

PROPOSAL  
**CITY OF KEY WEST**



for the design and construction of the  
**Public Transportation Facility**

*RFP No. 001-13*

*December 2012*



*in association with*





in association with



3390 Travis Point Road, Suite A  
Ann Arbor, MI 48108  
Tel: 734.996.9500  
Fax: 734.996.8480

1213 Glynn Archer Drive, Suite 281  
Key West, FL 33040  
Tel: 305.292.7889  
Fax: 305.292.7717

December 12, 2012

City of Key West  
City Clerk  
3126 Flagler Avenue  
Key West, FL 33040

**Subject: City of Key West Design and Construction of the Public Transportation Facility; RFP #001-13**

Dear Selection Committee:

In an effort to provide increased operational space and improved security to effectively handle public transportation requirements, the City of Key West (City) wishes to develop a 3.9-acre public transportation facility on Stock Island in Key West. This development will allow the current bus fleet maintenance functions to expand from a small building on Palm Avenue to a larger, modern facility that will include a fully equipped administration building, a bus maintenance building with six service bays, a bus wash, and a fuel island.

Douglas N. Higgins, Inc. (DNHI), in association with designer CDM Smith Inc., is pleased to submit our package prepared in response to the above referenced request for proposals (RFP). As detailed by the enclosed information, the DNHI/CDM Smith design-build team is uniquely positioned to successfully deliver this important project to the City and the residents of Key West. Ours is a strong local team coupled with a dynamic nucleus of highly experienced professionals who will work in perfect synchronization. By having DNHI and CDM Smith as key team members, we will be able to take full advantage of local wisdom and lessons learned from similar facility and transportation projects in Key West, the Florida Keys, and the U.S.

The City will receive the following benefits by selecting our team to provide design-build services on this project.

**We Will Be Your Trusted Partner in the Delivery of This Significant Endeavor**

Collectively, our team brings decades of experience in the permitting, design, construction, and implementation of facilities comparable to the work contemplated by the City. Throughout our submittal, it is evident that we bring a significant amount of experience completing work for clients within the Florida Keys, a large portion of which has been completed using a design-build approach. We have developed a great team that understands the project requirements, understands the local situation and conditions of the City, and is fully committed to working in partnership with the City to complete this important project.

**We Offer Key West a Team With Proven Success in the Delivery of Design-Build Projects Combined With an Extensive Knowledge of the Preferences of the City**

Founded in 1966 in Ann Arbor, Michigan, DNHI expanded business to the state of Florida in 1973 where, after nearly three decades of service, we are now regarded as one of the top contractors in South Florida. In addition to a strong presence in South Florida, DNHI has maintained on-going construction operations in Key West since 1982. This provides invaluable experience with how to successfully manage complex projects in the challenging environment of the Florida Keys. With an exceptional project management and administrative team backed by highly skilled and experienced field personnel, our clients enjoy the confidence of working with one of the finest contractors in the region. Since the 1970s, CDM Smith has designed more than 300 transportation-related maintenance, warehouse, and storage facilities and administration buildings worldwide. The firm also offers the advantage of a 230-person full-service architectural and engineering 3D/4D design-build center in Orlando.

**We Are Committed to the Success of This Project**

Presenting our approach to you provides us with an opportunity to demonstrate to you that, while others may be competent, there is no other team that can provide you with the value we can. Quite simply, we have the most proven and tested approach based on qualifications and experience. This experience is unmatched and directly

translates to our ability to provide you with the delivery, reliability, viability, and operability that you need now and for the long term. After all, this project is about more than providing a new transportation facility; it's building a strong foundation for the future of the City's entire transportation system and must be something that is not only delivered on time and on budget, but with a high degree of commitment, efficiency, and innovation.

### **Sustainable Design Practices to Help the City Save Money and Energy**

Our team presents extensive sustainable experience – especially in buildings and transportation facilities. At CDM Smith-designed facilities – such as the Macomb, Erie, and Red Rose transit facilities – CDM Smith architects and engineers developed sustainable designs such as daylighting, energy controls, solar panels and green roofs, implemented heat reduction practices, and saved their clients operating expenses. Other examples of successful sustainable designs include the Butler, Pennsylvania Transit Authority's bus wash bay reclaim system, which allows up to 80 percent recycling of wash water, and Red Rose's solar panel installation that projects electrical savings of more than \$30,000 per year. CDM Smith has also completed a substantial amount of sustainable project within Florida, including the Operations and Maintenance Facility for the Solid Waste Authority of Palm Beach County (SWAPBC) and the Dania Beach Operations Building. These two representative projects incorporated energy saving measures, which are forecasted to save in excess of 20 percent annually on energy.

### **Proven Project Management to Deliver Projects on Time and Within Budget**

We present **Walter Messer as our design-build project manager**. He brings to the City the experience of over 45 years in the design and construction of facilities in the Florida Keys and the U.S. He offers the City the demonstrated ability to complete this project due to his involvement in numerous utility projects in the Lower Keys and his recent management of the successful delivery of the design-build project for the City of Key West Transfer Station. This facility now serves as a critical element in the management of solid waste and recycling for the Lower Keys. **Design project manager Michael T. Alford, AIA, LEED® AP BD+C** offers 14 years of experience in building design, construction, and program management, implementing energy saving and sustainable design features into the construction of buildings. He takes an interactive project approach in which clients are an integral part of the design team, resulting in innovative project solutions while remaining responsive to budget and schedule goals. **Construction manager Paul Waters** brings to this project 28 years of experience gained from several significant construction projects for the City and several agencies in the Lower Keys.

### **Our Key West Presence Leads to Local, Responsive Service**


Both DNHI and CDM Smith maintain permanent offices in Key West. This local presence will allow immediate response to the needs of the City during both the design and construction phases. It also ensures that the work will progress in a forward motion and maintain a quality project where scheduled milestone dates are constantly met. DNHI management and field labor personnel are local residents and, as such, are both sensitive to and knowledgeable about how to best interface with the City and the community in order to execute a project properly.

### **We Are a Team That Has Successfully Worked Together Before**

The success of this project relies on the professionals that will be working with you. People that are committed to the City of Key West—people that know how to deliver the project and specialists that have done this before. We have assembled an "A-Team" of architects, engineers, and construction specialists who have completed projects in unison for clients in the past, with CDM Smith as the designer and DNHI as the contractor. Our continued relationship will enable seamless integration of management, workforce, and equipment during both the design and construction phases, while minimizing duplication of effort and cost.

We trust that the City will find our entire team highly qualified for this project and look forward to the opportunity to implement this project for you. Should you require any additional information or have any questions pertaining to our proposal, please feel free to contact me on my cell phone at 239.253.3701 or via email at [danh@dnhiggins.com](mailto:danh@dnhiggins.com).

Sincerely,



Daniel Higgins  
Vice President  
Douglas N. Higgins, Inc.

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- Non-Collusion Declaration and Compliance (Attachment N)
- Signed Addenda
- Copy of Teaming Agreement

# PART I: TECHNICAL STATEMENT

## Qualifications





**PACKAGE NO. 1 - TECHNICAL PROPOSAL**  
For Design/Build Project  
**CITY OF KEY WEST PUBLIC TRANSPORTATION FACILITY**  
KEY WEST, FLORIDA  
CITY Project No.: 001-13

NAME OF PROPOSER: Douglas N. Higgins, Inc.  
ADDRESS OF PROPOSER: 3390 Travis Pointe Rd. Suite A  
Ann Arbor, MI 48108

TO: City of Key West

Gentlemen:

The signer of this affidavit guarantees the truth and accuracy of all statements and information submitted herein in support of its proposal to furnish design, furnish all materials, equipment, and labor, and to perform all work in accordance with the Request for Proposal (RFP) and in accordance with the design criteria, contract, general and supplementary conditions included within the RFP entitled "Request for Proposal for Design/Build of City of Key West Public Transportation Facility, Florida."

The undersigned hereby authorizes and requests any public official, engineer, architect, surety company, bank depository, material or equipment manufacturer or distributor or any person, firm or corporation to furnish any pertinent information requested by the City or its representatives deemed necessary to verify the statements made, information submitted, or regarding the standing and general reputation of the applicant.

The undersigned has not been disqualified by any public agency in Florida except as is explained as follows:

The undersigned further affirms that, if false information is furnished in support of its bid proposal, it can and will be prosecuted to the fullest extent of the law for perjury.

Douglas N. Higgins, Inc.  
Name of Organization

BY: Kelly G. Wilkie  
Vice-President  
Title of Person Signing  
(If Corporation, Affix Seal)

Sworn to and subscribed before  
me this 31<sup>st</sup> day of October, 2012.

Notary Public-State of Michigan  
R. Suzanne Hawker  
My commission expires

**R. SUZANNE HAWKER**  
Notary Public, Washtenaw County, MI  
(Printed, typed, or stamped My Commission Expires **Mar 7, 2017**  
commissioned name of notary public)

Personally known X  
Or Produced identification \_\_\_\_\_  
(Type of identification)

## Part I

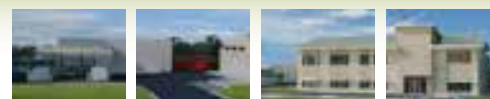
### *Technical Statement – Qualifications*

Since our founding over 46 years ago, Douglas N. Higgins, Inc. (DNHI) has taken pride in our ability to successfully complete challenging construction projects. Our experience in heavy civil infrastructure work has allowed DNHI to work in 12 states, as well as the Caribbean and the Bahamas. In 1973, DNHI established permanent, ongoing operations in Florida. Our corporate focus on work in Florida has grown, and we now maintain three offices throughout the state, including a local office in Key West. Our operation in Key West has been reliably and cost competitively completing projects on time and within budget in the Florida Keys since 1982. In the early 1990s, DNHI broadened our scope of services from a pure heavy civil/utility infrastructure construction firm into the water, wastewater, and stormwater control markets. Since 1995, DNHI has performed over 90 percent of our work for governmental agencies allowing us to fully understand the procedures and expectations set forth by contracts from these agencies and meet our clients procedures and expectations. We routinely complete construction projects throughout the state and recently constructed a solid waste transfer station for the City of Key West under a design-build contract. This project was completed on schedule and within the allotted budget. The State of Florida, including work in the Florida Keys, has been and will continue to play an important part of our business strategy as we move forward.

Our ability to cost effectively complete quality projects on time and within budget has provided DNHI with appropriate recognition, which is highlighted by a ***Certificate of Appreciation from the Metropolitan Dade County Commissioners***, as well as both the ***Contractor of the Year Award and the Director's Award from the Palm Beach County Water Utilities Department***.

Aside from specific work in the Florida Keys, **DNHI can claim an FDOT maximum bid capacity of \$574,050,000** in the approved work classes of drainage and grading with approved specialty work classes in underground utilities, water mains, sanitary lines, force mains, sewer lines, and pump stations.





## 1.1. Legal Name, Address, and Telephone Number:

### Corporate Office

Douglas N. Higgins, Inc.  
3390 Travis Pointe Road, Suite A  
Ann Arbor, MI 48108  
Tel: 734.996.9500

### Local Office

Douglas N. Higgins, Inc.  
1213 Glynn Archer Drive, Suite 281  
Key West, FL 33040

## 1.2. Check one:

Corporation ☒; Partnership ☐; Individual ☐

## 1.3. If a Corporation, State:

Date of Incorporation: April 1, 1966

State in which Incorporated: Michigan

Table 1.3-1 outlines the names, titles, and date of when each of our principal officers assumed their position.

Table 1.3-1: Principal Officers

Name and Title	Date of Assuming Position
Douglas N. Higgins, President	April 1966
William D. Higgins, Vice President	June 1999
Daniel N. Higgins, Vice President	September 1998
James H. Sweet, Vice President	March 1977
Kelly A. Wilkie, Vice President	June 1995
R. Suzanne Hawker, Secretary/Treasurer	August 1978

If an Out-of-State Corporation, current authorized to do business in Florida, give date of such authorization.

August 1, 1973, as evidenced by Figure 1.3-1.

## 1.4. If Partnership:

N/A

Date of Incorporation: N/A

Nature of Partnership (General, Limited, or Association): N/A

Name and Address of Partners/Age of Partners: N/A

## 1.5. If an Individual:

N/A

State – Name and Address of Owner: N/A

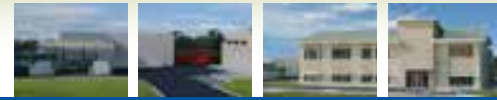
## 1.6. Enumerate State, County, or other Public Agencies in which your organization is qualified to perform work by some means of prequalification:

Table 1.6-1 outlines relevant Florida agencies for which we are prequalified to perform work.

Table 1.6-1: Prequalifications

Agency	Trade in Which Qualified	Expiration Date	Approved Amount
State of Florida	General Contracting	8/31/2014	N/A
Florida Department of Transportation	General Contracting – drainage, grading, underground utilities, water mains, sanitary lines, force mains, sewer lines, and pump stations	9/30/2013	\$574,050,000
City of Key West	General Contracting	9/30/2013	N/A
Florida Keys Aqueduct Authority (FKAA)	Underground construction, wastewater and water mains	N/A	N/A
Collier County	General Contracting	N/A	N/A
Lee County	General Contracting	N/A	N/A
City of Naples	General Contracting	N/A	N/A
City of Marco Island	General Contracting	N/A	N/A





## State of Florida Department of State

I certify from the records of this office that DOUGLAS N. HIGGINS INC. is a corporation organized under the laws of Michigan, authorized to transact business in the State of Florida, qualified on August 1, 1973.

The document number of this corporation is 830666.

I further certify that said corporation has paid all fees due this office through December 31, 2012, that its most recent annual report was filed on January 17, 2012, and its status is active.

I further certify that said corporation has not filed a Certificate of Withdrawal.

Given under my hand and the Great Seal of  
Florida, at Tallahassee, the Capital, this the  
Eighteenth day of January, 2012



*[Signature]*  
Secretary of State

Authentication ID: 000118453270-01001-830666  
To authenticate this certificate, visit the following site, enter the  
ID, and then follow the instructions displayed:  
<https://efile.sos.state.fl.us/verify/verify.html>

THIS DOCUMENT HAS A COLOR COPY BACKGROUND. INFORMATION FROM UNMARKED PATENTED PAPER

AC# 6307015

STATE OF FLORIDA  
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION  
CONSTRUCTION INDUSTRY LICENSING BOARD

DATE: 08/21/2012 BATCH NUMBER: 118195794 LICENSE KEY: C0C340183

SEQ# L12082701996

THE GENERAL CONTRACTOR  
NAMED BELOW IS CERTIFIED  
Under the provisions of Chapter 489 FS.  
Expiration date: AUG 31, 2014

HIGGINS, DANIEL NORMAN  
DOUGLAS N HIGGINS INC  
100 TRAVIS FOREST ROAD  
SUITE A  
ANN ARBOR MI 48106

RICK SCOTT  
GOVERNOR

KEN LAWSON  
SECRETARY

POWER BY AIR WITH HEAT BY LAW

## State of Florida Department of State

I certify from the records of this office that CDM SMITH INC. is a corporation organized under the laws of Massachusetts, authorized to transact business in the State of Florida, qualified on April 23, 1974.

The document number of this corporation is 832235.

I further certify that said corporation has paid all fees due this office through December 31, 2012, that its most recent annual report was filed on March 19, 2012, and its status is active.

I further certify that said corporation has not filed a Certificate of Withdrawal.

Given under my hand and the Great Seal of  
Florida, at Tallahassee, the Capital, this the  
Twentieth day of March, 2012

*[Signature]*  
Secretary of State



Authentication ID: 40020154854-02015-832235  
To authenticate this certificate, visit the following site, enter the  
ID, and then follow the instructions displayed:  
<https://efile.sos.state.fl.us/verify/verify.html>

## State of Florida Board of Professional Engineers CDM SMITH INC.

Is authorized under the provisions of Section 471.003, Florida Statutes, to offer engineering services to the public through a Professional Engineering Seal issued under Chapter 471, Florida Statutes.

EXPIRATION: 2/28/2013

Certificate of Authorization

CA LIC. NO:

AUDIT NO: 226281N0170

28

AC#5987901

STATE OF FLORIDA  
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION  
BOARD OF ARCHITECTURE & INTERIOR DESIGN

DATE: 02/29/2012 BATCH NUMBER: 118000001 LICENSE KEY: 118000001

SEQ# L12082701996

THE ARCHITECTURE CORPORATION  
NAMED BELOW IS CERTIFIED  
Under the provisions of Chapter 481 FS.  
Expiration date: FEB 28, 2013

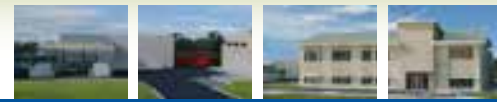
CDM SMITH INC  
50 WASHINGTON ST  
CAMBRIDGE MA 02139-1548

RICK SCOTT  
GOVERNOR

KEN LAWSON  
SECRETARY

POWER BY AIR WITH HEAT BY LAW





**1.7. Describe your organizational structure, including the number of permanent employees engaged in cost estimating, purchasing, expediting, detailing, and architecture, engineering, field supervision, field engineering, and layout:**

Our team brings to the City of Key West a unique blend of design engineers, architects, operations specialists, and constructors that is unsurpassed in its ability to deliver the public transportation facility and all ancillary features and facilities needed. The team has a proven track record on previous projects for the City, in the Florida Keys, and in Florida. We have a commitment to technical excellence, innovation, continual improvement, and environmental and fiscal considerations, which makes us an ideal partner.

DNHI will serve as the prime for this design-build team.

**Walter Messer** will lead the entire team and provide overall project management. Under Mr. Messer's direction, DNHI will direct the efforts of the design-build team toward efficient and maintenance-friendly facilities. One of the main goals of Mr. Messer and our entire project team is to foresee long-term operation of the facility, and provide design layouts, equipment, and construction workmanship to meet your long-term needs.

**Michael T. Alford, AIA, LEED® AP BD+C** (CDM Smith) will serve as the design project manager and be responsible for all aspects of the design and subconsultant coordination, while **Paul Waters** with DNHI will serve as the construction project manager and keep the construction phase on schedule. Both Mr. Alford and Mr. Waters will report directly to Mr. Messer for this project.

Our organization chart, **Figure 2.1-1**, details key team members and their roles on the project. DNHI will provide a team of dedicated professionals that the City can trust to act in your best interests in design and construction quality, cost and schedule efficiency, and overall project management.

**Permanent Employees** – DNHI has 62 permanent employees—consisting of three cost estimators, two responsible for purchasing, two responsible for expediting, one responsible for detailing; four engineers; four field supervisors; two field engineers; and two layout staff. In addition to those listed above, we have an additional 45 field supervisors and support personnel to provide further services to the City of Key West.

We can also rely on CDM Smith's worldwide staff of more than 5,000 to support our team, including approximately 450 personnel within the State of Florida. The addition of CDM Smith affords our team access to more than 40 architects, 200 transportation engineers, 560 civil engineers, 160 computer programmers, 70 cost estimators, 160 electrical engineers, 620 environmental engineers and scientists, 195 geologists, 110 geotechnical engineers, 65 mechanical engineers, 190 planners, 112 structural engineers, and additional support staff to achieve the City's world-class facility.

**Figure 1.3-1** provides a copy of our current Florida professional license, as well as CDM Smith's professional engineering and architecture licenses.

**1.8. How many years has your organization been authorized to do business in Florida?**

For the past 39 years, DNHI has been authorized to conduct business within Florida. Additionally, design engineer CDM Smith is currently authorized to work within Florida and has been since 1974.

**1.9. Has any officer or partner of your organization ever been an officer or partner of some other organization that failed to complete a construction contract?**

No.

*If within the last five (5) years, state name of individual, other organization, and reason therefore:*

N/A

**1.10. Has any officer or partner of your organization ever failed to complete a construction contract handled in his own name?**

No.

*If within the last five (5) years, state name of individual, name of owner, and reason therefore:*

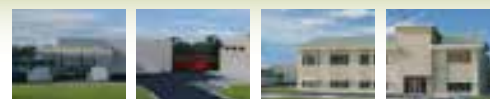
N/A

**1.11. Has your organization, or any officer or partner thereof, ever been party to any criminal litigation as a result of construction methods, costs, etc?**

No.

*If yes, state case number, case name, and provide pertinent details, including judgment:*

N/A



## 1.12. Has your organization, or any officer or partner thereof, ever been party to any civil litigation as result of construction methods, costs, etc?

No.

*If yes, state case number, case name, and provide pertinent details, including judgment:*

N/A

## 1.13. Provide description of design-build project team:

### 13a. Constructor:

#### Legal Name, Address, and Telephone Number:

##### Corporate Office

Douglas N. Higgins, Inc.  
3390 Travis Pointe Road, Suite A  
Ann Arbor, MI 48108  
Tel: 734.996.9500

##### Local Office

Douglas N. Higgins, Inc.  
1213 Glynn Archer Drive, Suite 281  
Key West, FL 33040

**Check one:** Corporation ☒; Partnership ☐; Individual ☐

#### If a Corporation, State:

Date of Incorporation: April 1, 1966

State in which Incorporated: Michigan

**Table 1.13a-1** outlines the names, titles, and date when each of our principal officers assumed their position.

**Table 1.13a-1: Principal Officers**

Name and Title	Date of Assuming Position
Douglas N. Higgins, President	April 1966
William D. Higgins, Vice President	June 1999
Daniel N. Higgins, Vice President	September 1998
James H. Sweet, Vice President	March 1977
Kelly A. Wilkie, Vice President	June 1995
R. Suzanne Hawker, Secretary/Treasurer	August 1978

If an Out-of-State Corporation, currently authorized to do business in Florida, give date of such authorization:  
August 1, 1973

### If Partnership: N/A

Date of Incorporation:

Nature of Partnership (General, Limited, or Association):

Name and Address of Partners/Age of Partners:

### 13b. Designer:

#### Legal Name, Address, and Telephone Number:

##### Responsible Florida Office

CDM Smith Inc.  
1715 North Westshore Boulevard, Suite 875  
Tampa, FL 33607  
Tel: 813.281.2900

##### Local Office

CDM Smith Inc.  
1009 Eaton Street  
Key West, FL 33040  
Tel: 321.431.7029

**Check one:** Corporation ☒; Partnership ☐; Individual ☐

#### If a Corporation, State:

Date of Incorporation: 1970

State in which Incorporated: Massachusetts

**Table 1.13b-1** outlines CDM Smith's principal officers and the dates on which they assumed their positions.

**Table 1.13b-1: Principal Officers**

Name and Title	Date of Assuming Position
John D. Manning, President	April 2009
James S. Lackman, General Counsel/Secretary	May 1997
Robert W. McCarthy, Treasurer	April 2001

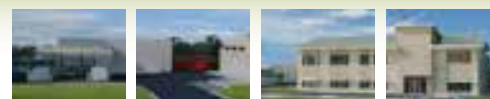
If an Out-of-State Corporation, currently authorized to do business in Florida, give date of such authorization:  
April 23, 1974

### If Partnership: N/A

Date of Incorporation:

Nature of Partnership (General, Limited, or Association):

Name and Address of Partners/Age of Partners:



## 13c. Major Subcontractor(s)

For work that we will not self-perform, DNHI will seek out skilled contractors that are either local to Key West or have significant construction experience in the area. Based on workload and the requirements of this project, we may add additional team members to support this project at a later date. Major subcontractors we have successfully teamed with for similar projects in the Keys include:

- Charley Toppino and Sons, Inc. (Demolition and material supply)
- Bella Construction of Key West, Inc. (Cast-in-place concrete and masonry)
- Gary's Plumbing, Inc. (Plumbing)
- Okeechobee Air (HVAC)
- Fred McGilvray, Inc. (Fire protection)
- Nearshore Electric, Inc. (Electric).

**Legal Name, Address, and Telephone Number:** N/A

**Check one:** Corporation ☐; Partnership ☐; Individual ☐

**If a Corporation, State:** N/A

**Date of Incorporation:**

**State in which Incorporated:**

**Name and Title of Principal Officers/Date of Assuming Position:**

If an Out-of-State Corporation, current authorized to do business in Florida, give date of such authorization.

**If Partnership:** N/A

**Date of Incorporation:**

**Nature of Partnership (General, Limited, or Association):**

**Name and Address of Partners:**

**Age of Partners:**

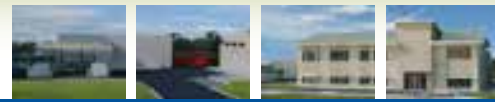
## 1.14. List all Architects, Engineers, and Surveyors to be used for the Project. (Submit proof of license or certification.)

We have assembled an unsurpassed team of highly qualified professional architects, engineers, and other specialty designers to complete your project with innovation, integrity, and sustainability. This design team includes a mixture of local staff and specialized experts from across Florida to ensure your project is completed with the highest caliber design. **Table 1.14-1** outlines professional design team members assigned to this project, along with their office locations and professional license numbers. Proof of licenses/certifications for the staff listed are included in the following pages.

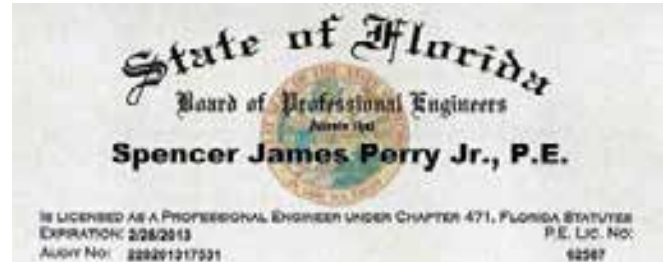
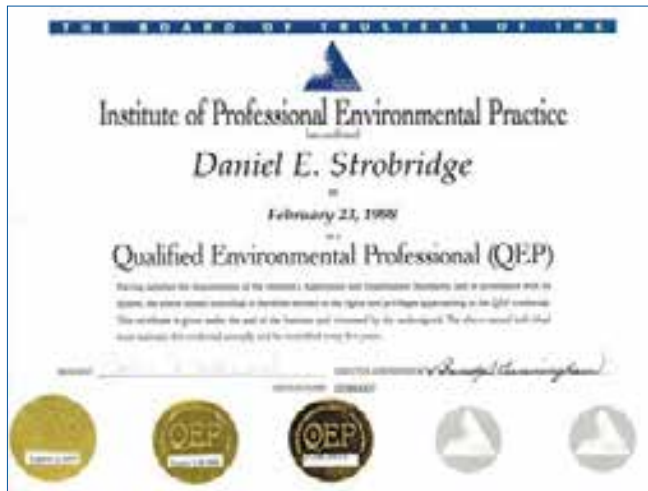
**Table 1.14-1: Architects, Engineers, and Surveyors**

Name/Role	Address	License #
Daniel E. Strobridge, OEP Design Project Executive	1715 North Westshore Boulevard, Suite 875 Tampa, FL 33607	02980007
Michael T. Alford, AIA, LEED® AP BD+C Design Project Manager, Architectural	2301 Maitland Center Parkway, Suite 300 Maitland, FL 32751	AR92055 (FL)
Timothy A. Verwey, P.E. Structural	2301 Maitland Center Parkway, Suite 300 Maitland, FL 32751	50947 (FL)
Spencer J. Perry Jr., P.E., LEED® AP Electrical	2301 Maitland Center Parkway, Suite 300 Maitland, FL 32751	62587 (FL)
John G. Ladner, P.E., BCEE Site/Civil	2301 Maitland Center Parkway, Suite 300 Maitland, FL 32751	37969 (FL)
Paul A. Pouliot, P.E. HVAC/Plumbing	2301 Maitland Center Parkway, Suite 300 Maitland, FL 32751	55318 (FL)
E. Woody Lingo, P.E. Geotechnical	3715 Northside Parkway, N.W., Building 300, Suite 400, Atlanta, GA 30327	09326 (FL)
Edward C. Roethlein, AIA, LEED® AP Technical Review Committee	503 Martindale Street, Suite 500 Pittsburgh, PA 15212	ARC5534 (D.C.)
Timothy L. King, R.A., LEED® AP Technical Review Committee	503 Martindale Street, Suite 500 Pittsburgh, PA 15212	ARC9611508 (OH)
Charles E. Tolton, P.L.S. Survey	2887 Tamiami Trail East, Suite 5 Naples, FL 34112	LS4582

## Part I – Technical Statement Qualifications

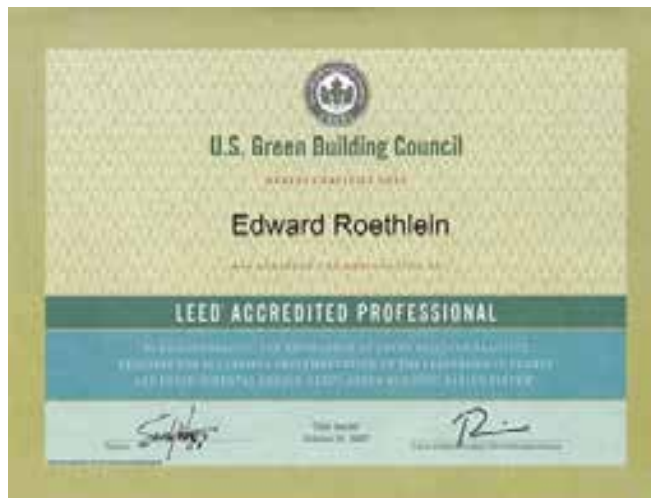
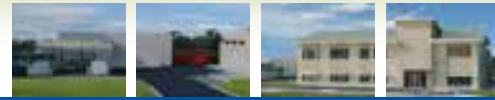


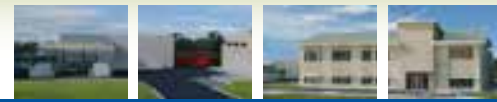
### Licenses:





## Part I – Technical Statement Qualifications





### 1.15. Identify Project Manager by name and state qualifications and experience:

#### Constructor:

**Walter Messer** will serve as the **design-build project manager** and the City's primary point-of-contact for all design and construction efforts. Mr. Messer offers the City more than 46 years of construction experience relating to facilities, heavy civil, and design-build projects. He has successfully led the construction of more than 50 projects within the Florida Keys, including the City of Key West's solid waste transfer station. He has overseen more than 100,000 linear feet of underground utilities throughout the Florida Keys. This extensive experience makes him highly knowledgeable of excavation conditions, dewatering requirements, and constructability issues in the Florida Keys. His past experience, coupled with his successful design-build management leadership, makes him the perfect overall project manager for this pursuit.



**Paul Waters** will serve as the **construction project manager** and will utilize his 28 years of construction experience to successfully implement the CDM Smith design for the City. He will be responsible for overall construction management, general oversight of the project, construction scheduling, technical oversight, and review of plans and specifications. He recently served in this same role for the City's solid waste transfer station project. Mr. Waters has extensive experience in design-build projects for facilities and transfer stations, with an emphasis on vertical construction, mechanical, plumbing, underground utilities, and earthwork.



#### Design Firm:

**Michael T. Alford, AIA, LEED® AP BD+C** will serve as the **design project manager** and is a registered architect with over 14 years of experience, with projects ranging from new construction and building additions, to alterations, interior space planning, and remodeling. As a LEED® Accredited Professional in Building Design and Construction (LEED® AP BD+C), Mr. Alford advocates for and advances the ideal of a holistic approach to building design to meet human needs through the creation of healthier environments, while reducing energy consumption and the negative impact on our natural resources. He has served as the LEED® Commissioning Authority and architect/architect-of-record for two recent projects in Florida: the Dania Beach Nanofiltration Water Treatment Plant Design-Build and the Solid Waste Authority of Palm Beach County Operations Building. The Dania Beach facility was designed using a variety of innovative technologies to reach a LEED® Gold certification, and the operations building achieved LEED® Silver certification by using a strong approach to sustainability and environmental preservation. Mr. Alford has worked on a wide variety of public facilities throughout his career, from monitoring facilities, treatment plants, and administration buildings, to community centers, research facilities, and pump stations.



#### Major Subcontractor:

**Charles E. Tolton, P.L.S.** will be responsible for all **survey** tasks performed as part of the public transportation facility project. Mr. Tolton, owner of subconsultant firm Charles Tolton & Associates, Inc. (CTA), formed the company in 1990 and has 34 years in the surveying profession. Mr. Tolton has direct experience with the City of Key West, including working on DNHI's solid waste transfer station for the City. His surveying experience encompasses all aspects of the industry, including boundary surveys, topographic surveys, hydrographic surveys, construction layout, GPS surveys, ALTA surveys, elevation certifications, and tower surveys. He has provided these services for clients' infrastructure, water, sewer, bridge, and road design and construction projects, including the City of Naples' Immokalee Road six-lane construction project and the US 41 six-laning, as well as various projects for the U.S. Navy in Key West.



# PART II: TECHNICAL STATEMENT

## Experience





## Part II

### *Technical Statement – Experience*

Douglas N. Higgins, Inc. (DNHI) has maintained a presence in the Florida Keys since 1982 and in the underground utility construction industry since 1966. We have successfully completed several projects within the Florida Keys, and specifically for the City of Key West, under a design-build approach. Recently, we completed the solid waste transfer station design-build project for the City, which included separate office, recycling, and scale/security buildings totaling 20,000 square feet over a 3-acre site and which now serves as a critical element in the management of solid waste and recycling for the Lower Keys. Additionally, we completed the City of Layton's wastewater collection system and the Long Key State Park wastewater collection system design-build projects, as well as the Trailer Village wastewater collection design-build for the City of Key Largo. Our extensive local project experience demonstrates the capabilities, internal process, and expertise of our design-build delivery capabilities.

Since 2000, DNHI has placed over \$40M of infrastructure in the Florida Keys, including well over 100,000 LF of utility installation. These projects have included the City's \$6.92M sanitary sewer rehabilitation for Service District C, \$3.65M in repair of the NAS Key West storm and sanitary sewer system for the U.S. Department of the Navy, and the \$5.59M Bay Point water and wastewater system improvements for the Florida Keys Aqueduct Authority.

For this important project, we have teamed with nationally-ranked transportation engineering and architectural consultant CDM Smith to serve as the lead designer and provide high-quality, multi-disciplined services to the City of Key West. Of all the engineering firms in the country, CDM Smith was ranked 19<sup>th</sup> in transportation and 22<sup>nd</sup> among all design firms by Engineering News Record in 2012.

CDM Smith offers the City a wealth of transportation projects, including more than 300 transit maintenance and operations facilities. Since the 1970s, they have designed maintenance, warehouse, and storage facilities, and administration buildings worldwide. Last year alone, CDM Smith designed the McDonough County Transit

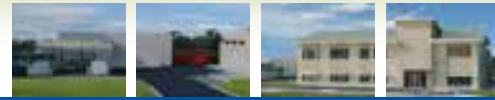
### PROJECT TEAM



The DNHI/CDM Smith Team is well-rounded, providing the City of Key West with experienced local contractors and experts in maintenance, warehouse and storage facilities, and administration buildings.







Agency (MCTA) new maintenance facility/bus storage/administration/bus wash/fueling station and renovation of an old ceramics manufacturing facility in Macomb, MI; Butler Transit Authority's (BTA) new Intermodal Transit Center in Butler, PA; and the Red Rose Transit Authority (RRTA) in Pennsylvania. In the last three years alone, they have completed designs for more than 510,000 square feet of transit maintenance and operations facilities. This experience provides our team with an unparalleled understanding of transportation facilities, and we will apply lessons learned from previous projects to your new public transportation facility.

From bus storage, maintenance, and wash facilities to public transportation facilities, passenger drop-off areas, and administrative facilities, CDM Smith has delivered more than 300 similar facility projects throughout the country. Each of these facilities was designed to improve functionality, safety, and circulation, and increase operational efficiency.

CDM Smith also presents extensive sustainable experience—especially in transportation maintenance facilities. At CDM Smith-designed facilities, sustainable design

features have been incorporated, such as daylighting, energy controls, geothermal heating and cooling, solar panels, and green roofs, and they have implemented heat reduction practices to save clients operating expenses. In addition to the projects listed within this section, their sustainable designs include Butler's bus wash bay reclaim system, which allows up to 80 percent recycling of wash water, and Red Rose's solar panel installation that projects electrical savings of more than \$30,000 per year.

CDM Smith has also completed a substantial amount of LEED®-certified and sustainable projects within Florida, including the Operations and Maintenance Facility for the Solid Waste Authority of Palm Beach County (SWAPBC) and the Dania Beach Operations Building. These two representative projects incorporated energy saving measures, which are forecasted to save in excess of 20 percent annually on energy.

The large amount of local and relevant project experience our team brings to this contract provides the City with knowledgeable and successful professionals, able to deliver your project within the allotted schedule and outlined budget.

## Part II

### *Technical Statement – Experience (cont.)*

#### 2.1 State design and construction experience of principal members of your organization

Our design-build staff is comprised of an exceptional group of professionals, certified and experienced in working on Florida projects. Under the guidance of Mr. Messer, design-build project manager, these professionals will be accountable on a regular basis to deliver milestones. As a design-builder, DNHI enjoys a long-term relationship with the local labor community. Additionally, team member CDM Smith enjoys the same relationship status with local labor. Over time, DNHI and CDM Smith have each developed a core labor force. Our team commits to providing a harmonious labor force to complete the design-build project.

From a personnel perspective, the City of Key West gains a unique team with DNHI and CDM Smith. Currently on assignment within the Florida Keys and available upon Notice to Proceed (NTP), the majority of our field personnel have been directly involved with work in the Lower Keys. This internal experience, as well as our significant equipment fleet that can be quickly mobilized to the site immediately, allows us to adequately staff the project.

Our personnel capabilities are bolstered by exclusive team member CDM Smith, and a international resource pool of more than 5,000 engineers, architects, and planners. To successfully design, construct, and implement your project, we propose to use professionals who have designed public transportation, maintenance, and storage facilities and have constructed projects within Florida, the Florida Keys, and Key West. **Table 2.1-1** clearly identifies project management and key staff proposed for this project, while **Figure 2.1-1** showcases the project organizational chart with clear lines of our team's reporting hierarchy. Also included herein are complete resumes of all team members.



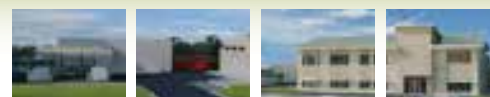


Table 2.1-1: Design and Construction Experience of Principal Members of Organization

Name	Title	Experience Years	Type of Work	Cost Range	In What Capacity
Walter Messer	Design-Build Project Manager	46 years	Design-build and hard bid utility installation, including Key West projects	\$0-\$40M	Project Director, Project Manager, Vice President
Paul Waters	Construction Manager	28 years	Underground utility and general construction, including Key West projects	\$0-\$8M	Regional Manager, Project Manager, Construction Quality Control Manager
Franklin Johnson	General Superintendent (Demolition/ Site/Civil)	28 years	Major utility infrastructure installation	\$0-\$15M	General Superintendent
Shaun Kogut	General Superintendent (Vertical Construction)	20 years	Building construction	\$0-\$80M	General Superintendent, Project Manager
Mark Battista	Project Manager and Safety Coordinator	23 years	Heavy civil construction	\$0-\$72M	Operations Manager, Director, Senior Project Manager
Daniel E. Strobridge, QEP	Design Project Executive	37 years	Environmental engineering	\$0-\$90M	Project Executive (Design), Officer-in-Charge, Design and Project Manager, Project Engineer, Technical Director, Construction Manager
Michael T. Alford, AIA, LEED® AP BD+C	Design Project Manager; Architectural	14 years	Architectural design for energy, transportation, and environmental facilities	\$0-\$667M	Project Architect, Architect-of-Record, Construction Coordinator, LEED® Commissioning Authority, Project Manager
Timothy A. Verwey, P.E.	Structural	25 years	Structural engineering	\$0-\$667M	Structural Engineer, Structural Engineer-of-Record
Spencer J. Perry Jr., P.E., LEED® AP	Electrical	14 years	Power distribution for environmental, industrial, and commercial facilities	\$0-\$667M	Electrical Engineer, Electrical Engineer-of-Record

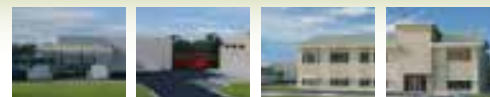
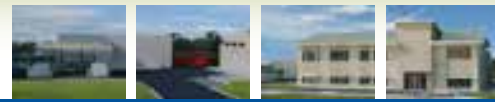


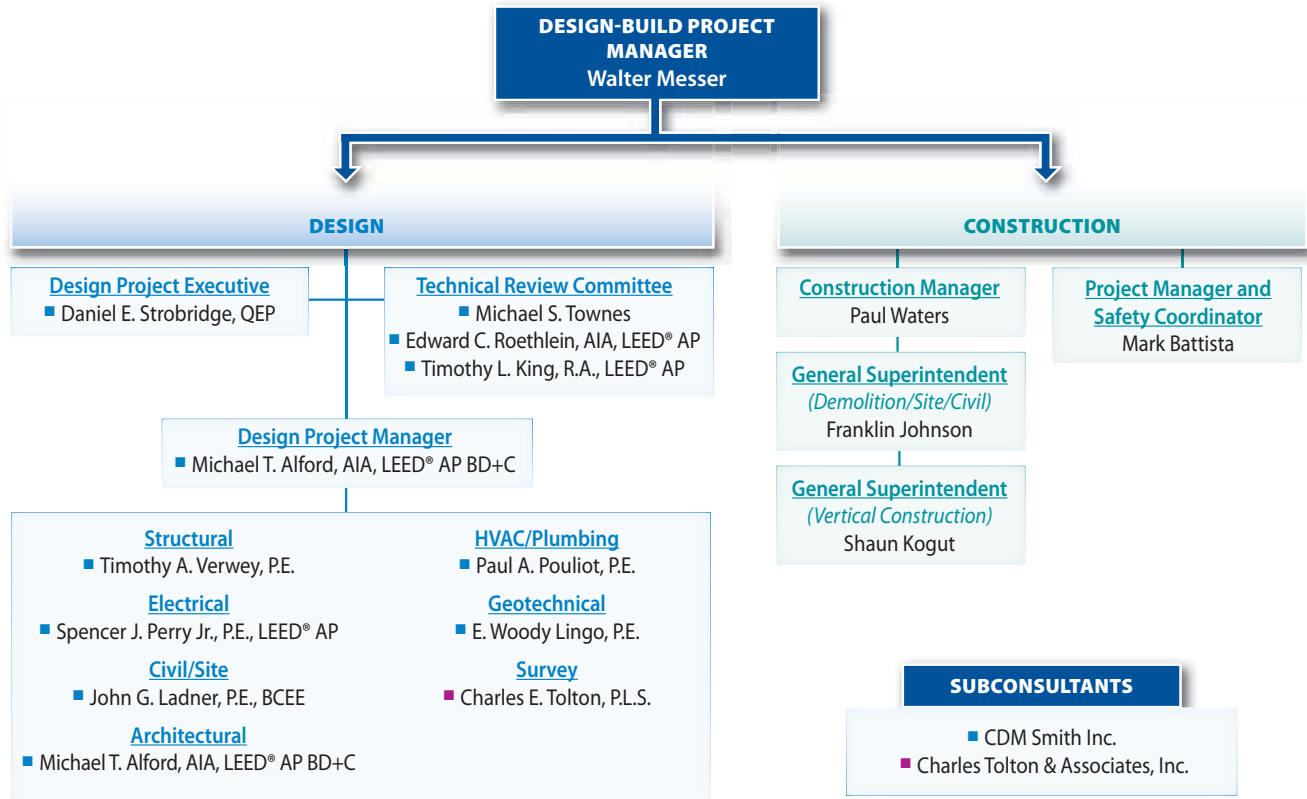
Table 2.1-1: Design and Construction Experience of Principal Members of Organization

Name	Title	Experience Years	Type of Work	Cost Range	In What Capacity
John G. Ladner, P.E., BCEE	Civil/Site	30 years	Civil, solid waste, and general environmental design and construction	\$0-\$230M	Project Manager, Senior Design Engineer, Quality Assurance Reviewer, Lead Practitioner, Engineer-of-Record
Paul A. Pouliot, P.E.	HVAC/Plumbing	17 years	Process mechanical engineering for environmental and industrial projects	\$0-\$68M	Lead Mechanical Engineer, Mechanical Engineer
E. Woody Lingo, P.E.	Geotechnical	46 years	Geotechnical engineering for transportation, environmental, structural facilities	\$0-\$300M	Principal Geotechnical Engineer, Geotechnical Consultant, Project Manager, Senior Geotechnical Engineer, Materials Engineer
Michael S. Townes	Technical Review Committee	32 years	Transportation and public transit planning and design	\$0-\$280M	Quality Assurance/Quality Control, Project Manager, Senior Transit Manager, Assistant General Manager, Manager of Planning, Director of Planning
Edward C. Roethlein, AIA, LEED® AP	Technical Review Committee	26 years	Architectural design and construction	\$0-\$350M	Design Manager, Lead Architect, Task Manager, Senior Technical Advisor, Task Leader
Timothy L. King, R.A., LEED® AP	Technical Review Committee	18 years	Architectural programming, planning, design, and construction	\$0-\$125M	Project Manager, Architectural Design, Technical Advisor, Project Architect, Architect-of-Record, Lead Architect
Charles E. Tolton, P.L.S.	Survey	34 years	Surveying for infrastructure, water, sewer, bridge, and road design and construction projects	\$0-\$20M	Project surveyor





*Figure 2.1-1: The DNHI/CDM Smith Design-Build Team brings a wealth of design and construction experience to successfully design, construct, and implement your public transportation facility.*



HAVING WORKED TOGETHER ON SEVERAL PROJECTS IN THE PAST, THE DNHI/CDM SMITH TEAM HAS NO LEARNING CURVE, WHICH WILL SAVE THE CITY TIME AND DOLLARS.



**Immokalee Stormwater Improvements, Collier County, FL**

For this roadway reconstruction and storm drainage project, CDM Smith served as the designer and DNHI is currently completing the construction.



**S-650 Lakeside Ranch Pump Station, Martin County, FL**

CDM Smith was responsible for the complete design of the Lakeside Ranch stormwater treatment area, while DNHI was responsible for the complete site development and construction of a 250-CFS pump station.

THE CITY BENEFITS FROM OUR SUPERIOR PROJECT MANAGEMENT TEAM, LED BY VETERAN DESIGN-BUILD PROJECT MANAGER WALTER MESSER.



**Walter Messer | Design-Build Project Manager –**

Mr. Messer's complete understanding of constructability issues and extensive management experience, coupled with his 50+ projects completed within the Florida Keys, affords the City with a leader that will make the best decisions for the project and the project team.



**Paul Waters | Construction Project Manager –**

Mr. Waters 28 years of underground utility and vertical construction experience positions him best to lead the construction portion of this project and deliver a facility the City will be proud to call your own.



**Michael T. Alford, AIA, LEED® AP BD+C | Design Project Manager –**

Mr. Alford will leverage his vast experience with facility design along with his LEED® accreditation to design a facility for the City that encompasses functional, yet sustainable, elements.

# Walter Messer

## *Design-Build Project Manager*



Under Mr. Messer's leadership in the Florida Keys, DNHI has completed over 50 projects with a constructed value of more than \$40M. Although varied, these projects involved new lift stations, lift station rehabilitations, underground utility installations, as well as traditional vertical construction.

Mr. Messer has provided oversight on the installation of over 100,000 LF of underground utilities in the Florida Keys with minimal long-term service issues. This experience makes him extremely knowledgeable about excavation conditions, dewatering requirements and constructability issues in the Florida Keys. In addition, Mr. Messer has lead DNHI's efforts with the successful completion of underground utility installation projects under a design-build contract arrangement in the Florida Keys.

Mr. Messer offers the City his complete understanding of constructability issues associated with utility projects in the Florida Keys. He has also demonstrated his ability to keep a cohesive design-build team, through coordinating design and construction team members on design-build projects. He has successfully managed all aspects of both design-build and hard bid utility installation projects.

### *Representative Relevant Project Experience*

- **City of Key West Design-Build Transfer Station Facility, Key West, FL:**  
Project director for design and construction phases.
- **Flagler Interceptor Phase 2, Key West, FL:** Project director for construction phase.
- **Stormwater Injection Well, Installation of Water and Sewer Mains, Force Main Installation, Pump Station Construction, Roadway Reconstruction, and Sidewalk Installation, Key West, FL:** Project director for construction phase.
- **Design-Build Wastewater Collection System, Layton, FL:** Project Director for design and construction phases.
- **Design-Build Wastewater Management System for Trailer Village, Key Largo, FL:** Project Director for design and construction phases.
- **Package Sewer Plant and Vacuum Plant Marlin Bay Project, Marathon, FL:** Project director for construction phase.
- **Area 5 Wastewater Treatment Plant/Membrane Bioreactor Access Platform, Marathon, FL:** Project director for construction phase.
- **Reclaimed Water Storage and Pumping Facility, FKAA, Duck Key, FL:** Project director for construction phase.
- **Reverse Osmosis Facility Plant Modification (CO Storage and Pumping), FKAA, Stock Island, FL:** Project director for construction phase.
- **Pump and Gate Replacement Flood Control System, Homestead Air Reserve Base, USACOE, Homestead, FL:** Project director for construction phase.
- **Pump Station Repowering, SFWMD, Homestead, FL:** Project director for construction phase.



### *Experience Years*

46 years

### *Type of Work*

Design-build and hard bid utility installation, including Key West projects

### *Cost Range*

\$0-\$40M

### *In What Capacity*

Project Director, Project Manager, Vice President

### *Certification*

State of Florida-certified Underground Utility and Excavation Contractor

# Paul Waters

## Construction Manager



Mr. Waters is the Regional Manager for all of DNHI's projects within the Florida Keys. In this capacity, his responsibilities include construction management; general oversight of the work force, including subcontractors; scheduling; submittals; technical oversight; and review of plans and specifications. Mr. Waters has extensive experience, including more than 28 years of design and building of facilities and transfer/pumping stations, with an emphasis on vertical construction, mechanical, plumbing, underground utilities, and earthwork.

### *Representative Relevant Project Experience*

- **Naval Underground Utility Contract, Trumbo Naval Base Key West, FL.**  
Construction Quality Control Manager. Replaced majority of underground sewer piping on base.
- **City of Key West Solid Waste Transfer Station Design-Build, Rockland Key, FL.**  
Superintendent/Project Management. Provided project oversight and supervision of construction.
- **Stormwater Injection Well, Installation of Water and Sewer Main, Force Main Installation, Pump Station Construction, Roadway Reconstruction, and Sidewalk Installation Projects, City of Key West, FL.** Superintendent/Project Management. Provided project oversight and supervision of construction.
- **Package Sewer Plant and Vacuum Plant Marlin Bay Project Marathon, FL.** Superintendent/Project Management – provided project oversight and supervision of construction.
- **Duck Key Reclaimed Water Pipeline Project, FCAA, Duck Key, FL.** Superintendent/Project Management. Provided project oversight and supervision of construction.
- **Duck Key Reclaimed Water Storage and Pumping Facility, FCAA, Duck Key, FL.** Superintendent/Project Management. Provided project oversight and supervision of construction.
- **Reverse Osmosis Facility Plant Modifications (CO storage and pumping), FCAA, Stock Island, FL.** Superintendent/Project Management. Provided project oversight and supervision of construction.
- **Homestead Air Reserve Base (USACE Project) Pump and Gate Replacement Flood Control System, Homestead, FL.** Superintendent/Project Management. Provided project oversight and supervision of construction.
- **Pump Station Repowering, SFWMD, Homestead, FL.** Superintendent/Project Management. Provided project oversight and supervision of construction.



### *Experience Years*

28 years

### *Type of Work*

Underground utility and general construction, including Key West projects

### *Cost Range*

\$0-\$8M

### *In What Capacity*

Regional Manager, Project Manager, Construction Quality Control Manager

### *Applicable*

### *Certifications/*

### *Training*

FDOT Maintenance of Traffic; National Safety Council Confined Space Competent Person; Protocol Construction Safety Rigging & Fall Protection Competent Person; Protocol Construction Safety OSHA 30 Hour Construction Competent Person; National Safety Council QCS Training; USACE OSHA Support Scaffold Competent Person Training; U.S. Safety Trenching & Excavation: Competent Person; National Safety Council Construction Quality Management for Contractors

Mr. Strobridge, a Vice President with CDM Smith, has been providing environmental and engineering consulting services to Florida clients for over 25 years. He is a manager in the CDM Smith Tampa office and is currently officer-in-charge for a wide variety of solid waste, transportation, water, wastewater, and water resource projects for cities and counties. With over 37 years of experience in the environmental engineering field, and more than 26 years of experience with CDM Smith, Mr. Strobridge applies his diverse and extensive experience to the planning, design, permitting, and construction of infrastructure and utility projects. He is also experienced in developing alternative procurements for public infrastructure projects and the financing for those projects. His vast experience serving on projects for the City of Key West allows him a unique familiarity with the City's staff, policies, and preferences, as well as the know-how to complete projects in the Florida Keys' environment.

### *Representative Relevant Project Experience*

#### **Officer-in-Charge, General Continuing Engineering Services, Key West, FL.**

Mr. Strobridge is currently serving as the officer-in-charge of CDM Smith's services to the City of Key West for civil, utility, solid waste, coastal, and environmental engineering projects, on a task order basis.

**Officer-in-Charge, Solid Waste Rate System Model Update, Key West, FL.** CDM Smith has performed annual updates to the City's solid waste rate model for the past ten years. Mr. Strobridge has served as officer-in-charge, overseeing the project team in evaluating the rate impacts of the proposed annual operating budget in conjunction with long-term projections of capital expenditures and renewals and replacements. After approval by City staff, a presentation is made to the City Commission during budget hearings prior to budget adoption each year.

#### **Technical Director, Central Waste Processing Facility Implementation, Polk County, FL.**

Mr. Strobridge served as technical director for the procurement and implementation of a central waste processing facility for Polk County, FL.

**Officer-in-Charge, Reclaimed Water Feasibility Study, Key West, FL.** As part of assisting the City with securing a permit renewal for its wastewater treatment plant, CDM Smith performed a reclaimed water feasibility study that considered a range of alternatives, from minimal reuse to 100 percent reuse, blending membrane treated reclaimed water with the potable water supply.

#### **Officer-in-Charge, Hydraulic Profile for Additional Flow at Richard A. Heyman**

**Environmental Protection Facility, Key West, FL.** For this project involving the performance of a hydraulic profile and analysis for the City's existing wastewater treatment plant, Mr. Strobridge oversaw all aspects of the project as officer-in-charge. The goal of the project was to ascertain what peak flows could be sustained through the plant.

**Officer-in-Charge, Stormwater Gravity Recharge Wells, Key West, FL.** Mr. Strobridge was responsible for overseeing the design and permitting of three gravity injection wells. The purpose of the wells is to lessen flooding in areas identified by the City. To assist in removing pollutants from the stormwater, the injection wells are placed with a chambered baffle box to trap sediments and oils.



### *Experience Years*

37 years

### *Type of Work*

Environmental  
engineering

### *Cost Range*

\$0-\$90M

### *In What Capacity*

Project Executive  
(Design), Officer-  
in-Charge, Project  
Manager, Project  
Engineer, Technical  
Director, Construction  
Manager

### *Education*

B.S. – Environmental  
Sciences

### *Registration*

Qualified Environmental  
Professional, Institute  
of Professional  
Environmental Practice



**Officer-in-Charge, Replacement of Surface Aerators with Diffused Aeration, Key West, FL.** Mr. Strobridge was the officer-in-charge of the preliminary design, final design, permitting, bid assistance, and construction for the replacement of the City of Key West's existing surface aerators with a diffused aeration system at the Richard A. Heyman Environmental Protection Facility.

**Program Manager, Air Pollution Control Retrofit, 1,050-tpd Waste-to-Energy Plant, Pasco County, FL.** Mr. Strobridge managed the contract negotiations, construction administration, and permitting for this project that involved retrofitting the existing continuous emissions monitoring system and installing a NOx reduction system. This \$90M project included the replacement of furnaces, boilers, and APC systems. Mr. Strobridge managed the permitting, environmental compliance, and construction monitoring work performed by CDM Smith on this project.

**Technical Director, McKay Bay Refuse-to-Energy Facility, Tampa, FL.** Mr. Strobridge provided services to assist in the development of a procurement approach for retrofit of the McKay Bay refuse-to-energy facility and to prepare architectural, foundation, and civil/site evaluations. Previously operated as a municipal solid waste incinerator, the facility was retrofitted with waste-to-energy and air pollution control technology in 1984 to become one of the area's first energy recovery facilities. The McKay Bay refuse-to-energy facility processes 1,000 tpd of solid waste.

**Construction Manager, 1,050-tpd Waste-to-Energy Plant, Pasco County, FL.** Mr. Strobridge managed facility siting, permitting, and construction administration for a 1,050-tpd waste-to-energy plant. He conducted vendor contract negotiations and prepared the engineer's feasibility report for project financing.

**Officer-in-Charge, City of Tarpon Springs Alternative Water Supply System, Pinellas County, FL.** The City is seeking to provide itself with an alternative water supply system using brackish ground water as a raw water supply source. The project involves siting supply wells and the treatment plant; securing a groundwater use permit; development of the design basis for the membrane treatment facility; design of raw water, finished water, and reject water lines; and development of the procurement documents for design-build of the membrane treatment facility.

**Project Engineer, Miscellaneous Engineering Services Contract, Tampa, FL.** Mr. Strobridge provided professional engineering services, assisted the City in resolution of engineering problems, and helped the City accomplish its objectives as they relate to water, wastewater, and stormwater infrastructure and public works facilities. The professional engineering services performed under this services contract included engineering studies of sanitary sewers, including hydraulic modeling of sanitary pipelines and wastewater pumping stations; field testing of an odor control system; reclaimed water system financial strategies evaluation; stormwater drainage system hydraulic modeling; study of new potential reclaimed water customers; solid waste assistance; and permit renewal and engineering report.

**Project Manager/Officer-in-Charge, Continuing Engineering Services, Pinellas County, FL.** Mr. Strobridge manages ongoing professional engineering services for Pinellas County Utilities (PCU) water, wastewater, and reclaimed water utilities. This is an as-needed, task assignment contract.

**Officer-in-Charge, Independent Consulting Engineer, Pinellas County, Pasco County and Hillsborough County Solid Waste Departments, Pasco and Hillsborough Counties, FL.** Mr. Strobridge oversees CDM Smith's project teams serving as the Independent Consulting Engineer for Pinellas County, Pasco County, and Hillsborough County, FL Solid Waste Departments for their WTE projects. CDM Smith monitors operations of the three WTE facilities, prepares applicable permit applications, reviews environmental compliance documents from the operating contractors, conducts boiler and major equipment inspections during scheduled maintenance periods, conducts periodic facility wide inspections, and maintains a punch list of all observed deficiencies and their repair. CDM Smith also prepares monthly and annual reports for the three counties documenting the condition of the three facilities and all equipment within; listing numerous operational statistics, following major maintenance activities, tracking contractual guarantees the contractors must meet, environmental compliance, and the general state of the three facilities and their operations.

Mr. Alford is a registered architect and LEED® Accredited Professional with experience in programming, schematic design, design development, construction documents, construction administration, and code compliance research. In addition to traditional architectural services, his experience includes the preparation of planning and feasibility studies, property condition assessment surveys, and Americans with Disabilities Act (ADA) evaluations. Projects include new construction, building additions, alterations, interior space planning, and remodeling for public and private clients. Mr. Alford has created numerous architectural presentations using a variety of media, including 2D and 3D visual renderings and 3D modeling.

### *Representative Relevant Project Experience*

**Project Architect and Architect-of-Record, Public Works Operations Building, Dania Beach, FL.** Mr. Alford was the project architect and architect-of-record for the design, permitting, bidding, and construction phases. The 15,000-square-foot administration building includes three distinctly different zones to meet the spatial program requirements for each of the City's Public Works, Public Services, and Fleet Maintenance divisions. These zones include offices, meeting space, and restroom and breakroom facilities, and were designed as separate entities to meet the City's security requirements while complementing the spatial arrangement of the whole.

**Construction Coordinator, City of Margate Administration Building, Margate, FL.**

Mr. Alford managed the construction administration effort for the new 13,000-square-foot administration building for the City of Margate, Florida. His tasks included attending project progress meetings, site observations, receiving/approving contractor payment applications, coordinating contractor shop submittals and RFIs, and reviewing/approving proposed change orders.

**Architect-of-Record, Southwest Community Center Design-Build Criteria Package, Dania Beach, FL.**

This community center was envisioned to be a 2,500-square-foot building including flexible meeting space, computer work areas, kitchen/breakroom, and restroom facilities. The design-build criteria package exceeded client expectations by providing guidelines establishing a high level of quality for materials and building components, while still allowing flexibility in design and detailing by the design-builder during final design.

**Project Architect and Architect-of-Record, Replacement of Surface Aerators with Diffused Aeration, Key West, FL.**

Mr. Alford was the project architect and architect-of-record for the wastewater treatment plant upgrades to the existing solids building. The project included the design of architectural improvements related to the complete overhaul of the existing HVAC system in its three-story solids building, along with the demolition and removal of the old/abandoned incinerator and scrubber equipment located in this building. Architectural improvements included concrete and masonry wall infill, new grating, new wind driven rain impact resistant louvers, and interior and exterior wall finishes matching existing.

**Senior Architect and Architect-of-Record, Palm Beach County Solid Waste Authority**

**Waste-to-Energy Facility, Palm Beach County, FL.** Mr. Alford is the senior architect and architect-of-record for the design-build of the new 3,000-tpd mass burn waste-to-energy facility. Mr. Alford is overseeing the architectural enhanced aesthetic development and design development for the entirety of the new facility. This includes the visitor center, skybridge, maintenance/warehouse building, ash handling building,



### *Experience Years*

14 years

### *Type of Work*

Architectural design for energy, transportation, and environmental facilities

### *Cost Range*

\$0-\$667M

### *In What Capacity*

Project Architect, Architect-of-Record, Construction Coordinator, LEED® Commissioning Authority, Project Manager

### *Education*

M.A. – Architecture

### *Registration*

Registered Architect – FL (2004), AL, GA, KY, NC, SC, TN

and the powerblock building (tipping floor building, refuse building, boiler building and air pollution control). The new three-story visitor center includes meeting space, and interactive displays through which the Solid Waste Authority's county-wide, integrated and coordinated set of environmentally responsible and economical solid waste management programs will be highlighted, along with the story and process of the mass burn waste-to-energy facility. As part of the experience, visitors will traverse the skybridge to the main control area of the powerblock building while observing the main components of the mass burn facility. The visitor center is being designed to achieve a LEED® Platinum certification including sustainable features such as, photovoltaics, green roofs, recycled and regional materials, rain harvesting, reduced energy consumption, efficient glazing and ultra low flow plumbing fixtures.

**LEED® Commissioning Authority, Solid Waste Authority Operations Building, Palm Beach County, FL.** Mr. Alford was the commissioning authority for the Solid Waste Authority Operations Building and was responsible for coordinating the commissioning activities during design and construction. Mr. Alford worked with the owner and design team to develop the Owner Project Requirements, Basis of Design Reports, and the Commissioning Plan. This project explores two advanced technologies: LEED® certification and 3D/4D modeling. The client has embraced a strong approach to sustainability and environmental preservation and these characteristics are reflected in the LEED® credits. A stringent waste reduction plan was put in place, helping to eliminate excess waste during the construction phase, as well as directing as much waste as possible away from the landfills and into recycling centers or waste-to-energy production facilities. The 6,000-square-foot operations building was designed with the offices, conference rooms, and training center around the perimeter of the building to take advantage of natural light and views, while the showers/lockers/toilet facilities, mechanical, electrical, and storage areas occupy a central core, consolidating piping and ductwork. The building was produced in 3D/4D technology, AutoCAD, and ADT for architectural design, and the structural, electrical, and mechanical disciplines. This technology facilitates the production of more complex designs faster and more efficiently with fewer conflicts than the traditional two-dimensional approach. It also greatly enhances the client's ability to visualize the end product, not only in form, function, and scale, but in color and textures, as well as furniture and equipment. This project is LEED® Silver Certified.

**Project Manager, Buncombe County Courts Building Phase 2 LEED® Fundamental Commissioning Services, Buncombe County, NC.** Mr. Alford is the design and construction services project manager for the Fundamental LEED® Commissioning Services for the Buncombe County Courts Phase 2. The project consists of the 110,000-square-foot four-story courts building with a basement level for courts holding and secure parking. The upper levels consist of five court rooms, jury assembly area, grand jury space, and offices.

**Project Architect and Architect-of-Record, Water Utilities Department Central Monitoring Facility, Palm Beach County, FL.** Mr. Alford is the project architect and architect-of-record for preliminary design, final design, permitting, bidding, and construction services for the \$3M Palm Beach County Water Utilities Department (WUD) Central Monitoring Facility (CMF). Mr. Alford collaborated with County staff during preliminary design evaluating three options for the CMF: Option 1 – Interior renovation of the document storage area on the first floor of the existing Central Regional Operations Center (CROC) Administration and Engineering Building, Option 2 – Addition to the southeast side of the existing CROC building, and Option 3 – A new standalone facility located on the CROC complex site. After evaluating each of the options with the County for construction costs, site modifications, impact to future operations, and impact to current staff, it was decided that Option 2 was the most viable option. The CMF is an approximately 3,000-square-foot secure command and control facility serving dual functions. The primary function, the communications control area serves as the WUD's central command and control center, operating on a 24/7/365 basis to monitor SCADA, security video, and real-time data as part of their emergency identification and management protocol. The secondary function, the emergency command center will house critical County staff before, during, and after disaster events. It is expected that personnel will be housed for approximately 12 to 24 hours with the ability to view the County's water, wastewater, and reclaimed water systems as the basis for decision making during critical events. A new server room is included in the design to accommodate all the existing County servers and uninterrupted power supply (UPS), currently located in the existing building. This includes 11 servers and the required HVAC equipment to keep the server room at the recommended temperature.

With over 32 years of experience in the transit sector, Mr. Townes is a policy expert, having served as former Chair of the American Public Transportation Association, Chair of the Transportation Research Board, and Chair of the Transportation Cooperative Research Program – Oversight & Project Selection Committee. During his tenure as president and CEO of the Transportation District Commission of Hampton Roads, Virginia, the agency received a grant for the Norfolk light rail transit project, which began service in 2011. Mr. Townes' experience in transportation and public transit, along with his national policy involvement, enable him to help clients successfully plan and implement transit efforts.

### *Representative Relevant Project Experience*

**Project Manager, Implementation of Delta Region Call Center, Delta Region, Mississippi.** Mr. Townes is assisting in the implementation of a transit call center that will provide local transit providers the ability to effectively serve their clients through the use of technology.

**Quality Control/Quality Assurance, General Engineering Consultant Services to the Florida Rail Enterprise, Florida.** Mr. Townes assisted the project team in developing materials for the public involvement effort and provided quality assurance for certain aspects of the project. Moving forward to bring high speed rail to Florida, this contract included overall project management; preparation and review of an EIS; a project management and service development plan; public outreach; ridership assessments; and various other services.

**Project Manager, City of Columbia Central Midlands Regions Transportation Authority (CMARTA) Study, Columbia, SC.** Mr. Townes is responsible for providing advice and assistance to the Mayor, City Council, and City Manager of Columbia regarding the governance, operation, and funding of the CMARTA.

**Quality Control/Quality Assurance, New York-Hartford-Springfield-Boston/Springfield-Canada High Speed Passenger Rail Service Programmatic Environmental Impact Statement, New York to Connecticut.** Mr. Townes assisted with QA/QC services for the preparation of a programmatic environmental impact statement (PEIS) for high speed passenger rail service for the Inland Northeast Corridor. A PEIS identifies segments of independent utility subject to detailed environmental review.

**Senior Transit Manager, Hampton Roads Region, Virginia.** From 1989 through 2010, Mr. Townes was the senior transit manager in the Hampton Roads region of southeastern Virginia. He served as the executive director of the Peninsula Transportation District Commission (PENTRAN) from 1989 through 1999, serving the Cities of Hampton and Newport News. As a result of negotiations to merge PENTRAN with the Tidewater Transportation District Commission (TRT), which served the Cities of Chesapeake, Norfolk, Portsmouth, Suffolk, and Virginia Beach, he managed both PENTRAN and TRT for two years. In 1999, when merger negotiations succeeded and the Hampton Roads Transportation District Commission was formed, he became its first president and chief executive officer for ten years. During his leadership of Hampton Roads Transit, the agency received a fully-funded federal grant agreement for the design and implementation of a new light rail transit system in Norfolk, VA, which opened in 2011. At the time, Norfolk was the smallest city ever approved for light rail transit.



### *Experience Years*

32 years

### *Type of Work*

Transportation and public transit planning and design

### *Cost Range*

\$0-\$280M

### *In What Capacity*

Quality Assurance/Quality Control, Project Manager, Senior Transit Manager, Assistant General Manager, Manager of Planning, Director of Planning

### *Education*

Master of Urban and Regional Planning, B.A. – Political Science



**Assistant General Manager, Stockton (California) Metropolitan Transit District, Stockton, CA.** Mr. Townes directed operations and planning as the assistant chief executive officer of the transit district. He also implemented one of the nation's first automated vehicle locator systems and conceived and implemented a major commuter bus system to the Lawrence Livermore National Laboratory.

**Manager of Planning, Marketing, and Scheduling, Saudi Arabian Public Transport Company, Saudi Arabia.** Mr. Townes managed multinational staff in the development and marketing of transit services in the Al Taif division of this kingdom-wide intra- and inter-city transportation company. He planned and managed the staging operation for the annual pilgrimage to Mecca, the largest mass movement of people in the world and taught indigenous staff the principles of planning and marketing on a turn-key basis.

**Director of Planning, Greater Richmond Transit Company, Richmond, VA.** Mr. Townes directed the planning function of this stable, well-managed transit operation under the tutelage of one of the nation's most respected transit managers. He also managed a comprehensive operational analysis, which provided recommendations that, when implemented, produced operational and financial efficiencies.

**Quality Assurance/Quality Control, Chicago Transit Authority (CTA) Western Avenue Bus Rapid Transit (BRT) Alternatives Analysis, Chicago, IL.** The CTA initiated comprehensive project development for the proposed Western Corridor BRT project, a corridor which extends approximately 21-miles in length along both Western and Ashland Avenues. Mr. Townes provided quality assurance/quality control reviews for the project strategy, funding opportunities, and the first phase of the alternatives analysis. He also reviewed the analysis of service plans on this 21-mile corridor. This project also consisted of completing the environmental overview for the project alternatives and conducting public meetings. The goal of the service plans was to serve regional destinations, spur redevelopment, and increase mobility options.

**Director of Transit Element, Jeddah Transport Master Plan, Saudi Arabia.** Jeddah Municipality is undertaking a surface transport master plan to better plan for anticipated growth in population, and anticipated further strain on their transport system. Mr. Townes is leading the public transportation, which involves assessing current transit operations; current traffic, road, parking, pedestrian, bicycle, disabled, etc. conditions; reviewing existing policies, and developing comprehensive policies, services and operational configurations. The study has revealed an unorganized system that is in dire need of overhauling and upgrading.

**Project Director, Monterey Bay Bus Rapid Transit Study, Monterey, CA.** CDM Smith conducted this study to advance the implementation of BRT principles in the Monterey Bay area by establishing a preliminary vision for a regional plan for BRT service that would connect with other planned and existing transit projects in the region. Our team also specifically reviewed potential BRT projects and processes for MST, Santa Cruz METRO and UC Santa Cruz. CDM Smith also served as the program manager for implementation and provided oversight of design and engineering elements.

Mr. Roethlein has more than 26 years of professional experience in architectural design and construction, with particular expertise in facility assessments, design management, and coordination of highly technical projects and facilities requiring increased security. Mr. Roethlein has conducted and coordinated many facility assessment projects providing him with an in-depth understanding of the operations, needs, and constraints of these assignments for all client sectors.

### *Representative Relevant Project Experience*

**Design Manager and Lead Architect, Vehicle Storage and Maintenance Facility, Mid-Mon Valley Transit Authority, Donora, PA.** Mr. Roethlein led the design efforts for the new vehicle storage facility, which included a bus terminal, offices, equipment storage, and maintenance bays. Issues of building assessment, vehicular circulation, security, site utilities, cost analysis, and alternative project delivery methods.

**Project Manager, Joint Operations Facility, Erie Metropolitan Transit Authority, Erie, PA.** Mr. Roethlein is charged with coordinating all CDM Smith team disciplines for architecture and engineering of the new, consolidated, state-of-the-art, energy-efficient facility for indoor fleet parking, maintenance and servicing, fleet wash, and fueling for 160 buses and paratransit vehicles. The facility will include many sustainable design elements, including geothermal heating and cooling systems and waste oil burners for a supplemental heat source.

**Task Manager, Operations Control Center Facility, Pittsburgh, PA.** For the Port Authority of Allegheny County, Mr. Roethlein's responsibilities included management of the issuance of final bid packages and construction administration for the renovation of the existing operations control center facility to accommodate a new state-of-the-art "rail theater." The project included a new state-of-the-art rail control center to operate the expanded rail system. The existing Operations Control Center (OCC) required a major renovation and addition to accommodate these new facilities. The scope of the project nearly doubled the size of the structure and renovated most of the remaining space. Work included a new state-of-the-art rail operations theater and computer room, training facilities for the new systems, breakroom facilities, and renovated road operations and communications facilities. The project was constructed in four phases to allow the facility to remain in operation during the entire process.

**Project Manager/Architect, Allegheny County Department of Public Works – Facility Assessment, United Way Building, Pittsburgh, PA.** As part of the architectural on-call services contract, Mr. Roethlein served as the project manager/architect responsible for coordinating and completing assessment of the United Way Building located at the intersection of Smithfield Street and Fort Pitt Boulevard in downtown Pittsburgh. The purpose of this assessment was to assist the Department in gaining an understanding of the condition of the facility, which they are in the process of purchasing. CDM Smith's team of architects and engineers assembled on site to conduct a thorough review of available documents and assess major facility elements and systems. This review of the building and systems was executed by a representative of each building trade, including site/civil, architectural, structural, HVAC, plumbing, electrical, and environmental. The team spent considerable time with operations and maintenance staff gaining an understanding of the documentation, maintenance history, and previous renovations of the facility. Key concerns included items that may be detrimental to the life of the system, or may be a safety issue. In these situations,



### *Experience Years*

26 years

### *Type of Work*

Architectural design and construction

### *Cost Range*

\$0-\$350M

### *In What Capacity*

Design Manager, Lead Architect, Task Manager, Senior Technical Advisor, Task Leader

### *Education*

A.S. – Specialized Technology Degree, Architectural Computer-Aided Design

### *Registration*

Registered Architect – Washington, D.C.

CDM Smith provided recommendations for immediate attention. Other recommendations included those that would either enhance the systems, save operating costs, or bring the system up to current standards if the Department chooses to implement them.

**Task Leader, Facility Design, New Maintenance Warehouse No. 5, ZMBT-0505, Allegheny County Department of Public Works, Pittsburgh, PA.** Mr. Roethlein led the facility design task for this project, which included constructing a new maintenance warehouse, office, salt storage building, and material storage areas at the Allegheny County Airport in West Mifflin.

**Project Manager, Programming and Initial Needs Study, Butler Township/City Joint Municipal Transit Authority, Butler, PA.** Mr. Roethlein was responsible for organizing and overseeing the programming and initial needs study for the new multi-modal transit center. A key component of this project was a facility assessment of the Trinity Building to provide in-depth data and a final recommendation of the feasibility of renovating the existing building for use as the transit center. The transit center encompasses a terminal, offices, storage and maintenance facility, and a commuter park-and-ride lot. Issues of vehicular circulation, acreage requirements, security, site utilities, environmental impact, cost analysis, and alternative project delivery methods were determined during this initial needs study. The facility is being planned to allow 25-year growth and accommodate seven full-size transit buses (30 to 35 foot), and 25 para-transit buses (20 to 25 foot). The facility and equipment are being configured to have the capability to house and service 40-foot vehicles.

**Task Manager, Light Rail Transit System, South Hills Village Park-and-Ride, Pittsburgh, PA.** For the Port Authority of Allegheny County, Mr. Roethlein was responsible for managing the design of all disciplines and subconsultants for the construction of a new 2,220-space parking structure. The design includes a seven-tier parking structure, site improvements, and traffic mitigation at six intersections. The structure is one of the largest parking structures in the region and is an inter-modal facility providing a transfer point for light rail, bus, and passenger vehicles. Public safety and security were given highest priority in the design of the facility. The layout of the facility, its circulation paths, and directional signage were integral to each other. CDM Smith completed the signage as a component of the architectural design, maintaining the integrity of the architecture, and providing clearly defined paths of travel to assist in maintaining safety and security throughout the facility.

**Task Manager, Library End of Line Project, Stage II Light Rail Transit Program, Port Authority of Allegheny County, Pittsburgh, PA.** Mr. Roethlein's responsibilities included leading the design efforts of all disciplines for the construction of one new transit station on the re-constructed Library Line.

**Task Manager, Light Rail Transit System Station Improvements Project, Port Authority of Allegheny County, Pittsburgh, PA.** Mr. Roethlein's responsibilities included management of issuance of final bid packages and construction administration for the renovation of three subway stations and six line stations on the existing light rail transit system.

**Task Manager, Light Rail Transit System Station Improvements Phase II, Port Authority of Allegheny County, Pittsburgh, PA.** Mr. Roethlein was responsible for managing the design of all disciplines and subconsultants for the renovation of four line stations on the existing light rail transit system.

**Task Manager, South Hills Village Station Renovations, Stage II Light Rail Transit Program, Port Authority of Allegheny County, Pittsburgh, PA.** Mr. Roethlein's responsibilities included managing the design of all disciplines and subconsultants for the expansion of the South Hills Village station to accommodate the additional ridership anticipated by the new park-and-ride facility.

**Senior Technical Advisor, Hyperion Environmental Learning Center, Los Angeles, CA.** Mr. Roethlein was the senior advisor and quality control manager for the architectural design of this two-story, 15,000-square-foot renovation of an existing administration building into two exhibit halls, an auditorium, and a classroom. The facility was designed using environmentally sensitive engineering and sustainable design features, including a green roof, solar panels, and reclaimed water use. Design and construction met the U.S. Green Building Council's LEED® standards for certification.

Mr. King has more than 18 years of professional experience in the area of architectural programming, planning, design, and construction. He has prepared design and construction documents for numerous industrial, municipal, medical, commercial, educational, and residential projects. He has also served as LEED® and sustainability champion for multiple projects for private industry and universities.

### *Representative Relevant Project Experience*

**Project Manager, New Intermodal Transit Facility, Crawford Area Transportation Authority, Meadville, PA.** Mr. King was the project manager, lead architect, and LEED® administrator for the newly constructed CATA facility that housed administrative and operations staff in a new 7,000-square-foot building.

**Project Manager, Multi-Modal Transit Facility, Butler County, PA.** Mr. King served as project manager and lead architect for the design and construction of the Butler Township/City Joint Municipal Transit Authority's new multi-modal transit center. The Transit Center ("The Bus") encompasses a terminal, offices, a 43,000-square-foot storage and maintenance facility, and a commuter park-and-ride lot. The administrative office building is planned to be two floors, approximately 15,000 square feet in total. The project included several energy-efficient elements, and the administration building is designed to meet LEED® Silver certification standards. This building will be heated and cooled by a new geothermal system, which will also heat the nearby bus maintenance facility through radiant floor heat. Issues of vehicular circulation, acreage requirements, security, site utilities, environmental impact, cost analysis, and alternative project delivery methods were determined during this initial needs study. The facility is being planned to allow 25-year growth and accommodate seven full-size transit buses (30 to 35 foot), and 25 para-transit buses (20 to 25 foot). The facility and equipment are being configured to have the capability to house and service 40-foot vehicles.

**Architectural Design, Joint Operations Facility, Erie Metropolitan Transit Authority, Erie, PA.** Mr. King is providing architectural design for a new, consolidated, state-of-the-art, energy-efficient facility for indoor fleet parking, maintenance and servicing, fleet wash, and fueling for 160 buses and para-transit vehicles. The facility will include many sustainable design elements, including geothermal heating and cooling systems and waste oil burners for a supplemental heat source.

**Technical Advisor, Administrative and Maintenance Facility Renovations, Red Rose Transit Authority, Lancaster, PA.** Mr. King served as a technical advisor on this project (now under construction), which involved architectural, engineering and planning services to renovate and expand the Red Rose Transit Authority's (RRTA's) administrative and maintenance facility. The renovation and expansion of RRTA's transit facility will allow more efficient operations while minimizing impacts to the environment.

**Technical Advisor, Bus Maintenance Facility, Mid-Mon Valley Transit Authority, Donora, PA.** Mr. King was a technical advisor for this project, which involved programming and design to modify an existing 42,000-square-foot building to accommodate bus storage and office space, a park-and-ride canopy, a one-story 5,000-square-foot maintenance facility with two maintenance bays and a bus wash. CDM Smith also designed site improvements to accommodate associated bus circulation, parking, a fueling station, and security improvements, including



### *Experience Years*

18 years

### *Type of Work*

Architectural programming, planning, design, and construction

### *Cost Range*

\$0-\$125M

### *In What Capacity*

Project Manager, Architectural Design, Technical Advisor, Project Architect, Architect-of-Record, Lead Architect

### *Education*

B.A. – Architecture

### *Registration*

Registered Architect – OH (1996), MD, KY, WV, PA



surveillance and fencing, as well as an interior secure cash room. The facility will also incorporate LEED® design principles and pursued LEED® Silver certification for the bus storage facility.

**Project Architect, Swift Gulch Public Works and Transportation Facilities Design, Avon, CO.** As project architect, Mr. King was responsible for programming, master planning, and design for Avon's public works and transportation facilities to optimize bus operations, maintenance functions, and circulation while maximizing view corridors and enhancing both the employee and visitor experience. The design includes a phased approach for a new administration building, stockpile/yard improvements, a temporary bus /transit operations facility, parks and recreation facilities, and a new underground parking garage to utilize the available site while protecting visitors and employees from the elements. CDM Smith also provided solar panel design as part of alternate energy sourcing for the new facility. This project is planned to be a LEED® Gold rated facility while carefully planning meticulous aesthetics for each facility as they relate to "mountain contemporary" design within the locale of an affluent ski resort area.

**Lead Architect, Architectural On-call and Engineering Services, Allegheny County Department of Public Works, Pittsburgh, PA.** As lead architect, Mr. King managed the design of projects that spanned a three-year contract for architectural and engineering services. The projects included design services for the construction and renovation of County-owned facilities such as public works warehouses, swimming pools, recreation facilities, and buildings.

**Project Architect, Building Renovation Conceptual Design, State College, PA.** For the Pennsylvania State University, Mr. King served as project architect responsible for developing architectural design elements during the conceptual design for the renovation of the Nanosciences and Technology Building. A space needs study was conducted as part of the conceptual design that included expanding clean room space and associated laboratories, centralized gowning, and support space. The study also included the proposed addition of a new office suite, lecture hall, and café and break areas, as well as upgrading the main entrance.

**Project Architect, LEED® Gold Environmental Learning Center, Los Angeles, CA.** Mr. King was the project architect and LEED® Administrator for this \$15M LEED® Gold project. This project includes a HVAC technology referred to as "Chilled Beams," a green roof, photovoltaic panels, wind turbine, exhibit wetlands, bioswale, and urban garden to mention a few sustainable design features. The project serves as an environmental learning science center for K-12 grade students in the City of Los Angeles Public Schools.

**Project Architect, Programming Study, Pittsburgh, PA.** Mr. King served as the project architect providing a programming study for the Allegheny County Health Department in Pittsburgh, Pennsylvania. The goal of the programming study was to develop a program of space requirements for 15 separate health and administration departments and over 300 staff to be relocated into an existing administration building.

**Project Architect, Ohio State University (OSU) Dreese Lab Clean Room Renovation, Ohio.** Mr. King served as project architect for OSU's Dreese Lab Clean Room Renovation project. The intent of the project was to reconfigure the laboratory space to accommodate installation of a new electron beam lithography tool.

**Project Architect/Project Manager, Laboratory Relocations and Renovations, Bruceton, PA.** Mr. King was the project architect/project manager on work for the National Institute of Occupational Safety and Health (NIOSH). This project included laboratory relocation and renovations for four separate buildings in Bruceton, Pennsylvania, at the Pittsburgh Research Laboratory Campus.

**Project Architect, Master Planning and Programming, Saxonburg, PA.** Mr. King served as project architect in the development of the conceptual master planning of the site and facility. The focus was on Diamond Turning Laboratory, MPZ and Hydrogen Selenide Processing Facility, thin film coatings, a warehouse, shipping, and receiving. CDM Smith performed a week-long information gathering exercise to establish both wants and needs for each department. The result was a report, design, and construction of both the Diamond Turning Lab and MPZ additions.

Mr. Verwey has over 25 years of experience as a structural engineer with an emphasis on analysis and design of environmental engineering structures. He has developed design criteria and project specifications, provided analyses, prepared and reviewed contract documents, performed structural condition surveys and evaluations, carried out value engineering studies, provided peer reviews, and performed engineering services during construction for water, wastewater, and hazardous waste facilities in the public and industrial sectors. He specializes in computer applications of both structural engineering design and engineering analyses, including finite element analysis of plate and shell structures, and 3D structural analysis. He has managed all aspects of structural engineering on numerous projects of diverse sizes. He is experienced in designing, planning, modifying, and repairing existing structures; designing deep and shallow foundation systems; designing new structures; designing unusual structures; and performing design-build.

### *Representative Relevant Project Experience*

**Structural Engineer, Public Works Operations Building, Dania Beach, FL.** Mr. Verwey was the structural engineer for the City of Dania Beach's Public Works and Public Services Administration Building. The 15,000-square-foot administration building includes three distinctly different zones to meet the spatial program requirements for each of the City's Public Works, Public Services, and Fleet Maintenance divisions. These zones include offices, meeting space, and restroom and breakroom facilities, and were designed as separate entities to meet the City's security requirements while complementing the spatial arrangement of the whole. Mr. Verwey was responsible for the design of the concrete slab on grade, concrete footings for the pre-engineered building columns, the design of the column anchor bolts, and the concrete entrance sign and foundation. The structure and the foundations were designed to keep key personnel safe during a hurricane and were designed to resist wind loads of 150 mph.

**Technical Reviewer-Structures, Palm Beach County Solid Waste Authority Waste-to-Energy Facility, Palm Beach County, FL.** Mr. Verwey is currently serving as a structural reviewer for the design-build of the new 3,000-tpd mass burn waste-to-energy facility. This project includes enhanced aesthetic development and design development for the entirety of the new facility, including a visitor center, skybridge, maintenance/warehouse building, ash handling building, and a powerblock building (tipping floor building, refuse building, boiler building and air pollution control). The new three-story visitor center includes meeting space, and interactive displays through which the Solid Waste Authority's county-wide, integrated and coordinated set of environmentally responsible and economical solid waste management programs will be highlighted, along with the story and process of the mass burn waste-to-energy facility. As part of the experience, visitors will traverse the skybridge to the main control area of the powerblock building while observing the main components of the mass burn facility. The visitor center is being designed to achieve a LEED® Platinum certification. Mr. Verwey is responsible for coordinating the review of designs from several sub consultants and well as the CDM Smith designs.

### **Structural Engineer, City of Margate Administration Building, Margate, FL.**

Mr. Verwey served as the structural engineer of record for a new 13,000-square-foot administration building for the City of Margate, FL. His tasks included responsibility for the structural design, site observations, Performing special structural inspections of the reinforced masonry and structural steel welded and bolted connections, reviewing



### *Experience Years*

25 years

### *Type of Work*

Structural engineering

### *Cost Range*

\$0-\$667M

### *In What Capacity*

Structural Engineer,  
Structural Engineer-  
of-Record

### *Education*

B.S. – Civil Engineering

### *Registration*

P.E. – FL (1996), GA,  
KY, MS, NC, TN, TX, VA

contractor shop submittals and RFIs. The building was constructed of load bearing concrete masonry walls with a steel joist and metal deck roofing system.

**Structural Engineer, Stock Island Seawall Replacement, Florida Keys Aqueduct Authority, Florida.** The Florida Keys Aqueduct Authority (FKAA) owns and operates the Kermit H. Lewin Reverse Osmosis Facility on Stock Island. The plant has a perimeter bulkhead seawall that is approximately 30 years old and in poor condition. Recent hurricanes and storm events have resulted in excessive scouring, erosion, and cracking along the seawall in several locations. Through a project supported by grant funding from the Federal Emergency Management Authority (FEMA), Mr. Verwey served as structural engineer for the planning, design, and construction of approximately 1,200 linear feet of replacement seawall.

**Structural Engineer, Lake Okeechobee Fast-Track (LOFT) Basis of Design Report and Reservoir Test Cell Project, Okeechobee, FL.** This \$230M, fast-track project includes the design of approximately 7,000 acres of storage and stormwater treatment reservoirs, three 500-cubic feet per second (cfs) pump stations, multiple hydraulic control structures, and over four miles of canal conveyance improvements. Mr. Verwey prepared the structural basis of design criteria. The criteria included the governing codes, loading requirements, load combinations, construction materials, and material properties to be used in the final design.

**Structural Engineer, Transportation Projects, Various Locations.** Mr. Verwey completed the inspection, structural evaluation, and redesign of two precast reinforced concrete piers for the City of Clearwater, FL; and the inspection and structural evaluation of Cow Pen Slough Bridge at Walton Track in Sarasota County, FL.

**Structural Engineer, FEMA Projects, Various Locations.** Mr. Verwey served as lead structural engineer for Nashville Metro Water Services' Omohundro WTP emergency repair to pedestrian elevated walkways. The project involved the design of two elevated walkways at the WTP. He also served as structural engineer for the Garfield Ladner Memorial Pier in Waveland, MS, and design of concrete fishing pier to replace a timber pier destroyed by Hurricane Katrina.

**Structural Engineer-of-Record, Water and Wastewater Pump Station Upgrades, Miami Beach, FL.** Mr. Verwey was the structural engineer-of-record for the City of Miami Beach's water and wastewater system improvements program consisting of the construction of two 4-MG ground storage water tanks, upgrades and modifications to 23 wastewater pump stations and five water pump stations, and the construction of one new water booster pump station and one new wastewater booster pump station.

**Structural Engineer, Pump Station Rehabilitation, Fort Lauderdale, FL.** This project consisted of the rehabilitation of five wastewater pump stations, including the replacement of existing piping, valves, and ventilation system; installation of new pumps with variable frequency drives; an above-grade service entrance rated electrical equipment; and bypass pumping during construction. Mr. Verwey was responsible for the structural design component of this project.

**Project Structural Engineer, Master Pump Stations Replacement and Rehabilitation, Final Design and Construction, Orange County, FL.** Orange County identified 14 master pump stations within the County's three wastewater service areas that required evaluation and upgrades as necessary to maintain reliable service and meet changes to the conditions of service. Subsequently, Orange County wished to implement rehabilitation of eight of the 14 pump stations. The master pump station replacement/rehabilitation project included an additional hydraulic analysis, final design, and bidding and construction services related to the eight pump stations. The final design was based on constructing new submersible pump stations at four pump stations. Total pumping capacity of the new submersible stations ranged from 560 gpm to 6,900 gpm. Mr. Verwey provided structural design services and construction services for this project.

**Engineer-of-Record, Marco Island Wastewater Treatment Plant Expansion, Marco Island, FL.** Mr. Verwey was the engineer-of-record for this WWTP Phase I and Phase II upgrade and expansion project. Structural engineering components of this project included modifications to existing structures, new prestressed circular structures, and new concrete masonry unit buildings.

Mr. Perry has over 14 years of experience in power distribution design and construction services for environmental, industrial, and commercial facilities. He provides all aspects of power distribution design and construction services, including medium and low voltage distribution design, short circuit/arc flash study and equipment evaluation, protective device coordination study, LEED® building certification and design services, and energy and efficiency assessments and studies. His experience includes water and wastewater treatment plants, solid waste facilities, water and wastewater pump stations, industrial and chemical facilities, and commercial buildings and facilities design. He has also performed and reviewed power system, arc flash, and short circuit and coordination studies, as well as harmonic analysis.

## *Representative Relevant Project Experience*

**Electrical Engineer, Operations and Maintenance Building, Solid Waste Authority of Palm Beach County, Palm Beach County, FL.** Mr. Perry provided electrical engineering and construction services for the design of the operations building, including LEED® Silver certification, lighting design and specification, power distribution, and emergency power system design. The owner owned and maintained a 4,160V overhead distribution system, and design included load and short circuit analysis of the existing distribution system and specification and design of service entrance equipment into the building.

**Electrical Engineer, Tram Road Reuse Facility, Tallahassee, FL.** Mr. Perry provided electrical engineering services for the design of a new off-site reuse facility for the City of Tallahassee. This facility was designed to treat secondary effluent from the City's T.P. Smith WWTF to meet public access reuse standards as defined by the FDEP. The facility includes filtration, high level disinfection with sodium hypochlorite, and high service pumping. The facility is unique in that the reuse treatment facility is located several miles from the WWTF and is designed to be generally unmanned.

**Electrical Engineer, Lake Okeechobee Fast-Track Projects, South Florida Water Management District, Okeechobee, FL.** Mr. Perry has served as electrical engineer for the following projects associated with the Lake Okeechobee Fast-Track (LOFT) project STA-North, STA-South, S-650 Pump Station, and the S-191A Pump Station. Mr. Perry's responsibilities include all aspects of electrical design, including water level control structures, water sampling equipment and structures, and pump station design, including critical flood control pump stations, emergency power systems, lighting, and PV design for remotely located systems.

**Electrical Engineer, Pinellas County Pump Station No. 54, Pinellas County, FL.** Mr. Perry performed design services during construction related to emergency power systems, 480-volt power distribution system, lighting, controls, and specifications for this new pump station in Pinellas County. He coordinated with County staff for procurement and inspection of pre-purchased electrical equipment. Services he provided during construction included RFIs, submittal review, and inspection.

**Electrical Engineer, Advanced Water Treatment Project, Miami-Dade, South District Water Reclamation Facility, Miami, FL.** Mr. Perry provided electrical design, including low and medium voltage distribution design, emergency systems design, lighting, specification and design of 15kv and 5kv arc-resistant equipment, LEED® project certification and coordination, and power system studies.



## *Experience Years*

14 years

## *Type of Work*

Power distribution for environmental, industrial, and commercial facilities

## *Cost Range*

\$0-\$667M

## *In What Capacity*

Electrical Engineer,  
Electrical Engineer-  
of-Record

## *Education*

B.S. – Electrical and  
Computer Engineering

## *Registration*

P.E. – FL (2004)



**Electrical Engineer-of-Record, Jerry Sellers Water Reclamation Facility Power System Studies, Cocoa, FL.** The electrical design includes several power system studies to be performed at the 4.5-mgd facility. The services consist of a report and recommendations for the grounding and surge protection of all electrical equipment at the facility, a lightning protection system report and recommendations for modifications and improvements, and assistance with completing comprehensive power system analysis. The power system analysis includes a short circuit study, protective device coordination study, and an arc flash hazard analysis. Tasks included data collection for all equipment from 480v to 120v level, QA/QC of the short circuit study, protective device coordination study and arc flash analysis, review of the analysis results, and recommendations and field oversight of the equipment labeling and protective device settings adjustments. The study includes multiple motor control centers, panelboards, transformers, and stand-by generator.

**Electrical Engineer, New Chlorination/Dechlorination Facilities at the Central and South Water Reclamation Facilities, Fort Myers, FL.** This project included the design of new chlorination basins, chemical storage and pumping facilities, and a high service pump station for two 11-mgd wastewater treatment facilities. Mr. Perry assisted in the electrical portion of the design of the new chlorination facilities.

**Electrical Engineer, Eastern Water Reclamation Facility Phase IV B Improvements, Orange County, FL.** For this 19-mgd advanced wastewater treatment plant, Mr. Perry provided electrical engineering services for the final design related to various high-priority improvements, including supplemental aeration facilities, reuse facilities, internal recycle pump modifications, and effluent pump station modifications.

**Electrical Engineer-of-Record, St. Johns County Utility Department Northwest Wastewater Treatment Plant, St. Johns County, FL.** Mr. Perry provided electrical design, including low voltage distribution design, emergency systems design, lighting, specification coordination, and preliminary power system studies for the new 3-mgd plant. The electrical system consists of multiple motor control centers served from 480v switchgear with 1500kw diesel engine generator backup.

**Electrical Engineer-of-Record, JEA Arlington East Water Reclamation Facility UV Conversion Project, Jacksonville, FL.** The electrical design included specification and design of new motor control centers and electrical distribution system to serve new UV and filter equipment. Design services included variable frequency drives, lighting, controls, a utility service upgrade, service entrance equipment, and a new 400kw diesel engine driven generator in a sound-attenuated weatherproof enclosure.

**Electrical Engineer, WSSC Rocky Gorge Pump Station Upgrades, Baltimore, MD.** Mr. Perry provided electrical engineering and design services for the design of a raw water pump station. The design included replacement of primary voltage substation transformers, new 5kV medium voltage switchgear and motor controllers, new 480V switchgear and VFDs, and control improvements. The project included short circuit analysis, protective device coordination study, and arc flash hazard analysis for all major electrical system equipment. Equipment analyzed includes substation switchgear down to 480v level panels. SKM was used to model the distribution system, which was made up of 5MVA substation transformers, 5kV Switchgear, 5kv motor control centers, unit substations, 480 volt motor control centers, and 480v panelboards.

**Electrical Engineer, CMUD Sugar Creek WWTP Pump Station, Charlotte, NC.** Mr. Perry performed design services during construction related to medium and low voltage power systems, variable frequency drives, power distribution system, lighting, controls, and specifications for this new pump station. He coordinated with CMUD staff for procurement and inspection of pre-purchased electrical equipment. The design included specification and coordination of medium and low voltage protective relaying and motor protection. The project included short circuit analysis, protective device coordination study, and load flow study for all major electrical system equipment in the WWTP and pump station. Equipment analysis included preliminary arc flash analysis with emphasis on reducing the arc flash hazard potential in power distribution equipment for the electrical system.

A civil engineer highly experienced in the management and supervision of general civil and environmental design and construction projects, Mr. Ladner offers nearly 30 years of experience in civil site work, including transportation; paving, grading, and drainage work; stormwater box culvert and canal design; arterial roadway design; and stormwater improvements. Mr. Ladner served as the project manager for the rehabilitation of the Dakin Avenue box culvert for the City of Kissimmee, for which CDM also designed utility improvements and developed traffic calming measures.

## *Representative Relevant Project Experience*

### **Engineer-of-Record, Central Access Road Waste Disposal Complex, Sarasota**

**County, FL.** Mr. Ladner served as engineer-of-record for a three-mile arterial access road to the Sarasota County Central access road solid waste disposal complex. The design included road layout, which emphasized minimal wetlands impacts through an environmentally sensitive area. In addition, he was part of the design team for the preparation of contract plans and specifications for Class I and Class III disposal areas, a sludge composting area, and other facilities.

### **Senior Design Engineer, Florida Department of Management Services, Satellite Office**

**Complex, Tallahassee, FL.** Mr. Ladner served as a senior design engineer and an engineer-of-record for the Phase I site design of a 200-acre office park complex for state employees directed by the Florida Department of Management Services in Tallahassee. Included was development of a site master plan, grading plan, roadway design, and preparation of construction plans and specifications for the infrastructure of the 100-acre Phase I portion of the project.

### **Senior Design Engineer, Design of Solid Waste Transfer Station, Henderson County, NC.**

Mr. Ladner was involved in the design of a solid waste transfer station for Henderson County, NC. A partially enclosed pit type transfer station with push walls was designed for Henderson County with several schedule constraints. An access road was also designed with ingress and egress to the transfer station.

### **Project Manager, Dakin Avenue Box Culvert Design/Tohopekaliga Water Authority**

**Utility Improvements, Kissimmee, FL.** As part of the City of Kissimmee's downtown revitalization/redevelopment initiative, Mr. Ladner managed the project team tasked with designing the rehabilitation of the Dakin Avenue box culvert that serves as the primary stormwater conveyance system for the downtown area. In conjunction with the box culvert rehabilitation, CDM Smith also provided design and permitting for utility improvements for the Tohopekaliga Water Authority. Additionally, CDM Smith developed some traffic calming concepts for the downtown area.

### **Project Manager, Stormwater Downtown Redevelopment Project, Boynton Beach, FL.**

Mr. Ladner was project manager for a stormwater downtown redevelopment project for the City of Boynton Beach. This project included preparation of design drawings and specifications for 5500 lf of 24- to 72-inch diameter stormwater pipe and a regional stormwater wet detention pond. The purpose of the project was to provide water quality treatment for runoff from the downtown area of the City of Boynton Beach to encourage redevelopment. The system includes best management practices and landscaping of the pond to enhance the redevelopment of the downtown area. The project also included close coordination with both existing and proposed utilities in downtown FDOT arterial roads.



## *Experience Years*

30 years

## *Type of Work*

Civil, solid waste, and general environmental design and construction

## *Cost Range*

\$0-\$230M

## *In What Capacity*

Project Manager,  
Senior Design  
Engineer, Quality  
Assurance Reviewer,  
Lead Practitioner,  
Engineer-of-Record

## *Education*

B.S. – Civil Engineering

## *Registration*

P.E. – FL (1987)

**Quality Assurance Reviewer, Little Lake Fairview Restoration Project, Orlando, FL.** This project was the design of the stormwater retrofit portion of this community re-development project. The project included the retrofit of nearly 300 acres for water quality retrofit. The key project elements included wetland restoration, flood control, stormwater reuse, golf course restoration, and stormwater treatment for the expansion of a major interstate (I-4). In 2007, this project was recognized as Project of the Year during Central Florida Engineers' Week. Mr. Ladner was responsible for quality assurance review of the design documents for this stormwater restoration project.

**Quality Assurance Reviewer, Cameron Ditch Project - Regional Stormwater Park and Wetland Restoration System, Seminole County, FL.** This project included the design and construction of a stormwater detention facility and park in the general area northeast of the intersection of Cameron Avenue with Kentucky Street, and the enhancement of downstream wetlands along the historical flow path of Cameron Ditch. Mr. Ladner was responsible for quality assurance review of the design documents for the stormwater detention facility and park.

**Project Manager, Northern Expansion Property Conceptual Environmental Resource Permit (ERP) Services, Indian River County, FL.** The project consisted of an evaluation of the most effective way to expand the Indian River County (IRC) landfill to the north to maximize the airspace and the life of the landfill. This was a planning evaluation that considered the best landfill configuration in which the most additional airspace could be obtained without significant impacts to existing wetlands, threatened and endangered (T&E) species, and the existing Indian River Farms District stormwater system while maintaining buffer from Oslo Road—a local through street. Wetlands jurisdictions were performed for both the FDEP and the Army Corps of Engineers (ACOE) wetlands. A conceptual stormwater plan was developed that minimized impacts and continued to plan drainage critical to the IR Farms District.

**Project Engineer, Deep Creek Basin Management Plan, Volusia County, FL.** This project included the development of a hydrologic and hydraulic evaluation of the 164-square-mile basin using the EPA Stormwater Management Model (SWMM) for the purpose of floodplain management within the basin. The project included refinement of the 100-year floodplain, as well as developing conceptual improvements to identify stormwater conveyance deficiencies. The County uses the plan to manage urbanization pressures placed upon the existing natural systems. Mr. Ladner was responsible for development of the conceptual layout of two options for this proposed management plan. He developed the distribution piping network that supplied raw surface water to a reservoir for one option and for the distribution of treated water to aquifer storage wells for another option. He also developed a conceptual cost estimate to implement each option to compare the costs.

**Senior Technical Engineer, Seminole County Stormwater Projects, Seminole County, FL.** Mr. Ladner supports the design efforts for various Seminole County stormwater projects by providing input during design and performing constructability reviews for these projects. When the plans and specifications are approximately 70 to 90 percent complete, Mr. Ladner reviews the design and provides comments and suggested alternatives for items that present constructability issues for the project.

**Lead Solid Waste Practitioner and Senior Environmental Engineer, Western Landfill Alternative Site Assessment, Palm Beach County, FL.** CDM Smith evaluated the added costs of modifying operations and existing facilities and adding rail lines/spurs against the potential of transportation savings by using rail instead of road hauling for solid waste. Road hauling was found to be substantially cheaper, versus rail haul, except for one of the alternative sites located 30 additional miles west of the other two sites. For this site, road haul and rail haul appeared to be equivalent. Mr. Ladner performed an alternative site investigation for the Western landfill. He looked at three alternative sites and performed cursory investigations of each of them.

**Senior Design Engineer, Design of Cells 7 and 8, Palm Beach County, FL.** Mr. Ladner assisted as senior design engineer for the design of an additional Class I landfill capacity for the Solid Waste Authority of Palm Beach County. This expansion was done in two phases and consisted of a geomembrane double liner system. The project included road design, stormwater improvements, and a leachate pump station. This project has been constructed and is now being filled.

Mr. Pouliot is a mechanical engineer qualified in heating, ventilation, and air conditioning (HVAC) for commercial, institutional, and industrial projects. His specific design experience includes HVAC, plumbing, and fire protection design and drafting; value engineering; construction cost estimates; and construction administration for water treatment plants, wastewater treatment plants, and other various projects. He also has experience in testing and balancing of HVAC systems.

### *Representative Relevant Project Experience*

**Mechanical Engineer, Solid Waste Authority of Palm Beach County, Operations and Maintenance Building, Palm Beach County, FL.** Mr. Pouliot assisted in HVAC and plumbing design and 3D/4D construction document preparation for the operations and maintenance building with LEED® accreditation, and the storage building. The project included the design of split system heat pump air conditioning and heating systems, toilet ventilation systems, storage area ventilation systems, and plumbing water and sanitary systems. Mr. Pouliot provided senior engineering QA/QC review of the project.

**Lead Mechanical Engineer, Replacement of Existing Surface Aerators with Diffused Aeration System, Key West, FL.** Mr. Pouliot provided the HVAC and plumbing design and construction document preparation for the wastewater treatment plant upgrades to the existing solids building. The project included the design of split system heat pump air conditioning and heating systems, industrial ventilation systems, and toilet ventilation systems. The design of the ventilation systems included compliance with the requirements of NFPA 820. Mr. Pouliot also provided construction administration, including shop drawing and RFI review.

**Lead Mechanical Engineer, Environmental Laboratory Building Ductwork and Ventilation Fan Repairs and Improvements, Vero Beach, FL.** Mr. Pouliot was the lead mechanical engineer for the design of the environmental laboratory building ductwork and ventilation fan repairs and improvements project. This included the replacement of the existing laboratory fume hood exhaust fans and ductwork. The design improved hardening of the system components for hurricane resistance.

**Mechanical Engineer, Nanofiltration Water Treatment Plant, Dania Beach, FL.** Mr. Pouliot assisted in the HVAC and plumbing design of the 3D/4D construction document preparation for the water treatment plant expansion, which included a membrane process building with LEED® accreditation. The project included the design of split system heat pump air conditioning and heating systems, industrial ventilation systems, toilet ventilation systems, plumbing water and sanitary systems, and emergency plumbing fixtures. Mr. Pouliot provided senior engineering QA/QC review.

**Lead Mechanical Engineer, Central Hillsborough Water Treatment Facility, Hillsborough County, FL.** Mr. Pouliot provided the HVAC and plumbing design and construction document preparation for the new multiple-facility water treatment plant, which included an administration/pump building and an electrical/maintenance/generator building. The project included the design of split system heat pump air conditioning and heating systems, industrial ventilation systems, toilet ventilation systems, plumbing water and sanitary systems, emergency plumbing fixtures, and generator room ventilation and fueling systems. The administration/pump building's HVAC design included exposed ductwork, which was incorporated into the overall architectural aesthetic. The HVAC systems included redundancy and



### *Experience Years*

17 years

### *Type of Work*

Process mechanical engineering for environmental and industrial projects

### *Cost Range*

\$0-\$68M

### *In What Capacity*

Lead Mechanical Engineer, Mechanical Engineer

### *Education*

B.S. – Mechanical Engineering

### *Registration*

P.E. – FL (2000), SC, NC, GA, KY, VA, NCEES



physical protection of the units to maintain system operation during a hurricane for the administration portion of the building, which was designed to serve as an emergency operations center as well.

**Lead Mechanical Engineer, George T. Lohmeyer Regional Wastewater Treatment Plant Pumping System Project, Fort Lauderdale, FL.** Mr. Pouliot was the lead mechanical engineer for the design of the George T. Lohmeyer Regional WWTP Pumping System Project. This included design of air conditioning and heating systems for the control room, air conditioning systems for the computer/server room, air conditioning systems for various electrical equipment rooms, the design of the ventilation system's various wastewater/sludge pump buildings, and design of the exhaust and ventilation for the emergency generator. The design of the ventilation systems included compliance with the requirements of NFPA 820. Several extensive site visits were performed to verify existing conditions, coordinate the new modifications with existing conditions, and consult with the plant staff regarding design preferences to complete the design. Mr. Pouliot also provided construction administration, including shop drawing and RFI review.

**Lead Mechanical Engineer, Surface Water Treatment Plant Component of the Tampa Bay Regional Water Treatment Plant Facility Modification, Hillsborough County, FL.** Mr. Pouliot provided the HVAC, plumbing, fire protection design, and construction document preparation for the multiple-facility water treatment plant expansion, which included a dry chemical storage building, a dewatering/general storage building, an ozone generation building, and an electrical building. The project included design of split system electrical room air conditioning systems, a 100 percent outside air dehumidification system, industrial ventilation systems, generator fueling systems, plumbing water and sanitary systems, emergency plumbing fixtures, and chemical area and ozone fire protection systems. Mr. Pouliot provided construction administration, including shop drawing, RFI review, and periodic site visits for field observations.

**Lead Mechanical Engineer, Water Treatment Plant Expansion, Ormond Beach, FL.** Mr. Pouliot was the lead mechanical engineer for the design of the WTP expansion for the City of Ormond Beach. This included design of air conditioning and heating systems for the administration area; design of air conditioning systems for the electrical equipment room; and design of the ventilation systems for the membrane process bay, storage building, and high-service pump station. In addition, Mr. Pouliot was responsible for the design of the plumbing water and drainage systems for the membrane building, the storage building, and the fueling systems for the emergency generator. He provided construction administration, including shop drawing, RFI review, and periodic site visits for field observations.

**Mechanical Engineer, Northwest Wastewater Treatment Plant, St. Johns County Utility Department, St. Johns County, FL.** Mr. Pouliot assisted in HVAC and plumbing design and 3D/4D construction document preparation for the multiple-facility WWTP, including an administration building, a chemical storage building, a blower building, an electrical building, and a solids dewatering building. The project included the design of split system heat pump air conditioning and heating systems, industrial ventilation systems, toilet ventilation systems, plumbing water and sanitary systems, and emergency plumbing fixtures. The design of the ventilation systems included compliance with the requirements of NFPA 820. Mr. Pouliot provided senior engineering QA/QC review of the project.

**Mechanical Engineer, Arbennie Pritchett Water Reclamation Facility, Okaloosa County, FL.** Mr. Pouliot assisted in the HVAC and plumbing drafting and design services for the expansion of this 6.5-mgd facility to 10 mgd. The multiple-facility project included an administration building, a maintenance building, and two electrical buildings. The project included design of split system heat pump air conditioning and heating systems, industrial ventilation systems, toilet ventilation systems, laboratory fume hood ventilation systems, plumbing water and sanitary systems, laboratory plumbing systems, and emergency plumbing fixtures. Mr. Pouliot provided senior engineering QA/QC review.

**Mechanical Engineer, Mud Creek Water Pollution Control Plant Expansion, Valdosta, GA.** For the upgrade and expansion of this facility, Mr. Pouliot was responsible for HVAC, plumbing, and fire protection design and drafting. Project components included modification of the existing influent pump station, a new screening and grit removal facility, expansion of the biological treatment process to include nitrogen removal, new secondary clarifiers, chemical phosphorus removal, ultraviolet (UV) disinfection, and effluent filtration. The project includes a 4,000-square-foot administration building with laboratory, control room, conference, offices, and a multi-use space for break room, training room, and meeting room.

Mr. Lingo has provided geotechnical engineering services in numerous states, the Bahamas, and Puerto Rico for the past 46 years. During this period, he has provided consultation on hundreds of individual projects. These projects have required the planning and execution of geotechnical investigations in order to evaluate the subsurface conditions for selection of the most appropriate foundation system and means to provide the required site preparation. The development of designs or engineering recommendations for the design of commercial and institutional buildings, stadiums and arenas, towers, tanks, waterfront and earth retention structures, bridges and pavements have been provided during this practice.

### *Representative Relevant Project Experience*

#### **Geotechnical Consultant, Miami-Dade County Rapid Transit System, Miami, FL.**

Mr. Lingo provided senior geotechnical engineering consultation throughout the evaluation of the initial 20-mile-long, 20-station system. After a very extensive review of the geologic conditions and existing structure support systems was performed, a detailed field and laboratory testing program was launched. The geotechnical engineering evaluations for each line segment and for the individual stations followed. Foundation recommendations for the at-grade and elevated portions of the track system and for the stations were provided to the individual design teams. Shallow footings bearing on the relatively shallow Miami Limestone, that were anchored against overturning by using four 12-inch diameter drilled cast-in-place concrete tension piles in each footing, were used for the piers supporting the elevated track segments to resist overturning loads. This foundation design innovation allowed an estimated savings of \$10M compared to the preliminary cost projections.

**Principal Geotechnical Engineer, Port of Miami Vehicular Tunnel to Dodge Island, Miami-Dade County, FL.** During the preliminary geotechnical study to construct a vehicular tunnel under Government Cut from Watson Island to Dodge Island for use by trucks transporting cargo containers to the port, Mr. Lingo provided senior level geotechnical engineering guidance and overview. This project will require that a tunnel boring machine drill twin tubes through the Miami Limestone and the underlying Fort Thompson Sand and Limestone formations. The planned alignment will cross under the primary cruise ship slip, the bulkhead, and the terminal structure with the tubes daylighting on Dodge Island, near the container marshaling area.

**Principal Geotechnical Engineer, Dodge Island Bridge to Port of Miami, Miami-Dade County, FL.** Mr. Lingo directed the geotechnical investigation and evaluation of the subsurface conditions for this replacement bridge for auto and truck access to the Port of Miami from the City of Miami downtown area. The high level bridge over Biscayne Bay was supported on prestressed concrete piles driven into the Fort Thompson Limestone formation.

**Principal Geotechnical Engineer, I-75 Extension, Broward and Miami-Dade Counties, FL.** Mr. Lingo provided senior geotechnical engineering direction for the investigation and evaluation for the last portion of I-75 to be constructed in Florida. This section extended from the eastern terminus of Alligator Alley (I-75) in Broward County to the Palmetto Expressway (SR536) at Miami Lakes in Miami-Dade County. Much of the roadway alignment extended through areas of very soft organic upper soils, which required the use of large rubber tire ATV vehicles to access the boring locations.



### *Experience Years*

46 years

### *Type of Work*

Geotechnical engineering for transportation, environmental, structural facilities

### *Cost Range*

\$0-\$300M

### *In What Capacity*

Principal Geotechnical Engineer, Geotechnical Consultant, Project Manager, Senior Geotechnical Engineer, Materials Engineer

### *Education*

M.S. – Civil Engineering,  
B.S. – Civil Engineering

### *Registration*

P.E. – FL, NC (1968),  
GA, SC, MS; Special  
Inspector – FL

**Principal Geotechnical Engineer, Orlando International Airport (OIA) Control Tower, Orlando, FL.** When OIA required a taller tower at the existing facility in order to allow the flight control cab to be at an elevation above recent terminal additions to allow the controllers adequate visibility of all ground operations, Mr. Lingo led the geotechnical investigation for the new tower. The dead load of the tall concrete structure, maximum wind loads, and variable subsurface profile led to the selection of driven steel H piles and one large pile cap as the most appropriate foundation system.

**Principal Geotechnical Engineer, I-95 Extension, Palm Beach, Martin, and St. Lucie Counties, FL.** Mr. Lingo directed the geotechnical investigation planning, field studies, lab testing program, and the geotechnical engineering evaluations and report preparation that were required for this remaining link of I-95. This project had approximately 30 miles of roadway and several small bridges.

**Senior Geotechnical Engineer/Project Manager, Dame Point Bridge over the St. Johns River, Jacksonville, FL.** Mr. Lingo served as a senior level geotechnical engineer during the investigation and foundation design for this high level, concrete cable-stayed bridge, which has a main span of about 900 feet. The main piers are supported on a large footing bearing on moderately hard limestone on one side and driven steel H piles on the other. The approach spans over Mill Cove on the south and Dame Point on the north are supported on driven prestressed concrete piles. Monitoring of the foundation installation and materials testing services was overseen by Mr. Lingo during construction.

**Principal Geotechnical Engineer, CSX Railroad Bridge over Escambia Bay, Pensacola, FL.** During the geotechnical investigation and construction phases for this 2-mile-long bridge for CSX, Mr. Lingo served in a principal engineer capacity. This replacement bridge was the first segmental concrete railroad bridge constructed in the U.S. Prestressed concrete piles were driven through very soft soil deposits in the bay to depths in excess of 140 feet. Static pile load and PDA testing was conducted.

**Senior Geotechnical/Materials Engineer, Jacksonville International Airport, Jacksonville, FL.** Mr. Lingo served in a senior geotechnical and materials engineer capacity on the rehabilitation of the approximate 9,000-foot alternate runway at JIA. Since the initial construction of this airport in the late 1960s, heavier aircraft loads than anticipated in the original pavement design had caused severe distress in the concrete pavement. In that this distress was concentrated along the areas of the aircraft landing gear loads, it was decided to replace the center keel section on the runway. The concrete that was removed was recycled and used as an econocrete base course.

**Principal Geotechnical Engineer/Project Manager, Flagler County Airport Air Traffic Control Tower, Bunnell, FL.** The initial ATC at the Flagler County airport was an approximate 50-foot-high, cast-in-place concrete structure. Mr. Lingo directed the investigation and was the senior geotechnical engineer for this structure that was placed on augered, cast-in-place concrete piles through a very loose sand formation.

**Principal Geotechnical Engineer/Project Manager, I-20 HOV Lane Widening, Fulton, Cobb, and Douglas Counties, GA.** During the preliminary geotechnical investigation to provide for 8 miles of dual HOV lanes in both directions Mr. Lingo provided senior level geotechnical engineering direction and review. The four-lane roadway widening would have extensive cut and fill areas and require the design of a number of retaining walls. The replacement of 13 bridges will be required, including a major bridge over the Chattahoochee River and a complete re-build of the bridges at the major I-20/I-285 interchange

**Principal Geotechnical Engineer, Southwest Rome ByPass, Floyd County, GA.** Mr. Lingo served as the lead geotechnical investigator for an approximate 4,500 foot re-alignment of the proposed four-lane divided roadway. The project located in Northwest Georgia in the Valley and Ridge Physiographic Province had cuts of up to 115 feet and fill sections on the order of 70 feet. The cut will extend through weathered and hard rock strata that consist of limestone, dolomite, and shale. Lime stabilization of the high volume change soils was required for subgrade stabilization.



Mr. Tolton is the owner of Charles Tolton & Associates, Inc. (CTA), formed in 1990. He offers the City 34 years in the surveying profession. Mr. Tolton has experience directly with the City of Key West, including working on DNHI's solid waste transfer station for the City. His surveying experience encompasses all aspects of the industry, including boundary surveys, topographic surveys, hydrographic surveys, construction layout, GPS surveys, ALTA surveys, elevation certifications, and tower surveys. He has provided these services to clients' infrastructure, water, sewer, bridge, and road design and construction projects, including the City of Naples' Immokalee Road six-lane construction project and the US 41 six-laning; as well as the various projects for the U.S. Navy in Key West.

### *Representative Relevant Project Experience*

- Immokalee Road six-laning, Naples, FL
- Goodlette-Frank six-laning, Naples, FL
- US 41 six-laning, Naples, FL
- Sewer improvement projects, South and East Naples, FL
- Tiger Tail Beach, Marco Island, FL
- Various sewer and water projects, Key West, Duck Key, FL
- Winterberry and Barfield Bridge improvements, Naples, FL
- Fleischmann Park improvements, Naples, FL
- Various Projects for U.S. Navy, Key West, FL.

### *Experience Years*

34 years

### *Type of Work*

Surveying for infrastructure, water, sewer, bridge, and road design and construction projects

### *Cost Range*

\$0-\$20M

### *In What Capacity*

Project surveyor



# Franklin Johnson

## *General Superintendent (Demolition/Site/Civil)*



Mr. Johnson's construction experience has been focused on heavy civil projects in both South Florida and Southeast Michigan since his start in the construction industry in 1984. He has significant experience in major utility infrastructure installation projects with excavations more than 30 feet deep in a variety of ground conditions with significant dewatering challenges.

In addition, Mr. Johnson has completed sanitary sewer pump station installation projects, sanitary sewer vacuum pump station projects and deep injection well projects which have allowed him to gain valuable insight into the steps required to complete the structural, mechanical and electrical installations of below grade structures.

### *Representative Relevant Project Experience*

- **Key Largo Wastewater Management System for Trailer Village, Key Largo, FL:**  
Project Superintendent
- **Marco Island Wastewater Collection System Expansion, Marco Island, FL:**  
Project Superintendent
- **Unadilla Vacuum Sewer, Michigan:** Project Superintendent
- **Earhart Road Sanitary Sewer Replacement, Michigan:** Project Superintendent
- **Jackson Avenue Water Main Replacement, Michigan:** Project Superintendent
- **North Territorial Sanitary Sewer Replacement, Michigan:** Project Superintendent
- **New Port Creek Subdivision Site Development, Michigan:** Project Superintendent
- **Oxford Subdivision Site Development, Michigan:** Project Superintendent
- **SFWMD S-331 Repowering, Automation and Gearbox Refurbishment, Homestead, FL:** Project Superintendent
- **SFWMD S-650 Lakeside Ranch Pump Station, Martin County, FL:**  
Project Superintendent
- **SFWMD S-127 and S-133 Pump Refurbishment and Bearing Replacement, Martin County, FL:** Project Superintendent.



### *Experience Years*

28 years

### *Type of Work*

Major utility  
infrastructure  
installation

### *Cost Range*

\$0-\$15M

### *In What Capacity*

General Superintendent

# Shaun Kogut

## *General Superintendent (Vertical Construction)*



Mr. Kogut is a construction manager with a 20-year record of success in overseeing all phases of multimillion-dollar construction, infrastructure, and environmental projects for government and private-sector clients. He has a wide array of the construction field, including construction/demolition, infrastructure improvements, environmental remediation, site safety/OSHA compliance, QA/QC and field engineering, change order management, budget and cost controls, bidding and estimating, and subcontracting and crew supervising. His extensive experience includes managing construction crews of up to 150 in high-rise/infrastructure improvements, asbestos abatements, and civil/site development construction/demolition projects. Mr. Kogut's experience is backed by his strong credentials and a proven history of on-time, on-budget and high-quality project completions.

### *Representative Relevant Project Experience*

- **Commercial Construction and Design.** Mr. Kogut currently serves as the construction manager and lead designer for major commercial projects, including retail, hospitality, agriculture, and restaurant/dining projects from Vero Beach to Key West and range in value from \$150,000 to more than \$10M. These contracts range from small tenant design-builds and renovations, to multi-million dollar, ground-up site and vertical construction projects. One project in particular includes a 40-acre equestrian facility in Okeechobee, FL that is complete with an over 40,000-square-foot arena, spectator seating, concessions, and training facilities for private investors.
- **Infrastructure Construction and Demolition Projects.** From 2004 to 2009, Mr. Kogut completed diverse construction/demolition projects, including the restoration of A1A and adjoining embankments in St. Lucie County as part of a FEMA project. This included complete site development and underground utility installation for multiple land developers, corporate offices, and abandoned warehouse demolitions. These projects ranged in value from \$450,000 to more than \$75M.
- **High Rise/Casino Improvements.** Mr. Kogut served as trades supervisor and phase manager for projects ranging in value from \$10M to \$80M from 2000 to 2004. These projects included complete renovations of the British Colonial Hilton Hotel in Nassau Bahamas. He was also the construction manager and site superintendent for two multi-million dollar casino renovations in Nassau, Bahamas.



### *Experience Years*

20 years

### *Type of Work*

Building construction

### *Cost Range*

\$0-\$80M

### *In What Capacity*

General Superintendent,  
Project Manager

### *Education/*

### *Certification*

PBDA, Architecture  
(Athabasca  
University/RAIC)  
B.S. Alternate and  
Renewable Energy  
Management  
(Everglades University)  
Green Certification  
(University Of Central  
Florida – Florida Solar  
Energy Center)

### *Affiliations*

Energy Star  
Design Partner  
Energy Star  
Builder Partner  
Florida Green Building  
Coalition Member  
Go Green Initiative  
Member  
Citizens For Clean  
Energy Member

# Mark Battista

## *Project Manager and Safety Coordinator*



Mr. Battista is a construction industry professional with over 23 years of experience as a project/operations manager, project director, and construction manager. His project experience includes heavy civil construction, highway/bridge, earthwork/wetlands construction, utility, dredging, demolition, marine, and environmental construction. Mr. Battista's experience includes management of government and commercial construction projects, including fixed price, lump sum, and unit price; contract/change order negotiations; arbitration, claims, and insurance settlement issues; subcontract management; construction cost estimating; cost controls; scheduling; health and safety planning; and QA/QC oversight.

### *Representative Relevant Project Experience*

**Senior Construction Manager, Lakeside Ranch STA North and Pump Station S-650, South Florida Water Management District, Okeechobee, FL.** Mr. Battista, while with a previous employer, was responsible for the complete oversight of construction activities. He also managed the team of engineers, inspectors, and administrators to ensure compliance with the construction plans and technical specifications. The team provided construction management services during the construction of the Lakeside Ranch Storm Water Treatment Area North (STA) and S-650 pump station, located east of Lake Okeechobee and west of SR 710 (Bee Line Highway) on the boundary of Martin and adjacent Okeechobee Counties. The STA encompassed 2,700 acres, divided into collection cells, distribution/outlet canals and water control structures. The project also included improvements for the L-64 and L-63 Canals, the excavation of approximately 5,000 linear feet of canal below the control water elevation, partial reconstruction of approximately 4,120 linear feet of the L-64 Canal, and replacement of the culvert/road crossing at CR 15B (structure S-667). In addition, S-650 pump station receives flow from the L-64 Canal and discharges into the Lakeside Ranch STA distribution canal and into three inlet structure. The S-650 pump station has a combined pumping capacity of approximately 250-cfs. The construction activities included earthwork, reinforced concrete, structural steel, mechanical, electrical controls, instrumentation, HVAC, a temporary cofferdam, and dewatering.

**Senior Construction Manager, S-65D – Lock Refurbishment, South Florida Water Management District, Okeechobee County, FL.** While with a previous employer, Mr. Battista was responsible for the complete oversight of construction activities. He managed a team of engineers, inspectors, and administrators to ensure compliance with the construction plans and technical specifications. The project included construction management services during the construction of the S-65D land navigational lock refurbishment, located in Okeechobee County along Canal C-38, south of the outlet of Lake Kissimmee. The S-65D lock refurbishment included the elimination of approximately 3-inches of existing weathered concrete from the lock walls; subsequent shotcrete wall rehabilitation; as well as the removal, sandblasting, and recoating of the lock main gates. The project also included replacement of the existing lock fender system, installation of slope riprap protection, reconstruction of the parking/driving areas, replacement of the control and generator buildings, and the installation of associated electrical and mechanical systems.

**Senior Construction Manager, S-65D Microwave Tower, South Florida Water Management District, Okeechobee County, FL.** While with a previous employer, Mr. Battista was responsible for complete construction oversight and managing of the entire team, comprised of engineers, inspectors, and administrators, to ensure



### *Experience Years*

23 years

### *Type of Work*

Heavy civil construction

### *Cost Range*

\$0-\$72M

### *In What Capacity*

Operations Manager,  
Director, Senior  
Project Manager

### *Education*

Postgraduate  
Studies – Construction  
Management (New  
York University)

B.S. – Architectural  
Engineering (Florida  
State University)



compliance with construction plans and technical specifications. The scope of the project included providing construction management services during the removal and replacement of the existing telemetry tower, located adjacent to district structure S-65D, and the installation of all required microwave dishes, waveguides, and appurtenances. The construction activities involved the installation of a new 300-foot self-supporting microwave antenna tower; construction of the new tower foundation; site grounding/bonding and connection to the existing fencing; and installation of the new underground electrical service, including hand-hole, service meter, and service disconnect. The project also included clearing, grading, demolition, and removal of the existing 190-foot self-supporting tower, foundations, and related equipment.

**Senior Construction Manager, C-41A Canal Improvements Segment 1 through Segment 3, South Florida Water Management District, Highlands County, FL.** Mr. Battista, while with a previous employer, was responsible for the complete oversight of construction activities and management of the entire team, including engineers, inspectors, and administrators. In this role, he ensured compliance with the construction plans and technical specifications. For this project, the team provided construction management services during the restoration of canal banks along an 18-mile section of the existing C-41A Canal. The project was located in Highlands County, approximately 7 miles west of the Town of Okeechobee. Reconstruction of the canal banks included removal of existing vegetation, backfill and compaction of the canal slopes, installation of turf reinforcement mats, rock rip rap, and grassing.

**Senior Project Manager, Lake Trafford Dredging – Phase 1, South Florida Water Management District, Immokalee, FL.** Mr. Battista was responsible for all phases of construction, including management of the project team and subcontractors. This project involved construction of an earthen containment area of approximately 375 acres and the hydraulically dredging of the 1,536-acre Lake Trafford.

**Project Director, Stormwater Treatment Area (STA) 3 and 4, South Florida Water Management District, Martin County, FL.** Mr. Battista was responsible for all phases of construction and the management of 162 employees and all subcontractors. This project consisted of the construction of a 17,750-acre stormwater treatment area, used to remove agricultural contaminants from stormwater runoff through the use of aquatic plant life/algae. The 26-square-mile project involved blasting/moving 11 million cubic yards of earth/rock to construct the largest man-made wetland in the world. It included multiple tasks involving the construction of 39 miles of levees, 21 miles of canals, 48 reinforced concrete gated structures, control buildings along with electrical, mechanical, and instrumentation. In addition, the project included construction of a concrete pumping structure to house two 42-inch pumps, demolition of existing structures/buildings, rebuilding of 5 miles of existing roadway, and construction of two new pre-stressed concrete bridges.

**Senior Project Manager, Griffin Road Bridge Widening and Storm Sewer Replacement, Fort Lauderdale, FL.** Mr. Battista was responsible for all phases of construction and management of project team, including all subcontractors. This project involved the removal of existing utilities and a bridge section at Griffin Road, just west of I-75. DNHI installed a new triple 96-inch RCP storm sewer with headwalls, rebuilt and widened a bridge associated with the sanitary/water main systems, widened the roadway, and added curbing and sidewalks.

**Senior Project Manager, County-wide Replacement of Sanitary Pump Stations and Force Mains, Miami-Dade Water and Sewer Department, Miami-Dade County, FL.** Mr. Battista was responsible for all phases of project construction and management of project team members, including all subcontractors. The project involved the demolition and replacement of 21 existing sanitary pump stations located throughout Miami-Dade County, the replacement of associated sanitary force mains, and roadway reconstruction.

**Senior Project Manager, Refurbishment of Water Treatment Plant, Cooper City, FL.** Mr. Battista was responsible for all phases of this construction project, including the oversight and management of the project team and subcontractors. This project was a joint venture with CH2M Hill and involved the demolition and refurbishment of all mechanical, instrumentation, electrical, HVAC, plumbing/containment piping, and pumps/motor/filter equipment. DNHI installed three new 12-inch diameter deep water wells, a sanitary lift station, and site utilities, and reconstructed the roadways.





## Part II

### *Technical Statement – Experience (cont.)*

#### 2.2. List the design contracts your organization has underway at this time

Design team member CDM Smith has extensive transportation facility design for new facility design, as well as renovations to existing facilities. Since the 1970s, CDM Smith has designed and implemented more than 300 public works and transportation facilities nationwide, including maintenance, warehouse, and storage facilities, and administration buildings with features including waiting areas, designated employee-only and break rooms, and public restrooms.

CDM Smith delivers high-quality, professional architectural and engineering transportation services to municipal clients similar to the City of Key West. Their large size, boasting more than 5,000 professionals throughout the U.S. and worldwide, allows them to deliver innovative and cost-effective designs to a multitude of clients simultaneously, making their design portfolio, especially in the transportation field, extensive. Knowledge gained through these projects can be directly applied to this project with the City, reducing costs and shortening the schedule.

They recognize the importance of balancing workload and staffing commitments to meet your service expectations and the value of maintaining the highest level of performance on all the work that they receive. The project team proposed for this contract is a dedicated group of professionals committed to the transportation industry. **Table 2.2-1** outlines CDM Smith’s current design workload for the staff dedicated to this important project.

## Part II – Technical Statement

Experience

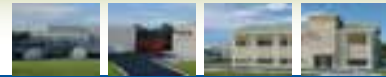


Table 2.2-1: Design Contracts Currently Underway at This Time

Name of Project	Prime Contractor Name and Address	Date of Contract	Contract \$ Amount	Owner Name and Address	Scope of Work	Are Permitting Services Provided?
Joint Operations Facility, Erie, PA	Contractor has not been selected to date. Invitation for bids is estimated to be held in January 2013.	2011-December 2014 (est.)	\$2.25M	Erie Transit Authority Dennis Solensky, Executive Director 127 East 14 <sup>th</sup> Street Erie, PA 16503 Tel: 814.459.4287	Architecture; civil, electrical, and mechanical – HVAC and plumbing; CNG, diesel, and gasoline fueling; permitting; planning; project management; and LEED® principles/sustainable design	Yes
Bus Maintenance, Servicing, and Storage Facility Expansion, State College, PA	Contractor has not been selected to date. Invitation for bids is estimated to be held in July 2013.	2011-December 2015 (est.)	\$2.5M (est.)	Centre Area Transportation Authority Louwana Oliva, Assistant General Manager 2081 W. Whitehall Road State College, PA 16801 Tel: 814.238.2282 ext. 156	Architecture; civil, electrical, geotechnical, mechanical – HVAC and plumbing, structural, and traffic engineering; construction support; CNG fueling; environmental; permitting; planning; project management; and LEED® principles/sustainable design	Yes
Public Works and Transportation Facilities Design, Avon, CO	FCI Constructors Inc. 3070 I-70 Business Loop, Building A Grand Junction, CO 81504	2011-2014 (est.)	\$1.3M	Town of Avon Jennifer Strehler, P.E., MBA, Director of Public Works and Transportation 500 Swift Gulch Road Avon, CO 81620 Tel: 970.748.4100	Architecture; civil, electrical, geotechnical, mechanical – HVAC and plumbing, structural, and traffic engineering; environmental; permitting; project management; and LEED® principles/sustainable design	Yes
Oslo Customer Convenience Center, Indian River County, FL	Paul Jacquin & Sons, Inc. 7348 Commercial Circle Fort Pierce, FL 34951	2008-July 2013 (est.)	\$449,000	Indian River County Solid Waste Disposal District Himanshu H. Mehta, P.E., Managing Director 1325 74 <sup>th</sup> Avenue SW Vero Beach, FL 32968 Tel: 772.770.5112	Architectural; preliminary site investigations; civil, electrical, geotechnical, and structural engineering, landscape architecture; permitting; planning; and construction phase services.	Yes

## Part II – Technical Statement

Experience

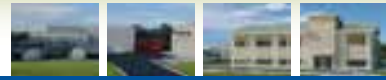


Table 2.2-1: Design Contracts Currently Underway at This Time

Name of Project	Prime Contractor Name and Address	Date of Contract	Contract \$ Amount	Owner Name and Address	Scope of Work	Are Permitting Services Provided?
Design-Build-Operation of a Mass Burn Waste-to-Energy Facility, Palm Beach County, FL	CDM Smith 1601 Belvedere Road, Suite 400E West Palm Beach, FL 33406	2001-July 2015 (est.)	\$10M (design)	Solid Waste Authority of Palm Beach County Ray Schauer, Director of Engineering and Public Works 7501 North Jog Road West Palm Beach, FL 33412 Tel: 561.640.4000	Architecture; civil, drainage, fire protection, electrical, mechanical – HVAC, and plumbing, structural, transportation, and utilities engineering; landscape architecture; LEED® principles/sustainable design; permitting; project management; construction; and operations	Yes
George T. Lohmeyer Regional WWTP Emergency Generator and 4160-Volt Switchgear Upgrade, Fort Lauderdale, FL	Project is currently in design phase. A contractor has not been selected to date.	August 2012-present	\$425,124	City of Fort Lauderdale Pat Long, Regional Wastewater Facilities Manager 1765 S.E. 18 <sup>th</sup> Street Fort Lauderdale, FL 33316 Tel: 954.523.1002	Architecture; civil, electrical, and structural, engineering; equipment and materials selection; project management; and services during construction	No



# Joint Operations Facility Design

*Erie, PA*

To meet current and projected transit needs, the Erie Metropolitan Transit Authority (EMTA) is consolidating their facilities. CDM Smith is providing general architectural/engineering and consulting services for the new consolidated facilities, which will be located on a site that includes current operations in addition to newly acquired parcels. Construction of the Joint Operations Facility will need to accommodate current site operations. The new facilities will result in a functional, energy-efficient facility that includes indoor fleet parking, maintenance and servicing, fleet wash, and fueling in a safe environment for operations and maintenance staff.

## Fleet Maintenance, Service, Wash, and Storage

The 147,000-square-foot fleet storage facility will provide storage for 160 buses and paratransit vehicles to meet EMTA's growing fleet. The 61,000-square-foot maintenance facility will house 14 maintenance lifts to accommodate bus and paratransit vehicles. The facility will also offer a four-bay body and paint shop, bus wash, and fueling systems for CNG, diesel, and gas.

## Administration Facility

An administration facility will be planned for, but not constructed, under this project. In addition, CDM Smith's design must offer phased construction to enable EMTA to positively respond to funding as it becomes available. CDM Smith has incorporated office space into the Joint Operations Facility design to accommodate employee work areas prior to administration facility funding.

## Site Layout and Challenges

The long and narrow site creates challenges for the design team to create proper site circulation and segregation for buses, personnel vehicles, and delivery trucks; and control of public access for safety and security. The design must also plan for construction of the new facilities without interruption to EMTA's site operations. Demolition of nine existing buildings and environmental mitigation for subsurface concerns compliant with the FONSI and FTA mitigation requirements were addressed at the onset of the project to eliminate potential surprises later in the project.

## Sustainable Features

The CDM Smith design will include geothermal heating and cooling systems that rely on the earth's natural thermal energy for shops, store rooms, and office space. Waste oil burners will be utilized for supplemental heating. CDM Smith proposed several additional energy-conserving design features that can be easily incorporated into the project without additional costs to save energy and operations costs over time, improve water and energy efficiency, and improve indoor air quality and worker environment.

## Prime Contractor Name and Address

Contractor has not been selected to date. Invitation for bids is estimated to be held in January 2013.

## Date of Contract

2010-December 2014 (est.)

## Contract \$ Amount

\$2.25M

## Owner Name and Address

Erie Transit Authority  
Dennis Solensky,  
Executive Director  
127 East 14<sup>th</sup> Street  
Erie, PA 16503  
Tel: 814.459.4287

## Scope of Work

Architecture; civil, electrical, and mechanical – HVAC and plumbing; CNG, diesel, and gasoline fueling; permitting; planning; project management; and LEED® principles/sustainable design

## Are Permitting Services Provided?

Yes





# Bus Maintenance, Servicing, and Storage Facility Expansion

*State College, PA*

CDM Smith is designing a 130,000-square-foot bus maintenance, servicing, and storage facility expansion for the Centre Area Transportation Authority (CATA). The end result will be a facility that equals CATA's progressive leadership with regard to transit service and environmental stewardship. The expansion provides CATA with the opportunity to enlarge, organize and improve the maintenance, fueling and wash bay operations, while adopting environmental and energy responsible principles and providing sufficient space to accommodate an increased fleet size.

Design features include:

- A storage facility that can accommodate a fleet of 96 coach buses, approximately 25 support vehicles, and 150 rooftop parking spaces for employees, with circulation space for efficient operations where vehicles can be staged indoors before servicing.
- A maintenance facility that can efficiently service the bus fleet along with a fleet of vans and other service vehicles, and accommodate Pennsylvania State Inspections. The maintenance facility will allow for vehicles being serviced and/or repaired.
- A fueling and wash facility that can accommodate a minimum of 70 vehicles within six hours.
- A facility that can accommodate future vehicles that include 60-foot articulating buses to possibly be fueled with CNG-electric hybrid propulsion systems.
- A facility that includes all necessary administrative, storage, and auxiliary spaces required to support the facility operations and maintenance needs.
- An environmentally responsible facility that is state-of-the-art in terms of energy efficiency.
- A design that will allow for ongoing maintenance operations while improvements are implemented.
- A design that complements the existing facility's architectural design and meets all updated code requirements and ADA.

CATA envisions a phased program to support anticipated growth and ridership. Utilizing State and Local funding, CATA's immediate needs—including auxiliary outdoor parking and the replacement of the existing gas monitoring system in the bus storage and maintenance facility—are currently being addressed.

As part of the bus storage and maintenance expansion project, CATA will receive:

- A new stand alone maintenance facility that includes four coach bus maintenance bays, two bus maintenance bays that accommodate coach or articulated buses, a chassis wash, a paint booth, a body shop, and support spaces.

## *Prime Contractor Name and Address*

Contractor has not been selected to date. Invitation for bids is estimated to be held in July 2013.

## *Date of Contract*

2011-December 2015 (est.)

## *Contract \$ Amount*

\$2.5M (est.)

## *Owner Name and Address*

Centre Area  
Transportation Authority  
Louwana Oliva, Assistant  
General Manager  
2081 W. Whitehall Road  
State College, PA 16801  
Tel: 814.238.2282 ext.  
156

## *Scope of Work*

Architecture; civil,  
electrical, geotechnical,  
mechanical – HVAC and  
plumbing, structural,  
and traffic engineering;  
construction support;  
CNG fueling;  
environmental;  
permitting; planning;  
project management;  
and LEED® principles/  
sustainable design

## *Are Permitting Services Provided?*

Yes

- Renovation of the current bus storage/maintenance facility to accommodate efficient storage of 96 buses (of which up to 10% may be articulated).
- Provision of a new bus wash facility.
- Provision of new CNG fueling system, including filling station, compressors, dryers, etc.
- Relocation of the diesel fueling system, including above ground tanks and filling stations.
- Relocation of stormwater management facilities, including above ground and below ground storage.
- Provide perimeter security fence and video surveillance.
- Provision of employee parking over the bus storage facility to accommodate 150 parking spaces.
- “Clean” storage for rebuilding engines, transmissions, and other critical components.
- Storage for records, computer equipment, office supplies, etc., including provisions for secure storage of sensitive documents.
- Design of the facility and associated infrastructure that will safely accommodate CNG buses throughout the facility; incorporate a layout to address sinkholes within the property; integrate all new or expanded electrical, plumbing, mechanical, and other systems into the existing building system(s); include state-of-the-art energy conservation and environmental features throughout the facility; support CATA’s advanced technology program; and an exterior appearance that maintains, replicates, or complements the look of the current structure.
- Site safety and security requirements appropriate to the corporate park in a university community, and building security systems (fire, intrusion, access control, etc.) that commensurate with the existing systems in the administrative and operations areas of the facility.
- A facility that includes ADA accessibility features to bring the facility into full compliance with current legal requirements and addresses all local requirements for stormwater retention, impervious cover, employee and visitor parking, landscaping exterior lighting, and highway access.

The following will be incorporated into the design to accommodate for the facility’s future expansions:

- The master plan will include provisions for a future expansion of bus storage facility to accommodate 126 buses (of which up to 10% may be articulated).
- Expansion of the administration and operations facility to accommodate the relative growth based on the increased bus service.
- Provision of a new passenger drop-off area on-site.



CDM Smith is designing a 130,000-square-foot bus maintenance, servicing, and storage facility expansion for CATA.



# Switch Gulch Public Works and Transportation Facilities

*Avon, CO*

Nestled in the Rocky Mountains, the Town of Avon is the “Heart of the Valley” and a center for skiing, hiking, paddling, and other outdoor, mountain adventures. Known for its geographic location and friendly atmosphere, Avon is a small town with a plethora of amenities available to residents and visitors. Now the Town is undertaking renovations to help bring together its cohesive town core and urban mountain setting.

To assist with these efforts, CDM Smith is designing improvements to Avon’s public works and transportation facilities to optimize bus operations, maintenance functions, and circulation while maximizing view corridors and enhancing both the employee and visitor experience. The design includes a new administration building, stockpile/yard improvements, a temporary bus/transit operations facility, parks and recreation facilities, and a new underground parking garage to protect visitors and employees from the elements.

The logistics of maintaining critical transportation and public works functions are challenging and are impacted by geotechnical issues, construction limitation, and site constraints. Working with the Town to maintain a balance between innovation and sustainability with the necessity of having functioning facilities and budget, CDM Smith will deliver a program and master plan that includes:

- A phased program that will enable transportation and public works personnel to offer continuous operations using temporary facilities
- An architectural program for buildings in all three phases of the project to determine needed square footage, aesthetic criteria, personnel accommodations, and cost/budget tradeoffs
- A site program that addresses critical site utilization and maximization, including yard storage, bus warehousing, site balance, and ingress/egress.

This master plan will be used to guide logistics, construction phasing, and site and building planning and will be the foundation for the subsequent conceptual plans for the buildings and the site.

Because of the solar exposure of the Swift Gulch site, approximately 250 kW of solar thermal and/or solar power will be developed on the exposed roof areas of three different buildings that will serve the facilities and set a standard for the rest of the region in terms of renewable energy. CDM Smith will conduct a feasibility study to address the quantity, quality, and consistency of solar exposure for photovoltaic cells. Analysis will address two basic rooftop projects: one small project at the new administration building and a large project at the new bus depot, possibly including portions of the existing Fleet Maintenance Facility. The study will provide an estimation of the available solar power for conversion to electric power at the project sites and the economic feasibility of using available solar energy to offset electricity purchases and preliminary system construction costs.

## *Prime Contractor Name and Address*

FCI Constructors Inc.  
3070 I-70 Business Loop,  
Building A  
Grand Junction, CO  
81504

## *Date of Contract*

2011-2014 (est.)

## *Contract \$ Amount*

\$1.3M

## *Owner Name and Address*

Town of Avon  
Jennifer Strehler, P.E.,  
MBA, Director of  
Public Works and  
Transportation  
500 Swift Gulch Road  
Avon, CO 81620  
Tel:970.748.4100

## *Scope of Work*

Architecture; civil,  
electrical, geotechnical,  
mechanical – HVAC and  
plumbing, structural,  
and traffic engineering;  
environmental;  
permitting; project  
management; and  
LEED® principles/  
sustainable design

## *Are Permitting Services Provided?*

Yes

Because this project presents the opportunity to establish the Town and Eagle County as a leader for sustainable design, CDM Smith will also analyze the other sustainable measures, including:

- **Sustainable Sites** – Pollution prevention, pedestrian connectivity, parking allotments, and creative pavements and roofing materials
- **Water Efficiency** – Creative water efficient landscaping in coordination with needed stormwater retention
- **Energy and Atmosphere** – Fundamental building energy, refrigerant management, and energy optimization, as well as the application of renewable energy credit
- **Materials and Resources** – Investigate cost and use of alternative, recycled materials, and reuse of on-site materials
- **Indoor Environmental Quality** – Increased air changes, use of low emitting paints and coatings, specialized HVAC controls, and the use of day lighting spaces.

When completed, the Swift Gulch Public Works and Transportation Facility will provide the Town of Avon, Eagle County, and area visitors with the modern infrastructure required to optimally serve the needs of a vibrant community and world class resort and destination.



CDM Smith is designing improvements to Avon's public works and transportation facilities to optimize bus operations, maintenance functions, and circulation. The design includes a new administration building, stockpile/yard improvements, a temporary bus/transit operations facility, parks and recreation facilities, and a new underground parking garage.





# Oslo Customer Convenience Center

## *Indian River County, FL*

The Indian River County Solid Waste Disposal District (IRC SWDD) operates a residential collection/recycling customer convenience center (CCC) at the former Oslo Landfill site. In an effort to provide an increased level of service to its residents, IRC SWDD proposed to build a new CCC at the Oslo site to replace the existing facility. The new CCC is to be built at a location adjacent to the existing facility at the old Oslo Landfill site. The existing CCC will remain operational until the new facility is complete. The proposed new facility will be constructed over the old Oslo solid waste dump site. This presents a very unique situation since there is old solid waste buried throughout the site.

CDM Smith developed a conceptual layout and performed a preliminary investigation on a "flat" on grade-type facility that utilizes stationary compactors with enclosed roll-off storage containers for transport of residential solid waste to the landfill. Based on the preliminary investigation, IRC SWDD proceeded with design and construction of the new Oslo CCC utilizing the "flat" on grade-type facility concept. The new Oslo CCC will provide a clean, convenient, economical, and easily operated facility for the residents that utilize it.

CDM Smith provided in-house geotechnical engineering services for the project. Methods of investigation consisted of ground penetrating radar, standard penetration test borings, cone penetration test soundings, and test pit excavations. The subsurface conditions at the site presented unique geotechnical challenges. The primary geotechnical considerations related to the design of the proposed facility included:

- The presence of unsuitable fill containing buried debris and trash beneath the proposed ramp, service building, and paved parking/drive areas
- The presence of compressible silt and clay soils, which had variable thicknesses and were considered compressible under the anticipated loads
- The relatively large size and loads associated with the proposed ramp area
- The proposed raise in site grade.

An additional challenge was the requirement that no excavations be made to remove debris and waste from beneath the proposed construction areas. As an alternative to conventional earthen fill which would have caused total and differential settlements beyond tolerable limits, an expanded polystyrene (EPS) geofom product was recommended to achieve the raise in grade of the proposed ramp area to minimize potential settlement. High strength geotextile reinforcement will also be used to minimize the potential for differential settlements of the roadway areas after heavy vibratory compaction efforts.

CDM Smith has completed the design plans and specifications (civil, architectural, structural, landscape, and electrical disciplines) and the project is ready for bidding. CDM Smith assisted IRC SWDD with obtaining the FDEP water main, wastewater col-

### *Prime Contractor Name and Address*

Paul Jacquin & Sons,  
Inc.  
7348 Commercial Circle  
Fort Pierce, FL 34951

### *Date of Contract*

2008-July 2013 (est.)

### *Contract \$ Amount*

\$449,000

### *Owner Name and Address*

Indian River County  
Solid Waste Disposal  
District  
Himanshu H. Mehta,  
P.E., Managing Director  
1325 74<sup>th</sup> Avenue SW  
Vero Beach, FL 32968  
Tel: 772.770.5112

### *Scope of Work*

Architectural;  
preliminary site  
investigations;  
civil, electrical,  
geotechnical, and  
structural engineering,  
landscape architecture;  
permitting; planning;  
and construction phase  
services.

### *Are Permitting Services Provided?*

Yes

lection, and stormwater permits; Indian River Farms Water Control District permits; and IRC's utility permit. CDM Smith is currently assisting IRC SWDD with obtaining the IRC site plan and stormwater permits, which are pending.

This project includes four stationary compactors with enclosed roll-off storage containers for transport of residential solid waste to the landfill from the new Oslo CCC. Open top roll-off containers will be used to transport yard waste, recyclable metals, and tires to the landfill for processing. Household hazardous waste (HHW) will be collected at the proposed covered HHW and oil collection/storage area. A slightly elevated ramp and driveway will be constructed to accommodate 40 cubic yard roll-off containers for yard waste. A generator will be installed to provide emergency power in the event of major power outages. The design includes amenities for the future connection of two additional compactors, if ever needed. The new Oslo CCC will provide a clean, convenient, economical, and easily operated facility for the residents that utilize it.

CDM Smith will assist IRC SWDD with obtaining bids, reviewing them, and providing a recommendation of award for construction of the new Oslo CCC. During construction, CDM Smith will provide resident project representation, special engineering services, and general engineering services.



This project will include four stationary compactors with enclosed roll-off storage containers for transport of residential solid waste to the landfill from the new Oslo CCC.



# Design-Build-Operation of a Mass Burn Waste-to-Energy Facility

*Palm Beach County, FL*

In 2006, the Solid Waste Authority of Palm Beach County (SWAPBC) updated their Integrated Solid Waste Master (ISWM) Plan to develop a system of programs and facilities for effectively and economically managing solid waste through source reduction, recycling, composting, and landfilling. The ISWM Plan called for expanded combustion capacity in order to extend the life of the existing landfill. The County began planning, preliminary design, and permitting for a new 3,000-tpd mass burn waste-to-energy facility, increasing SWAPBC's overall waste processing capacity to 5,000 tpd.

## Design-Build Approach

The total capital for the design-build effort is \$667M (\$10M design alone). B&W was named the proposer and the guarantor. The design-build phase of the project will be executed under a consortium agreement between B&W and BE&K. B&W is providing the materials handling, environmental systems, and, through its wholly-owned subsidiary B&W Vølund, the mass burn technology. BE&K is leading the design-build effort with B&W and CDM Smith. CDM Smith is a subcontractor to BE&K to support the design, permitting, and construction of several parts of the facility.

CDM Smith's scope of work includes the design and construction of the on-site roadways, drainage, utilities, landscaping, grading, and fencing. CDM Smith is also designing and constructing the tipping floor building, air pollution control (APC) building, ash handling building, and the maintenance/warehouse building. The design and construction of these buildings includes the associated fire protection, utility services, electrical, structural, HVAC, and plumbing work included therein.

Additionally, CDM Smith will construct the siding and roofing on the refuse pit, boiler water treatment, and turbine generator buildings. CDM Smith's scope of work also includes enhanced architecture throughout the facility, complete facility fire protection system, low voltage electrical, HVAC, and the design and construction of a Platinum LEED®-certified visitor center.

## Design Services

CDM Smith is providing engineering design and permitting services for the above mentioned items. CDM Smith's design also includes conducting final dewatering modeling and engineering of the recharge trenches to be used for the installation of foundations and facilities located below the groundwater table. Additionally, CDM Smith is managing several subcontractors conducting geotechnical investigations, topographic surveys, and tree surveys. CDM Smith is overseeing subcontractors providing pre-engineered metal buildings and fire protection systems.

## Prime Contractor Name and Address

CDM Smith  
1601 Belvedere Road,  
Suite 400E, West Palm  
Beach, FL 33406

## Date of Contract

2001-July 2015 (est.)

## Contract \$ Amount

\$10M (design)

## Owner Name and Address

Solid Waste Authority of  
Palm Beach County  
Ray Schauer, Director of  
Engineering and Public  
Works  
7501 North Jog Road  
West Palm Beach, FL  
33412  
Tel: 561.640.4000

## Scope of Work

Architecture; civil,  
drainage, fire protection,  
electrical, mechanical –  
HVAC, and  
plumbing, structural,  
transportation, and  
utilities engineering;  
landscape architecture;  
LEED® principles/  
sustainable design;  
permitting; project  
management;  
construction; and  
operations

## Are Permitting Services Provided?

Yes



## Visitor Center

The visitor center is an approximately 9,000-square-foot, three-story building with a visitor center on the first floor that will include exhibits and interactive displays through which the Solid Waste Authority's county-wide, integrated and coordinated set of environmentally responsible and economical solid waste management programs will be highlighted, along with the story and process of the mass burn waste-to-energy facility. The second floor has meeting and training spaces. The third floor is a lobby space which is an extension of the first floor visitor center space. From the third floor lobby, visitors are able to exit the space to observe the green roof and continue as part of the experience, to traverse the skybridge to the main control area of the powerblock building, while observing the main components of the mass burn facility. The visitor center is being designed to achieve a LEED® Platinum certification and includes sustainable features such as, photovoltaics, green roofs, recycled and regional materials, rain harvesting, reduced energy consumption, efficient glazing and ultra-low flow plumbing fixtures.



CDM Smith is designing the 9,000-square-foot, three-story visitor center which attaches to the main control area via a skybridge, to achieve a LEED® Platinum certification.

## Architecture

CDM Smith is providing all architectural design features associated with the interiors of the Platinum LEED®-certified administration building and visitor center, the maintenance/warehouse building, and the ash handling building. Additionally, CDM Smith is providing architectural design for the roof systems, exterior siding, exterior windows, and exterior doors for the following buildings/structures:

- Visitor center
- Maintenance/warehouse building
- Tipping building
- Refuse building
- Boiler building
- Air pollution control building
- Turbine building
- Water treatment building
- Ash building
- Ash conveyor structure
- Elevated pedestrian walkway
- Fire pump building.

## Enhanced Architecture

The original design-build proposal for \$667M provided for a “base” architectural design but offered an option for SWAPBC to implement enhanced architectural features through the utilization of an additional allowance. After award, the client directed the project team to proceed with the enhanced architectural design. For an additional \$12M, CDM Smith is designing, permitting, and constructing the following architectural enhancements.

### Elevated Walkway

A covered elevated walkway will connect the third floor of the visitor center to the refuse building. This will require additional geotechnical investigations, modifications to the civil/sitework drawings, and additional architectural, structural, and electrical drawings.



### Visitor Center Enhancements

The visitor center will be enhanced with an elevator gallery penthouse on the rooftop (third floor), a planted roof garden, and a rain garden. Additionally, photovoltaic sun canopies will be provided over parking areas. This will require additional architectural, structural, HVAC, electrical, and civil efforts.

### Other Ancillary Enhancements

Other architectural enhancements include curved roofs and exterior architectural enhancements to the maintenance, tipping, refuse, boiler, APC, and ash management buildings. This includes decorative metal grills, façades, reveals, larger translucent panels, and roof overhangs.



CDM Smith may design additional architectural enhancements, including covered walkways and exterior architectural enhancements to the maintenance, tipping, refuse, boiler, APC, and ash management buildings.

### Permitting

CDM Smith will prepare the City of West Palm Beach Engineering and Site Plan permit applications, as well as the Utilities Connection Permit Applications for water, sewer, gas, and water supply for fire. Additional permits that CDM Smith will secure include:

Governmental Approval	Agency
Environmental Resource Permit Modification	FDEP/U.S. ACOE
NPDES Stormwater NOI Construction General	FDEP
Drinking Water Construction Permit	FDEP
Building Permits	City of West Palm Beach
Class V Temporary Dewatering Permit	SFWMD
Groundwater Permitting and Monitoring	FDEP
LEED® Certification	U.S. Green Building Council
Tree Alteration Permit	City of West Palm Beach

### Construction Services

As indicated above, CDM Smith will construct the tipping floor building, APC building, ash handling building, and maintenance/warehouse building. CDM Smith's scope of work also includes construction of the Platinum LEED®-certified visitor center.

CDM Smith will also construct the siding and roofing on the refuse pit, boiler water treatment, and turbine generator buildings. Additionally, CDM Smith will construct the onsite roadways, drainage, utilities, landscaping, grading, and fencing. During the design-build process, CDM Smith will provide services during construction. This includes bi-weekly meetings, submittal review, RFI assistance, site visits, and punchlist resolution.

### Facility Operations

The long-term operation of the new WTE facility will be carried out by a separate wholly-owned subsidiary of B&W. This is similar to how Palm Beach Resource Recovery Corporation (PBRRC), a wholly-owned subsidiary of B&W, operates the Palm Beach Renewable Energy Facility (PBREF) No. 1.

# George T. Lohmeyer Regional WWTP Emergency Generator and 4160-Volt Switchgear Upgrade

*Fort Lauderdale, FL*

George T. Lohmeyer Regional WWTP's electrical reliability is regulated by the U.S. Environmental Protection Agency (USEPA); Florida Department of Environmental Protection (FDEP); and the Design Criteria for mechanical, electric, and fluid system and component reliability. Specifically, two separate and independent sources of electrical power are to be provided to critical plant systems. The plant experienced an unexpected catastrophic failure of the plant site service point one permanent generator. This generator is used as one of the two separate and independent sources of electrical power for the processes on the west end of the plant that were connected to service point one. This failure required plant personnel to connect a portable temporary generator and transformer (to convert from 480 volt to 4,160 volt) during the time the permanent generator was out of commission. The City, in conjunction with CDM Smith, is currently upgrading the feeder system and installing a permanent means of connection to prevent this occurrence in the future.

CDM Smith's design services consist of facilitating meetings with the City and Florida Power and Light (FPL) to review the project scope; perform a site visit to observe the current water status of the generator building electrical system; and develop conceptual replacement design options based on how long each unit substation, breaker, motor control center, and main air compression can be taken off-line. Selecting and creating an equipment and materials basis of design for provision of a generator connection for a permanent means of connecting a portable 480-volt generator to the 4,160-volt service point one switchgear in the event that the existing permanent stationary generator is not available, a step-up transformer located outside and a manual transfer switch would be provided. The portable generator concept would be an existing trailer mounted unit for rental by the City, replacement of service points including six 4,160 volt feeder breakers, IF2, ET, EFS, and IF6 in the generator building, unit substations in the generator building, motor control centers, medium-voltage cable, motor starters, replacement of front doors in the generator building room, new insulated louver covers, new suspended ceilings, new air handling units, removal of interior walls, interior finishes and painting, replacement of seamless flooring, necessary permit application submittals, and bidding services to assist the City with bidding of the project.

Construction services will include hosting progress meetings with the City and contractor; responding to requests for technical information from the City and contractor; tracking, reviewing, and coding shop drawings, samples, and submittals from the City and contractor; review of construction change order requests and making recommendations to the City; preparing change orders; approving contractor progress payments based on periodic observations of construction progress for general conformance with contract documents; preparing punch lists during the substantial completion assessment of the completion of the work; and creation of record drawings.

## *Prime Contractor Name and Address*

N/A – project is currently in design phase

## *Date of Contract*

August 2012-present

## *Contract \$ Amount*

\$425,124

## *Owner Name and Address*

City of Fort Lauderdale  
Pat Long, Regional  
Wastewater Facilities  
Manager  
1765 S.E. 18<sup>th</sup> Street  
Fort Lauderdale, FL  
33316  
Tel: 954.523.1002

## *Scope of Work*

Architecture; civil, electrical, and structural, engineering; equipment and materials selection; project management; and services during construction

## *Are Permitting Services Provided?*

No



## Part II

### *Technical Statement - Experience (cont.)*

#### 2.3. List the construction contracts your organization has underway at this time

DNHI will successfully manage this design-build contract in the same way we have for you in the past—by maintaining a dedicated team of professionals with the availability to serve you on this important project. One recent project where we employed these techniques was on the City of Key West’s solid waste transfer station design-build project.

Having served you since the early 1980s, we understand your facilities, policies, and staff, and we value our relationship with Key West. Serving as the project lead, we will utilize the lessons we have learned on past projects to move this project forward.

**Table 2.3-1** showcases our current construction workload and shows our ability to staff projects successfully.

## Part II – Technical Statement

### Experience

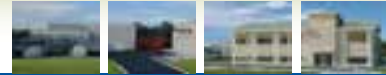


Table 2.3-1: Construction Contracts Currently Underway at this Time

Name of Project	Prime Contractor Name and Address	Date of Contract	Contract \$ Amount Complete	Design Architect/Engineer Name and Address	Owner Name and Address	Scope of Work
Glynn Archer – 14 <sup>th</sup> Street Roadway Reconstruction, Key West, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	April 2012- December 2012 (est.)	\$2.68M	Corradino Group 4055 NW 97 <sup>th</sup> Avenue Doral, FL 33178	City of Key West David Fernandez, Assistant City Manager P.O. Box 1409 Key West, FL 33041 Tel: 305.809.3879	Storm drainage and roadway reconstruction
Area 5 WWTP/Membrane Bioreactor Access Platform, Marathon, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	October 2012- December 2012 (est.)	\$42,700	Weiler Engineering Corporation 6805 Overseas Highway Marathon, FL 33050	City of Marathon Wayne Flickinger, Project Manager 9805 Overseas Highway Marathon, FL 33050 Tel: 305.289.5007	New platforms, ladders, and miscellaneous metal works
Potable Water Tank Replacement, A-941, Boca Chica, Key West, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	May 2012- January 2013 (est.)	\$374,400	Perez Engineering 1010 Kennedy Drive Key West, FL 33040	Florida Keys Aqueduct Authority Joe Ivey, Project Manager 1100 Kennedy Drive Key West, FL 33040 Tel: 305.296.2454	Reconstruction of potable water tanks
Gateway Triangle Stormwater Improvements, Collier County, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	March 2012- February 2013 (est.)	\$1.73M	Q. Grady Minor & Associates 3800 Via Del Rey Bonita Springs, FL 34134	Collier County Sue Trone, Project Manager 3327 Tamiami Trail East Naples, FL 34112 Tel: 239.643.1115	Storm culverts, swales, and roadway reconstruction
IQ Water Sites – Priority Group 2, Collier County, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	January 2012- January 2013 (est.)	\$586,159	Hole Montes, Inc. 950 Encore Way Naples, FL 34110	Collier County Aaron Cromer, Project Manager 3327 Tamiami Trail East Naples, FL 34112 Tel: 239.252.5338	Mechanical, electrical, and instrumentation modifications



## Part II – Technical Statement

Experience

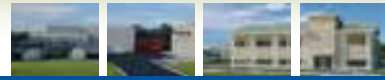


Table 2.3-1: Construction Contracts Currently Underway at this Time

Name of Project	Prime Contractor Name and Address	Date of Contract	Contract \$ Amount Complete	Design Architect/Engineer Name and Address	Owner Name and Address	Scope of Work
NCWRF Effluent Filter Set 1 Rehabilitation, Collier County, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	June 2012- August 2013 (est)	\$1.36M	Hole Montes, Inc. 950 Encore Way Naples, FL 34110	Collier County Craig Pajer, Project Manager 3327 Tamiami Trail East Naples, FL 34112 Tel: 239.252.2554	Mechanical, electrical, and instrumentation modifications
Immokalee Stormwater Improvements, Collier County, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	January 2012- December 2012 (est)	\$2.787M	CDM Smith 2180 West First Street, Suite 400 Fort Myers, FL 33901	Collier County Brad Muckel, Project Manager 3327 Tamiami Trail East Naples, FL 34112 Tel: 239.867.4121	Storm drainage and roadway reconstruction
RWS Mid-Field Terminal Apron Expansion-Taxiways, Lee County, FL	Manhattan Construction (Florida), Inc. 3940 Prospect Avenue, Suite 101 Naples, FL 34104	August 2012- September 2013 (est)	\$3.12M	AECOM 4415 Metro Parkway, Suite 404 Fort Myers, FL 33916	Lee County Port Authority, Southwest Florida International Airport Sandy Kennedy, Contracts 11000 Terminal Access Road Ft. Myers, FL 33913 Tel: 239.590.4557	Infrastructure and taxiway reconstruction
S-331 Repowering, Automation and Gearbox Refurbishment, Homestead, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	January 2011- April 2013 (est)	\$1.527M	METCO Service, Inc. 301 Clematis Street, Suite 3000 West Palm Beach, FL 33401	South Florida Water Management District John Creswell, P.E., Section Leader – Engineering and Construction Bureau 3301 Gun Club Road West Palm Beach, FL 33406 Tel: 561.686.8800 ext. 2550	Mechanical, electrical, and instrumentation modifications



## Glynn Archer – 14<sup>th</sup> Street Roadway Reconstruction

### *Key West, FL*

The project includes infrastructure improvements along Glynn Archer Drive/14<sup>th</sup> Street from Roosevelt Boulevard to Flagler Avenue. Project enhancements include roadway reconstruction, storm drainage improvements, french drains, new sidewalks, curbs and gutters along both sides of the corridor, parallel parking, new bus shelters, ADA-compliant curb ramps, and signing and pavement markings upgrades. We are also completing adjustments to the existing underground utilities and landscaping, as required.

The City of Key West selected DNHI to perform this work as part of the City's master plan towards developing and improving their existing infrastructure system. As part of the City's ongoing approach to increase the beauty of Key West, new landscape improvements were included to enhance the streetscape appeal.

The work was performed without delays, on budget, and with zero impacts to the local community. The DNHI team operates from our local Key West office location, enabling us to better facilitate the needs and concerns of the City, as well as to provide better service to the local community. The roadway improvements involved in this contract with the City of Key West will be completed ahead of schedule in December 2012.



DNHI is currently performing adjustments to underground utilities, roadway reconstruction, and associated roadwork to assist the City of Key West improve their overall streetscape appeal.

#### *Prime Contractor Name and Address*

Douglas N. Higgins, Inc.  
1213 Glynn Archer  
Drive, Suite 281  
Key West, FL 33040

#### *Date of Contract*

April 2012-December  
2012 (est)

#### *Contract \$ Amount Complete*

\$2.68M

#### *Design Architect/ Engineer Name and Address*

Corradino Group  
4055 NW 97<sup>th</sup> Avenue  
Doral, FL 33178

#### *Owner Name and Address*

City of Key West  
David Fernandez,  
Assistant City Manager  
P.O. Box 1409  
Key West, FL 33041  
Tel: 305.809.3879

#### *Scope of Work*

Storm drainage and  
roadway reconstruction



## Area 5 WWTP/Membrane Bioreactor Access Platform

*Marathon, FL*

This project includes the fabrication and installation on a new elevated aluminum platform and access ladders at the Area 5 WWTP. The work involves field verifications, installation, layout, sheeting, shoring, and bracing of all necessary materials; disposal of unsuitable or excess material; repair of all damages to existing paint coat and piping; site clean-up; and restoration of damaged sod on site and outside the fence that was damaged during the installation.

Part of the construction process is to field verify all existing conditions to ensure that all new materials installed will match the existing connection points. Throughout the entire project duration, including the demolition phase of the existing facilities, it is critical that the operational integrity of the WWTP remains intact.

The City of Marathon contracted this work to upgrade the existing platform and access ladder facilities at the Area 5 wastewater treatment plant and to better enhance the safety environment for their employees and contractors. The project is estimated to be completed in December of 2012, which is ahead of schedule. All contracted work to date has been performed with no impact to the operations of the WWTP and its staff.



DNHI is currently fabricating and installing a new elevated aluminum platform and access ladders at the City of Marathon's Area 5 WWTP.

### *Prime Contractor Name and Address*

Douglas N. Higgins, Inc.  
1213 Glynn Archer  
Drive, Suite 281  
Key West, FL 33040

### *Date of Contract*

October  
2012-December 2012  
(est.)

### *Contract \$ Amount Complete*

\$42,700

### *Design Architect/ Engineer Name and Address*

Weiler Engineering  
Corporation  
6805 Overseas  
Highway  
Marathon, FL 33050

### *Owner Name and Address*

City of Marathon  
Wayne Flickinger,  
Project Manager  
9805 Overseas  
Highway  
Marathon, FL 33050  
Tel: 305.289.5007

### *Scope of Work*

New platforms, ladders,  
and miscellaneous  
metal works



## Potable Water Tank Replacement, A-941, Boca Chica *Key West, FL*

This project includes the decommissioning and demolition of an existing 300,000-gallon potable water storage tank (Boca Chica A-941) and the construction of a new 150,000-gallon potable water tank. Work also includes the replacement of all associated piping, connections, and appurtenances. The existing 20-foot high and 50-foot diameter tank is a conventional vertical steel welded tank with conical roof.

The existing tank will be replaced with a new 20-foot high and 36-foot diameter, vertical steel welded tank. The construction work includes constructing a new reinforced concrete foundation to support the new tank, new perimeter fencing, and landscaping. Special attention was needed to field verify the integrity of all exiting underground facilities and connection points in order to avoid complications when connecting them to the new tank.

This is the first water tank replacement project contracted by the Florida Keys Aqueduct Authority (FKAA) as part of their new plan to replace and upgrade the existing aged water storage facilities in the Florida Keys. The location of the project is on the Boca Chica Navy base in Key West, FL. The project has an estimated completion date of January 2013, which is ahead of the contract schedule and the project is currently under budget.

### *Prime Contractor Name and Address*

Douglas N. Higgins, Inc.  
1213 Glynn Archer  
Drive, Suite 281  
Key West, FL 33040

### *Date of Contract*

May 2012-January 2013  
(est.)

### *Contract \$ Amount Complete*

\$374,400

### *Design Architect/ Engineer Name and Address*

Perez Engineering  
1010 Kennedy Drive  
Key West, FL 33040

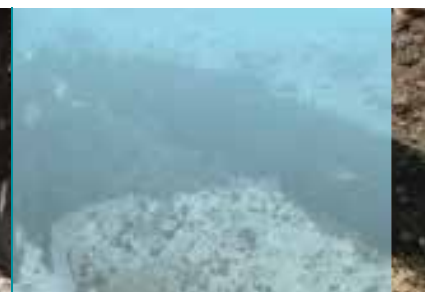
### *Owner Name and Address*

Florida Keys Aqueduct  
Authority  
Joe Ivey, Project  
Manager  
1100 Kennedy Drive  
Key West, FL 33040  
Tel: 305.296.2454

### *Scope of Work*

Reconstruction of  
potable water tanks





# Gateway Triangle Stormwater Improvements

## *Collier County, FL*

This project includes stormwater improvements within the residential community of Gateway Triangle in Collier County, FL. The construction phase of the project includes the removal of existing stormwater culverts and structures, as well as demolition of the associated driveway and pavement. DNHI will install approximately 11,000 linear feet of new storm culverts, mitered end sections, and storm structures; make adjustments to the existing utilities; and reconstruct roadways, swales, and driveways.

Of the approximately 11,000 linear feet of new storm culverts installed, pipe sizes will vary from 12-inch by 18-inch ERCP culvert to 24-inch by 38-inch ERCP culvert. Demolition and disposal of approximately 10,000 linear feet of existing, smaller storm culverts will allow for new, larger sized culverts to better facilitate the community's storm drainage requirements.

Collier County contracted with DNHI on this project as part of their neighborhood improvement program. Work began in March 2012 and is estimated to be completed ahead of schedule in February 2013.

### *Prime Contractor Name and Address*

Douglas N. Higgins, Inc.  
1213 Glynn Archer  
Drive, Suite 281  
Key West, FL 33040

### *Date of Contract*

March 2012-February  
2013 (est.)

### *Contract \$ Amount Complete*

\$1.73M

### *Design Architect/ Engineer Name and Address*

Q. Grady Minor &  
Associates  
3800 Via Del Rey  
Bonita Springs, FL 34134

### *Owner Name and Address*

Collier County  
Sue Trone, Project  
Manager  
3327 Tamiami Trail East  
Naples, FL 34112  
Tel: 239.643.1115

### *Scope of Work*

Storm culverts,  
swales, and roadway  
reconstruction



DNHI is currently reconstructing Collier County roadways and storm structures as part of a neighborhood improvement program.



## IQ Water Sites – Priority Group 2

### *Collier County, FL*

Under this contract, DNHI is responsible for the piping, electrical, and instrumentation modifications to four separate IQ water sites in Collier County. The work includes strict coordination with the Collier County IQ Water Department to ensure uninterrupted operation of the system. This coordination also minimizes downtime of the piping system at each IQ water site.

The project scope included field verification of all existing utilities within the boundary of each IQ site to determine location, depth, and integrity to allow for an accurate connection to each of the newly installed facilities. Once this was accomplished, the existing IQ sites were demolished, while the newly furnished piping, appurtenances, and electrical systems were installed. Work includes installation of newly furnished valve actuators, motors, control panels, flow meters, flow control and back pressure sustaining valves, air release valves, and concrete support foundations. After work is completed at each IQ site, testing will be conducted to ensure all of the new facilities function with the approval of Collier County.

The contracted work is scheduled to be completed in January 2013, with no impacts to Collier County or the community. Newly planted trees and grassing at each IQ site will add to the beautification of the community.



This contract requires modifications to four IQ water sites in Collier County.

#### *Prime Contractor Name and Address*

Douglas N. Higgins, Inc.  
1213 Glynn Archer  
Drive, Suite 281  
Key West, FL 33040

#### *Date of Contract*

January 2012-January  
2013 (est)

#### *Contract \$ Amount Complete*

\$586,159

#### *Design Architect/ Engineer Name and Address*

Hole Montes, Inc.  
950 Encore Way  
Naples, FL 34110

#### *Owner Name and Address*

Collier County  
Aaron Cromer, Project  
Manager  
3327 Tamiami Trail East  
Naples, FL 34112  
Tel: 239.252.5338

#### *Scope of Work*

Mechanical, electrical,  
and instrumentation  
modifications



# NCWRF Effluent Filter Set 1 Rehabilitation

## *Collier County, FL*

The project includes the demolition of existing filter equipment, sand media, electrical devices, and wiring. We will also install four new filter systems, each with tank modifications, tank cleaning, bridges, pumps, media, electrical feed system, control panel, instrumentation, and SCADA work. The contract work includes the handling and disposal of residual liquid, grit, and solids in the existing tanks and equipment systems. Temporary measures will be required to shut off and/or control the flows affecting execution of the work. The work will include modifications to the existing concrete structure, coating of repaired surfaces, and restoration.

Strict coordination is required with Collier County to ensure minimal operational impacts with the existing system and other ongoing projects within the community. Grout injections will be required to repair wall and foundation cracks.

The project was designed based on the use of a traveling bridge filter system manufactured by Siemens Industries, Thomasville, GA. The project is scheduled to be completed in August 2013.

### *Prime Contractor Name and Address*

Douglas N. Higgins, Inc.  
1213 Glynn Archer  
Drive, Suite 281  
Key West, FL 33040

### *Date of Contract*

June 2012-August 2013  
(est)

### *Contract \$ Amount Complete*

\$1.36M

### *Design Architect/ Engineer Name and Address*

Hole Montes, Inc.  
950 Encore Way  
Naples, FL 34110

### *Owner Name and Address*

Collier County  
Craig Pajer, Project  
Manager  
3327 Tamiami Trail East  
Naples, FL 34112  
Tel: 239.252.2554

### *Scope of Work*

Mechanical, electrical,  
and instrumentation  
modifications





# Immokalee Stormwater Improvements

## *Collier County, FL*

The project includes the development of a 5-acre stormwater pond; approximately 16,500 linear feet of a new storm culvert and structures; 262 lf of a 4-foot by 6-foot box culvert; adjustments to the existing utilities; and restoration to the roadways, swales, and sidewalks. This work will be performed under the Immokalee Stormwater Management Master Plan in order to improve the drainage system within the Immokalee urban development area. The project activities will meet the U.S. Department of Housing & Urban Development's national objective to benefit low and moderate income families. Collier County Housing, Human, and Veteran Services provided the funding for this project.



DNHI will install 262 lf of a 4-foot by 6-foot box culvert as part of the Immokalee stormwater improvements.

### *Prime Contractor Name and Address*

Douglas N. Higgins, Inc.  
1213 Glynn Archer  
Drive, Suite 281  
Key West, FL 33040

### *Date of Contract*

January 2012-December  
2012 (est)

### *Contract \$ Amount Complete*

\$2.787M

### *Design Architect/ Engineer Name and Address*

CDM Smith  
2180 West First Street,  
Suite 400  
Fort Myers, FL 33901

### *Owner Name and Address*

Collier County  
Brad Muckel, Project  
Manager  
3327 Tamiami Trail East  
Naples, FL 34112  
Tel: 239.867.4121

### *Scope of Work*

Storm drainage and  
roadway reconstruction





# RWS Mid-Field Terminal Apron Expansion-Taxiways

*Lee County, FL*

This project includes the installation of approximately 5,712 lf of new storm drainage piping. Pipe sizes vary and include up to 60-inch RCP and up to 72-inch by 113-inch ERCP. The work also includes 930 lf of triple 8-foot by 3-foot box culverts, new drainage structures, headwalls, and storm manholes. The demolition work will involve the removal of existing culverts, inlet/manhole structures, and headwalls. DNHI will make adjustments to the exiting underground utilities and taxiways, as required.

Lee County Port Authority has contracted this work as part of their master plan to upgrade the existing infrastructure facilities associated with the airports taxiways and aprons in Fort Myers, FL. Special attention is required to minimize impacts with the fully operational airport facility and flight schedule. The project scope is estimated to be completed ahead of schedule in September 2013.

## *Prime Contractor Name and Address*

Manhattan Construction  
(Florida), Inc.  
3940 Prospect Avenue,  
Suite 101  
Naples, FL 34104

## *Date of Contract*

August 2012–  
September 2013 (est)

## *Contract \$ Amount Complete*

\$3.12M

## *Design Architect/ Engineer Name and Address*

AECOM  
4415 Metro Parkway,  
Suite 404  
Fort Myers , FL 33916

## *Owner Name and Address*

Lee County Port  
Authority, Southwest  
Florida International  
Airport  
Sandy Kennedy,  
Contracts  
11000 Terminal Access  
Road  
Ft. Myers, FL 33913  
Tel: 239.590.4557

## *Scope of Work*

Infrastructure and  
taxiway reconstruction



# S-331 Repowering, Automation, and Gearbox Refurbishment

## Homestead, FL

Structure S-331 is a pump station located in the L-31N Canal about 9 miles north of Homestead, FL. The existing pump station is equipped with three vertical axial pumps, each rated at 387 cufs at 3 feet head. Each pump unit is currently driven by a Detroit Diesel Model V1271, 340-hp diesel engine connected to the pump through a double reduction right angle gear reducer unit. The work includes demolition of existing pumps, gear boxes, mechanical, electrical, and associated instrumentation. Installation encompassed owner-supplied three 325-hp, electronically controlled, emissions compliant, automation-ready diesel engines complete with hydraulic power take-offs, pneumatic forward braking system, high speed couplings, and drive shafts. Contractor-supplied new mechanical, electrical, and instrumentation systems will be installed and integrated with existing equipment.



The existing pump station is equipped with three vertical axial pumps, each rated at 387 cufs at 3 feet head.

### Prime Contractor Name and Address

Douglas N. Higgins, Inc.  
1213 Glynn Archer  
Drive, Suite 281  
Key West, FL 33040

### Date of Contract

January 2011-April 2013  
(est)

### Contract \$ Amount Complete

\$1.527M

### Design Architect/ Engineer Name and Address

METCO Service, Inc.  
301 Clematis Street,  
Suite 3000  
West Palm Beach, FL  
33401

### Owner Name and Address

South Florida Water  
Management District  
John Creswell, Section  
Leader - Engineering  
and Construction  
Bureau  
3301 Gun Club Road  
West Palm Beach, FL  
33406  
Tel: 561.686.8800  
ext. 2550

### Scope of Work

Mechanical, electrical,  
and instrumentation  
modifications



## Part II

### *Technical Statement – Experience (cont.)*

#### 2.4. List the design contracts your organization has completed in the past five (5) years with relevance to this proposed design-build project

Nationally-ranked transportation engineering and architectural consultant CDM Smith offers the City extensive design and design-build transportation and architectural experience, including more than 100 transit maintenance and operations facilities.

From bus storage and wash facilities, to administrative and maintenance areas, CDM Smith has collaborated to deliver designs for transportation clients throughout the state and nationally. Since the early 1990s, they have designed hundreds of public works facilities, including more than 50 administration buildings; 70 maintenance, warehouse, and storage facilities; and 15 maintenance shops and garages.

Regionally, CDM Smith's transit experience resume continues to grow. Their multi-disciplinary intermodal transit design for the Butler Transit Authority (BTA) led to their selection on Mid-Mon Valley Transit Authority's (MMVTA) bus maintenance and storage facility, the administrative and maintenance facility renovations for Red Rose Transit Authority (RRTA), and the facility design of Crawford Area Transportation Authority's (CATA) intermodal administration facility. Each of these projects has combined the efforts of architects and building engineering staff with energy efficient design, environmental concerns, regulatory requirements of state and federal agencies, and client coordination. **Table 2.4-1** outlines additional CDM Smith representative relevant design experience completed within the last five years.

The addition of CDM Smith to this team provides the City with an unparalleled designer that understands the specifications of transportation facilities and the pressing needs of municipalities. Functionality, safety and circulation, and increased operational efficiency is at the center of each of CDM Smith's facilities designs. Their exceptional understanding of clients' needs also stems to sustainable design.

## Part II – Technical Statement

### Experience

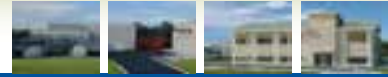


Table 2.4-1: Relevant Design Contracts Completed in the Past Five Years

Name of Project	Prime Contractor Name and Address	Date of Contract	Contract \$ Amount	Owner Name and Address	Scope of Work	Are Permitting Services Provided?
Intermodal Administration Facility – Design and Construction Management, Meadville, PA	MASCO Construction, Inc. 506 Valleybrook Road, Suite 101 McMurray, PA 15317	2009-2011	\$645,000	Crawford Area Transportation Authority Timothy C. Geibel, Executive Director 214 Pine Street Meadville, PA 16335 Tel: 814.336.5600	Architecture; civil, electrical, geotechnical, mechanical – HVAC and plumbing, and structural engineering; construction support; environmental; permitting; project management; and LEED® principles/sustainable design	Yes
Administrative and Maintenance Facility Renovations, Lancaster, PA	eciConstruction 124 Church Street Dillsburg, PA 17019	2008-2011	\$7.657M	Red Rose Transit Authority Dave Kilmer, Executive Director 45 Erick Road Lancaster, PA 17601 Tel: 717.397.5613	Architecture; civil, electrical, geotechnical, mechanical – HVAC and plumbing, structural, and traffic engineering; environmental; permitting; project management; and LEED® principles/sustainable design	Yes
Bus Maintenance Facility Design and Construction Management, Donora, PA	REPAL Construction Co., Inc. 11075 Parker Drive North Huntingdon, PA 15642	2008-2010	\$6.2M	Mid-Mon Valley Transit Authority Bob Smith, Operations Manager 1300 McKean Avenue Charleroi, PA 15022 Tel: 724.489.0880	Architecture; civil, electrical, geotechnical, mechanical – HVAC and plumbing, structural, and traffic engineering; environmental; permitting; project management; and LEED® principles/sustainable design	Yes



## Part II – Technical Statement

### Experience

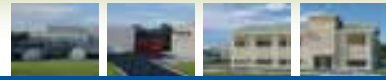


Table 2.4-1: Relevant Design Contracts Completed in the Past Five Years

Name of Project	Prime Contractor Name and Address	Date of Contract	Contract \$ Amount	Owner Name and Address	Scope of Work	Are Permitting Services Provided?
Intermodal Transit Facility (Redesign), Butler, PA	Uhl Construction Company, Inc. 4912 Vernon Drive Allison Park, PA 15101	2005-2011	\$1.3M	Butler Transit Authority John H. Paul, Executive Director 130 Hollywood Drive, Suite 101 Butler, PA 16001 Tel: 724.283.0445	Architecture; civil, electrical, geotechnical, mechanical – HVAC and plumbing, structural, and traffic engineering; construction support; environmental; operations; permitting; planning; project management; and LEED® principles/sustainable design	Yes
Transbay Operation and Maintenance Study, San Francisco, CA	URS Corporation 201 Mission Street, Suite 2100 San Francisco, CA 94105	2009-2011	\$253,000	Transbay Joint Powers Authority Maria Ayerdi-Kaplan, Executive Director 201 Mission Street, Suite 2100 San Francisco, CA 94105 Tel: 415.597.4620	Operations and maintenance planning, and cost analysis	No
Intermodal Transportation Center, Environmental Assessment, and Master Plan, West Valley City, UT	Stacy and Witbeck, Inc. 2800 Harbor Bay Parkway Alameda, CA 94502	2005-2007	\$300,000	West Valley City Steve Pastorik, Planning Director 3600 South Constitution Boulevard West Valley City, UT 84119 Tel: 801.966.3600	Architecture, environmental, geotechnical and traffic engineering, modeling, and planning	No

## Part II – Technical Statement

### Experience

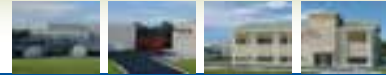


Table 2.4-1: Relevant Design Contracts Completed in the Past Five Years

Name of Project	Prime Contractor Name and Address	Date of Contract	Contract \$ Amount	Owner Name and Address	Scope of Work	Are Permitting Services Provided?
Knoxville Transit Center Engineering Services, Knoxville, TN	Ray Bell Construction (Now Bell & Associates Construction, L.P.) 255 Wilson Pike Circle Brentwood, TN 37027	2006-2010	\$384,700	Knoxville Public Building Authority Jeff Galyon, Director of Property Development 915 S. Gay Street, Suite 700 Knoxville, TN 37902 Tel: 865.215.4600	Siting study; feasibility study; civil, geotechnical, structural, and traffic engineering; environmental services; construction engineering and inspection	No
Administrative, Operations, and Maintenance Facilities, Columbia, SC	N/A – Study phase.	2002-2008	\$653,000	Central Midlands Regional Transit Authority Michelle Ransom, Managing Administrator P.O. Box 214 Columbia, SC 29202 Tel: 803.255.7133	Environmental assessment, conceptual site layout, community impact analysis, and geotechnical exploration	No
Public Works Operations Building, Dania Beach, FL	West Construction 318 South Dixie Highway, Suite 4-5 Lake Worth, FL 33460	2007-2010	\$262,000	City of Dania Beach Dominic F. Orlando, P.E., Director of Public Services 100 West Dania Boulevard Dania Beach, FL 33004 Tel: 954.924.3740	Architecture; civil, electrical, mechanical – HVAC and plumbing, and structural engineering; construction support; environmental; permitting; and LEED® principles/sustainable design elements	Yes
Solid Waste Authority Operations and Maintenance Building, Palm Beach County, FL	West Construction 318 South Dixie Highway, Suite 4-5 Lake Worth, FL 33460	2007-2010	\$200,000	Solid Waste Authority of Palm Beach County Jack Mesojedec, P.E., BCEE, Assistant Director, Engineering Department 7501 North Jog Road West Palm Beach, FL 33412 Tel: 561.640.4000	Architecture; civil, electrical, geotechnical, mechanical – HVAC and plumbing, and structural engineering; construction support; environmental; permitting; and LEED® principles/sustainable design	Yes

## Part II – Technical Statement

Experience

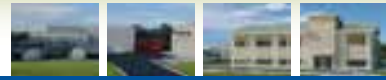


Table 2.4-1: Relevant Design Contracts Completed in the Past Five Years

Name of Project	Prime Contractor Name and Address	Date of Contract	Contract \$ Amount	Owner Name and Address	Scope of Work	Are Permitting Services Provided?
Florence Wastewater Treatment Plant Administration Building, Florence, SC	Encore Construction Company 370 East Crown Point Road Winter Garden, FL 34787	2008-2010	\$12.7M	City of Florence Drew Griffin, City Manager City-County Complex AA 180 North Irby Street Florence, SC 29501 Tel: 843.665.3113	Architecture; civil, electrical, geotechnical, mechanical – HVAC and plumbing, and structural engineering; construction support; environmental; and permitting	Yes
Lantana Landfill/Park Ridge Golf Course Permitting, Design, and Construction Management, Palm Beach County, FL	CDM Smith 1601 Belvedere Road, Suite 400E West Palm Beach, FL 33406	2000-2007	\$800,000	Solid Waste Authority of Palm Beach County Ray Schauer, Director of Engineering and Public Works 7501 North Jog Road West Palm Beach, FL 33412 Tel: 561.640.4000	Civil, drainage, and utility engineering; permitting; landfill gas analysis, system decommissioning plan, and geotechnical analysis; planning; project management; stormwater management; and construction	Yes
New El Metro Operations and Maintenance Facility, Laredo, TX	Design complete, contractor has not been selected to date.	2011-2012	\$2.8M	El Metro Transit Jesus Olivares, Assistant City Manager 1301 Farragut Laredo, TX 78040 Tel: 956.319.6000	Architecture; civil, electrical, geotechnical, mechanical – HVAC and plumbing, structural, and traffic engineering; construction support; environmental; permitting; planning; project management; and LEED® principles/sustainable design	Yes



# Intermodal Administration Facility – Design and Construction Management *Meadville, PA*

Changes in leadership within the Crawford Area Transportation Authority (CATA) organization resulted in a forward-thinking philosophy as it celebrated its 30<sup>th</sup> anniversary. Through budget efficiency and aggressive funding initiatives, CATA embarked on an initiative to increase awareness and ridership within its service area. CATA unveiled a new logo, along with a new vehicle fleet, and embarked on establishing a new location. As part of this new “home,” CATA selected CDM Smith to design and provide construction management for an intermodal administration facility that expands visibility within the community and enables CATA to consolidate organizational functions and improve patron accessibility and operational efficiency.

The 5,340-square-foot, two-story facility included a passenger waiting area, dispatch, route information, secure money, operations center, driver break room, and employee work areas on the first floor. The second floor included office space, training/conference rooms, and break rooms. CDM Smith worked with CATA and PaDEP to address an unanticipated environmental subsurface condition that may have otherwise dramatically impacted the project schedule. The project also included demolition of existing buildings with asbestos issues. The concept plan accounted for future administration facility expansion, as well as a 32-space park-and-ride lot.

## Safety-Conscious Site Layout and Circulation

The downtown location made pedestrian access around and within the site critical, relative to bus traffic. Parking for 14 passenger vehicle spaces and three larger spaces for buses were located on either side of the site to account for safety and security. Designated passenger pick-up and drop-off areas and segregated parking for employees and paratransit drivers from fixed route pick-up and drop-off areas were incorporated into the overall design.

## Sustainable Features

This project is currently pursuing a LEED® New Construction (NC) Silver certification. The green elements included a variable refrigerant flow HVAC system, a high-efficiency boiler, building automation system, free cooling, natural and energy-efficient lighting, and green roof and reduced stormwater runoff.

## Modified Construction Packages for Funding Opportunity

The construction scope and budget was redeveloped into two packages so that CRATA could take advantage of available PennDOT funding, including a site demolition and development package and a Phase E construction project.

## Construction Management

CDM Smith performed construction management for this project and partnered with a local engineering firm for site construction resources.

### *Prime Contractor Name and Address*

MASCO Construction,  
Inc.  
506 Valleybrook Road,  
Suite 101  
McMurray, PA 15317

### *Date of Contract*

2009-2011

### *Contract \$ Amount*

\$645,000

### *Owner Name and Address*

Crawford Area  
Transportation Authority  
Timothy C. Geibel,  
Executive Director  
214 Pine Street  
Meadville, PA 16335  
Tel: 814.336.5600

### *Scope of Work*

Architecture; civil,  
electrical, geotechnical,  
mechanical – HVAC  
and plumbing, and  
structural engineering;  
construction support;  
environmental;  
permitting; project  
management; and  
LEED® principles/  
sustainable design

### *Are Permitting Services Provided?*

Yes





# Transit Administrative and Maintenance Facility Renovations

*Lancaster, PA*

The Red Rose Transit Authority (RRTA) selected CDM Smith to provide architectural, engineering, planning, and environmental services to renovate and expand RRTA's administrative and maintenance facility at 45 Erick Road in Lancaster, Pennsylvania. The renovation and expansion of RRTA's transit facility allows more efficient operations, and, while the facility will be provided with a somewhat larger physical footprint, its overall carbon footprint is reduced.

## Expanded Capacity in Functional Areas

Design renovations to the administration facility included an approximate 2,000-square-foot addition. The added space accounts for a new, slightly larger conference room, new men's and women's restrooms, and other space dedicated to public use, such as ticketing and designated pickup/drop-off areas. Other improvements included substantial interior modifications reallocating the use of space so that staff is grouped by division; a relocated staff break room with natural daylight and views; and the installation of skylights to take advantage of natural daylighting. Interior finishes were also selected with an eye toward sustainability and included low VOC paints, recycled content tile floors, recycled content acoustic ceilings, and Green Label Plus modular, recyclable carpeting.

The bus garage was originally designed to shelter a maximum of 36 buses and a limited amount of seasonal supplies. In addition to sheltering the RRTA's buses from the elements, the bus garage was used to house equipment and supplies. Operational apparatus, such as a forklift, palletized mechanical assemblies for the buses (engines and transmissions), and various other bulk supplies overflowed the narrow storage area along the east wall, consuming valuable floor space that might otherwise have sheltered buses.

CDM Smith's design solution was to capture relatively modest amounts of additional area in two locations for maximum strategic effect. First, a small existing mezzanine at the bus maintenance half of the administration building was expanded across the full width of the building, growing from two structural bays to seven, and from 546 square feet to 3,600 square feet. That helped to streamline the agency's daily operational routines by allowing for the storage of supporting functions, parts, and supplies to be moved conveniently overhead, thereby freeing valuable ground floor area for expanded maintenance activities.

Second, the bus storage building was enlarged by one 50-foot bay across the rear width of the structure. At the same time, paper records, which had been inadequately housed on the old, small bus maintenance mezzanine and which were vulnerable to damage from dirt and humidity, were then transferred to a new, climate controlled, partial second story incorporated into the bus storage expansion. The bus storage building can shelter up to 42 40-foot buses.

## Prime Contractor Name and Address

eciConstruction  
124 Church Street  
Dillsburg, PA 17019

## Date of Contract

2008-2011

## Contract \$ Amount

\$7.657M

## Owner Name and Address

Red Rose Transit  
Authority  
Dave Kilmer, Executive  
Director  
45 Erick Road  
Lancaster, PA 17601  
Tel: 717.397.5613

## Scope of Work

Architecture; civil,  
electrical, geotechnical,  
mechanical – HVAC and  
plumbing, structural,  
and traffic engineering;  
environmental;  
permitting; project  
management; and  
LEED® principles/  
sustainable design

## Are Permitting Services Provided?

Yes

### Improved Security/General Maintenance Aspects

To address heightened security concerns, new fencing was installed around the entire perimeter of the property. As part of that improvement, CDM Smith proposed enhancing the point of entry to better reflect the agency's community identity. Eight-foot tall chain link transitions to ornamental picket fencing at the front. Graciously arched automated swing gates, each paired to a solid masonry pier at the hinges, announce the point of arrival for entering buses and the visiting public. Additional security enhancements included an improved electronic surveillance system and dedicated parking for the public.

### Energy and Utilities Efficiencies for Cost Savings

The renovations and additions for RRTA's facility headquarters included multiple measures to aggressively respond to the agency's desire for optimum energy efficiency and containment of operating costs. CDM Smith carefully evaluated the feasibility of incorporating geothermal heating and cooling for the administrative offices, determined it was a viable alternative, and incorporated the most up-to-date technologies into an all-new, high-efficiency, HVAC system for the administrative offices and bus maintenance building.

Other energy conservation initiatives included establishing a 1,000-square-foot green roof over the office addition, systematically incorporating natural daylight via the introduction of skylights at all other roofs, and capitalizing on the remaining roof areas with an extensive array of solar voltaic panels. By providing on-site renewable power generation, the photovoltaic panels allow the agency not only to save on utility costs but will potentially enable the agency to feed electricity back into the power grid, ultimately realizing even more savings for years to come.

CDM Smith also designed waste oil burners to heat bus storage and maintenance areas with the waste oil collected from bus maintenance operations.



An extensive array of solar voltaic panels was included on the roof to provide on-site renewable power generation, allowing RRTA to save on utility costs.



CDM Smith expanded the bus storage building by adding a 50-foot bay, allowing the facility to house up to 42 40-foot buses at once.



# Bus Maintenance Facility Design

*Donora, PA*

Mid-Mon Valley Transit Authority selected CDM Smith to design a new bus storage and maintenance facility. The first phase was a new bus maintenance facility that included a separate two-story, 15,000-square-foot pre-engineered building with two drive-through type maintenance bays, in-ground vehicle lift, shop area, parts storage, and an automatic drive-through bus wash system. The second phase involves modifying and renovating an existing 42,000-square-foot building to accommodate the interior storage of 35 commuter buses and to provide administrative offices, exterior park-and-ride canopy, passenger waiting area, and bus drive amenities. The design included site improvements to accommodate the associated bus circulation; parking; a fueling station; and security improvements, including surveillance and fencing, as well as an interior secure cash room.

## Bus Storage Facility

The bus storage facility renovation will be LEED® Silver certified. The facility was constructed on a former Brownfields site and reused an existing facility. Facility design included water conservation elements, energy efficient renovations, and green technologies for stormwater management.

CDM Smith also designed two oil/water separators for the maintenance facilities: one for the main maintenance bay area and one specifically for the bus wash station. For the bus wash, 80 percent of the used wash water is reclaimed and reused for washing after separating out oil and dirt, improving water efficiency and conservation.

## Safety-Conscious Site Layout/Circulation

Part of CDM Smith's design involved improving bus circulation and vehicular movement through the transit facility. Using AutoTURN 5 software, CDM Smith laid out bus, passenger car, and maintenance vehicle paths, which helped determine more efficiently designed pavement. The site was segregated into public and secured space, with a bus canopy for passenger loading/unloading located adjacent to the street. Park-and-ride/public facilities are located along the perimeter of the site, with direct access between patron parking and the pickup location. Secured bus areas are segregated from public access, and patron and tenant/employee parking are also separated.

## Energy and Utilities Efficiencies for Cost Savings

LEED® principles were used for the design of the new bus storage and maintenance facility, and the bus storage building has been registered for formal LEED® certification. Sustainable design elements include:

- An adaptive reuse of the existing building, retaining much of its existing materials
- Ultra low-flow dual-flush toilets, automated faucets, and waterless urinals help reduce potable water consumption

### *Prime Contractor Name and Address*

REPAL Construction Co.,  
Inc.  
11075 Parker Drive  
North Huntingdon, PA  
15642

### *Date of Contract*

2008-2010

### *Contract \$ Amount*

\$6.2M

### *Owner Name and Address*

Mid-Mon Valley Transit  
Authority  
Bob Smith, Operations  
Manager  
1300 McKean Avenue  
Charleroi, PA 15022  
Tel: 724.489.0880

### *Scope of Work*

Architecture; civil,  
electrical, geotechnical,  
mechanical – HVAC and  
plumbing, structural,  
and traffic engineering;  
environmental;  
permitting; project  
management; and  
LEED® principles/  
sustainable design

### *Are Permitting Services Provided?*

Yes

- Translucent roof and wall panels and energy efficient lighting strategies reduce the building's energy costs
- Heating, ventilation, cooling, and lighting systems controlled by software programs designed to maximize the efficient use of energy
- Use of adhesives, sealants, paints, and fabricated wood products that have low volatile organic compound (VOC) emission levels.

### Construction Phasing

CDM Smith worked closely with MMVTA to divide construction into two phases, which ultimately allowed the Authority to bid the projects at the current year's cost and bring staff to the site: maintenance building, site infrastructure and fueling system (Phase I) and renovations to existing bus facility for bus storage (Phase II). Construction of the first phase was complete in July 2010, and the second phase is on hold pending project funding. CDM Smith will provide services during construction.



CDM Smith designed a 42,000-square-foot bus storage building to house 35 commuter busses and two-story, 15,000-square-foot maintenance facility.





# Intermodal Transit Facility (Redesign)

*Butler County, PA*

Rapid growth in Butler County is bringing with it many great opportunities and challenges. In response, the Butler Transit Authority collaborated with CDM Smith to perform the design of a modern intermodal transit center, consisting of a 7,000-square-foot administrative building and a 15,000-square-foot bus maintenance facility with detached bus storage canopy.

## Energy and Utilities Efficiency for Cost Savings

CDM Smith incorporated energy-efficient and sustainable principles into the design of the transit facility, which will be located on a Brownfields site in the City of Butler. While several of these features require an initial capital cost outlay, one of the goals was to save on operating and maintenance costs over the life of the facility. Radiant underfloor heating in the maintenance area will save energy and money, as will the Energy Star-compliant roofing color and consistency in light fixtures.

CDM Smith also designed two oil/water separators for the maintenance facilities: one for the main maintenance bay area and one specifically for the bus wash station. A waste oil burner was designed in the bus maintenance area to take advantage of a free source of fuel derived from bus engine oil changes. For the bus wash, a portion of the used wash water is reclaimed and reused for washing after separating out oil and dirt, improving water efficiency and conservation.

The design, which was divided into two phases, includes several energy-efficient elements and will be Pennsylvania's first LEED®-certified transit facility (to meet Silver certification standards). This building is heated and cooled by a new geothermal system, which also heats the nearby bus maintenance facility through radiant floor heating. This geothermal heating and cooling system will reduce utility costs by 50 percent and eliminate 80 tons of carbon dioxide per year.

Additional green elements implemented at this former Brownfields site include the use of motion sensors on lights, toilets, and faucets to conserve water and energy; new public green space over previously impervious concrete; Energy Star-compliant roof colors; energy efficient lighting; and use of reclaimed water in the bus wash and maintenance areas.

## Safety-Conscious Site Layout and Circulation

CDM Smith's design incorporated public safety and security into the design—separating buses from other vehicles, making walkway improvements that eliminate the need for riders to cross in front of or behind buses, designing drive-through maintenance bays and bus storage areas, and providing security camera, access card system and fencing for site security.

The project won a *Diamond Award for Engineering Excellence* from the *American Council of Engineering Companies of Pennsylvania* in 2011.

### *Prime Contractor Name and Address*

Uhl Construction  
Company, Inc.  
4912 Vernon Drive  
Allison Park, PA 15101

### *Date of Contract*

2005-2011

### *Contract \$ Amount*

\$1.3M

### *Owner Name and Address*

Butler Transit Authority  
John H. Paul, Executive  
Director  
130 Hollywood Drive,  
Suite 101  
Butler, PA 16001  
Tel: 724.283.0445

### *Scope of Work*

Architecture; civil,  
electrical, geotechnical,  
mechanical – HVAC and  
plumbing, structural,  
and traffic engineering;  
construction support;  
environmental;  
operations; permitting;  
planning; project  
management; and  
LEED® principles/  
sustainable design

### *Are Permitting Services Provided?*

Yes



# Architectural On-Call Services for the Department of Public Works

## *Allegheny County, PA*

CDM Smith received a three-year contract with the Allegheny County Department of Public Works Department to perform architectural and engineering services on an on-call basis to supplement efforts of the County. CDM Smith provided services on an as-needed basis, including architectural, mechanical, civil, structural, environmental, HVAC, plumbing, and electrical engineering. The projects included design services for the construction and/or renovation of County-owned facilities, such as public works warehouses, swimming pools, recreation facilities, and County-owned buildings. The architectural and engineering services included building evaluations, conceptual planning, preliminary designs and estimates, design development drawings and specifications, bid documents, and design services during construction.

Tasks completed under this contract include:

- **United Way Building Facility Assessment** – CDM Smith conducted a building evaluation and feasibility study to determine the condition of the building and evaluate the level of repair and/or renovation necessary to bring the building to compliance with current code for occupancy by the Department. The team assembled, and a visual inspection was undertaken to evaluate the soundness of structure, foundation, mechanical, electrical, and plumbing systems. An environmental review was also completed to determine the possible necessity for asbestos abatement. The findings were presented in a clear documented report that included recommendations for immediate and future improvements and the probable costs for each.
- **Allegheny County Jail Assessment** – An assessment of specific maintenance conditions at the jail was completed. Architects and engineers assembled on site to conduct visual reviews of water damage from roof leaks, deterioration of floor surfaces, leaking shower stalls, and chiller plant maintenance. CDM Smith investigated the prior history of maintenance and repair of each problem and developed a thorough report of findings and recommendations for remedies.
- **North Park Ice Skating Rink Assessment** – The ice rink had developed an area where the ice failed to remain solidly frozen under certain weather conditions. CDM Smith conducted an investigation to determine whether the cause was maintenance or a design issue and develop recommendations on possible solutions. The team met with Department personnel to understand the methods used to maintain the ice and operate the brine system. The services of a balancing contractor were retained to test the flow of the brine system piping under the ice surface. The concrete substrate below the ice was examined to document any sloping conditions. A detailed report of findings and recommendations for remedy of the failure was also prepared.

### *Prime Contractor Name and Address*

Various Contractors—  
approximately 40  
design/construction  
projects

### *Date of Contract*

2004-2007

### *Contract \$ Amount*

\$570,000

### *Owner Name and Address*

Allegheny County Public  
Works Department  
Sam Taylor, R.A.,  
Manager of Buildings  
Division  
542 Forbes Avenue,  
Room 501  
Pittsburgh, PA 15219

### *Scope of Work*

Architecture;  
civil, electrical,  
mechanical – HVAC  
and plumbing, and  
structural engineering;  
construction support;  
environmental;  
operations; permitting;  
and project  
management

### *Are Permitting Services Provided?*

Yes

■ **Settler's Cabin Swimming Pool Complex** – CDM Smith provided design services for roof systems replacement for the gate house, bath house, concessions building, rentals facility, and the equipment building. These services included conducting a site review of the buildings to verify existing conditions and the development of construction documents, including roof play layouts, flashing details, and specifications.

■ **South Side Motor Vehicle Garage** – CDM Smith provided design service for the roof system replacement. CDM Smith conducted a site review of the building to understand and verify existing conditions. Once the assessment was concluded, CDM Smith developed construction documents, including roof plan layouts, flashing details, and specifications. The roof system also included the replacement of drains and raising equipment curbs to accommodate increased tapered insulation.

■ **White Oak Park** – CDM Smith completed design services to combine sanitary sewer systems for the Angora Gardens and the White Oak Park Office Building. The new utilities included new sanitary piping and sanitary pumps and new force main to the existing sanitary sewer. CDM Smith designed sanitary waste plumbing systems, a pre-cast concrete manhole for tie-in with the existing sanitary sewer system, sanitary force main from the exterior of a proposed pump station to proposed pre-cast sanitary manhole, and power feed for a new pump station. CDM Smith also provided engineering services during construction (e.g., shop drawing review, request for information review, attending bi-weekly meetings, etc.)

■ **South Park Skating Rink** – CDM Smith provided design services for replacing the rink slab, cooling grid, dasher boards, and adjacent concrete work at the South Park Ice Rink. The design work included:

- *Demolishing the existing dasher boards around the perimeter of the ice surface.*
- *Preparing the surface of the existing slab to receive a new cooling slab.*
- *Installing a new low profile cooling slab, approximately 22,000 square feet.*
- *Tying the new cooling grid into the existing PVC header system.*
- *Installing new Dasher Boards around the rink and beginner's rink.*

■ **Department of Human Services Relocation** – CDM Smith developed space planning concepts for moving approximately 300 Department of Human Services (DHS) personnel from three locations into the One Smithfield Street Building. An inventory of DHS personnel and their furnishings was completed. From the inventory list and site visits, a square footage requirement was established for each employee and support service area. CDM Smith then developed concept drawings of the space layout at One Smithfield Street and validated the space allocated in those concepts for each person and support service area. The new layouts provide an accurate depiction of the space required for each staff member and support area.



CDM Smith provided design services for replacing the the South Park Ice Rink's slab, cooling grid, dasher boards, and adjacent concrete.



# Transbay Operation and Maintenance Study

## *San Francisco, CA*

CDM Smith was commissioned by the Transbay Transit Center Program Management and Project Controls team to provide interim estimates of annualized operations, maintenance, staffing, and overhead expenses attributable to the proposed transit facility and the commuter rail extension from its existing terminus at Fourth and Townsend Streets.

The purpose of this study was to assist the Transbay Joint Powers Authority (TJPA) in facilitating lease negotiations with future tenants, negotiations with local utility and service providers, life-cycle cost estimation of specific architectural or engineered design elements, and assistance with ongoing financial programming of the project. CDM Smith analysts developed transit center estimates under an opening year condition and a future full build-out condition when the facility will accommodate bus, commuter rail, and high speed passenger rail services.

Additionally, CDM Smith helped to define the preliminary capital cost replenishment schedules looking forward some 50 years following completion. The transit center program of improvements is a multi-billion dollar redevelopment project and is the centerpiece within a comprehensive plan to create more than 4,700 new housing units, mixed use commercial and retail spaces, and other public amenities within a ten-block district at the urban core of San Francisco.



CDM Smith performed a study for the TJPA to estimate annual operations, maintenance, staffing, and overhead expenses attributable to a proposed transit facility and commuter rail extension.

### *Prime Contractor Name and Address*

URS Corporation  
201 Mission Street,  
Suite 2100  
San Francisco, CA 94105

### *Date of Contract*

2009-2011

### *Contract \$ Amount*

\$253,000

### *Owner Name and Address*

Transbay Joint Powers  
Authority  
Maria Ayerdi-Kaplan,  
Executive Director  
201 Mission Street, Suite  
2100  
San Francisco, CA 94105  
Tel: 415.597.4620

### *Scope of Work*

Operations and  
maintenance planning,  
and cost analysis

### *Are Permitting Services Provided?*

No





# Intermodal Transportation Center, Environmental Assessment, and Master Plan

## *West Valley City, UT*

CDM Smith was selected to prepare a master plan and environmental assessment for a proposed West Valley City Intermodal Transportation Center that will serve light rail, bus rapid transit, and local buses within the “City Center” redevelopment area.

CDM Smith worked with City staff and stakeholders to design and locate the intermodal center on an optimum site compatible with the “City Center Vision Plan” and UTA requirements. Environmental work involved scoping, alternatives analysis, selection of a preferred alternative, approval by West Valley City and UTA, and public hearings. The intermodal center incorporates BRT and LRT cross platform transfer, a large bus facility, park-and-ride lots, and both transit oriented development (TOD) and joint development potential.

The master plan describes all transportation facilities and planned land uses within the City Center redevelopment area. It includes the approved intermodal center site plan, approved architectural sketches of facilities, and a financial plan for completion.

FTA approved the environmental assessment and issued a Finding of No Significant Impact (FONSI) in February of 2007.



### *Prime Contractor Name and Address*

Stacy and Witbeck, Inc.  
2800 Harbor Bay  
Parkway  
Alameda, CA 94502

### *Date of Contract*

2005-2007

### *Contract \$ Amount*

\$300,000

### *Owner Name and Address*

West Valley City  
Steve Pastorik, Planning  
Director  
3600 South Constitution  
Boulevard  
West Valley City, UT  
84119  
Tel: 801.966.3600

### *Scope of Work*

Architecture,  
environmental,  
geotechnical and traffic  
engineering, modeling,  
and planning

### *Are Permitting*

### *Services Provided?*

No



# Knoxville Transit Center

*Knoxville, TN*

CDM Smith was involved with the siting of a new off-street, multi-use, multi-modal transit facility to replace the existing on-street Knoxville Area Transit (KAT) bus transfer point in downtown Knoxville. The concept and need for the transit facility grew out of previous work CDM Smith completed for the regional comprehensive transportation plan, "Nine Counties, One Vision". The Knoxville Station Transit Facility was designed to facilitate improved transit operations, support downtown revitalization efforts and encourage transit use. The new multi-story facility would accommodate 20 bus bays with passenger amenities including waiting areas, customer service and information areas and restrooms. The facility would also provide access to trolley and taxi services, bicycle facilities, on-site security and park-and-ride services.

The Knoxville Station siting and feasibility study produced a document which evaluated 34 sites - a re-examination of 23 previous sites and 11 new sites to be considered into locating a new transit center within the downtown area. Building upon previous siting reports, re-evaluation of previous sites, and the establishing a more define comparative matrix and selection criteria based on KAT's program needs to facilitate the evaluation of the alternative sites. This study's assessment and evaluations were utilized to document the selection of a preferred site to be used as the basis for preliminary design activities.

CDM Smith provided a broad range of engineering services for the Knoxville Station Transit Center, including structural, civil, survey, traffic, environmental, and geotechnical services. The project proved to be especially challenging due to its location in relation to the James White Parkway, a major state highway in the community. Half of the transit center is located above the James White Parkway on a structure adjacent to the Church Avenue bridge. This required extensive coordination efforts with the Department of Transportation with regards to air-right agreements, horizontal and vertical clearances, and construction under traffic.

The project also included a detailed environmental assessment. The environmental assessment included a "hot spot" air quality analysis, which was the first of its kind for transit center projects nationally. CDM Smith coordinated extensively with local, state, and federal agencies to develop this environmental document, which evaluated potential impacts regarding noise, land use, air and water quality, cultural resources, threatened and endangered species, livable communities, and other environmental and socioeconomic factors.

## *Prime Contractor Name and Address*

Ray Bell Construction  
(Now Bell & Associates  
Construction, L.P.)  
255 Wilson Pike Circle  
Brentwood, TN 37027

## *Date of Contract*

2006-2010

## *Contract \$ Amount*

\$384,700

## *Owner Name and Address*

Knoxville Public Building  
Authority  
Jeff Galyon, Director of  
Property Development  
915 S. Gay Street,  
Suite 700  
Knoxville, TN 37902  
Tel: 865.215.4600

## *Scope of Work*

Siting study; feasibility  
study; civil, geotechnical,  
structural, and  
traffic engineering;  
environmental services;  
construction engineering  
and inspection

## *Are Permitting Services Provided?*

No

# Administrative, Operations, and Maintenance Facilities Site Layout Plan

## *Columbia, SC*

The Central Midlands Regional Transit Authority (CMRTA) realized the need to relocate its headquarters and operations center from the existing facility on Huger Street to a new facility within the City of Columbia. After an evaluation of numerous sites, the CMRTA requested that CDM Smith prepare an environmental assessment, a conceptual site layout, and a community impact analysis for a new headquarters facility to be located near the intersection of Sunset Drive and North Main Street. The facility would include an administration building, maintenance building, fueling area, parking for 76 buses, parking for 43 DART vans, and parking for employees and visitors. The site layout also included future areas for a Compressed Natural Gas fueling area that could be used by the general public. Services provided included a property boundary survey, geotechnical exploration, tree inventory, conceptual layout, space planning, landscaping and lighting plans, zoning applications, preparation of an environmental categorical exclusion, and public input meetings. The categorical exclusion was required due to a federal RTA funding grant.

CDM Smith also provided a separate site package for construction to be separate and before the headquarters. This included water and sewer onsite to the building location, drainage to include a detention pond, and rough grading. CDM Smith provided site observation of construction progress and review of payment applications.

### *Prime Contractor Name and Address*

N/A – Study phase.

### *Date of Contract*

2002-2008

### *Contract \$ Amount*

\$653,000

### *Owner Name and Address*

Central Midlands  
Regional Transit  
Authority  
Michelle Ransom,  
Managing Administrator  
P.O. Box 214  
Columbia, SC 29202  
Tel: 803.255.7133

### *Scope of Work*

Environmental  
assessment, conceptual  
site layout, community  
impact analysis,  
and geotechnical  
exploration

### *Are Permitting Services Provided?*

No





# Public Works Operations Building

## *Dania Beach, FL*

As part of an existing consultant agreement with the City of Dania Beach, CDM Smith was retained to provide professional design services associated with preliminary and final design, permitting, bidding, and general services during construction for the 15,000-square-foot fleet maintenance, public works, and public services administration building.

CDM Smith led an interactive charrette with all client stakeholders during preliminary design to determine and outline the buildings' spatial requirements, spatial adjacencies, and the owner's needs, and to establish project goals. The charrette not only solidified the program but facilitated the client's aggressive three-month design schedule.

The spatial arrangement of the administration building is separated into three distinctly different and physically separated zones to meet the program and security requirements for each of the City's public works, fleet maintenance, and public services divisions.

The public works area serves as a transient space for the public works field crews. Included are two large storage areas for public works and landscape maintenance equipment used throughout the city. Field crews typically use the space in the morning preparing for the workday, middle of the day for lunch, and at the end of the day to conclude the workday. This area includes a large breakroom, large men's and women's toilet facilities, and shower and locker room facilities.

The fleet maintenance area includes a two-bay, 3,000-square-foot garage for routine vehicle maintenance and repairs to the City's public works vehicles. It also includes a maintenance shop, wood working area, meeting room, an office, and a fleet shop.

The public services area comprises the administrative spaces to assist the group in meeting their vision to provide safe, timely, and cost-effective infrastructure improvements to accommodate the safety, wellbeing, and quality of life for the residents of Dania Beach. Spaces include public lobby, conference room, offices, toilet facilities, plan rooms, plan storage rooms, and a break room.

Sustainable design considerations included building components, materials, and finishes that are high in recycled content and regionally manufactured; use of light colored reflective roofing materials to minimize thermal load on buildings and reduce heating/cooling costs; and an improved indoor environment through material selection and construction methods and procedures that create a comfortable, safe, and healthy working environment. Windows were sized and located to maximize the occupant's access to natural daylight and exterior views.

### *Prime Contractor Name and Address*

West Construction  
318 South Dixie  
Highway,  
Suite 4-5  
Lake Worth, FL 33460

### *Date of Contract*

2007-2010

### *Contract \$ Amount*

\$262,000

### *Owner Name and Address*

City of Dania Beach  
Dominic F. Orlando,  
P.E., Director of Public  
Services  
100 West Dania  
Boulevard  
Dania Beach, FL 33004  
Tel: 954.924.3740

### *Scope of Work*

Architecture;  
civil, electrical,  
mechanical – HVAC  
and plumbing, and  
structural engineering;  
construction support;  
environmental;  
permitting; and LEED®  
principles/sustainable  
design elements

### *Are Permitting Services Provided?*

Yes





# Solid Waste Authority Operations and Maintenance Building

## *Palm Beach County, FL*

CDM Smith provided full design, bidding, and construction services for the new 6,000-square-foot, single-story administration office building and the 1,800-square-foot, single-story maintenance building for the Solid Waste Authority of Palm Beach County's (SWAPBC) North County Resource Recovery Facility.

The design of the building forms and interior spaces reflects the Florida culture and environment, and blends with the aesthetic of existing administration and operations buildings on SWAPBC's adjacent sites.

The layout of the buildings provides a pleasant, efficient, and functional environment, maximizing energy and resource efficiency through the use of extensive daylighting, optimized energy performance, and flexible space planning.

### Intelligent 3D/4D Building Design

The overall design approach is based on state-of-the-art technology in intelligent 3D design. CDM Smith's approach to 3D design involves all disciplines: architectural, electrical, HVAC, plumbing, and structural—in a studio venue—for the creation and maintenance of the physical model. This approach allows the design team to progress simultaneously, to identify conflicts in "real time," and to produce a superior deliverable by reducing redundancy and minimizing drafting inconsistencies.

### Sustainable Design Considerations

Early in the design process CDM Smith architects facilitated a LEED® charrette that, with the input of all stakeholders, identified credits that would be achievable, leading to the project's Silver certification under version 2.2 of the New Construction Rating System. The client has an established reputation for sustainability and environmental preservation, and these characteristics are reflected in the LEED® credits selected. Energy-efficient and sustainable features have far-reaching environmental, financial, and social impacts. The operations and maintenance buildings are SWAPBC's first LEED®-certified facilities. The main focus was on material selection, consistent with SWAPBC's goals and standards for recycling and waste reduction.

- **Efficient Use of Space** – Flexible space planning allowed training facilities and conference facilities to utilize the same building areas, reducing the overall building footprint.
- **Material Selection** – Building components, materials, and finishes that are high in recycled content and regionally manufactured.
- **Heat Island Effect: Roof** – Used light colored reflective roofing materials to minimize thermal load on buildings and reduce heating/cooling costs.
- **Optimized Energy Performance** – By selecting efficient HVAC systems, light fixtures and controls, insulated windows, and a highly reflective roof electric costs

### *Prime Contractor Name and Address*

West Construction  
318 South Dixie  
Highway, Suite 4-5  
Lake Worth, FL 33460

### *Date of Contract*

2007-2010

### *Contract \$ Amount*

\$200,000

### *Owner Name and Address*

Solid Waste Authority of  
Palm Beach County  
Jack Mesojedec,  
P.E., BCEE, Assistant  
Director, Engineering  
Department  
7501 North Jog Road  
West Palm Beach, FL  
33412  
Tel: 561.640.4000

### *Scope of Work*

Architecture; civil, electrical, geotechnical, mechanical – HVAC and plumbing, and structural engineering; construction support; environmental; permitting; and LEED® principles/sustainable design

### *Are Permitting Services Provided?*

Yes

where significantly reduced. Models demonstrate at least a 24.6 percent reduction in the operations building alone and 15.9 percent across the entire site.

- **Low VOC Paint and Interior Finishes** – Improve indoor air quality, reducing the contaminants and particulates present in the air prior to occupancy.
- **Construction Waste Reduction** – Eliminated 91.3 percent of the construction waste by diverting it away from the landfills and into recycling centers.
- **Improved Indoor Environmental Quality** – Through design, material selection, and construction methods elements incorporated and procedures enforced that create a comfortable, safe, and healthy working environment for SWAPBC employees. Windows were sized and located to maximize the occupants' access to natural daylight and exterior views. Lighting controls were provided to allow for individual control and adjustment. Construction procedures were implemented that ensured the protection of building materials and a reduction in particulates trapped in ductwork, guaranteeing a clean, comfortable working environment.



CDM Smith designed SWAPBC's first LEED®-certified facilities—a new 6,000-square-foot, administration office building and an 1,800-square-foot, maintenance building.



# Florence Wastewater Treatment Plant Administration Building

*Florence, SC*

Following a regional water and sewer master plan completed by the CDM Smith-led team, the Florence City Council committed to moving forward with a \$100M regional wastewater program that includes a new 18-mgd regional wastewater treatment plant (WWTP), as well as flow equalization and conveyance improvements. CDM Smith provided design, bidding, and construction services of the new Florence Regional Wastewater Management Facility.

Driven by the need for capacity improvements and the need to reinvest in an aging infrastructure, the City sought to construct a new wastewater management facility on the existing wastewater treatment facility site. The new wastewater treatment facilities not only meet the City's needs for improved wastewater treatment capacity and reliability, but plan for and implement infrastructure to serve the future needs of the surrounding Pee Dee Region. The wastewater management facility was enhanced to interact with the surrounding public educational and recreational facilities, including ScienceSouth (a science and math educational center), Freedom Florence (the region's premier recreational facility), the Civil War Stockade Park and future museum, and the City's greenway and trail system.

The program consists of the phased construction of a new solids processing building, four electrical buildings and an administration building. The new 8,500-square-foot administration building includes offices, laboratory, control room, conference room, break room, men's and women's toilet, and locker and shower facilities. To demonstrate the City's commitment to the environment and surrounding public educational facilities it was decided that the administration building would be designed and constructed with the goal of pursuing LEED® Silver Certification.

The administration building was the center of all site activity for the operators, training, and visitors. The bold aesthetic of the building, with its sweeping curved roofline and curtain wall glazed entry, make it a focal point of the site. Materials and color palette varied throughout the buildings on site, while unifying the site's appearance and utilizing regionally available items.

CDM Smith's architect's design philosophy, rooted in environmental design, provided the perfect approach for bringing together the varied requirements of good design. This project was approached holistically, with energy efficient and environmentally responsive solutions in mind. During schematic design, CDM Smith met with the client to ensure the design approach was aligned with the desired end-result. A charrette was held early on to discuss both the overall aesthetic of the project, initial space planning and programming as well as present the sustainable approach and LEED® checklist.

## *Prime Contractor Name and Address*

Encore Construction  
Company  
370 East Crown Point  
Road  
Winter Garden, FL  
34787

## *Date of Contract*

2008-2010

## *Contract \$ Amount*

\$12.7M

## *Owner Name and Address*

City of Florence  
Drew Griffin, City  
Manager  
City-County Complex AA  
180 North Irby Street  
Florence, SC 29501  
Tel: 843.665.3113

## *Scope of Work*

Architecture; civil,  
electrical, geotechnical,  
mechanical – HVAC  
and plumbing, and  
structural engineering;  
construction support;  
environmental; and  
permitting

## *Are Permitting Services Provided?*

Yes

Starting with the selection of the site and building orientation, the building was located to take full advantage of the sun, maximizing energy and resource efficiency. Thermal mass from the concrete cavity walls, reflective roofing color, and high insulation value further contributes to the overall goal of optimizing the building's energy efficiency. By strategically locating the large areas of low-e glass curtain wall and providing exaggerated roof overhangs, extensive natural daylighting is provided throughout the building with minimal impact to the building HVAC system. The focus on access to daylight also greatly reduces reliance on electric lighting.

In addition to these design decisions, energy efficient building systems for heating, cooling, and lighting were selected, along with water conserving plumbing fixtures.

Occupant comfort was a priority for the project. The spatial layout arranged around a central corridor enabled all regularly occupied spaces to be located around the perimeter of the building. Operable windows were provided in all offices and most regularly occupied spaces. These provided both access to natural light and exterior views, as well as individual climate control. Electric lighting controls and task lighting further allowed for individual control within the offices and controls tailored to a variety of lighting levels were provided in the multi-occupant space.

A major focus of the project was to assist the client with showcasing their commitment to sustainability and their environmental education. This was achieved through the development and coordination of an educational building tour. The administration building will serve as the hub of the educational aspect of the project, showcasing not only the sustainable elements of the building and construction practices but also educate students on the process of waste water treatment. During the programming phase special attention was paid to interior adjacencies, allowing for a clear separation between public and private areas of the program. This accommodated regular tours with minimal impact to plant operations.

CDM Smith oversaw the construction services for the project, which enabled them to work closely with the contractor to ensure the final product is completed and meets or exceeds the client's expectations. Maintaining oversight through construction provides the means to ensure the sustainable focus of the project is continued throughout the entirety of the project.

The end result of CDM Smith's dedication to client service is an 18-mgd waste water treatment plant that satisfies all of the requirements of the project scope, while providing the client a landmark facility in which to showcase their dedication to their customers and the environment.



CDM Smith designed a new LEED® Silver-certified 8,500-square-foot administration building for the City of Florence.





# Lantana Landfill/Park Ridge Golf Course

## *Palm Beach County, FL*

The Solid Waste Authority of Palm Beach County (SWAPBC), in cooperation with the Palm Beach County Parks and Recreation Department (PBCPRD) and CDM Smith, constructed an 18-hole golf course facility on the 272-acre, closed Lantana Road Landfill in Lake Worth, FL. The golf course is now called Park Ridge Golf Course by PBCPRD.

Design of the golf course for the closed landfill site included several features that are not typically incorporated into a course design for a conventional site a landfill gas analysis and system decommissioning plan; the use of a high density polyethylene pipe irrigation system to provide for flexibility as the landfill settles; access road design; and a geotechnical analysis that included a sideslope stability and settlement evaluation for the additional soils, clubhouse, and associated structures. Additionally, the golf course stormwater management system had to be designed to enhance, but not interfere with, the landfill's existing stormwater management system.

The landfill was closed in 1989 with a cap consisting of a 40-mil PVC geomembrane overlain by a two-foot thick soil/topsoil/vegetative layer. The SWAPBC stipulated that design of the golf course was to be "non-invasive;" i.e., the existing cap was not to be damaged. This presented some challenge as the clubhouse, cart barn, and rain shelter buildings were finally sited to be on top of the landfill, within cap limits. Special care was taken in the placement of golf course irrigation lines as well. The landfill waste area had no leachate collection system because it was originally a borrow pit that began being used as a waste disposal area in the 1960s, prior to the promulgation of regulations requiring a leachate collection system.

Environmental permitting tasks for construction commencement were completed between 2000 and 2001, but construction was put on hold pending project funding by Palm Beach County (the County). In 2005, the County reactivated the project with an expedited schedule. The County asked CDM Smith to complete the design and start construction in two phases. Phase I included importing an estimated 520,000 cubic yards of fill that was needed to rough grade the golf course and surcharge the tees and greens within the landfill footprint to accelerate the settlement from the additional load. Phase II consisted of the construction of the tees and greens, irrigation system, clubhouse, and water/wastewater utilities; paving the access road; parking lot; and entrance way; completing additional infrastructure supporting the golf course; and constructing the maintenance area, which included upgrades to the existing maintenance building and general area.

### Permitting of the site as a golf course included:

- Modifying the landfill's existing FDEP solid waste closure permit to allow construction of the golf course.

### *Prime Contractor Name and Address*

CDM Smith  
1601 Belvedere Road,  
Suite 400E  
West Palm Beach, FL  
33406

### *Date of Contract*

2000-2007

### *Contract \$ Amount*

\$800,000

### *Owner Name and Address*

Solid Waste Authority of  
Palm Beach County  
Ray Schauer, Director of  
Engineering and Public  
Works  
7501 North Jog Road  
West Palm Beach, FL  
33412  
Tel: 561.640.4000

### *Scope of Work*

Civil, drainage, and  
utility engineering;  
permitting; landfill  
gas analysis, system  
decommissioning  
plan, and geotechnical  
analysis; planning;  
project management;  
stormwater  
management; and  
construction

### *Are Permitting Services Provided?*

Yes

- Obtaining an Environmental Resource Permit (issued by the FDEP since the site was a closed landfill) to permit modifications to the site's surface water management system.
- Obtaining a SFWMD water use permit to allow the use of a combined groundwater/surface water irrigation system. The SFWMD constrained the course's irrigation water use by limiting combined groundwater/surface water withdrawals to a maximum groundwater drawdown of 0.1 feet at the site's zone of discharge. A groundwater model was developed to achieve an optimum balance between surface water and groundwater withdrawals to meet SFWMD's criteria.
- Obtaining a Palm Beach County Environmental Resources Management Department Dredge and Fill Permit to allow dredging of two on-site borrow lakes for fill for golf course construction. (The on-site lakes were not dredged for fill during construction however.)
- Obtaining two National Pollutant Discharge Elimination System (NPDES) permits (one from the FDEP and one from the EPA since the NPDES program was not fully delegated to FDEP at that time) to allow temporary stormwater discharges from the site during construction.
- Resolving zoning and concurrency issues for the site with Palm Beach County. Approximately 25 acres of the site (three historical parcels) had been incorporated into the landfill site de facto, but retained historical "Agricultural" zoning status. These parcels had to be re-zoned with a "Public Ownership" status. The land use designation had to be changed from utilities and transportation ("U/T") to parks and recreation ("PARK").
- Obtaining a Development Review Order (DRO) permit from Palm Beach County Zoning as a prerequisite to obtaining the Building Permit for the golf course buildings including the clubhouse, cart barn, rain-shelter, restroom, and general facilities. As part of the DRO process, specific studies had to be undertaken, inclusive of creating an alternate landscape plan (ALP) (PBCPRD's landscape architect worked with the County on the development of this plan), a traffic study update was completed based on the most recent statistics, a visual impact analysis of the new development was completed in relation to the surrounding architecture, and the updated boundary survey was incorporated in the master plan submitted to the zoning department.
- Another prerequisite to the building permit included obtaining a plat waiver for the landfill/development site. A plat of the site was pre-existing; however, certain elements had to be incorporated into the latest boundary survey.
- Estimating the future demands and obtaining a utility permit from the Palm Beach County Water Utilities Department (PBCWUD) for connection of potable water and sewer service for the clubhouse and remote restroom on-site.
- Obtaining a health permit from the Palm Beach County Health Department for the potable water and sewer connections. An approved utility permit is a prerequisite to the Health Department Permit. The health permit is required before final approval is granted by the building department.
- Obtaining a Fire Permit from Palm Beach County Fire and Rescue for Fire Safety. This permit is obtained in conjunction with the utilities permit and must be approved prior to final approval of the Utility Department.
- Obtaining a right-of-way disturbance permit for Lantana Road for the connection



CDM Smith designed and constructed an 18-hole golf course facility on the 272-acre, closed Lantana Road Landfill site.

tie-in to the existing main water and sewer lines.

- Obtaining a Food Service Permit for the serving area in the clubhouse to be turned over to PRDPBC and their associated food vendor. This permit is connected to the overall building permit.
- Obtaining a Building Permit for the golf course buildings and facilities, and all associated “separate” permits for specific areas of the site. Some of the associated “separate” permitting work is presently ongoing, inclusive of: above ground fuel tank installation for golf carts and maintenance vehicles, pre-manufactured building fixtures (i.e., clubhouse awnings), irrigation pump station, site lighting of the parking lot and populated areas, and the improvements to the maintenance area.
- Coordinating with a confidential client was necessary to arrange for power service to the irrigation pump station, clubhouse, and industrial supply water wells on three separate services. A new on-site easement had to be coordinated and granted from the SWAPBC for a new power service to feed the irrigation pump station.



CDM Smith's design included a fine-tuned grading plan to accommodate clubhouse, cart barn, rain-shelter, and remote restroom buildings on top of the closed landfill.

### Design of the site as a golf course included:

- Subcontracting with a golf course architect to layout key golf features such as tee boxes, fairway-landing areas, greens, practice areas, driving range, shelter, and restroom.
- Subcontracting with a golf course irrigation designer to layout and size pipes, sprinkler heads, a pump station, and calculate water demand requirements.
- Producing a civil grading plan to accommodate the hole layout, access road to the clubhouse and parking area, stormwater management design and ERP permitting, and sideslope stability evaluations.
- Producing a more fine-tuned grading plan to accommodate the four buildings on top of the closed landfill (clubhouse, cart barn, rain-shelter, and remote restroom).
- Performing design of the lined irrigation pond, which was used as an intermediate storage area of surface water from the on-site lakes to supplement the irrigation wells water source for irrigation of the golf course.
- Performing design of the water and wastewater utility connections, service lines, and sanitary lift stations for potable water and wastewater service to the clubhouse and remote restroom.
- Subcontracting with an architect to design a 6,000-square-foot modular clubhouse, a cart barn, a remote course restroom facility, and a player shelter.
- Subcontracting with an electrical engineering firm to assess wiring, lighting, and power requirements and design an electrical plan to meet those requirements.
- Subcontracting with a structural design firm to design the structural elements of the restroom and design the foundation elements of and assess the pre-manufactured clubhouse, cart barn, and rain shelter on top of the capped landfill.
- Coordinating with landscape architects at PBCPRD to establish an alternate landscape plan for the golf course.
- Subcontracting with a landfill gas engineering firm to measure landfill gas production, assess the potential for landfill odors to impact the proposed golf course, and devise a decommissioning plan for the existing active gas extraction system.

- Subcontracting with a surveying firm to perform a boundary survey, a topographic survey of the land-fill, and bathymetric surveys of two adjacent borrow lakes that were to be dredged for fill for golf course construction; however, a subsequent decision was made not to dredge the on-site lakes.

#### Construction of the site as a golf course included:

- Excavating with precaution due to varying liner depths around the course/areas of construction to avoid any ruptures.
- Procuring all equipment and structures. Procurement methods included working with vendors to procure materials in line with the standard purchase order, submittal, and delivery process. Equipment and structures included pre-fabricated clubhouse, cart barn structure, pump stations, fuel tanks and accessories, chemical storage units, fill dirt, and other associated elements needed to support the golf course construction.
- Working with the owner to direct purchase high dollar items for tax savings (i.e., the clubhouse from Williams Scotsman), yet still performing all the coordination in terms of manufacture and delivery.
- Working closely with the project design team to collect information needed for permits (i.e., building and food service permits).
- Self-performing fill import and rough grading of golf course.
- Subcontracting with a golf course construction company to complete more detailed grading of golf course features.
- Subcontracting with a general contractor to complete all underground utilities and site work, including remote restroom, rain shelter, detailed grading of facilities area, and finish work, including concrete work.
- Subcontracting with an electrical contractor to complete all site electrical, including pulling conduit and wire for all structures and pump stations.



The CDM Smith-designed golf course included a lined irrigation pond that was used as an intermediate storage area of surface water from the on-site lakes to supplement the irrigation wells water source for irrigation of the golf course.



# New El Metro Operations and Maintenance Center

*Laredo, TX*

El Metro provided fixed route service from a single facility located at 401 Scott Street that supported a fleet of 60 buses. The facility included the operations offices, driver areas, vehicle maintenance, and fuel and wash. El Metro and its surrounding community have grown significantly, and a new facility with enhanced operations was required to serve the growing population. El Metro required the new facility to be a 25-year facility that could accommodate a future fleet of up to 150 buses.

El Metro wanted to move its operations to a more commercial neighborhood to provide relief to the residents near the current facility from the smell associated with CNG buses.

The City of Laredo and El Metro selected a 25-acre site at the southeast corner of Bartlett Avenue and Jacaman Road that was owned by the City of Laredo. A master plan for the site was completed and was developed in two phases.

Phase I encompassed construction of a bus fueling and wash facility, and included bus parking areas.

Phase II completed the site development, including the construction of a 46,000-square-foot maintenance facility, a 17,000-square-foot administration/operations building, and completion of the overall site development.

## *Prime Contractor Name and Address*

N/A – Contractor has not been selected to date

## *Date of Contract*

2011-2012

## *Contract \$ Amount*

\$2.8M

## *Owner Name and Address*

El Metro Transit  
Jesus Olivares, Assistant  
City Manager  
1301 Farragut  
Laredo, TX 78040  
Tel: 956.319.6000

## *Scope of Work*

Architecture; civil, electrical, geotechnical, mechanical – HVAC and plumbing, structural, and traffic engineering; construction support; environmental; permitting; planning; project management; and LEED® principles/sustainable design

## *Are Permitting*

## *Services Provided?*

Yes



## Part II

### *Technical Statement - Experience (cont.)*

#### **2.5. List the construction contracts your organization has completed in the past five (5) years with relevance to this proposed design-build project**

DNHI has maintained a presence in the Florida Keys since 1982 and is very successful in constructing design-build projects, as evidenced by our recent solid waste transfer station for you, the City of Key West. This project showcases our ability to work as a cohesive team with the design engineer and subcontractors to implement a facility with separate buildings across a given site. With more than \$40M construction in infrastructure in the Florida Keys since 2000, DNHI offers the City our unsurpassed familiarity with the local area.

**Table 2.5-1** outlined additional relevant representative project experience of our project personnel completed within the last five years.

## Part II – Technical Statement

### Experience

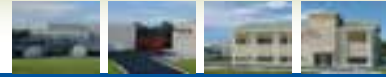


Table 2-5-1: Relevant Construction Contracts Completed in the Past Five Years

Name of Project	Prime Contractor Name and Address	Date of Contract	Contract \$ Amount Complete	Design Architect/ Engineer Name and Address	Owner Name and Address	Scope of Work
Wastewater Collection System Expansion, North Barfield, North Marco, and Tiger Tail Sewer Districts, Marco Island, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	2006-2008	\$14.14M	AECOM Technical Services 4415 Metro Parkway Suite # 404 Fort Myers, FL 33916	City of Marco Island Mike Daniel, Construction Manager 50 Bald Eagle Drive Marco Island, FL 34145 Tel: 239.389.5000	Wastewater collection system expansion
NCWRF Compliance Assurance, Collier County, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	2010-2011	\$8.68M	Hole Montes & Associates, Inc. 950 Encore Way Naples, FL 34110	Collier County Craig Pajer, Project Manager 3299 Tamiami Trail East Naples, FL 34112 Tel: 239.252.2554	Constructed to increase reclaimed water storage/distribution, stormwater and odor
Kissimmee/St. Cloud Field Station Relocation – Phase 2, Osceola County, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	2007-2009	\$10.58M	Arcadis U.S., Inc. 2081 Vista Parkway West Palm Beach, FL 33411	South Florida Water Management District Thomas McKernan, Principal Construction Manager 3301 Gun Club Road West Palm Beach, FL 33406 Tel: 561.686.8800 ext. 2673	Design/Build new Field Station with combination office and maintenance facility totaling 25,200 SF
Design-Build Solid Waste Transfer Station, Key West, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	2008-2009	\$7.94M	AECOM 4415 Metro Parkway, Suite 404 Fort Myers, FL 33916	City of Key West David Fernandez, Assistant City Manager P.O. Box 1409, Key West, FL 33041 Tel: 305.809.3879	Design/Build new Transfer Station Facility totaling 20,000 SF
S-650 Lakeside Ranch Pump Station, Martin County, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	2010-2012	\$6.98M	CDM Smith 1601 Belvedere Road, Suite 400E West Palm Beach, FL 33406	South Florida Water Management District John Creswell, P.E., Section Leader – Engineering and Construction Bureau 3301 Gun Club Road West Palm Beach, FL 33406 Tel: 561.686.8800 ext. 2550	Complete site development and construction of a pump station



# Wastewater Collection System Expansion, North Barfield, North Marco, and Tiger Tail Sewer Districts

## *Marco Island, FL*

This project involved several phases of the expansion to the wastewater collection system on Marco Island, FL. In total, the work involved the installation of approximately 51,000 lf of gravity sanitary sewer main; 8,700 lf of sanitary sewer transmission main; 2,570 lf of sanitary force main; 217 sanitary sewer manholes; four lift stations; and the associated maintenance of traffic, sewer laterals, asphalt pavement, and project restoration.

### *Prime Contractor Name and Address*

Douglas N. Higgins, Inc.  
1213 Glynn Archer  
Drive, Suite 281  
Key West, FL 33040

### *Date of Contract*

2006-2008

### *Contract \$ Amount Complete*

\$14.14M

### *Design Architect/ Engineer Name and Address*

AECOM Technical  
Services  
4415 Metro Parkway  
Suite # 404  
Fort Myers, FL 33916

### *Owner Name and Address*

City of Marco Island  
Mike Daniel,  
Construction Manager  
50 Bald Eagle Drive  
Marco Island, FL 34145  
Tel: 239.389.5000

### *Scope of Work*

Wastewater collection  
system expansion



DNHI constructed multiple phases of a wastewater collection system expansion for the City of Marco Island.





# North County Water Reclamation Facility Compliance Assurance

## *Collier County, FL*

The North County Water Reclamation Facility (NCWRF) compliance assurance project was a multifaceted project designed to improve and increase reclaimed water storage/distribution, improve on-site stormwater management and discharge quality, and reduce perceived odors produced by the wastewater treatment process. Reclaimed water improvements included the construction of two HDPE-lined ponds totaling 10 acres and 6.2 acres, respectively. The screening structure feeding reclaimed water distribution pumps was modified and liner sections repaired, which required the use of Hydro Dams in the active pond. In addition, a 4.25-acre stormwater pond and a 0.25-mile long 40-foot-wide rip-rap lined ditch were constructed to improve stormwater management and runoff quality. Odor control improvements included the installation of aluminum odor control covers on 12 aeration basins, totaling over 75,000 square feet of surface area. Each basin was fitted with new fine bubble aeration systems and stainless steel blower piping. Four large chemical and a biological odor control unit was installed along with new FRP odor collection ductwork and chemical storage and distribution systems to complete the odor control improvements. Coordination and implementation of this complex project within an operating facility was handled successfully by DNHI.



DNHI constructed 12 aeration basins, totaling over 75,000 square feet of surface area, all of which included new fine bubble aeration systems and stainless steel blower piping.

### *Prime Contractor Name and Address*

Douglas N. Higgins, Inc.  
1213 Glynn Archer  
Drive, Suite 281  
Key West, FL 33040

### *Date of Contract*

2010-2011

### *Contract \$ Amount Complete*

\$8.68M

### *Design Architect/ Engineer Name and Address*

Hole Montes &  
Associates, Inc.  
950 Encore Way  
Naples, FL 34110

### *Owner Name and Address*

Collier County  
Craig Pajer, Project  
Manager  
3299 Tamiami Trail East  
Naples, FL 34112  
Tel: 239.252.2554

### *Scope of Work*

Constructed to increase  
reclaimed water  
storage/distribution,  
on-site storm water and  
odor



## Kissimmee/St. Cloud Field Station Relocation – Phase 2

### *Osceola County, FL*

DNHI was the prime contractor associated with the development of an abandoned 15-acre orange grove into a state-of-the-art field station for the South Florida Water Management District's (SFWMD's) northern region. The main portion of the facility is comprised of combination office/maintenance facility totaling 25,200 square feet with an attached covered service area of 11,000 square feet. As this facility will serve as the alternate command post for the SFWMD headquarters in West Palm Beach, architectural finishes and communication/security systems were significant for the office portion of the structure. Additional on-site facilities constructed in conjunction with this project included a vehicle fueling station, as well as vehicle wash, storage, and generator buildings. Site development, including the construction of a large stormwater retention pond, utility services, and asphalt paving, was completed. This field station has proven to be a reliable facility for the SFWMD and serves as the standard for future SFWMD facilities of this type.



DNHI constructed a 25,200 square foot office/maintenance facility on an abandoned 15-acre orange grove site for the South Florida Water Management District's northern region.

#### *Prime Contractor Name and Address*

Douglas N. Higgins, Inc.  
1213 Glynn Archer  
Drive, Suite 281  
Key West, FL 33040

#### *Date of Contract*

2007-2009

#### *Contract \$ Amount Complete*

\$10.58M

#### *Design Architect/ Engineer Name and Address*

Arcadis U.S., Inc.  
2081 Vista Parkway  
West Palm Beach, FL  
33411

#### *Owner Name and Address*

South Florida Water  
Management District  
Thomas McKernan,  
Principal Construction  
Manager  
3301 Gun Club Road  
West Palm Beach, FL  
33406  
Tel: 561.686.8800  
ext. 2673

#### *Scope of Work*

Design/Build new  
Field Station with  
combination office &  
maintenance facility  
totaling 25,200 SF



# Design-Build Solid Waste Transfer Station

## *Key West, FL*

DNHI was the prime contractor associated with the design, pre-construction, and construction phase of a solid waste transfer station facility, including separate recycling, office, and scale/security buildings totaling 20,000 square feet over a 3-acre site. This facility serves as a critical element in the management of solid waste and recycling for the Lower Keys.

The project involved several challenges from a design and construction standpoint. Site layout involved significant coordination with the owner as the required building footprints, truck staging areas, and traffic flow needed to be fully accommodated on a relatively small site. Current local building codes required that building floor elevations be above flood elevation, and site development involved significant earthwork and underground utility construction to raise the site 5 feet from existing grade in order to adhere to this code. The concrete floor slab and superstructure of the transfer station required unique armoring approaches to resist the daily operation of heavy equipment working within the building.

This project was completed within the contract time frame and has been used reliably by the owner since it has been placed in service.



DNHI was the lead contractor for the City of Key West's solid waste transfer station facility, which included separate recycling, office, and scale/security buildings totaling 20,000 square feet on a 3-acre site.

### *Prime Contractor Name and Address*

Douglas N. Higgins, Inc.  
1213 Glynn Archer  
Drive, Suite 281  
Key West, FL 33040

### *Date of Contract*

2008-2009

### *Contract \$ Amount Complete*

\$7.94M

### *Design Architect/ Engineer Name and Address*

AECOM  
4415 Metro Parkway,  
Suite 404  
Fort Myers, FL 33916

### *Owner Name and Address*

City of Key West  
David Fernandez,  
Assistant City Manager  
P.O. Box 1409  
Key West, FL 33041  
Tel: 305.809.3879

### *Scope of Work*

Design-build new  
transfer station facility,  
totaling 20,000 SF





# S-650 Lakeside Ranch Pump Station

## *Martin County, FL*

The S-650 Lakeside Ranch pump station project involved the complete site development and construction of a 250-cfs pump station, including the earthwork/bank stabilization associated with the pump station intake canal and discharge canals. The completed project delivers water to the Lakeside Ranch stormwater treatment area.

Construction of the pump station required installation of a temporary sheet pile cofferdam and elaborate multi-level dewatering system to facilitate the 32-foot deep excavation for foundation installation. In addition, this project involved the installation of significant precast and cast-in-place concrete elements, along with three Sulzer electric pumps with a total combined horsepower of 850 hp.

DNHI successfully managed the construction, functional testing, and commissioning phases of this project to deliver it on time and to the satisfaction of the SFWMD.



DNHI constructed a 250-cfs pump station, including the earthwork/bank stabilization associated, intake canal, and discharge canals.

### *Prime Contractor Name and Address*

Douglas N. Higgins, Inc.  
1213 Glynn Archer  
Drive, Suite 281  
Key West, FL 33040

### *Date of Contract*

2010-2012

### *Contract \$ Amount Complete*

\$6.98M

### *Design Architect/ Engineer Name and Address*

CDM Smith  
1601 Belvedere Road,  
Suite 400E  
West Palm Beach, FL  
33406

### *Owner Name and Address*

South Florida Water  
Management District  
John Creswell, P.E.,  
Section Leader –  
Engineering and  
Construction Bureau  
3301 Gun Club Road  
West Palm Beach, FL  
33406  
Tel: 561.686.8800  
ext. 2550

### *Scope of Work*

Complete site  
development and  
construction of a pump  
station





## Part II

### *Technical Statement – Experience (cont.)*

#### 2.6. Statement on firm familiarity with local conditions

DNHI and CDM Smith are intimately familiar with the local conditions and environment of the Florida Keys, including regulatory requirements; geologic and soil conditions; environmental issues; permitting procedures; community concerns, such as noise, odor, dust, and traffic; and weather conditions. A majority of our knowledge has been gained through performing projects for clients within the Lower Keys, including the City of Key West.

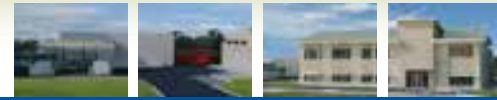
##### ***Permitting and Regulatory Requirements:***

In an effort to preserve the uniqueness of the Florida Keys, construction of new buildings in the Florida Keys is subject to very stringent regulation. Understanding some of the key issues presented by these regulations is critical to making an informed decision when constructing facilities. Our team fully understands the nuances and intricacies of permitting a transportation facility through the number of agencies that are involved. Our permitting approach for the project is founded upon proactive action, professionalism, and open communication. Strong relationships and our team's proven permitting track record with the entities issuing government approvals for the project are a significant benefit to the City in securing timely approvals.

***Elevation Close To Sea Level:*** We know that the City's current elevation is approximately 3 feet above sea level. Our team understands that working in an environment with an elevation close to sea level sometimes creates community impacts when handling groundwater during construction. Understanding and minimizing these potential impacts has helped our team in becoming one of the most successful design-build teams in the Florida Keys.

***Building to Fit Local Climate Conditions:*** Our team members are extremely familiar with the design and construction of buildings that make sense from a bioclimatic perspective in Florida. We recognize the importance of designing not only an energy-efficient facility but one that is also aesthetically pleasing. CDM Smith also understands that successful architectural and landscape treatments, including concerns for environmental issues, community involvement, and public acceptance are critical to this type of project's success, and these considerations have become a hallmark of CDM Smith's design approach.





**Environmental Conditions:** We have performed preliminary investigations of the surface conditions of the project site and have determined that, on the southwest corner of the project site, there exists mangrove wetlands and no habitat-dependent endangered or threatened wildlife species exist.

Our team is well acquainted with the transportation facility site—CDM Smith even provided services during construction for the landfill closure and provided consulting services in connection with the City’s assumption of operating responsibilities from Veolia for the waste-to-energy facility.

Our team understands the site was previously used for a composting facility and that waste materials and compost are found across the site. We also understand that a school is located just east of the site, luxury condominiums to the northwest, and a golf course across the street. We will utilize this knowledge and schedule construction activities so that we do not create a nuisance to these adjacent land uses.

**Geotechnical Considerations:** We typically complete a geotechnical investigation to evaluate subsurface conditions and develop recommendations for site development and construction. The investigation will be conducted with a main goal being to address known and currently unknown features that may adversely impact design and construction.

**Stormwater and Drainage:** Our team is familiar with the stormwater and drainage design requirements, including complying with South Florida Water Management District (SFWMD) and Florida Department of Environmental Protection (FDEP) requirements and Monroe County “Land Development Regulations”. The drainage level of service standard is defined by the City of Key West Code Section 94-69. The existing site topography and FEMA requirements mandate that all constructed buildings will be elevated above the base flood elevation. Historically, a system of recharge wells (gravity or pumped), exfiltration trenches, french drains, and regrading are required in accordance with the specific site usage (i.e.: vehicular traffic and constructed buildings).

**Hurricane Readiness and Response:** From our prior work with the City, we clearly understand there is only one way in and one way out of the Keys. This is important to consider during construction since US 1 is the

Keys’ only hurricane evacuation route. We have taken into consideration Florida’s hurricane season (June to November) during the development of our schedule for this project. Once a storm has been named, we will take every precaution to ensure that our work zone, including all construction materials and equipment, are properly

secured from the potential dangers created by hurricane weather conditions.

**Building Codes and Permits:** Backed by the experience of hundreds of successful projects over the last five years of all types and sizes, CDM Smith offers experience across all occupancy classifications, types of construction, and disciplines as it relates to building codes and permits. We assess the regulatory feasibility of a project at each stage of design. Through years of association with national, state, and local building and fire codes, CDM Smith staff’s working knowledge of the Florida Building Code gives our team the background, proficiency, and experience to develop an innovative project solution. By un-

derstanding the intent and underlying basis of the various code provisions and their relationships, our solution will reduce design changes, reduce costs, and expedite building permitting.

### **Approach to Attracting and Retaining Skilled Laborers**

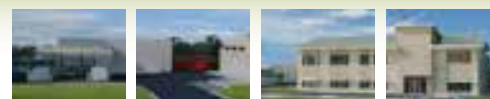
**Necessary to Meet Labor Requirements:** Both DNHI and CDM Smith have long-standing local working relationships, which extend over the past 30+ years, on some of the largest and more complicated design-build and construction projects in Florida and, more importantly, in the Florida Keys, which allows us to draw from a wide range of experienced subcontractors, suppliers, and tradesmen. The relationships that we bring to the project will provide the City of Key West the best overall value, between quality and affordability, to help make sure this project is completed on time and under budget.

Factors other than the technical aspects of this project are important to understand in order to design, construct, and implement a successful project for the City of Key West. They include things like seasonality of the population, extra care in protecting the aesthetics of the island, and distance and traffic associated with contractor’s construction access to name a few.

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CDM Smith provided services during construction for the landfill closure and provided consulting services in connection with the City’s assumption of operating responsibilities from Veolia for the waste-to-energy facility.

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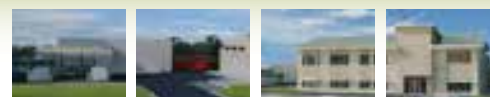
## 2.7. List other projects firm has constructed or has under construction in the Florida Keys/Monroe County

DHNI has worked within the Florida Keys and Monroe County since 1982 when we assisted the Florida Keys Aqueduct Authority with the installation of their \$6M water supply system. Since then, we have worked on nearly 40

additional projects, a majority of which have been completed within Key West. Most recently, we completed the \$7.943M design-build solid waste transfer station facility, which included separate recycling and administrative buildings, and a scale facility, all of which total more than 20,000 square feet. **Table 2.7-1** illustrates our extensive construction experience throughout Monroe County and the Florida Keys.

Table 2.7-1: DNHI's Representative Projects Constructed in the Florida Keys/Monroe County

Project/Location	Brief Description	Year Complete	Project Size
Design-build Solid Waste Transfer Station Facility <b>Key West, FL</b>	Project included design and construction of a new solid waste transfer facility, including separate recycling and administrative buildings, and a scale facility—totalling more than 20,000 SF of building space on the 3-acre site.	2009	\$7.94M
Design-build Wastewater Management System for Trailer Village, Key Largo Wastewater Treatment District <b>Key Largo, FL</b>	Constructed a new vacuum collection system, including the installation of 20,000 LF of vacuum main, appurtenances, and roadway restoration.	2006	\$3.998M
Design-build Wastewater Collection System, Florida Keys Aqueduct Authority <b>Layton, FL</b>	Installed 20,530 LF of sanitary sewer main, 28 sanitary manholes, and five lift stations, and completed roadway restoration.	2006	\$3.22M
Stormwater Injection Well, Water/Sewer/Force Main, Pump Station, and Roadway Restoration Project Phase III <b>Key West, FL</b>	Installed storm pipe, concrete, catch basins, manholes, and triple chamber baffle structures.	2009	\$1.56M
Duck Key Reclaimed Water Pipeline and Big Coppitt Key Wastewater Collection System, Florida Keys Aqueduct Authority <b>Duck Key, FL</b>	Installed 3,334 LF of sanitary sewer mains, ranging in size up to 12 feet; 10,625 LF of 2- to 10-inch force main; bridge mounted force main; and other appurtenances. The project also included stainless steel bridge piping.	2008	\$3.968M
Kermit H. Lewin RO Facility Plant Modifications, Florida Keys Aqueduct Authority <b>Stock Island, FL</b>	Completed RO facility plant modifications with Tomco CO2 PH system and controls, pumps, electrical, concrete, and piping with decking and walkway.	2008	\$1.687M
Duck Key Reclaimed Water Storage and Pumping Facility, Florida Keys Aqueduct Authority <b>Duck Key, FL</b>	Furnished and installed pump station, a 200,000-gallon storage tank, and elevated slabs. Work also included installing electrical, instrumentation, etc.	2008	\$2.1M



**Table 2.7-1: DNHI's Representative Projects Constructed in the Florida Keys/Monroe County**

Project/Location	Brief Description	Year Complete	Project Size
Package Sewer Plant and Vacuum Plant at Marlin Bay <b>Marathon, FL</b>	Installed of a treatment plant and vacuum pump station.	2007	\$1.988M
Miscellaneous Sanitary Sewer Repairs <b>Key West, FL</b>	Repaired existing sanitary sewers and manholes in various locations of the City of Key West	2007	\$1.849M
Naval Air Station – Storm/Sanitary Sewer System Repairs, U.S. Navy <b>Key West, FL</b>	Installed new storm and sanitary sewers, including new sanitary lift stations.	2006	\$6.5M
Bay Point Water and Wastewater Improvements, Florida Keys Aqueduct Authority <b>Baypoint, FL</b>	Installed 15,000 LF of vacuum mains, 5,000 LF of water mains, a bridge crossing at US 1, a \$2.1M wastewater treatment plant, 117 vacuum pits, and electrical/process equipment; and completed roadway restoration.	2005	\$5.6M
Conch Key Water and Wastewater System Improvements, Florida Keys Aqueduct Authority <b>Key West, FL</b>	Installed gravity wastewater collection sewer with lift stations and water main, including rock trenching, dewatering, and residential impact.	2005	\$1.9M
Naval Air Station – Storm and Sanitary Sewer Repairs, U.S. Navy <b>Key West, FL</b>	Removed and replaced storm and sanitary sewers on various naval properties.	2003	\$3.65M
Naval Air Station – Truman Annex, U.S. Navy <b>Key West, FL</b>	Removed and replaced sewer.	2003	\$1.27M
Robert Gabriel Apartments – Site A, B, and C, Housing Authority of Key West <b>Key West, FL</b>	Conducted underground utility work.	2002	\$270,000
Naval Air Station – Replacement of Existing Sewers at Trumbo Point, U.S. Navy <b>Key West, FL</b>	Removed and replace storm and sanitary sewers on various naval properties at Trumbo Point.	2002	\$1.859M
Interior Electric Renovation at East Martello Tower <b>Monroe County, FL</b>	Conducted electrical renovations.	2002	\$69,000
Naval Air Station – Lift Station Transmitter System at Sigsbee Park, U.S. Navy <b>Key West, FL</b>	Installed a lift station transmitter system.	2001	\$529,515



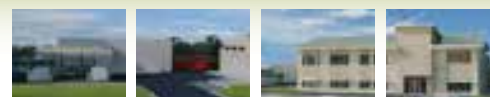


Table 2.7-1: DNHI's Representative Projects Constructed in the Florida Keys/Monroe County

Project/Location	Brief Description	Year Complete	Project Size
Pump Station A Rehabilitation and Force Main <b>Key West, FL</b>	Installed force mains and conducted pump station rehabilitation.	2001	\$941,759
Sanitary Sewer Rehabilitation for Service District F and G <b>Key West, FL</b>	Installed 30,000 LF of sanitary sewer mains, 10,000 LF of sanitary sewer laterals, and a new lift station.	2000	\$7.4M
Sanitary Sewer Rehabilitation for Service District C <b>Key West, FL</b>	Installed 29,350 LF of sanitary sewer mains and appurtenances.	2000	\$6.29M
Flagler Interceptor Phase II Sanitary Sewer Rehabilitation <b>Key West, FL</b>	Installed sanitary sewer.	2000	\$5.114M
Hilton Haven Sewer and Water Extension Pump Station S <b>Key West, FL</b>	Installed sanitary sewer and water main.	1999	\$1.054M
Sanitary Sewer Rehabilitation for Service District E <b>Key West, FL</b>	Replaced 15,700 LF of sanitary sewer, manholes, and sanitary sewer laterals.	1998	\$1.814M
Sanitary Sewer Rehabilitation for Service Districts D and DA <b>Key West, FL</b>	Replaced sanitary sewer, manholes, and sanitary sewer laterals.	1998	\$1.054M
Watermain System Upgrade, Greene Street, Florida Keys Aqueduct Authority <b>Key West, FL</b>	Removed and replaced watermain system.	1996	\$79,089
Pump Station B, C, D, DA, E, and F Rehabilitations <b>Key West, FL</b>	Constructed sanitary sewer lines, force main, and wastewater pumping stations.	1995	\$3.2M
1992 Marathon Airport Terminal Area Site Improvements <b>Monroe County, FL</b>	Completed site improvements at the Marathon Airport.	1995	\$3.425M
Airport Wastewater/Collection Transmission System <b>Key West, FL</b>	Installed wastewater collection transmission system.	1994	\$820,350
Pump Station N Wastewater Collection and Transmission System <b>Key West, FL</b>	Installed pump station and wastewater collection and transmission system.	1993	\$229,470

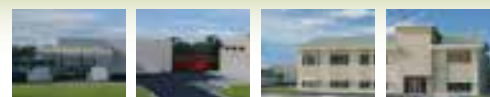
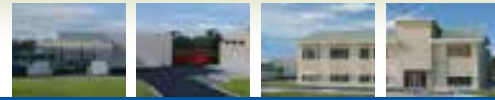


Table 2.7-1: DNHI's Representative Projects Constructed in the Florida Keys/Monroe County

Project/Location	Brief Description	Year Complete	Project Size
Phase II-B Water Distribution System Upgrades, Florida Keys Aqueduct Authority <b>Key West, FL</b>	Upgraded the water distribution system.	1993	\$444,180
Replacement of the Landside Portion of the Ocean Outfall with 30-inch HDPE Pipe <b>Key West, FL</b>	All work associated with the replacement of the landside portion of the ocean outfall from the Key West WWTP. The majority of the work was on the U.S. Naval property and portions of the work had to be performed in conformance with OSHA regulation for the protection of hazardous waste workers.	1993	\$900,173
Sigsbee Force Main, Navy Points of Connection, Pump Station "B" Force Main and Patterson Avenue Street and Drainage Improvements <b>Key West, FL</b>	Constructed sanitary sewer system, force mains, meters and instrumentation, meter pits, storm drains, catch basins, and street extensions; and repaired existing manholes and pipe.	1992	\$2.097M
Anglers Park Shores and South Circle Villas, Florida Keys Aqueduct Authority <b>Key West, FL</b>	Conducted underground utility work.	1991	\$393,996
Largo Gardens/Pamela Villa, Florida Keys Aqueduct Authority <b>Key West, FL</b>	Conducted underground utility work.	1991	\$496,775
Phase II-B Water Distribution System Upgrades, Florida Keys Aqueduct Authority <b>Key West, FL</b>	Upgraded the water distribution system.	1990	\$3.06M
24-inch Transmission Main—Bahia Honda to Cudjoe Key, Florida Keys Aqueduct Authority <b>Key West, FL</b>	Installed 24-inch transmission main.	1987	\$4.36M
Water Supply System, Florida Keys Aqueduct Authority <b>Key West, FL</b>	Installed water supply system.	1982	\$6M



### 2.8. Statement on experience in providing design-build services in Florida

DNHI has provided conventional construction and construction under the design-build method since their founding in 1966. We have successfully completed several projects within the Florida Keys, and specifically Key West, under a design-build approach, including the recent solid waste transfer station for the City of Key West. Additionally, we have completed the City of Layton's wastewater collection system and the Long Key State Park wastewater collection system design-build projects, as well as the Trailer Village wastewater collection design-build for the City of Key Largo. Our extensive local project experience demonstrates the capabilities, internal process, and expertise of our design-build delivery capabilities.

To implement facility design-build projects, our design engineer CDM Smith utilizes their state-of-the-art design-build center in Orlando, FL. The center uses a combination of facilities where the design-build team members collaborate to advance design concepts with constructability, cost, schedule, and operability input. These centers generate Building Information Models (BIMs) and electronically attach data associated with the technical and schedule aspects of the design components. This way, the entire team can visualize the project as the design advances. Additionally, the engineering and architectural disciplines are co-located and work in a collaborative environment resulting in enhanced coordination and improved time efficiencies. CDM Smith has employed the use of their design-build center on several award-winning design-build projects, including the **Lantana Road Landfill/Park Ridge Golf Course** for the Solid Waste Authority of Palm Beach County; **the Arbenie Pritchett Water Reclamation Facility** for Okaloosa County; the **South Water Reclamation Facility—Phase IVA** for Orange County Utilities; and the **SR 46/Lake Jesup Bridge replacement** for FDOT District 5 in Seminole and Volusia Counties.

### 2.9. Statement on corporate safety program, safety record, and OSHA violations, including handling of violators, for both Proposer and Subcontractors

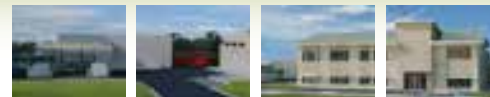
DNHI prides ourselves on maintaining a safe work environment for our employees, as well as the general public in the communities where we are working. Every project we conduct is governed by the policies and procedures outlined in our corporate safety manual. Project-specific safety plans, with a detailed task-based analysis and local emergency procedures, are prepared and reviewed with all employees involved on the project. In addition, adequate new hire training, weekly toolbox discussions with all assigned employees, daily site inspections, and employee safety incentives have assisted us in improving on our corporate safety goals.

Within the following pages, we have included the following safety information for DNHI:

- OSHA 200/300 Log Forms covering 2011, 2010, and 2009
- Current Experience Rate Modified on Insurance Carrier Letterhead.

#### *Subcontractors*

DNHI has a corporate policy that requires an EMR track record of less than 1.0 from all of our subcontractors. It is also important to note that subconsultant CDM Smith's current EMR is 0.57, and they have maintained an EMR below the construction industry average of 1.0 for 20 continuous years.



OSHA LOG  
2011  
M = Michigan  
F = Florida

OSHA's Form 300 (Rev. 01/2004)

## Log of Work-Related Injuries and Illnesses

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

**Attention:** This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



Year 2011  
U.S. Department of Labor  
Occupational Safety and Health Administration

OSHA approved OMB no. 1218-0176

Douglas N. Higgins, J.D.  
ANN ARBOR, Michigan  
City State

Identify the person		Describe the case		Classify the case		Enter the number of days the injured or ill employee was unable to work		Check the "injury" column or check the type of illness									
(A) Case no.	(B) Employee's name	(C) Job title (e.g., Welder)	(D) Date of injury or onset of illness	(E) Where the event occurred (e.g., Loading dock north end)	(F) Describe injury or illness; parts of body affected, and object/substance that directly injured or made person ill (e.g., Steam degree burns on right forearm from asphaltic asphalt)	(G) Death	(H) Days away from work	(I) Job transfer or restriction	(J) Other recordable cases	(K) Days away from work	(L) On job transfer or restriction	(M) Injury	(N) Skin disorder	(O) Respiratory condition	(P) Poisoning	(Q) Hearing loss	(R) All other illnesses
1M11	R. Hawker	SECT	4/25	making	CONVULSION NECK, HIP AND FALL / LT. BUTTOCK					0	0						
2M11	AL LUKE	LABORER	11/18	office	pinched nerve lower back												

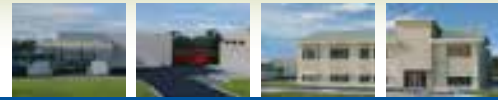
Page totals: 0 0 0 2 0

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search existing data sources, gathering the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Washington, DC 20543. Do not send this information to the Office of Management and Budget, Paperwork Project (0304-0188).

Page 1 of 3





Year 20 11  
U.S. Department of Labor  
Occupational Safety and Health Administration  
Form approved OMB no. 1218-0176

## Summary of Work-Related Injuries and Illnesses

OSHA's Form 300A (Rev. 01/2004)

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before compiling this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35. In OSHA's recordkeeping rule, for further details on the access provisions for these forms.

### Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0 (g)	0 (h)	0 (i)	2 (j)

### Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
0 (k)	0 (l)

### Injury and Illness Types

Total number of ...	(1) Injuries (m)	(2) Skin disorders	(3) Respiratory conditions	(4) Poisonings	(5) Hearing loss	(6) All other illnesses
	2	0	0	0	0	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3664, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

### Establishment information

Your establishment name Davis M. Higgins, Inc.  
Street 3390 Davis Drive City ANN ARBOR State MI Zip 48108

Industry description (e.g., Manufacture of motor vehicles) HEAVY CONSTRUCTION  
Standard Industrial Classification (SIC), if known (e.g., 3715) 1623

OR

North American Industrial Classification (NAICS), if known (e.g., 336212) 237110

Employment information (If you don't have these figures, see the Worksheet on the back of this page to estimate.)

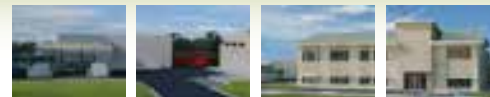
Annual average number of employees 42  
Total hours worked by all employees last year 95945.5

### Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

John H. Swann, Vice President  
Title 192012  
Telephone 734 996 9500

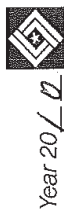


OSHA 300  
2010  
m = Michigan  
F = Florida

OSHA's Form 300 (Rev. 01/2004)

## Log of Work-Related Injuries and Illnesses

**Attention:** This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



U.S. Department of Labor  
Occupational Safety and Health Administration

OSHA Form 300 (Rev. 01/2004)

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.12. Feel free to use two lines for a single case if you need to. You must complete an injury and illness incident report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Year 2010  
U.S. Department of Labor  
Occupational Safety and Health Administration  
OSHA Form 300 (Rev. 01/2004)

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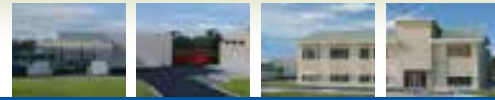
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Year 2010

U.S. Department of Labor  
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

## Summary of Work-Related Injuries and Illnesses

OSHA's Form 300A (Rev. 01/2004)

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0".

Employers, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

### Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
(a) 0	(b) 0	(c) 0	(d) 0

### Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
(e) 0	(f) 0

### Injury and Illness Types

Total number of ...	(1) Injuries	(2) Skin disorders	(3) Respiratory conditions	(4) Poisonings	(5) Hearing loss	(6) All other illnesses
(g) 4	0	0	0	0	0	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 50 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspect of this data collection, contact US Department of Labor, OSHA Office of Statistical Analysis, Room N-3604, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

### Establishment information

Your establishment name: Douglas N. Higgins Inc.  
Street: 3390 TEAVIS POINTE RD, STE A  
City: ANN ARBOR State: MI ZIP: 48108

Industry description (e.g., Manufacture of machinery)  
HEAVY CONSTRUCTION

Standard Industrial Classification (SIC), if known (e.g., 3715)  
1623-08

OR

North American Industrial Classification (NAICS), if known (e.g., 336212)  
237110

Employment information (If you don't have these figures, see the Worksheet on the back of this page to estimate.)

Annual average number of employees  
38

Total hours worked by all employees last year  
89,459.25

### Sign here

Knowingly falsifying this document may result in a fine.

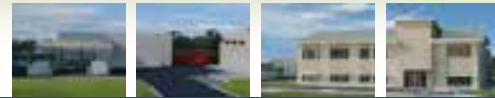
I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Spencer Ward Vice-President  
Company address: 734 996 9500  
Date: 1/4/11









Year 2009

U.S. Department of Labor  
Occupational Safety and Health Administration  
Form approved OMB no. 1218-0175

## OSHA's Form 300A (Rev. 01/2004) Summary of Work-Related Injuries and Illnesses

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0".  
Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

### Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0 (a)	0 (b)	0 (c)	1 (d)

### Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
0 (e)	0 (f)

### Injury and Illness Types

Total number of...	(1) Injuries	(2) Skin disorders	(3) Respiratory conditions	(4) Poisonings	(5) Hearing loss	(6) All other illnesses
(g)	1	0	0	0	0	0

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspect of this data collection, contact US Department of Labor, OSHA Office of Statistical Analysis, Room N-9644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed form to this office.

**Establishment Information**  
Your establishment name  
**DOUGLAS N. HIGGINS, INC.**  
3390 TRAVIS PKE. RD., STE. A  
ANN ARBOR, MICHIGAN 48106

Street  
City  
(734) 996-9500

Industry description (e.g., Manufacture of motor trucks (trucks))  
HEAVY CONSTRUCTION  
Standard Industrial Classification (SIC), if known (e.g., 3713)  
1623

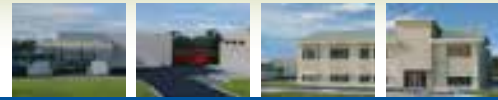
OR  
North American Industrial Classification (NAICS), if known (e.g., 336212)

**Employment information** (If you don't have these figures, see the Worksheet on the back of this page to estimate.)  
Annual average number of employees  
35  
Total hours worked by all employees last year  
84,228

**Sign here**  
Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Signature  
VICE-PRESIDENT  
834 996 9500  
1/5/10



www.hylant.com

December 9, 2011

Ms. Kelly Wilkie  
Douglas N. Higgins, Inc.  
3390 Travis Pointe Road, Suite A  
Ann Arbor, MI 48108

Re: Florida Experience Modifications

Dear Kelly:

Your Florida Experience Modification factors for the past three years are:

December 10, 2011-12	.91
December 10, 2010-11	1.04
December 10, 2009-10	.86

Please let me know if you need any further information.

Sincerely,

Deborah A. Neff  
Senior Service Assistant

DAN/nd  
Cc: James Sweet, Douglas N. Higgins, Inc.

24 Frank Lloyd Wright Drive • P.O. Box 541 • Suite J4100 • Ann Arbor, MI 48106  
Phone: 734-741-0044 • Fax: 734-741-1850

Risk Management • Insurance • 401(k) • Investments • Benefits

# PART III: TECHNICAL STATEMENT

## Project Approach





## Part III

### *Technical Statement – Project Approach*

The City of Key West is initiating the design, construction, and development of a 3.9-acre public transportation facility on Stock Island. We have thoroughly inspected the proposed project site in order to better understand the existing site conditions and to identify any possible community impacts during construction. This up-front research has allowed our team to develop an accurate design and construction approach to suit the City's requirements and needs. An understanding of local conditions and needs is an important factor for ensuring project success. We offer the City key members who live and work in the Florida Keys, providing them and our team with an intimate understanding of the local environment. The benefit to the City of Key West will be a team that can respond very quickly to address any project issues before they arise. Our team understands that this facility will be located where the Southernmost Waste-to-Energy Facility, a temporary Class I transfer station, was previously was sited. The addition of CDM Smith affords our team a unique understanding of the project site and these issues, as they provided services during construction for the landfill closure. Our team is uniquely qualified to collaborate with the City to execute your vision for a world-class transportation facility at this site that enhances the Key West landscape by adding value for the administrator, maintenance personnel, and the general community. The public transportation facility will allow the City's current bus fleet maintenance functions to expand from a small building on Palm Avenue to a larger facility that will include a 7,800-square-foot administration building, a 7,500-square-foot bus maintenance building, a 2,100-square-foot bus wash building, a fuel island that will include two above ground tanks (AGT) for storage of bio-diesel fuel with a dispensing system, and parking areas to accommodate buses, staff, and visitor vehicles (**Figure 3-1**). The bus maintenance building will have six service bays. This development is necessary for the City to effectively handle the current and future public transportation needs. Our design approach involves a modern building having a lower impact on the local community with design preferences for ecological sustainability. Our team inherently incorporates sustainable design concepts into all of its projects through a cohesive systematic approach. The new facility will be designed and certified to meet Leadership in Energy and Environmental Design (LEED®) certification.

The following sections identify the DNHI/CDM Smith team's approach to this project, in response to your needs of this facility.

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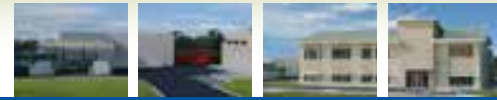
The addition of CDM Smith affords our team a unique understanding of the project site and these issues, as they provided services during construction for the landfill closure.

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**Figure 3-1:** We will employ similar design and construction methods learned from past project to complete the City's 2,100-square-foot bus wash building and other facilities.





## A. Understanding of Project Scope and Requirements

### Design/Permitting Approach

The City of Key West currently operates its transit system from a facility on Palm Avenue. The current facility does not afford the opportunity for expansion and is without sufficient space to accommodate the number of administrative, operations, and maintenance staff and vehicles needed to support its growing ridership.

The City seeks to establish a new public transportation facility to serve City transit operations now and in the future with a safe, energy-efficient facility that provides sufficient office space; ample indoor bus maintenance, fueling, and wash facilities; a safe environment for operations and maintenance staff; and ample outdoor bus parking and efficient bus circulation.

Our team understands that the main program components of this project include demolition of the existing buildings on the Stock Island site; a new building to accommodate a two-story, 7,800-square-foot administration space; and a one-story, 7,500-square-foot maintenance facility with six maintenance bays. The program also calls for a 2,100-square-foot bus wash facility; site improvements to accommodate associated bus circulation, parking, and a fueling station; and security improvements, including surveillance and fencing, as well as an interior secure cash room.

Our team's national and regional transit experience, along with our understanding of local Key West requirements, will be the catalyst that will execute the established program and concept for a world-class public transportation facility for the City. Our approach to functional transit design includes continual improvement through lessons learned and ongoing experience. Seemingly minor details—such as service aisles between bays, HVAC control/comfort, and maintaining clear views of bus circulation areas—become key design elements

that enable the City to realize their goals and make the project successful for the end user.

Combining these details with the primary considerations for safety, security, longevity, and functional traffic flow provides a complete design.

Our design philosophy, rooted in environmental design, will approach the project holistically, creating environmentally responsive results to meet human needs, create healthy work environments, and reduce energy consumption without negatively affecting natural systems.

### LEED® Certification

Sustainable—or green—design is a broad term extending beyond the parameters of building design to encompass a “triple bottom line” approach of balancing economic viability, social responsibility, and environmental stewardship. We will work with the City to balance initial capital costs with life cycle costs to achieve an optimum cost/benefit—the product of which is a facility meeting

current needs, accounting for future needs, and enabling the City to service and support a vibrant and growing public transportation system.

Team member CDM Smith inherently incorporates sustainable design concepts into all of its facility design projects.

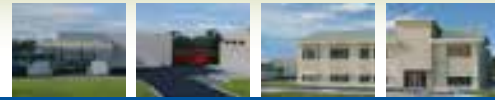
This can range from the correct siting of a building, to selection of building materials and systems (HVAC, controls, plumbing,

and electrical). However, the extent of implementation will be made in concert with the City. Our team will assist the City in implementing a cohesive systematic approach to sustainable design, carefully balancing initial capital costs with life cycle costs to achieve an optimum cost/benefit ratio.

The LEED® certification process will be used to objectively measure the extent to which this facility incorporates sustainable design elements. Established



*We will incorporate similar fueling features that CDM Smith utilized on the Mid-Mon Valley Transit Authority's bus maintenance facility into the City's public transportation facility design.*



by the U.S. Green Building Council (USGBC), LEED® certification provides a definitive and quantifiable standard for what constitutes a “green building.” The team’s experience with the LEED® rating system includes all phases of the LEED® certification process as evidenced by the projects below, including LEED® certified projects:

- Solid Waste Authority of Palm Beach County LEED® Silver Certified Operations and Maintenance Building (**Figure 3.A-1**)
- Catawba County LEED® Silver Certified Biodiesel Research Facility
- City of Dania Beach LEED® Gold Certified Membrane Process Building
- Columbus Recycling Facility LEED® Administrator
- Buncombe County Courts Building LEED® Commissioning Authority.



Figure 3.A-1: Team member CDM Smith will employ similar building elements used on the recent LEED® Silver-certified operations and maintenance building for the SWAPBC for the City’s public transportation facility project.

## B. Management Structure for Project Staffing, Including Design-Build Administrative and Supervisory Staff and Proposed Subcontractors

The DNHI/CDM Smith design-build team brings to the City of Key West a unique blend of designers, engineers, architects, operations specialists, and constructors that is unsurpassed in its ability to deliver the facility required. Our team has a proven track record working together on previous projects around the country and in Florida. We have a commitment to technical excellence, innovation, continual improvement, and environmental and fiscal considerations, which makes us an ideal partner.

Led by DNHI, the design-build team will be under the management of **Walter Messer**, the overall project manager and the City’s main point of contact throughout the entire duration of this contract. Under Mr. Messer’s direction, DNHI will direct the efforts of the design-build team toward efficient and maintenance-friendly facilities. Mr. Messer and DNHI will be ever mindful of the long-term operation

of the facility and will provide assurance that all the design layouts, equipment provided, and construction workmanship will meet the needs for long-term reliable service to the City. An overview of our design-build team structure is presented graphically in **Figure 3.B-1**.

DNHI uses an integrated team approach to project execution, understanding that all members of the project team—DNHI managers and constructions specialists, CDM Smith design professionals, and startup staff, the City, other vendors, subcontractors, and other stakeholders—will be critical to the project’s success. The DNHI design-build team will work together with all stakeholders to create a positive environment and to focus on common project goals.

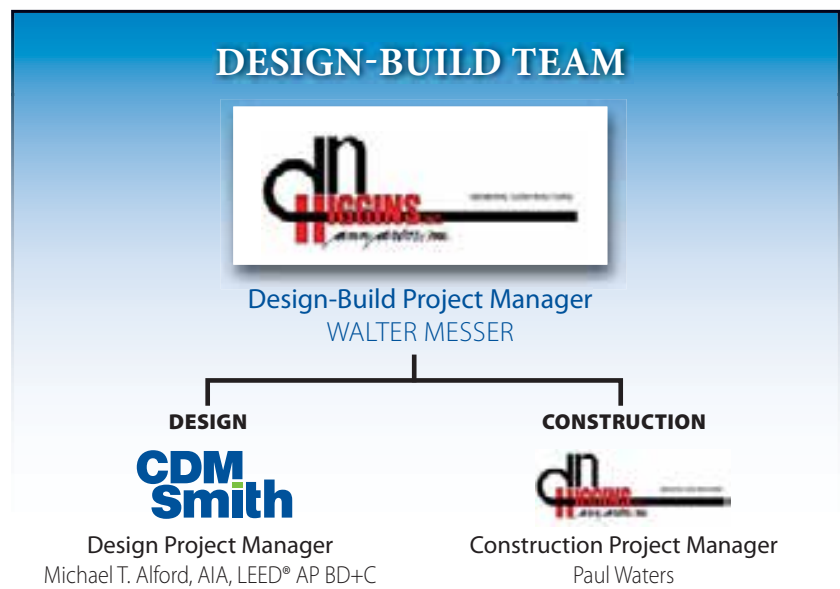
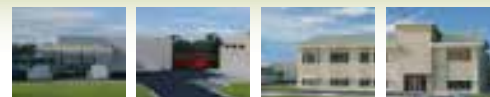


Figure 3.B-1: DNHI will lead the overall project, as well as the construction phase, while CDM Smith will lead the design portion of this important public transportation facility project.



Project teams become successful not only by understanding the project goals clearly and pursuing them diligently, but also by collaborating on multiple projects and learning to optimize each other's strengths for the best possible project outcome. The DNHI-led team is fully integrated, and our proposed team's key players understand the challenges of meeting the project goals.

**Michael T. Alford, AIA, LEED® AP BD+C** with CDM Smith will serve as the design project manager and be responsible for all aspects of the design and subconsultants, while **Paul Waters** with DNHI will serve as the construction project manager and keep the construction phase on schedule. Both Mr. Alford and Mr. Waters will report directly to Mr. Messer for this project.

Our organization chart, Figure 2.1-1, details key team members and their roles on the project. DNHI will provide a team of dedicated professionals that the City can trust to act in your best interests in design and construction quality, cost and schedule efficiency, and overall project management.

Each of our project team members will be committed to the City's project, and is available to work on the project until final completion of their tasks. Additionally, the City will have the benefit of a design team that will stay with the project from design, through construction to facility startup.

In summary, we have developed an organization plan that matches project responsibilities with the unique expertise of our project team members. The team is committed to fulfilling all project responsibilities during the design and construction phases of the project.

## C. Management Process

### Design Phase

CDM Smith's project management approach is based on the concept that successful delivery of the design is critical to both the City of Key West and our team. The public transportation facility represents a significant capital investment for the City, and, as a result, we will

focus on the following three tenets to cultivate success:

- Provide a clear definition of the project design objectives, communicate these objectives to every team member, and explain each team member's role in achieving the objectives. This helps build "buy-in" from the outset from all team members
- Provide regular, timely, and accurate communication to all project team members to keep everyone on the same page, maximizing the use of the team's expertise in a constructive and collaborative way to achieve consensus in solving design challenges
- Build on CDM Smith's core values of integrity, excellence, shared commitment, teamwork, and

initiative to achieve a high-quality design to meet or exceed the City's project objectives.

Communication is vital to the success of any project and is a very important part of the CDM Smith design team's management plan. Effective communication begins with a strong, responsive, accessible project manager. Our design project manager, Mr. Alford, will be responsible for overseeing the following major design activities to ensure quality project delivery:

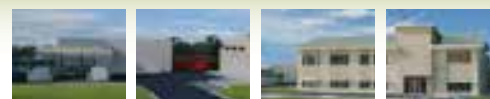
- Overseeing day-to-day management of this design
- Serving as the primary design contact
- Managing the design QA/QC process
- Preparing documentation of all meetings, telephone conversations, and conferences pertaining to the design and summarizing them in meeting minutes.

Mr. Alford will move the design process forward keeping all CDM Smith team members abreast of recent decisions that affect project development and fostering an environment of collaboration. Design team collaboration will be enhanced by the use of ProjectWise, an electronic document management system that allows a high level of interaction, document management, quality reviews, and file sharing. The design team has complete control of all project data centralized to enable staff to have access to all electronic documents, including all current and historical documents while working in a structured and managed environment.



*Our proactive management process will support our streamlined design and construction schedule for this project.*





During the design phase, our construction team will be fully integrated into each design phase. They will address all constructability issues and review operation and maintainability objectives. This will expedite construction by alleviating typical design constructability issues.

The design phase will begin upon completion of the demolition phase and will consist of 180 calendar days.

### Construction Phase

The construction phase will begin after the design phase commences. In addition, all applicable permits must be acquired prior to beginning the construction phase. The duration of our construction activities will be 365 calendar days. Tasks included within this phase of the project scope are both trade and construction management related. The DNHI on-site management team will work closely with the City's Resident Project Representative (RPR) to ensure that construction meets all approved design requirements and that quality is of the highest level. Our construction project manager Mr. Waters will utilize project control systems to manage and track project activities, costs, schedule, and deliverables to ensure project objectives are achieved.

### D. Resources, Capacity To Perform, and Mobilization Plan

DNHI employs a work force of construction industry professionals whose main objective is to exceed our client's expectations. Safety first, then quality and performance are our major goals. The vast majority of our operational staff are located within South Florida, affording our local operations the resources and availability to successfully execute the design-build public transportation facility, from design through the final ribbon cutting ceremony.

The DNHI/CDM Smith team organization for this project is composed of highly experienced professionals with decades of general contracting experience. Combined, the proposed project team has delivered numerous contracting projects. The project team's successful track record demonstrates a high level of communication and effectiveness to design and construct projects in the Lower Keys. The City of Key West can expect the same from our team. We assure the City that this project will be completed on or ahead of schedule, within budget, and to the City of Key West's expectations due to our past relationships with you and your staff and our excellent working relationship.

DNHI has maintained a presence in the Florida Keys for more than 35 years, with a track record of successfully completing design-build and infrastructure contracts. Our mobilization plan takes advantage of our presence in the Florida Keys, where we have maintained an office since 1991. We plan to utilize our local office in Key West to headquarter this project. We will also have an on-site office trailer set up for our project management team. We currently have the equipment resources located within the Florida Keys to utilize on this project and can supplement these resources, as needed, with equipment from local vendors and our other Florida locations.

**Table 3.D-1a** outlines DNHI's Florida equipment and resources, and **Table 3.D-1b** showcases our extensive Florida fleet available for this project. Also available to the City of Key West is our equipment and fleet from our Michigan locations. These resources are outlined in **Table 3.D-2a** and **Table 3.D-2b**, respectively.

**Table 3.D-1a: DHNI Florida Equipment Available for This Project**

Description	Model Year	Serial Number
Caterpillar 350L Excavator	1997	3ML01002
Caterpillar 324DL Excavator	2011	PYT00364
John Deere 225CLC/RTS Excavator	2005	FF225CX500280
Caterpillar 320CL Excavator (MCKENNA)	2002	ANB03095
Caterpillar 312BL Excavator	1998	9GR00382
Caterpillar 225BLC Custom 180 Excavator W/Hudco	1987	2ZD00682
Caterpillar 225 Excavator W/Hudco	1986	51U06510
<b>Excavators</b>		
John Deere 450C Excavator Lease/Purchase	2005	FF450CX091789
Caterpillar 330CL Excavator	2004	DKY02397



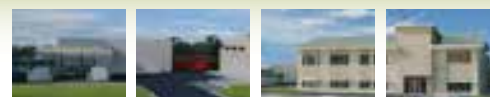


Table 3.D-1a: DHNI Florida Equipment Available for This Project

Description	Model Year	Serial Number
John Deere 225C RTS Excavator	2004	FF225CX500205
John Deere 135C Excavator	2003	FF135CX30043
Hitachi ZX13S Excavator	2004	FF01SCT064489
John Deere 7SCZ Excavator	2006	FF075CX13044
John Deere 50ZTS Compact Excavator	2006	FF050DX244884
John Deere 50DXFF Compact Excavator	2006	FF050DX244457
John Deere 50DXFF Compact Excavator	2005	FF050DX244434
John Deere 50ZTS Compact Excavator	2002	FF050CX240582
<b>Rough Terrain Crane</b>		
Terex RT450 RNT Rough Terrain Crane	2000	11948
<b>Loaders</b>		
Caterpillar 950F, SER II Loader	1993	5SK00767
Caterpillar 938G Loader	2001/2002	4YS02105/06XR03477
John Deere 938G Loader	2004	DW624JZ593170
John Deere 544J Loader	2005	DW544J598942
John Deere 544J Loader	2005	DW544JZ598656
John Deere 544H Loader	2001	DW544H581183
Caterpillar 252 Skid Steer Loader	2002	FDG852
Bobcat 873 Skid Steer Loader	1998	514116036
Massey Ferguson 7500 Loader	2001	7500WJ5122
<b>Dozers</b>		
John Deere 650J Dozer	2005	T0650JX113505
<b>Backhoes</b>		
Caterpillar 420D IT	2001	BLN02095
<b>Fork Lifts and Tractors</b>		
Lay-Mor 8HC, 8-foot Broom Tractor	2006	31036
Massey-Ferguson MF451-2 Broom Tractor	2003	BM45024
Ford 2910 Broom Tractor/Sweepster AH-6 Broom	1987	BB36964-8704
Ford 2000 Diesel Broom Tractor/3PT Hitch	1976/1972	C522074/C358008

Table 3.D-1b: DHNI Florida Fleet Available for This Project

Year	Make/Model	V/N	Location
1998	Ford LT9513 Tractor	1FTYS96D4WVA40881	Naples, FL
2007	Mack CT713 Dump Truck	1M2AL02C77M004550	Naples, FL
1998	GMC 7500 W/2000 Gal Tank	1GDL7H1C1WJ514020	Naples, FL
1990	Ford F800 Dump Truck	1FDPK84P5LVA38535	Naples, FL
2007	Ford F750 Dump Truck	3FRNF75B17V423505	Naples, FL
2005	Chev Silverado 3500	1GBJC34285E239402	Naples, FL
2005	Chev Silverado 3500	1GBJC39205E215345	Naples, FL
2012	Chev Silv C2500 HD P/U	1GC2CVCG6CZ322003	Naples, FL
2006	Chev Silv C2500 HD P/U	1GCHC23DX6F183255/1GCHC29U76E276201	Naples, FL

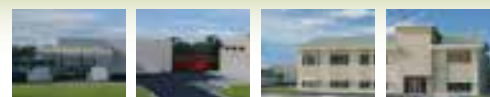


Table 3.D-1b: DHNI Florida Fleet Available for This Project

Year	Make/Model	V/N	Location
2004	Chev Silv C2500 HD P/U	1GCHC29U24E256628/1GCHC29U54E352799	Palm Beach, FL
2003	GMC Sierra 2500 HD P/U	1GTHC24U83E315591	Naples, FL
2000	Chev C2500 P/U	1GCGC29U6YE417645/1GCGC29U6YE319909	Naples, FL
2001	Ford F250 HD 4WD P/U	1FTNX21L31EA81229	Naples, FL
1998	Ford F250 HD P/U	1FTFF25H1JLA03878	Naples, FL
2006	Toyota Tacoma P/U	5TEUU42N06Z180921	Naples, FL
2005	Honda Pilot EX-L	5FNYP18555B004447	Naples, FL
<b>Trailers</b>			
1996	Witzco-Challenger Lowboy	4URA11E27TS061187	Naples, FL
2012	Lark United Tandem 7x16 (Enclosed)	5RTBE1625CD028770	Naples, FL
2005	Express Tandem 6x12 Enclosed	5GLBE122X5C000729	Naples, FL
1989	Great Dane Trailer	1GRDM9622KM066313	Naples, FL
2005	Eager Beaver 10TNT Tagalong	112TBN2655A069857	Naples, FL
2003	Belshe Tagalong Trailer	16JFO162231038245	Naples, FL
2001	Hammerhead HD18 Tagalong	1E9CH1812L252178	Naples, FL

Table 3.D-2a: DHNI Additional Equipment Available for This Project – From Michigan

Description	Model Year	Serial Number
<b>Loaders</b>		
Caterpillar 950G Loader	2000	5FW01466
Caterpillar 938G Loader	2004	RTB00399
Caterpillar 924G Loader	2001	9SWOI113
<b>Dozers</b>		
Caterpillar D6MXL Dozer	1997	3WN000535
John Deere 450H Dozer	2001	901312
John Deere E 450G Dozer	1998	846786
<b>Graders</b>		
Caterpillar 120G Motor Grader	1978	87V03520
<b>Backhoes</b>		
Case 580SM, SER II, 4WD Extendahoe	2005	N5C386745
Case 580 Super L, 4WD Extendahoe	1996/1995	JJG0198006/JJG0192158
<b>Compactors</b>		
Dynapac CA251D Single Drum Vibratory Roller/Drum Drive	1995	58311946
Raygo 400A Single Drum Vibratory Roller	1979	01M2380
Hudco HC40 Vibratory Compactor	2003/1999	40-313/40-126
Wacker BPU3050A Vibratory Compactor	2005	1589382

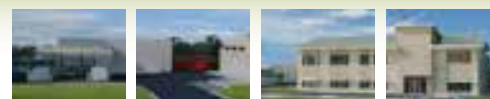


Table 3.D-2b: DHNI Additional Fleet Available for This Project – From Michigan

Year	Make/Model	VIN	Location
1997	Kenworth T800 Tractor	IXKDDBOXOVJ752253	A2, MI
1997	Peterbilt 357 Tractor	IXPADBOX5VN435722	A2, MI
2007	Chev Vortec Max P/U 1500	2GCEK13Y471532972	Saline, MI
2006	Ford F250 HD P/U W/Body	IFDSX21596EC94421	Manch, MI
2006	Ford F250 HD P/U W/Body	IFTSX21536EA56231	A2, MI
2001	Ford F250 HD P/U	IFTNX21LIIEC60546	A2, MI
2001	Ford F250 HD P/U	IFDNX21L01ED16228	Manch, MI
1993	Ford F700 Dump Truck	IFDPK74C5PVA35535	A2, MI
1984	GMC Brigadier 9000 Series 2500 Gallon Water Truck	1GTM9CIC3EV517188	A2, MI
2004	Honda Pilot	2HKYF18644H508660	Saline, MI
2003	GMC Envoy	IGKET16S936105394	Saline, MI
2007	Mercury Grand Marquis	2MEFM5V97X615717	Dexter, MI
2011	Mercedes S550V	WDDNG7BB8BA391152	A2, MI
<b>Trailers</b>			
2005	Rogers CR50, 50-Ton Lowboy Trailer	IRBH5030X5AR24795	A2,MI
2004	Rhodes Dump Trailer	IA9SD28424P432268	A2,MI
2002	Rhodes Dump Trailer	1A9SD284X2P432089	A2,MI
1969	Fruehauf Trailer	FWK415006	A2,MI
2002	Hillsboro Tagalong TRL	3B6ZK921019775	A2,MI
1976	Hudson HC14 Tagalong Trailer	HE76291	A2,MI
1996	Ditch Witch Trailer For Trencher	1DSOOOOP2T17N0443	A2,MI

## E. Approach to Schematic Site Plan, Grading, and Level Changes

Our team has thoroughly developed considerations related to the proposed site layout, grading/level changes, and site utility plan. Each of these items is discussed independently within this section.

### Schematic Site Plan Layout

Per the City of Key West's directions conveyed during the pre-bid meeting, our team approached an analysis of the preliminary layout of the site and structures on this project by limiting significant deviations from the Chen-Moore plans presented in the RFP documents. This decision was made for three primary reasons:

1. The site layout is well thought out and will accommodate the City's traffic flow and arrangement needs for the new public transportation facility.
2. The overall site arrangement has already been reviewed and deemed acceptable by the City. These previous approvals will expedite our ability

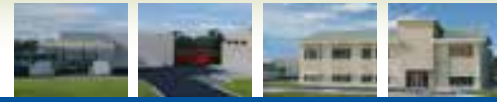
to start site development construction and shorten the overall project duration. These schedule considerations are further discussed in **Subsection F** of this section of the technical statement.

3. The previously permitted final grades outlined by the CH2M Hill drawings, which included a 2-foot clean fill cap over the entire site, limit the flexibility with which significant site layout changes can be made.

### Grading and Level Changes

In order to fully evaluate the grading and level changes required by the CH2M Hill and Chen-Moore design drawings in the RFP, our team engaged the services of Site Tech Solutions to prepare a detailed soil balance analysis for the project. A summary of the methodology and results of this analysis is presented below:

- From the "Elevations After Demolition" grades presented on CH2M Hill drawing D-04 to the grades presented on CH2M Hill Drawing D-05 "Initial Grade Elevations Before 2 Feet of Clean Fill" our team has determined that 8,451 CY of existing material needs to be cut and that 6,873 CY of this material needs to



be placed and properly compacted at different areas over the site. This leaves 1,578 CY of excess material from the soil balance effort. This excess material will be used as a portion of the 2-foot of clean fill capping material.

- The next phase of grading/level changes associated with the project involves the placement of 2 feet of clean fill over the site. Grades after this fill is placed are presented on the CH2M Hill drawing D-06 “Final Grading Elevations After 2 Foot of Clean Fill Added” and correspond very closely to the Chen-Moore “Proposed Grading And Drainage Plan” drawing. Our analysis indicates that this phase will require the installation and proper compaction of over 14,625 CY of fill placement. Considering that certain permanent project features (e.g., building floor slabs and asphalt pavement) are to be installed at the elevations presented by the Chen-Moore drawing referenced above, the following summarizes our approach to the varying cross-section of the 2 feet of clean fill required for the major project areas:

- **Asphalt Pavement**
  - 10 inches of imported clean fill or excess material from site balance
  - 12 inches of imported limerock or crushed concrete from building demolition
  - 2.75 to 4 inches of asphalt pavement.
- **Greenbelt/Landscaping**
  - 24 inches of imported clean fill or excess material from site balance.
- **Building**
  - 6 inches or 4 inches of imported clean fill or excess material from site balance
  - 12 inches of imported limerock or crushed concrete from building demolition
  - 6- or 8-inch concrete floor slab.

By implementing this approach, our team has complied with the intent of the RFP in the most cost-effective manner possible. Existing on-site soil material will be used to balance the site to pre-cap grades with no fill import required. No soil is required to be disposed of off-site and base material for both asphalt pavement and building slabs are accounted for in the total cross-section of the 2-foot cap. The analysis prepared by Site Tech Solutions is shown in **Figure 3.E-1**, **Figure 3.E-2**,

and **Figure 3.E-3** on the following pages to support our approach.

### Site Utility Plan

The site utility plan and materials of construction are typical to those DNHI has implemented on previous projects completed in Key West and the Lower Keys. Chen-Moore has sufficiently detailed all major utilities and their routing on-site and, at this time, DNHI’s final design will not vary significantly from what was provided in the RFP.

Unlike some projects, demolition, earthwork, and site utilities are major construction components for this public transportation facility project. DNHI will self-perform these activities, allowing for significant control over the phasing and completion. This, coupled with DNHI’s earthwork and site utility experience in Key West, will shorten schedule delays associated with the front end of the project and allow the structures to be extracted faster.

### F. Construction Phasing Approach

In order to effectively and economically phase the project by the four distinct Notices to Proceed (NTPs) outlined in the RFP, our team considered areas where certain design and construction activities could be completed simultaneously. In addition, we have determined that breaking out site and building foundation design and permitting from building design and permitting will provide an overall shorter duration for the project in total.

The earliest available opportunity to capitalize on this approach involves beginning site and building foundation design and permitting during the demolition phase of the project so that both activities finish at approximately the same time—200 calendar days from the NTP. From a construction standpoint, this approach allows us to move directly from the demolition phase of the project into the site development and building foundation. With the demolition complete and the site development/building foundations being constructed, the balance of the building design and permitting can be completed. It is anticipated that applications required for environmental permits may begin prior to the 60 percent design phase and any Requests for Additional Information (RAIs) received from environmental agencies will be clarified during the 90 percent design phase. This method can accelerate the process of obtaining the required building permit and minimize potential delays.



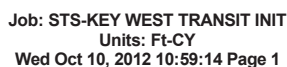


Figure 3.E-1: Phase I initial site grading (post demolition).

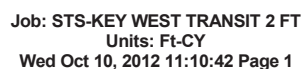
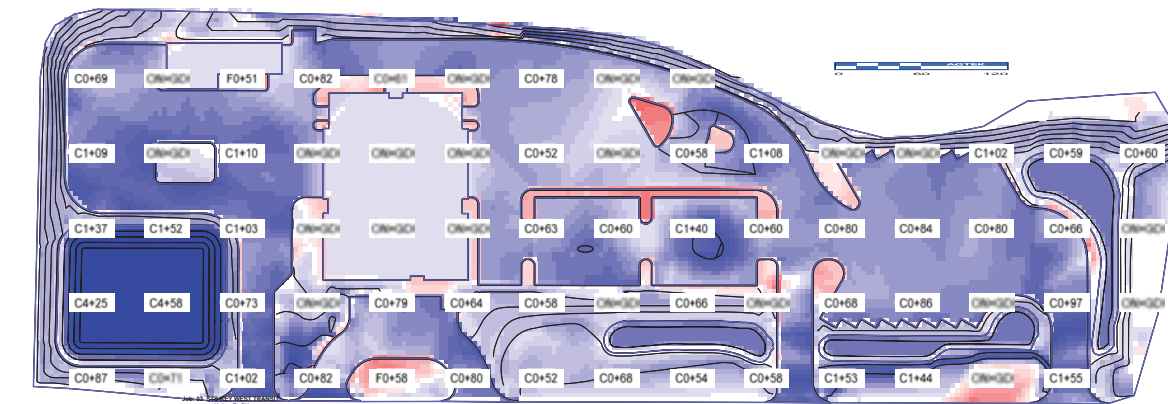
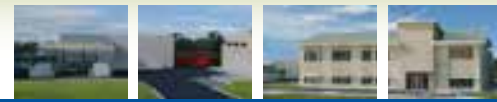


Figure 3.E-2: Phase 2 2-foot clean fill placement.



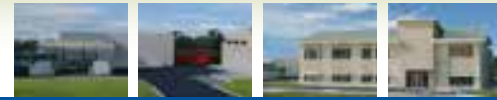
**Volume Report**  
**Subgrade vs. Existing**

	Total	Cut	Area	Fill	OnGrade	Volume	Comp	Ratio	Compact	Export	Change
						Cut	Fill	Cut	Fill	Import	Per .1 Ft
BLDGSLABS / ADMIN-SERV	12,624	0	0	0	12,624	76	1	1.00	1.00	76	47
BLDGSLABS / BUS WASH	2,092	0	0	0	2,092	13	0	1.00	1.00	13	8
<b>BLDGSLABS Sub:</b>	<b>14,716</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14,716</b>	<b>89</b>	<b>1</b>			<b>89</b>	<b>55</b>
ISLANDS / 1	1,215	56	0	0	1,159	11	0	1.00	1.00	11	5
ISLANDS / 2	1,593	0	1,273	320	0	39	0	1.00	1.00	39	6
ISLANDS / 3	603	0	597	6	0	22	0	1.00	1.00	22	2
ISLANDS / 4	308	0	24	284	0	4	0	1.00	1.00	4	1
<b>ISLANDS Sub:</b>	<b>3,719</b>	<b>56</b>	<b>1,894</b>	<b>1,769</b>	<b>11</b>	<b>65</b>				<b>65</b>	<b>14</b>
PAVEMENT / BRICK	5,196	4,205	0	0	991	159	0	1.00	1.00	159	19
PAVEMENT / MAIN	75,520	65,574	0	0	9,946	2,350	2	1.00	1.00	2,350	280
<b>PAVEMENT Sub:</b>	<b>80,716</b>	<b>69,779</b>	<b>0</b>	<b>0</b>	<b>10,937</b>	<b>2,509</b>	<b>2</b>			<b>2,509</b>	<b>299</b>
RETENTION / 1	11,125	10,782	0	0	343	1,428	0	1.00	1.00	1,428	41
RETENTION / 2	2,382	1,877	0	0	505	70	0	1.00	1.00	70	9
RETENTION / 3	2,593	2,066	0	0	517	77	0	1.00	1.00	77	10
RETENTION / 4	3,688	3,024	0	0	664	112	0	1.00	1.00	112	14
<b>RETENTION Sub:</b>	<b>19,778</b>	<b>17,749</b>	<b>0</b>	<b>0</b>	<b>2,029</b>	<b>1,687</b>	<b>0</b>			<b>1,687</b>	<b>74</b>
<b>Regions Total</b>	<b>118,929</b>	<b>87,584</b>	<b>1,894</b>	<b>29,451</b>	<b>4,296</b>	<b>68</b>				<b>4,296</b>	<b>442</b>
Unspecified	65,604	23,733	2,525	39,346	961	156	1.00	1.00	961	156	243
<b>Job Total</b>	<b>184,533</b>	<b>111,317</b>	<b>4,419</b>	<b>68,797</b>	<b>5,257</b>	<b>224</b>				<b>5,033</b>	<b>685</b>

	Plane	Slope	Depth	Volume
Sectional Qty's	Area	Area		
BLDGSLABS / ADMIN-SERV	12,624	12,631	0.670	313
BLDGSLABS / BUS WASH	2,092	2,094	0.670	52
<b>BLDGSLABS Sub:</b>	<b>14,716</b>	<b>14,725</b>		<b>365</b>
ISLANDS / 1	1,215	1,235	0.000	0
ISLANDS / 2	1,593	1,666	0.000	0
ISLANDS / 3	603	618	0.000	0
ISLANDS / 4	308	317	0.000	0
<b>ISLANDS Sub:</b>	<b>3,719</b>	<b>3,836</b>		<b>0</b>
PAVEMENT / BRICK	5,195	5,209	0.670	129
PAVEMENT / MAIN	75,520	75,560	0.670	1,875
<b>PAVEMENT Sub:</b>	<b>80,715</b>	<b>80,769</b>		<b>2,004</b>
RETENTION / 1	11,125	11,297	0.000	0
RETENTION / 2	2,382	2,412	0.000	0
RETENTION / 3	2,593	2,631	0.000	0
RETENTION / 4	3,688	3,731	0.000	0
<b>RETENTION Sub:</b>	<b>19,778</b>	<b>20,071</b>		<b>0</b>
<b>Sectional Total</b>	<b>118,928</b>	<b>119,401</b>		<b>2,369</b>

Figure 3.E-3: Phase 3 – Final grading to project subgrade.



At the completion of the site development/building foundations, we will have the building design completed, reviewed by the City of Key West, and permitted through the applicable agencies. We will then move directly into building construction with no lag in on-site construction activities. During the building phase, DNHI will adequately staff the project in order to ensure that the administration/service building, bus wash building, and site work completion activities can be constructed simultaneously.

**Our approach reduces the allotted 755-calendar-day contract time to substantial completion from the demolition NTP to 545 calendar days, equating to a reduction of 210 calendar days for the project in total.** This

expediting of the schedule will provide for a lower total project cost, a reduction in management and administrative costs for the City, and a significantly shorter duration to occupancy of the completed facility.

We have prepared an expedited design and construction phasing plan, and the schedule fully allows for the necessary 60 percent and 90 percent design development packages, along with the required time for interim design review by the City.

**Subsection I** of this section further outlines our team's construction phasing approach and full project schedule.

### G. Quality and Sufficiency of Proposed Staffing and Organizational Structure, Including Project Organization Chart and Identification of Key Project Team Members

We will fully integrate our design and construction staff throughout all phases of the project, beginning with the early design development, where personnel assigned to work on the project communicate and work together under the direction of the design-build manager. The interaction will continue into the project kickoff and then through each subsequent phase of the field execution all the way to closeout. By organizationally integrating the project management team from the beginning, the team is able to leverage the experience and specialty knowledge of both our design and construction staff, as well as promote the development of innovative

ideas that can streamline projects and reduce costs and/or schedule. The following is a discussion of the management structure, reporting relationships, and responsibilities of key staff.

**Design-Build Project Manager (Walter Messer)** – The design-build project manager will ultimately be responsible for the quality and delivery of the project, and the satisfaction of the City. During project execution, he will maintain the solid trusting relationship of the firm

with all levels of the City's staff, and provide guidance to meet schedules, budgets, and client expectations, with zero defects and with no health and safety issues.

He is also the designated position within the team responsible for the design-build project and is central to achieving control over project performance. He will assume overall responsibility for management and execution of the project.

Our project managers (design project manager Michael T. Alford, AIA, LEED® AP BD+C and construction project manager Paul Waters for construction) have both the responsibility and necessary authority for the project's performance. They have immediate and direct access to all project resources and are organizationally positioned to delegate authority to the proper levels to achieve performance efficiency. To help them

maintain proactive control of all project cost, schedule, and performance aspects for sufficiently complex tasks, DNHI's project controls personnel are available to update status and provide management reporting and analysis through our systems and tools.

As shown in **Figure 3.G-1**, the design-build project manager's resources include the engineers that provide the necessary design services for the project, as well as the construction project manager and site superintendent. In addition, through direct oversight and continual communication, the design-build project manager ensures that health and safety activities and the technical review team are properly interfaced and coordinated as part of the execution of the project. The line in the exhibit that links the design-build project manager with the QA/QC team represents a critical operational communications flow.



**Our streamlined approach reduces the overall project schedule by 210 calendar days, allowing the City to occupy the facility sooner, while reducing management costs for the City and the overall project cost.**

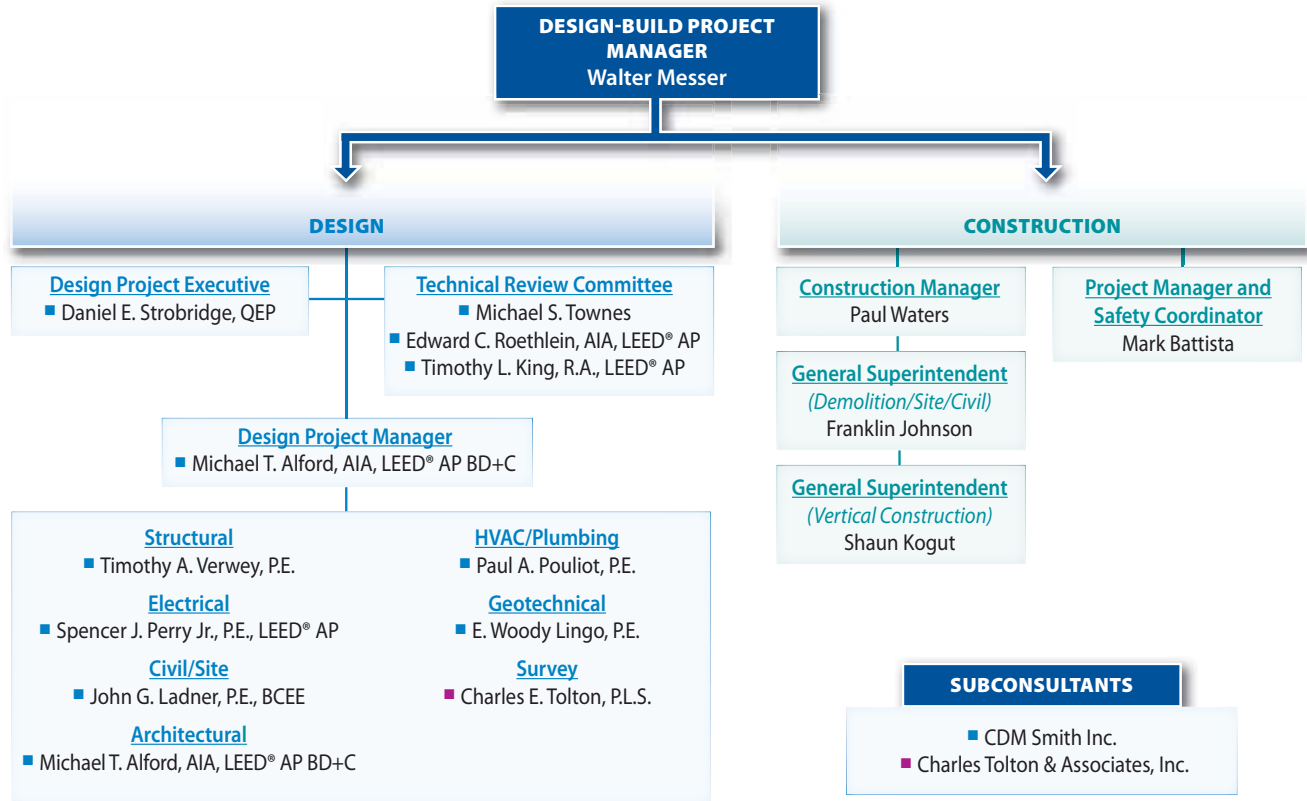
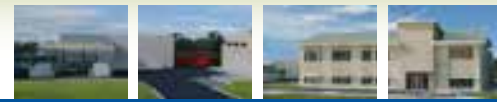


Figure 3.G-1: Our design-build team provides the City with the design and construction resources required to successfully implement this project.

**Design Project Manager (Michael T. Alford, AIA, LEED® AP BD+C)** – The design project manager reports to the design-build project manager, is the lead designer for the project, and will serve as the architect-of-record. This person integrates with the construction project manager during design and construction, and coordinates the design team activities. Project team member CDM Smith brings to the performance of the project a broad pool of architects, engineers, and geologists who are specialists in public transportation facility, maintenance building, and administrative facility design, and have a diverse range of technical disciplines, including architecture, civil, structural, mechanical, electrical, HVAC, and plumbing.

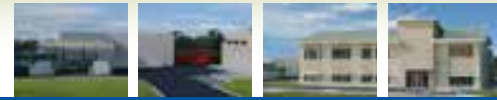
For the major design activities, these staff report to the design project manager, who finalizes all engineering issues prior to field implementation. After field mobilization, the role of the engineering staff shifts from a pre-mobilization/pre-construction mode to providing field construction support, at which time their reporting relationship also shifts so that they support the design-build project manager and construction project manager in the field.

During the design activities, coordination meetings will be conducted every other week to ensure that the work is progressing according to schedule and that all project concerns are being addressed. In addition to the design team, representatives from the construction team and the operations team will be in attendance at these meetings. The meeting agenda will include a confirmation that each design activity has been reviewed for possible cost savings and quality enhancement.

**Construction Project Manager (Paul Waters)** – The construction project manager reports to the design-build project manager and is the individual with responsibility for management of the construction. He is the critical individual charged with achieving the City’s expectations for cost control, schedule adherence, quality, and safety. The construction project manager:

- Interacts routinely with the design project manager and the design team throughout the design process to ensure a constructible design
- Works with the architect-of-record to ensure final design is within budget





- Represents the team's presence at the job site, Key West's construction services point of contact, and the absolute authority for directing work once the project has mobilized to the field, is responsible for executing the approved SOW in accordance with the work plans in a most efficient, cost-effective manner and in compliance with all federal, state, and local laws
- Is responsible for managing all direct craft labor along with all subcontractors performing work on-site with the aid of the site superintendent.

Subcontractors for the project will have their own supervisory personnel on-site for their specific activities. Examples include site civil contractor, electrical, etc. All subcontractor supervisory personnel will report to the construction project manager who has complete control and stop-work authority in the event of any concerns regarding safety or quality.

## H. Statement of Proposed Design Process With Review Schedule and Scope of Each Deliverable

### Concept Verification Phase

During the concept verification phase, the team will work with the City to review and validate the previously developed space needs, design criteria, and site/facility concept. We will review both "big picture" elements, such as how the new facility will function and the details of the day-to-day operations.

A critical first step in developing the transit design is to validate the scope and needs of the City with the architectural and engineering disciplines to identify issues that may affect the functional design. Our team will conduct an interactive work session with the City to confirm specific goals for the project and to confirm the space needs, critical features, and traffic circulation that will allow the team to confirm the proposed layout before proceeding with final design.

This phase of the project will include a preliminary code analysis that will evaluate compliance according to the State Building Code, the State Accessibility Code, the Americans with Disabilities Act (ADA), the Florida Department of Environmental Protection (FDEP), and other pertinent codes affecting the design.

**Site and Building Layouts:** Schematic site and building layouts will confirm critical traffic circulation and access elements, general arrangements of primary spaces, and equipment (**Figure 3.H-1**).

Site layouts will emphasize:

- Circulation patterns for vehicles, equipment, materials, and personnel that will provide the most efficient, cost-effective, and safest maintenance operation
- Ingress and egress routes that maximize safety and security and minimize vehicular and pedestrian conflict on and off the site
- Site area relationships, including operator, service and clean, administrative center, and maintenance facilities; and vehicle, employee, and visitor parking.

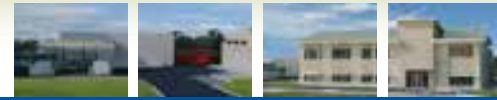


Figure 3.H-1: Similar to the CDM Smith-designed Mid-Mon Valley Transit Authority's bus maintenance facility, we will design the site layout and building design to address traffic circulation and access elements, general arrangements of primary spaces, and equipment needs.

Building layouts will emphasize:

- Functional area relationships
- Critical dimensions; space adjacencies; and support spaces, including core service functions such as mechanical rooms, electrical rooms, telecommunication rooms, toilet facilities, and housekeeping
- Exterior building elevations and sections to indicate building sizes, floor to structure elevations and heights, initial material selection, overall building massing, and critical interface points between building components.

Following the quality review procedures, outlined in **Subsection K**, the concept verification documents will be provided to the City for review and comment.



### Design Development Phase

Design development will not proceed until the concept verification phase (30 percent) is approved by the City. During the design development, we will further define and describe important aspects of the project in preparation for construction documents. We will fully develop design development drawings, including floor plans, sections, exterior elevations, interior elevations, reflected ceiling, and critical details. The basic mechanical, electrical, plumbing, and fire protection systems will be shown. The deliverable will be further development of the concept verification drawings that fix and describe the size and character of the project. This phase will end with a formal presentation to and approval by the City.

**Architectural Code Analysis:** Our team will provide a code analysis that determines governing authorities, occupancy, area and height limitations, fire suppression, fire separation, means of egress, and construction types. The code analysis appears in both memorandum form for delivery to building code officials and on the construction documents code plans.

**Architectural Plans, Sections, and Elevations:** We will update the architectural plans, sections, and elevations to incorporate City comments and provide additional detail showing material selections and systems of construction.

**Architectural Interior Finish Concepts and Schedules:** We will provide an interior finish concept that includes carpet, paint, laminate, wood, base, and other samples for review and approval by the City. Finish schedules will be developed from the selected finishes.

**Site Layout Plan:** The design team will update the site layout plan, depicting the layout of the proposed structures, parking lot, and traffic circulation routes. The plan will address the comments received from the concept verification phase and show further configuration of the paving, curbs, islands, and drop-off areas. AutoTurn Software will be utilized to model the turning and routing movements of the buses and trucks through the parking lot.

**Preliminary Structural Design Drawings:** We will develop structural calculations for structural elements and provide design drawings showing floor and roof framing plans, foundation plans, preliminary details, and sections.

**Preliminary Mechanical Design Drawings:** We will develop

mechanical calculations for capacity of systems and provide design drawings showing locations of primary mechanical equipment, ductwork mains, piping mains, and general distribution routes.

**Preliminary Electrical Design Drawings:** We will develop electrical calculations and provide preliminary electrical power plans, lighting plans, and one line diagrams.

**Constructability Review:** We will provide constructability reviews during each phase of design.

Following the quality review procedures, the design development documents will be provided to the City for review.

### Construction Document Phase

It is expected that the described work in this phase will not proceed until the design development phase (60 percent) is approved by the City.

During the construction document phase, the team will complete the drawings that set forth the requirements for construction of the project. Drawings will be provided for architectural, civil, structural, HVAC, plumbing, fire protection, and electrical work, as required for the project's construction.

Following the quality review procedures, the construction documents will be provided to the City for review.

## I. Statement of Proposed Design-Build Milestones with Time Schedule

Our schedule has been grouped into five main sections for ease of correlation to the City's contractual durations:

1. Administrative NTP
2. Demolition NTP
3. Design NTP
4. Construction NTP
5. Closeout Activities.

The overall logic and phasing associated with this schedule has been discussed previously in this project approach and not repeated in this part. **The DNHI/CDM Smith team's schedule reduces the overall contract completion time by 210 calendar days**, providing an inherent cost savings to the City and a significantly shorter duration to occupancy of the completed facility. Our proposed schedule is presented in **Figure 3.I-1**. A fully detailed, cost loaded schedule will be provided to the City upon award of this contract.

## Part III – Technical Statement

### Project Approach

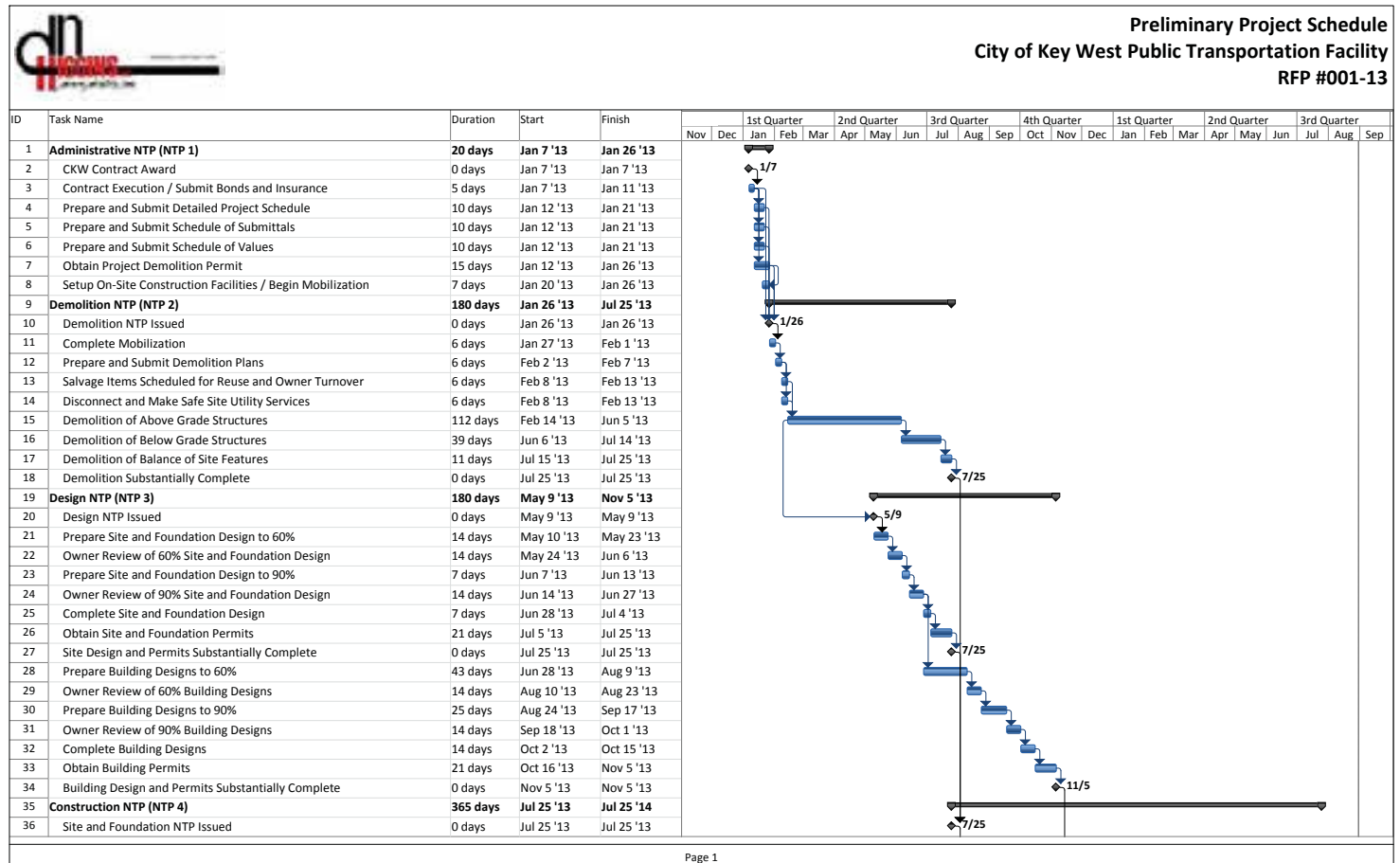
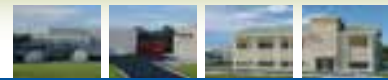
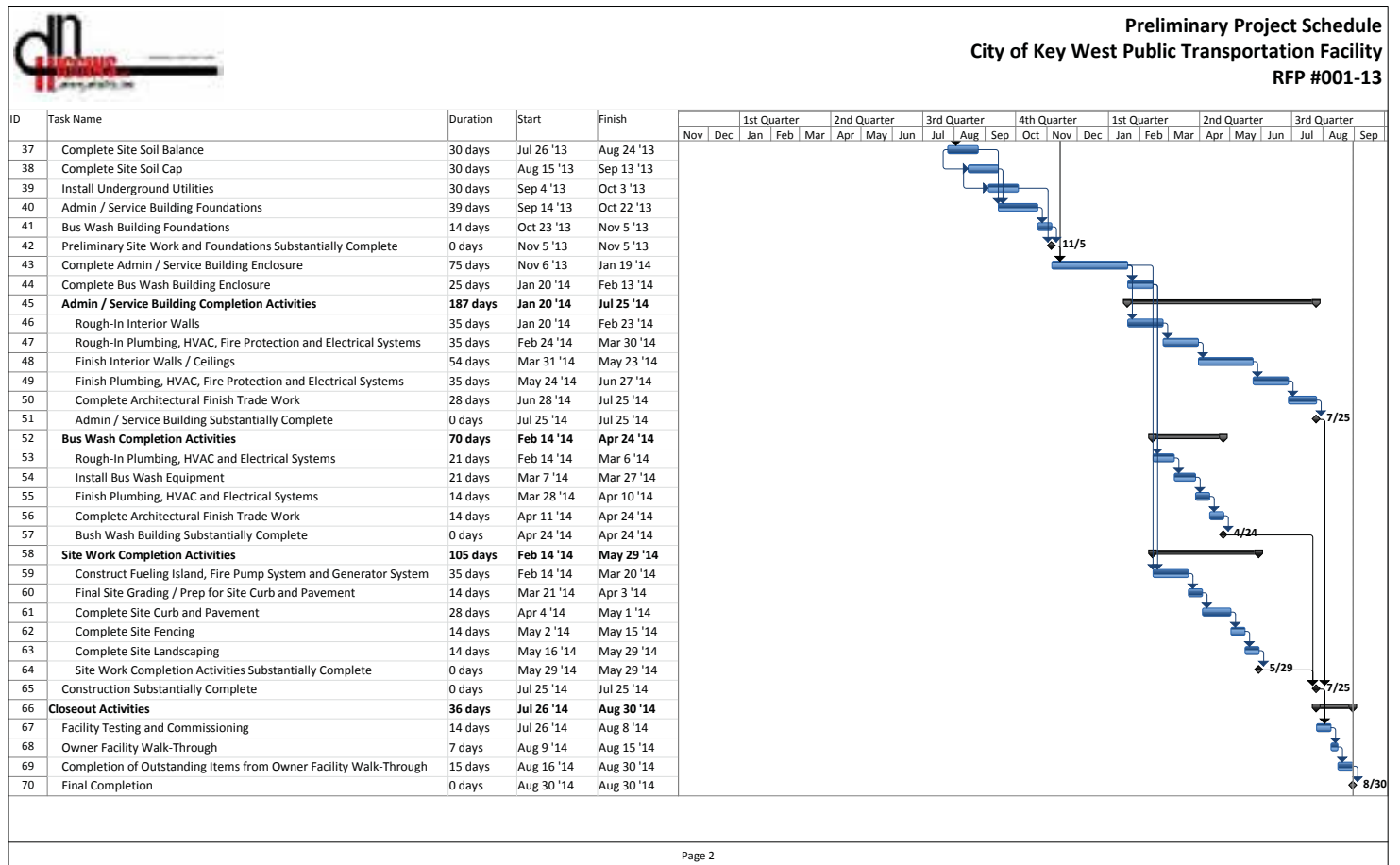
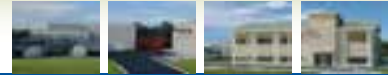


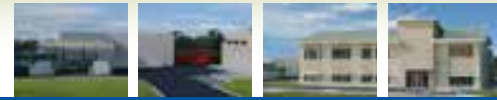
Figure 3.1-1: The DNHI/CDM Smith team's schedule reduces the overall contract completion time by 210 calendar days, providing an inherent cost savings to the City and a significantly shorter duration to occupancy of the completed facility.

## Part III – Technical Statement

### Project Approach







## J. Statement of Construction Systems and Materials Proposed for the Exterior of the Proposed Buildings

The aesthetic of the building blends vernacular Key West architectural styling in a contemporary and sustainable manner. The functional size and proportions paired with the varying heights required of the building program influenced the selection of the overall aesthetic. The wide and tall front facade lends itself to the simple lines of the modern shed roof, mimicking the style of the Eyebrow House from the street, while visually activating the side elevations and clearly separating the administrative portion from the maintenance area. The main entrance, highlighted by its tall, monolithic nature, draws visitors and employees to the front of the building, while activating the corner adjacent to the main building approach.

Materials and construction methods were selected to balance appearance with functionality and durability while incorporating environmentally responsible products into an energy-efficient, durable building envelope. The exterior walls are clad in a combination of stucco and cement fiber board siding over concrete masonry block construction. The arrangement of specific materials helps to distinctly identify the programmatic organization of the buildings. The combination of a standing seam metal roof located over the administration portion of the building and a membrane system over the maintenance and bus wash areas will provide a highly reflective surface reducing heat gain. Low-E glazing assemblies paired with exaggerated roof overhangs and shading devices enhance the interior spaces by allowing for natural daylight and exterior views, while limiting too much daylight and solar heat gain from disturbing occupants. Translucent panels located in the maintenance area will provide daylighting,

while reducing the dependence on electric lights and minimally affecting the insulation factor in the wall assembly.

The construction systems and materials proposed for the exterior of the buildings have been selected as a comprehensive response to encompass multiple perceptions by individuals with differing needs. To the end user, the environment will be comfortable and engaging. To an administrator, the facility design adds stature and recognition, yet will be cost effective. To the maintenance personnel, the design facilitates ease of maintenance and operations, and optimizes life cycle costs. To the general community and casual observer, the design is not imposing but rather enhances the Key West landscape by adding value to their community (**Figure 3.J-1**).

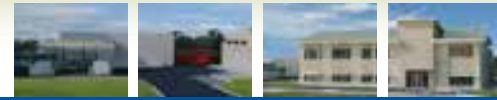
## K. Statement on Design and Construction Quality Control Program of Proposer

DNHI will have ultimate responsibility for the project quality control. Our team will be fully responsible for the professional quality, technical accuracy, and coordination of all surveys, designs, drawings, specifications, geotechnical, and all other services required for this contract. All subconsultants and subcontractors will be required to submit their own quality plan to the team, which will be aligned with the project requirements and approved by DNHI.

We will develop design and construction Quality Management Plans (QMPs) to address the quality control (QC) and quality assurance (QA) procedures to be implemented for this project. These procedures will outline our team's effort to verify, check, and review all documents developed for this contract.



Figure 3.J-1: Our design creates a comfortable and engaging environment for the end user and a cost-effective and recognizable facility for the administrator; eases maintenance and operations and optimizes life cycle costs for maintenance personnel; and enhances the local landscape, adding value to the general public and community.



### Design QC

CDM Smith will perform rigorous reviews throughout the life of this very important project. The following highlights the specific QA/QC activities that will take place during the design phase. Our QC includes:

- Technical review committee (TRC) meeting
- Constructability review
- Document checking
- Inter-discipline cross-check review.

**Technical Review Committee (TRC) Meeting:** We will conduct a peer review called a TRC meeting as the design progresses. At TRCs, the plans and specifications are reviewed by senior peer reviewers who are not directly involved in the design development. For this project, we will combine our TRC with the planned design reviews. The goal will be to get appropriate City, stakeholder, project team member, and CDM Smith senior peers to review and critique the design and confirm we are moving ahead consistent with the City's expectations, confirm that the design is technically sound, and redirect as necessary. The TRC will provide an open forum to review the technical approaches taken by the project team.

**Constructability Reviews:** Constructability reviews are integral to the design, assessing from the construction standpoint how the work can be most efficiently procured as well as executed in the field, including costs, schedule, construction sequencing, and impacts.

**Document Checking:** A document checking process will be conducted throughout the project. Assumptions, calculations, and design development files are independently crosschecked throughout for accuracy, clarity, and technical quality. All of CDM Smith's designs are reviewed on a number of levels for completeness and constructability. Calculations and drawings undergo technical, completeness, and constructability reviews.

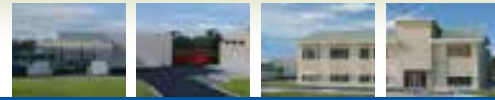
**Inter-Discipline Cross-Check:** At approximately the 90 percent point in the design progress, we will conduct an inter-discipline cross-check review. At this review, each discipline cross-checks against other disciplines looking for conflicts and inconsistencies.

The QA review will verify the submittal was prepared and checked according to this plan and is ready for City review. The QA review will confirm that appropriate staff was utilized during the production, review, quality control, and assurance processes.

### Construction QC

Our main focus is on quality control, aside from safety. Quality can only be achieved with an appropriate QC/QA program. DNHI's QA/QC program is accomplished through strict adherence and verification audits in the following ten areas by a designated project quality manager (QM):

1. **Reviews:** Technical documents are reviewed by the project QM in order to assess scope, constructability, and value engineering issues.
2. **Technical Submittals:** All project-related submittals are routed through the project QM for accuracy and completeness.
3. **Planning:** Preconstruction quality planning meetings are conducted on-site for all critical and major facility systems. All meetings include members of the DNHI project team and the appropriate subcontractor(s). The City's RPR will be invited to attend.
4. **Inspections:** The project QM will schedule additional inspections for each major phase of construction work to ensure that quality and design are being met.
5. **Independent Testing:** The project QM will select and schedule independent testing laboratories to perform all required testing, as needed.
6. **Off-site Inspections:** The project QM will randomly inspect concrete batch plants, fabrication shops, and other vendors/suppliers facilities, as needed.
7. **Systems Testing/Close Out:** All mechanical and electrical systems are thoroughly checked for start-up and validation of performance.
8. **Substantial Completion:** Substantial completion inspections are led by the project QM and include the City's RPR and representatives of all design and construction disciplines.
9. **Post Construction Conference:** We review the project after completion to gather information from both the design and construction personnel, as well as the City of Key West's RPR.
10. **Warranty:** Our comprehensive warranty program includes warranty inspections to evaluate facility systems performance, identify items that may require the attention of the designers and/or tradesmen, and comment on items that may impact



future facility design. The project QM will ensure that all warranty documentation is submitted in a timely manner.

### L. Design Areas Where Design-Builder Would Suggest Alternate Methods, Materials, or Systems

The bus maintenance facility is proposed to be constructed solely of reinforced concrete masonry unit and reinforced cast-in-place concrete wall construction in lieu of combining metal building structure and metal wall panels above a height of 8 feet. It is the opinion of the design-builder that this simplifies the building structure design, reduces the number of required building trades, reduces construction costs, and reduces future maintenance of the building. In addition, the roofing structure at the machine shop portion of the building located at the back of the maintenance facility is proposed to be parapet wall with membrane roofing system to simplify the design and construction, and make it more cohesive with the aesthetic for the bus maintenance facility. Similar modifications are proposed for the bus wash facility as well.

# PART IV: TECHNICAL STATEMENT

## Financial Information







## Part IV

### *Technical Statement – Financial Information*

DHNI certifies that we are a financially stable organization. We have in place the necessary resources, human and financial, to provide the services above and beyond the level required by the City of Key West.

Our financial strength is demonstrated by our longevity, strong balance sheet, and track record of handling even the largest construction projects.

#### 1. State number of years the company has been in business

Founded in 1966, Douglas N. Higgins, Inc. has been in business for over 46 years.

#### 2. Statement on credit rating of Proposer

- a. *Give total contract value of work accomplished by your organization in each of the last three years.*

**2012:** \$17,949,448      **2011:** \$19,674,220      **2010:** \$16,727,655

- b. *Give contract value of work now under contract with your organization:*

\$10,000,000

#### 3. Strength of latest financial statement

Although DNHI is a privately held company and is not required to make filings with the Security and Exchange Commission, our financial statements are considered strong. Through our successful history of completed projects, DNHI has developed the assets, financial resources and working capital to assure financial stability throughout the course of the capital-intensive projects we undertake. DNHI's Dun & Bradstreet rating of IR2 and bonding capacity are additional indicators of the financial strength of our company.

#### 4. Statement on any bankruptcies, value of judgment or liens outstanding against your organization

None.

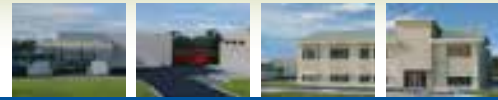
#### 5. Statement on ability to secure performance and payment bonds

*Give names of Surety Companies and agent under which you have functioned within last three years:*

**2012:** Hartford Accident and Indemnity Company

**2011:** Hartford Accident and Indemnity Company

**2010:** Hartford Accident and Indemnity Company



We have included a letter from our client service manager at Hylant Group that attests to our ability to secure single bonds up to \$40M and an aggregated capacity of up to \$100M.

To further showcase our relationship with Hartford Accident and Indemnity Company, we have included herein our Power of Attorney form that showcases we have continuously worked with Hartford since 2004.

#### 6. Estimate your maximum bonding capacity

\$100,000,000

*How much is unencumbered and available at this date?*

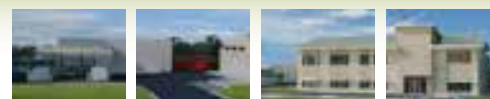
\$85,000,000

#### 7. Statement on bonding capacity committed to current and pending projects

DNHI has exceptional financial strength and has more than 85 percent of our current bonding capacity available to dedicate to this project.

#### 8. What is the largest (dollar cost) project ever performed by your organization?

\$18,000,000



www.hylant.com

September 27, 2012

City of Key West  
3104 Flagler Avenue  
Key West, FL 33040

**RE: Douglas N. Higgins, Inc.  
Public Transportation Facility  
RFP No. 001-13**

To Whom It May Concern:

It is our understanding Douglas N. Higgins, Inc. ("Higgins") may be required to provide bonding prequalification information for the above captioned project. Please accept this letter as evidence Higgins is able to provide bond capacity as follows.

Higgins has maintained a highly successful relationship with Hartford Accident and Indemnity Company; an A.M. Best A XV rated company. Single bond capacity is available up to \$40,000,000 and aggregate capacity up to \$100,000,000 with some latitude considered depending on the specifics of a given project.

Hartford Accident and Indemnity Company reserves the right to perform normal underwriting at the time of any bond request, including, without limitation, prior review and approval of relevant contract documents, bond forms, and project financing. Hartford Accident and Indemnity Company assumes no liability to project owners or other parties if for any reason Hartford Accident and Indemnity Company does not execute such bonds.

Please feel free to contact our office if you have any questions.

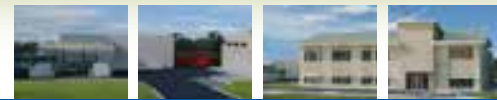
Sincerely,

  
Heather M. Johnson  
Client Service Manager  
Bond Department

/henj

24 Frank Lloyd Wright Drive • P.O. Box 541 • Suite 34100 • Ann Arbor, MI 48106  
Phone: 734-741-0044 • Fax: 734-741-1850

Risk Management • Insurance • 401(k) • Investments • Benefits



# POWER OF ATTORNEY

Direct Inquiries/Claims to:

**THE HARTFORD**  
BOND, T-4  
One Hartford Plaza  
Hartford, Connecticut 06188

call: 866-266-3488 or fax: 860-757-5835

Agency Code: 36-350851

KNOW ALL PERSONS BY THESE PRESENTS THAT:

- |                                     |  |
|-------------------------------------|--|
| <input checked="" type="checkbox"/> | Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut         |
| <input checked="" type="checkbox"/> | Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana         |
| <input checked="" type="checkbox"/> | Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut |
| <input type="checkbox"/>            | Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut |
| <input type="checkbox"/>            | Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana            |
| <input type="checkbox"/>            | Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois     |
| <input type="checkbox"/>            | Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana   |
| <input type="checkbox"/>            | Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida |

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, up to the amount of unlimited:

*Heather M. Johnson, Joel E. Speckman, Terri Mahalan, David Harlock*  
of  
Ann Arbor, MI

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by SS, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on January 22, 2004 the Companies have caused these presents to be signed by its Assistant Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



*Wesley W. Cowling*

Wesley W. Cowling, Assistant Secretary

*M. Ross Fisher*

M. Ross Fisher, Assistant Vice President

STATE OF CONNECTICUT }  
COUNTY OF HARTFORD } SS. Hartford

On this 3<sup>rd</sup> day of November, 2008, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Assistant Vice President of the Companies, the corporations described in and which executed the above instrument; that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.



CERTIFICATE

*David E. P. R.*

David E. P. R.

My Commission Expires October 31, 2012

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of September 27, 2012.

Signed and sealed at the City of Hartford.



*Gary W. Stamper*

Gary W. Stamper, Assistant Vice President



# Forms





# Forms

As required by the City, the following forms are included in this section:

- Buy America Certificate of Compliance (Appendix H – FTA Document – Item 2)
- Lobbying Disclosure Certificate (Appendix H – FTA Document – Item 10)
- Indemnification Form (Attachment K)
- Anti-Kickback Affidavit (Attachment L)
- Public Entity Crimes Form (Attachment M)
- Non-Collusion Declaration and Compliance (Attachment N)
- Signed Addenda
- Copy of teaming agreement.

## **2. BUY AMERICA REQUIREMENTS**

**49 U.S.C. 5323(j)  
49 CFR Part 661**

### **Applicability to Contracts**

The Buy America requirements apply to the following types of contracts: Construction Contracts and Acquisition of Goods or Rolling Stock (valued at more than \$100,000).

### **Flow Down**

The Buy America requirements flow down from FTA recipients and subrecipients to first tier contractors, who are responsible for ensuring that lower tier contractors and subcontractors are in compliance. The \$100,000 threshold applies only to the grantee contract, subcontracts under that amount are subject to Buy America.

### **Mandatory Clause/Language**

The Buy America regulation, at 49 CFR 661.13, requires notification of the Buy America requirements in FTA-funded contracts, but does not specify the language to be used. The following language has been developed by FTA.

**Buy America** - The contractor agrees to comply with 49 U.S.C. 5323(j) and 49 C.F.R. Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 C.F.R. 661.7, and include final assembly in the United States for 15 passenger vans and 15 passenger wagons produced by Chrysler Corporation, and microcomputer equipment and software. Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11. Rolling stock must be assembled in the United States and have a 60 percent domestic content.

A bidder or offeror must submit to the FTA recipient the appropriate Buy America certification (below) with all bids or offers on FTA-funded contracts, except those subject to a general waiver. Bids or offers that are not accompanied by a completed Buy America certification must be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors.

### **Certification requirement for procurement of steel, iron, or manufactured products.**

#### *Certificate of Compliance with 49 U.S.C. 5323(j)(1)*

The bidder or offeror hereby certifies that it will meet the requirements of 49 U.S.C. 5323(j)(1) and the applicable regulations in 49 CFR Part 661.5.

Date 11/7/2012

Signature Kelly A. Wilkie

Company Name Douglas N. Higgins Inc.

Title Vice-President

*Certificate of Non-Compliance with 49 U.S.C. 5323(j)(1)*

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(1) and 49 C.F.R. 661.5, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Date 11/7/2012

Signature Kelly A. Wilkie

Company Name Douglas N. Higgins, Inc.

Title Vice-President

**Certification requirement for procurement of buses, other rolling stock and associated equipment.**

*Certificate of Compliance with 49 U.S.C. 5323(j)(2)(C).*

The bidder or offeror hereby certifies that it will comply with the requirements of 49 U.S.C. 5323(j)(2)(C) and the regulations at 49 C.F.R. Part 661.11.

Date 11/7/2012

Signature Kelly A. Wilkie

Company Name Douglas N. Higgins, Inc.

Title Vice-President

*Certificate of Non-Compliance with 49 U.S.C. 5323(j)(2)(C)*

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11, but may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Date 11/7/2012

Signature Kelly A. Wilkie

Company Name Douglas N. Higgins, Inc.

Title Vice-President



## **10. LOBBYING**

**31 U.S.C. 1352**

**49 CFR Part 19**

**49 CFR Part 20**

### **Applicability to Contracts**

The Lobbying requirements apply to Construction/Architectural and Engineering/Acquisition of Rolling Stock/Professional Service Contract/Operational Service Contract/Turnkey contracts.

### **Applicability to Micro-Purchases**

Micro-purchases are defined as those purchases under \$2,500. These requirements do not apply to micro-purchases.

### **Flow Down**

The Lobbying requirements mandate the maximum flow down, pursuant to Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352(b)(5) and 49 C.F.R. Part 19, Appendix A, Section 7.

### **Mandatory Clause/Language**

- Clause and specific language therein are mandated by 49 CFR Part 19, Appendix A.

Modifications have been made to the Clause pursuant to Section 10 of the Lobbying Disclosure Act of 1995, P.L. 104-65 [to be codified at 2 U.S.C. § 1601, *et seq.*]

- Lobbying Certification and Disclosure of Lobbying Activities for third party contractors are mandated by 31 U.S.C. 1352(b)(5), as amended by Section 10 of the Lobbying Disclosure Act of 1995, and DOT implementing regulation, "New Restrictions on Lobbying," at 49 CFR § 20.110(d)

- Language in Lobbying Certification is mandated by 49 CFR Part 19, Appendix A, Section 7, which provides that contractors file the certification required by 49 CFR Part 20, Appendix A.

Modifications have been made to the Lobbying Certification pursuant to Section 10 of the Lobbying Disclosure Act of 1995.

- Use of "Disclosure of Lobbying Activities," Standard Form-LLL set forth in Appendix B of 49 CFR Part 20, as amended by "Government wide Guidance For New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96) is mandated by 49 CFR Part 20, Appendix A.

**Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352, as amended by the Lobbying Disclosure Act of 1995, P.L. 104-65 [to be codified at 2 U.S.C. § 1601, *et seq.*]**

Contractors who apply or bid for an award of \$100,000 or more shall file the certification required by 49 CFR part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any

other award covered by 31 U.S.C. 1352. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures are forwarded from tier to tier up to the recipient.

#### APPENDIX A, 49 CFR PART 20--CERTIFICATION REGARDING LOBBYING

##### Certification for Contracts, Grants, Loans, and Cooperative Agreements

*(To be submitted with each bid or offer exceeding \$100,000)*

The undersigned [Contractor] certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (2) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, *et seq.*)]

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be

subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such expenditure or failure.]

The Contractor, Douglas N. Hoynes, Inc., certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. A 3801, *et seq.*, apply to this certification and disclosure, if any.

Kelly A. Wilkie Signature of Contractor's Authorized Official

Kelly A. Wilkie, Vice-President Name and Title of Contractor's Authorized Official

11/7/2012 Date



## CITY OF KEY WEST INDEMNIFICATION FORM

DESIGN-BUILDER agrees to protect, defend, indemnify, save and hold harmless The City of Key West, all its Departments, Agencies, Boards, Commissions, officers, City's Consultant, agents, servants and employees, including volunteers, from and against any and all claims, debts, demands, expense and liability arising out of injury or death to any person or the damage, loss of destruction of any property which may occur or in any way grow out of any act or omission of the DESIGN-BUILDER, its agents, servants, and employees, or any and all costs, expense and/or attorney fees incurred by the City as a result of any claim, demands, and/or causes of action except of those claims, demands, and/or causes of action arising out of the negligence of The City of Key West, all its Departments, Agencies, Boards, Commissions, officers, agents, servants and employees. The DESIGN-BUILDER agrees to investigate, handle, respond to, provide defense for and defend any such claims, demand, or suit at its sole expense and agrees to bear all other costs and expenses related thereto, even if it (claims, etc.) is groundless, false or fraudulent. The City of Key West does not waive any of its sovereign immunity rights, including but not limited to, those expressed in Section 768.28, Florida Statutes.

These indemnifications shall survive the term of this agreement. In the event that any action or proceeding is brought against the City of Key West by reason of such claim or demand, DESIGN-BUILDER shall, upon written notice from the City of Key West, resist and defend such action or proceeding by counsel satisfactory to the City of Key West.

The indemnification provided above shall obligate DESIGN-BUILDER to defend at its own expense to and through appellate, supplemental or bankruptcy proceeding, or to provide for such defense, at the City of Key West's option, any and all claims of liability and all suits and actions of every name and description covered above which may be brought against the City of Key West whether performed by DESIGN-BUILDER, or persons employed or utilized by DESIGN-BUILDER.

The DESIGN-BUILDER's obligation under this provision shall not be limited in any way by the agreed upon Contract Price as shown in this agreement, or the DESIGN-BUILDER's limit of or lack of sufficient insurance protection.

DESIGN-BUILDER: Douglas N. Higgins, Inc.

COMPANY SEAL

2290 Fraxis Point Rd. Suite A  
Ann Arbor, MI 48108  
Address

Kelly A. Wilkie  
Signature

Kelly A. Wilkie  
Print Name

11/7/2012  
Date

Vice-President  
Title



NOTARY FOR THE DESIGN-BUILDER

STATE OF Michigan  
COUNTY OF Washtenaw

The foregoing instrument was acknowledged before me this 7<sup>th</sup> day of November 2012.  
By Kelly A. Wilkie, of Douglas N. Higgins, Inc.  
(Name of officer or agent, title of officer or agent) Name of corporation acknowledging)  
or has produced personally known as identification.

R. Suzanne Hawker  
Signature of Notary

**R. SUZANNE HAWKER**  
Notary Public, Washtenaw County, MI  
My Commission Expires Mar 7, 2017

Return Completed form with  
Supporting documents to:  
City of Key West Purchasing

Print, Type or Stamp Name of Notary

Sec. Press  
Title or Rank

**ANTI-KICKBACK AFFIDAVIT**  
**Key West Public Transportation Facility**

PROJECT RFP #001-13: KEY WEST PUBLIC TRANSPORTATION FACILITY

STATE OF <sup>MICHIGAN</sup> FLORIDA )  
COUNTY OF <sup>WASHINGTON</sup> MONROE ) : SS

I, the undersigned hereby duly sworn, depose and say that no portion of the sum herein Bid will be paid to any employees of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

BY: Kelly a. wilkie

Sworn and subscribed before me this

7<sup>th</sup> day of November, 2012.

R. Suzanne Hawker <sup>Michigan</sup>  
NOTARY PUBLIC, STATE OF FLORIDA AT LARGE

My Commission Expires: R. SUZANNE HAWKER  
Notary Public, Washington County, MI  
My Commission Expires Mar 7, 2017

**SWORN STATEMENT UNDER SECTION 287.133(3)(a)  
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES**

PROJECT RFP #001-13: KEY WEST PUBLIC TRANSPORTATION FACILITY

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR  
OTHER OFFICE AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement is submitted with RFP, Bid or Contract No. 001-13 for  
City of Key West
2. This sworn statement is submitted by Douglas N. Higgins, Inc.  
(Name of entity submitting sworn statement)  
whose business address is 3390 Travis Pointe Rd. Suite A  
Ann Arbor, MI 48108 and (if  
applicable) its Federal Employer Identification Number (FEIN) is  
38-1807765 (If the entity has no FEIN, include the Social  
Security Number of the individual signing this sworn statement.)
3. My name is Kelly A. Wilkie and my relationship to  
(Please print name of individual signing)  
the entity named above is Vice-President
4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g),  
Florida Statutes, means a violation of any state or federal law by a person with  
respect to and directly related to the transaction of business with any public entity or  
with an agency or political subdivision of any other state or with the United States,  
including but not limited to, any Bid or contract for goods or services to be provided  
to any public entity or an agency or political subdivision of any other state or of the  
United States and involving antitrust, fraud, theft, bribery, collusion, racketeering,  
conspiracy, material misrepresentation.
5. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b),  
Florida Statutes, means a finding of guilt or a conviction of a public entity crime,  
with or without an adjudication guilt, in any federal or state trial court of record  
relating to charges brought by indictment information after July 1, 1989, as a result of  
a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.
6. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida  
Statutes, means

1. A predecessor or successor of a person convicted of a public entity crime: or
2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.
7. I understand that a "person" as defined in Paragraph 287.133(1)(8), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which Bids or applies to Bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.
8. Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies.)
  - ☒ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989.
  - ☐ The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)
    - ☐ There has been a proceeding concerning the conviction before a hearing of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)
    - ☐ The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove



the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)

—The person or affiliate has not been put on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)

Kelly A. Wilkie  
(Signature)  
11/7/2012  
(Date)

STATE OF Michigan  
COUNTY OF Washtenaw

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

Kelly A. Wilkie who, after first being sworn by me, affixed his/her signature in the  
(Name of individual signing)

space provided above on this 7th day of November, 2012.

My commission expires:

R. SUZANNE HAWKER  
Notary Public, Washtenaw County, MI  
My Commission Expires Mar 7, 2017

R. Suzanne Hawker  
NOTARY PUBLIC

NON-COLLUSION DECLARATION AND COMPLIANCE WITH 49 CFR §29

ITEM/SEGMENT NO.: DD1-13  
F.A.P. NO.:  
PARCEL NO.:  
COUNTY OF:  
BID LETTING OF: NOV. 28, 2012

I, Kelly A. Wilkie, hereby  
declare that I am Vice-President of Douglas N. Higgins, Inc.  
Of Ann Arbor, Michigan  
and that I am the person responsible within my firm for the final decision as to the price(s)  
and amount of this Bid on this Project.

I further declare that:

1. The price(s) and amount of this bid have been arrived at independently, without consultation, communication or agreement, for the purpose of restricting competition with any other contractor, bidder or potential bidder.
2. Neither the price(s) nor the amount of this bid have been disclosed to any other firm or person who is a bidder or potential bidder on this project, and will not be so disclosed prior to the bid opening.
3. No attempt has been made or will be made to solicit, cause or induce any other firm or person to refrain from bidding on this project, or to submit a bid higher than the bid of this firm, or any intentionally high or non-competitive bid or other form of complementary bid.
4. The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary bid.
5. My firm has not offered or entered into a subcontract or agreement regarding the purchase of materials or services from any firm or person, or offered, promised or paid cash or anything of value to any firm or person, whether in connection with this or any other project, in consideration for an agreement or promise by any firm or person to refrain from bidding or to submit a complementary bid on this project.
6. My firm has not accepted or been promised any subcontract or agreement regarding the sale of materials or services to any firm or person, and has not been promised or paid cash or anything of value by any firm or person, whether in connection with this or any other project, in consideration for my firm's submitting a complementary bid, or agreeing to do so, on this project.
7. I have made a diligent inquiry of all members, officers, employees, and agents of my firm with responsibilities relating to the preparation, approval or submission of my firm's bid on this project and have been advised by each of them that he or she has not participated in any communication, consultation, discussion, agreement, collusion, act or

other conduct inconsistent with any of the statements and representations made in this Declaration.

8. As required by Section 337.165, Florida Statutes, the firm has fully informed the City of Key West in writing of all convictions of the firm, its affiliates (as defined in Section 337.165(l)(a), Florida Statutes), and all directors, officers, and employees of the firm and its affiliates for violation of state or federal antitrust laws with respect to a public contract or for violation of any state or federal law involving fraud, bribery, collusion, conspiracy or material misrepresentation with respect to a public contract. This includes disclosure of the names of current employees of the firm or affiliates who were convicted of contract crimes while in the employ of another company.

9. I certify that, except as noted below, neither my firm nor any person associated therewith in the capacity of owner, partner, director, officer, principal, investigator, project director, manager, auditor, and/or position involving the administration of Federal funds:

(a) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions, as defined in 49 CFR §29.110(a), by any Federal department or agency;

(b) has within a three-year period preceding this certification been convicted of or had a civil judgment rendered against him or her for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a Federal, State or local government transaction or public contract; violation of Federal or State antitrust statutes; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;

(c) is presently indicted for or otherwise criminally or civilly charged by a Federal, State or local governmental entity with commission of any of the offenses enumerated in paragraph 9(b) of this certification; and

(d) has within a three-year period preceding this certification had one or more Federal, State or local government public transactions terminated for cause or default..

10. I(We), certify that I(We), shall not knowingly enter into any transaction with any subcontractor, material supplier, or vendor who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this contract by any Federal Agency unless authorized by the Department.

Where I am unable to declare or certify as to any of the statements contained in the above stated paragraphs numbered (1) through (10), I have provided an explanation in the "Exceptions" portion below or by attached separate sheet.

EXCEPTIONS:

(Any exception listed above will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted, indicate to whom it applies, initiating agency and dates of agency action.

Providing false information may result in criminal prosecution and/or administrative sanctions.)

I declare under penalty of perjury that the foregoing is true and correct.

CONTRACTOR: DOUGLAS N. HIGGINS, INC.  
(Seal)

BY: Kelly A. Wilkie Vice-President WITNESS: Jill Wilkie  
NAME AND TITLE PRINTED

BY: Kelly A. Wilkie WITNESS: Paul H. Sweet  
SIGNATURE

Executed on this 7<sup>th</sup> day of November, 2012

**FAILURE TO FULLY COMPLETE AND EXECUTE THIS DOCUMENT  
MAY RESULT IN THE BID BEING DECLARED NONRESPONSIVE**





THE CITY OF KEY WEST  
3140 Flagler St,  
Key West, Florida 33040

**ADDENDUM #1**  
**Public Transit Facility**  
**Request for Proposal: 001-13**  
**24 September 2012**

This Addendum is issued as supplemental information to the bid package for clarification of certain matters of both a general and a technical nature. The referenced bid package is amended in accordance with the following items:

- See attached Attendance Sheet for the Mandatory Pre-bid Meeting
- The Autocad files have been uploaded to demandstar.

All Bidders shall acknowledge receipt and acceptance of this Addendum No 1 by acknowledging Addendum in their proposal or by submitting the addendum with the bid package. Bids submitted without acknowledgement or without this Addendum may be considered non-responsive

Kellya Wilkie  
Signature

Douglas N. Higgins, Inc.  
Name of Business



**THE CITY OF KEY WEST**  
3140 Flagler St,  
Key West, Florida 33040

**ADDENDUM #2**  
**Public Transit Facility**  
**Request for Proposal: 001-13**  
**4 October 2012**

This Addendum is issued as supplemental information to the bid package for clarification of certain matters of both a general and a technical nature. The referenced bid package is amended in accordance with the following items:

- See attached Questions and Clarifications Sheet for this project
- See attached Cat X documentation. Project shall comply with the requirements of this documentation.

All Bidders shall acknowledge receipt and acceptance of this Addendum No 2 by acknowledging Addendum in their proposal or by submitting the addendum with the bid package. Bids submitted without acknowledgement or without this Addendum may be considered non-responsive

Kelly A. Wilkie  
Signature

Douglas N. Higgins, Inc.  
Name Of Business



**THE CITY OF KEY WEST**

3140 Flagler St.  
Key West, Florida 33040

**ADDENDUM #3**

**Public Transit Facility  
Request for Proposal: 001-13  
19 October 2012**

This Addendum is issued as supplemental information to the bid package for clarification of certain matters of both a general and a technical nature. The referenced bid package is amended in accordance with the following items:

- The bid due date is changed to 3:00 PM, 28 November 2012
- Contractor questions (RFIs) must be received by 5pm, 12 November 2012
- The site is available for contractor visitation. Visitation hours are from 10am to 3 pm on Saturdays (except Saturday 24 November 2012). Contact B.Ohlinger at [bohlinger@keywestcity.com](mailto:bohlinger@keywestcity.com) 48 hours before planned visit.
- See attached Questions and Clarifications Sheet(Addendum 3) for this project

All Bidders shall acknowledge receipt and acceptance of this Addendum No 3 by acknowledging Addendum in their proposal or by submitting the addendum with the bid package. Bids submitted without acknowledgement or without this Addendum may be considered non-responsive

Kelly A. Wilkie  
Signature

Douglas N. Higgins, Inc.  
Name Of Business



THE CITY OF KEY WEST  
3140 Flagler St,  
Key West, Florida 33040

**ADDENDUM #4**  
**Public Transit Facility**  
**Request for Proposal: 001-13**  
**2 November 2012**

This Addendum is issued as supplemental information to the bid package for clarification of certain matters of both a general and a technical nature. The referenced bid package is amended in accordance with the following items:

- See attached Questions and Clarifications (Addendum #4)
- See attached SWTE as-builts

All Bidders shall acknowledge receipt and acceptance of this Addendum No 4 by acknowledging Addendum in their proposal or by submitting the addendum with the bid package. Bids submitted without acknowledgement or without this Addendum may be considered non-responsive

 , Vice-President  
Signature  
James H. Sweet

DOUGLAS N. HIGGINS, INC.  
3390 Travis Pointe Rd., Suite A  
Ann Arbor, Michigan 48108  
Name Of Business







**THE CITY OF KEY WEST**  
3140 Flagler St,  
Key West, Florida 33040

**ADDENDUM #5**  
**Public Transit Facility**  
**Request for Proposal: 001-13**  
**20 November 2012**

This Addendum is issued as supplemental information to the bid package for clarification of certain matters of both a general and a technical nature. The referenced bid package is amended in accordance with the following items:


- See attached Questions and Clarifications (Addendum #5)
- Page 1-24: Paragraph 1.6.2 Evaluation Panel Process: add the following
  - Oral Presentations: At City of Key West's sole discretion, the TEB may schedule oral presentations/question and answers with each team submitting a proposal. Present at this meeting shall be the key personnel assigned to the project from the General Contractor and A/E firm. At a minimum key project staff, should include the Project Manager, Lead Design Engineer, and Lead Architect. Presentation/question and answer period will be no longer than 45 minutes. These meetings are exempt from the Florida Sunshine Law as covered under FS 286.0113
- Page B-14: Part III-Technical Statement-Project Approach
  - B. Submit a copy of the "Teaming Agreement" between the General Contractor and A/E. If a teaming agreement does not exist, an explanation on how the organizations will function together shall be provided
- Page 1-25 Basis of Scoring: Add the following
  - Key Personnel and Subcontractors submitted to the City and used as a basis for scoring shall be the same used during the execution of the project. Substitution of Key Personnel and Subcontractors after award shall only be done with the approval of the City
- Page C-4: Total Base Bid Amount
  - A schedule of values should be submitted with the Cost Proposal Package. Please refer to sheet C-3. The schedule of values shall be in sufficient detail to allow the City to understand how the Design-Builder arrived at said Total Base Bid price and shall become part of the contract for basis of payment. The Schedule of Values shall include at a minimum the line items shown in the attached sheet.
- Bid Due Date: The Bid due date is hereby extended to 3:30pm, December 12, 2012. Questions will be received until 5pm, 27 November 2012

- Alternate Bid Item: D: Vehicle Lifts: The following shall be a part of this project:  
Procurement and Installation of:
  - 2 - Large Vehicle Maintenance Lifts: Rotary Lift: Heavy Duty Parellelogram 6 Leg 45/35S Model or equivalent approved equal.
  - 1 - Small Maintenance Lift: Rotary Lift: Y-Lift (YA12) Model (or approved equal)
  - Fluid Dispensing System for the Maintenance Service Bay: (3) drops.

A revised Attachment C: Cost Proposal will be issued with Addendum 6

- Technical Presentations: Technical presentations are limited to 50 pages double sided. Pages in excess of this amount will not be reviewed by the Technical Evaluation Board Members.

All Bidders shall acknowledge receipt and acceptance of this Addendum No 5 by acknowledging Addendum in their proposal or by submitting the addendum with the bid package. Bids submitted without acknowledgement or without this Addendum may be considered non-responsive

  
Signature  
DANIEL N. HIGGINS, V.P.  
12/4/12

DOUGLAS N. HIGGINS, INC.  
Name Of Business





**THE CITY OF KEY WEST**  
3140 Flagler St,  
Key West, Florida 33040

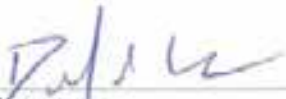
**ADDENDUM #6**  
**Public Transit Facility**  
**Request for Proposal: 001-13**  
**21 November 2012**

This Addendum is issued as supplemental information to the bid package for clarification of certain matters of both a general and a technical nature. The referenced bid package is amended in accordance with the following items:

The information in Addendum 5 is modified as follows

- The Technical Proposal Package, Parts I thru III shall be limited to 85 pages, double-sided. This sheet count excludes city and FTA forms.

All Bidders shall acknowledge receipt and acceptance of this Addendum No 6 by acknowledging Addendum in their proposal or by submitting the addendum with the bid package. Bids submitted without acknowledgement or without this Addendum may be considered non-responsive

  
Signature

DANIEL N. HIGGINS, V.P.

DOUGLAS N. HIGGINS, INC.  
Name Of Business





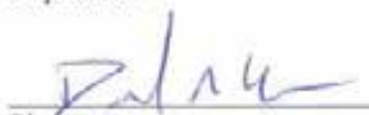
THE CITY OF KEY WEST  
3140 Flagler St,  
Key West, Florida 33040

**ADDENDUM #7**  
**Public Transit Facility**  
**Request for Proposal: 001-13**  
**30 November 2012**

This Addendum is issued as supplemental information to the bid package for clarification of certain matters of both a general and a technical nature. The referenced bid package is amended in accordance with the following items:

- See attached Questions and Clarifications Sheet (Addendum 7)
- Cost Proposal Package: The cost proposal package (Attachment C) shall be replaced with the attached. See Questions and Clarifications for additional information
- Award: The city reserves the right to award any of the following
  - Demolition Only (Phase 1)
  - Demolition and Design (Phase 1 and 2)
  - Demolition, Design and Construction (Phase 1,2 and 3)
  - Demolition, Design, Construction and any of the Alternate Bid Items.
- The Bid due date DOES NOT change as a result of this addendum

All Bidders shall acknowledge receipt and acceptance of this Addendum No 7 by acknowledging Addendum in their proposal or by submitting the addendum with the bid package. Bids submitted without acknowledgement or without this Addendum may be considered non-responsive

  
Signature  
DANIEL N. HIGGINS, V.P.

  
Name Of Business







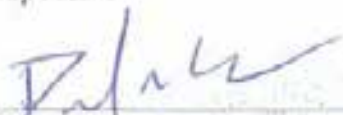
**THE CITY OF KEY WEST**  
3140 Flagler St,  
Key West, Florida 33040

**ADDENDUM #8**  
**Public Transit Facility**  
**Request for Proposal: 001-13**  
**5 December 2012**

This Addendum is issued as supplemental information to the bid package for clarification of certain matters of both a general and a technical nature. The referenced bid package is amended in accordance with the following items:

- Contractors are notified that after receipt of Proposal Packages; The City's point of contact will be Elizabeth Ignaffo who can be reached at [signaffo@keywestcity.com](mailto:signaffo@keywestcity.com)
- Clarification Page 1-23, 1.6 Evaluation Criteria: Add the following "The Financial /Surety Advisor and the Reference Verifier will perform their duties and submit a recommended score and narrative to the TEB Board Members. The TEB Board Members will each individually assign the score for Financial Stability and Past Performance and may or may not follow the advisor's recommendation"
- Clarification 1-25: First Paragraph: Change "Chairman" to "Cost Proposal Evaluator". Add: The City Clerk shall hold all Cost Proposal Packages unopened until such time that the Chairman has notified him/her that the Initial Ranking of the Technical Proposals is complete.
- Clarification Addendum #7: Clarifications and Revisions, First bullet, last sentence: Delete the sentence "Permit allowances should not be."
- Alternate Bid Item E: See attached sheet: FEEDWATER TANK shall be added to the COST PROPOSAL PACKAGE as an alternate bid item.

All Bidders shall acknowledge receipt and acceptance of this Addendum No 8 by acknowledging Addendum in their proposal or by submitting the addendum with the bid package. Bids submitted without acknowledgement or without this Addendum may be considered non-responsive

  
Signature DOUGLAS N. HIGGINS, V.P.  
12/6/12

DOUGLAS N. HIGGINS, INC.  
Name Of Business

## Teaming Agreement

Douglas N. Higgins, Inc. (DNHI) and CDM Smith agree as follows:

- DNHI and CDM Smith will work together to successfully obtain the contract to design and build the Public Transportation Facility for the City of Key West – RFP No. 001-13 (Project).
- If successful, DNHI will be the prime contractor for the Project.
- If successful, CDM Smith will be a subcontractor to DNHI on the Project and act as the lead designer for the Project.
- DNHI agrees not to subcontract CDM Smith's scope of work on the Project to anyone but CDM Smith.
- CDM Smith agrees not to provide a bid to or execute a subcontract with anyone but DNHI for design services on the Project.

AGREED:

Douglas N. Higgins, Inc.

By: \_\_\_\_\_

*[Signature]* 10/9/12 DANIEL N. HIGGINS

Its: \_\_\_\_\_

VICE PRESIDENT

CDM Smith

By: \_\_\_\_\_

*[Signature]* 10-15-12

Daniel Strobbridge

Its: \_\_\_\_\_

Vice President



*in association with*



## Part II – Technical Statement

### Experience

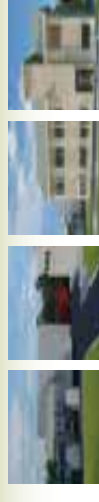


Table 2-5-1: Relevant Construction Contracts Completed in the Past Five Years

Name of Project	Prime Contractor Name and Address	Date of Contract	Contract \$ Amount Complete	Design Architect/ Engineer Name and Address	Owner Name and Address	Scope of Work
Wastewater Collection System Expansion, North Barfield, North Marco, and Tiger Tail Sewer Districts, Marco Island, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	2006-2008	\$14.14M	AECOM Technical Services 4415 Metro Parkway Suite # 404 Fort Myers, FL 33916	City of Marco Island Mike Daniel, Construction Manager 50 Bald Eagle Drive Marco Island, FL 34145 Tel: 239.389.5000	Wastewater collection system expansion
NCWRF Compliance Assurance, Collier County, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	2010-2011	\$8.68M	Hole Montes & Associates, Inc. 950 Encore Way Naples, FL 34110	Collier County Craig Pajer, Project Manager 3299 Tamiami Trail East Naples, FL 34112 Tel: 239.252.2554	Constructed to increase reclaimed water storage/ distribution, stormwater and odor
Kissimmee/St. Cloud Field Station Relocation – Phase 2, Osceola County, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	2007-2009	\$10.58M	Arcadis U.S., Inc. 2081 Vista Parkway West Palm Beach, FL 33411	South Florida Water Management District Thomas McKernan, Principal Construction Manager 3301 Gun Club Road West Palm Beach, FL 33406 Tel: 561.686.8800 ext. 2673	Design/Build new Field Station with combination office and maintenance and maintenance facility totaling 25,200 SF
Design-Build Solid Waste Transfer Station, Key West, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	2008-2009	\$7.94M	Chen-Moore & Associates 500 West Cypress Creek Road, Suite 630 Fort Lauderdale, FL 33309	City of Key West David Fernandez, Assistant City Manager P.O. Box 1409, Key West, FL 33041 Tel: 305.809.3879	Design/Build new Transfer Station Facility totaling 20,000 SF
S-650 Lakeside Ranch Pump Station, Martin County, FL	Douglas N. Higgins, Inc. 1213 Glynn Archer Drive, Suite 281 Key West, FL 33040	2010-2012	\$6.98M	CDM Smith 1601 Belvedere Road, Suite 400E West Palm Beach, FL 33406	South Florida Water Management District John Creswell, P.E., Section Leader – Engineering and Construction Bureau 3301 Gun Club Road West Palm Beach, FL 33406 Tel: 561.686.8800 ext. 2550	Complete site development and construction of a pump station





# Design-Build Solid Waste Transfer Station

## *Key West, FL*

DNHI was the prime contractor associated with the design, pre-construction, and construction phase of a solid waste transfer station facility, including separate recycling, office, and scale/security buildings totaling 20,000 square feet over a 3-acre site. This facility serves as a critical element in the management of solid waste and recycling for the Lower Keys.

The project involved several challenges from a design and construction standpoint. Site layout involved significant coordination with the owner as the required building footprints, truck staging areas, and traffic flow needed to be fully accommodated on a relatively small site. Current local building codes required that building floor elevations be above flood elevation, and site development involved significant earthwork and underground utility construction to raise the site 5 feet from existing grade in order to adhere to this code. The concrete floor slab and superstructure of the transfer station required unique armoring approaches to resist the daily operation of heavy equipment working within the building.

This project was completed within the contract time frame and has been used reliably by the owner since it has been placed in service.



DNHI was the lead contractor for the City of Key West's solid waste transfer station facility, which included separate recycling, office, and scale/security buildings totaling 20,000 square feet on a 3-acre site.

### *Prime Contractor Name and Address*

Douglas N. Higgins, Inc.  
1213 Glynn Archer  
Drive, Suite 281  
Key West, FL 33040

### *Date of Contract*

2008-2009

### *Contract \$ Amount Complete*

\$7.94M

### *Design Architect/ Engineer Name and Address*

Chen-Moore &  
Associates  
500 West Cypress Creek  
Road, Suite 630  
Fort Lauderdale,  
FL 33309

### *Owner Name and Address*

City of Key West  
David Fernandez,  
Assistant City Manager  
P.O. Box 1409  
Key West, FL 33041  
Tel: 305.809.3879

### *Scope of Work*

Design-build new  
transfer station facility,  
totaling 20,000 SF

Attachment C  
Cost Proposal Package No. 2

---

## PACKAGE NO. 2 - COST PROPOSAL

for

CITY OF KEY WEST PUBLIC TRANSPORTATION FACILITY  
KEY WEST, FLORIDA

NOTE TO PROPOSER: Use ink, preferably BLACK, for completing this proposal form.

To: City Clerk, City of Key West

Address: 3126 Flagler Avenue  
Key West, Florida 33040

Project Title: Public Transportation Facility  
Key West, Florida

CITY Project No.: RFP 001-13

PROPOSER'S person to contact for additional information on the Proposal:

Name: Paul R Waters

Telephone Number: 305-797-1019

## **BIDDER'S DECLARATION AND UNDERSTANDING**

The undersigned hereinafter called the Design/Build Proposer, declares that the only persons or parties interested in this Proposal are those names herein, that this Proposal is, in all respects, fair and without fraud, that it is made without any connection or collusion with any person submitting another Proposal on this Contract.

The Proposer further declares that the Design/Build Proposer has carefully examined the Request for Proposal for design and construction of the Project, that the Proposer attended the Pre-proposal Meeting, that the Proposer has personally inspected the site, that the Proposer has satisfied himself as to the scope of the Project, including, but not limited to required design work, permitting conditions, conditions of construction work involved, quantities of equipment, materials, and building systems as well as the detailed requirements of the Contract, and that this Proposal is made according to the provisions and under the terms of the Contract. Furthermore, the Proposer acknowledges all information presented in the Instructions to Proposers.

The Proposer further agrees that the Proposer has exercised his own judgment regarding interpretation of the Design Criteria information and has utilized all data, which the Proposer believes pertinent from CITY and other sources in arriving at his conclusions.

### **Contract Execution and Bonds**

The Design/Build Proposer agrees that upon receiving notice of City's intent to accept this Proposal the Bidder will, within 15 working days after Notice of Award, sign the Contract, submit the executed Performance and Payment Bonds, and will, to the extent of his Proposal, furnish all design and machinery, tools, apparatus, and other means of construction and do the work and furnish all materials necessary to complete all work as specified or indicated in the Design Criteria and Contract and General and Supplementary Conditions.

### **Certificates of Insurance**

The Design/Build Proposer further agrees to furnish to the City, before signing of the Contract, the certificates of insurance as specified in the Request for Proposal Documents. The CITY shall be listed as additionally insured on all Insurance Certificates.

### **Start of Project and Contract Completion Time**

The Design/Build Proposer further agrees to begin work within ten (10) calendar days after the date of the Notice to Proceed and that construction shall be substantially complete and also completed and ready for final payment and acceptance by, the CITY as set forth in the Design/Build contract

### **Liquidated Damages**

Liquidated damages, in the amount and in accordance with the terms stated in the Agreement, shall be paid by the Proposer for each day from the time specified for the completion of the Contract until final acceptance of the Work in accordance with the Agreement. This is estimated as fixed damages to the CITY for failure to complete the Work in the time specified. This charge shall be made, unless the CITY shall grant an extension of time for the completion of the Work.



## **Addenda**

The Design/Build Proposer hereby acknowledges that he has received Addenda No's 1st, 3rd, 5th, 7, 8 (Bidder shall insert No. of each Addendum received) and agrees that all Addenda issued are hereby made part of the Contract Documents, and the Bidder further agrees that the Proposal includes all impacts resulting from said Addenda.

## **Sales and Use Taxes**

The Design/Build Proposer agrees that all sales and use taxes are included in the stated bid prices for the work, unless provision is made herein for the Proposer to separately itemize the amount of sales tax.

## **Lump Sum Work**

The Design/Build Proposer further proposes to accept as full payment for the work proposed herein the amounts computed under the provisions of the Contract Documents and based on the following lump sum amounts, it being expressly understood that the amounts are independent of the exact quantities involved. The Design/Build Proposer agrees that the amounts represent a true measure of the labor and materials required to perform the work, including all allowances for overhead and profit for each type of work called for in these Contract Documents. The amounts shall be shown in both words and figures. In case of a discrepancy, the amount shown in words shall govern.

## **Preliminary Schedule of Values**

Preliminary Schedule of Values prepared in accordance with General Conditions, Paragraph 2.04.B.3 shall be attached to this Cost Proposal Package. Final Schedule of Values shall be developed in accordance with the Contract subject to approval of the City.

## **Public Entity Crimes**

"A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list." See Attachment M.

## **Florida Trench Safety Act**

The Design/Build Proposer further acknowledges that, included in the various items of the Proposal and in the total bid price are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990. These costs shall not be paid for in a separate bid item. See Attachment O.

### **Permit Costs & Building Permit Allowance**

Design / Build Proposer shall obtain and pay for any permits required for execution of the work. Separate permits will be required by the City of Key West Building Department. No permits will be waived.

The City will compensate the Design / Builder for the actual cost of the City of Key West Building Department permit fee required for design and construction of the project. The allowance amount for this bid item shall be (\$165,000). Amounts remaining unused in this allowance shall be credited back to CITY at project completion.

Design / Build proposer further acknowledges that this amount shows is an estimated amount to be included in the Total Base Bid for the Building Permit required by the City of Key West. Proposer acknowledges that payment will be based on actual costs for the permit(s)

Permits other than those required by the City of Key West may be required and contractors shall include the cost of these permits in their base bid.

### **Total Base Bid Amount**

The Design/Build Proposer agrees to accept as full payment for the Work proposed under this Project, as herein specified and as shown on the Drawings, the following Total Base Bid amount, including permit costs, and building permit allowance:

### BID SHEET

#### **DEMOLITION (Phase 1)**

Permits and connection fees (other than those covered under the City of Key West Allowance):

Mobilization

General Conditions

Bond & Insurance

Clearing & Grubbing

Demolition of Structures

Salvage value of equipment and materials (deductive)

Grading and capping of site

Sodding of areas outside of new construction project limits

1,500.00

75,000.00

120,000.00

11,000.00

2,500.00

387,000.00

( 90,000.00 )

879,600.00

4,500.00

Subtotal (Phase 1)

1,391,100.00

#### **DESIGN (Phase 2)**

0% to 60% Design Document

60% to 90% Design Document

90% to 100% Design Documents (Upon Grant Agency Approval)

381,910.00

171,560.00

64,250.00

Subtotal (Phase 2)

617,720.00



**CONSTRUCTION (Phase 3)**

Permits and connection fees (other than those covered under the City of Key West Allowance):

Mobilization

General Conditions

Bond &amp; Insurance

Bus Wash station

Fuel station

Administrative Structure

Maintenance Structure

Underground Utilities

Site Work

Lighting

Security fencing

Landscaping

18,900.0050,000.00685,000.0064,000.00374,200.00217,500.002,058,000.001,309,600.00339,000.00651,600.00203,800.0073,500.00202,500.00

Subtotal (Phase 3)

6,247,600.00Permit Allowance for CKW  
Building Department

\$ 165,000

TOTAL BASE BID: (Phase 1 +  
Phase 2 + Phase 3 + CKW  
Permit Allowance)8,421,420.00Eight Million Four Hundred Twenty One Thousand Four Hundred  
Twenty Dollars

TOTAL BASE BID - WRITTEN AMOUNT (Amount written in words has precedence)



### ALTERNATES:

Listed below are alternate options that will be considered by the City. These options, if accepted by the City will be additions to or deductions from the Total Base Bid Amount stated above. Acceptance of alternates will be authorized through a Change Order issued in accordance with General Conditions. Acceptance or rejection of alternates will be at the sole discretion of the City.

### ALTERNATE A - LEED CERTIFICATION - SILVER

Under this alternate bid item, the Design/Builder must achieve certification of the project by the U.S. Green Building Council to LEED SILVER, under LEED 2009 for New Construction and Major Renovations.

The Project must satisfy all the prerequisites and qualify for a minimum number of points to attain the established project rating of LEED Silver. The team will be required to understand the point system and incorporate sustainable design into the project to support the goals. Research of products, systems or alternate options requested by the city shall be considered in the price.

Efforts will include: LEED certification registration, filing, and documentation process, commissioning, design, and all associated fees.

If the City accepts Alternate A - LEED Certification - Silver Level, Contract Price will be increased by:

\$ 18,800.00

Eighteen Thousand Eight Hundred DOLLARS

(Amount written in words has precedence)

and No Cents

### ALTERNATE B - LEED CERTIFICATION - GOLD

Under this alternate bid item, the Design/Builder must achieve certification of the project by the U.S. Green Building Council to LEED GOLD, under LEED 2009 for New Construction and Major Renovations.

The Project must satisfy all the prerequisites and qualify for a minimum number of points to attain the established project rating of LEED Gold. The team will be required to understand the point system and incorporate sustainable design into the project to support the goals. Research of products, systems or alternate options requested by the city shall be considered in the price.

Efforts will include: LEED certification registration, filing, and documentation process, commissioning, design, and all associated fees.

If the City accepts Alternate B - LEED Certification - Gold Level, Contract Price will be increased by:

\$ 209,000.00

Two Hundred Nine Thousand DOLLARS

(Amount written in words has precedence)

and No Cents

### ALTERNATE C - SECOND 8,000 GAL ABOVEGROUND BIO-DIESEL STORAGE TANK

Under this alternate bid item, the Design/Builder must furnish and install a second aboveground bio-diesel storage tank at the fuel island in lieu of relocating the existing tank. The tank shall meet criteria in technical specification Section 6.5.1.

If the City accepts Alternate C - New Aboveground Storage Tank, Contract Price will be increased by:

\$ 79,000.00

Seventy Nine Thousand DOLLARS

(Amount written in words has precedence)

and No Cents

## ALTERNATE D - VEHICLE LIFTS

Under this alternate bid item, the Design/Builder must furnish and install:

- Two (2) - Large Vehicle Maintenance Lifts: Rotary Lift: Heavy Duty Parellelogram 6 Leg 45/35S Model or equivalent approved equal.
- One (1) - Small Maintenance Lift: Rotary Lift: Y-Lift (YA12) Model or approved equal

If the City accepts Alternate D - Vehicle Lifts, Contract Price will be increased by:

\$ 270,000.00

Two Hundred Seventy Thousand DOLLARS

(Amount written in words has precedence)

and No Cents



Alternate Bid Item E: Feed Water Tank

Tank holds approximately 4,000 gallons of liquid which city maintenance staff has indicated is storm water runoff from the former Transfer Station dumping area.

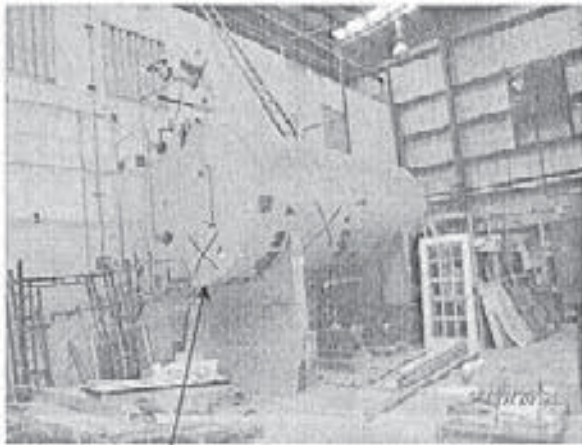
Under this Alternate bid item, City will drain and dispose of tank contents. Contractor will deliver (load and unload) at a location behind the Key West Wildlife Center for a future use as a cistern. Access to the site is via a gravel roadway. City will perform all site work at the tanks location. Delivery would be 60 to 90 days after award

If the city accepts Alternate E: Feed Water Tank Contract price will be increased/decreased by:

Additive Deductive \$ 9,000.00 (numeric)  
(circle one)

Written (has precedence/indicate additive/deductive)

\$ Nine Thousand dollars and No Cents



Feed Water Tank



Wildlife Center

Delivery Location Site



**SURETY**

The Performance and Payment Bonding will be furnished by a Surety. The Surety who will provide the Payment and Performance Bonding will be Hartford Accident & Indemnity

Whose address is 5445 Corporate Drive Suite 300  
Troy, MI 48098  
City State Zip Code

**PROPOSER**

The name of the Design/Build Proposer submitting this Proposal is \_\_\_\_\_

Douglas N. Higgins, Inc., doing business at  
3390 Travis Pointe Rd. Suite A  
Ann Arbor, MI 48108  
Street City State Zip Code

which is the address to which all communications concerned with this Proposal and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Proposal, or of the partnership, or of all persons interested in this Proposal as principals are as follows:

Douglas N. Higgins - President  
R. Suzanne Howker - Secretary/Treasurer  
Daniel N. Higgins, William D. Higgins, James H. Sweet,  
& Kelly A. Wilkie - Vice-President

If Sole Proprietor or Partnership

IN WITNESS hereto the undersigned has set his (its) hand this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature of Design/Build Proposer: \_\_\_\_\_

Title: \_\_\_\_\_

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this 31<sup>st</sup> day of October, 2012.

(SEAL)

Douglas N. Higgins, Inc.

Name of Corporation

By Kelly A. Wilke

Title Vice-President

Attest R. Suzanne Hawke

Secretary

CERTIFICATE OF SECRETARY

The undersigned, being the duly elected secretary of Douglas N. Higgins, Inc., a Michigan corporation, hereby certifies that the following resolution was duly adopted by the Board of Directors of said corporation at a meeting held on May 15, 2012 and that said resolution is in full force and effect:

"RESOLVED, That the following listed persons are hereby authorized to execute, on behalf of Douglas N. Higgins, Inc., any and all contracts and documents."

Douglas N. Higgins

Daniel N. Higgins

William D. Higgins

James H. Sweet

Kelly A. Wilkie

[Signature]

[Signature]

[Signature]

[Signature]

[Signature]

R. Suzanne Hawker

R. Suzanne Hawker  
Secretary

Dated: May 15, 2012

Attachment D  
Bid Bond

---



STATE OF FLORIDA     )  
                                      )  
COUNTY OF             )

KNOW TO ALL MEN BY THESE PRESENTS, that we,

Douglas N. Higgins, Inc.  
hereinafter called the PRINCIPAL, and  
Hartford Fire Insurance Company

hereinafter called SURETY, are held and firmly bound unto City of Key West,  
hereinafter called OWNER, in the sum of

Five Percent of attached bid DOLLARS (\$ 5% )  
lawful money of the United States of America, for the payment of which well and  
truly to be made, we bind ourselves, our heirs, executors, administrators, successors  
and assigns, jointly and severally, by these presents.

THE CONDITION OF THIS BOND IS SUCH THAT:

WHEREAS, the PRINCIPAL contemplates submitting or has submitted a bid to the  
OWNER for the furnishing of all design, labor, materials, equipment, machinery,  
tools, apparatus, means of transportation for, and the performance of the work  
covered in the Request for Proposal, entitled:

City of Key West Public Transportation Facility, Florida

WHEREAS, it was a condition precedent to the submission of said bid that a  
cashier's check, certified check, or bid bond in the amount of 5 percent of the total  
bid to be submitted with said bid as a guarantee that the PRINCIPAL, would, if  
notified of OWNER'S intent to award the Contract to the PRINCIPAL, enter into a  
written Contract with the OWNER for the performance of said Contract, within 15  
consecutive calendar days after written notice having been given of the award of the  
Contract.

NOW, THEREFORE, the conditions of this obligation are such that if the  
PRINCIPAL accepts within 15 consecutive calendar days after written notice of such  
intended award executes and delivers to the OWNER the written Contract with the  
OWNER and furnishes the Performance and Payment Bonds, each in an amount  
equal to 100 percent of the total bid, satisfactory to the OWNER, then this obligation  
shall be void; otherwise the sum herein stated shall be due and payable to the  
OWNER and the SURETY herein agrees to pay said sum immediately upon demand  
of the OWNER in good and lawful money of the United States of America, as  
liquidated damages for failure thereof of said PRINCIPAL.

IN WITNESS WHEREOF, the said  
as PRINCIPAL herein, has caused these presents to be signed in its name by its  
and attested by its  
under its corporate seal, and the said  
as SURETY herein, has caused these presents to be signed in its name by its  
corporate seal, this 31st day of October A.D., 2012.

Signed, sealed and delivered in  
the presence of:

R. Suzanne Hawker  
R. SUZANNE HAWKER

Title Sec./Treas.

As to Principal

\_\_\_\_\_

Heather M. Johnson  
Attorney-in-Fact

(Power-of-Attorney to be attached)

Cheryl A. Bennis

As to Surety

Douglas N. Higgins, Inc.  
Principal-Contractor

By Kelly A. Wilkie

Surety

By Heather M. Johnson

By Dore A. Belin

Resident Agent  
Dore A. Belin  
Fl. Resident Agent  
Sells & Co. 2001 NW 27th Ave.  
Miami, FL 33178 305 551 1100

END OF SECTION



# POWER OF ATTORNEY

Direct Inquiries/Claims to:

THE HARTFORD

BOND, T-4

One Hartford Plaza

Hartford, Connecticut 06155

call: 888-266-3488 or fax: 860-757-5835

Agency Code: 35-350851

KNOW ALL PERSONS BY THESE PRESENTS THAT:

- ☒ Hartford Fire Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- ☒ Hartford Casualty Insurance Company, a corporation duly organized under the laws of the State of Indiana
- ☒ Hartford Accident and Indemnity Company, a corporation duly organized under the laws of the State of Connecticut
- ☐ Hartford Underwriters Insurance Company, a corporation duly organized under the laws of the State of Connecticut
- ☐ Twin City Fire Insurance Company, a corporation duly organized under the laws of the State of Indiana
- ☐ Hartford Insurance Company of Illinois, a corporation duly organized under the laws of the State of Illinois
- ☐ Hartford Insurance Company of the Midwest, a corporation duly organized under the laws of the State of Indiana
- ☐ Hartford Insurance Company of the Southeast, a corporation duly organized under the laws of the State of Florida

having their home office in Hartford, Connecticut, (hereinafter collectively referred to as the "Companies") do hereby make, constitute and appoint, up to the amount of unlimited:

Heather M. Johnson, Joel E. Speckman, Terri Mahakian, David Harlock  
of  
Ann Arbor, MI

their true and lawful Attorney(s)-in-Fact, each in their separate capacity if more than one is named above, to sign its name as surety(ies) only as delineated above by ☒, and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

In Witness Whereof, and as authorized by a Resolution of the Board of Directors of the Companies on January 22, 2004 the Companies have caused these presents to be signed by its Assistant Vice President and its corporate seals to be hereto affixed, duly attested by its Assistant Secretary. Further, pursuant to Resolution of the Board of Directors of the Companies, the Companies hereby unambiguously affirm that they are and will be bound by any mechanically applied signatures applied to this Power of Attorney.



Wesley W. Cowling

Wesley W. Cowling, Assistant Secretary

M. Ross Fisher

M. Ross Fisher, Assistant Vice President

STATE OF CONNECTICUT }  
COUNTY OF HARTFORD } ss. Hartford

On this 3<sup>rd</sup> day of November, 2008, before me personally came M. Ross Fisher, to me known, who being by me duly sworn, did depose and say: that he resides in the County of Hartford, State of Connecticut; that he is the Assistant Vice President of the Companies, the corporations described in and which executed the above instrument, that he knows the seals of the said corporations; that the seals affixed to the said instrument are such corporate seals; that they were so affixed by authority of the Boards of Directors of said corporations and that he signed his name thereto by like authority.



CERTIFICATE

Scott E. Pleske

Notary Public

My Commission Expires October 31, 2012

I, the undersigned, Assistant Vice President of the Companies, DO HEREBY CERTIFY that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies, which is still in full force effective as of October 31, 2012.

Signed and sealed at the City of Hartford.



Gary W. Stump

Gary W. Stump, Assistant Vice President

Attachment O  
Florida Trench Safety Act Compliance

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**FLORIDA TRENCH SAFETY ACT COMPLIANCE**  
**Trench Excavation Safety System and Shoring**

**CERTIFICATION**

All excavation, trenching, and related sheeting, bracing, etc. on this project shall conform to the requirements of the Florida Trench Safety Act (90-96, CS/SB 2626), which incorporates by reference, OSHA's excavation safety standards, 29 CFR 1926.650 Subpart P including all subsequent revisions or updates to the these standards.

By submission of this bid and subsequent execution of this Contract, the undersigned certifies compliance with the above mentioned standards and further stipulates that all costs associated with this compliance are detailed below as well as included in their lump sum bid amount.

**Summary of Costs:**

Trench Safety Measure	Units	Quantity	Unit Cost	Extended Cost
A. <u>Shoring</u>	<u>LF</u>	<u>2900</u>	<u>\$2.00</u>	<u>\$5,800.00</u>
B. _____	_____	_____	_____	_____

Kelly A. Wilkie  
Signature

11/7/2012  
Date

STATE OF Michigan  
COUNTY OF Washtenaw

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

Kelly A. Wilkie, who, after first being sworn by me affixed his /her signature in the space,

provided above on the 7<sup>th</sup> day of November, 2012.

R. Suzanne Hawker  
Notary Public

(Seal)

MY COMMISSION EXPIRES: R. SUZANNE HAWKER  
Notary Public, Washtenaw County, MI  
My Commission Expires Mar 7, 2017