CITY OF DELRAY BEACH
100 NW 1st AVENUE, DELRAY BEACH, FL 33444

AGREEMENT FOR PROFESSIONAL SERVICES

RFQ 2017-048 (918-42, 918-89, 906-56)

ERDMAN ANTHONY OF FLORIDA, INC.

AGREEMENT
FOR
PROFESSIONAL SERVICES (CCNA)

AGREEMENT NO. RFQ 2017-048 (918-42, 918-89, 906-56)

THIS AGREEMENT is made and entered into this 31st day of August, 2017 (the "effective date"), by and between the **City of Delray Beach,** a Florida municipal corporation (hereinafter referred to as "City"), whose address is 100 NW 1st Avenue, Delray Beach, Florida, 33444, and **Erdman Anthony of Florida, Inc.,** a Florida corporation (hereinafter referred to as "Consultant"), whose principal address is 5405 Okeechobee Blvd., Suite 200, West Palm Beach, Florida 33417.

WHEREAS, the City desires to retain the services of the Consultant to provide certain Professional Services in accordance with the City's Request for Qualifications RFQ 2017-048, Continuing Engineering, Surveying, and Landscaping Architectural Consulting Services (918-42, 918-89, 906-56), and the Consultant's response thereto, which are attached hereto and incorporated herein as Exhibit "A".

NOW, THEREFORE, in consideration of the mutual covenants and promises hereafter set forth, the Consultant and the City agree as follows:

ARTICLE 1. INCORPORATION OF REQUEST FOR QUALIFICATIONS

The terms and conditions of this Agreement shall include and incorporate the terms, conditions, and scope of services set forth in the City's Request for Qualifications, RFQ 2017-048, and the Consultant's response to the Request for Qualifications, including all addenda and documentation required thereunder.

ARTICLE 2. SCOPE OF SERVICES

The Consultant shall provide Professional Services to the City, under the following categories of work as defined in the Request for Qualifications:

a. Category(s)

i. Engineering Services
ii. Surveying/Mapping Services
iii. Landscape Architectural Services

The Consultant shall provide the services on an as-needed and project-by-project basis, based on work requests from City departments through the issuance of Service Authorizations.

ARTICLE 3. COMPENSATION

The City shall pay the Consultant for performing the Services based on the Prices and Rates shown in Exhibit "B", which is attached hereto and incorporated herein.

ARTICLE 4. TERM

The term of this Agreement shall be from the effective date until August 30,2022, unless terminated beforehand as provided for in Article 5. Nothing contained in the Request for Qualifications or this Agreement shall be construed by the Consultant as a guarantee of work from the City. The City reserves the right to extend the Agreement for one, two-year term, providing all terms conditions and specifications remain the same, both parties agree to the extension, and such extension is approved by the City.

At the City's request, the Consultant shall continue services beyond the final expiration date. This extension period shall not extend for more than one year beyond the final expiration date of the Agreement. The Consultant shall be compensated at the rate in effect when this extension period is invoked by the City.

ARTICLE 5. TERMINATION

a. This Agreement may be terminated by the City, with or without cause, upon providing written notice to the Consultant. This Agreement may be terminated by the Consultant upon thirty (30) days' prior written notice to the City. Upon any such termination, the Consultant waives any claims for damages from such termination, including, but not limited to, loss of anticipated profits. Unless the Consultant is in breach of this Agreement, the City shall pay the Consultant for services rendered through the date of termination in accordance with the terms of this Agreement.

b. The continuation of this Agreement beyond the end of any fiscal year shall be subject to both the appropriation and the availability of funds in accordance with Florida law.

ARTICLE 6. LAW, JURISDICTION, VENUE, WAIVER OF JURY TRIAL

This Agreement shall be interpreted and construed in accordance with and governed by the laws of the state of Florida. All Parties agree and accept that jurisdiction of any controversies or legal problems arising out of this Agreement, and

any action involving the enforcement or interpretation of any rights hereunder, shall be exclusively in the state courts of the Fifteenth Judicial Circuit in Palm Beach County, Florida, and venue for litigation arising out of this Agreement shall be exclusively in such state courts, forsaking any other jurisdiction which either party may claim by virtue of its residency or other jurisdictional device. **BY ENTERING INTO THIS AGREEMENT, SECOND PARTY AND CITY HEREBY EXPRESSLY WAIVE ANY RIGHTS EITHER PARTY MAY HAVE TO A TRIAL BY JURY OF ANY CIVIL LITIGATION RELATED TO THIS AGREEMENT. IF A PARTY FAILS TO WITHDRAW A REQUEST FOR A JURY TRIAL IN A LAWSUIT ARISING OUT OF THIS AGREEMENT AFTER WRITTEN NOTICE BY THE OTHER PARTY OF VIOLATION OF THIS SECTION, THE PARTY MAKING THE REQUEST FOR JURY TRIAL SHALL BE LIABLE FOR THE REASONABLE ATTORNEYS' FEES AND COSTS OF THE OTHER PARTY IN CONTESTING THE REQUEST FOR JURY TRIAL, AND SUCH AMOUNTS SHALL BE AWARDED BY THE COURT IN ADJUDICATING THE MOTION.**

ARTICLE 7. ATTORNEY'S FEES

Any costs or expense (including reasonable attorney's fees) associated with the enforcement of the terms and for conditions of this Agreement shall be borne by the respective Parties, however, this clause pertains only to the Parties to this Agreement.

ARTICLE 8. MISCELLANEOUS PROVISIONS

a. Notice Format. All notices or other written communications required, contemplated, or permitted under this Agreement shall be in writing and shall sent by certified United States Mail, postage prepaid, return receipt requested, or sent by commercial express carrier with acknowledgement of delivery, or by hand delivery with a request for a written receipt of acknowledgment of delivery, addressed to the party for whom it is intended at the place last specified. The place for giving notice shall remain the same as set forth herein until changed in writing in the manner provided in this section. For the present, the Parties designate the following:

As to the City:

City of Delray Beach
100 NW 1st Avenue
Delray Beach, FL 33444
Attn: City Manager

With a copy to:

City of Delray Beach
200 NW 1st Avenue
Delray Beach, Florida 33444
Attn: City Attorney

As to the Consultant:

Erdman Anthony of Florida, Inc.
5405 Okeechobee Blvd., Suite 200
West Palm Beach Florida 33417
Attn: James F. Noth, Vice President

b. Headings. The headings contained in this Agreement are for convenience of reference only and shall not limit or otherwise affect in any way the meaning or interpretation of this Agreement.

c. The documents listed below are a part of this Agreement and are hereby incorporated by reference. In the event of inconsistency between the documents, unless otherwise provided herein, the terms of the following documents will govern in the following order of precedence:

i. Terms and conditions as contained in this Agreement.

ii. Terms and conditions of RFQ 2017-048.

iii. Consultant's response to RFQ 2017-048 and any subsequent information submitted by Consultant during the evaluation and negotiation process.

~~(The remainder of this page intentionally left blank)~~

d. Notwithstanding any other provision of this Agreement or any of the incorporated documents, neither party has waived the application of Florida Statute TITLE XLI 725.08 to this Agreement nor consented to, or agreed that, the provisions of this Agreement comply with applicable Florida statutes including Fla. Stat. § 725.08.

(The remainder of this page intentionally left blank)

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date hereinabove first written.

CITY OF DELRAY BEACH, FLORIDA

By: _____
Cary D. Glickstein, Mayor

ATTEST:

By: _____
Katerri Johnson, City Clerk

APPROVED AS TO FORM AND LEGAL SUFFICIENCY

By: _____
R. Max Lohman, City Attorney

CONSULTANT

By: Dana Gelt

Title: Principal Associate

WITNESSES:

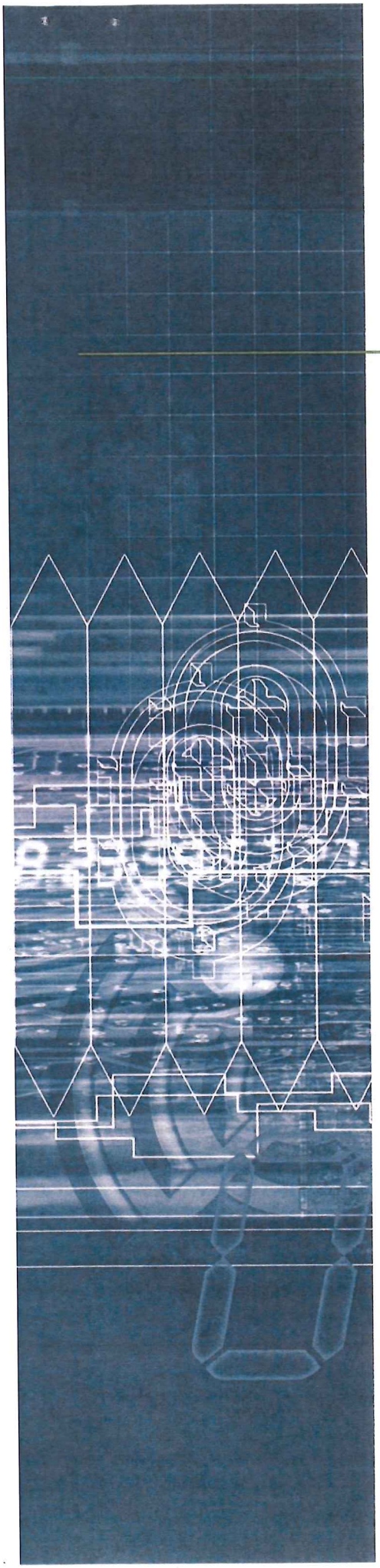
By: _____

Print Name: Ronald L Park

By: Patricia Gable

Print Name: Patricia Gable

EXHIBIT A



ERDMAN ANTHONY

Statement of Qualifications
Continuing Engineering, Surveying, and Landscaping Architectural Consulting Services

RFQ No. 2017-048

Prepared for
The City of Delray Beach

ENGINEERING INFRASTRUCTURE SOLUTIONS...FOR A CHANGING WORLD

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Landscaping Architectural Consulting Services
RFQ No. 2017-048

May 30, 2017

ERDMAN ANTHONY

1. Letter of Intent / Proposal Submittal Signature Page

ERDMAN ANTHONY

May 30, 2017

City of Delray Beach
Attn: Purchasing Department
100 NW 1st Av.
Delray Beach, FL 33444

SUBJECT: Request for Qualifications
Continuing Engineering, Surveying, and
Landscape Architecture Consulting Services

To whom it may concern:

Erdman Anthony welcomes the opportunity to present its qualifications to the City of Delray Beach. Our passion for public works projects includes infusing our projects with sustainable and efficient elements so that our projects will be beneficial to your constituents for decades.

Erdman Anthony provides a variety of engineering services and our strong reputation in transportation, civil engineering, water resources/stormwater management, and survey services is evidenced by our history of repeat assignments for South Florida state and local agencies. We have had open end or continuing service contracts with the Florida Department of Transportation (District 4), the South Florida Water Management District, Palm Beach County, the City of Boynton Beach, and West Palm Beach, in addition to our past work with Royal Palm Beach. Erdman Anthony has an ISO 9001 certified quality program in place. This means that we have a proven project management approach and we pride ourselves on producing high quality work, with the right mix of team members that results in successful projects.

We are excited about the opportunity to work with the City of Delray Beach and would not pursue this contract if we did not have adequate availability and resources to perform the work to our own high expectations. We propose to use our locally experienced staff, led by Contract Manager **Dana Gillette, PE, PSM, LEED AP**, to assist the city with general civil engineering needs. As the contract manager, Dana will be primarily responsible for this contract, and will serve as the point of contact for Delray Beach representatives. She is a Principal Associate, leads our civil engineering business in Florida, and is authorized to negotiate and sign contracts for the firm. With project experience surpassing 30 years, she has an established familiarity of local review agencies, permitting procedures, and current design standards. Ms. Gillette will lead the Erdman Anthony team from our West Palm Beach office, which is centrally located in Palm Beach County and just 25 minutes from the City of Delray Beach. Our office is located at 5405 Okeechobee Blvd., Suite 200, West Palm Beach, FL 33417. Ms. Gillette can be reached at gilletted@erdmananthony.com or 561-753-9723. Our close proximity to the City will allow our personnel to be at every meeting necessary during this contract.

Erdman Anthony is both prepared and eager to work with the City of Delray Beach on this assignment. With our strong background and the personal commitment of our associates, we are confident that we can assist the City under this continuing civil engineering services contract.

Sincerely,

Dana Gillette

Dana I. Gillette, PE, PSM, LEED AP
Principal Associate

ERDMAN ANTHONY

Form A - Proposal Submittal Signature Page

By signing this Proposal, the Proposer certifies that it satisfies all legal requirements as an entity to do business with the City, including all Conflict of Interest and Code of Ethics provisions.

Firm Name: Erdman Anthony of Florida, Inc.

Street Address: 5405 Okeechobee Blvd., Suite 200, West Palm Beach, FL 33417

Mailing Address (if different from Street Address):

Telephone Number(s): 561-753-9723

Fax Number(s): N/A

Email Address:

Federal Identification Number: 20-0930234

Acknowledged by:

Erdman Anthony of Florida, Inc.
Firm Name

Signature

5/18/2017
Date

James F. Noth, PE, PSM, Vice President
Printed Name and Title

By signing this document, the Proposer agrees to all terms and conditions of this RFQ which includes the Sample Agreement.

THE EXECUTION OF THIS FORM CONSTITUTES THE UNEQUIVOCAL OFFER OF PROPOSER TO BE BOUND BY THE TERMS OF ITS PROPOSAL. FAILURE TO SIGN THIS SOLICITATION WHERE INDICATED ABOVE BY AN AUTHORIZED REPRESENTATIVE SHALL RENDER THE PROPOSAL NON-RESPONSIVE. THE CITY MAY, HOWEVER, IN ITS SOLE DISCRETION, ACCEPT ANY PROPOSAL THAT INCLUDES AN EXECUTED DOCUMENT WHICH UNEQUIVOCALLY BINDS THE PROPOSER TO THE TERMS OF ITS PROPOSAL.

(Remainder of page intentionally left blank)

Form A - Signature Authority

Indicate below Proposer's type of organization and provide the required documentation as applicable to demonstrate that the executor of Proposer's Proposal is duly authorized to execute on behalf of, and as the official act of, Proposer.

Select	Type of Organization	Officer Who Signed Proposal Submittal Signature Page	Required Authorizing Documentation
☒	Corporation	President, Vice President, or Chief Executive Officer	None
☐	Corporation	Director, Manager, or other title	Corporate resolution
☐	Limited Liability Company (LLC) – Member-Managed	Member	Articles of Organization or Operating Agreement
☐	Limited Liability Company (LLC) – Manager-Managed	Manager	Articles of Organization or Operating Agreement
☐	Limited Partnership	General Partner	Document demonstrating the legal authority to bind the Limited Partnership
☐	Partnership	Partner	None
		CEO, Director, Manager or other title	Authorizing documentation
☐	Individual	Individual	None

☒ **Documentation is not required.**

☐ **The required authorizing documentation is included with Proposal.**

2. Proposer's Statement of Organization / W-9

Proposer's Statement of Organization

Erdman Anthony's Statement of Organization is as follows:

A. Legal contracting name including any dba.
Erdman Anthony of Florida, Inc. dba. Erdman Anthony.

B. State of organization or incorporation.
Florida.

C. Ownership structure of Proposer's company. (e.g., Sole Proprietorship, Partnership, Limited Liability Corporation, Corporation)
Corporation

D. Provide a completed W-9, with the full legal name of Proposer, Employer Identification Number, and company address. W-9 must be signed by an authorized official and dated.
Please find completed W-9 after the Proposers Statement of Organization.

E. Contact information for Proposer's Corporate headquarters.
145 Culver Road, Suite 200
Rochester, New York 14620
[T]: (585) 427-8888

F. Contact information for Proposer's Local office (if any).
5405 Okeechobee Blvd., Suite 200
West Palm Beach, FL 33417
[T]: (561) 753-9723

G. Contact information for Proposer's Primary representative during this RFQ process.
Dana Gillette, PE, PSM
Principal Associate
5405 Okeechobee Blvd., Suite 200
West Palm Beach, FL 33417
[T] (561) 753-9723 ext. 6015

H. Contact information for Proposer's Secondary representative during this RFQ process.
Jim Noth, PE, PSM
Vice President
West Palm Beach Office Manager
5405 Okeechobee Blvd., Suite 200
West Palm Beach, FL 33417
[T] (561) 753-9723 ext. 6020

Proposer's Statement of Organization

I. List of officers, owners and/or partners, or managers of the firm. Include names, business addresses, and phone numbers.

Curt Helman, PE
President/Chief Executive Officer
One Sterling Place
100 Sterling Parkway, Suite 212
Mechanicsburg, PA 17050
[T]: (717) 766-1741

Vincent Weiser, PE
Chief Operating Officer
One Sterling Place
100 Sterling Parkway, Suite 212
Mechanicsburg, PA 17050
[T]: (717) 766-1741

Jim Noth, PE, PSM
Vice President
5405 Okeechobee Blvd., Suite 200
West Palm Beach, FL 33417
[T] (561) 753-9723

Dana Gillette, PE, PSM
Principal Associate
5405 Okeechobee Blvd., Suite 200
West Palm Beach, FL 33417
[T] (561) 753-9723

Bryan Merritt, PSM
Principal Associate
5405 Okeechobee Blvd., Suite 200
West Palm Beach, FL 33417
[T] (561) 753-9723

J. Briefly summarize any current or pending litigation in which Proposer is a part.
There is no current or pending litigation that involves Erdman Anthony of Florida.

K. Provide details of any ownership changes to Proposer's organization in the past three years or changes anticipated within six months of the Due Date and Time (e.g. mergers, acquisitions, changes in executive leadership).
Erdman Anthony is a privately held employee owned company. Internal ownership transactions occur every year as employees gain stock in the company that they work for and retired employees redeem their ownership as they leave our employment. There are no mergers, acquisitions, or changes in executive leadership that are anticipated within the next 6 months.

Form **W-9**
(Rev. December 2014)
Department of the Treasury
Internal Revenue Service

Request for Taxpayer Identification Number and Certification

Give Form to the requester. Do not send to the IRS.

Print or type
See Specific Instructions on page 2.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank.
Erdman Anthony of Florida, Inc.

2 Business name/disregarded entity name, if different from above

3 Check appropriate box for federal tax classification; check only **one** of the following seven boxes:
☐ Individual/sole proprietor or single-member LLC ☑ C Corporation ☐ S Corporation ☐ Partnership ☐ Trust/estate
☐ Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=partnership) ▶
Note. For a single-member LLC that is disregarded, do not check LLC; check the appropriate box in the line above for the tax classification of the single-member owner.
☐ Other (see instructions) ▶

4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
Exempt payee code (if any)
Exemption from FATCA reporting code (if any)
(Applies to accounts maintained outside the U.S.)

5 Address (number, street, and apt. or suite no.)
5405 Okeechobee Boulevard, Suite 200

Requester's name and address (optional)

6 City, state, and ZIP code
West Palm Beach, FL 33417

7 List account number(s) here (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Note. If the account is in more than one name, see the instructions for line 1 and the chart on page 4 for guidelines on whose number to enter.

Social security number
			–			–				

or

Employer identification number
2	0	–	0	9	3	0	2	3	4

Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions on page 3.

Sign Here **Signature of U.S. person** ▶ [signature] **Date** ▶ 5/5/2017

General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Future developments. Information about developments affecting Form W-9 (such as legislation enacted after we release it) is at *www.irs.gov/fw9*.

Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following:

- Form 1099-INT (interest earned or paid)
- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See *What is backup withholding?* on page 2.

By signing the filled-out form, you:

1. Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),

2. Certify that you are not subject to backup withholding, or

3. Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income, and

4. Certify that FATCA code(s) entered on this form (if any) indicating that you are exempt from the FATCA reporting, is correct. See *What is FATCA reporting?* on page 2 for further information.

Note. If you are a U.S. person and a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien;
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States;
- An estate (other than a foreign estate); or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax under section 1446 on any foreign partners' share of effectively connected taxable income from such business. Further, in certain cases where a Form W-9 has not been received, the rules under section 1446 require a partnership to presume that a partner is a foreign person, and pay the section 1446 withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid section 1446 withholding on your share of partnership income.

In the cases below, the following person must give Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States:

- In the case of a disregarded entity with a U.S. owner, the U.S. owner of the disregarded entity and not the entity;
- In the case of a grantor trust with a U.S. grantor or other U.S. owner, generally, the U.S. grantor or other U.S. owner of the grantor trust and not the trust; and
- In the case of a U.S. trust (other than a grantor trust), the U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person or the U.S. branch of a foreign bank that has elected to be treated as a U.S. person, do not use Form W-9. Instead, use the appropriate Form W-8 or Form 8233 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity, give the requester the appropriate completed Form W-8 or Form 8233.

Backup Withholding

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 28% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, payments made in settlement of payment card and third party network transactions, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),
3. The IRS tells the requester that you furnished an incorrect TIN,
4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or
5. You do not certify to the requester that you are not subject to backup withholding under 4 above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See *Exempt payee code* on page 3 and the separate Instructions for the Requester of Form W-9 for more information.

Also see *Special rules for partnerships* above.

What is FATCA reporting?

The Foreign Account Tax Compliance Act (FATCA) requires a participating foreign financial institution to report all United States account holders that are specified United States persons. Certain payees are exempt from FATCA reporting. See *Exemption from FATCA reporting code* on page 3 and the Instructions for the Requester of Form W-9 for more information.

Updating Your Information

You must provide updated information to any person to whom you claimed to be an exempt payee if you are no longer an exempt payee and anticipate receiving reportable payments in the future from this person. For example, you may need to provide updated information if you are a C corporation that elects to be an S corporation, or if you no longer are tax exempt. In addition, you must furnish a new Form W-9 if the name or TIN changes for the account; for example, if the grantor of a grantor trust dies.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of $50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a $500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Line 1

You must enter one of the following on this line; **do not** leave this line blank. The name should match the name on your tax return.

If this Form W-9 is for a joint account, list first, and then circle, the name of the person or entity whose number you entered in Part I of Form W-9.

a. **Individual.** Generally, enter the name shown on your tax return. If you have changed your last name without informing the Social Security Administration (SSA) of the name change, enter your first name, the last name as shown on your social security card, and your new last name.

Note. ITIN applicant: Enter your individual name as it was entered on your Form W-7 application, line 1a. This should also be the same as the name you entered on the Form 1040/1040A/1040EZ you filed with your application.

b. **Sole proprietor or single-member LLC.** Enter your individual name as shown on your 1040/1040A/1040EZ on line 1. You may enter your business, trade, or "doing business as" (DBA) name on line 2.

c. **Partnership, LLC that is not a single-member LLC, C Corporation, or S Corporation.** Enter the entity's name as shown on the entity's tax return on line 1 and any business, trade, or DBA name on line 2.

d. **Other entities.** Enter your name as shown on required U.S. federal tax documents on line 1. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on line 2.

e. **Disregarded entity.** For U.S. federal tax purposes, an entity that is disregarded as an entity separate from its owner is treated as a "disregarded entity." See Regulations section 301.7701-2(c)(2)(iii). Enter the owner's name on line 1. The name of the entity entered on line 1 should never be a disregarded entity. The name on line 1 should be the name shown on the income tax return on which the income should be reported. For example, if a foreign LLC that is treated as a disregarded entity for U.S. federal tax purposes has a single owner that is a U.S. person, the U.S. owner's name is required to be provided on line 1. If the direct owner of the entity is also a disregarded entity, enter the first owner that is not disregarded for federal tax purposes. Enter the disregarded entity's name on line 2, "Business name/disregarded entity name." If the owner of the disregarded entity is a foreign person, the owner must complete an appropriate Form W-8 instead of a Form W-9. This is the case even if the foreign person has a U.S. TIN.

Line 2

If you have a business name, trade name, DBA name, or disregarded entity name, you may enter it on line 2.

Line 3

Check the appropriate box in line 3 for the U.S. federal tax classification of the person whose name is entered on line 1. Check only one box in line 3.

Limited Liability Company (LLC). If the name on line 1 is an LLC treated as a partnership for U.S. federal tax purposes, check the "Limited Liability Company" box and enter "P" in the space provided. If the LLC has filed Form 8832 or 2553 to be taxed as a corporation, check the "Limited Liability Company" box and in the space provided enter "C" for C corporation or "S" for S corporation. If it is a single-member LLC that is a disregarded entity, do not check the "Limited Liability Company" box; instead check the first box in line 3 "Individual/sole proprietor or single-member LLC."

Line 4, Exemptions

If you are exempt from backup withholding and/or FATCA reporting, enter in the appropriate space in line 4 any code(s) that may apply to you.

Exempt payee code.

- Generally, individuals (including sole proprietors) are not exempt from backup withholding.
- Except as provided below, corporations are exempt from backup withholding for certain payments, including interest and dividends.
- Corporations are not exempt from backup withholding for payments made in settlement of payment card or third party network transactions.
- Corporations are not exempt from backup withholding with respect to attorneys' fees or gross proceeds paid to attorneys, and corporations that provide medical or health care services are not exempt with respect to payments reportable on Form 1099-MISC.

The following codes identify payees that are exempt from backup withholding. Enter the appropriate code in the space in line 4.

1—An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2)

2—The United States or any of its agencies or instrumentalities

3—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

4—A foreign government or any of its political subdivisions, agencies, or instrumentalities

5—A corporation

6—A dealer in securities or commodities required to register in the United States, the District of Columbia, or a U.S. commonwealth or possession

7—A futures commission merchant registered with the Commodity Futures Trading Commission

8—A real estate investment trust

9—An entity registered at all times during the tax year under the Investment Company Act of 1940

10—A common trust fund operated by a bank under section 584(a)

11—A financial institution

12—A middleman known in the investment community as a nominee or custodian

13—A trust exempt from tax under section 664 or described in section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Barter exchange transactions and patronage dividends	Exempt payees 1 through 4
Payments over $600 required to be reported and direct sales over $5,000[1]	Generally, exempt payees 1 through 5[2]
Payments made in settlement of payment card or third party network transactions	Exempt payees 1 through 4

[1] See Form 1099-MISC, Miscellaneous Income, and its instructions.

[2] However, the following payments made to a corporation and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, gross proceeds paid to an attorney reportable under section 6045(f), and payments for services paid by a federal executive agency.

Exemption from FATCA reporting code. The following codes identify payees that are exempt from reporting under FATCA. These codes apply to persons submitting this form for accounts maintained outside of the United States by certain foreign financial institutions. Therefore, if you are only submitting this form for an account you hold in the United States, you may leave this field blank. Consult with the person requesting this form if you are uncertain if the financial institution is subject to these requirements. A requester may indicate that a code is not required by providing you with a Form W-9 with "Not Applicable" (or any similar indication) written or printed on the line for a FATCA exemption code.

A—An organization exempt from tax under section 501(a) or any individual retirement plan as defined in section 7701(a)(37)

B—The United States or any of its agencies or instrumentalities

C—A state, the District of Columbia, a U.S. commonwealth or possession, or any of their political subdivisions or instrumentalities

D—A corporation the stock of which is regularly traded on one or more established securities markets, as described in Regulations section 1.1472-1(c)(1)(i)

E—A corporation that is a member of the same expanded affiliated group as a corporation described in Regulations section 1.1472-1(c)(1)(i)

F—A dealer in securities, commodities, or derivative financial instruments (including notional principal contracts, futures, forwards, and options) that is registered as such under the laws of the United States or any state

G—A real estate investment trust

H—A regulated investment company as defined in section 851 or an entity registered at all times during the tax year under the Investment Company Act of 1940

I—A common trust fund as defined in section 584(a)

J—A bank as defined in section 581

K—A broker

L—A trust exempt from tax under section 664 or described in section 4947(a)(1)

M—A tax exempt trust under a section 403(b) plan or section 457(g) plan

Note. You may wish to consult with the financial institution requesting this form to determine whether the FATCA code and/or exempt payee code should be completed.

Line 5

Enter your address (number, street, and apartment or suite number). This is where the requester of this Form W-9 will mail your information returns.

Line 6

Enter your city, state, and ZIP code.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited Liability Company (LLC)* on this page), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN.

Note. See the chart on page 4 for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local SSA office or get this form online at *www.ssa.gov*. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at *www.irs.gov/businesses* and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting IRS.gov or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, apply for a TIN and write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note. Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: *A disregarded U.S. entity that has a foreign owner must use the appropriate Form W-8.*

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if items 1, 4, or 5 below indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). In the case of a disregarded entity, the person identified on line 1 must sign. Exempt payees, see *Exempt payee code* earlier.

Signature requirements. Complete the certification as indicated in items 1 through 5 below.

1. Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983. You must give your correct TIN, but you do not have to sign the certification.

2. Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983. You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

3. Real estate transactions. You must sign the certification. You may cross out item 2 of the certification.

4. Other payments. You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments made in settlement of payment card and third party network transactions, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification.

What Name and Number To Give the Requester

For this type of account:	Give name and SSN of:
1. Individual	The individual
2. Two or more individuals (joint account)	The actual owner of the account or, if combined funds, the first individual on the account[1]
3. Custodian account of a minor (Uniform Gift to Minors Act)	The minor[2]
4. a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee[1]
b. So-called trust account that is not a legal or valid trust under state law	The actual owner[1]
5. Sole proprietorship or disregarded entity owned by an individual	The owner[3]
6. Grantor trust filing under Optional Form 1099 Filing Method 1 (see Regulations section 1.671-4(b)(2)(i)(A))	The grantor*
For this type of account:	**Give name and EIN of:**
7. Disregarded entity not owned by an individual	The owner
8. A valid trust, estate, or pension trust	Legal entity[4]
9. Corporation or LLC electing corporate status on Form 8832 or Form 2553	The corporation
10. Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
11. Partnership or multi-member LLC	The partnership
12. A broker or registered nominee	The broker or nominee
13. Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity
14. Grantor trust filing under the Form 1041 Filing Method or the Optional Form 1099 Filing Method 2 (see Regulations section 1.671-4(b)(2)(i)(B))	The trust

[1] List first and circle the name of the person whose number you furnish. If only one person on a joint account has an SSN, that person's number must be furnished.

[2] Circle the minor's name and furnish the minor's SSN.

[3] You must show your individual name and you may also enter your business or DBA name on the "Business name/disregarded entity" name line. You may use either your SSN or EIN (if you have one), but the IRS encourages you to use your SSN.

[4] List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see *Special rules for partnerships* on page 2.

*Note. Grantor also must provide a Form W-9 to trustee of trust.

Note. If no name is circled when more than one name is listed, the number will be considered to be that of the first name listed.

Secure Your Tax Records from Identity Theft

Identity theft occurs when someone uses your personal information such as your name, SSN, or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

To reduce your risk:

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer.

If your tax records are affected by identity theft and you receive a notice from the IRS, respond right away to the name and phone number printed on the IRS notice or letter.

If your tax records are not currently affected by identity theft but you think you are at risk due to a lost or stolen purse or wallet, questionable credit card activity or credit report, contact the IRS Identity Theft Hotline at 1-800-908-4490 or submit Form 14039.

For more information, see Publication 4535, Identity Theft Prevention and Victim Assistance.

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

Protect yourself from suspicious emails or phishing schemes. Phishing is the creation and use of email and websites designed to mimic legitimate business emails and websites. The most common act is sending an email to a user falsely claiming to be an established legitimate enterprise in an attempt to scam the user into surrendering private information that will be used for identity theft.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to *phishing@irs.gov*. You may also report misuse of the IRS name, logo, or other IRS property to the Treasury Inspector General for Tax Administration (TIGTA) at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: *spam@uce.gov* or contact them at *www.ftc.gov/idtheft* or 1-877-IDTHEFT (1-877-438-4338).

Visit IRS.gov to learn more about identity theft and how to reduce your risk.

Privacy Act Notice

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons (including federal agencies) who are required to file information returns with the IRS to report interest, dividends, or certain other income paid to you; mortgage interest you paid; the acquisition or abandonment of secured property; the cancellation of debt; or contributions you made to an IRA, Archer MSA, or HSA. The person collecting this form uses the information on the form to file information returns with the IRS, reporting the above information. Routine uses of this information include giving it to the Department of Justice for civil and criminal litigation and to cities, states, the District of Columbia, and U.S. commonwealths and possessions for use in administering their laws. The information also may be disclosed to other countries under a treaty, to federal and state agencies to enforce civil and criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism. You must provide your TIN whether or not you are required to file a tax return. Under section 3406, payers must generally withhold a percentage of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to the payer. Certain penalties may also apply for providing false or fraudulent information.

3. Minimum Qualifications

Minimum Qualifications

Erdman Anthony of Florida, Inc. is fully licensed and able to provide the services requested for this contract. Furthermore, there are no conflicts of interest that would hinder us from working with the City of Delray Beach. Please refer to the following pages for our current licenses.

State of Florida
Department of State

I certify from the records of this office that ERDMAN ANTHONY OF FLORIDA, INC. is a corporation organized under the laws of the State of Florida, filed on March 29, 2004, effective March 25, 2004.

The document number of this corporation is P04000054328.

I further certify that said corporation has paid all fees due this office through December 31, 2017, that its most recent annual report/uniform business report was filed on February 22, 2017, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

Given under my hand and the Great Seal of the State of Florida at Tallahassee, the Capital, this the Twenty-second day of February, 2017

Ken Detzner

Secretary of State

Tracking Number: CC9813305540

To authenticate this certificate,visit the following site,enter this number, and then follow the instructions displayed.

https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication

State of Florida

Board of Professional Engineers

Attests that

Erdman Anthony of Florida, Inc.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

Is authorized under the provisions of Section 471.023, Florida Statutes, to offer engineering services to the public through a Professional Engineer, duly licensed under Chapter 471, Florida Statutes.

Expiration: 2/28/2019

Audit No: 228201901124 R

CA Lic. No:
25912

Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500
800HELPFLA(435-7352) or (850) 488-2221

January 25, 2017

ERDMAN ANTHONY OF FLORIDA, INC.
5405 OKEECHOBEE BLVD STE 200
WEST PALM BEACH, FL 33417-4544

SUBJECT: Professional Surveyor and Mapper Business Certificate # LB7334

Your application / renewal as a professional surveyor and mapper business as required by Chapter 472, Florida Statutes, has been received and processed.

The license appears below and is valid through February 28, 2019.

You are required to keep your information with the Board current. Please visit our website at www.800helpfla.com/psm to create your online account. If you have already created your online account, you can use the website to maintain your license. You can also find other valuable information on the website.

If you have any questions, please do not hesitate to call the Division of Consumer Services, Board of Professional Surveyors and Mappers at 800-435-7352 or 850-488-2221.

Detach Here

Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: **LB7334**
Expiration Date: February 28, 2019

Professional Surveyor and Mapper Business License

Under the provisions of Chapter 472, Florida Statutes

ERDMAN ANTHONY OF FLORIDA, INC.
5405 OKEECHOBEE BLVD STE 200
WEST PALM BEACH, FL 33417-4544

ADAM H. PUTNAM
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

Florida dbpr Department of Business & Professional Regulation

DBPR ONLINE SERVICES

Professional Engineer #32652

Logged in as **Noth, James Francis**

License Menu

Select the function you wish to perform.

Press "Back" to return to the main menu.

License Issued To:	**NOTH, JAMES FRANCIS**
License Status:	**Current, Active**
Originally Licensed On:	**08/23/1982** (mm/dd/yyyy)
Expires On:	**02/28/2019** (mm/dd/yyyy)

Functions

Address Change

Print Inactive Receipt

Remove This License From My Account

Back

State of Florida
Board of Professional Engineers
2639 North Monroe Street, Suite B-112
Tallahassee, FL 32303-5268

Dana Ingram Gillette
17069 GULF PINE CIRCLE
WELLINGTON, FL 33414

NOTICE

FBPE no longer requires that continuing education be reported by the provider. Instead licensees will be subject to a random audit no more than every four (4) years. If you are selected for the random audit, you must provide verification of one (1) hour of Florida laws and rules, one (1) hour of professional ethics, four (4) hours of area of practice and twelve (12) hours in any topic pertaining to the practice of engineering, all taken prior to February 28, 2017. (See s. 471.017, Fl. Stat.) Any CE hours taken after February 28, 2017 will result in a $100 delinquent fee and your license being placed in a delinquent status until the additional fee is paid.

State of Florida

Board of Professional Engineers
Attests that
Dana Ingram Gillette , P.E.

FBPE

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2019 **P.E. Lic. No:** 41913
Audit No: 228201909336

State of Florida

Board of Professional Engineers
Attests that
Dana Ingram Gillette , P.E.

FBPE
FLORIDA BOARD OF PROFESSIONAL ENGINEERS

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes
Expiration: 2/28/2019 **P.E. Lic. No:** 41913
Audit No: 228201909336 R

Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: **LS6558**
Expiration Date February 28, 2019

Professional Surveyor and Mapper License

Under the provisions of Chapter 472, Florida Statutes

BRYAN ALAN MERRITT
134 KINGS WAY
ROYAL PALM BEACH, FL 33411-1512

ADAM H. PUTNAM
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

Florida Department of Agriculture and Consumer Services
Board of Professional Surveyors and Mappers

LS6558

Professional Surveyor and Mapper
BRYAN ALAN MERRITT

IS LICENSED under the provisions of Ch. 472 FS
Expiration date: February 28, 2019

State of Florida

Board of Professional Engineers

Attests that

Nisar M. Khan , P.E.

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2019

Audit No: 228201929736 R

P.E. Lic. No:

61004

Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500
800HELPFLA(435-7352) or (850) 488-2221

December 31, 2016

JIM SULLIVAN
19 VIA VERONA
PALM BEACH GARDENS, FL 33418-3749

SUBJECT: Professional Surveyor and Mapper License # LS6889

Your application / renewal as a professional surveyor and mapper as required by Chapter 472, Florida Statutes, has been received and processed.

The license appears below and is valid through February 28, 2019.

You are required to keep your information with the Board current. Please visit our website at www.800helpfla.com/psm to create your online account. If you have already created your online account, you can use the website to maintain your license. You can also find other valuable information on the website.

If you have any questions, please do not hesitate to call the Division of Consumer Services, Board of Professional Surveyors and Mappers at 800-435-7352 or 850-488-2221.

Detach Here

Florida Department of Agriculture and Consumer Services
Board of Professional Surveyors and Mappers

LS6889

Professional Surveyor and Mapper
JIM SULLIVAN

IS LICENSED under the provisions of Ch. 472 FS
Expiration date: February 28, 2019

Detach Here

Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: **LS6889**
Expiration Date February 28, 2019

Professional Surveyor and Mapper License

Under the provisions of Chapter 472, Florida Statutes

JIM SULLIVAN
19 VIA VERONA
PALM BEACH GARDENS, FL 33418-3749

ADAM H. PUTNAM
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

State of Florida

Board of Professional Engineers

Attests that

Michael R. Corrigan , P.E.

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2019

Audit No: 228201920747 R

P.E. Lic. No:
67727

Licensee Details

Licensee Information

Name:	**MARTIN, CHAD ALLEN (Primary Name)**
Main Address:	**6120 PARSON DRIVE** **HARRISBURG Pennsylvania 17111**
County:	**OUT OF STATE**
License Mailing:	
LicenseLocation:	

License Information

License Type:	**Professional Engineer**
Rank:	**Prof Engineer**
License Number:	**82934**
Status:	**Current,Active**
Licensure Date:	**05/09/2017**
Expires:	**02/28/2019**

Special Qualifications	Qualification Effective
Civil	**05/09/2017**

Alternate Names

View Related License Information

View License Complaint

State of Florida

Board of Professional Engineers

Attests that

Paul J. Presutti , P.E.

FBPE

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2019

Audit No: 228201930140

P.E. Lic. No: 64397

be reported by the provider. Instead licensees will be subject to a random audit no more than every four (4) years. If you are selected for the random audit, you must provide verification of one (1) hour of Florida laws and rules, one (1) hour of professional ethics, four (4) hours of area of practice and twelve (12) hours in any topic pertaining to the practice of engineering, all taken prior to February 28, 2017. (See s. 471.017, Fl. Stat.) Any CE hours taken after February 28, 2017 will result in a $100 delinquent fee and your license being placed in a delinquent status until the additional fee is paid.

State of Florida

Board of Professional Engineers

Attests that

Paul J. Presutti , P.E.

FBPE

FLORIDA BOARD OF PROFESSIONAL ENGINEERS

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2019

Audit No: 228201930140 R

P.E. Lic. No: 64397

4. Proposal Response Requirements Information

A. Experience, Background, Reference Feedback

SURVEYING AND MAPPING

As surveyors that work within an engineering firm, the survey staff at Erdman Anthony approaches each project with the needs of the engineering project manager in mind. Having worked in support of our own engineering staff over the years, as well as for municipal clients directly, we fully understand the needs of municipal infrastructure improvement projects from an engineer's perspective, and take this knowledge into the field with us when collecting survey data. This is a perspective that will benefit the City of Delray Beach as it has benefitted a long list of other municipal clients we have serviced over the years. Erdman Anthony has maintained an office in Palm Beach County since 2004, and has provided survey for clients throughout our 62-year history.

Erdman Anthony is committed to using the newest technology within the field of surveying and mapping. We have been a leader in terrestrial LiDAR surveying (Laser Scanning) and we use a variety of scanners (Leica, FARO, Trimble). In addition to processing and extracting mobile LiDAR data, we now collect, process, and extract data from UAV's/Drones. We have staff currently certified in FAA part 107 to operate Unmanned Aerial Vehicle's (UAV). This new methodology provides an alternative means to collect aerial data. UAV based low-altitude mapping approaches can be an innovative and cost-saving approach to mapping corridors, and we expect it be used increasingly in the industry in the coming years. Because we understand this range of technologies and keep abreast of emerging ones, Erdman Anthony will be able to optimize the City's approach to the survey tasks associated with a wide range of projects, tailoring data collection techniques to match the scope and unique features of each project.

We have a vast array of equipment ready to be used on this contract. Our software inventory for CADD mapping and data processing includes MicroStation, InRoads, GEOPAK -SS4, AutoCAD Civil 3D, Carlson Survey, ESRI ArcMap, Leica Cyclone (scanner), and GPS VectorNT, Trimble Business Center. Our field equipment inventory includes GPS (Differential, Static, RTK, and VRS GPS units), total stations compatible with FDOT Electronic Field Book processing, an echo sounder, digital levels, GoPro cameras and laser scanners. All work products will be delivered in an electronic format that can be directly inputted and used in District computers.

Erdman Anthony has four (4) senior survey staff members registered to practice land surveying in the State of Florida, and we offer two fully equipped survey crews available for immediate assignment to this contract, with upwards of nine crews that can be mobilized with support from our other offices. **Bryan Merritt, PSM/LS** will lead our survey services. Mr. Merritt is a licensed land surveyor with over 33 years of experience in geospatial engineering and management. He has worked extensively as manager and principal-in-charge of field survey projects in South Florida, including supporting Erdman Anthony's engineering projects with FDOT and municipalities throughout the area.

Because of Erdman Anthony's extensive experience with continuing services contracts with municipalities like Palm Beach County, FDOT, South Florida Water Management, City of West Palm Beach, and others, we have the **knowledge of applicable design standards** and will not need a learning curve to deliver the following services:

A. Experience, Background, Reference Feedback

Engineering and Topographic Surveys
- Topographic and 3D modeling
- Route survey mapping
- Post-construction as-built surveys
- Volume/quantity surveys

High-Definition Survey (HDS)/Laser Scanning
- High-resolution laser imaging
- Horizontal and vertical mapping
- Precision 3D modeling

Building Documentation with Building Information Modeling (BIM)
- High-definition 3-D laser scanning and surveying
- Point cloud data sets for information-rich models
- 360-degree photo documentation/imaging
- Floor plans and interiors
- Mechanicals routing
- Floor and ceiling plans
- Exterior elevations
- Site plans
- 3-D visualizations
- 2-D drawings
- 2-D to 3-D conversions

Geographic Information Systems (GIS)
- Data collection
- Data conversions
- Data maintenance
- Data set creation
- Asset management database development
- Asset extraction/condition assessment
- Utility cataloging
- 3D visualization and analysis
- Full ESRI ArcGIS suite

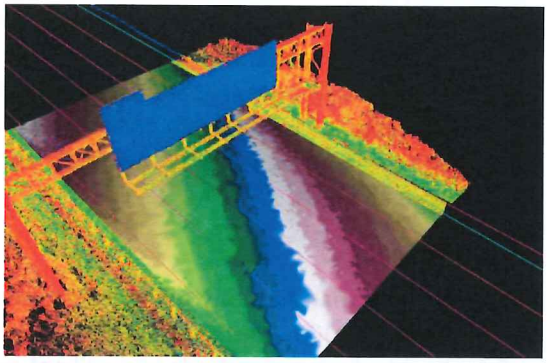
Specialty Services
- Subsurface utility exploration
- Aerial photogrammetry
- Hydrographic surveys
- 3D machine control data preparation
- UAV Mapping and Imagery

Right-Of-Way and Boundary/Cadastral Surveys
- Right-of-way mapping
- Easement mapping
- Real property surveys

As infrastructure and facility designs become more sophisticated and complex, it's more important than ever to have a firm grasp of what goes into every inch of your project at every stage of development. Laser Scanning Data Collection and Modeling gives you that advantage, providing you with the most accurate, most detailed, and robust information available for your project. It truly is the most valuable asset you can have as a project manager for keeping your project fully aligned with your job's requirements, budget, and creative vision. Erdman Anthony is invested into innovative approaches to get the project completed.

Innovative Surveys

Since 2004, Erdman Anthony has also provided laser scanning and 3-D modeling that offers highly detailed as-built data. Laser scanning allows for the remote collection of data, which is safer for survey technicians who no longer need to directly access features for measurement. By emitting laser pulses at the rate of 40,000 points per second to over one million points per second, in a predefined grid pattern, data points are assembled in a 3-D image with photographic-like quality. Deliverables can be provided as conventional Digital Terrain Models (DTM), 2-D AutoCAD linework, or 3D AutoCAD models. Erdman Anthony has scanned many **pipelines and utility sites**. For example, Erdman Anthony provided the largest laser scanning project ever completed for a sugar plant



at the Sugar Cane Cooperative plant in Belle Glade. Scanning large and detailed sites minimize the amount of returns to a project site as a scanner measures all that is visible and then the data is extracted as needed.

Erdman Anthony's team is committed to using the newest technology within the field of surveying and mapping. Some of these technologies include the latest Computer Aided Drafting and Design (CADD) software and cutting-edge surveying equipment. We have been a leader in terrestrial LiDAR surveying (Laser Scanning) since 2004 and now are certified to use Unmanned Aerial Vehicles (UAV's/Drones) to obtain data. With the use of such developments, Erdman Anthony has the ability to complete all types of survey tasks involved with design projects allowing for an optimal and timely deliverable which caters to the scope of each project for the City of Delray Beach.

We have staff currently certified in FAA part 107 to operate UAV's. This new methodology provides an alternative means to collect aerial data. UAV based low-altitude mapping approaches can be an innovative cost-savings approach to mapping proposed or existing corridors and the prevalence in our profession will become more and more pronounced over the next few years.

When you hire a firm, you need one that is quality driven, effectively communicates and listens, meets schedules and budgets, and provides cost-beneficial solutions for your projects. Erdman Anthony provides its clients with the highest level of service and professionalism to address their engineering and management needs, while constantly striving to improve productivity by generating new ideas and innovative methods, which results in the most cost-effective and efficiently designed solutions. Some of the clients whom we worked for include:

- Village of Royal Palm Beach
- City of Boynton Beach
- City of Palm Beach Gardens
- Loxahatchee Groves Water Control District
- Seminole Tribe of Florida
- City of West Palm Beach
- Town of Palm Beach
- Palm Beach County
- St. Lucie County

In addition to the above mentioned clients, we have been qualified by the City of Delray to provide the services requested under RFQ 2015-31 – Geographic Information Systems.

Success Story

Erdman Anthony was the prime consultant to complete a design survey for an 11.0 mile section of SR 710/Beeline Highway Boulevard for the Florida Department of Transportation. Work efforts included setting of secondary control to locate existing features, SUE designates and DTM survey within the project corridor. This project had an accelerated schedule due to it being part of a design/build project for the District. Multiple crews were mobilized to ensure that the project met schedule. Sub-consultants as well as FDOT crews were engaged in the project. Coordination of the work efforts and data was critical to finalizing the mapping and ensuring CADD compliancy. All the information was merged together and delivered ahead of schedule and under budget.

A. Experience, Background, Reference Feedback

Success Story

The Niacet facility has two separate heat exchange (HX) systems which are used in there production process. The HX systems are a total of 10 large block stacks, approximately 32 feet tall. The base of the stakes are on a platform that is approximately 25 feet above the facility floor. The owner was concerned that some of the HX stakes were not plumb and that they may be slowly moving.

Erdman Anthony developed a plan to provide existing measurements of the facility and provide a program of future monitoring. First, the interior of the facility was laser scanned. The facility has a series of stairways and ladders that lead to catwalks at numerous levels of the building. Over 60 scans were performed to capture most of the interior of the building and as much of the HX system that was possible. The scans were registered and a 3D ACAD model was produced of the HX system and the platform and structural members that supported it.

The second phase of the project was to establish a method of monitoring the movement of 58-731N-HX. Sixteen individual items on the unit were located from the survey control. These were typically corners of the blocks and were spread out from the bottom to the top of the stack. These locations were noted and will be used in subsequent surveys to determine any movement. Using technology and innovation was critical to keeping the facility operating safely.

Success Story

Erdman Anthony was selected as part of a team by the City of Palm Beach Gardens to provide stormwater infrastructure mapping and inspection services for all of the stormwater structures and culverts owned by the City (approximately 1,000 structures). The primary goal of the project is to locate, assess, and catalog each of the City's storm structures to include: structure type, location and condition, pipe size, type and condition, direction of flow, and connectivity between structures from the first upstream structure within a system to its downstream outfall point, in order to produce and overall conditions assessment, maintenance plan, and recommendations for improvements that will be prioritized for the next five years.

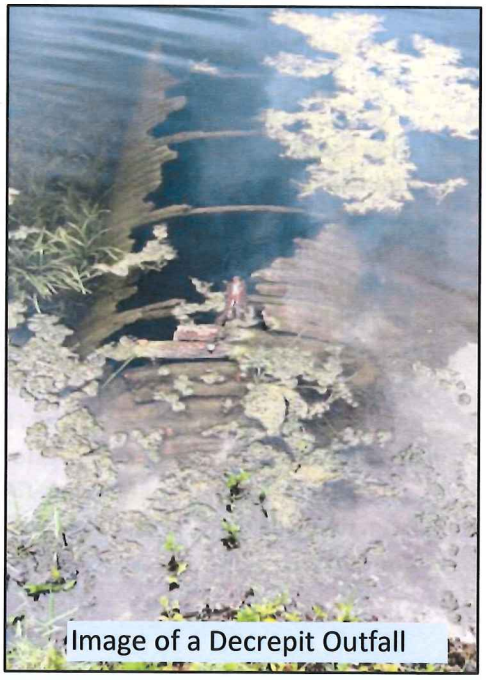


Image of a Decrepit Outfall

The services include a combination of engineering, inspection, surveying, and GIS. The process began by collecting GPS data for each structure. This data is then populated into a GIS database. The GIS database is uploaded onto a mobile device that is used by field technicians to document, assess, photograph and videograph each structure and culvert, including underwater components. This field data is then synched into the GIS database, where it can be immediately accessed by members of the team,

including the City. The GIS database is ultimately used to generate the engineer's condition, maintenance, and recommended improvements report for presentation to the City.

Upon completion of the project, the City will have a living document containing the location, condition and specifications of all City owned stormwater structures. The City is planning on using the documents for their ongoing maintenance activities and for their annual NPDES reporting and assessments.

Awards

For more than 30 years, our firm has been consistently listed by the Engineering News Record as one of the Top 500 engineering firms in the country. Erdman Anthony has been honored with numerous industry awards for a wide variety of projects involving unique engineering challenges. A few examples are provided below, and a more comprehensive list can be found on our website at: http://www.erdmananthony.com/News-Events/Awards.

Representative Surveying and Mapping Erdman Anthony Awards

2016 POB Top 100 Geospatial/Surveying Firm

2015 POB Top 100 Geospatial/Surveying Firm

2015 APWA-Western NY Project of the Year Award and **ACEC/NY Gold Award for Engineering Excellence**
Luna and Three Sisters Islands Restoration, **Niagara Falls, NY**

2012 Silver Award for Engineering Excellence
Radio City Music Hall Laser Scanning and Modeling, **New York, NY**

2011 Innovative Awards – Hexagon, NSPS and NYSAPLS
Radio City Music Hall Laser Scanning and Modeling, **New York, NY**

2011 Diamond Award and National Finalist for Engineering Excellence
Gwynedd Cut Survey, Laser Scanning and Mapping, **Philadelphia, PA**

2011 Diamond Award and National Finalist for Engineering Excellence
Wards Island Treatment Facility, Laser Scanning and Modeling, **New York, NY**

2009 Platinum Award for Engineering Excellence
Kodak Tower, Laser Scanning and Modeling, **Rochester, NY**

2009 Grand and National Finalist for Engineering Excellence
A1A/Ocean Blvd Survey and Mapping, **Boca Raton, FL**

2008 Diamond Award for Engineering Excellence
President's House, Laser Scanning and Mapping, **Philadelphia, PA**

CLIENT REFERENCES

Project Name: General Engineering and Professional Services
Client: South Florida Water Management District
Contact: Howard Ehmke
Email address: hehmke@sfwmd.gov
Address: 3301 Gun Club Road, West Palm Beach, FL, 33406
Phone number: 561-681-2500
Fax number: N/A
Dates of Service: 2016/2016
Scope of Work: From 2007 to 2012, Erdman Anthony managed the GEPS contract 4600000940 that provided 27 work orders for Surveying and Mapping Services. In support of the District, we have compiled multiple work orders that required right-of-way and/or boundary surveying services. The work orders have been from as small as a 3 acre boundary survey to a full right-of-way location, mapping, and monumentation of 7 miles of the L-61 Levee. Various surveys have been completed at nearly every corner of the district boundaries. All of the surveys were performed in accordance with applicable State Regulated Minimum Technical Standards (MTS) and procedures, and SFWMD guidelines. Some of our earlier work with the District dates back to 2005, where Erdman Anthony provided Surveying and Mapping Services to the District as purchase orders.

Project Name: Miscellaneous Surveying Services
Client: Village of Royal Palm Beach
Contact: Ray Liggins, PE
Email address: rliggins@royalpalmbeach.com
Address: 1050 Royal Palm Beach Boulevard, Royal Palm Beach, FL, 33411
Phone number: 561-790-5162
Fax number: 561-790-5174
Dates of Service: 2008/2014
Scope of Work: Since 2003, Erdman Anthony has been under contract to provide Miscellaneous Surveying Services. In support of this contract we have completed over 30 work orders for the Village. These work orders have ranged in size and complexity. The orders have been from simple gas stand pipe locations to a full design survey of 3 miles of Village roadway for redesign. The types of work orders have included: Boundary Surveys, Topographic Surveys, GIS information, and Right-of-Way Surveys.

Project Name: Districtwide Miscellaneous Survey and Mapping Services
Client: Florida Department of Transportation, District 4
Contact: Paul Doll
Email address: Paul.Doll@dot.state.fl.us
Address: 3400 West Commercial Blvd., Fort Lauderdale, FL, 33309
Phone number: 954-777-4579
Fax number: N/A
Dates of Service: 2009/2014
Scope of Work: Erdman Anthony has been providing miscellaneous surveying services for Florida's Department of Transportation, District 4, since 2009. Services under this contract have included field survey, aerial photography, GPS,

right-of-way control surveying and mapping, right-of-way mapping, monumentation mapping, bathymetric survey, and utility designation and excavation. All work was performed in accordance with criteria established by the Department's Highway Field Specifications, D.O.T. Survey Handbook, District IV Survey Guidelines, CADD Production Criteria Handbook and complies with the minimum technical standards for land surveyors rule 61G17-6 F.A.C., Florida Statute 472.027. All equipment is compatible with FDOT Electronic Field Book (EFB/CEFB).

Project Name: Seacoast Utility Water Treatment Plant
Client: City of Palm Beach Gardens
Contact: Angela Brown
Email address: abrown@pbgfl.com
Address: 10500 N Military Trail, Palm Beach Gardens, FL, 33410
Phone number: 561-799-4100
Fax number: N/A
Dates of Service: 2016/2016
Scope of Work: The City of Palm Beach Gardens has a continuing services contract with Erdman Anthony. The City planned to utilize the western portion of the Seacoast Utility Water Treatment Plant along the C-17 Canal for the purposes of Police and Fire Rescue training. The land would be used for overall training and vehicle maneuvers. Erdman Anthony located all tanks, impervious features, and above ground utilities. The surface was located by ground shots not exceeding 50 feet and breaklines in order to create a proper Digital Terrain Model (DTM).

Drainage was located along with each structures Invert and shown on the final deliverable. Underground utilities were marked by Seacoast Utility Authority and later located by Erdman Anthony field crew. The fieldwork was processed by in house staff and checked for quality control by the supervising surveyor. A surface was created in AutoCAD and delivered to the client ahead of schedule.

Bryan Merritt, PSM

Project Manager

ERDMAN ANTHONY

Mr. Merritt, PSM, has 34 years of professional land surveying experience and has been managing the surveying and mapping division of Erdman Anthony from Florida since 2005. Mr. Merritt is actively involved in the following professional organizations: Palm Beach County GIS (Expo Committee Member), Florida Surveying and Mapping Society (Palm Beach Chapter Scholarship Chair), Society of American Military Engineers, and United States Institute of Building Documentation (VP). He is the Corporate Business Unit Manager for all of Erdman Anthony's Geospatial/Surveying practice. He has been working with LiDAR and laser scanning since 1997.

Education
AAS/Civil Engineering

Professional Registrations
FL /Professional Surveyor & Mapper, 2006, License LS6558

NY/Professional Land Surveyor, 1993, License 050050-1

Work History
No. of years with Erdman Anthony: 16

No. of years with other firms: 18

Professional Affiliations
Florida Surveying and Mapping Society

New York State Association of Professional Land Surveyors

National Society of Professional Surveyors

Society of American Military Engineers

US Institute of Building Documentation (USIBD)

Palm Beach County GIS

KEY PROJECTS

City of Palm Beach Gardens, Contract for General Surveying Services, Palm Beach Gardens, FL. Project Manager. This contract requires surveying experience in the preparation of Boundary, Site, Topographic and Right-of-Way Surveys, and Sketch and Legal Descriptions in conformance with the Florida Minimum Technical Standards. It also includes Geographic Information Services (GIS) expertise and experience in GPS mapping, data collection, GIS database manipulation and management, aerial and LIDAR imagery acquisition, manipulation and management.

Village of Royal Palm Beach, Contract for General Surveying Services, Royal Palm Beach, FL. Project Manager. Mr. Merritt's efforts cover a wide range of general surveying, including baseline stakeout, ground control surveying, boundary surveys, right-of-way surveys, topographic surveys to create digital terrain models, cross-section surveys, wetland location surveys, field stake-out of test boring, GPS surveys, mapping and verification surveys, control surveys, plat reviews, and construction surveys. All work performed was in accordance with applicable Minimum Technical standards and procedures.

Woolbright Road Raw Water Main, Boynton Beach, FL. Project Manager. The city of Boynton Beach contracted Erdman Anthony to perform a design survey for a two mile corridor along Woolbright Road for the proposed construction of a 36-inch raw water main. Mr. Merritt managed the overall project which included acquisition of easement, addressing utility conflicts, and mapping canal crossings. Maintenance of Traffic impacts were considered during the roadway work which became important for underground utilities and drainage inverts.

Stormwater Infrastructure Inventory, Palm Beach Gardens, FL. Project Manager. Erdman Anthony provided stormwater infrastructure mapping and inspection services for all of the stormwater structures and culverts owned by the City (approximately 1,000 structures). Mr. Merritt managed the overall project which included locates, assessment, and cataloging each of the City's storm structures in order to produce and a conditions assessment, maintenance plan, and recommendations for improvements that will be prioritized for the next five years. Erdman Anthony collecting GPS data for each structure and then populated that data into a GIS database.

General Engineering and Professional Services - Surveying and Mapping Contract - South Florida Water Management District, West Palm Beach, FL. Project Manager. Contract encompasses topographic, geodetic, photogrammetric ground control, global positioning (GPS) surveys, aerial photography, oblique terrestrial laser mapping and LIDAR mapping for projects located within the 16 county areas of the District boundaries. All files were produced in accordance with Tri-Service standards.

Jim Sullivan, PSM

Project Surveyor

ERDMAN ANTHONY

Jim Sullivan is a registered professional land surveyor with over 15 years of experience in land surveying. He has been a survey project manager in charge of both field and office operations on many land surveying projects. His responsibilities in the field and office include: abstracting title and encumbrances, control surveys, boundary analysis, right-of-way acquisition, easement creation, plan review, platting and QA/QC. His project management responsibilities include: field crew management, staff meetings, budget reviews, easement inventory, and GIS integration. He is also familiar with AutoCAD, Civil 3D, Carlson, Microstation, and GEOPAK.

Education
BS/Surveying and Mapping

Technical Engineer Specialist, United States Army/1997

Professional Registrations
Professional Surveyor & Mapper/FL, 2012

Professional Surveyor/OH, 2014

Professional Land Surveyor/LA, 2014

Professional Land Surveyor/NC, 2012

Registered Professional Land Surveyor/TX, 2008

Work History
No. of years with Erdman Anthony: 3

No. of years with other firms: 12

Professional Affiliations
Florida Surveying and Mapping Society - Palm Beach Chapter - President

National Society of Professional Surveyors

KEY PROJECTS

Village of Royal Palm Beach, Contract for General Surveying Services, Royal Palm Beach, FL. Project Surveyor. Mr. Sullivan's efforts cover a wide range of general surveying, including baseline stakeout, ground control surveying, boundary surveys, right-of-way surveys, topographic surveys to create digital terrain models, cross-section surveys, wetland location surveys, field stake-out of test boring, GPS surveys, mapping and verification surveys, control surveys, plat reviews, and construction surveys.

Village of Royal Palm Beach Canal Survey, Royal Palm Beach, FL. Project Surveyor. Erdman Anthony worked with Village engineers to develop a plan to survey over 14.5 miles of Village maintained canals to evaluate the need to clean and dredge the system. Erdman Anthony collected over 128 cross sections as well as 167 pipe outfalls during this survey. The cross sections included locations taken every 5' along the canal bottom and a measurement of the depth of muck was also obtained. Final deliverables included a Surveyor's Report and CADD drafted cross-sections for the engineers to design upon.

Loxahatchee Groves Water Control District Maintenance Maps, Loxahatchee Groves, FL. Project Surveyor. Erdman Anthony located and documented maintained conditions within Loxahatchee Groves Water Control District of certain canals and roads for the purpose of transferring roadway maintenance to the Town of Loxahatchee Groves as well as establishing trail easements along the existing canals. Mr. Sullivan managed this project and produced 225 signed plan sheets covering over 29 miles of canals and 18 miles of roads, which were later recorded in the county courthouse. Easements were annotated as station and offset from the established baseline.

NW 136th Ave at SR 84 & I-595, Sunrise, FL. Project Surveyor. Erdman Anthony was retained to provide roadway design services for the addition of turning lanes on NW 136th at its intersection with SR 84 (I-595) and the adjoining improvements resulting in the addition. Being a distance of 0.55 miles of survey design across busy intersections and under a canal bridge. This multi-phased project consisted of first order project control, design survey including canal cross-sections and over & under bridge scan, Digital Elevation Model (DEM), baseline creation, right-of-way establishment, and SUE. The Design Survey required detailed locations of bridge piers over the G-15 North New River Canal. Erdman Anthony built a rig to support the scanner to obtain every pier edge and not just rely on offsets as every pier was irregular and twisted. Due to the high volume of traffic in certain areas, reflectorless shots and the use of a laser scanner was required.

Richard Road Pump Station - Seacoast Utility Authority, Palm Beach Gardens, FL. Project Surveyor. The City of Palm Beach Gardens utilized the western portion of the Richard Road Pump Station along the C-17 Canal for the purposes of Police and Fire Rescue training. Erdman Anthony performed a topographic survey and located all tanks, impervious features, and below ground utilities as marked by SUA. The surface was located by breaklines and ground shots not exceeding 50 feet in order to create a proper Digital Terrain Model (DTM). Drainage was located along with each structures Invert and shown on the final deliverable. A Site Plan was later developed with proposed improvements for permit approval.

Ryan J. Wolf, CST III

Survey/GIS Technician

ERDMAN ANTHONY

Ryan J. Wolf, CST III has four years of geospatial experience and has directly managed all GIS projects completed by the West Palm Beach office of Erdman Anthony. Mr. Wolf is actively involved in the following professional organizations: Palm Beach County GIS Expo speaker, Florida Surveying and Mapping Society, and National Society of Professional Surveyors. He is the lead GIS Specialist for Erdman Anthony's Geospatial/Surveying division.

Education
BS/Geomatics Engineering

Professional Registrations
2015/Certified Survey Technician/Level III Computer Operator No. 0215-5006

Work History
No. of years with Erdman Anthony: 4

Professional Affiliations
Palm Beach GIS Expo Presenter

Florida Surveying and Mapping Society

National Society of Professional Surveyors

KEY PROJECTS

Sparrow Drive Bridge, Royal Palm Beach, FL. Survey Technician. Performed a topographic survey along the north side of the Sparrow Drive bridge between Park Road North and Sparrow Place. The topographic survey consisted of all above ground utilities (including attached to bridge), guardrails, storm structures, sidewalks, barrier walls, pier and abutments, curbs, road striping within the survey limits as provided by the Village. Information included the elevation of low opening/chord of the existing bridge and top of pier. No underwater elevations will be collected.

Palm Beach Gardens Stormwater Structure Mapping, Palm Beach Gardens, FL. GIS Specialist. Erdman Anthony provided GIS support for the mapping and inspection of all the storm water structures and culverts owned by the city. Mr. Wolf designed the geodatabase, organized mapping integration, and managed quality assurance of the data. Mr. Wolf facilitated the use of online feature services and mapping for the cloud based distributed collection, review, revision, and synchronization of inspection data in the field and in the office. The database will continue to be revised and updated by the city as changes resulting from that maintenance plan are executed. The city further requested a Google Earth KMZ containing all of the GIS data and photos of each feature as stored in the database. Mr. Wolf designed and implemented a script to perform the extraction of binary data from the database, distinct naming of the photos, and linking of the photos in the pop-up for each feature in the KMZ. Mr. Wolf designed and generated a PDF map atlas of the project area and individual PDF reports including photos for each feature delivered in the database.

Village of Royal Palm Beach, Contract for GIS Services, Royal Palm Beach, FL. GIS Specialist. Erdman Anthony is the sole provider of GIS Data Collection Services to the Village of Royal Palm Beach. The objective of these services is to work with the Village, contractors, and private developers to incorporate newly constructed or modified features into the Village's GIS schema. This enables Village staff to efficiently add this data to the Village's GIS database. As a part of its GIS program, the Village works to continually update and maintain accurate GIS data for critical infrastructure layers.

NW 136th Ave at SR 84 & I-595, Sunrise, FL. Survey Technician. Erdman Anthony was retained to provide roadway design services for the addition of turning lanes on NW 136th at its intersection with SR 84 (I-595) and the adjoining improvements resulting in the addition. Being a distance of 0.55 miles of survey design across busy intersections and under a canal bridge. This multi-phased project consisted of first order project control, design survey including canal cross-sections and over & under bridge scan, Digital Elevation Model (DEM), baseline creation, right-of-way establishment, and SUE. The Design Survey required detailed locations of bridge piers over the G-15 North New River Canal. Erdman Anthony built a rig to support the scanner to obtain every pier edge and not just rely on offsets as every pier was irregular and twisted. Due to the high volume of traffic in certain areas, reflectorless shots and the use of a laser scanner was required.

Village of Royal Palm Beach, Contract for General Surveying Services, Royal Palm Beach, FL. Survey Technician. Mr. Wolf's efforts cover a wide range of general surveying, including baseline stakeout, ground control surveying, boundary surveys, right-of-way surveys, topographic surveys to create digital terrain models, cross-section surveys, wetland location surveys, field stake-out of test boring, GPS surveys, mapping and verification surveys, control surveys, plat reviews, and construction surveys.

Matthew R. Palmer, PLS

Project Surveyor/Senior GIS Leader/UAV Pilot

ERDMAN ANTHONY

With his many talents and 9 years of experience, Matt Palmer will be utilized in a multitude of roles. As a recently licensed Land Surveyor in New York, Matt has identified himself as an upwardly mobile technically astute Surveyor. Matt has embraced the Laser Scanning technology as well as working to interface technologies to achieve the desired project results. Matt has completed a master's level course in GIS through Pennsylvania State University. Further, Matt has recently become licensed as a private pilot, (Part 61) and has taken the FAA online training course to be certified under Part 107. This will qualify him to remote-pilot UAVs for commercial use.

Education
BS/Survey Technology

Post Baccalaureate Certificate in GIS

Professional Registrations
Professional Land Surveyor (NY)

10-hr OSHA SAFETY

Part 61 Pilot

Part 107 certified (UAV)

Work History
No. of years with Erdman Anthony: 5

KEY PROJECTS

Palm Beach Gardens Stormwater Structure Mapping, Palm Beach Gardens, FL. Senior GIS Leader. Erdman Anthony provided GIS support for the mapping and inspection of all the storm water structures and culverts owned by the city. Mr. Palmer designed the geodatabase, organized mapping integration, and managed quality assurance of the data. The data collected will be used to update the city's maintenance plan. The database will continue to be revised and updated by the city as changes resulting from that maintenance plan are executed.

Village of Royal Palm Beach, Contract for GIS Services, Royal Palm Beach, FL. Senior GIS Leader. Erdman Anthony is the sole provider of GIS Data Collection Services to the Village of Royal Palm Beach. The objective of these services is to work with the Village, contractors, and private developers to incorporate newly constructed or modified features into the Village's GIS schema. This enables Village staff to efficiently add this data to the Village's GIS database. As a part of its GIS program, the Village works to continually update and maintain accurate GIS data for critical infrastructure layers. These layers include, but are not limited to, property boundaries, impervious surfaces, buildings, roadways, stormwater features, water utilities and wastewater features.

Florida Department of Transportation. District 4, Broward County FL. Project Surveyor. Design survey for a 1.9 mile section of SR 5. Work efforts included establishment of historical baseline of survey and existing R/W lines, setting of primary and secondary control to locate existing features, aerial targets, section corners, and right of way points, a drainage survey and acquisition of topographic/3D (DTM) data for select areas as needed by engineer. Responsible for the processing of all the field collected data. Using a variety of programs such as EFB, Hector, GEOPAK and Microstation I process all the data and review the information prior to final CADD mapping. The project established BLC concrete monuments at 2,000' intervals throughout the project corridor and permanent vertical benchmarks at 1,000' intervals. The horizontal was completed using static GPS techniques following an approved NDP (network design plan). ALSO established aerial targets per the targeting scheme and using RTK GPS techniques established horizontal and vertical coordinates upon each of the targets within the same timeframe.

Florida Department of Transportation. District 4, Broward County FL. Project Surveyor. Design survey for a 0.35 mile section of SR 848/Stirling Road. Work efforts included establishment of historical baseline of survey and existing R/W lines, setting of primary and secondary control to locate existing features, section corners, and right of way points, a drainage survey and acquisition of topographic/3D (DTM) data for select areas as needed by engineer. Responsible for the processing of all the field collected data. Using a variety of programs such as EFB, Hector, GEOPAK and Microstation I process all the data and review the information prior to final CADD mapping. The project established BLC concrete monuments at 2,000' intervals throughout the project corridor and permanent vertical benchmarks at 1,000' intervals. The horizontal was completed using static GPS techniques following an approved NDP (network design plan). ALSO established aerial targets per the targeting scheme and using RTK GPS techniques established horizontal and vertical coordinates upon each of the targets within the same time frame.

Peter D. Logar, PLS

Project Surveyor/ Sr. CADD Technician

ERDMAN ANTHONY

Mr. Logar has over 32 years' experience as a Survey Technician, Draftsperson, Senior CADD Operator, and Office Support Coordinator. Well versed with all office and field operations, he coordinates field operations and develops systems to streamline dataflow from its collection to mapping. Since the start of his career at Erdman Anthony he has embraced the continuous technological advances in surveying equipment. He is very experienced with GPS operations whether it be static, RTN or RTK. Additionally his work with the High-Definition Laser Scanner (LiDAR/HDLS) has enabled him to guide staff in the proper use in the field as well as the office processing. He is experienced in site survey, topographic mapping, and Right-of-Way mapping. He has worked on multiple projects for clients, such as the Monroe County Water Authority, New York state Department of Transportation, The Nature Conservancy and Hillside Family of Agencies.

Professional Registrations
Professional Land Surveyor (NY)

10-hr OSHA SAFETY

Work History
No. of years with Erdman Anthony: 32

Professional Affiliations
National Society of Professional Surveyors (NSPS)

KEY PROJECTS

Districtwide Miscellaneous Surveying Services Contract – Florida Department of Transportation, District 4, Ft. Lauderdale, FL. Project Surveyor, Sr. CADD Technician. The contract covered a wide range of general surveying, aerial surveying and SUE services including baseline stakeout, ground control surveying, boundary surveys, right-of-way surveys, structural and geotechnical movement monitoring surveys, topographic surveys to create digital elevation models, cross-section surveys, field stake-out of test borings, GPS surveys, mapping and verification surveys, and construction surveys.

Florida Department of Transportation. District 4, Broward County FL. Project Surveyor, Sr. CADD Technician. Design survey for a 1.9 mile section of SR 5. Work efforts included establishment of historical baseline of survey and existing R/W lines, setting of primary and secondary control to locate existing features, aerial targets, section corners, and right of way points, a drainage survey and acquisition of topographic/3D (DTM) data for select areas as needed by engineer. Responsible for the processing of all the field collected data. Using a variety of programs such as EFB, Hector, GEOPAK and Microstation I process all the data and review the information prior to final CADD mapping. The project established BLC concrete monuments at 2,000' intervals throughout the project corridor and permanent vertical benchmarks at 1,000' intervals. The horizontal was completed using static GPS techniques following an approved NDP (network design plan). He also established aerial targets per the targeting scheme and using RTK GPS techniques established horizontal and vertical coordinates upon each of the targets within the same timeframe.

NW 136th Ave at SR 84 & I-595, Sunrise, FL. Project Surveyor, Sr. CADD Technician. Erdman Anthony was retained to provide roadway design services for the addition of turning lanes on NW 136th at its intersection with SR 84 (I-595) and the adjoining improvements resulting in the addition. Being a distance of 0.55 miles of survey design across busy intersections and under a canal bridge. This multi-phased project consisted of first order project control, design survey including canal cross-sections and over & under bridge scan, Digital Elevation Model (DEM), baseline creation, right-of-way establishment, and SUE. The Design Survey required detailed locations of bridge piers over the G-15 North New River Canal. Erdman Anthony built a rig to support the scanner to obtain every pier edge and not just rely on offsets as every pier was irregular and twisted. Due to the high volume of traffic in certain areas, reflectorless shots and the use of a laser scanner was required.

B. Approach to Project Management

Overview of Project Management Strategy

Strong project management skills are a hallmark of Erdman Anthony's success. Our project managers are selected for their leadership abilities, and our approach to project management focuses on best practices. We work hard to balance the technical, administrative, and financial aspects of every project we undertake, including effective budgeting and scheduling, accurate project accounting, development of comprehensive work plans, effective resource allocation, periodic project reviews, and invoice verification. This strategy gives our team the ability to effectively oversee multiple projects and tasks simultaneously.

Distribution of task assignments will be based upon the schedule of the project and the expertise necessary for the project. Prior to beginning the project, we will develop a complete understanding of the scope, schedule, and budget parameters. We will evaluate our staff resources and mobilize staff as necessary to insure we complete the project on schedule. Tasks will be assigned to staff members with expertise that best matches the nature of the work, with responsible oversight provided by our management team.

Erdman Anthony's first task will be to clearly understand the issues and develop a scope for the project that meets the City's needs. We will then prepare a project management plan that addresses the both project scope and the City's specific needs.

Project Management Approach

At Erdman Anthony, every project task begins with the end in mind, and every project begins with a work plan. The work plan is a combination of procedures developed by Erdman Anthony in response to client needs, together with a communication plan and schedule.

The project management steps we will employ on any given project are:

- **Scope Review Meeting** – A scope review meeting will be conducted with all team members and the City's project manager to finalize any details or clarify any scope related items.
- **Kick Off Meeting** – The purpose of this meeting is to ensure that all project team members are aware of the City's expectations and the project's technical, financial, and schedule performance requirements and to inform all team members of goals and timelines.
- **Work Plan Development** – A documented work plan will be developed and maintained for access by all team members as a point of reference for key tasks and delivery dates.
- **Task Completion** – Our project manager will assign responsibilities to team members and periodically follow up to ensure progress toward task completion.
- **Status Reports** – We will e-mail weekly status reports to the City's project manager, providing a level of detail that meets its needs.

Project Management Structure

Project performance is all about people. We recognize that consistently delivering projects and services requires a special kind of management staff: one that is highly focused, capable of simultaneously managing multiple tasks, highly responsive, and able to perform well under stress while maintaining a positive, customer service orientation. We hire people to fit this profile and provide them with the tools and training to effectively execute their responsibilities so that you can depend on us as an extension of your staff.

B. Approach to Project Management

Our approach to project management includes the following key components:

- **Single Point of Contact** – Erdman Anthony designates the work category project manager to serve as the single point of contact for all contractual, scope, budget, schedule, and performance issues to ensure clarity of direction.
- **Principal-in-Charge/Quality Assurance** – A seasoned Principal-in-Charge will be assigned to provide a high level oversight of project performance and advise the project manager on critical decisions.
- **Subconsultant Management** – Any consultants needed for this contract will be contractually bound to Erdman Anthony. The terms and conditions of the City contract with Erdman Anthony will be passed down contractually to the participating firms on the team via our project manager.
- **Quality Control** – Quality control (QC) at Erdman Anthony involves review of interim and final work by third parties on the project team with the technical background needed to identify errors or omissions, communicate well with other team members, and a make recommendations for improvement. Our quality control process is described in more detail below.

Quality Plan

Quality begins and ends with a process approach. Our team project approach/methodology uses proven processes to follow the specific technical project requirements that validate our work. Our quality work plan combines quality control (Was it Right?) with quality assurance (Was it Done?). Erdman Anthony's ISO 9001 certification demonstrates the importance we place on quality. Our significant level of business from repeat clients is just one indication of our project success. As an ISO 9001 certified firm, our quality procedures undergo internal and third-party audits on a regular basis, providing our customers with further assurance that Erdman Anthony's quality procedures do not just exist on paper, but are actively practiced throughout the company.

We conduct **quality control (QC)** reviews at interim milestones agreed upon in the work plan that typically coincide with phase completions and/or reviews by our client or regulating agencies. The reviews are conducted by technical personnel (project engineers or surveyors) who are independent and separate from the design team. Our typical QC review includes checking project deliverables for the following:

- Conformance with the project goals, design standards and requirements
- Errors or omissions (we maintain and regularly update a checklist of items to review)
- Compliance with the latest specifications or design updates
- Technical accuracy
- Compatibility with associated documents
- Economy

The process followed for quality control reviews involves affixing reviewed documents with a computer generated check stamp on which the **originator**, the **reviewer,** and the **back checker** have a place to sign and date to indicate that the intended function has been completed. The definition of each of these roles is as follows:

- **Originator** – the lead technical professional who signs and seals the contract documents.
- **Reviewer** – design professional who performs detailed checking and also checks for incorporation of review comments and responses.

- **Back Checker** – reviews the plans to assure the originator has agreed with all the changes or corrections and reviews any additional comments made by the originator.

The following process will be followed in executing the quality control review:

- Originator checks plans for completeness and submits to reviewer.
- Reviewer checks plans and makes comments.
- Originator reviews comments and notes corrections recommended or offers explanations to the reviewer.
- The reviewer back checks the corrections and explanations. The reviewer and the originator must agree upon all changes or corrections, and will consult the project work plan, applicable standards and references, or the project manager as needed for direction in resolving any differences.
- The support staff makes all changes or corrections.
- The reviewer or the originator reviews the changes or corrections made by the support staff to verify that all work is ready for delivery.

A **quality assurance (QA)** review will be conducted prior to all submittals and documented to verify compliance with the quality control program. The principal-in-charge will review all submittals for completeness and accuracy, including:

- Computations and report formats are correct.
- Drawings/plans contain all of the information required for the type and phase of submittal.
- All items have been checked, back-checked and reviewed with check prints filed.
- All computer programs have been verified.
- The plan and document submittal checklists and sufficiency checklists have been reviewed for completeness and checked off. These checklists will become a part of the quality control file.

Quality Control Tools

Erdman Anthony has been using a Project Information Management system known as Newforma for five years now with great success. In addition to a number of schedule control features, project management tools, and document management items, it allows us to improve our quality control process. Virtual, electronic reviews are completed as part with the aid of this electronic tool. The mark-up session in the NewForma Document Management software allows the reviewer to highlight, redline and comment on any component within the deliverable. This review is stored electronically within the project and can be compared to the revised document to assure that the revisions have been completed or retrieved for the client in the event a quality audit is undertaken. The benefits of the electronic QC reviews include:

- Multiple reviewers can review the plans at the same time and see other's comments in real time.
- Comments automatically include reviewer and date of comment.
- The previous comments can be overlaid to the current plan set to ensure that all comments are still addressed.
- When comments are incorporated into the design file, the comment status is updated in the project.pdf QC review file. The incorporator and date are automatically recorded in the file. This is a valuable feature and an improvement to the electronic review comment systems that our clients use.

Accessibility

Erdman Anthony's West Palm Beach office is just a half-hour commute to the City of Delray Beach headquarters, and we are committed to being fully available for in-person meetings as needed, whether at the City's offices or a project site. Pro-active client communications is a hallmark of Erdman Anthony's project management culture, and our project manager will be highly responsive to phone inquiries, project directives, and other communications from the City. As your main point of contact, our contract manager will relay project communications to appropriate internal team members and clarify information with your staff as needed to keep our engineering services running smoothly. Erdman Anthony uses the latest computer technology, including cloud access for file sharing and web-based meetings, to ensure that communications are streamlined and productive.

C. Projects for Similar Services

Project Name: Contract for General Surveying Services
Organization: Village of Royal Palm Beach
Address: Royal Palm Beach, FL
Project date: 2003/2015
Role in the project: Project Manager

As the Project Manager, Mr. Merritt had been in charge of a wide range of general surveying including baseline stakeout, ground control surveying, boundary surveys, right-of-way surveys, topographic surveys to create digital terrain models, cross-section surveys, wetland location surveys, field stake-out of test boring, GPS surveys, mapping and verification surveys, control surveys, plat reviews, and construction surveys. Over 60 work orders have been completed to date. In addition to the above services, Erdman Anthony has also performed these services under this contract: drainage surveys; roadway surveys; construction layout; platting; cadd conversions; and sketch and legal descriptions.

Project Name: Village of Royal Palm Beach Canal Survey
Organization: Village of Royal Palm Beach
Address: Royal Palm Beach, FL
Project date: 04/2014 - 09/2014
Status of project: Complete
Role in the project: Project Manager

Mr. Merritt served as the Project Manager and worked with Village engineers to develop a plan to survey over 14.5 miles of Village maintained canals to evaluate the need to clean and dredge the system. Erdman Anthony collected over 128 cross sections as well as 167 pipe outfalls. The cross sections included locations taken every 5' along the canal bottom and a measurement of the depth of muck was also obtained. Final deliverables included a Surveyor's Report and CADD drafted cross-sections.

Project Name: Stormwater and Infrastructure Mapping
Organization: City of Palm Beach Gardens
Address: Palm Beach Gardens, FL
Project date: 2015/Ongoing
Status of project: Ongoing
Role in the project: Project Manager

Erdman Anthony is a member of the team selected by the City of Palm Beach Gardens to provide stormwater infrastructure mapping and inspection services for all of the stormwater structures and culverts owned by the City (approximately 1,000 structures). The primary goal of the project is to locate, assess, and catalog each of the City's storm structures to include: structure type, location and condition, pipe size, type and condition, direction of flow, and connectivity between structures from the first upstream structure within a system to its downstream outfall point, in order to produce and overall conditions assessment, maintenance plan, and recommendations for improvements that will be prioritized for the next five years.

The team's services include a combination of engineering, inspection, surveying, and GIS. The process begins by collecting GPS data for each structure to provide the horizontal and vertical data in a nationally accepted datum. This

data is then populated into a GIS database. The GIS database is uploaded onto a mobile device that is used by field technicians to document, assess, and photograph each structure and culvert, including underwater components. This field data is then synched back into the GIS database, where it can be immediately accessed by authorized users, including the City. The GIS database is ultimately used to generate the engineer's condition, maintenance, and recommended improvements report for presentation to the City.

Upon completion of the project, the City will have a living document containing the location, condition and specifications of all City owned stormwater structures. The City is planning on using the documents for their ongoing maintenance activities and for their annual NPDES reporting and assessments.

Project Name: Seacoast Utility Water Treatment Plant
Organization: City of Palm Beach Gardens
Address: Palm Beach Gardens, FL
Project date: 2016/2016
Status of project: Complete

The City of Palm Beach Gardens has a continuing services contract with Erdman Anthony. The City planned to utilize the western portion of the Seacoast Utility Water Treatment Plant along the C-17 Canal for the purposes of Police and Fire Rescue training. The land would be used for overall training and vehicle maneuvers.

The current tract would also need to be designed and graded for the use of heavy equipment to allow these maneuvers and to handle the heavy fire trucks which can exceed 15,000 lbs. when its tanks are full. Erdman Anthony located all tanks, impervious features, and above ground utilities. The surface was located by ground shots not exceeding 50 feet and breaklines in order to create a proper Digital Terrain Model (DTM).

Drainage was located along with each structures Invert and shown on the final deliverable. Underground utilities were marked by Seacoast Utility Authority and later located by Erdman Anthony field crew. The fieldwork was processed by in house staff and checked for quality control by the supervising surveyor. A surface was created in AutoCAD and delivered to the client ahead of schedule.

Project Name: Loxahatchee General Services Agreement
Organization: Loxahatchee Groves Water Control District
Address: Loxahatchee, FL
Project date: 2001/Ongoing
Status of project: Design - Ongoing

Since 2001, Erdman Anthony has been under contract to provide Miscellaneous Surveying Services to the Loxahatchee Groves Water Control District (LGWCD). In support of this contract we have completed over 50 work orders for the District. These work orders have ranged in size and complexity. For example, simple requests for a single catch basin As-Built to 47 miles data collection to determine historical maintenance limits. The types of work orders have also included: maintenance maps, easements (sketch and legal descriptions), exhibits, CADD conversions, GIS, design surveys, control surveys, cross-sections, as-built/record surveys, infrastructure investigations, and title abstracts.

D. Organizational Structure

Erdman Anthony has assembled a team for this general services contract that has proven expertise in all anticipated disciplines. As prime consultant, Erdman Anthony will manage our team's services, serve as the City's primary point of contact for project-related correspondence, and provide general civil, transportation, survey and mapping, and water resources services with in-house staff. In general, our capabilities include civil/site permitting and design; drainage facility design; roadway, bridge, and culvert design; traffic engineering and signalization; exterior lighting system design; sidewalk and ADA improvements; boundary and topographic surveys; GIS system support; utility coordination; and related services such as feasibility studies, cost estimating, life cycle cost analyses, and construction management. Work will be performed from our West Palm Beach office at **5405 Okeechobee Blvd., Suite 200, West Palm Beach, FL 33417.**

Erdman Anthony has selected a highly experienced staff able to meet or exceed the City of Delray Beach's expectations for quality deliverables and service. **Dana Gillette, PE, PSM, LEED**, our proposed Contract Manager, will serve as the main point of contact for the City and as our team's communication leader. She will lead our team's administrative functions, including schedule and budget management and task assignments.

Bryan Merritt, PSM will be our Survey Manager for the duration of this contract. Bryan is Erdman Anthony's core business leader for our Geospatial group and has over 33 years of experience.

Erdman Anthony will utilize **Jim Sullivan, PSM/PLS, Peter Logar, PLS, Matthew Palmer, PLS, and Dilwyn Knott, PhD, PLS** as our Project Surveyors for this contract. Each member of our survey team has specialized expertise in different areas, as shown on the organizational chart which will be utilized for this contract. Furthermore, **Ryan Wolf, CST III**, and **Ronald Parker** will fulfill the roles of Survey Technician and CADD Technician, respectively.

The organization chart on the following page provides an overview of our team's key personnel in anticipated disciplines and their relationship. Communications and directives for the entire team will be led by our contract manager, who will work closely with the City throughout project development.

Current Workload: We are very excited about the opportunity to work with the City of Delray Beach and would not pursue this contract if we did not have adequate availability and resources to perform the work to our own high expectations. We can confirm that our in-state staff of 12 professionals, plus additional administrative staff, can complete these projects and have excess capacity available for new assignments. Additionally, we have the resources of our entire firm to assist us should that be necessary. Our ISO 9001 approved business management policies help us to ensure that we are staffed appropriately for our workload, and our customer satisfaction surveys prove that we meet our client expectations, including providing a quality product on schedule.

ERDMAN ANTHONY

Surveying and Mapping Organizational Chart

City of Delray Beach

Quality Manager
James Noth, PE, PSM
ERDMAN ANTHONY

Contract Manager
Dana Gillette, PE, PSM
ERDMAN ANTHONY

* Resume Included

Survey – Mapping - Geospatial

Bryan Merritt, PSM/PLS *
Manager

Jim Sullivan, PSM/PLS *
Project Surveyor

Ryan Wolf, CST III *
Survey/GIS Technician

Matthew Palmer, PLS *
Project Surveyor/UAV Pilot/Sr. GIS

Peter Logar, PLS *
Project Surveyor/Sr. CADD Technician

Dilwyn Knott, PhD, PLS
Project Surveyor/Survey Analyst

Ronald Parker
Sr. CADD Technician

Company wide support staff of 252 employees.

CIVIL ENGINEERING

Engineering is in a state of constant evolution. From the growing complexity of government regulations and permitting processes to environmental concerns and sustainable design, the challenges are complex. Erdman Anthony's civil engineering staff members apply progressive solutions in accord with time-proven engineering principles. We have both design and construction management capabilities, with field-experienced staff who have most recently worked on-site for the South Florida Water Management District. Our team not only has the technical expertise to successfully complete projects for the City of Delray Beach, but also has a track record to prove it.

Included in Erdman Anthony's civil engineering staff are professional engineers with specific experience in sewer and pump station design, hydraulics, hydrology, hydrogeology, water resources, utilities, planning, and site evaluations and development. The types of projects completed by Erdman Anthony's civil engineers include but is not limited to reconnaissance; appraisal; assessment; subsurface exploration; preliminary and final design for hydraulic analysis; pump stations; water supply and distribution; and environmental impact statements and assessments. Erdman Anthony has completed the layout and design of utility services and has engaged in comprehensive planning, analysis, and design of water supply systems for a variety of land uses. The firm has experience with water - source wells, distribution systems, storage tanks, reservoirs, conduits, commercial and domestic waterlines, and pump stations.

Including both completed and ongoing assignments, Erdman Anthony has provided engineering services for more than 330 engineering projects in South Florida over the past 12 years, all of them from our office in West Palm Beach. Erdman Anthony served as the prime engineering consultant for a majority of these projects, many of which were completed under general service contracts for Palm Beach County, the City of West Palm Beach, the City of Boynton Beach, the Village of Royal Palm Beach, the South Florida Water Management District, the Loxahatchee Groves Water Control District, and the Florida Department of Transportation. A majority of the design projects completed by Erdman Anthony exceed $250,000 in construction cost, but we have also completed some smaller site-specific projects involving construction costs less than $250,000, such as municipal park projects, sewer and water line upgrades, curbing & sidewalk improvements, and drainage improvements. In addition, Erdman Anthony has recent experience in feasibility studies, traffic studies, design reviews, GIS application services, and other assignments that are not directly construction related.

Erdman Anthony's companywide staff includes 14 Florida registered Professional Engineers. **Dana I. Gillette, PE, PSM, LEED AP**, our proposed Contract Manager and Civil and Water Resources / Stormwater Project Manager, exemplifies our staff's local ties. She has been actively serving on the Florida Atlantic University civil engineering department advisory council for years and is a Principal Associate at Erdman Anthony. Dana is also a member of the board of trustees for the Florida Engineering Foundation and chairs the Florida Engineering Society's Palm Beach Chapter scholarship committee.

The successful outcome of your civil engineering projects depends on our experience and expertise. We're ready to help because we're aware that your project's optimal results require support that goes beyond technical knowledge. Erdman Anthony's civil engineers work seamlessly with you, the public and governmental agencies to create designs that will benefit all. The key? **We know the people, and we know the processes.** Our experience allows us to accommodate your most demanding infrastructure needs. Our civil engineering experience includes:

A. Experience, Background, Reference Feedback

Site Planning/Land Development

- Permitting and regulatory compliance
- Obtaining permits and approvals
- Providing efficient site layouts
- Designing underground utilities
- Addressing traffic flow concerns
- Streetscape design

Stormwater Management

- Studying drainage and flooding issues
- Solving or mitigating flooding issues
- Stormwater pollution prevention planning

Water Distribution Systems

- Transmission systems
- Hydrologic/hydraulic evaluations
- Health Department Compliance
- Designing new systems

Waste Water Collection Systems

- Gravity systems
- Force mains
- Pump stations
- Septic design
- On-site treatment system

We have contracted with many municipalities to provide professional engineering services similar to your needs, and as a result our proposed staff is experienced with projects similar to this contract. We understand from providing services to so many different public agencies, that as similar as government agencies can be, each agency is a unique entity and has their own specific requirements. It is our responsibility to adapt to each agency and their specific requests to ensure smooth project management and delivery. In short, we are very familiar with this type of work. Past clients include but are not limited to the following representative owners in Florida:

- Seminole Tribe of Florida
- Town of Palm Beach
- City of Boynton Beach
- City of West Palm Beach
- Florida Department of Transportation
- Loxahatchee Groves Water Control District
- Palm Beach County
- South Florida Water Management District
- Village of Royal Palm Beach

Success story: When we designed a new 36,000 sf lab and office building for the South Florida Water Management District, our role as the prime consultant was a large one. To effectively manage our professional team, we implemented design and project management tools that helped us help us track and manage documents including contractor submittals. We also made effective use of web-based meetings so that the diverse and geographically dispersed design team could hold effective and efficient meetings. We underwent an extensive quality control and peer review process to help produce a superior set of plans. The result was a project that was well under the $15M budget, where the 8 bids received were within 7% of each other, and construction change orders were under 3% of the construction cost. This successful project was the cover story and subject of an article in Public Works Magazine: pwmag.com/buildings-and-facilities/virtual-meetings-speed-building-design-and-engine.aspx

A. Experience, Background, Reference Feedback

Success story: Aldi is a German based discount grocer with a large and growing US presence. As they expanded into South Florida, they spent two years selecting a site for their 800,000 sf warehouse, distribution center and corporate office. Erdman Anthony was selected by the mega grocery store chain to investigate the 73 acre Royal Palm Beach site. Erdman Anthony was further retained to design the two phases of the project: first was the 73 Acre Aldi Park. This large industrial park will support vacant parcels for commercial and industrial development along SR7 in Royal Palm Beach plus the large Aldi warehouse/distribution center. Erdman Anthony designed, permitted, and inspected the following elements: zoning, drainage, stormwater management, turn lanes, earthwork, water distribution (5,000 ft of 12" onsite and offsite watermain), sewer collection (3,400 ft of onsite and offsite force main and 25 hp master pump station), pavement (heavy duty concrete and asphalt pavement sections), permits (Erdman Anthony obtained 26 separate civil engineering permits from 8 different state, county and city agencies for this project), platting, and noise analysis. The final design was completed on time so that permits were reviewed and approved without impact to the construction schedule or budget.

Success story: Erdman Anthony was the prime consultant for two park rehabilitation projects for the City of West Palm Beach: Currie Park and Phipps Park. Erdman Anthony was responsible for managing the architects and engineering teams. The Currie Park project included a new restroom building, parking lot resurfacing, new pavilions, shade structure, play equipment, lighting improvements, landscaping, and extension of the pathway along the intracoastal water way. The Phipps Park project included improvements to the concession and recreation buildings, and irrigation improvements. Presentations of the Conceptual Plan and Preliminary Cost Estimate were prepared and presented to the City Council at a Face of the City meeting and at a public meeting with interested constituents. Erdman Anthony coordinated the design and permitting effort which was primarily the building permit from the City of West Palm Beach. Once the project was bid and a contractor selected, Erdman Anthony provided the City with construction phase services by providing meeting minutes for the pre work meeting and various coordination meetings throughout the project, site inspections, clarifications, and plan revisions due to permitting or unforeseen site conditions.

To complement our civil engineering expertise, Erdman Anthony offers a wide range of services to provide you a total engineering solution. As a multidisciplinary firm, we offer five core businesses:

- In-depth experience with government agencies and private-sector clients allows our **Civil** engineering staff to solve your most demanding infrastructure needs.

A. Experience, Background, Reference Feedback

- For state-of-the-art survey and mapping services, turn to Erdman Anthony's industry-leading **Geospatial** experts.
- Erdman Anthony's **Facilities** group provides building systems design, industrial systems process engineering, energy consulting, and commissioning services.
- Our **Transportation** engineers offer design excellence for bridges, highways, and high-speed rail systems.
- The firm's **Construction** Services Group has the expertise and the depth of resources to safeguard your infrastructure investment.

Erdman Anthony is ISO 9001 certified by the globally recognized TÜV organization. Maintaining ISO 9001 certification requires periodic internal and third-party audits of our quality program, providing clients with assurance that our quality program does not just exist on paper, but is actively practiced throughout the company. Our company is also 100% employee-owned, providing each of our staff members with an extra incentive to excel. This is evidenced by the fact that approximately 90% of our workload comes from satisfied existing clients, and we have built strong working relationships in recent years with new Florida clients such as the South Florida Water Management District and the Seminole Tribe of Florida, who continue to rely on us for project assistance.

For more than 30 years, our firm has been consistently listed by the Engineering News Record as one of the Top 500 engineering firms in the country. Erdman Anthony has been honored with numerous industry awards for a wide variety of projects involving unique engineering challenges. A few examples are provided below, and a more comprehensive list can be found on our website at: http://www.erdmananthony.com/News-Events/Awards.

Representative Civil Erdman Anthony Awards
2017 ACEC NY Silver Award for Engineering Excellence Elmwood Avenue Transmission Main, Large Valves II, **Buffalo, NY**
2016 APWA-NY Project of the Year Award and **ACEC/NY Diamond Award for Engineering Excellence** Letchworth State Park-Gibsonville Culvert, **Castile, NY**
2015 APWA-Western NY Project of the Year Award and **ACEC/NY Gold Award for Engineering Excellence** Luna and Three Sisters Islands Restoration, **Niagara Falls, NY**
2013 Silver Award for Engineering Excellence ECWA - Buffalo Water Transmission Main Restoration, **Buffalo, NY**

"Solutions for today—
and a history of excellence."

CLIENT REFERENCES

Erdman Anthony encourages the City of Delray Beach to contact the following references regarding our performance on the following projects:

Client: City of Boynton Beach
Contact: Michael Low / Christopher Roschek, PE
Email address: lowm@bbfl.us / roschekc@bbfl.us
Address: 124 East Boynton Beach Blvd, Boynton Beach, FL, 33425
Phone number: 561-742-6323 / 561-742-6413
Fax number: 561-742-6298
Project Name: Boynton Beach Water Main
Dates of Service: 2009/2015
Scope of Work: Erdman Anthony completed design for a 36-inch-diameter raw water main along Woolbright Road between Military Trail and Congress Avenue. The City of Boynton Beach has excess capacity to treat raw water at its East Water Treatment Plant, but it does not have the capacity to draw more water from the wells in that location. Conversely, it has the capacity to draw water from the wells near the West Water Treatment Plant. To accommodate this situation, the City needed five miles of raw water main to connect the two plants and convey approximately 16 mgd currently and 20 mgd in the future.

Client: City of Riviera Beach
Contact: Terrence Bailey, PE, LEED AP / Brynt Johnson
Email address: TBailey@Rivierabch.com / BJohnson@RivieraBch.com
Address: 600 West Blue Heron Boulevard, Riviera Beach, FL, 33404
Phone number: 561-845-3472 / 561-845-4066
Fax number: 561-845-4845
Project Name: Singer Island Neighborhood Improvements
Dates of Service: 2015/Ongoing
Scope of Work: Erdman Anthony is providing engineering services to design the rehabilitation program for pavements, water, sewer, and drainage systems. Services to be provided include civil design to add water quality treatment in the form of exfiltration trenches, to analyze the size of the outfall pipes, and to interconnect the drainage network to improve its function. Services also involve the design of outfall control structures along with the associated permitting as needed to upgrade the existing drainage system. The project also involves roadway reconstruction.

Dana I. Gillette, PE, PSM, LEED AP

Project Manager

ERDMAN ANTHONY

Ms. Gillette has 32 years of professional engineering and land surveying experience has served as a project engineer and project manager on various civil engineering for both the public and private sectors. She is experienced with the design, permitting, bidding, and construction of water, sewer, pump stations, surface water management, surface water treatment, and flood attenuation.

Education
BS/Civil Engineering

Professional Registrations
1989/FL/Professional Engineer No. 41913

1999/FL/Professional Surveyor & Mapper No. LS5907

Work History
No. of years with Erdman Anthony: 22

No. of years with other firms: 10

Professional Affiliations
National Society of Professional Engineers

American Society of Civil Engineers

Society of Women Engineers

Florida Engineering Society

American Water Resources Association

KEY PROJECTS

Raw Water Main, Boynton Beach, FL. Project Manager. Erdman Anthony designed a two mile section of 36-inch raw water main for the City of Boynton Beach from Military Trail to Congress Avenue. Factors such as utility impacts, safety, maintenance of traffic, impacts to the community, permitting, construction costs, and operational costs were considered. The Woolbright Road route includes a section with a bridge over Quail Covey Road. Erdman Anthony initiated discussions with the Quail Ridge Homeowners Association regarding obtaining an easement from them and placing the water main within their property and outside of the Woolbright Road right of way. Combination air release/air vacuum valves with anti-slam devices and flood safe back flow preventers will be constructed. Horizontal gate valves will be used to allow for future swabbing. A super chlorinated slug is proposed and the flushing process will be completed once all three segments are complete. Ms. Gillette was responsible for design, plans, specifications, permitting, and construction certification.

Singer Island Neighborhood Improvements, Riviera Beach, FL. Project Manager. Erdman Anthony is providing engineering services to design the rehabilitation program for pavements, water, sewer, and drainage systems. Services to be provided include civil design to add water quality treatment in the form of exfiltration trenches, to analyze the size of the outfall pipes, and to interconnect the drainage network to improve its function. Services also involve the design of outfall control structures along with the associated permitting as needed to upgrade the existing drainage system. The project also involves roadway reconstruction. Ms. Gillette led the public involvement effort which involved a public meeting to present the project, answer questions, and meet individually with residents.

SFWMD Environmental Services Laboratory Relocation Project, West Palm Beach, FL. Project Manager. Erdman Anthony provided design, permitting, construction documents, and construction phase services in support of the project that included demolition of a two-story building for replacement with a new 36,000 sq. ft. facility. Erdman Anthony provided civil engineering, mechanical (HVAC) engineering, plumbing engineering, electrical engineering, and project management.

Boynton Beach Lift Stations 101, 202, 404, 610. Project Manager/Civil Engineer. Responsible for the survey, design, permitting, preparation of construction plans, construction observation, and certification for the replacement of five sanitary sewer pumping stations. Ms. Gillette researched the easement conditions, existing facilities, the anticipated water and sewer demands for the contributing areas and the existing flows into the stations. She then designed the replacement stations to meet the current City criteria. Ms. Gillette coordinated with City staff and the neighboring communities regarding the locations of the proposed improvements, prepared sketch and legal descriptions for the required easements, permitted the improvements through the County Health Department. One of the stations also included the addition of a force main interconnect to improve flow, head and odor. Ms. Gillette performed the hydraulic analysis for the interconnect, obtained subsurface utility locates for the proposed route, and obtained Florida Department of Transportation approval for the utility within their right of way. She assisted the City with the bidding by preparing the bid documents and distributing them to bidders, responding to bidder questions, analyzing the bids, and recommending and award. She is also providing construction observation and certification services.

Michael R. Corrigan, PE

Water Resources Engineer

ERDMAN ANTHONY

Mr. Corrigan has specialized experience in hydrology and hydraulics analysis, stormwater management, drainage design, and erosion & sedimentation control. He is a member of the American Society of Civil Engineers.

Education
BS/Agricultural Engineering

Professional Registrations
2008/FL/Professional Engineer
No. 67727

Work History
No. of years with Erdman Anthony: 10

No. of years with other firms: 16

Professional Affiliations
American Society of Civil Engineers

KEY PROJECTS

Drainage Design on Fleming and Veness Creek, Greece, NY. Hydrologic/Hydraulic Engineer. Completed drainage design on Fleming and Veness Creek, from Denise to Latta Road, based on design improvements outlined in various drainage studies made available to the consultant for review, and in conjunction with field observations of the drainage channels and enclosed drainage segments. Proposed drainage improvements needed to resolve outstanding basin drainage concerns, acquired the necessary permits and developed construction drawings for implementation of the designs. Mr. Corrigan provided QA/QC reviews of hydrologic/hydraulic modeling.

Open End Agreements for Engineering Services and Environmental Studies, PennDOT District 10-0, PA. Water Resources Manager. These open-end agreements included several minor bridge and culvert improvement projects. Mr. Corrigan provided water resources engineering for three work orders covered by this contract, including hydraulic studies & flood plain analysis at one site and water obstruction & encroachment permitting at two others.

Boulevard over Girty's Run Bridge Replacement, Statewide, Allegheny County, PA. Water Resources Manager. This project involves preliminary engineering, final design, and construction consultation services for a bridge replacement carrying SR 4009 over Girty's Run. The existing structure is a 40-foot single span steel beam bridge on reinforced concrete cantilever abutments. The scope of work includes approach roadway design, traffic control under phased construction, Phase 1 ESA, field survey, H&H analysis, geotechnical engineering, public involvement, constructability review, and bridge design. Mr. Corrigan provided bridge hydraulic analysis and floodplain analysis oversight.

Open End Agreement for Engineering Services and Environmental Studies, PennDOT District 2-0, PA. Hydrologic/Hydraulic Engineer. This $1 million open end agreement involved various engineering services and environmental studies for minor transportation improvements throughout the nine-county area of PennDOT District 2-0. Mr. Corrigan provided hydrologic/hydraulic reviews for various bridge design submissions, ordinances and impacts to nearby residential communities. The project included not only the warehouse project but also an industrial park with cleared and graded vacant lots for future development.

Open End Agreement for Engineering Services and Environmental Studies, PennDOT District 10-0, PA. Water Resources Manager. The 16 work orders issued under this open-end agreement have included bridge rehabilitation, bridge superstructure replacements, and bridge replacements, as well as highway safety improvements along the heavily-traveled SR 228/Freedom Road corridor located between I-79 and the PA Turnpike in Butler County. Mr. Corrigan provided water resources engineering for six work orders covered by this contract, including hydraulic studies, flood plain analyses, and water obstruction & encroachment permitting.

Omar Morgan, EIT

DESIGN ENGINEER

ERDMAN ANTHONY

Mr. Morgan is a civil engineer who is proficient with MicroStation and AutoCAD. He is a team player with excellent organizational skills. His experience includes design and inspection of infrastructure, roadways, commercial developments, and housing developments.

EDUCATION
BS/Civil Engineering 2014

Work History
No. of years with Erdman Anthony: 1.5

No. of years with other firms: 2

KEY PROJECTS

G716 Spillway and Tortoise Relocation, West Palm Beach, FL. Civil Technician. Erdman Anthony was the prime consultant and lead designer for the design and preparation of construction drawings and specifications for this $5M spillway. The design was completed with a preliminary submittal and a final submittal to help the District meet a consent order deadline for producing final plans. This project had four main elements which began with the removal of the existing G-707 gated culverts. Erdman Anthony then replaced them with the new G-716 gated spillway, removed a portion of the existing levee due west of the new G-716 gated spillway structure to allow flow to enter the storage basin; and Armor the north side of the canal at the FPL easement near G-311. Finally, the team provided an emergency generator for the proposed G-716 structure that will also serve the existing S-375 structure approximately 1000' south. Work included a detailed design report to document the project decision making process, two presentations to the management team, and responding to peer comments from the District technical review team.

Singer Island, Riviera Beach FL. Design Engineer. Erdman Anthony is providing engineering services to design the rehabilitation program for pavements, water, sewer, and drainage systems. Services to be provided include civil design to add water quality treatment in the form of exfiltration trenches, to analyze the size of the outfall pipes, and to interconnect the drainage network to improve its function. Services also involve the design of outfall control structures along with the associated permitting as needed to upgrade the existing drainage system. The project also involves roadway reconstruction.

Pioneer Townhouses, Royal Palm Beach FL. Design Engineer. This project is for the improvement and subdivision of 13 acres of land for the creation of a town house community. The services Erdman Anthony is providing includes plans, permitting, construction observation, and certification.

Binks Forest Townhouses, Wellington FL. Civil Technician. Erdman Anthony provided civil engineering services to convert an old driving range into an up-scale town house community. The team's efforts included rehabilitations to the parking lot to meet ADA standards, resurfacing the parking lot, and expanding the parking lot to include grass parking under the power easement. Erdman Anthony also prepared water, sewer, paving, grading, and drainage plans for the new golf cart barn and the maintenance building which was separated from the existing residence using a tall landscaped berm. Furthermore, Erdman Anthony provided plans, permitting, construction observation, and certification.

Windsome Farms, Wellington, FL. Design Engineer. This project is for the improvement and subdivision of 40 acres of land for the creation of equestrian lots. A topographic survey was required at assist with the design criteria of the project. As part of the platting process, a boundary survey was prepared along with the appropriate platting documentation to subdivide the parcel into 4 parcels. The platting process required reviews by the City, the City's consultant surveyor and the County. There was questionable language in the original deed that required significant research of the ownership of the adjoin canal and road right-of-way. The actual ownership of the right-of-way was determined and agreed to by the City and City's consultant surveyor.

Dane-Andrew P. Dussie

Civil Engineering Technician / Construction Inspector

ERDMAN ANTHONY

Dane has designed and inspected roadways, commercial developments, housing developments, and equestrian farms. He has provided inspection services for pre, during and post construction. He is fully trained in FDOT requirements and is certified for CTQP Asphalt Paving Level 1, Earthwork Level 1, Concrete Field Technician Level 1, Concrete Field Testing Technician, DEP NPDES Inspector and Radiation Operator.

Education
BS/Civil Engineering

Work History
No. of years with Erdman Anthony: 20

No. of years with other firms: 10

KEY PROJECTS

Boynton Beach Lift Stations 101, 202, 404, 610. Project Designer and CEI Inspector. Contributed to the design, plans preparation, permitting and construction observation of four pump station replacements. The pump station replacement projects involved tight right of way constraints, unstable soil conditions, value engineering, and provisions for maintenance of service during construction. All pump stations were submersible centrifugal pumps in concrete wet wells. Dane was responsible for all inspection and construction administration activities including attendance of weekly meetings, preparing meeting agendas and monitor processing and responding to RFI's and FCD's, inspections, daily reports, environmental permit compliance documentation and preparation of the final permit release documents.

Raw Water Main, Boynton Beach, FL. Engineering Technician and Inspector. Mr. Dussie was responsible for permitting coordination, quantity take off, shop drawing review, and inspection. Erdman Anthony designed a two mile section of 36" raw water main for the City of Boynton Beach from Military Trail to Congress Avenue. Factors such as utility impacts, safety, maintenance of traffic, impacts to the community, permitting, construction costs, and operational costs were considered. Combination air release/air vacuum valves with anti-slam devices and flood safe back flow preventers will be constructed. Horizontal gate valves were used to allow for future swabbing. A super chlorinated slug is proposed and the flushing process will be completed once all three segments are complete. Mr. Dussie oversaw the installation, backfill, and pavement restoration efforts and his FDOT certifications as a Construction Engineering Inspector were beneficial in that regard.

SFWMD Environmental Services Laboratory Relocation Project, West Palm Beach, FL. Civil Engineering Technician. As part of the Erdman Anthony team Dane was part of the design team who provided design services in support of the consolidation that included demolition of a two-story building for replacement with a 36,000 sq ft facility. This new facility is a state-of-the-art, capable of resisting high wind velocities with limited or no damage, and have the emergency backup systems capable of self-sustaining operations for seven days.

SFWMD Okeechobee Field Station, Okeechobee, FL. Civil Engineering Technician. Erdman Anthony is serving as the prime design consultant for this project. Dane was part of the civil engineering team involved in the designing of the building needed to meet the Districts goal for a cost efficient building that conserves on both energy and water consumption.

Royal Palm Beach Commons Park, Royal Palm Beach, FL. Civil Engineering Technician / CEI Inspector. The proposed project was a redevelopment of a defunct golf course as a 163.5 acre public park that included a nine-hole golf course, kayak trails, bike/hike trails, sporting center building for concessions of bikes, kayaks, food, clothing, etc., a great lawn with picnic pavilions, playgrounds, volleyball, etc, an interactive fountain, and land set aside for a future horticulture center, arts center, and various civic buildings such as a senior center, teen center, day care center, library, etc. Dane was part of the team that assisted with the design, permitting and preparation of construction documents as well as the internal civil engineering efforts. In addition, Dane provided construction inspection services on an as-needed basis. He was responsible for all of the daily reports, field reviews of various paving, grading, drainage and utility items, document review and coordination of upcoming work, corrections and documentation and the Lead CEI Inspector.

Ronald L. Parker

CIVIL DESIGNER/CADD MANAGER

ERDMAN ANTHONY

Mr. Parker has a BS degree in Physics and has over 18 years of diversified civil engineering and CADD experience in parks, highways, airports, hydraulic studies, site development, and utilities. He has served as CADD Manager for various projects and has been responsible for quality control and scheduling of CAD drawings.

EDUCATION
BS/Physics 2014

Work History
No. of years with Erdman Anthony: 21

No. of years with other firms: 11

KEY PROJECTS

Village of Royal Palm Beach Commons Park, Royal Palm Beach, FL. Designer. Mr. Parker provided design and developed plans for a 163-acre Royal Palm Beach Commons park. The proposed project is a redevelopment of a defunct golf course as a public park that will include a nine-hole golf course, kayak trails, bike/hike trails, sporting center building for concessions of bikes, kayaks, food, clothing, a great lawn with picnic pavilions, playgrounds, volleyball, an interactive fountain, and land set aside for a future horticulture center, arts center, and various civic buildings such as a senior center, teen center, day care center, and library. The design included the permitting and preparation of construction documents. Ron was responsible for all drafting, including preparation of base maps for the design team, coordination of CADD standards for the team, and design of the site grading using 3D technology that resulted in coordinating files that were suitable for easy connection with machine control capability.

West Palm Beach Continuing Services, West Palm Beach, Florida. Designer. Projects under this contract have included:

- **Currie Park Rehabilitation:** This project included revision and additions to Currie Park located in West Palm Beach, FL. Mr. Parker was part of the design team that worked on the following elements: new structures for the restroom building, picnic pavilions, tennis pavilion, and playground; improvements to the soccer/multi-purpose field; expansion and renovation to the pathway along the intercoastal waterway; expansion and improvements to the parking lot that included landscaping and irrigation; and improvements to pedestrian lighting.
- **Phipps Park Rehabilitation:** The project included various improvements to the concession building, skate park, ball fields, new pavilions and playground, and improvements to the recreation building. Erdman Anthony served as the lead consultant and civil engineer for the project. Mr. Parker assisted in the preliminary plans, and design plans for this project.

General Consulting and Engineering Services, City of Riviera Beach, FL. Designer. The City of Riviera Beach has contracted with Erdman Anthony to provide civil engineering services. Singer Island Neighborhood Improvements - Erdman Anthony will design neighborhood improvements for about 3.5 miles of residential streets on Singer Island including replacing water mains, lining or replacing sewer mains, installing exfiltration trenches, and roadway reconstruction.

G716 Spillway and Tortoise Relocation, West Palm Beach, FL. Designer. Erdman Anthony was the prime consultant and lead designer for the design and preparation of construction drawings and specifications for this $5MM spillway. The design was completed with a preliminary submittal and a final submittal to help the District meet a consent order deadline for producing final plans. Mr. Parker served as the lead designer responsible for layout of the proposed facilities in CADD, developing the 3D model, reviewing and resolving conflicts, take off of quantities, and preparation of the construction plan drawings.

B. Approach to Project Management

Overview of Project Management Strategy

Strong project management skills are a hallmark of Erdman Anthony's success. Our project managers are selected for their leadership abilities, and our approach to project management focuses on best practices. We work hard to balance the technical, administrative, and financial aspects of every project we undertake, including effective budgeting and scheduling, accurate project accounting, development of comprehensive work plans, effective resource allocation, periodic project reviews, and invoice verification. This strategy gives our team the ability to effectively oversee multiple projects and tasks simultaneously.

Distribution of task assignments will be based upon the schedule of the project and the expertise necessary for the project. Prior to beginning the project, we will develop a complete understanding of the scope, schedule, and budget parameters. We will evaluate our staff resources and mobilize staff as necessary to insure we complete the project on schedule. Tasks will be assigned to staff members with expertise that best matches the nature of the work, with responsible oversight provided by our management team.

Erdman Anthony's first task will be to clearly understand the issues and develop a scope for the project that meets the City's needs. We will then prepare a project management plan that addresses the both project scope and the City's specific needs.

Project Management Approach

At Erdman Anthony, every project task begins with the end in mind, and every project begins with a work plan. The work plan is a combination of procedures developed by Erdman Anthony in response to client needs, together with a communication plan and schedule.

The project management steps we will employ on any given project are:

- **Scope Review Meeting** – A scope review meeting will be conducted with all team members and the City's project manager to finalize any details or clarify any scope related items.
- **Kick Off Meeting** – The purpose of this meeting is to ensure that all project team members are aware of the City's expectations and the project's technical, financial, and schedule performance requirements and to inform all team members of goals and timelines.
- **Work Plan Development** – A documented work plan will be developed and maintained for access by all team members as a point of reference for key tasks and delivery dates.
- **Task Completion** – Our project manager will assign responsibilities to team members and periodically follow up to ensure progress toward task completion.
- **Status Reports** – We will e-mail weekly status reports to the City's project manager, providing a level of detail that meets its needs.

Project Management Structure

Project performance is all about people. We recognize that consistently delivering projects and services requires a special kind of management staff: one that is highly focused, capable of simultaneously managing multiple tasks, highly responsive, and able to perform well under stress while maintaining a positive, customer service orientation. We hire people to fit this profile and provide them with the tools and training to effectively execute their responsibilities so that you can depend on us as an extension of your staff.

B. Approach to Project Management

Our approach to project management includes the following key components:

- **Single Point of Contact** – Erdman Anthony designates the work category project manager to serve as the single point of contact for all contractual, scope, budget, schedule, and performance issues to ensure clarity of direction.
- **Principal-in-Charge/Quality Assurance** – A seasoned Principal-in-Charge will be assigned to provide a high level oversight of project performance and advise the project manager on critical decisions.
- **Subconsultant Management** – Any consultants needed for this contract will be contractually bound to Erdman Anthony. The terms and conditions of the City contract with Erdman Anthony will be passed down contractually to the participating firms on the team via our project manager.
- **Quality Control** – Quality control (QC) at Erdman Anthony involves review of interim and final work by third parties on the project team with the technical background needed to identify errors or omissions, communicate well with other team members, and a make recommendations for improvement. Our quality control process is described in more detail below.

Quality Plan

Quality begins and ends with a process approach. Our team project approach/methodology uses proven processes to follow the specific technical project requirements that validate our work. Our quality work plan combines quality control (Was it Right?) with quality assurance (Was it Done?). Erdman Anthony's ISO 9001 certification demonstrates the importance we place on quality. Our significant level of business from repeat clients is just one indication of our project success. As a firm with an ISO 9001 certified quality system, our quality procedures undergo internal and third-party audits on a regular basis, providing our customers with further assurance that Erdman Anthony's quality procedures do not just exist on paper, but are actively practiced throughout the company.

We conduct **quality control (QC)** reviews at interim milestones agreed upon in the work plan that typically coincide with phase completions and/or reviews by our client or regulating agencies. The reviews are conducted by technical personnel (project engineers or surveyors) who are independent and separate from the design team. Our typical QC review includes checking project deliverables for the following:

- Conformance with the project goals, design standards and requirements
- Errors or omissions (we maintain and regularly update a checklist of items to review)
- Compliance with the latest specifications or design updates
- Technical accuracy
- Compatibility with associated documents
- Economy

The process followed for quality control reviews involves affixing reviewed documents with a computer generated check stamp on which the **originator**, the **reviewer,** and the **back checker** have a place to sign and date to indicate that the intended function has been completed. The definition of each of these roles is as follows:

- **Originator** – the lead technical professional who signs and seals the contract documents.
- **Reviewer** – design professional who performs detailed checking and also checks for incorporation of review comments and responses.

- **Back Checker** – reviews the plans to assure the originator has agreed with all the changes or corrections and reviews any additional comments made by the originator.

The following process will be followed in executing the quality control review:

- Originator checks plans for completeness and submits to reviewer.
- Reviewer checks plans and makes comments.
- Originator reviews comments and notes corrections recommended or offers explanations to the reviewer.
- The reviewer back checks the corrections and explanations. The reviewer and the originator must agree upon all changes or corrections, and will consult the project work plan, applicable standards and references, or the project manager as needed for direction in resolving any differences.
- The support staff makes all changes or corrections.
- The reviewer or the originator reviews the changes or corrections made by the support staff to verify that all work is ready for delivery.

A **quality assurance (QA)** review will be conducted prior to all submittals and documented to verify compliance with the quality control program. The principal-in-charge will review all submittals for completeness and accuracy, including:

- Computations and report formats are correct.
- Drawings/plans contain all of the information required for the type and phase of submittal.
- All items have been checked, back-checked and reviewed with check prints filed.
- All computer programs have been verified.
- The plan and document submittal checklists and sufficiency checklists have been reviewed for completeness and checked off. These checklists will become a part of the quality control file.

Quality Control Tools

Erdman Anthony has been using a Project Information Management system known as Newforma for five years now with great success. In addition to a number of schedule control features, project management tools, and document management items, it allows us to improve our quality control process. Virtual, electronic reviews are completed as part with the aid of this electronic tool. The mark-up session in the NewForma Document Management software allows the reviewer to highlight, redline and comment on any component within the deliverable. This review is stored electronically within the project and can be compared to the revised document to assure that the revisions have been completed or retrieved for the client in the event a quality audit is undertaken. The benefits of the electronic QC reviews include:

- Multiple reviewers can review the plans at the same time and see other's comments in real time.
- Comments automatically include reviewer and date of comment.
- The previous comments can be overlaid to the current plan set to ensure that all comments are still addressed.
- When comments are incorporated into the design file, the comment status is updated in the project.pdf QC review file. The incorporator and date are automatically recorded in the file. This is a valuable feature and an improvement to the electronic review comment systems that our clients use.

B. Approach to Project Management

Accessibility

Erdman Anthony's West Palm Beach office is just a half-hour commute to the City of Delray Beach headquarters, and we are committed to being fully available for in-person meetings as needed, whether at the City's offices or a project site. Pro-active client communications is a hallmark of Erdman Anthony's project management culture, and our project manager will be highly responsive to phone inquiries, project directives, and other communications from the City. As your main point of contact, our contract manager will relay project communications to appropriate internal team members and clarify information with your staff as needed to keep our engineering services running smoothly. Erdman Anthony uses the latest computer technology, including cloud access for file sharing and web-based meetings, to ensure that communications are streamlined and productive.

Project Name: Singer Island Neighborhood Improvements
Organization: City of Riviera Beach
Address: Singer Island, FL
Project date: 2015/Ongoing
Status of project: Design

The Singer Island neighborhoods are older neighborhoods with aging infrastructure. The City desires to improve the basic services in these neighborhoods. They are near the intracoastal waterway with many of the homes being waterfront and all of the drainage discharging directly into those waters. The City plans to replace the drainage within the road rights of way with new drainage pipes that include exfiltration trenches so that some water quality can be provided. Also, the water mains and sewer force mains will be replaced. The gravity sewer lines and drainage outfall pipes will be lined.

This effort includes full reconstruction of the entire pavement within the right of way. Since much of the existing roadway network was constructed very flat, our design includes a full roadway Profile Grade Line design. This effort was completed with cross sections at each driveway to confirm that the project will not result in drainage that flows from the right of way towards a home. Additionally, a valley gutter will be installed; therefore, our design will improve not only the water quality for these neighborhoods, but also the surface drainage. The drainage improvements will be permitted through the South Florida Water Management District. There is no new impervious area being constructed and since there is no water quality being provided now, the project will be a benefit to the ecology of the area.

The water and sewer improvements include a detailed look at the existing service lines and a Maintenance of Service plan to direct the contractor to maintain water and sewer service to the home throughout construction. The utility improvements will be permitted through the City Utility Department and the State of Florida Department of Environmental Protection.

Project Name: Island Drive Water Main
Organization: City of West Palm Beach
Address: West Palm Beach, FL
Project date: 2012/2016
Status of project: Complete

The City of West Palm Beach desired to replace the 8" watermain along Island Drive from the south end of the roadway (at the dead end) to Island Road a distance of approximately one half mile. The water main needed to be installed quickly so that it was in place prior to the Town of Palm Beach's scheduled resurfacing of the roadway and within the time frames established by the Town for months during which construction is allowed.

An immediate project was implemented to replace the existing valves in order to be able to control the flow of water and maintain adequate service to the Town of Palm Beach while various improvements and repairs were conducted throughout the Town. The valves were on one of the 20" mains under the intracoastal waterway that serve the Town of Palm Beach at the first major junction within the Town. They were installed in the 1920's and were not functioning. The work included replacing valves ranging in size from 8" to 16".

The work was within a tight 30' wide right of way at the T intersection that serves as the only access point to all of the residents on Everglades Island; therefore maintenance of traffic was important. Additionally, many conflicts within the

congested right of way, politically sensitive nature of work in this area, working within the Town's strict construction season, and fast schedule make this a unique and challenging project.

The services included the following:

Survey: Obtain topographic survey information needed for design and plans preparation and establish the right of way lines needed for construction using an assumed datum.
Design: Design the proposed improvements based on the direction from the City.
Permitting: Obtain a permit for construction from the Palm Beach County Health Department and coordinate with the Town of Palm Beach.
CEI: Perform periodic construction observation for compliance with the plans and specifications, contractor communications, and certification.

Project Name: Lift Station Upgrades
Organization: City of West Palm Beach
Address: West Palm Beach, FL
Project date: 2013/2014
Status of project: Complete

The City needed to upgrade eight existing ejector style lift stations with short term electrical improvements. Knowing that full replacements would be implemented in the coming years, they desired to implement electrical upgrades that would complement and fit with the future replacements. Therefore, Erdman Anthony analyzed each station to estimate the future conditions. This included an assessment of the existing conditions, existing flows, existing configurations, existing pumps as well as an estimate of the future conditions, future flows, and future pumps. As a result, the electrical upgrades were able to be sized to accommodate future pumps.

The electrical upgrades included plans and specifications to replace the electrical services, control panels, electrical racks, panel boards, and submersible transducers while working with the existing RTU's and addressing any items not up to current electrical codes. Work also included review of electrical shop drawings and coordination with FPL regarding the electrical services.

Project Name: Boynton Beach Raw Water Main
Organization: City of Boynton Beach
Address: Boynton Beach, FL
Project date: 2009/2015
Status of project: Complete

Erdman Anthony designed a two mile section of 36" raw water main for the City of Boynton Beach from Military Trail to Congress Avenue. The raw water main is a 36-inch-diameter ductile iron pipe. Erdman Anthony completed the horizontal and vertical geometry for the pipe, assisted with the acquisition of easements, addressed crossings with utilities and drainage culverts, and considered the maintenance-of-traffic impacts. Erdman Anthony obtained the permits and managed the construction effort including providing inspectors and construction administration.
The City of Boynton Beach has excess capacity to treat raw water at its East Water Treatment Plant, but it does not have the capacity to draw more water from the wells in that location. Conversely, it has the capacity to draw water

from the wells near the West Water Treatment Plant. The overall project allows the City to withdraw 20 MGD of raw water at their western well field where permitted capacity for withdrawals is available and transport that water to their water treatment plant east of I-95 where they have treatment capacity.

The project began with a route analysis to recommend the route for the overall six mile transmission main. Factors such as utility impacts, safety, maintenance of traffic, impacts to the community, permitting, construction costs, and operational costs were considered. Together with the City and the designers for the other two segments of the overall project, the Woolbright Road route was selected. The Woolbright Road route includes a section with a bridge over Quail Covey Road. This route reduced the maintenance of traffic, pavement restoration. Erdman Anthony designed and permitted a solution to place the water main in the LWDD right of way, thus eliminating the need for a utility bridge. Conflicts with existing utilities and drainage pipes were located with soft digs, and coordinated with the various utility owners. Combination air release/air vacuum valves with anti-slam devices and flood safe back flow preventers will be constructed. Horizontal gate valves were used to allow for future swabbing. A super chlorinated slug was designed for the flushing process to clean all three segments.

The City and design engineers have published a paper regarding the project design in ASCE's technical proceedings for their nationwide Pipelines conference.

Project Name: Lift Station 51 Rehabilitation
Organization: City of West Palm Beach
Address: West Palm Beach, FL
Project date: 2011/2014
Status of project: Complete

The City needed to rehabilitate the existing can-style sanitary sewer lift station 51 that is located in the median of the roadway. Servicing can style stations involves entering a confined space which is a risk management concern for the City and requires three trained and qualified staff members. The City also desires to relocate the station to the west to a park so that it is easier and safer to access and maintain. Therefore, this project included a full reconstruction of the station while minimizing the gravity and force main construction efforts.

This project includes an assessment phase including geotechnical exploration, land survey, and utility coordination. This was followed by a Design and Permitting including obtaining permits from the County for the construction in the road right of way, the State for the sewer lift station, and the South Florida Water Management District for construction dewatering in a location close to the City's reservoir for public water supply.

Project Name: RV Storage Lot
Organization: Village of Royal Palm Beach
Address: Royal Palm Beach, FL
Project date: 2015-2016
Status of project: Complete

The Village of Royal Palm Beach had a need to provide space for their residents to store recreational vehicles such as mobile homes and boats. The Village does not allow these sort of large vehicles to be stored in the driveways, so residents need a safe, convenient and affordable solution. The Village owns land under FPL easements and wanted to

make good use of that vacant property and underutilized asset. Erdman Anthony, as part of our continuing contract to provide engineering services to the Village, assisted by designing the project.

Our services included site planning, traffic engineering, civil engineering, permitting, preparation of plans and specifications, and land surveying. We included sub-consultants for landscape architecture and electrical engineering. The project will include two concrete parking lots with spaces that are either large (40' long) or short (25' long) and the Village will charge rates appropriately. The project will have landscape screening around the parking lots. Erdman Anthony added to the project a water service line for residents to use to wash down their vehicles together with a wash down area. This area also includes a sewerage dump station for residents to empty storage tanks. Security measures include fencing, card controlled access gates, lighting, and cameras. Erdman Anthony designed the drainage system to discharge to a dry detention pond that will also be built on Village owned land under the FPL transmission lines. We also provided limited construction phase services to assist the Village's engineering staff in responding to RFI's and to review shop drawings.

D. Organizational Structure

Erdman Anthony has assembled a team for this general services contract that has proven expertise in all anticipated disciplines. As prime consultant, Erdman Anthony will manage our team's services, serve as the City's primary point of contact for project-related correspondence, and provide general civil, transportation, survey and mapping, and water resources services with in-house staff. In general, our capabilities include civil/site permitting and design; drainage facility design; roadway, bridge, and culvert design; traffic engineering and signalization; exterior lighting system design; sidewalk and ADA improvements; boundary and topographic surveys; GIS system support; utility coordination; and related services such as feasibility studies, cost estimating, life cycle cost analyses, and construction management. Work will be performed from our West Palm Beach office at **5405 Okeechobee Blvd., Suite 200, West Palm Beach, FL 33417.**

Erdman Anthony has selected a highly experienced staff able to meet or exceed the City of Delray Beach's expectations for quality deliverables and service. **Dana Gillette, PE, PSM, LEED**, our proposed Contract Manager, will serve as the main point of contact for the City and as our team's communication leader. She will lead our team's administrative functions, including schedule and budget management and task assignments. Dana will serve as Project Manager for Civil and Water Resources / Wastewater Management projects. She brings over 32 years of diversified professional experience including the management of several continuing services contracts for municipalities and agencies in South Florida. Under these contracts she has led the design and construction of storm water drainage improvements, water mains, lift stations, parks, roads, outdoor lighting, buildings, parking lots, and sidewalks. She has managed teams of professionals and sub-consultants and understands the importance of communication, adherence to schedule, and cost control.

As members of our Civil team, **Michael Corrigan, PE, Omar Morgan, EIT, Dane-Andrew Dussie, and Ronald Parker** each have specialized expertise, as shown on the organizational chart and their individual resumes. Furthermore, we can call upon the resources of the entire 250+ person firm for assistance, advice, and staff support should they be necessary to meet your needs. All offices in our firm are technologically connected to one another via a computer network, video conferencing equipment, and email system. As a result of this technology, we can easily tap additional resources to provide technical design, internal reviews or consultation as needed to meet tight project schedules.

The organization chart on the following page provides an overview of our team's key personnel in anticipated disciplines and their relationship. Communications and directives for the entire team will be led by our contract manager, who will work closely with the City throughout project development.

Current Workload: We are very excited about the opportunity to work with the City of Delray Beach and would not pursue this contract if we did not have adequate availability and resources to perform the work to our own high expectations. We can confirm that our in-state staff of 12 professionals, plus additional administrative staff, can complete these projects and have excess capacity available for new assignments. Additionally, we have the resources of our entire firm to assist us should that be necessary. Our ISO 9001 approved business management policies help us to ensure that we are staffed appropriately for our workload, and our customer satisfaction surveys prove that we meet our client expectations, including providing a quality product on schedule.

ERDMAN ANTHONY

Civil Organizational Chart

City of Delray Beach

Project Manager / Civil Engineer
Dana Gillette, PE, PSM, LEED AP *

ERDMAN ANTHONY

* Resume Included

CIVIL

Michael Corrigan, PE *
Water Resources Engineer

Omar Morgan, EIT *
Civil Engineer

Dane-Andrew Dussie *
Civil Engineering Technician / Construction Inspector

Ronald Parker *
Civil Designer/CADD Manager

Marc Kenward, PE
Civil Engineer

Robert Weisenreder, PE
Civil Engineer

Michael Galley
Senior Civil Designer

Company wide support staff of 252 employees.

A. Experience, Background, Reference Feedback

TRANSPORTATION

Engineering Expertise

Erdman Anthony is a firm specializing in infrastructure engineering with an emphasis on transportation projects. We offer design and support services from initial project development through post design including survey, mapping, drainage, permitting, transportation and traffic engineering and utility coordination. We have experience in the design of new and rehabilitation of existing transportation facilities, design concept reports, safety studies, corridor planning, FDOT PD&E studies, traffic calming, signalization, signing and pavement marking and lighting. Our roadway design projects encompass all design aspects including drainage, signing and pavement markings, lighting and traffic signals. The traffic engineering services provided on public and private projects include traffic impact studies, shared parking studies, future traffic projections to determine lane requirements, and traffic signal capacity analysis.

An excellent example of our work is located in your city. Erdman Anthony designed the improvements for Atlantic Avenue from I-95 to Swinton Avenue and from US 1 to SR A1A for the Florida Department of Transportation. We worked closely with city staff to coordinate landscaping and utility adjustments in addition to the roadway, lighting and signalization construction.

Consulting Services

Our engineering staff has a wealth of experience and local knowledge. We have designed over 100 miles of roadways in Palm Beach County for the Florida Department of Transportation, Palm Beach County Roadway Production Division, the Village of Royal Palm Beach, the Village of Wellington, the Loxahatchee Groves Water Control District and private development clients. We have witnessed tremendous growth in the western communities since the mid 1980's and have been an integral part of many of those projects. We bring this knowledge and expertise to the City of Delray Beach and hope to be an important member of your team.

Experience preparing project reports and studies, coordinating with community organizations and plans preparation is integral to the successful completion of transportation projects. As the economy continues to strengthen we are also finding that accurate cost estimating requires special diligence due to the rising prices of infrastructure work. This will be an important aspect of the District's long range planning of improvement budgets.

Professional Staff

Erdman Anthony's companywide staff includes 14 Florida registered Professional Engineers. We have the local expertise to handle most projects and enjoy having the added production support available from all of our other offices. Leading our Transportation Engineering services is **James Noth, PE, PSM, Vice President**. Mr. Noth has 39 years of civil engineering and land surveying experience, with most of that coming from projects in the South Florida area. The clients for which he has managed projects include the Florida DOT, Palm Beach County, the Seminole Tribe of Florida, Loxahatchee Groves Water Control District, and various other municipalities and private developers.

Traffic Engineering

With highly qualified and experienced traffic engineering professionals including two Professional Traffic Operations Engineers (PTOE), Erdman Anthony provides a full range of traffic engineering services to numerous private and public sector clients. For our FDOT projects our scope of work routinely includes reviewing traffic studies and improvement plans prepared for the developers with projects along the roadway corridor. Such projects include those adding additional trips to the roadway network, parking needs and/or impacts that alter the access along the adjacent road to the development. Erdman Anthony's traffic engineers are thoroughly familiar with the client standards and other state

and national professional standards including MUTCD, ITE Trip Generation Reports, and the Highway Capacity Manual (HCM). We use their knowledge to successfully review and identify issues with submitted traffic studies and suggest remedial measures. We also have experience preparing traffic studies for private sector clients for review and approval by the permitting agencies, so we bring experience from "both sides of the table."

Traffic Studies

Erdman Anthony has performed, supervised, and utilized results of traffic engineering studies to develop construction plans. We have performed Traffic Impact Studies for our private sector clients that routinely include traffic data collection. **Nisar Khan, PhD, PE, PTOE** has extensive background in speed limit related studies in fact, his doctoral thesis was titled "An Analysis of Speed Limit Policies for Indiana." Our Heatherwood Drive/Royal Palm Beach Boulevard Signalization Plan project that introduced a new signal at a previously unsignalized intersection was preceded by a signal warrant study. We recently completed a Left Turn Warrant Study for an intersection to introduce a protected left turn movement at the request of a developer. Erdman Anthony has provided traffic calming studies and design services to FDOT and Palm Beach County for projects such as SR 806 (Atlantic Avenue) from I-95 to SR A1A. We also designed Palm Beach County Roadway Production's first roundabout project. We have also conducted roadway alignment studies for Palm Beach County including 10th Avenue North, from Congress Avenue to I-95, and more recently, for the Park Avenue and Congress Avenue intersection improvement project.

Roadway Design

Our roadway design projects encompass all aspects of design including planning, design, construction plans, technical specifications, and construction phase services. We have experience in the design of new alignments as well as the widening and rehabilitation of existing transportation facilities. Our design services have included the preparation of concept reports, safety studies, corridor planning, FDOT PD&E studies, traffic calming, signalization, signing and pavement marking, lighting, traffic studies, traffic data collection, analysis and future traffic projections, and the technical support required for these services.

Roadway projects often include resolving conflicts with existing utilities. We are well versed in coordinating efforts to obtain utility locations with soft digs and working the various utility owners to provide effective solutions which minimize time and cost impacts to the project.

Drainage and surface water management are an important aspect of our roadway projects. We consider this aspect of the project during the research and data collection phase to determine the basic drainage requirements for the project. Coupled with the permitting requirements that are needed for a construction project, this phase of the project represents one of the most important tasks in establishing design constraints that control the horizontal and vertical project elements.

Our surface water management design and tertiary design consider the following elements:

- Water quality provisions, including nutrient loading if necessary
- Flood attenuation for parking lots, roadways and buildings
- Legal positive outfall and allowable discharge rates
- Flood plain encroachment

Project Representation

Many of our projects include in-depth public information sessions and meetings. We often attend local agency meetings and municipal council meetings to explain the scope and impact of the proposed improvements and respond to questions from staff, elected officials, and the general public. We pride ourselves in being effective communicators

who can clearly explain the complexities of these projects in an understandable way to garner public support.

Project Deliverables

Our staff works in a variety of software platforms including AutoCAD and MicroStation coupled with Civil 3D, GEOPAK or INROADS depending upon the needs of the client and reviewing agencies. We are fully conversant in these software packages and stay up to date with subscriptions to the latest versions and training.

CLIENT REFERENCES

Organization Name: Florida Department of Transportation, District 4
Contact Name: Fausto Gomez, PE
Email address: fausto.gomez@dot.state.fl.us
Address: 3400 West Commercial Blvd., Fort Lauderdale, FL, 33309
Phone number: 954-777-4635
Fax number: 954-777-4634
Project Name: SR-5/US 1 from Broward Blvd to NE 17TH Way
Dates of Service: 2012/2015
Scope of Work: This project involved milling and resurfacing the existing 6-lane divided urban roadway, to extend its service life, along SR-5/US 1 from Broward Blvd (MP 0.000) to NE 17TH Way (MP 1.830) in Broward County. Some drainage structures were repaired, adjusted, and replaced. Pedestrian items include ADA improvements for the entire project length. Two new crosswalks were also added at NE 8TH ST and NE 17TH Way.

Organization Name: Florida Department of Transportation, District 4
Contact Name: Brent Lee Shue Ling
Email address: brent.lee-shue-ling@dot.state.fl.us
Address: 3400 West Commercial Blvd., Fort Lauderdale, FL, 33309
Phone number: 954-777-4635
Fax number: N/A
Project Name: Districtwide Minor Design Projects
Dates of Service: 2015/Ongoing
Scope of Work: Erdman Anthony has been providing miscellaneous design services for Florida's Department of Transportation, District 4, since 2015. We have completed 43 Task Work Orders (TWO's) under our two latest Districtwide Minor Project for Florida's Department of Transportation, District 4. Our teams designed traffic signals, sidewalks, lighting improvements including intersection lighting retrofits, intersection upgrades, ITS ATCS/ATM improvements and prepared ITS DB RFP packages, concept reports and safety studies for candidate 3R projects. We also provided landscape design services and extensive in-house project management services. The projects included the addition of turn lanes at intersections, upgrading span wire signals to mast arm installations, light pole relocations/additions, utility coordination, permitting and post design services during construction.

Organization Name: City of West Palm Beach
Contact Name: Khanh Uyen Dang
Email address: kudang@wpb.org
Address: 401 Clematis Street, 4th Floor, PO Box 3366, West Palm Beach, FL 33401
Phone number: 561-494-1040
Fax number: N/A
Project Name: Spruce Avenue
Dates of Service: 2016/Ongoing
Scope of Work: The City of West Palm Beach will improve Spruce Ave. from 25th Street to 40th Street (0.9 miles) to redesign the traffic circles along the corridor, mill and resurface the roadway and provide drainage and curb adjustments.

A. Experience, Background, Reference Feedback

Organization Name: Town of Southwest Ranches
Contact Name: Rod Ley, PE, LEED AP
Email address: rley@southwestranches.org
Address: 13400 Griffin Road, Southwest Ranches, FL, 33330
Phone number: 954-343-7444
Fax number: 954-434-1490
Project Name: SW 205th Avenue
Dates of Service: 2015/2016
Scope of Work: Erdman Anthony prepared roadway improvement plans for SW 205th Ave which is located in a fully developed residential subdivision within the Town of Southwest Ranches. Design Concept was created based on subsequent field review and consisted of:

- Clean, patch and resurface existing pavement
- Adjust existing storm drainage manholes to finished grade
- Re-stripe south leg of the Griffin Road/SW 205th Ave Intersection

Based on the design concept the improvements was limited to resurfacing the existing pavement. The plans package consisted of:

- Key sheet
- Summary of Pay Items
- General Notes
- Roadway Plans
- Signing & Pavement Marking Plans

Deliverables that were provided to the Town consisted of Roadway and Pavement marking Plans Package, Specification Sections for anticipated Pay Items, Bid tabulation form, Engineer's estimate of probable construction cost, and Broward County Plan Review Application.

Organization Name: Village of Royal Palm Beach
Contact Name: Christopher Marsh, PE
Email address: cmarsh@royalpalmbeach.com
Address: 1050 Royal Palm Beach Boulevard, Royal Palm Beach, FL, 33411
Phone number: 561-790-5161
Fax number: (561) 790-5174
Project Name: Crestwood Boulevard
Dates of Service: 2012/2013
Scope of Work: Erdman Anthony provided roadway and signing and pavement marking design services on a 2.2 mile portion of Crestwood Boulevard from Okeechobee Boulevard to Royal Palm Beach Boulevard in Royal Palm Beach, Florida. This was the first phase of a LAP project for the Village of Royal Palm Beach. Phase I consisted of restriping a portion of the roadway to provide on-street bike lanes and replace existing 4' wide sidewalks with 8'wide sidewalks for the northern 1/3 of the project. The sidewalk widening included development of a typical section that would allow widening of the roadway in Phase II to provide on-street bike lanes. Constraints in the LAP rules required all work to be conducted in existing right of way. The sidewalk widening required modification to drainage structures and several utility relocations. Estimates of probable construction cost and specifications in accordance with LAP guidelines were developed as part of the total project package.

James Noth, PE, PSM

Transportation Project Manager

ERDMAN ANTHONY

Mr. James Noth, PE, PSM has 39 years of civil engineering and land surveying experience including projects for the Florida DOT, Palm Beach County, the Seminole Tribe of Florida, Loxahatchee Groves Water Control District, and various other municipalities and private developers.

Education
BS/ Civil Engineering

BS/ Land Surveying

Professional Registrations
FL/Professional Engineer

FL/Professional Surveyor & Mapper

Work History
No. of years with Erdman Anthony: 13

No. of years with other firms: 26

Professional Affiliations
FICE Member

Member of the American Society of Civil Engineers

FL Engineering Society

Institute of Transportation Engineers

Florida Surveying and Mapping Society

KEY PROJECTS

SR 806/Atlantic Avenue Resurfacing, FDOT District 4, Delray Beach, FL. Project Manager. Resurfacing project for 1.2 mile section of SR 806/Atlantic Avenue through an urban and commercial downtown area of Delray Beach. Project included curb bulbouts, brick pavers, and extensive landscaping in addition to resurfacing of the existing roadway. Coordinated pedestrian upgrades with Mobility Projects Coordinator. Pedestrian upgrades included construction of new curb ramps and installation of truncated domes at all existing ramps, landing areas at bus stops, and relocation of existing signal push buttons. Added decorative lighting and custom trombone mast arm signals in portions of project to create cohesive design throughout the corridor. Coordination with City and community civic and property owners associations was a key element of the project. Coordinated with Palm Tran to relocate bus stops in accordance with FDOT District 4 Transit Manual. Created separate estimates for RRR project and 3 JPA's acquired by the City of Delray Beach. Separate JPA estimates based on type of work and location within project corridor. Prepared drawings on aerial background for display at public meetings. Coordinated with office of Planning and Environmental management for removal of existing light poles and installation of new light poles, signal poles, and drainage structures in area of contaminated soils.

Caroline Avenue and Belvedere Road Intersection Improvements, Palm Beach County Roadway Production, West Palm Beach, FL. Project Manager. Prepare construction documents for the proposed roadway widening and intersection improvements at Belvedere Rd and the existing Caroline Ave. bridge crossing the Lake Worth Drainage District (LWDD) L-3 Canal. The project design includes geometric layout, calculation of quantities/computation book preparation, roadway, signing and pavement marking and utility plan preparation. Permitting and coordination for canal improvements, RCP culvert installation and waterline relocation with LWDD and Palm Beach County Water Utilities Department.

SR A1A Resurfacing, FDOT District 4, Martin County, FL. Project Manager. Highway design and engineering surveying services for Ocean Avenue (from Monterey Road to St. Lucie Boulevard), a 0.9 mile 3R project. The project was expanded to include the reconstruction of a major intersection, requiring significant coordination with the City of Stuart, Martin County Engineering Department/Traffic Division and adjacent property owners. A five-lane section of the project corridor was re-striped to provide undesignated bicycle lanes in addition to the three travel lanes throughout the project corridor in each direction.

Districtwide Paving Analysis, Loxahatchee Groves Water Control District, Loxahatchee Groves, FL. Project Manager. This project involved developing a report which provided criteria, concepts, and cost estimates for the paving of the primary roadways within the Loxahatchee Groves Water Control District. Alternative pavement materials were presented and compared with retaining the existing unpaved roadways to assess the feasibility and benefits of paving the roadways. Intersection configurations, drainage, and permitting requirements were also presented in the report. The report was presented to the LGWCD Board of Directors and the public at an open public involvement meeting. Additional funding concepts were developed as part of the project. Property owner assessments were determined for construction of the roadways.

Nisar Khan, PhD, PE, PTOE

Roadway Engineer

ERDMAN ANTHONY

Nisar Khan has an MS in Civil Engineering and a PhD in Transportation Engineering with a background in roadway design, traffic engineering, and highway lighting design. Dr. Khan has extensive experience working with the Florida Department of Transportation and various South Florida municipalities. His dual background in roadway engineering, including pavement design in various geographic conditions, and traffic engineering, which includes traffic control, pavement markings, and signing, is ideally suited for roadway improvements projects.

Education
PhD/Transportation Engineering

MS/Civil Engineering

BS/Civil Engineering

Professional Registrations
Professional Engineer/FL

Professional Traffic Operations Engineer

Work History
No. of years with Erdman Anthony: 13

No. of years with other firms: 23

Professional Affiliations
Institute of Transportation Engineers

KEY PROJECTS

SR 811 (Alt A1A) -SR850, FDOT District 4, Palm Beach Gardens, FL. Project Manager. Erdman Anthony provided design services for SR 811 (Alt A1A) -SR850 (Northlake Blvd.) - from US-1 to Alt A1A on Northlake Blvd. and from Northlake Blvd. to RCA Blvd. on Alt A1A. Erdman Anthony lead roadway, signing and pavement marking, signalization, structure and landscaping design team for this 3.5 mile 3R project. Services included implementing access management revisions including closing an existing median opening, designing signalization improvements, providing design services for ADA improvement and pedestrian features including additional crosswalks. As Project Manager, Dr. Khan supervised all in-house design work and worked in close coordination with Village of N. Palm Beach for extensive landscape improvement along the corridor.

Caroline Avenue and LWDD L3 Canal, Palm Beach County. Project Engineer. Survey and engineering design (intersection analysis, roadway, drainage, signalization and signing & pavement marking) services for this intersection improvement project. Included widening the west approach of Park Avenue to add an additional left turn lane, bike lanes/paved shoulders were also added on both sides of the road, profile improvement at the west approach and the intersection required some pavement overbuild. Drainage improvements included relocating several existing drainage structures impacted by the widening and addition of an exfiltration trench to improve water quality.

Park Avenue and Congress Avenue intersection improvements, Palm Beach County Roadway Production, West Palm Beach, FL. Project Manager. Provided survey and engineering design (intersection analysis, roadway, drainage, signalization and signing & pavement marking) services for this intersection improvement project under an ongoing Palm Beach County Annual Intersection Improvement contract. The improvements included widening the west approach of Park Avenue at the intersection to add an additional left turn lane, provide room for a future through lane and a median separator. Bike lanes/paved shoulders were also added on both sides of the road. Profile improvement at the west approach and the intersection required some pavement overbuild. Drainage improvements included relocating several existing drainage structures impacted by the widening and addition of an exfiltration trench to improve water quality. Signalization improvements included relocation of one existing mast arm, adjustment/addition of signal heads and providing video detection for the revised intersection configuration.

SR AIA Ft. Lauderdale from NW of 18th Street to Oakland Park Boulevard, FDOT District 4, Broward County, FL. Project Manager. Provided roadway design services on this one-mile 3R project consisting of milling and resurfacing, sidewalk/ADA construction, signing and pavement marking, signalization, and landscaping. The project added 4' bike lanes by narrowing and re-striping the existing travel lanes without any pavement widening and widened the existing 5' sidewalks to 10' at the south end of the project. Prepared QA/QC plan, Typical Sections, Pavement Design, Exception & Variation Packages, 3R Report, Drainage Report, Community Awareness Plan (CAP) and Tree Removal Permit plans for the project. Prepared signalization plans to upgrade the existing span wire assembly at NE 30th Street intersections with mast arms. Updated all signing and pavement markings to comply with the current MUTCD requirements. As Project Manager Dr. Khan headed the project team including sub-consultants for SUE, Geotechnical, and Landscaping services and supervised all in house design work.

Chad Martin, PE

Transportation Engineer

ERDMAN ANTHONY

Since joining Erdman Anthony as an engineer-in-training in 2010, Mr. Martin has developed expertise in a wide range of transportation design tasks and, more recently, has assumed supervisory and managerial responsibilities. He has become highly proficient in traffic engineering modeling and alternatives analysis using a variety of software. He has also provided a wide range of highway design services, including utility coordination, drainage design, traffic control, the development of horizontal & vertical geometry, and the generation of final plans, specifications, and estimates.

Education
BS/Civil Engineering

Professional Registrations
Professional Engineer/FL

Professional Engineer/PA

Work History
No. of years with Erdman Anthony: 6

KEY PROJECTS

Spruce Avenue, City of West Palm Beach, FL. Traffic Engineer. The City of West Palm Beach will improve Spruce Ave. from 25th Street to 40th Street (0.9 miles) to redesign the traffic circles along the corridor, mill and resurface the roadway and provide drainage and curb adjustments. Mr. Martin evaluated the typical section for bike lanes or sharrows and the changing of the type "D" curb to type "F" curb & gutter, redesigned the roundabouts/traffic circles at 26th, 28th, 30th, 32nd, 34th, and 38th Streets to improve the operability of these intersections for trucks, emergency and service vehicles using FHWA mini-roundabout design criteria, determined the location of ped ramps to provide ADA compliant ramps at each intersection, evaluated the roadway drainage along the corridor to identify ponding areas requiring correction, and developed the profile grade line for the new curb & gutter.

Interstate 83, Exit 18 Reconstruction, York County, PA, PennDOT District 8-0. Highway Designer. This project involves preliminary engineering, final design, and construction consultation for the reconstruction of Exit 18 serving the City of York (SR 0083/040), a heavily-traveled diamond interchange that is being replaced with a modified jughandle/trumpet interchange providing improved safety and traffic flow. During preliminary engineering, Mr. Martin calculated guide rail length of need, computed quantities and cost estimates for design field view, edited project drawings, prepared Work Zone Mobility Report, redesigned horizontal alignments for access road and ramp, and computed graphic grades. During final design, he computed superelevation transitions, design horizontal and vertical geometry, designed preliminary roundabout options, and addressed value engineering comments. He also conducted traffic modeling and analyses for the various traffic control stages using Synchro and Simtraffic, assisted in the preparation of traffic control plans, and developed the preliminary traffic signal plan for the Market Street/North Hills Road intersection.

SR 0019/SR 0228 Intersection Safety Improvements, Butler County, PA, PennDOT District 10-0. Traffic Designer. Erdman Anthony is providing design for safety and capacity improvements at this heavily traveled intersection just off of I-79 in Butler County, including widening and turn lane additions to both SR 0228 and SR 3020 (Freedom Road). Mr. Martin designed the proposed roadway improvements using Microstation Inroads software, produced final design cross-sections and plans, designed the drainage system, produced final design quantities and cost estimates, and designed traffic signal plans for two intersections (SR 0019 & SR 0228/SR3020 and SR 3020 and T-948).

SR 0228/29B, Three Degree Road Intersection Improvements, Butler County, PA, PennDOT District 10-0. Highway/Traffic Designer. Design services for safety improvements at the SR 0228/SR 3007 (Three Degree Road) intersection, including more than 8,000 feet of approach roadway on SR 0228 and 2,000 feet on SR 3007. The existing intersection is being slightly realigned and widened to improve safety and capacity, including new sidewalks and traffic signalization. Tasks include CEE preparation, field survey, stormwater management design, maintenance and protection of traffic, traffic signal design, and utility coordination. During preliminary design, Mr. Martin modeled the existing traffic conditions and proposed capacity improvements to the intersection including turn lanes and an auxiliary through lane using Synchro and Simtraffic. He prepared a report summarizing recommendations from the analysis. Mr. Martin also computed guiderail length of need calculations and designed the preliminary traffic signal plan.

Paul Presutti, PE, PTOE

Transportation Engineer

ERDMAN ANTHONY

Paul Presutti has 24 years of experience in transportation engineering, all acquired while at Erdman Anthony. He has diverse project experience ranging from urban roadways to multi-use pedestrian trails. His design capabilities include geometric layout, drainage analysis and design, pavement design, hydrologic and hydraulic analysis, traffic analysis, signal design, and computer modeling.

Education
BS/ Civil Engineering

Masters in Business Administration

Professional Registrations
Professional Engineer/FL

Professional Traffic Operations Engineer

Work History
No. of years with Erdman Anthony: 24

KEY PROJECTS

Center at Horseheads Connector Road (LAFA Project), Chemung County Department of Public Works, Chemung County, NY. Project Manager. The $20M construction project will provide a new roadway segment between NYS Route 13 and Old Ithaca Road in the Town of Horseheads. Intersection improvements to be studied during the preliminary stages of the project include evaluating the use of modern roundabouts at the new at-grade intersections. Responsible for all aspects of the project, including the design approval document, public participation, highway design and the traffic analysis associated with the project.

ABC Design West Route 77, NYS Thruway to Route 20, NY. Project Manager. Preliminary and final design for rehab. & reconstruction of 7.5 miles of Rt. 77, a rural principle arterial in Genesee County. Responsibilities included preparation of a Design Report documenting the needs and objectives for the project. Supervised alignment creation, traffic mgt. plan creation, accident analysis, traffic studies, ITS improvements, pavement evaluation and creation of alternatives to improve safety at intersections and the corridor, including study and layout of a roundabout at the Route 77/Sumner Road intersection. Also included drainage improvements, stormwater management, traffic signals and concrete pavement reconstruction.

Elmwood Avenue Intersection at Lac de Ville, Monroe County, Brighton, NY. Project Manager for improvements designed to enhance mobility and safety at the intersection of Elmwood Avenue and Lac de Ville Boulevard. The project was recently awarded HSIP funding. Responsible for design studies including traffic analysis, safety / crash analysis, and traffic signal warrant analysis – all of which were documented in the project's design report. Supervised final design activities including left turn lane design, sidewalk / ADA improvements, traffic signal plans, signage and WZTC.

Floral Avenue Multi-Use Facility, Ithaca, NY. Project Manager for this 2,100 foot long asphalt trail in the City of Ithaca. Responsibilities include creation of a design report, generation of trail alignment alternatives, coordination with the community groups, contract plans, estimates, specifications and construction support.

West Green & W. Seneca St. Bulb-outs (LAFA Project), Ithaca, NY. Project Manager for this project that included 4 intersection bulb-outs or chokers. Mr. Presutti was responsible for the creation of a design report, generation of the curb geometry, public participation, coordination with community groups, contract plans, estimates, specifications and construction support.

Village of Perry Main Street Improvements, Perry, NY. Project Manager for pedestrian improvements along Main Street (NY Route 39). The design included replacement of sidewalks and curbs, curb bump-outs, new pedestrian-scale lighting, median islands, bicycle lanes, gateway features, landscaping, and new furnishings. Responsible for the creation of design report, generation of the curb geometry, public participation, contract plans, estimates, specifications and construction support.

Claude Auguste

Transportation Engineer

ERDMAN ANTHONY

Claude Auguste has 2 years of engineering experience which includes designing and inspecting roadway improvements. Claude is fully trained in FDOT requirements and is certified for CTQP Asphalt Paving Level 1, Earthwork Level 1, Concrete Field Technician Level 1, Concrete Field Testing Technician, DEP NPDES Inspector and Radiation Operator.

Education
BS/Civil Engineering

Work History
No. of years with Erdman Anthony: 1.5

No. of years with other firms: 1

KEY PROJECTS

SW 205th Avenue, Town of Southwest Ranches, FL. Project Engineer. Erdman Anthony prepared roadway improvement plans for SW 205th Ave which is located in a fully developed residential subdivision within the Town of Southwest Ranches. Deliverables that were provided to the Town consisted of Roadway and Pavement marking Plans Package, Specification Sections for anticipated Pay Items, Bid tabulation form, Engineer's estimate of probable construction cost, and Broward County Plan Review Application.

SW 209th Avenue, Town of Southwest Ranches, FL. Project Engineer. Erdman Anthony provided construction plans and specifications for the cleaning, patching, and resurfacing of a section of SW 209th Avenue, SW 50th Street, SW 210th Terrace, and SW 208th Lane in the Town of Southwest Ranches, as well as full depth reconstruction of a section of SW 54th Place east of SW 208th Lane. Construction observation services were also included. Claude provided Post Design services including periodic inspection, coordination with Town, contractor and permit agencies to monitor project from start of construction through final completion.

US-1 M&R from SR 816 to SR 870, Florida Department of Transportation, District 4, Ft. Lauderdale FL. Project Engineer. Erdman Anthony is providing roadway design services for the resurfacing, restoration and rehabilitation of SR 5/US-1 from SR 816 (Oakland Park Boulevard) to SR 870 (Commercial Boulevard). In addition to pavement resurfacing, the scope improvements include ADA upgrades, pedestrian accommodations, bike lanes, and signalization improvements. Claude participated on roadway design team providing design for RRR improvements including ADA analysis and design, LRE development and updates, quantity calculations, and roadway plan preparation.

SR 786/PGA Boulevard ITS, Florida Department of Transportation, District 4, Ft. Lauderdale FL. Project Engineer. Participated on ITS project to upgrade signals, add CCTV cameras and MVDS signs. Developed base mapping and utilities.

SR 820/Pines Boulevard ITS, Florida Department of Transportation, District 4, Ft. Lauderdale FL. Project Engineer. Claude participating on ITS project to upgrade signals, add CCTV cameras and MVDS signs. Developed base mapping and utilities for Concept Plans in Design Build RFP package.

Dixie Highway ADA Improvements, West Palm Beach, FL. Project Engineer. Claude analyzed ADA deficiencies and prepared plans for upgrading two commercial shopping centers to ADA compliance.

B. Approach to Project Management

Overview of Project Management Strategy

Strong project management skills are a hallmark of Erdman Anthony's success. Our project managers are selected for their leadership abilities, and our approach to project management focuses on best practices. We work hard to balance the technical, administrative, and financial aspects of every project we undertake, including effective budgeting and scheduling, accurate project accounting, development of comprehensive work plans, effective resource allocation, periodic project reviews, and invoice verification. This strategy gives our team the ability to effectively oversee multiple projects and tasks simultaneously.

Distribution of task assignments will be based upon the schedule of the project and the expertise necessary for the project. Prior to beginning the project, we will develop a complete understanding of the scope, schedule, and budget parameters. We will evaluate our staff resources and mobilize staff as necessary to insure we complete the project on schedule. Tasks will be assigned to staff members with expertise that best matches the nature of the work, with responsible oversight provided by our management team.

Erdman Anthony's first task will be to clearly understand the issues and develop a scope for the project that meets the City's needs. We will then prepare a project management plan that addresses the both project scope and the City's specific needs.

Our project management approach is consistent across our disciplines. For transportation projects we find that in depth consideration of pedestrian and bicyclist needs are ever more important. Our South Florida climate is very conducive to high pedestrian and bicycle usage of the transportation corridors. However that high usage results in Florida leading the country in pedestrian and bicyclist deaths so it is imperative that we design for their safety and not just focus on vehicular traffic.

Project Management Approach

At Erdman Anthony, every project task begins with the end in mind, and every project begins with a work plan. The work plan is a combination of procedures developed by Erdman Anthony in response to client needs, together with a communication plan and schedule.

The project management steps we will employ on any given project are:

- **Scope Review Meeting** – A scope review meeting will be conducted with all team members and the City's project manager to finalize any details or clarify any scope related items.
- **Kick Off Meeting** – The purpose of this meeting is to ensure that all project team members are aware of the City's expectations and the project's technical, financial, and schedule performance requirements and to inform all team members of goals and timelines.
- **Work Plan Development** – A documented work plan will be developed and maintained for access by all team members as a point of reference for key tasks and delivery dates.
- **Task Completion** – Our project manager will assign responsibilities to team members and and periodically follow up to ensure progress toward task completion.
- **Status Reports** – We will e-mail weekly status reports to the City's project manager, providing a level of detail that meets its needs.

B. Approach to Project Management

Project Management Structure

Project performance is all about people. We recognize that consistently delivering projects and services requires a special kind of management staff: one that is highly focused, capable of simultaneously managing multiple tasks, highly responsive, and able to perform well under stress while maintaining a positive, customer service orientation. We hire people to fit this profile and provide them with the tools and training to effectively execute their responsibilities so that you can depend on us as an extension of your staff.

Our approach to project management includes the following key components:

- **Single Point of Contact** – Erdman Anthony designates the work category project manager to serve as the single point of contact for all contractual, scope, budget, schedule, and performance issues to ensure clarity of direction.
- **Principal-in-Charge/Quality Assurance** – A seasoned Principal-in-Charge will be assigned to provide a high level oversight of project performance and advise the project manager on critical decisions.
- **Subconsultant Management** – Any consultants needed for this contract will be contractually bound to Erdman Anthony. The terms and conditions of the City contract with Erdman Anthony will be passed down contractually to the participating firms on the team via our project manager.
- **Quality Control** – Quality control (QC) at Erdman Anthony involves review of interim and final work by third parties on the project team with the technical background needed to identify errors or omissions, communicate well with other team members, and a make recommendations for improvement. Our quality control process is described in more detail below.

Quality Plan

Quality begins and ends with a process approach. Our team project approach/methodology uses proven processes to follow the specific technical project requirements that validate our work. Our quality work plan combines quality control (Was it Right?) with quality assurance (Was it Done?). Erdman Anthony's ISO 9001 certification demonstrates the importance we place on quality. Our significant level of business from repeat clients is just one indication of our project success. As an ISO 9001 certified firm, our quality procedures undergo internal and third-party audits on a regular basis, providing our customers with further assurance that Erdman Anthony's quality procedures do not just exist on paper, but are actively practiced throughout the company.

We conduct **quality control (QC)** reviews at interim milestones agreed upon in the work plan that typically coincide with phase completions and/or reviews by our client or regulating agencies. The reviews are conducted by technical personnel (project engineers or surveyors) who are independent and separate from the design team. Our typical QC review includes checking project deliverables for the following:

- Conformance with the project goals, design standards and requirements
- Errors or omissions (we maintain and regularly update a checklist of items to review)
- Compliance with the latest specifications or design updates
- Technical accuracy
- Compatibility with associated documents
- Economy

The process followed for quality control reviews involves affixing reviewed documents with a computer generated check stamp on which the **originator**, the **reviewer,** and the **back checker** have a place to sign and date to indicate that the intended function has been completed. The definition of each of these roles is as follows:

- **Originator** – the lead technical professional who signs and seals the contract documents.
- **Reviewer** – design professional who performs detailed checking and also checks for incorporation of review comments and responses.
- **Back Checker** – reviews the plans to assure the originator has agreed with all the changes or corrections and reviews any additional comments made by the originator.

The following process will be followed in executing the quality control review:

- Originator checks plans for completeness and submits to reviewer.
- Reviewer checks plans and makes comments.
- Originator reviews comments and notes corrections recommended or offers explanations to the reviewer.
- The reviewer back checks the corrections and explanations. The reviewer and the originator must agree upon all changes or corrections, and will consult the project work plan, applicable standards and references, or the project manager as needed for direction in resolving any differences.
- The support staff makes all changes or corrections.
- The reviewer or the originator reviews the changes or corrections made by the support staff to verify that all work is ready for delivery.

A **quality assurance (QA)** review will be conducted prior to all submittals and documented to verify compliance with the quality control program. The principal-in-charge will review all submittals for completeness and accuracy, including:

- Computations and report formats are correct.
- Drawings/plans contain all of the information required for the type and phase of submittal.
- All items have been checked, back-checked and reviewed with check prints filed.
- All computer programs have been verified.
- The plan and document submittal checklists and sufficiency checklists have been reviewed for completeness and checked off. These checklists will become a part of the quality control file.

Quality Control Tools

Erdman Anthony has been using a Project Information Management system known as Newforma for five years now with great success. In addition to a number of schedule control features, project management tools, and document management items, it allows us to improve our quality control process. Virtual, electronic reviews are completed as part with the aid of this electronic tool. The mark-up session in the NewForma Document Management software allows the reviewer to highlight, redline and comment on any component within the deliverable. This review is stored electronically within the project and can be compared to the revised document to assure that the revisions have been completed or retrieved for the client in the event a quality audit is undertaken. The benefits of the electronic QC reviews include:

- Multiple reviewers can review the plans at the same time and see other's comments in real time.
- Comments automatically include reviewer and date of comment.
- The previous comments can be overlaid to the current plan set to ensure that all comments are still addressed.

- When comments are incorporated into the design file, the comment status is updated in the project.pdf QC review file. The incorporator and date are automatically recorded in the file. This is a valuable feature and an improvement to the electronic review comment systems that our clients use.

Accessibility

Erdman Anthony's West Palm Beach office is just a half-hour commute to the City of Delray Beach headquarters, and we are committed to being fully available for in-person meetings as needed, whether at the City's offices or a project site. Pro-active client communications is a hallmark of Erdman Anthony's project management culture, and our project manager will be highly responsive to phone inquiries, project directives, and other communications from the City. As your main point of contact, our contract manager will relay project communications to appropriate internal team members and clarify information with your staff as needed to keep our engineering services running smoothly. Erdman Anthony uses the latest computer technology, including cloud access for file sharing and web-based meetings, to ensure that communications are streamlined and productive.

C. Projects for Similar Services

Project Name: SR 5/US 1 Resurfacing
Organization: Florida Department of Transportation, District 4
Address: Boca Raton, FL
Project date: 2009/2013
Status of project: Complete

Resurfacing project for 1.2 mile section of SR 5/US 1 through an urban and commercial downtown area of Boca Raton. This project included median modifications and pedestrian upgrades in addition to the resurfacing of the existing roadway. The pedestrian upgrades included the construction of new brick paver curb ramps and the installation of truncated domes at all existing ramps. Traffic signals were analyzed for compliance with current state and federal design criteria. Signalization improvements included upgrading the existing pedestrian features at several intersections and retrofitting the Glades Road intersection for video detection. Coordination with the City, CRA and community civic and property owners associations was a key element of the project.

Project Name: SR 5/US 1 from Broward Boulevard to NE 17th Way
Organization: Florida Department of Transportation, District 4
Address: Ft. Lauderdale, FL
Project date: 2012/2015
Status of project: Complete

This project involved milling and resurfacing the existing 6-lane divided urban roadway, to extend its service life, along SR-5/US 1 from Broward Blvd (MP 0.000) to NE 17th Way (MP 1.830) in Broward County. Some drainage structures were repaired, adjusted, and replaced. Pedestrian items include ADA improvements for the entire project length. Two new crosswalks were also added at NE 8th ST and NE 17th Way. Access management was streamlined by closing driveways that were no longer required. Existing span wire assemblies at Sunrise Blvd, NE 15th St and NE 17th Way were replaced with mast arms and a new signalized pedestrian crossing was added at NE 16th Terrace. This area also involved some pavement widening for Sunrise Blvd and extended resurfacing of the south approach of NE 15th Ave intersection. Additional Signalization improvements include upgrading all existing pedestrian signals to countdown type signals and installing video detectors at Broward Blvd and US-1 intersection. The existing fiber optic signal interconnect cable was replaced for its entire length from Broward Blvd to NE 18th Ave. Signs and Pavement Marking for the project were upgraded per FDOT current standards including the installation of a shared ride (sharrow) lane on each side of the road for the entire project length and providing additional signage for the northbound traffic heading to 1-95 around NE 9th St area. The project has also added an Alternate Bike Route that runs along the parallel residential streets north and south of Sunrise Blvd.

Project Name: Harney Pond Road
Organization: Seminole Tribe of Florida
Address: Brighton Reservation, Glades County, FL
Project date: 2012/2014
Status of project: Complete

Professional engineering services were required in connection with the widening and reconstruction of Harney Pond Road from Flowing Well Road to CR 721, a distance of approximately 1.2 miles in Glades County, Florida. Key engineering aspects of this project included typical section alternatives, roadway drainage (including off-site inflows),

potable water main replacement, and sanitary force main adjustments. Erdman Anthony prepared a typical section alternatives report that looked extensively at the cost associated with alternate typical sections to provide vehicular and pedestrian access to this primary corridor. A high wet season water table coupled with limited outfalls required innovative drainage design. Offsite stormwater flows that historically flooded the roadway swales were isolated, bypassing the roadway drainage system to reduce localized flooding. Water quality was provided in roadside swales and the system was divided to more efficiently utilize the available outfall locations. Post design services were provided throughout the construction period including RFI and shop drawing reviews and attending bi-weekly construction progress meetings.

Project Name: SR 811 (Alt A1A) and SR 850 (Northlake Blvd.)
Organization: Florida Department of Transportation, District 4
Address: Palm Beach Gardens, FL
Project date: 2006/2013
Status of project: Complete

Roadway, safety, access management and traffic operation improvements, signing & pavement marking, signalization and landscaping design 3.5 mile portion of SR 811(Alternate A1A) and SR 850 (Northlake Blvd.) from US 1 to Alternate A1A on Northlake Blvd. and from Northlake Blvd. to RCA Blvd. on Alternate A1A - an urban and commercial downtown area of Village of North Palm Beach and Palm Beach Gardens. Prepared QA/QC plan, Exception & Variation packages, Typical Sections, Pavement Design, Signal Replacement Evaluation Matrix, 3R Report, Drainage Report and Community Awareness Plan (CAP) for the project. Recommended remedial measures to fix drainage problems. Safety improvements for the project included replacing existing guardrails with thrie beam type guardrails and vertical face retrofitting at the existing median barriers at bridges. Access management revisions included closing an existing median opening. Prepared plans to implement traffic operation improvements including eliminating some left turn movements and extending an existing left turn lane to increase storage length. Signalization improvements include upgrading the existing span wire assembly at the Northlake Blvd/Alt A1A intersection with mast arms. Updated all signing and pavement markings to comply with the current MUTCD requirements.

Project Name: Crestwood Blvd. Streetscape
Organization: Village of Royal Palm Beach
Address: Royal Palm Beach, FL
Project date: 2012/2013
Status of project: Complete

Erdman Anthony provided roadway and signing and pavement marking design services on a 2.2 mile portion of Crestwood Boulevard from Okeechobee Boulevard to Royal Palm Beach Boulevard in Royal Palm Beach, Florida. This was the first phase of a LAP project for the Village of Royal Palm Beach. Phase I consisted of restriping a portion of the roadway to provide on-street bike lanes and replace existing 4' wide sidewalks with 8'wide sidewalks for the northern 1/3 of the project. The sidewalk widening included development of a typical section that would allow widening of the roadway in Phase II to provide on-street bike lanes. Constraints in the LAP rules required all work to be conducted in existing right of way. The sidewalk widening required modification to drainage structures and several utility relocations. Estimates of probable construction cost and specifications in accordance with LAP guidelines were developed as part of the total project package.

D. Organizational Structure

Erdman Anthony has assembled a team for this general services contract that has proven expertise in all anticipated disciplines. As prime consultant, Erdman Anthony will manage our team's services, serve as the City's primary point of contact for project-related correspondence, and provide general civil, transportation, survey and mapping, and water resources services with in-house staff. In general, our capabilities include civil/site permitting and design; drainage facility design; roadway, bridge, and culvert design; traffic engineering and signalization; exterior lighting system design; sidewalk and ADA improvements; boundary and topographic surveys; GIS system support; utility coordination; and related services such as feasibility studies, cost estimating, life cycle cost analyses, and construction management. Work will be performed from our West Palm Beach office at **5405 Okeechobee Blvd., Suite 200, West Palm Beach, FL 33417.**

Erdman Anthony has selected a highly experienced staff able to meet or exceed the City of Delray Beach's expectations for quality deliverables and service. **Dana Gillette, PE, PSM, LEED**, our proposed Contract Manager, will serve as the main point of contact for the City and as our team's communication leader. She will lead our team's administrative functions, including schedule and budget management and task assignments.

James Noth, PE, PSM will be our Transportation Manager for the duration of this contract. Jim has over 35 years of experience, and has managed numerous projects, including SR 806/Atlantic Avenue in Delray Beach.

Nisar Khan, PhD, PE, PTOE will lead all roadway design and traffic engineering work for this contract. Nisar has extensive FDOT and municipal experience. Other key transportation staff include **Chad Martin, PE** (Transportation Engineer), **Paul Presutti, PE, PTOE** (Transportation Engineer), and **Claude Auguste** who will be fulfilling the role of Designer. We will also utilize **Patricia Gable** as a CADD Technician.

The organization chart on the following page provides an overview of our team's key personnel in anticipated disciplines and their relationship. Communications and directives for the entire team will be led by our contract manager, who will work closely with the City throughout project development.

Current Workload: We are very excited about the opportunity to work with the City of Delray Beach and would not pursue this contract if we did not have adequate availability and resources to perform the work to our own high expectations. We can confirm that our in-state staff of 12 professionals, plus additional administrative staff, can complete these projects and have excess capacity available for new assignments. Additionally, we have the resources of 28 additional transportation group staff members in other offices to assist us should that be necessary. Our ISO 9001 approved business management policies help us to ensure that we are staffed appropriately for our workload, and our customer satisfaction surveys prove that we meet our client expectations, including providing a quality product on schedule.

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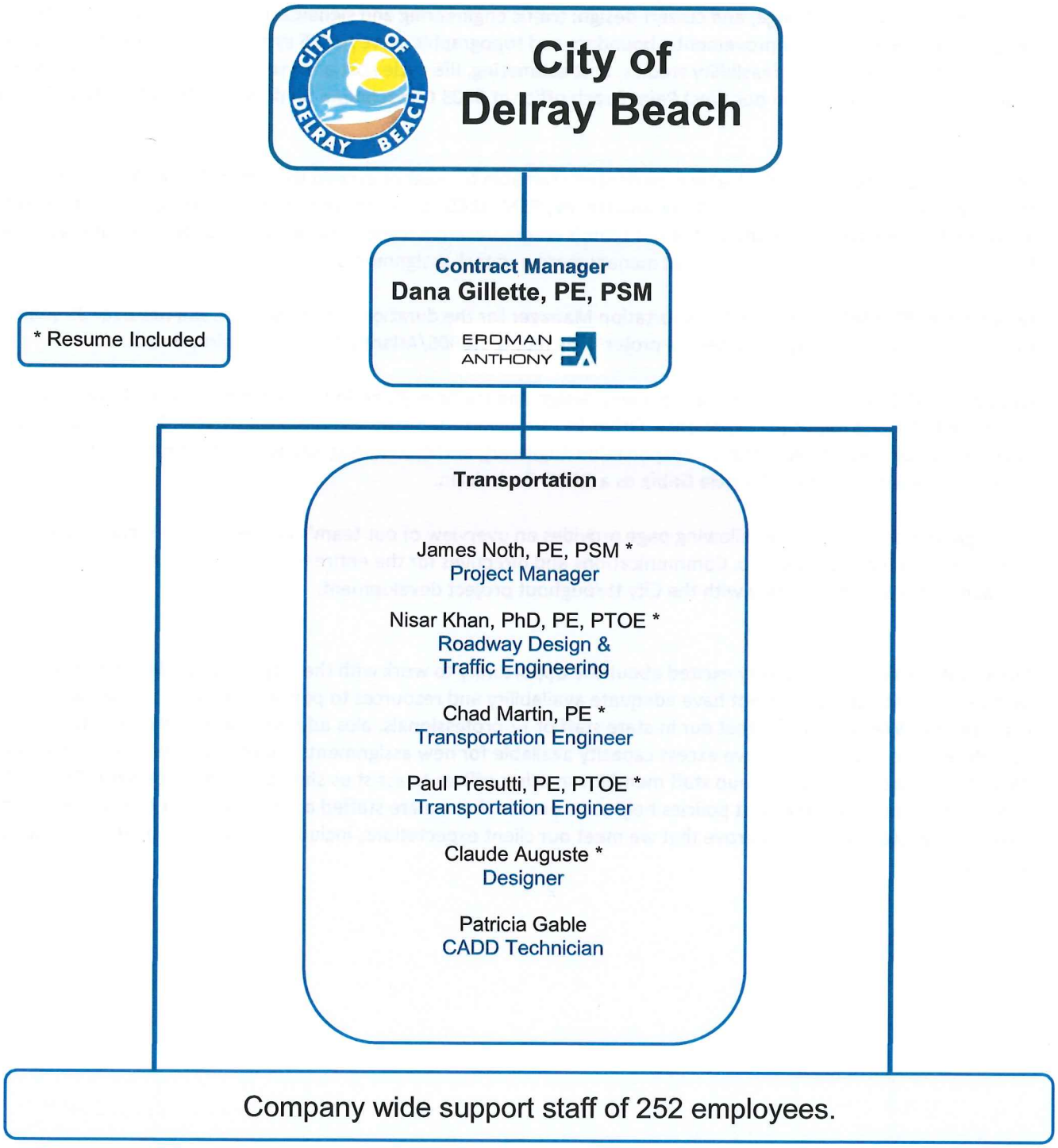
Transportation Organizational Chart



4-9 Water Resources/Stormwater Management

WATER RESOURCES/STORMWATER MANAGEMENT

Since its founding in 1954, Erdman Anthony has grown to become one of the leading infrastructure engineering firms in the eastern United States. We credit this growth to our belief that engineering excellence is more than knowledge or skill—it's a state of mind. This means approaching every single assignment with dedication and enthusiasm. It requires striving to make each project more successful than the last. And it demands that we consistently meet and exceed our customers' expectations.

Stormwater Management and Erosion Sediment Control

Erdman Anthony provides expertise in the design of Stormwater Systems, Stormwater Management and Erosion & Sediment Control Plans. Erdman Anthony endeavors to develop stormwater management designs that utilize existing landscape features and natural soils, without impact to adjacent Federal or State wetlands.

Our stormwater system designs cover a wide range of locations, designs, and system types. Our experience includes:

- Storm water piping
- Pumping stations
- Water control structures
- Spillways
- Canals
- Bridges
- Gated and non-gated culverts
- Hydraulic analyses
- Monitoring, communication, control systems
- Embankment levees
- Bank stabilization
- Maintenance buildings
- Emergency power and fuel
- Rainfall and runoff modeling
- Flood profile analysis
- Scour analysis
- Spillway capacity analysis
- Dam breach analysis and emergency action plans
- Stormwater management systems
- 2-D hydraulic modeling
- Permit development and coordination

Standard deliverables that Erdman Anthony provides to the client include drawings, reports, maintenance plans and permit applications that document storm water management and erosion and sediment control work as it pertains to a specific project site. Erdman Anthony is experienced with environmental permitting. During construction, our qualified staff can perform on-site inspection services. We will monitor your project, prepare weekly, monthly, quarterly and rainfall event reports for use by the applicant, develop the site field books, and complete an inspection log. The owner/applicant will be notified of deficiencies and instructed of potential remedies. At the project close we will assist you with the preparation of the Notice of Termination.

Erdman Anthony can also provide a suitable Erosion and Sediment Control Plan that corresponds with any Stormwater Management System. Erosion control measures are the key component to bringing any disturbance into compliance with the DEP and Environmental Protection Agency (EPA) regulations. Our plans will consider the construction phasing, and may include the use of silt fencing, inlet protection, contour tacking, brush matting and steep slope stabilization and/or the design of stormwater conveyance and detention/retention systems if required. Acceptable stormwater management practices that may be employed include ponds, wetlands, infiltration practices, filtering systems, and open channels.

A. Experience, Background, Reference Feedback

Erdman Anthony offers a combination of specialized water resources capabilities using the latest modeling software and the full support of a multidisciplinary staff. In addition to analyzing hydrologic and hydraulic data to help solve your water resource problems, we have full time field surveyors, environmental specialists, structural engineers, and construction inspectors available to see that your water management objectives are met with quality design and construction.

Hydrologic and Hydraulic Modeling - Surface water hydrologic and hydraulic data in useable formats is an important focus of our water resources unit. Using the latest software, our staff can create hydrologic rainfall/runoff watershed simulations, including the derivation of pre- and post- project flood hydrographs. We can also develop models of water supply systems to assess system yield for adequacy of existing or planned services. These comprehensive studies form the foundation for cost effective engineering solutions. In addition, Erdman Anthony routinely provides design and construction services for hydraulic structures. Our experienced hydraulic and structural engineers can provide all required design services including the sizing, location study, structural design, hydraulic analysis, and permitting which will provide seamless coordination and cost effective design.

Our work for any assignment would begin with an engineering site visit to understand the access limitations, ground conditions, and boundary conditions of the site. Our initial investigation will include desktop research such as LiDAR, hydrography, and GIS coverage data, as well as discussions until appropriate parties, allow us to be adequately knowledgeable about the project to develop a scope of services.

The design will begin with the determination of the site conditions property size, shape, topography, soils and bedrock, groundwater conditions, and prior land use. Our surveyors will gather the existing topography including existing elevation contours, location of ditches, berms, dikes, spoil areas, and non-permeable features. We will conduct hydraulic analyses to evaluate each component and the overall hydraulic operation of the system. The analyses will address the design flow condition as well as the average and low flow conditions to assess overall hydraulic functionality, flow depths, and flow conditions with the goal of optimizing the system and minimizing construction and operations costs.

There could be various structures involved in any project, including pump stations, spillways, box culverts, gate structures, monitoring platforms, and bridges. Our structural, geotechnical and civil design engineers will work together to determine the existing conditions and performance requirements to ensure that all project requirements are met.

Pump Stations – Optimizing pump stations for efficiency is important to keep long term operations and maintenance (O&M) costs down. We will develop maintenance plans for the pump stations to optimize the life of the pumps. All pump stations will be designed in accordance with PWSA Standard Guidelines and Details. Pump stations will typically operate over a wide range of flow and head conditions. Developing economical pump station designs that also meet the City's operational standards requires a rigorous evaluation, and our experienced staff has the background needed to balance costs with desired performance.

Cost Estimating / Cost Benefit Success: While the program components and the ideas put forth by the design team may be limitless, the project funding is not. It is critical that a comprehensive cost estimate be completed and carried through the project design life in order to make sure we do not outstretch the limits of the project funding. We have extensive experience in the calculation of construction cost estimates and are adept at following the latest in construction trends and utilizing state of the art computerized estimating software. We maintain a library of bid tabulations from recent projects to provide accurate and current cost estimates. This is combined with actual construction experience of our design staff to create very realistic estimates.

A. Experience, Background, Reference Feedback

Drainage Design Success Story: Erdman Anthony assisted a large Municipality with a neighborhood drainage improvement project. This was a primarily industrial area with some residential lots with no formal drainage system. Therefore, most lots within the area had no legal positive outfall. The goal of the project was to design a drainage system for the area that would provide legal positive outfall to the properties. An alternative system was designed that provided water quality and storm water attenuation for the lots as well as for the roads within the area. This alternative clearly required more detention area, but provided an efficiency of scale for the potential development in the area. The project was proposed to the land owners as an assessment project by the County for their consideration. Erdman Anthony participated in several meetings with the land owners and the County to present the issues, learn the land owners concerns and goals, and incorporate the comments into the project development. Erdman Anthony identified two potential parcels for the drainage project one parcel was for sale and ideally located along the discharge canal, the other was also well located along the discharge canal and was an existing lake that was originally designed and constructed by a platted industrial park.

Erdman Anthony's companywide staff includes 14 Florida registered Professional Engineers. **Dana I. Gillette, PE, PSM, LEED AP**, our proposed civil engineer, exemplifies our staff's local ties. She has been actively serving on the Florida Atlantic University civil engineering department advisory council for years and is a Principal Associate at Erdman Anthony. Dana is also a member of the board of trustees for the Florida Engineering Foundation and chairs the Florida Engineering Society's Palm Beach Chapter scholarship committee. The successful outcome of your civil engineering projects depends on our experience and expertise. We're ready to help because we're aware that your project's optimal results require support that goes beyond technical knowledge. Erdman Anthony's civil engineers work seamlessly with you, the public and governmental agencies to create designs that will benefit all. The key? **We know the people, and we know the processes.** Our experience allows us to accommodate your most demanding infrastructure needs.

We have contracted with many municipalities to provide professional engineering services similar to your needs, and as a result our proposed staff is experienced with projects similar to this contract. We understand from providing services to so many different public agencies, that as similar as government agencies can be, each agency is a unique entity and has their own specific requirements. It is our responsibility to adapt to each agency and their specific requests to ensure smooth project management and delivery. In short, we are very familiar with this type of work. Past clients include but are not limited to the following representative owners in Florida:

- Seminole Tribe of Florida
- Town of Palm Beach
- City of Boynton Beach
- City of West Palm Beach
- Florida Department of Transportation
- Loxahatchee Groves Water Control District
- Palm Beach County
- South Florida Water Management District
- Village of Royal Palm Beach

To complement our civil engineering expertise, Erdman Anthony offers a wide range of services to provide you a total engineering solution. As a multidisciplinary firm, we offer five core businesses:

A. Experience, Background, Reference Feedback

- In-depth experience with government agencies and private-sector clients allows our **Civil** engineering staff to solve your most demanding infrastructure needs.
- For state-of-the-art survey and mapping services, turn to Erdman Anthony's industry-leading **Geospatial** experts.
- Erdman Anthony's **Facilities** group provides building systems design, industrial systems process engineering, energy consulting, and commissioning services.
- Our **Transportation** engineers offer design excellence for bridges, highways, and high-speed rail systems.
- The firm's **Construction** Services Group has the expertise and the depth of resources to safeguard your infrastructure investment.

Erdman Anthony's quality management system is ISO 9001 certified by the globally recognized TÜV organization. Maintaining ISO 9001 certification requires periodic internal and third-party audits of our quality program, providing clients with assurance that our quality program does not just exist on paper, but is actively practiced throughout the company. Our company is also 100% employee-owned, providing each of our staff members with an extra incentive to excel. This is evidenced by the fact that approximately 90% of our workload comes from satisfied existing clients, and we have built strong working relationships in recent years with new Florida clients such as the South Florida Water Management District and the Seminole Tribe of Florida, who continue to rely on us for project assistance.

For more than 30 years, our firm has been consistently listed by the Engineering News Record as one of the Top 500 engineering firms in the country. Erdman Anthony has been honored with numerous industry awards for a wide variety of projects involving unique engineering challenges. A few examples are provided below, and a more comprehensive list can be found on our website at: http://www.erdmananthony.com/News-Events/Awards.

Representative Civil Erdman Anthony Awards
2017 ACEC NY Silver Award for Engineering Excellence Elmwood Avenue Transmission Main, Large Valves II, **Buffalo, NY**
2016 APWA-NY Project of the Year Award and **ACEC/NY Diamond Award for Engineering Excellence** Letchworth State Park-Gibsonville Culvert, **Castile, NY**
2015 APWA-Western NY Project of the Year Award and **ACEC/NY Gold Award for Engineering Excellence** Luna and Three Sisters Islands Restoration, **Niagara Falls, NY**
2013 Silver Award for Engineering Excellence ECWA - Buffalo Water Transmission Main Restoration, **Buffalo, NY**

"Solutions for today—
and a history of excellence."

CLIENT REFERENCES

Erdman Anthony encourages the City of Delray Beach to contact the following references regarding our performance on the following projects:

Client: South Florida Water Management District
Contact: Jerry Flynn
Email address: gflynn@sfwmd.gov
Address: 3301 Gun Club Road, West Palm Beach, FL 33406
Phone number: 561-681-2500
Fax number: 561-682-5880
Project Name: G716 Spillway
Dates of Service: 2014/2017
Scope of Work: Erdman Anthony was the prime consultant and lead designer for the design and preparation of construction drawings and specifications for this $5MM spillway. The design was completed with a preliminary submittal and a final submittal to help the District meet a consent order deadline for producing final plans. Work included a detailed design report to document the project decision making process, two presentations to the management team, and responding to peer comments from the District technical review team.

Client: Village of Royal Palm Beach
Contact: Ray Liggins, PE
Email address: rliggins@royalpalmbeach.com
Address: 1050 Royal Palm Beach Boulevard, Royal Palm Beach, FL 33411
Phone number: 561-790-5162
Fax number: 561-790-5174
Project Name: Royal Palm Beach Commons Park
Dates of Service: 2007/2012
Scope of Work: The project involved redevelopment of a defunct golf course into a 163-acre public park that includes a nine-hole golf course, kayak trails, biking/hiking trails, a sporting center building for concessions, a great lawn with picnic pavilions, playgrounds, volleyball, and an interactive fountain. In addition, land was set aside for a future horticulture center, arts center, and various civic buildings such as a senior center, teen center, day care center, and library. The design included permitting and preparation of construction documents. As lead consultant, Erdman Anthony directed the efforts of the golf course designer and landscape architect, and guided the internal civil engineering efforts. Erdman Anthony evaluated the storm water storage capacity of the drainage basin and demonstrated that the project would have no adverse impacts on- or off-site as a result. We also examined the surface water hydrology--for the site as well as adjacent neighborhoods--that flows toward the site and analyzed the hydraulics for the tertiary drainage system. Erdman Anthony prepared the site plan, based on a previously approved master plan, which includes a kayak launch, a 20-acre kayak trail, a bike trail along the lake, pedestrian bridges, and aquatic plantings. Our team also designed the grading for the site, including the water bodies, which were intended to support aquatic plants. The project includes irrigating the site with surface waters; therefore, we prepared the water-use permit for the South Florida Water Management District (SFWMD).

Dana I. Gillette, PE, PSM, LEED AP

Project Manager

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Ms. Gillette has 32 years of professional engineering and land surveying experience has served as a project engineer and project manager on various civil engineering for both the public and private sectors. She is experienced with the design, permitting, bidding, and construction of water, sewer, pump stations, surface water management, surface water treatment, and flood attenuation.

Education
BS/Civil Engineering

Professional Registrations
1989/FL/Professional Engineer No. 41913

1999/FL/Professional Surveyor & Mapper No. LS5907

Work History
No. of years with Erdman Anthony: 22

No. of years with other firms: 10

Professional Affiliations
National Society of Professional Engineers

American Society of Civil Engineers

Society of Women Engineers

Florida Engineering Society

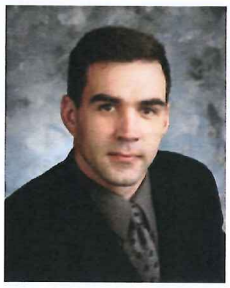
American Water Resources Association

KEY PROJECTS

C-43 Reservoir Preloading and Demo CMS, Hendry County, FL. Project Manager. The project is being constructed in four packages. The first package (demolition and preloading) is currently under construction. Erdman Anthony is providing Construction Management services. These services include full time inspection and construction management services to observe and document the construction efforts. Our duties include processing of submittals and RFI's, monitoring test results, conducting bi-weekly progress meetings, reviewing pay applications, monitoring the construction schedule and coordinating with the contractor and design team.

G716 Spillway, Loxahatchee, FL. Project Manager/Lead Civil Engineer. The District needs divide structure within the Stormwater Treatment Area 1 East (STA-1E) to increase the capacity of the flow. This will enable the District to transfer stormwater runoff from the Western C-51 Basin, through STA-1E for delivery to the STA-1W for treatment or to the L-8 Flow Equalization Basin (FEB) for storage and subsequent treatment. The spillway will be a fully automated, electrically operated three gate structure with a peak capacity of 2,600 cfs. As the engineer of record, Ms. Gillette designed the site paving, grading and drainage elements for the project as well as oversaw the team of electrical, mechanical, and structural engineers. Her responsibilities included production of the plans and written technical specifications, permitting efforts, and project representation. She developed a Storm Water Pollution Prevention Plan and coordinated the permit from the Florida Department of Environmental Protection for the NPDES permit. She created a detailed design report to document the project decision making process, including the development of design criteria regarding the flow capacity for the spillway, high and low water levels, and overall design for the project. Additionally, she designed the shore protection upstream and downstream of the spillway.

Royal Palm Beach Commons Park, Royal Palm Beach, FL. Project Manager. Provided design and plans for a 163-acre Royal Palm Beach Commons Park. Ms. Gillette evaluated the storm water storage capacity for the drainage basin to demonstrate that no adverse impacts would occur on or off site as a result of the project. Ms. Gillette also examined the surface water hydrology for the site and the adjacent neighborhoods that flow towards the site and analyzed the hydraulics for the tertiary drainage system. Ms. Gillette prepared the site plan, based on a previously approved master plan, which includes a kayak launch, 20 acre kayak trail, bike trail along the lake, pedestrian bridges, and aquatic plantings. Ms. Gillette designed the grading for the site, including the water bodies, which she designed to support aquatic plants. The project includes irrigating the project with surface waters and Ms. Gillette prepared the water use permit to the South Florida Water Management District. The site has some arsenic contamination as a result of the previous golf course use and Ms. Gillette prepared a soil and ground water management plan to address that contamination. This plan includes containing the contaminated soils under landscape berms or impervious surfaces thus removing the source of ground water contamination, construction of lakes converting much of the contaminated ground water to surface water which has a higher allowable concentration level, and institutional controls to ensure that no potable water wells are installed on the site. Ms. Gillette prepared a dewatering plan for the construction effort and processed the construction dewatering permit through the South Florida Water Management District. Ms. Gillette also prepared a Storm Water Pollution Prevention Plan including an NPDES permit application from the DEP, who has been delegated authority from the US EPA and secured confirmation from the Army Corps that no permit was needed.



Martin D. Willix, PE

Civil Engineer

ERDMAN ANTHONY

Mr. Willix is a registered professional engineer with 24 years of diverse experience. His design experience encompasses site development, roadway design, water and sewage infrastructure, stormwater management and Erosion and Sediment Control. Martin has successful track record in satisfying client's needs and is often rewarded with positive feedback and repeat business.

Education
BS/Civil Engineering

Professional Registrations
1999/PA/Professional Engineer
No. PE054182E

2002/NY/Professional Engineer
No. 080399

Work History
No. of years with Erdman Anthony: 24

No. of years with other firms: 0

Professional Affiliations
American Society of Civil Engineers

KEY PROJECTS

SFWMD Environmental Services Laboratory Relocation Project, West Palm Beach, FL. Civil Engineer. Martin was part of the design team who provided design services in support of the consolidation that included demolition of a two-story building for replacement with a 36,000 sq ft facility. This new facility is a state-of-the-art, capable of resisting high wind velocities with limited or no damage, and have the emergency backup systems capable of self-sustaining operations for seven days.

Aldi Distribution Center and Aldi Park, Royal Palm Beach, FL. Civil Engineer. Provided design and plans for an 800,000 sf distribution center and industrial park anchored by the German based discount grocer Aldi who is growing their US presence. Erdman Anthony was selected by the mega grocery store chain to investigate the 73 acre Royal Palm Beach. The project included cost estimates; public meetings and presentations to interested citizens, elected officials and press; platting; zoning including site planning and special exceptions; development of a new code section for warehouse/distribution centers; drainage and flood control; wetland impacts; left and right turn lanes; FDOT permitting; soils and earthwork balance; potable water and sanitary sewer; and, noise ordinances and impacts to nearby residential communities. The project included not only the warehouse project but also an industrial park with cleared and graded vacant lots for future development.

Singer Island Neighborhood Improvements, Riviera Beach, FL. Civil Engineer. Erdman Anthony is providing engineering services to design the rehabilitation program for pavements, water, sewer, and drainage systems. Services to be provided include civil design to add water quality treatment in the form of exfiltration trenches, to analyze the size of the outfall pipes, and to interconnect the drainage network to improve its function. Services also involve the design of outfall control structures along with the associated permitting as needed to upgrade the existing drainage system. The project also involves roadway reconstruction.

City of Auburn Water Supply System, Auburn, NY. Project Manager. This project calls for the replacement/rehabilitation of approximately 5,000 feet of 30-inch steel watermain along the Franklin Street Transmission line. Project includes design and construction inspection services for this 80 year old line which acts as the major equalizing conduit of flow between the City's pump stations and the Franklin Street Reservoir.

Thornell Road Booster Pump Station, Pittsford, NY. Civil Engineer. Responsible for civil site engineering design services for this project. Civil design services included the layout of all internal large piping and valve configurations including suction and discharge headers, pump manifold piping, and surge control piping and valves. The civil package also included the coordination and design of the external underground 30" ductile iron suction and discharge headers and their tie-in to an existing 42-inch prestressed concrete cylinder pipe. Other civil site elements included metering, sewage disposal, site layout, site grading, utilities, and stormwater management.

7th Engineer Battalion Operations Facility, Fort Drum, NY. Civil Engineer. This $36.5 million design build project provided for the construction of four building facilities. Site design and development for this 33-acre site included anti-terrorism/force protection measures in accordance with UFC 4-010-02; Department of Defense Minimum Standoff Distances for Buildings. Supporting facilities include water, sanitary sewer, electrical, gas, storm drainage, information systems, fire alarm and protection systems.

Michael R. Corrigan, PE

Water Resources Engineer

ERDMAN ANTHONY

Mr. Corrigan has specialized experience in hydrology and hydraulics analysis, stormwater management, drainage design, and erosion & sedimentation control. He is a member of the American Society of Civil Engineers.

Education
BS/Agricultural Engineering

Professional Registrations
2008/FL/Professional Engineer No. 67727

1996/PA/Professional Engineer No. PE048193E

Work History
No. of years with Erdman Anthony: 10

No. of years with other firms: 16

Professional Affiliations
American Society of Civil Engineers

KEY PROJECTS

Drainage Design on Fleming and Veness Creek, Greece, NY. Hydrologic/Hydraulic Engineer. Completed drainage design on Fleming and Veness Creek, from Denise to Latta Road, based on design improvements outlined in various drainage studies made available to the consultant for review, and in conjunction with field observations of the drainage channels and enclosed drainage segments. Proposed drainage improvements needed to resolve outstanding basin drainage concerns, acquired the necessary permits and developed construction drawings for implementation of the designs. Mr. Corrigan provided QA/QC reviews of hydrologic/hydraulic modeling.

Open End Agreements for Engineering Services and Environmental Studies, District 10-0, Districtwide, PA. Water Resources Manager. These open-end agreements included several minor bridge and culvert improvement projects. Mr. Corrigan provided water resources engineering for three work orders covered by this contract, including hydraulic studies & flood plain analysis at one site and water obstruction & encroachment permitting at two others.

Boulevard over Girty's Run Bridge Replacement, Statewide, Allegheny County, PA. Water Resources Manager. This project involves preliminary engineering, final design, and construction consultation services for a bridge replacement carrying SR 4009 over Girty's Run. The existing structure is a 40-foot single span steel beam bridge on reinforced concrete cantilever abutments. The scope of work includes approach roadway design, traffic control under phased construction, Phase 1 ESA, field survey, H&H analysis, geotechnical engineering, public involvement, constructability review, and bridge design. Mr. Corrigan provided bridge hydraulic analysis and floodplain analysis oversight.

Open End Agreement for Engineering Services and Environmental Studies, District 2-0, Districtwide, PA. Hydrologic/Hydraulic Engineer. This $1 million open end agreement involved various engineering services and environmental studies for minor transportation improvements throughout the nine-county area of PennDOT District 2-0. Mr. Corrigan provided hydrologic/hydraulic reviews for various bridge design submissions.ordinances and impacts to nearby residential communities. The project included not only the warehouse project but also an industrial park with cleared and graded vacant lots for future development.

Open End Agreement for Engineering Services and Environmental Studies, District 10-0, Districtwide, PA. Water Resources Manager. The 16 work orders issued under this open-end agreement have included bridge rehabilitation, bridge superstructure replacements, and bridge replacements, as well as highway safety improvements along the heavily-traveled SR 228/Freedom Road corridor located between I-79 and the PA Turnpike in Butler County. Mr. Corrigan provided water resources engineering for six work orders covered by this contract, including hydraulic studies, flood plain analyses, and water obstruction & encroachment permitting.

Robert Charles Haynes

Hydraulic Modeler

ERDMAN ANTHONY

As an expert in the spatial and scientific information technology industry, Robert Charles Haynes has a wide range of experience providing scientific and software design expertise and is seasoned in designing, developing, documenting, coding, modifying, testing and implementing business technology solutions. Robert has a wide range for functional and technical experience, including the following:

- Fourteen (14) years of experience supporting IT projects in the public and private sector including projects for the South Florida Water Management District and the New Jersey Department of Community Affairs (NJDCA)
- Experience working with C++, C#, Fortran, Python, Objective-C, and ArcObjects
- GIS Development including work with the South Florida Water Management District, the Everglades Foundation, and SIROMS
- Skilled at working with clients and users to provide business and environmental solutions to meet client needs

Education
BS/Biology/Marine Science

Industry Expertise
GIS Mapping

Computational Geometry

Scientific Simulation Modeling

Secure Web Services

Technical Specializations
C# Development

C++ Development

GIS Development
Simulation Model Development

Computational Geometry

KEY PROJECTS

South Florida Water Management District's (SFWMD) Interagency Modeling Center (IMC) modeling for the Comprehensive Everglades Restoration Plan (CERP). Hydraulic Model Engineer. Mr. Haynes is a senior hydraulic modeler assigned to work with the District H/H engineers, scientists, and programmers to model and simulate the movement of groundwater and surface water in the South Florida region. He develops tools, systems, programs and applications. With his depth of understanding of the hydraulics, programs, and performance measures, he is able to extract and format data, develop scripts and programs, test and debug those programs, and analyze the results. He is responsible for quality control, documentation, archiving data, and training others at the District.

Simulation Model Support, Everglades Foundation. Hydraulic Model Engineer. Mr. Haynes created special Pre and Post Processing Software of RSM simulation data using a combination of Objective-C and C++ and computational geometry. The software analyzes the simulation data and creates hydrological statics (i.e., hydro-graphs and duration curves) and Geo-statical geospatial reports and maps creating special code for the version of the South Florida Water Management Model.

Various Projects, South Florida Water Management District. Hydrologic Modeler. As a C# Developer and Hydrological Modeler, on the OpenMI Project, Robert developed a wrapper API for the RAS-MODFLOW coupling (HEC-RAS and MODFlow) implementation in OpenMI. Modified Data Mapper classes inside of OpenMI, which utilized SharpMap open source Mapping tools. As Project Leader, on the RSM GIS Mapping tool, Robert led and taught a 14 person team in C# development with ArcObjects. As the C# Developer, on the RSM GIS Pre Processing tool, he expanded and updated the RSM GIS Pre Processing tool from ARCGIS 8 to ARCGIS 10. Also converted the code to run on ArcGIS Server.

On the Regional Simulation Model Project, Mr. Haynes was in charge of designing and developing several package extensions, i.e. Tigger Package, Water Conservation Districts modelling, Initial Conditions Start up, and others. He also helped with code documentation, matrices solving parallelization, and preformed as a configuration manager for the SVN repositories. On the South Florida Water Management Model, Mr. Haynes led the clean-up and code optimization project, and he led development on the Salinity Forecasting Functionality, extension of the Modified Delta Storage functions, Predictive Analysis/Real Time Analysis functions, and Adaptive Protocols functionality. He also performed as the configuration manager for the SVN repositories.

Various projects, Taylor Engineering. Applications/GIS Developer. Mr. Haynes consulted to the South Florida Water Management District for 3 years with C, C++, C#, and Python development needs. Mr. Haynes provided C and Python development help to the Everglades Landscape Model, Implemented Code Documentation on the models while consulting at SFWMD. As a GIS Developer, with support to the SFWMD Regional Simulation Model, Mr. Haynes developed several C# and Python GIS pre-processing tools and helped develop Python post-processing tools which accessed NetCDF, DSS, mySQL, SQLServer, and Oracle databases. Mr. Haynes developed FEMA DFRIM related GIS tools and a HEC-RAS interface with ARCHydro applications for ARCGIS. Mr. Haynes also developed a Dredging 3D data calculator manager for inter-coastal DMS 2000 for the U.S. Army Corps of Engineers and supported on several FEMA related projects.

eWQMP, New Jersey Department of Environmental Protection (NJDEP). Technical Expert. Mr. Haynes supported design and development of an ArcGIS Server website to help other agencies and organizations submit their WQMP shape-files to DEP. He worked with the RSP development team to develop a new Map site using HTLM5 and JavaScript.

ICIS, New Jersey Department of Environmental Protection (NJDEP). Technical Expert. Mr. Haynes supported design and development of serval data extraction tools to gather Water Quality Data on DEP NJEMS server and convert them into XML and submit them to the USA EPA ICIS service. The first phase of the development extracted Historical Water Quality Permit Data from the DEP NJEMS database. The second phase of the project is to gather data initiated by triggers during database entry. This project included of C# development and SQL Development on an oracle database.

SIROMS, New Jersey Department of Community Affairs (NJDCA). Consulting Developer. Provided NJDCA and its partners a shared technology infrastructure, software, IT, financial and CDBG-DR services expertise to support the State in its disaster recovery operations including management and oversight capability, and compliance with State and Federal Regulations. As a GIS Developer, on the SIROMS project, Robert developed an ArcGIS Server website to display the distribution of the Sandy relief funds. He developed a new website using HTLM5 and JavaScript to replace Adobe Flash. Robert also developed a new Dot Net application that processes data coming from the data provided by the GOR Data into the New Jersey Rebuild Database. Besides data extraction this tool also geocodes any new address found in the supplied data. Robert developed the web application SIROMS Appointments using C#. SIROMS Appointments is an online appointment scheduler for SIROMS Housing Advisors in each Housing Center to schedule Appointments including a reporting feature. Mr. Haynes also developed the web application SIROMS Status Tracker. The SIROMS Status Tracker provides a front end for the Applicant to quickly view the status of their application. Robert also supported functionality enchantments and Help Desk Request to the Web Applications New Jersey Rebuild Dashboard, SIROMS Housing Counselling Program, and the SIROMS Constituent Services among others.

Bryan Cornelius

CONSTRUCTION MANAGER/INSPECTOR

ERDMAN ANTHONY

Mr. Cornelius, with over 26 years of experience, is skilled in all phases of construction management and inspection operations. He is proficient with multiple computer programs including Microsoft Word, Excel, Poer Point, AutoCAD and various construction management programs and consistently finished projects under budge and ahead of schedule.

EDUCATION
Undergraduate Studies (towards a mathematics degree)
1982-1984

Work History
No. of years with Erdman Anthony: 1.5

No. of years with other firms: 25

KEY PROJECTS

C-43 Reservoir Preloading and Demo CMS, Hendry County, FL. Construction Manager. The C-43 West Basin Storage Reservoir will help ensure a more natural, consistent flow of fresh water to the estuary. To restore and maintain the estuary during the dry season, the project will capture and store basin stormwater runoff, along with a portion of water discharged from Lake Okeechobee, and water will be slowly released into the Caloosahatchee, as needed. This project also provides secondary benefits, once the needs of the estuary are met, along with recreational benefits. Project features include 10,500-acre storage reservoir, 1,500 cfs pump for filling the reservoir, perimeter canal to convey drainage off-site, and a recreation component. The project is being constructed in four packages. The first package (demolition and preloading) is currently under construction. Mr. Cornelius is providing Construction Management services. These services include full time inspection and construction management services to observe and document the construction efforts. Our duties include processing of submittals and RFI's, monitoring test results, conducting bi-weekly progress meetings, reviewing pay applications, monitoring the construction schedule and coordinating with the contractor and design team.

State Highway Administration ADA Compliance Districts 3, 5 & 7, Maryland Department of Transportation. Construction Project Manager. Construction project manager for a $20 million contract covering a widespread geographic region on densely populated urban corridors to place new concrete sidewalk and replacement of existing concrete sidewalk, curb ramp placement and replacement of curb and gutter, all conforming to the current ADA standards. This overall contract included multiple simultaneous projects totaling $20 million of federal funding (FAP) in construction costs. As such, he is very familiar with the required State documentation and both state and federal audit process. Mr. Cornelius was responsible for daily supervision of up to twelve construction inspectors including hiring and firing. He was responsible for interpreting the project scope using the State Standards and Specifications in conjunction with the Contract Drawings. He reviewed all construction documents including inspector's daily reports (IDR), as-built drawings, concrete test results, traffic control reports, and E&S reports. He reviewed the construction layout of all elements based on design drawings with field modifications as necessary. He was responsible for design of various minor project elements as needed that did not have specific plans or details. He verified project compliance of the contractor submitted shop drawings; reviewed and responded to RFI's; generated and processed Contractor's monthly estimate through MCMS; monitored material clearance through MMS. He reviewed daily project reports from his inspection staff. He created agendas, conducted meetings, and generated and distributed all meeting minutes for bi-weekly progress meetings attended by the client (Maryland DOT), contractor, design team, and other stakeholders. Mr. Cornelius reviewed and negotiated change orders, claims, and field directives with the contractor; this effort included careful and thorough review of the plans and specifications prior to making a recommendation to the client. He prepared a cost estimate for change orders to compare and verify the contractor's claims. He and processed change orders; reviewed and implemented field directives ordered by the client. He reviewed monthly pay applications for completeness as required by the specifications, accuracy regarding the items billed, and compliance with the contract documents. Mr. Cornelius was responsible for daily coordination with property owners/managers, local municipalities, utility companies, and State Highway Administration personnel, as such he conducted a daily meeting with the Contractor's representative and the inspection staff to review the proposed work for the day and verify conformance with the construction schedule. As the point of contact for the company and liaison with the client (Maryland State Highway Administration) and contractors, he placed high importance on due diligence and public relations. He was also responsible for training entry level Project Engineers and Inspectors assigned to different contracts on the use of MCMS, material clearance, and IDR requirements. Projects of note include under this contract

include Wisconsin Avenue (MD 355) beautification project on the Washington D.C. line. This was a highly visible and politically driven job in an area referred to as the "Green Mile" for its unique amount of open greenspace in the middle of an urban setting. The local community was heavily involved in all of the public meetings leading up to construction and remained in constant contact for updates. The State needed a proven take charge construction manager to ensure an amiable relationship with the public and smooth project completion. MDOT specifically requested Mr. Cornelius be assigned to the contract to manage 1 concrete inspector, 1 E&S inspector and 1 geotechnical inspector.

I-95 Express Toll Lanes Construction Management, Maryland Transportation Authority. Construction Project Manager. Served as Construction Project Manager for this $60 million, 4-year open-end agreement to provide CMI services on projects as assigned from the Authority which included full CMI services; resident engineering, construction inspection, office engineering, maintenance of traffic control and material testing on highway and bridge projects. Mr. Cornelius was responsible for managing and monitoring all staff necessary to properly manage, administer, inspect, and document work being performed for compliance with approved construction documents. Projects of note include:

- Thomas J. Hatem Memorial Bridge (Susquehanna River) Environmental Compliance and Coatings Inspection: Managed 2 environmental inspectors and 2 coatings inspectors on this $18 million project to clean/paint bridge and monitor nearby wetlands.
- Millard E. Tydings Memorial Bridge (Susquehanna River) Environmental Compliance: Managed 1 environmental scientist, 1 E&S inspector and 1 geotechnical inspector on this $8 million project to create new wetlands and monitor existing nearby wetlands during cleaning and painting of bridge.
- William Preston Lane, Jr. Memorial Bridge (Chesapeake Bay) WBL Cleaning & Painting Phase I: Managed 3 coatings inspectors on this $25 million project to clean and paint bridge. Phase I was beginning of ultimately four (4) phase $100 million project planned for both bridge spans.
- Francis Scott Key Bridge (Patapsco River) Coatings inspection: Managed 1 coatings inspector on this $6 million project to clean and paint the bridge.
- Trumps Mill Emergency Flooding Environmental Compliance: Managed 1 environmental scientist and 1 E&S inspector on this $3 million project to create and monitor new wetland areas.

Contract Administration/Inspection for the Montgomery County Department of Transportation. Construction Project Manager. Served as Construction Project Manager for this four year county-wide contract. Projects included the following: Road and street construction, highway projects, bridge rehabilitation, new bridge construction, storm drain systems, intersection and other traffic improvements, bikeway and pedestrian facilities. Mr. Cornelius was responsible for the following: project specific construction project management (PM), project specific lead inspection services, general office engineering technical services, schedule review and analysis, claims analysis, coordination of geotechnical and material inspections. Projects of note include:

- Woodfield Road Extended: Managed 2 paving inspectors, 1 E&S inspector and 1 geotechnical inspector on this $1 million project to extend the road through wooded and heavily vegetated land.
- Woodfield Road On-Site and Off-Site Wetland Monitoring: Managed 1 environmental scientist and 1 E&S inspector on this $1 million project done in conjunction with the road extension. Project was to create new wetland areas and monitor existing nearby wetlands during road construction.
- Emergency Snow Removal Services: Managed 3 field inspectors and 3 snow removal contractors on this emergency project during both day and night shifts. Average work week was 70 to 80 hours during statewide environmental/weather emergency.

B. Approach to Project Management

Overview of Project Management Strategy

Strong project management skills are a hallmark of Erdman Anthony's success. Our project managers are selected for their leadership abilities, and our approach to project management focuses on best practices. We work hard to balance the technical, administrative, and financial aspects of every project we undertake, including effective budgeting and scheduling, accurate project accounting, development of comprehensive work plans, effective resource allocation, periodic project reviews, and invoice verification. This strategy gives our team the ability to effectively oversee multiple projects and tasks simultaneously.

Distribution of task assignments will be based upon the schedule of the project and the expertise necessary for the project. Prior to beginning the project, we will develop a complete understanding of the scope, schedule, and budget parameters. We will evaluate our staff resources and mobilize staff as necessary to insure we complete the project on schedule. Tasks will be assigned to staff members with expertise that best matches the nature of the work, with responsible oversight provided by our management team.

Erdman Anthony's first task will be to clearly understand the issues and develop a scope for the project that meets the City's needs. We will then prepare a project management plan that addresses the both project scope and the City's specific needs.

Project Management Approach

At Erdman Anthony, every project task begins with the end in mind, and every project begins with a work plan. The work plan is a combination of procedures developed by Erdman Anthony in response to client needs, together with a communication plan and schedule.

The project management steps we will employ on any given project are:

- **Scope Review Meeting** – A scope review meeting will be conducted with all team members and the City's project manager to finalize any details or clarify any scope related items.
- **Kick Off Meeting** – The purpose of this meeting is to ensure that all project team members are aware of the City's expectations and the project's technical, financial, and schedule performance requirements and to inform all team members of goals and timelines.
- **Work Plan Development** – A documented work plan will be developed and maintained for access by all team members as a point of reference for key tasks and delivery dates.
- **Task Completion** – Our project manager will assign responsibilities to team members and and periodically follow up to ensure progress toward task completion.
- **Status Reports** – We will e-mail weekly status reports to the City's project manager, providing a level of detail that meets its needs.

Project Management Structure

Project performance is all about people. We recognize that consistently delivering projects and services requires a special kind of management staff: one that is highly focused, capable of simultaneously managing multiple tasks, highly responsive, and able to perform well under stress while maintaining a positive, customer service orientation.

B. Approach to Project Management

We hire people to fit this profile and provide them with the tools and training to effectively execute their responsibilities so that you can depend on us as an extension of your staff.

Our approach to project management includes the following key components:

- **Single Point of Contact** – Erdman Anthony designates the work category project manager to serve as the single point of contact for all contractual, scope, budget, schedule, and performance issues to ensure clarity of direction.
- **Principal-in-Charge/Quality Assurance** – A seasoned Principal-in-Charge will be assigned to provide a high level oversight of project performance and advise the project manager on critical decisions.
- **Subconsultant Management** – Any consultants needed for this contract will be contractually bound to Erdman Anthony. The terms and conditions of the City contract with Erdman Anthony will be passed down contractually to the participating firms on the team via our project manager.
- **Quality Control** – Quality control (QC) at Erdman Anthony involves review of interim and final work by third parties on the project team with the technical background needed to identify errors or omissions, communicate well with other team members, and a make recommendations for improvement. Our quality control process is described in more detail below.

Quality Plan

Quality begins and ends with a process approach. Our team project approach/methodology uses proven processes to follow the specific technical project requirements that validate our work. Our quality work plan combines quality control (Was it Right?) with quality assurance (Was it Done?). Erdman Anthony's ISO 9001 certification demonstrates the importance we place on quality. Our significant level of business from repeat clients is just one indication of our project success. As an ISO 9001 certified firm, our quality procedures undergo internal and third-party audits on a regular basis, providing our customers with further assurance that Erdman Anthony's quality procedures do not just exist on paper, but are actively practiced throughout the company.

We conduct **quality control (QC)** reviews at interim milestones agreed upon in the work plan that typically coincide with phase completions and/or reviews by our client or regulating agencies. The reviews are conducted by technical personnel (project engineers or surveyors) who are independent and separate from the design team. Our typical QC review includes checking project deliverables for the following:

- Conformance with the project goals, design standards and requirements
- Errors or omissions (we maintain and regularly update a checklist of items to review)
- Compliance with the latest specifications or design updates
- Technical accuracy
- Compatibility with associated documents
- Economy

The process followed for quality control reviews involves affixing reviewed documents with a computer generated check stamp on which the **originator**, the **reviewer,** and the **back checker** have a place to sign and date to indicate that the intended function has been completed. The definition of each of these roles is as follows:

- **Originator** – the lead technical professional who signs and seals the contract documents.

- **Reviewer** – design professional who performs detailed checking and also checks for incorporation of review comments and responses.
- **Back Checker** – reviews the plans to assure the originator has agreed with all the changes or corrections and reviews any additional comments made by the originator.

The following process will be followed in executing the quality control review:

- Originator checks plans for completeness and submits to reviewer.
- Reviewer checks plans and makes comments.
- Originator reviews comments and notes corrections recommended or offers explanations to the reviewer.
- The reviewer back checks the corrections and explanations. The reviewer and the originator must agree upon all changes or corrections, and will consult the project work plan, applicable standards and references, or the project manager as needed for direction in resolving any differences.
- The support staff makes all changes or corrections.
- The reviewer or the originator reviews the changes or corrections made by the support staff to verify that all work is ready for delivery.

A **quality assurance (QA)** review will be conducted prior to all submittals and documented to verify compliance with the quality control program. The principal-in-charge will review all submittals for completeness and accuracy, including:

- Computations and report formats are correct.
- Drawings/plans contain all of the information required for the type and phase of submittal.
- All items have been checked, back-checked and reviewed with check prints filed.
- All computer programs have been verified.
- The plan and document submittal checklists and sufficiency checklists have been reviewed for completeness and checked off. These checklists will become a part of the quality control file.

Quality Control Tools

Erdman Anthony has been using a Project Information Management system known as Newforma for five years now with great success. In addition to a number of schedule control features, project management tools, and document management items, it allows us to improve our quality control process. Virtual, electronic reviews are completed as part with the aid of this electronic tool. The mark-up session in the NewForma Document Management software allows the reviewer to highlight, redline and comment on any component within the deliverable. This review is stored electronically within the project and can be compared to the revised document to assure that the revisions have been completed or retrieved for the client in the event a quality audit is undertaken. The benefits of the electronic QC reviews include:

- Multiple reviewers can review the plans at the same time and see other's comments in real time.
- Comments automatically include reviewer and date of comment.
- The previous comments can be overlaid to the current plan set to ensure that all comments are still addressed.
- When comments are incorporated into the design file, the comment status is updated in the project.pdf QC review file. The incorporator and date are automatically recorded in the file. This is a valuable feature and an improvement to the electronic review comment systems that our clients use.

B. Approach to Project Management

Accessibility

Erdman Anthony's West Palm Beach office is just a half-hour commute to the City of Delray Beach headquarters, and we are committed to being fully available for in-person meetings as needed, whether at the City's offices or a project site. Pro-active client communications is a hallmark of Erdman Anthony's project management culture, and our project manager will be highly responsive to phone inquiries, project directives, and other communications from the City. As your main point of contact, our contract manager will relay project communications to appropriate internal team members and clarify information with your staff as needed to keep our engineering services running smoothly. Erdman Anthony uses the latest computer technology, including cloud access for file sharing and web-based meetings, to ensure that communications are streamlined and productive.

C. Projects for Similar Services

Project Name: G-716 Divide Spillway
Organization: South Florida Water Management District
Address: West Palm Beach, FL
Project date: 2014/2017
Status of project: Nearly Complete

The District needed to divide structure within the Stormwater Treatment Area 1 East (STA-1E) to increase the capacity of the flow. This would enable the District to transfer stormwater runoff from the Western C-51 Basin, through STA-1E for delivery to the STA-1W for treatment or to the L-8 Flow Equalization Basin (FEB) for storage and subsequent treatment. The spillway would be a fully automated, electrically operated three gate structure with a peak capacity of 2,600 cfs.

The structure was located within the levee that separates the eastern and western distribution cells. The spillway supplemented the other 1,000 cfs gated box culvert structure (S-375) already located within this levee. The levee was widened by approximately 160 feet in the vicinity of the structure in order to maintain the integrity of the levee.

The structure allowed the District to manage and control water with bi-directional flow; therefore, a symmetrical trapezoidal weir was used. The access road and laydown areas were shell rock or lime rock and stone rip rap slope protection was proposed on the banks. The gates were double faced and provided with seals on both sides of the vane.

The control building that houses the controls and an emergency generator is resistant to hurricane and wind-driven rain. A 500 gallon propane tank was located underground for a minimum of 7 days run time. A separate emergency feeder from this generator serves the existing Structure S-375. Radio communications between the Divide Structure and SFWMD headquarters are via UHF radio at the SFWMD's designated frequencies.

Erdman Anthony was the prime consultant and lead designer for the design and preparation of construction drawings and specifications for this $5MM spillway. The design was completed with a preliminary submittal and a final submittal to help the District meet a consent order deadline for producing final plans. Work included a detailed design report to document the project decision making process, two presentations to the management team, and responding to peer comments from the District technical review team.

Project Name: C-43 Reservoir Demo and Preloading
Organization: South Florida Water Management District
Address: La Belle, FL
Project date: 2015/Ongoing
Status of project: Construction Management

The Caloosahatchee River (C-43) West Basin Storage Reservoir project improved the timing, quantity and quality of freshwater flows to the Caloosahatchee River and Estuary. South Florida's flood reduction system stores water in Lake Okeechobee during the annual wet season. Excess water is released, and the resulting, unnatural surges of freshwater to the Caloosahatchee River reduce estuarine salinity levels. Alternately, during the dry season when irrigation demands are high, little to no water is released to the river. This causes an increase in salinity levels. Both high and low salinity levels can trigger die-offs of sea grasses and oysters, species that are indicators of the estuary's overall health.

The C-43 West Basin Storage Reservoir helped to ensure a more natural, consistent flow of fresh water to the estuary. To restore and maintain the estuary during the dry season, the project captured and stored basin stormwater runoff, along with a portion of water discharged from Lake Okeechobee, and water is slowly released into the Caloosahatchee, as needed. This project also provided secondary benefits, once the needs of the estuary were met, along with recreational benefits. Project features included:

- 10,500-acre storage reservoir
- 1,500 cubic feet per second (cfs) pump for filling the reservoir
- Perimeter canal to convey drainage off-site
- Recreation component

The project is being constructed in four packages. T Erdman Anthony provided Construction Management services for the first package (demolition and preloading). These services included full time inspection and construction management services to observe and document the construction efforts. Our duties included processing of submittals and RFI's, monitoring test results, conducting bi weekly progress meetings, reviewing pay applications, monitoring the construction schedule and coordinating with the contractor and design team.

Project Name: Hydraulic Modeling
Organization: South Florida Water Management District
Address: West Palm Beach, FL
Project date: 2017/Ongoing
Status of project: Modeling

The Interagency Modeling Center (IMC) is responsible for modeling for the Comprehensive Everglades Restoration Plan (CERP). The CERP is designed to restore, preserve and protect the South Florida's ecosystem and meet other key water resource needs of the region. Computer models are a vital tool in simulating the movement of groundwater and surface water due to natural processes (e.g., rainfall and infiltration) or artificial means (e.g., pumpage and irrigation). Regional modeling is an approach whereby a significant portion of south Florida is conceptualized as a system of physical features interacting with man-made infrastructure, and governed by the laws of nature with some level of human intervention via water management.

An Erdman Anthony team member is providing contractual staff support with the necessary modeling and programming skills to aid with timely completion of modeling deliverables. We are developing tools, systems, programs and applications as well as high performance scientific and engineering computations. This requires that we understand the performance measures and work closely with District H&H engineers, modelers, scientists, computer programmers and other subject matter experts. We are also providing documentation, quality control reviews, training, and archival services.

Our work includes the following:

- Extract raw data from external and District databases (DBHYDRO) and format
- Update scripts and test post-processing tools
- Create test data sets and debug
- Perform continuous Quality Assurance/Quality Control (QA/QC)
- Develop, test, and implement new tools for the Performance Measures;

- Select suitable tool to develop the Performance Measure, recommend improvements and test and implement
- Document use of pre- and post-processing tools
- Create presentations and offer trainings of newly developed scripts, tools and display interface Archive tools and associated data using version control software

Project Name: Royal Palm Beach Commons Park
Organization: Village of Royal Palm Beach
Address: Royal Palm Beach, FL
Project date: 2007/2009
Status of project: Complete

This project was a defunct 163.5 acre golf course that was redeveloped as a public park that includes: a nine-hole golf course, kayak trails, bike/hike trails, sporting center building for concessions and meetings, a great lawn with picnic pavilions, playgrounds, volleyball, etc, an interactive fountain, and land set aside for a future horticulture center, arts center, and various civic buildings such as a senior center, teen center, day care center, library, etc. The design included the permitting and preparation of construction documents.

Erdman Anthony's role is the lead consultant directing the efforts of the design team as well as the internal civil engineering efforts. Erdman Anthony evaluated the storm water storage capacity for the drainage basin to demonstrate that no adverse impacts would occur on or off site as a result of the project. Erdman Anthony prepared the site plan and designed the grading for the site, including the 20 acres of water bodies, which were designed to support aquatic plants and kayaking. The project included irrigating the project with surface waters, therefore, Erdman Anthony had prepared the water use permit to the South Florida Water Management District.

This site had some arsenic contamination as a result of the previous golf course use and Erdman Anthony prepared a soil and ground water management plan to address that contamination. This plan included containing the contaminated soils under landscape berms or impervious surfaces thus removing the source of ground water contamination, construction of lakes converting much of the contaminated ground water to surface water which has a higher allowable concentration level, and institutional controls to ensure that no potable water wells are installed on the site. We also prepared a dewatering plan for the construction effort and processed the construction dewatering permit through the South Florida Water Management District which was closely coordinated with the contamination clean-up effort. The project also included a Storm Water Pollution Prevention Plan including an NPDES permit application from the DEP, who had been delegated authority from the US EPA and secured confirmation from the Army Corps that no permit was needed.

Project Name: Aldi Park
Organization: Aldi, Inc.
Address: Royal Palm Beach, FL
Project date: 2011/2015
Status of project: Complete

C. Projects for Similar Services

Aldi is a German based discount grocer with a large and growing US presence. As they expanded into South Florida, they spent two years selecting a site for the complex to house their 800,000 sf warehouse, distribution center and corporate office. Erdman Anthony was selected by the mega grocery store chain to investigate the 73 acre Royal Palm Beach site for the following elements:

- Platting
- Zoning, site planning and special exceptions
- Development of a new code for large distribution centers
- Drainage and flood control
- Wetland impacts
- Turn lanes and FDOT permitting
- Soils and earthwork balance
- Potable water and sanitary sewer, on-site and off-site
- Permits
- Noise ordinances and impacts

The surface water management system was designed to meet many objectives including the following:

- The surface water management system was designed to serve the entire park including the proposed 800,000 sf building, future building additions, and 8 future parcels to be developed by others.
- The water management lake was placed to allow efficient drainage of the project and future parcels.
- The roof runoff was designed as a separate system from the parking lot runoff to allow for reasonable pipe sizes, and to reduce the required dry pretreatment volume.
- The water management lake was designed to be an integral part of the site plan and included a walking trail for the use and enjoyment of the staff.
- An operable gate was designed for the outfall structure for use only during extreme weather events and an operations document was prepared to describe the conditions under which the gate can be opened, by how much, and by whom.
- The water management lake included littoral zones with aquatic plantings to improve the water quality being provided as well as deep zones with an analysis of the areas at each depth zone to confirm that the lake would be sustainable.
- In addition to the wet detention pond, dry detention ponds were designed to provide dry pretreatment from the parking lot areas.

The dry ponds and perimeter buffer strips were designed with native plants to reduce irrigation needs and they are intended to grow in free form shapes to reduce the routine maintenance requirements.

D. Organizational Structure

Erdman Anthony has assembled a team for this general services contract that has proven expertise in all anticipated disciplines. As prime consultant, Erdman Anthony will manage our team's services, serve as the City's primary point of contact for project-related correspondence, and provide general civil, transportation, survey and mapping, and water resources services with in-house staff. In general, our capabilities include civil/site permitting and design; drainage facility design; roadway, bridge, and culvert design; traffic engineering and signalization; exterior lighting system design; sidewalk and ADA improvements; boundary and topographic surveys; GIS system support; utility coordination; and related services such as feasibility studies, cost estimating, life cycle cost analyses, and construction management. Work will be performed from our West Palm Beach office at **5405 Okeechobee Blvd., Suite 200, West Palm Beach, FL 33417.**

Erdman Anthony has selected a highly experienced staff able to meet or exceed the City of Delray Beach's expectations for quality deliverables and service. **Dana Gillette, PE, PSM, LEED**, our proposed Contract Manager, will serve as the main point of contact for the City and as our team's communication leader. She will lead our team's administrative functions, including schedule and budget management and task assignments. Dana will serve as Project Manager for Civil and Water Resources / Wastewater Management projects. She brings over 32 years of diversified professional experience including the management of several continuing services contracts for municipalities and agencies in South Florida. Under these contracts she has led the design and construction of storm water drainage improvements, water mains, lift stations, parks, roads, outdoor lighting, buildings, parking lots, and sidewalks. She has managed teams of professionals and sub-consultants and understands the importance of communication, adherence to schedule, and cost control.

As members of our Water Resources/Stormwater Management team, **Michael Corrigan, PE, Martin Willix, PE, Robert Charles Haynes, and Bryan Cornelius** each have specialized expertise, as shown on the organizational chart and their individual resumes. Furthermore, we can call upon the resources of the entire 250+ person firm for assistance, advice, and staff support should they be necessary to meet your needs. All offices in our firm are technologically connected to one another via a computer network, video conferencing equipment, and email system. As a result of this technology, we can easily tap additional resources to provide technical design, internal reviews or consultation as needed to meet tight project schedules.

The organization chart on the following page provides an overview of our team's key personnel in anticipated disciplines and their relationship. Communications and directives for the entire team will be led by our contract manager, who will work closely with the City throughout project development.

Current Workload: We are very excited about the opportunity to work with the City of Delray Beach and would not pursue this contract if we did not have adequate availability and resources to perform the work to our own high expectations. We can confirm that our in-state staff of 12 professionals, plus additional administrative staff, can complete these projects and have excess capacity available for new assignments. Additionally, we have the resources of our entire firm to assist us should that be necessary. Our ISO 9001 approved business management policies help us to ensure that we are staffed appropriately for our workload, and our customer satisfaction surveys prove that we meet our client expectations, including providing a quality product on schedule.

ERDMAN ANTHONY

Water Resources / Stormwater Management Organizational Chart

City of Delray Beach

Project Manager / Civil Engineer
Dana Gillette, PE, PSM, LEED AP *

ERDMAN ANTHONY

* Resume Included

WATER RESOURCES / STORMWATER MANAGEMENT

Michael Corrigan, PE *
Water Resources Engineer

Martin Willix, PE*
Civil Engineer

Robert Charles Haynes *
Hydraulic Modeler

Bryan Cornelius *
Construction Manager

Marc Kenward, PE
Civil Engineer

Robert Weisenreder, PE
Civil Engineer

Matthew McKrell, EIT
Civil Engineer

Company wide support staff of 252 employees.

5. Attachments

Form B - Public Entity Crimes

NOTIFICATION OF PUBLIC ENTITY CRIMES LAW

Pursuant to Section 287.133, *Florida Statutes*, you are hereby notified that a person or affiliate who has been placed on the convicted contractors list following a conviction for a public entity crime may not submit a proposal on a contract to provide any goods or services to a public entity; may not submit a proposal on a contract with a public entity for the construction or repair of a public building or public work; may not submit proposals on leases or real property to a public entity; may not be awarded or perform work as a contractor, supplier, sub-Proposer, 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 [F.S.] for Category Two [$35,000.00] for a period of thirty-six (36) months from the date of being placed on the convicted contractors list.

Acknowledged by:

Erdman Anthony of Florida, Inc.
Firm Name

5/18/2017
Signature Date

James F. Noth, PE, PSM, Vice President
Printed Name and Title

Form C - Drug-Free Workplace

In the event a tie exists at the conclusion of evaluations, preference will be given to the supplier(s) who certifies it has a drug-free workplace program in accordance with Section 287.087, Florida Statutes. The drug-free workplace preference is applied as follows:

TIE: Whenever two or more proposals are equal with respect to scoring for the evaluation criteria (e.g., price, experience, quality, service) are received for the procurement of commodities or contractual services, a proposal received from a supplier that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing a tie will be followed if none of the tied suppliers have submitted this Form C and/or have a drug-free workplace program.

As the person authorized to sign this statement, I certify that this firm complies fully with the following requirements:

1) This firm publishes a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2) This firm informs employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3) This firm gives each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4) In the statement specified in subsection (1), this firm notifies the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.
5) This firm imposes a sanction on or requires the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6) This firm will continue to make a good faith effort to maintain a drug-free workplace through implementation of this section.

Acknowledged by:

Erdman Anthony of Florida, Inc.
Firm Name

5/18/2017
Signature Date

James F. Noth, PE, PSM, Vice President
Printed Name and Title

Form D - Conflict of Interest Disclosure

The award of the agreement is subject to the provisions of Chapter 112, Florida Statutes. All Proposers must disclose within their Proposal, the name of any officer, director, or agent who is also an employee or relative of an employee of the City of Delray Beach.

Furthermore, all Proposers must disclose the name of any City employee or relative(s) of a City employee who owns, directly or indirectly, an interest in the Proposers firm or any of its branches.

The purpose of this disclosure form is to give the City the information needed to identify potential conflicts of interest for key personnel involved in the award of this contract.

The term "conflict of interest" refers to situations in which financial or other personal considerations may adversely affect, or have the appearance of adversely affecting, an employee's professional judgment in exercising any City duty or responsibility in administration, management, instruction, research, or other professional activities.

Please check one of the following statements and attach additional documentation if necessary:

☒ To the best of our knowledge, the undersigned firm has no potential conflict of interest as defined in Chapter 112, Florida Statutes and Section 2-443, Palm Beach County Code of Ordinances.

☐ The undersigned firm, by attachment to this form, submits information which may be a potential conflict of interest due to other Cities, Counties, contracts, or property interest for this RFQ.

Acknowledged by:

Erdman Anthony of Florida, Inc.

Firm Name

Signature

5/18/2017

Date

James F. Noth, PE, PSM, Vice President

Printed Name and Title

Form E - Acknowledgment of Addenda

The Proposer hereby acknowledges the receipt of the following addenda, which were issued by the City and incorporated into and made part of this RFQ. It is the sole responsibility of the Proposer to ensure that all addenda have been received and receipt of each has been acknowledged. Failure to submit acknowledgement of each addendum issued may result in the Proposer being deemed non-responsive.

ADDENDA NUMBER	ADDENDA DATE
1	4/24/2017
2	4/27/2017
3	5/04/2017
4	5/10/2017
5	5/10/2017
6	5/18/2017
7	5/19/2017

Vice President

Signature of Proposer's Agent — Title

James F. Noth, PE, PSM, Vice President — 5/18/2017

Printed Name — Date

6. Evidence of Insurance

ACORD

ERDMA-1

OP ID: SM

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
04/03/2017

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Poole Professional - NY 1160F Pittsford-Victor Rd. Pittsford, NY 14534 Mary-Beth Rumble 585-385-0428	CONTACT NAME: PHONE (A/C, No, Ext): 585-385-0428 FAX (A/C, No): 585-662-5755 E-MAIL ADDRESS: smiller@poole-ny.com	
	INSURER(S) AFFORDING COVERAGE	NAIC #
	INSURER A : Travelers Indemnity Co.	25658
INSURED Erdman Anthony and Associates Inc. 145 Culver Road, Suite 200 Rochester, NY 14620	INSURER B : Phoenix Insurance Company	25623
	INSURER C : XL Specialty Insurance Company	37885
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR X Business Owners GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC OTHER:	X	X	6805H877623	04/15/2017	04/15/2018	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 1,000,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
B	AUTOMOBILE LIABILITY X ANY AUTO X OWNED AUTOS ONLY X SCHEDULED AUTOS X HIRED AUTOS ONLY X NON-OWNED AUTOS ONLY	X	X	BA9D242282	04/15/2017	04/15/2018	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ 1,000,000 $ $ $
A	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED X RETENTION $ 10000	X	X	CUP6G576644	04/15/2017	04/15/2018	EACH OCCURRENCE AGGREGATE	$ 10,000,000 $ 10,000,000
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N N If yes, describe under DESCRIPTION OF OPERATIONS below	N/A	X	UB4374T524	04/15/2017	04/15/2018	X PER STATUTE OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
C	Prof. Liability PollutionLiability			DPR9912781	04/15/2017	04/15/2018	PER CLAIM AGGREGATE	3,000,000 5,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Certificate holder is included as additional insureds to the extent allowed on the blanket additional insured endorsements included on the above listed policies. Includes waiver of subrogation and 30-day notice of cancellation.

CERTIFICATE HOLDER

PROPO-0

FOR PROPOSAL USE

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Mary Beth Rumble

EXHIBIT "B"

Category: Civil Engineering, Transportation Engineering	**Hourly Raw Salary Rate**
Principal Engineer	$ 53.42
Project Manager	$ 33.06
Senior Engineer	$ 34.61
Engineer I	$ 20.00
Engineer II	$ 24.52
Senior Engineering Tech	$ 25.21
Senior CADD Designer	$ 21.75
CADD Designer	$ 20.00
Construction Manager	$ 30.00
Senior Inspector	$ 22.00
Office Support	$ 18.68

Category: Land Surveying	**Hourly Raw Salary Rate**
Professional Land Surveyor	$ 36.00
CADD Drafting	$ 25.00
Survey Field Crew	$ 41.66
Office Support	$ 18.00

PRICE ADJUSTMENTS BASED ON GOVERNMENTAL PRICE INDEX

Prior to the completion of the first year of the Contract term, and every 12-month anniversary thereafter, the City may consider an adjustment to prices based on the most recent 12 month change in the following pricing index: Bureau of Labor Statistics, Employment Cost Index, Private Industry Workers, Total Compensation, Management business and financial occupations, Not Seasonally Adjusted, CIU2010000110000A.

It is Consultant's responsibility to request any pricing adjustment under this provision. For any adjustment to be considered, the Consultant's request for adjustment should be submitted at least sixty (60) days prior to the anniversary date. The adjustment requested shall not be in excess of the relevant pricing index change. If a timely adjustment request is not received from the Consultant, the City may exercise its Option to Renew the Contract for another Term without any pricing adjustment.