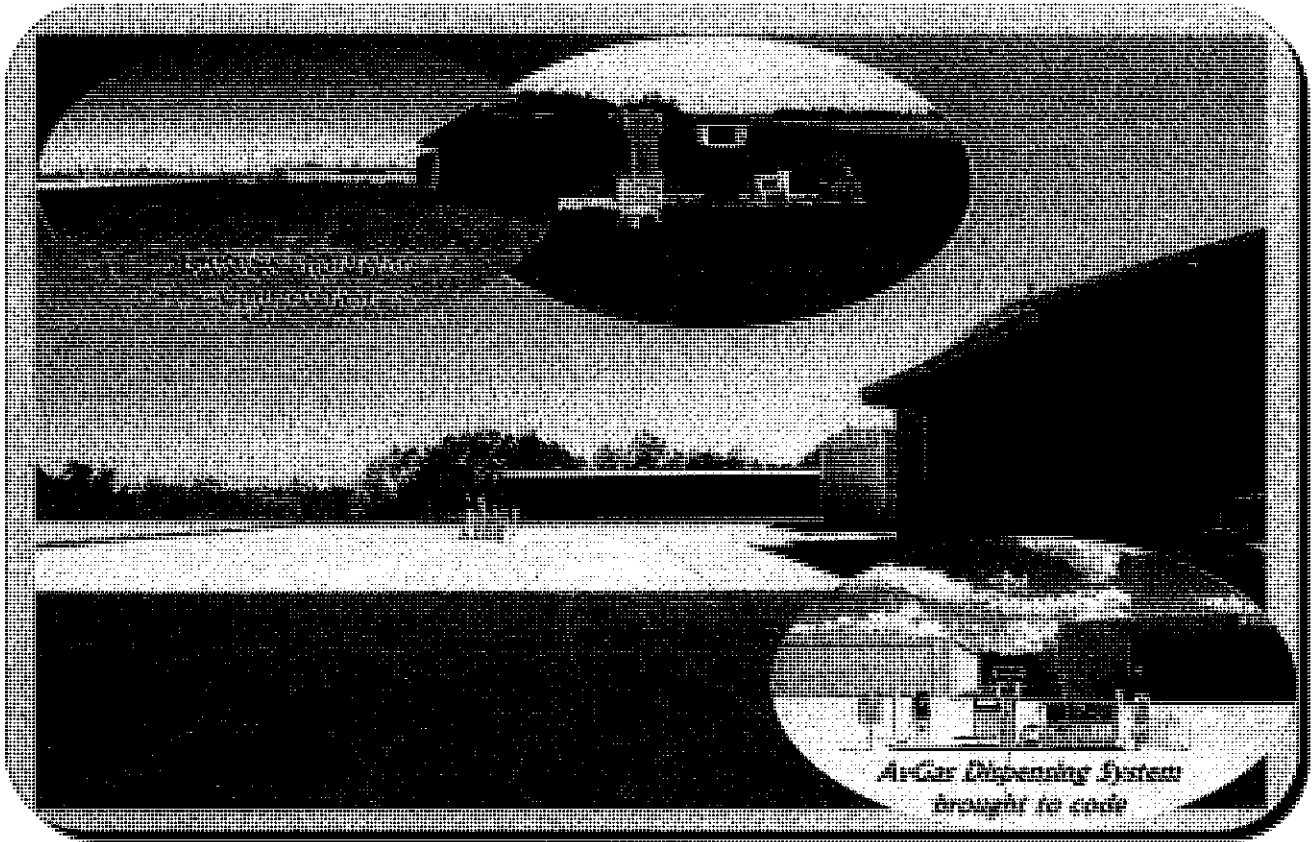
Indiana American Concrete Paving Assoc.  
Excellence in Concrete Pavement— 2009  
General Aviation

NGC

# PROJECT HIGHLIGHTS

NGC

“ENGINEERING A BETTER WAY TO FLY”



## APRON REHABILITATION — FY 2009 JACKSON COUNTY AIRPORT

After being selected to be the consultant for the Jackson County Airport, one item that we identified that needed to be addressed was the reconstruction of their main apron along with installing an AvGas dispensing system that would meet National Fire Protection Association (NFPA) codes. The existing asphalt ramp had severe alligator cracking and created a FOD hazard, and the existing fuel facility was outdated and lacked many safety and environmental protection features.

**Type of Project:** P-501 PCC Rehabilitation  
Upgrade AvGas System  
Design & Construction

**Location:** Ravenswood, West Virginia

**Construction Time:** 60 Days

**Funding Source:** ARRA (Federal Stimulus)

**Construction Cost:** \$548,861

When the FAA notified us that Jackson County would be eligible to receive ARRA funding for this project, we immediately started design of a new P-501 concrete apron, P-401 asphalt transitioning into the remaining pavement, P-209 Crushed Aggregate, P-152 Unclassified Excavation including Rock excavation, paint markings, drainage reconstruction, and new underdrains. We addressed the existing fuel island by installing new ducts for installation of the new double wall fuel pipe that would connect to their above-ground storage tank and a spare duct was installed so the airport could offer Jet-A fuel in the future. A low-cost, easy to use, leak detection system was installed along with a new electrical system with emergency fuel shut-off equipment. The project also included new dispensing equipment, hose box, grounding reel, LED fuel display, signage, and fire extinguisher. NGC performed the design and construction review for the apron rehabilitation and AvGas equipment improvements, in addition to the airspace and West Virginia Construction Stormwater permitting.

NGC



# PROJECT HIGHLIGHTS

NGC



“ENGINEERING A BETTER WAY TO FLY”

## LAASF INDIANA ARMY NATIONAL GUARD — FY 2007 GARY/CHICAGO INTERNATIONAL AIRPORT

This facility, located at the Gary/Chicago International Airport in Gary, Indiana, was the first of three phases in a \$25.5 million, federally funded project "intended to enhance the Indiana National Guard's ability to successfully perform its missions, from fighting world-wide terrorism to providing support in time of natural and manmade disasters to the citizens of Indiana." This facility houses a building that services three aviation units, utilizing three UH-60 Blackhawks and two OH-58 Kiowa helicopters. The hangar portion of the facility comprises three heated maintenance bays and two unheated aircraft storage bays. The adjoining office area houses administrative areas, an aviation life support equipment shop, lockers, restrooms, and training areas. Airfield sitework included the construction of a large aircraft apron and connecting taxiway.

**Type of Project:** Limited Army Aviation Support Facility

**Location:** Gary, Indiana

**Construction Time:** 12 Months days

**Funding Source:** State of Indiana

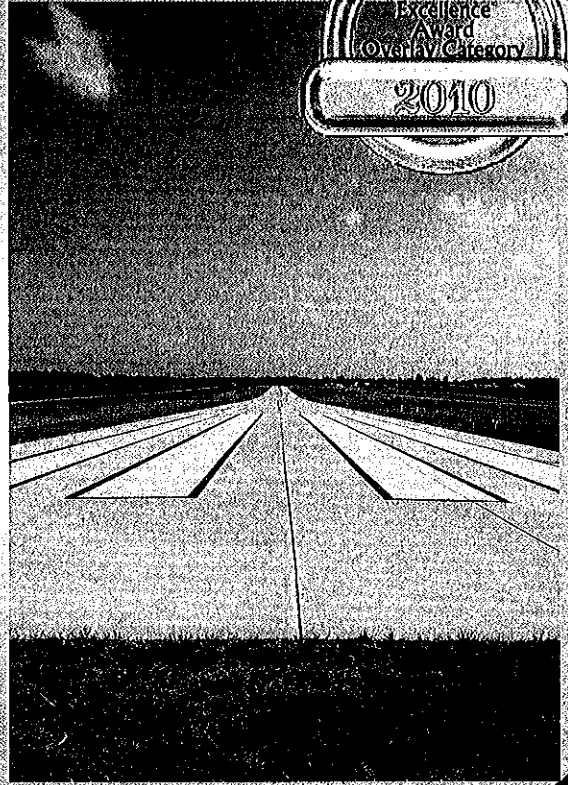
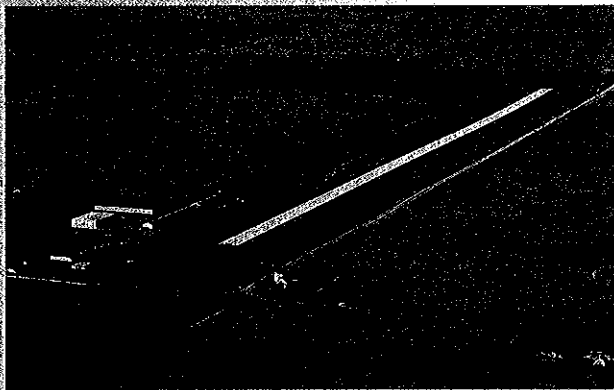
**Construction Cost:** \$25,500,000

NGC was responsible for the airspace submission, environment review and land release requirements as required by the FAA. NGC also represented the Gary/Chicago International Airport Authority as the owners representative and provided Quality Assurance reviews on the security fencing, pavement design, utility design and grading and drainage design. NGC also completed the tower shadow study and provided the airfield lighting design plans and specs for incorporation into the site documents.

NGC

# PROJECT HIGHLIGHTS

NGC



"ENGINEERING A BETTER WAY TO FLY"

## RUNWAY REHABILITATION — FY 2009 JASPER COUNTY AIRPORT

In March of 2009, INDOT contacted NGC regarding the PCI report they had recently conducted for RZL. The airport's recent PCI report indicated that the runway, taxiway (old section), and apron were all in poor condition. INDOT requested a revised CIP estimate to include these 3 projects. We quickly added them and worked with the BOAC on resubmitting the revised CIP. A couple of weeks after resubmission, INDOT asked if we could obtain bids in order to accept a grant for these projects before the end of the fiscal year. Within 4 weeks, we completed the soil exploration, survey, design and advertised for bids. When bids were received four weeks later, the base bid (asphalt option) was \$1,308,368.69 and the alternate bid (concrete option) was \$1,399,369.79. After NGC completed a life cycle analysis, the FAA awarded the concrete option for the runway. In addition, the taxiway and apron asphalt overlays were also awarded. A separate division for underdrain and storm structure installation was awarded to a second contractor.

**Type of Project:** P-501 PCC Overlay  
Design & Construction

**Location:** Rensselaer, Indiana

**Construction Time:** 6 Weeks (Runway Only)

**Funding Source:** FAA Discretionary / NPE

**Construction Cost:** \$1,511,000 (Inc. t/w and apron rehab)

**Project Awards:** Indiana American Concrete Paving Assoc.  
Excellence in Concrete Pavement— 2010  
Overlay Category

*\*\*Project has been submitted to the  
National Concrete Paving Association for  
consideration of a National Concrete  
Overlay Award, to be determined this fall.*

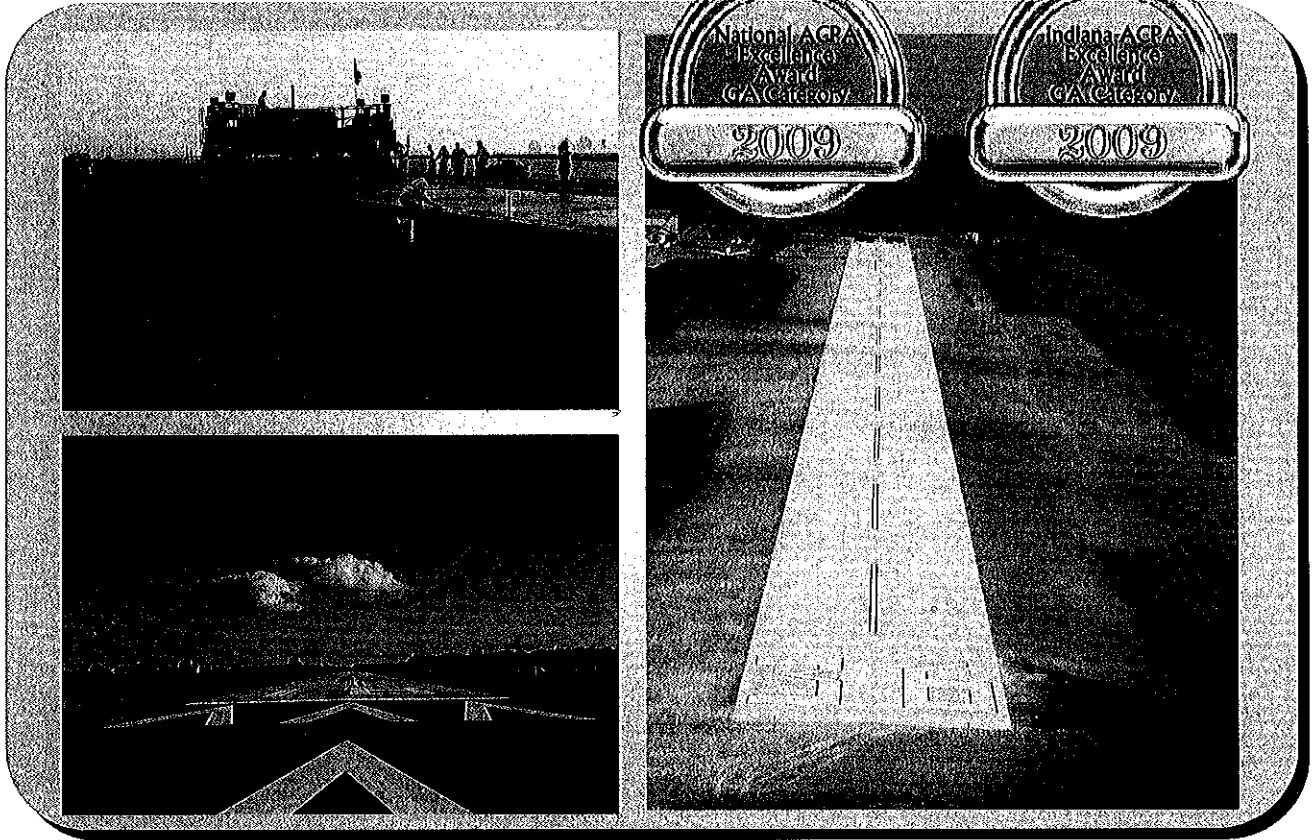
To minimize the impact of the runway closure on the FBO aircraft repair business located at the airport, NGC included requirements to convert the parallel taxiway into a temporary runway for visual day-time use only.

NGC

# PROJECT HIGHLIGHTS

NGC

“ENGINEERING A BETTER WAY TO FLY”



## RUNWAY REHABILITATION — FY 2008 DELPHI MUNICIPAL AIRPORT

As oil prices soared to a historic high during the Spring of 2008, just prior to advertising the Delphi runway rehabilitation bid opening, NGC had to quickly develop alternatives to ensure that the project bids would not exceed the FAA allotted funds that year. The airport's existing runway was asphalt and the subgrade strength was poor for asphalt support. Therefore, a simple mill and overlay would not provide the lasting results that NGC wanted to achieve. Two alternatives were developed prior to advertising consisting of bituminous pavement over pulverization and full depth reclamation. A third alternative was released to bidders prior to the bid opening. The third alternative, a concrete overlay, came in nearly \$200,000 less than the asphalt alternatives, and came in under the grant amount. The concrete runway was paved in six days. The remaining work included bituminous pavement of connecting taxiways and overrun, shoulder re-grading, light adjustments, underdrains, and mulched seeding. The project came in over \$217,000 under the preliminary budget set in the CIP.

**Type of Project:** P-501 PCC Overlay  
Design & Construction

**Location:** Delphi, Indiana

**Construction Time:** 30 Days

**Funding Source:** FAA Discretionary / NPE

**Construction Cost:** \$858,000

**Project Awards:** National American Concrete Paving Assoc.  
Excellence in Concrete Pavement— 2009  
General Aviation

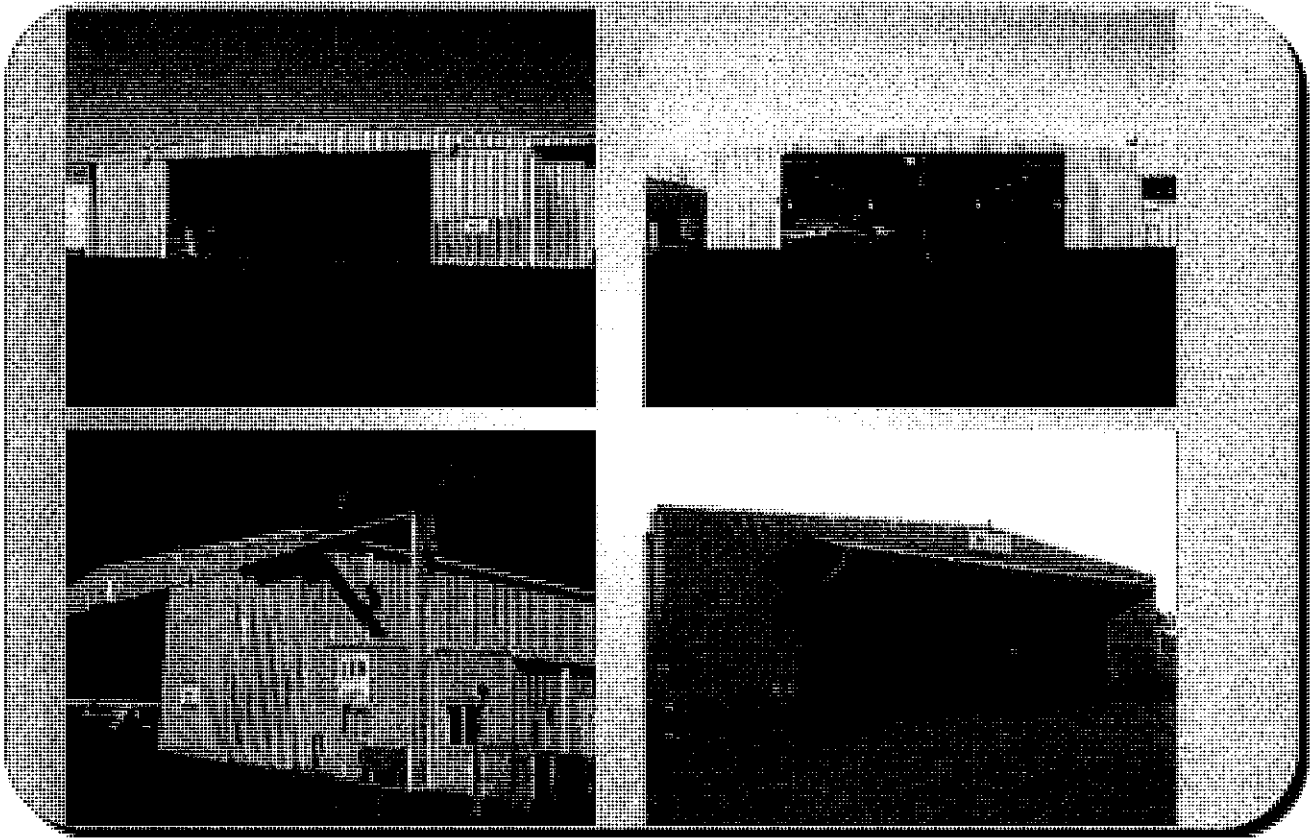
Indiana American Concrete Paving Assoc.  
Excellence in Concrete Pavement— 2009  
General Aviation

NGC

# PROJECT HIGHLIGHTS

NGC

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## HANGAR MODIFICATIONS — FY 2006 JACKSON COUNTY AIRPORT

The original door on the community hangar consisted of a heavy leaf sliding door system that was difficult for one person to open and it was nearly inoperable in the winter when the tracks were cold and covered with ice and snow. The door was also susceptible to leaks and drafts during inclement weather.

This project included the complete removal of the of the existing door, track, frame and wall face and replacement with a new Erect-A-Tube electrically operated bi-fold door. The new 64' x 19' door opens in approximately 60 seconds and accommodates large cabin-class twin engine aircraft.

The project also included the installation of new apron lighting and exhaust ventilation as well as new exterior metal siding. Actual construction time was approximately 15 days after material arrival.

**Type of Project:** Replace Existing Sliding Door with new Bi-Fold Door  
Design & Construction

**Location:** Ravenswood, West Virginia

**Construction Time:** 45 Days

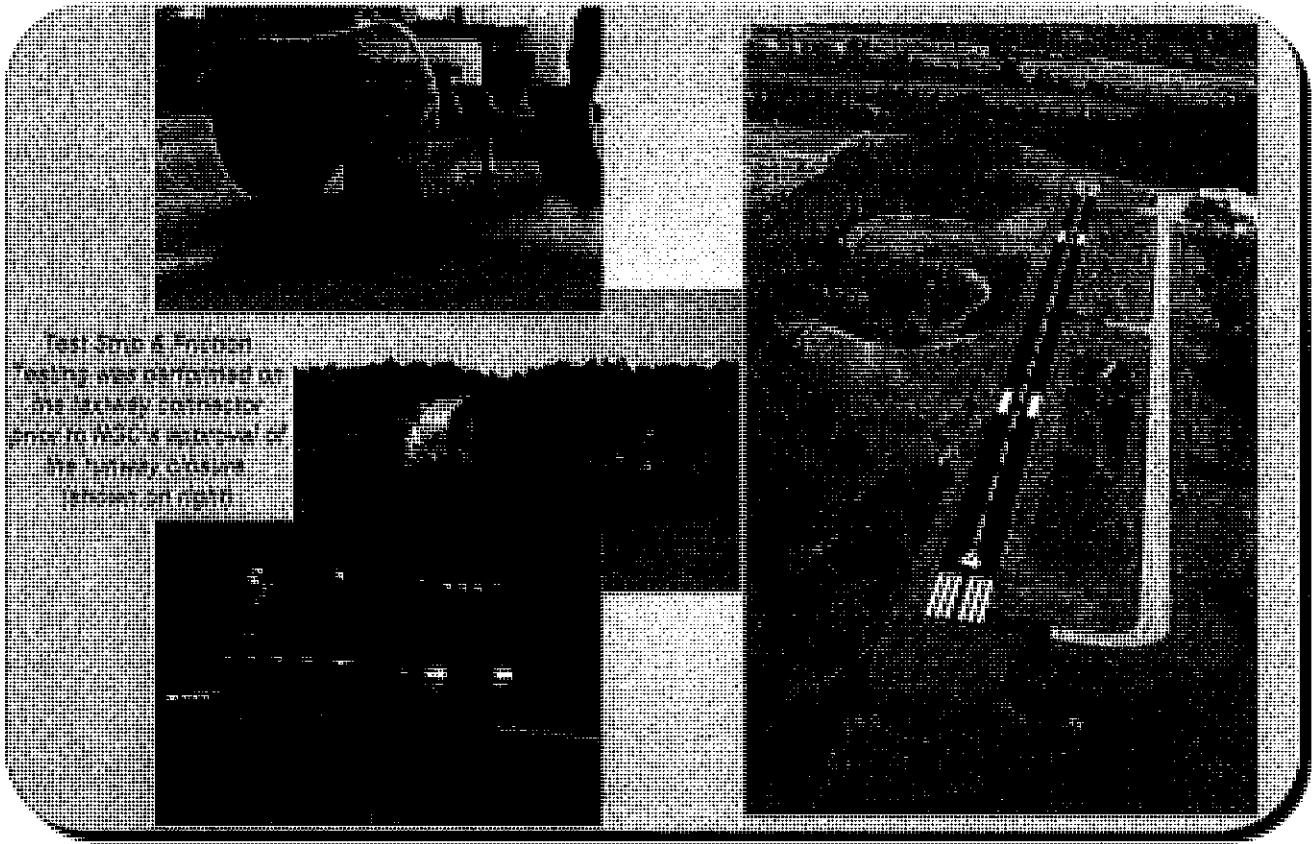
**Funding Source** FAA NPE

**Construction Cost:** \$125,944

NGC

# PROJECT HIGHLIGHTS

NGC



Test Strip & Friction Testing was performed on the taxiway connector prior to NGA's application of the runway coating (shown on right)

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## RUNWAY “4-22” REHABILITATION — FY 2006 JACKSON COUNTY AIRPORT

In 2006, the Jackson County Airport's runway was in relatively good condition but had cracking that had to be addressed. The runway surface was starting to fade in color indicating oxidation was occurring and the binder material was losing its elasticity that it needs to prevent cracking. When the runway was extended in 2003, the airport's prior consultant incorrectly directed the contractor to cover up the old markings with black paint. The FAA does not approve of “blacked out” markings due to pilot confusion. Removal of the “blacked out” runway numbers would be required in order to comply with FAA requirements.

**Type of Project:** Crack Repair, Coal-Tar Rejuvenator  
Pavement Markings  
*Design & Construction*

**Location:** Ravenswood, West Virginia

**Construction Time:** 7 days

**Funding Source:** FAA NPE

**Construction Cost:** \$121,000

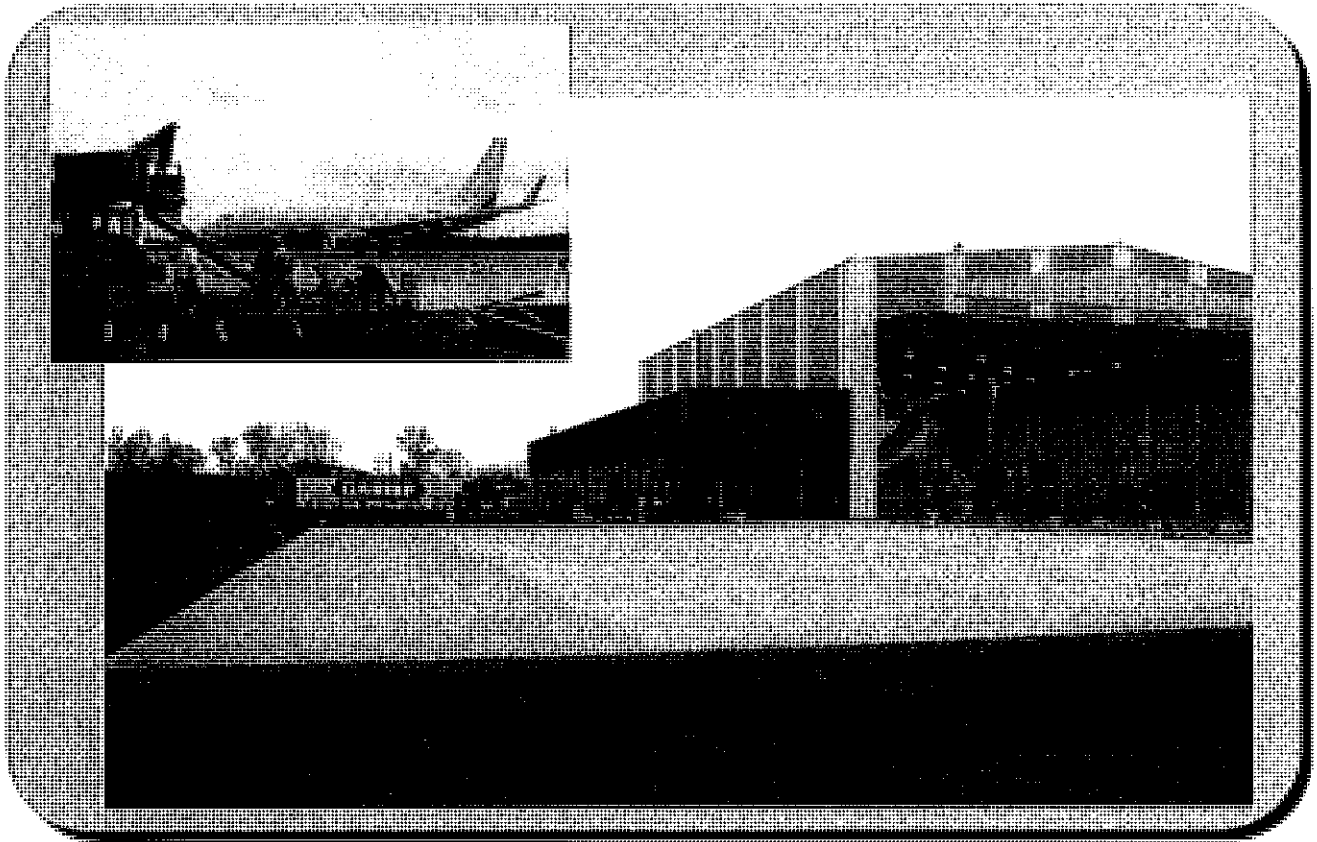
NGC recommended an FAA approved coal-tar rejuvenator and necessary crack repairs to extend the life of the runway. Prior to applying the rejuvenator, the Contractor was required to remove all existing pavement markings including all “blacked out” markings by water and bead blasting. The cracks were cleaned, and larger cracks were cut back to straight clean edges, and then sealed using an FAA approved fuel-resistant sealant. A test strip area was designated on a taxiway connector to ensure that the coal-tar rejuvenator application would be able to pass the friction testing and minimize the amount of closure time needed for the project. The night prior to the runway opening, the Contractor applied the runway pavement markings which allowed sufficient time for the paint to dry prior to scheduled runway opening the following morning.

NGC

# PROJECT HIGHLIGHTS

NGC

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## WEST APRON EXPANSION — FY 2007 GARY/CHICAGO INTERNATIONAL AIRPORT

In 2007, the Boeing Company approached the Airport Authority with a request to expand the existing apron to allow more room for staging aircraft and ground support equipment. Boeing indicated that they would cover 50% of the total cost. The initial budgetary estimate prepared by NGC was \$380,000 including professional services.

As this project was conceived and approved in late July, a fast design and construction would be required in order to beat the inclement weather. The project was designed in three weeks and let for bids. Bids were opened on September 5 and awarded a few days later.

Notice to proceed was provided on October 1 and construction was completed 45 days later. During the construction, Boeing maintained daily operations of both Boeing Business Jets (BBJs) and Challengers. An alternate access was also required to allow executives and service vendors to access the aircraft during construction.

During construction, a larger volume of poor subgrade than was anticipated was encountered. Even with the extra undercut and aggregate backfill, the project still managed to come in 20% under budget.

**Type of Project:** P-501 Apron Expansion  
(Critical aircraft design weight 150,000 lb)

**Location:** Gary, Indiana

**Construction Time:**

**Funding Source** Boeing Company & Gary Accumulative Building Fund

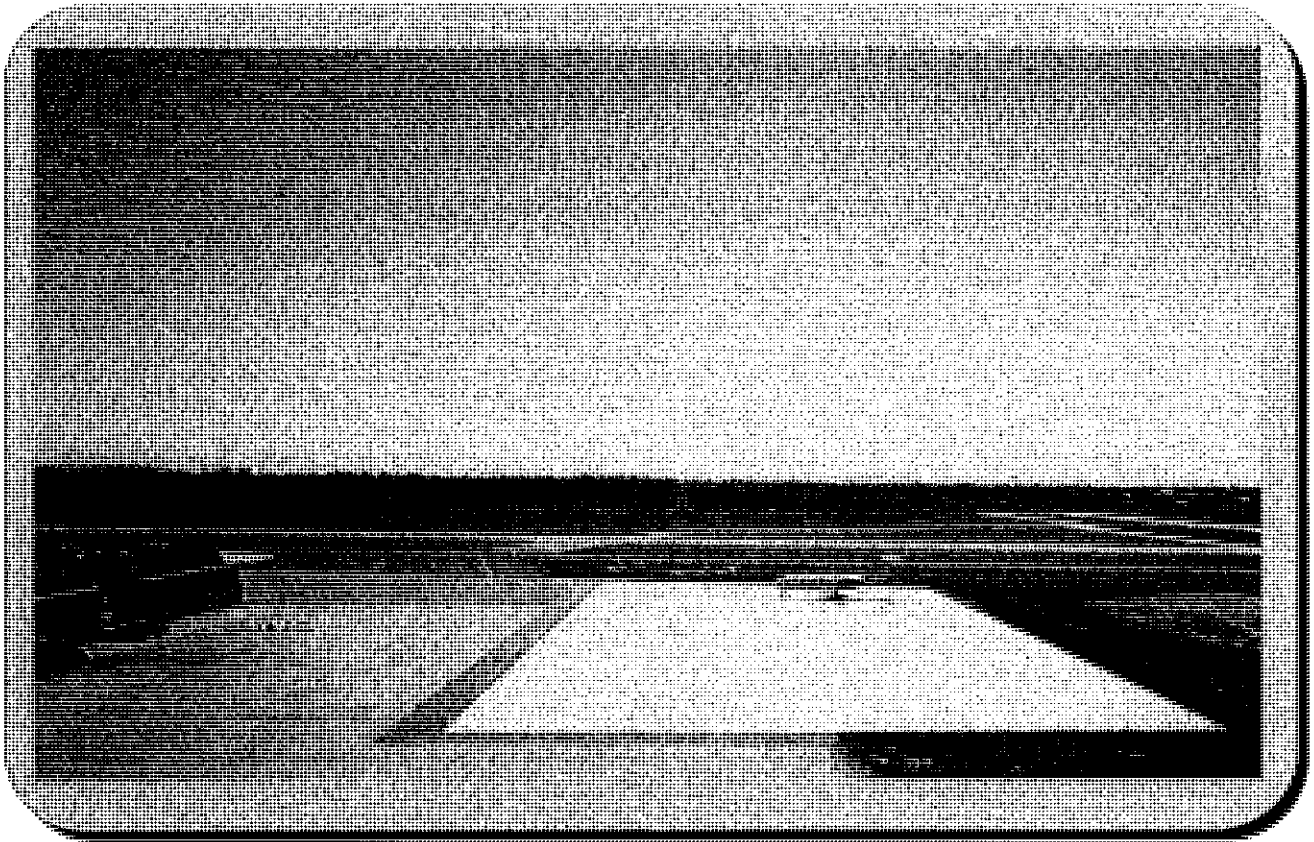
**Construction Cost:** \$306,130

NGC

# PROJECT HIGHLIGHTS

NGC

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## WEST CARGO APRON EXPANSION PHASE I — FY 2002 GARY/CHICAGO INTERNATIONAL AIRPORT

This project included the construction of a 135,000 square foot cargo apron at a former T-Hangar site. The project included excavation, pavement removal, construction of 14-inch thick P-501 Concrete apron, P-152 Unclassified Excavation, P-209 Crushed Aggregate base, taxiway edge lighting relocation, bituminous transition into the existing asphalt apron and shoulder restoration. NGC was able to bring this project in below the preliminary budget, with a total construction time of 60 days.

NGC provided all project services from conceptual to construction close-out. NGC's contract for this project included grant administration, engineering, project management, topographic survey, bidding, grant management, resident inspection and construction management services.

**Type of Project:** Full-Depth P-501 Apron Expansion  
(Aircraft design weight 150,000 lb)

**Location:** Gary, Indiana

**Construction Time:** 60 days

**Funding Source:** FAA AIP

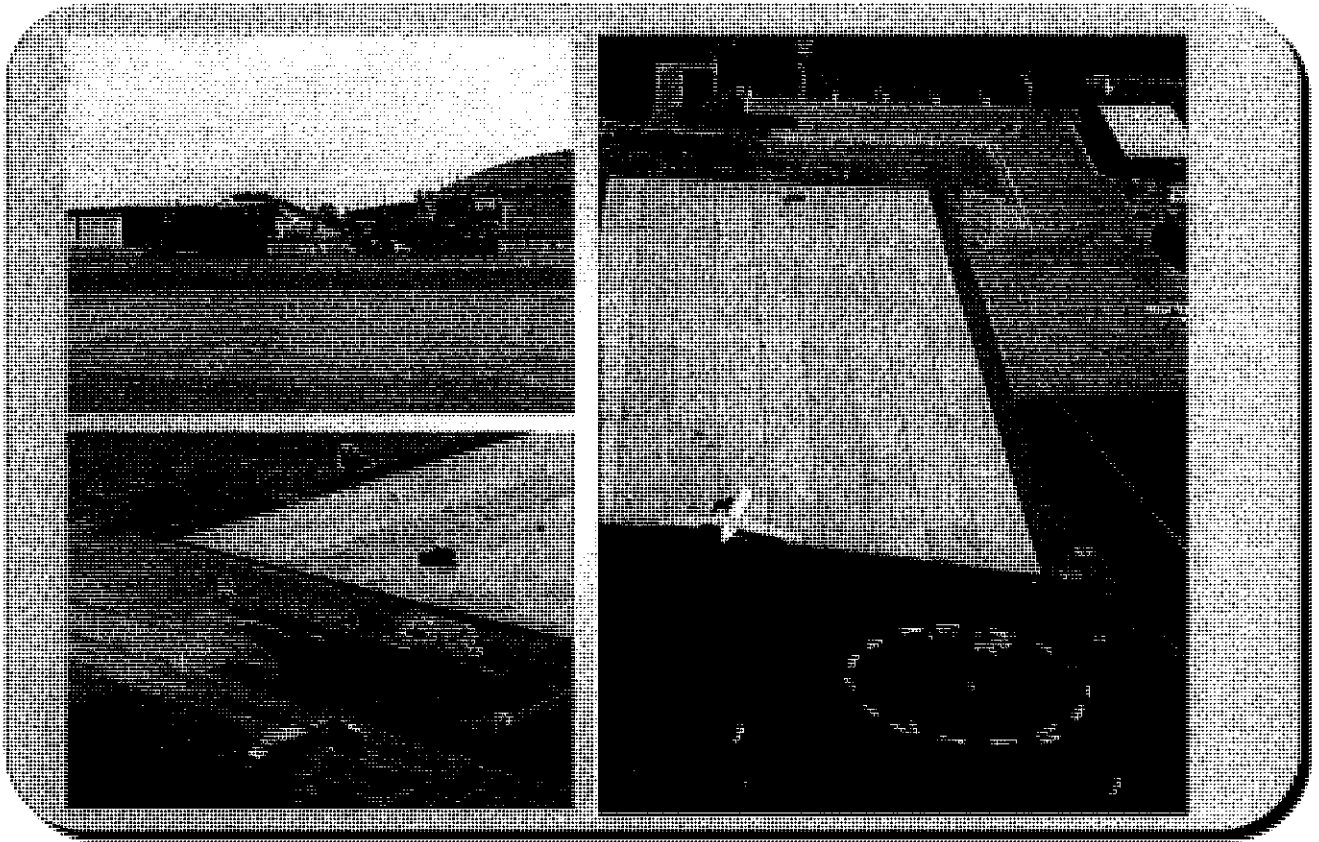
**Construction Cost:** \$1,200,000

NGC

# PROJECT HIGHLIGHTS

NGC

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## WEST CARGO APRON EXPANSION PHASE II — FY 2005 GARY/CHICAGO INTERNATIONAL AIRPORT

This project included the construction of a 135,000 square foot cargo apron at a former T-Hangar site. The project included excavation, pavement removal, construction of 14-inch thick P-501 Concrete apron, P-152 Unclassified Excavation, P-209 Crushed Aggregate base, taxiway edge lighting relocation, bituminous transition into the existing asphalt apron and shoulder restoration. NGC was able to bring this project in below the preliminary budget, with a total construction time of 60 days.

NGC provided all project services from conceptual to construction close-out. NGC's contract for this project included grant administration, engineering, project management, topographic survey, bidding, grant management, resident inspection and construction management services.

**Type of Project:** Full-Depth P-501 Apron Expansion  
(Critical aircraft design weight 150,000 lb)

**Location:** Gary, Indiana

**Construction Time:** 60 days

**Funding Source:** FAA AIP

**Construction Cost:** \$1,200,000

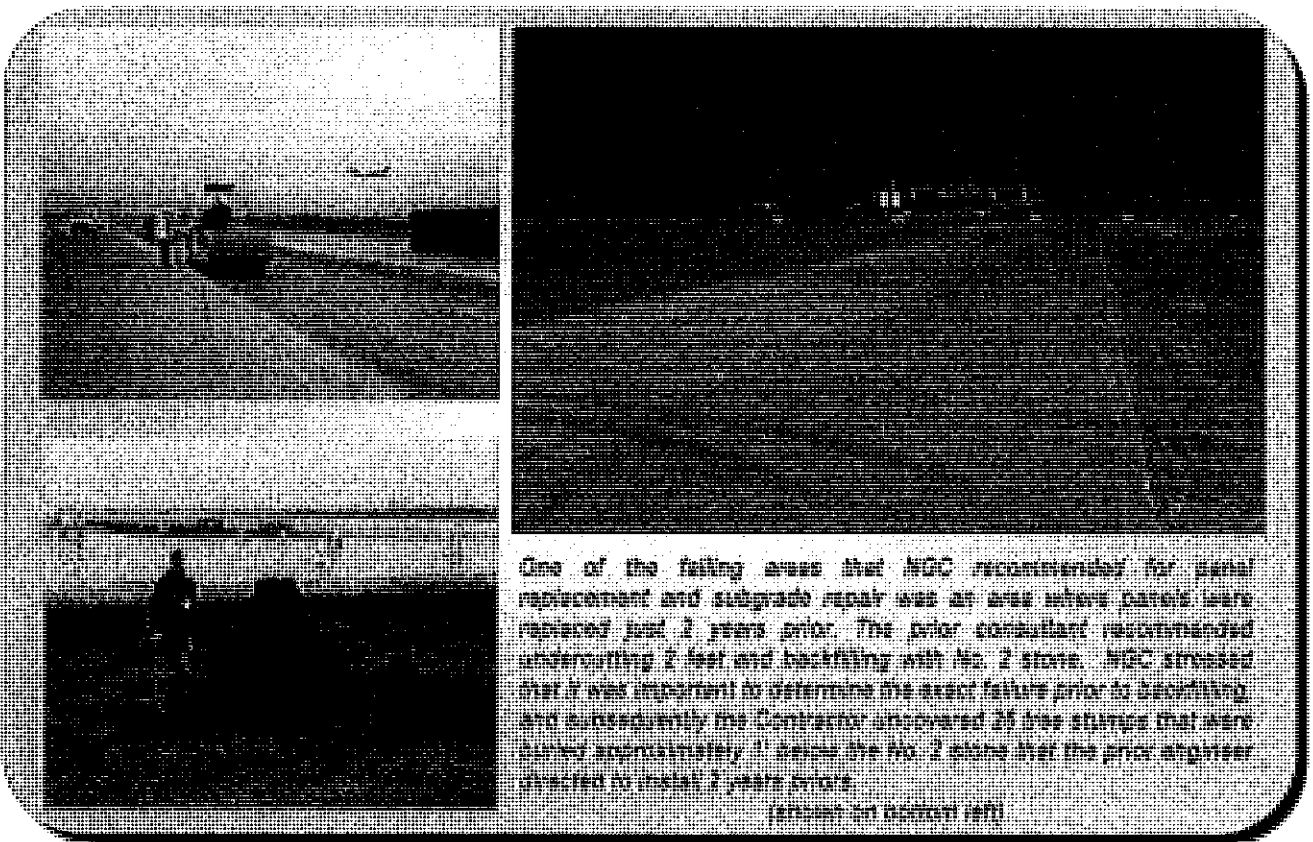
NGC



# PROJECT HIGHLIGHTS

NGC

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## CARGO APRON REHABILITATION — FY 2006 INDIANAPOLIS INTERNATIONAL AIRPORT

This project included full depth panel replacement of 50 Concrete panels and partial depth replacement and crack repair on 30 Panels. This project also included sewer investigation, underdrain repairs, and coordination with other construction project designs. Several areas were repaired only 2 years prior, and unfortunately we had to provide our recommendations to repair those areas again. Understandably, the airport did not want to spend additional money to replace the panels again, yet we were able to assure the airport that

crack repairs in that area would not correct the underlying problem and that, if done correctly, panel replacement would be the only way to remedy the problem. After performing our on-site pavement review, it was determined that the areas failing again were failing due to subgrade problems. Although borings in those areas did not find any specific reason for the failure, NGC recommended that the panels be removed and excavate the subgrade until stable soil is uncovered. During construction, the Contractor followed NGC's instructions and soon discovered 26 large tree stumps buried only a foot below where the last Engineering consultant recommended to stop excavation. NGC provided a safety and phasing plan that would have minimal impact to FedEx shipping schedules. The project was divided into 4 phases of construction, with work in areas that may impact FedEx the work was required to be completed between Sunday and Monday. NGC provided preliminary engineering, design engineering, and project management. Construction inspection service was provided by others.

**Type of Project:** Full-Depth P-501 Panel Repairs  
(Critical aircraft Airbus A380)

**Location:** Indianapolis, Indiana

**Construction Time:** 40 days

**Funding Source:** FAA AIP

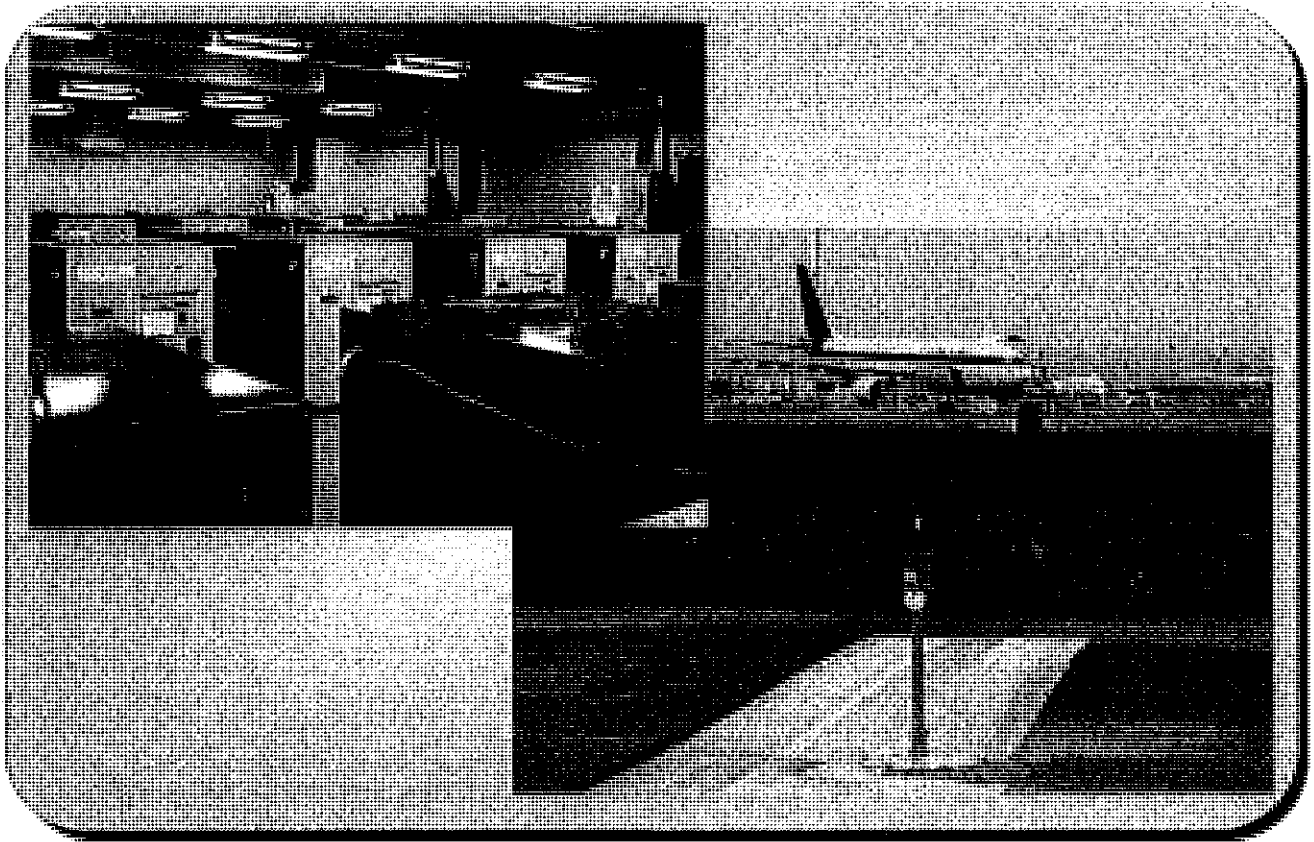
**Construction Cost:** \$635,000

NGC

# PROJECT HIGHLIGHTS

NGC

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## AIRFIELD ELECTRICAL UPGRADES PHASE I THRU V LOUISVILLE INTERNATIONAL AIRPORT FY 2005 THRU FY 2010

The first phase included replacement of existing lights with LED lights on Taxiway 'B' (10,000 feet x 75 feet) and Taxiway 'F' (7,200 feet x 100 feet). NGC also proposed Alternate Bids for new Base Plates, Series Cutout Plugs within the vault, and a new and more efficient regulator. Upon receiving bids, the Louisville Regional Airport Authority was able to secure all needed electrical items along with the Alternate Bids that NGC proposed. NGC was also able to secure handheld airport frequency radios under the AIP grant, a project first for the Louisville Regional Airport Authority.

**Type of Project:** Replace Electrical Cables, Correct Regulator Loading, LED Lighting, & Vault Modifications

**Location:** Louisville, KY

**Construction Time:** Varies per Phase

**Funding Source:** FAA AIP

**Construction Cost:** Varies per Phase

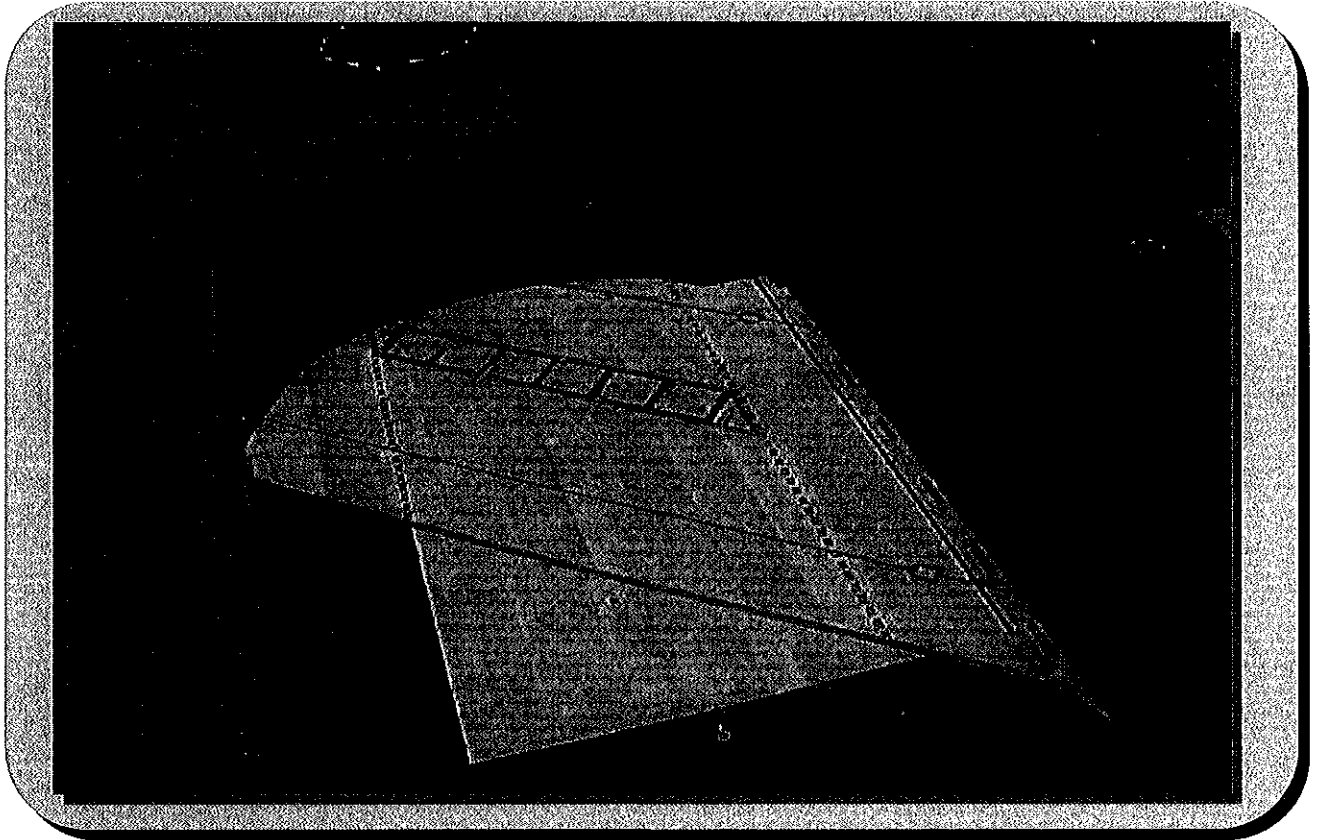
NGC provided preliminary engineering, design engineering, and project management. Construction inspection service has been provided by the LRAA. NGC was only selected to perform the first phase of this project, but after the first phase turned out so successful LRAA made the decision to award all subsequent phases to NGC.

NGC

# PROJECT HIGHLIGHTS

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## DEICING APRON — FY 1996 GARY/CHICAGO INTERNATIONAL AIRPORT

This project consisted of the construction of a new deicing facility capable of handling two Boeing 727 aircraft simultaneously. The project included 5,573 square yards of new concrete pavement, an overlay and seal coat of 4,365 square yards of bituminous pavement, electrical work and a force main pumping system for disposal of deicing fluids to the sanitary sewer system.

This facility was designed by one of our owners, Ken Ross, while working at a former employer. The construction management was contracted to NGC, after Ken left to start NGC. NGC also was instrumental in developing procedures and training for the FBO and maintenance personnel in its proper use.

**Type of Project:** Deicing Apron  
Construction Management

**Location:** Gary, Indiana

**Construction Time:** 90 days

**Funding Source:** PFC

**Construction Cost:** \$825,000

NGC

# RELATED EXPERIENCE

NGC

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## HUNTINGTON MUNICIPAL AIRPORT (IN)

- General Services
- Terminal Construction Management
- Airport Layout Plan Update
- Taxiway A Rehabilitation

- Fuel Farm Improvements
- Obstruction (Farm Silos) Removal
- Power Line Relocation
- Runway 9 Extension

## JACKSON COUNTY AIRPORT (WV)

- General Services
- Jet Fuel Tank Installation
- SRE Building Expansion
- Snow Broom/Tractor Procurement
- Airport Layout Plan Update
- Taxilane Construction
- Rotating Beacon Installation
- Standby Generator Installation
- Runway Sealcoat Installation
- Apron Rehabilitation
- Fuel Island Reconstruction
- T-Hangar Sitework
- Hangar Acquisition

## PERU MUNICIPAL AIRPORT (IN)

- General Services
- Parallel Taxiway Construction
- Obstruction (Tree Trimming) Removal
- Airport Layout Plan Update
- Hangar Painting Procurement
- Taxilane Rehabilitation
- Apron Rehabilitation
- Runway 1-19 Rehabilitation

## JASPER COUNTY AIRPORT (IN)

- General Services
- Airport Layout Plan Update
- Automated Weather Observation Station
- Maintenance Hangar Expansion
- Parallel Taxiway Construction
- Airfield Electrical Improvements
- New Electrical Vault
- Taxilane Widening
- Runway 18-36 Rehabilitation
- Apron Rehabilitation
- Drainage Improvements

## WABASH MUNICIPAL AIRPORT (IN)

- General Services
- Airport Layout Plan Update
- Aviation Fuel Tank Installation
- Jet Fuel Tank Installation
- Airfield Electrical Improvements
- Rotating Beacon Installation
- New Electrical Vault
- Runway 18-36 Widening & Rehabilitation
- T-Hangar Taxiway Rehabilitation

## KENTLAND MUNICIPAL AIRPORT (IN)

- General Services
- Airport Layout Plan Update
- Airfield Electrical Improvements
- New Electrical Vault
- Rotating Beacon Installation
- REIL Replacement
- New PAPI Installation
- Environmental Assessment
- Apron Expansion

## TERRE HAUTE INTERNATIONAL AIRPORT (IN)

- Disadvantaged Business Enterprise Program
- Storm Water Pollution Prevention Program
- Spill Prevention Control & Countermeasure
- T-Hangar Development
- Fuel Farm Development
- Runway 5-23 Rehabilitation
- Security Fencing and Card Access

## CRAWFORDSVILLE MUNICIPAL AIRPORT (IN)

- General Services
- Terminal Construction Management
- Apron Rehabilitation Construction
- Runway 4-22 Rehabilitation

NGC

# RELATED EXPERIENCE

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## CLARK REGIONAL AIRPORT (IN)

- Master Plan Study & Recommendations for Management and Development

## CLINTON AIRPORT (IN)

- General Services
- Airport Layout Plan
- NPIAS Request

## DELPHI MUNICIPAL AIRPORT (IN)

- General Services
- Airport Layout Plan Update
- Electrical Improvements
- T-Hangar Construction
- Environmental Assessment
- Runway Safety Area Improvements
- Runway 18-36 Rehabilitation
- Taxilane Overlay
- Fuel System Upgrades
- Land Acquisition

## LOUISVILLE INTERNATIONAL AIRPORT (KY)

- LED Lighting—Phase I
- LED Lighting—Phase II
- Electrical Improvements—Phase III
- Vault Study
- Bowman Field Vault Record Drawings
- Electrical Improvements—Phase IV
- Electrical Improvements—Phase V
- Taxiway E Electrical Design

## INDIANAPOLIS INTERNATIONAL AIRPORT (IN)

- Runway 32 Modifications
- FedEx Cargo Apron Rehabilitation

## SULLIVAN COUNTY AIRPORT (IN)

- General Services
- T-Hangar Development
- Fuel Farm Improvements
- Runway 18-36 Rehabilitation

## GARY CHICAGO AIRPORT (IN)

- General Services
- Master Plan Update
- Maintenance Hangar Development
- Maintenance Hangar Mitigation
- Card Access Security System
- Closed Circuit TV Monitoring System
- Terminal Expansion
- REILs Improvement
- Snow Plow Procurement (2)
- Snow Blower Procurement (2)
- ARFF Vehicle Procurement (2)
- Pickup/Dump truck Procurement
- Side Boom Mower Procurement
- Standby Generator Procurement (4)
- 5 CY End Loader Procurement
- Deicing Fluid Applicator Procurement
- Runway Extension Design—Phase I
- Runway Extension Design—Phase II
- Land Acquisition Program
- Railroad Relocation Program Assistance
- Power Line Relocation Assistance
- Wetland Mitigation Program
- T-Hangar Relocation
- West Apron Expansion (Boeing)
- West Cargo Apron Expansion
- FBO Apron Expansion
- Terminal Apron Expansion (3)
- Parking Lot Expansion
- Terminal Road Improvements
- SRE & Admin Facility Expansion
- Passenger Loading Bridges (2)
- Baggage Area Expansion
- Automated Weather Observation System
- Airfield Lighting Rehabilitation—Phase I
- Airfield Lighting Rehabilitation—Phase II
- Runway 30 Safety Area Improvements
- Runway 12-30 Rehabilitation
- Runway 12-30 Centerline Light Installation
- Control Tower Renovation
- Deicing Apron Construction
- FBO Apron Overlay
- Perimeter Fencing Installation
- 345 & 138kV Power Line Relocation

NG

# RELATED EXPERIENCE

NGC

## NGC EXPERIENCE MATRIX

	Crawfordsville Municipal	Delphi Municipal	Gary/Chicago International	Huntington Municipal	Indianapolis International	Jackson County, West Virginia	Jasper County	Kentland Municipal	Louisville International	Peru Municipal	Sullivan County	Terre Haute International	Wabash Municipal
AIP Grant Administration	*	*	*	*		*	*	*		*	*		*
Business Plans & Studies									*		*		*
PFC Administration			*										
CIP Requests & Justifications	*	*	*	*		*	*	*		*	*	*	*
Land Acquisition		*	*	*			*	*					
Environmental Impact Analysis/Assessment		*	*			*	*	*		*	*		*
Project Management	*	*	*	*	*	*	*	*	*	*	*	*	*
Airport Layout Plans		*	*			*	*	*		*			*
Runway Extensions		*	*		*			*					
Taxiway Extensions			*		*	*	*			*			*
Runway Construction/Reconstruction	*	*	*		*	*	*	*		*	*	*	*
Taxiway Construction/Reconstruction	*	*	*	*	*	*	*	*	*	*	*	*	*
Apron Construction/Reconstruction	*	*	*	*	*	*	*	*		*	*	*	*
<b>PCC Pavement Design (P-501)</b>													
- Aircraft Gross Weight under 30,000 lb	*	*				*	*	*		*	*	*	*
- Aircraft Gross Weight between 30 - 150,000 lb	*			*									
- Aircraft Gross Weight 150,000 or Greater			*		*				*				
<b>Bituminous Pavement Design (P-401)</b>													
- Aircraft Gross Weight under 30,000 lb	*	*				*	*	*		*	*	*	*
- Aircraft Gross Weight between 30 - 150,000 lb				*								*	*
- Aircraft Gross Weight 150,000 or Greater	*		*		*							*	
Runway/Taxiway Lighting (MIRL & HIRL)	*	*	*		*	*	*	*	*	*		*	*
Guidance & Distance Remaining Signs		*	*		*		*	*	*	*		*	*
Electrical Vaults		*	*		*	*	*	*	*	*		*	*
Standby Generators			*		*	*						*	
AWOS			*				*						
Fuel Systems	*	*	*	*		*		*			*		*
Tower & Control Modifications			*		*				*			*	
MALSAR			*		*							*	
NAVAIDS (PAPI's, REIL's, ILS)		*	*		*	*	*	*		*			*
Security & Fencing			*	*		*						*	
Obstruction Removal		*	*			*		*		*			*
Hangars			*			*	*						
T-Hangars		*	*			*					*	*	
Terminal Buildings	*		*	*									
ARFF & SRE Buildings			*			*							
Construction Inspection	*	*	*	*		*	*	*		*	*	*	*
Construction Management	*	*	*	*	*	*	*	*		*	*	*	*
SWPP's & Spill Prevention Plans		*	*	*		*	*	*		*	*	*	*
Permitting	*	*	*	*	*	*	*	*	*	*	*	*	*
Record Drawings	*	*	*	*	*	*	*	*	*	*	*	*	*

"ENGINEERING A BETTER WAY TO FLY"

# PROJECT EXPERIENCE PROFILE

**Project:**

FWAATS Facility Hanger Slab Repair

**Client:**

West Virginia Air National Guard

**Location:**

Bridgeport, WV



## PROJECT FEATURES

CTL Engineering of WV, Inc. was responsible for performing a subsurface investigation and laboratory testing program associated with the design, removal and replacement of the FWAATS Facility Hanger concrete slab in Bridgeport, West Virginia.



**Owner:**

WV Air National Guard  
1707 Coonskin Drive  
Charleston, WV 25311  
Jonathan L. Neal  
(304) 561-6550

**Project Completion:**

Ongoing

## PROJECT EXPERIENCE PROFILE

**Project:**

Jackson County Airport

**Client:**

Jackson County Airport  
C/o NGC Corp.

**Location:**

Millwood, WV



### PROJECT FEATURES

CTL Engineering of WV, Inc. was responsible for performing Quality Assurance for the Jackson County Airport for apron rehabilitation and new taxiways. Construction Services included concrete testing, compacting testing aggregate testing, soil tests and a laboratory testing program associated with the design and construction of the runway addition in Millwood, West Virginia.



**Owner:**

Jackson County Airport  
Route 1 Box 84  
Millwood, WV 25262  
304-273-8114  
C/o Deanne Ross, P.E.  
(317) 358-0450

**Project Completion:**  
2010





## PROJECT EXPERIENCE PROFILE

**Project:**

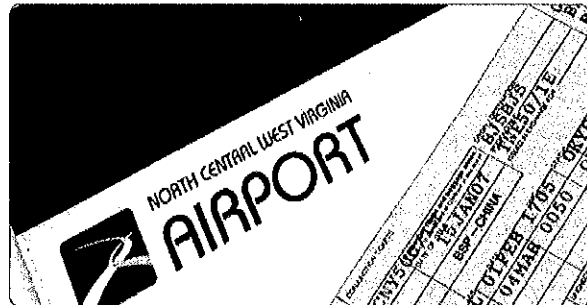
North Central WV Airport

**Client:**

North Central WV Airport  
C/o NGC Corp.

**Location:**

2000 Aviation Way  
Bridgeport, WV



### PROJECT FEATURES

CTL Engineering of WV, Inc. was responsible for performing Quality Assurance for the North Central WV Airport runway extension. Construction Services included concrete testing, compacting testing aggregate testing, soil tests and a laboratory testing program associated with the design and construction of the runway addition in Bridgeport, West Virginia.



**Owner:**

North Central WV  
Airport  
2000 Aviation Way  
Bridgeport, WV 26330  
304-842-3400

**Project Completion:**

1996

# CERTIFICATE OF *Authorization*

STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS

*The West Virginia State Board of Registration for Professional Engineers  
having verified the person in responsible charge is registered in  
West Virginia as a professional engineer for the noted firm, hereby certifies*

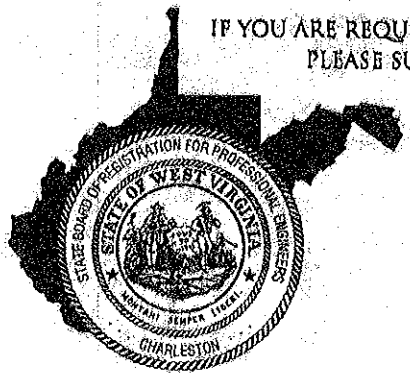
**NGC CORPORATION  
C02365-00**

**Engineer in Responsible Charge: DEANNE ROSS - WV PE 017703**

*has complied with section §30-13-17 of the West Virginia Code governing  
the issuance of a Certificate of Authorization. The Board hereby notifies you of its  
certification with issuance of this Certification of Authorization for the period of*

**July 1, 2010 - June 30, 2011**

*providing for the practice of engineering services in the State of West Virginia.*



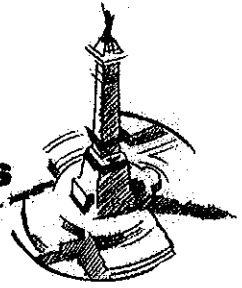
IF YOU ARE REQUIRED TO REGISTER WITH THE SECRETARY OF STATE'S OFFICE,  
PLEASE SUBMIT THIS CERTIFICATE WITH YOUR APPLICATION.

IN TESTIMONY WHEREOF, THE WEST VIRGINIA STATE BOARD OF  
REGISTRATION FOR PROFESSIONAL ENGINEERS HAS ISSUED THIS COA  
UNDER ITS SEAL AND SIGNED BY THE PRESIDENT OF SAID BOARD.

BOARD PRESIDENT

November 30, 2007

City of  
**Indianapolis**  
Bart Peterson, Mayor



NGC Corporation  
Deanne Ross  
1410 Post Road, Suite 200  
Indianapolis, IN 46239

Dear Mrs. Ross

The Division of Equal Opportunity has completed its review of your firm's application for certification as a Women **Business Enterprise, WBE**, and has determined that NGC Corporation is hereby re-certified with the City of Indianapolis as a Professional Service Contactor specializing in Civil Engineering Services.

This certification is issued pursuant to the City Minority & Women Business Utilization Plan, part B.

This certification is valid through November 30, 2010. Your certification is subject to revocation if changes in the status of your home state certification, ownership and/or managerial / operational control of the firm occur, or if just cause is determined through established investigative procedures. M/WBE firms must inform DEO, in the form of a sworn affidavit, of any changes affecting the ability of the firm or it's owners to meet disadvantaged status, ownership, or control requirements of the City Minority & Women Business Utilization Plan, part B. That affidavit must be received within thirty (30) days of the change.

Additionally, M/WBE firms must provide DEO, every year on the anniversary date of their certification, a sworn affidavit from the firm's owner(s), to affirm that there have been no changes affecting the ability of the firm or its owners to continue to meet the ownership and control requirements of the City Minority & Women Business Utilization Plan, part B. Such an affidavit form will be mailed to your firm approximately sixty (60) days prior to its anniversary date.

This certification is not necessarily accepted by other States or Agencies and does not verify the ability of your firm to perform the types of work you may indicate.

Enclosed, you will find information and forms for being added to the City of Indianapolis/Marion County Vendor's Mailing List. For further information about this matter, contact the Central Purchasing Division, Room 1522, City-County Building, (317) 327-4900.

Sincerely,

*Robert Ransom*

Robert Ransom /sm  
Administrator,  
Division of Equal Opportunity

cc: file

Department of Administration  
and Division of Equal Opportunity

1501 City County Building  
200 East Washington Street  
Indianapolis, Indiana 46204

(317) 327-5262  
(fax) 327-4482  
indygov.org

STATE OF WEST VIRGINIA  
Purchasing Division

**PURCHASING AFFIDAVIT**

**West Virginia Code §5A-3-10a states:** No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

**DEFINITIONS:**

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceed five percent of the total contract amount.

**EXCEPTION:** The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (**West Virginia Code §61-5-3**), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

**WITNESS THE FOLLOWING SIGNATURE**

Vendor's Name: NAC Corp.

Authorized Signature: [Signature] Date: 8-17-10

State of Indiana

County of Marion, to-wit:

Taken, subscribed, and sworn to before me this 17 day of August, 2010.

My Commission expires Aug. 21, 2013.

AFFIX SEAL HERE

NOTARY PUBLIC [Signature]

