

Nassau County Building Department

LiDAR / Ortho Aerial Survey Project

Agenda Package

Revisions

September 24, 2007

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CONTRACTUAL SERVICES AGREEMENT

Revised 09/24/2007

This AGREEMENT is entered into by and between Nassau County (hereinafter referred to as the "County"), and Program Data Solutions (hereinafter referred to as the "Contractor").

THIS AGREEMENT IS ENTERED INTO BASED ON THE FOLLOWING FACTS:

A. WHEREAS, the Contractor represents that it is fully qualified, possesses the requisite skills, knowledge, qualifications and experience to provide the services identified herein, and does offer to perform such services; and

B. WHEREAS, the State of Florida, Division of Emergency Management (hereinafter referred to as the "Division") issued a Request for Qualifications regarding the Project Management and Technical Services for Mapping within Coastal Florida ("the RFQ"); and

C. WHEREAS, the Division reviewed and accepted the responses to the RFQ from those respondents which had a cumulative score of sixty (60), namely the Contractor, Program Data Solutions, Woolpert, and CH2M Hill.

D. WHEREAS, the Division having a need for such services, having followed appropriate state procurement procedures, and having accepted the offer of the Contractor upon the terms and conditions hereinafter set forth; and

E. WHEREAS, other state agencies may purchase these services pursuant to the Division's RFQ, provided that such purchase is approved pursuant to §287.057(5)(b), Fla. Stat., by the Department of Management Services.

F. WHEREAS, the County desires to "Piggyback" onto the competitive procurement of Division for services to be provided hereinunder.

NOW, THEREFORE, the County and the Contractor do mutually agree as follows:

All terms and conditions set forth in the Contract Number 07-HS-34-14-00-22-470, between the Division and the Contractor dated May 10, 2007, (hereinafter the "underlying contract") which do not conflict with the terms specifically set forth herein shall be binding on the parties hereto. The Contractor shall perform all duties as set in the underlying contract, and the County shall stand in the place of the Division as set forth in said underlying contract to the extent the terms in said underlying contract do not conflict with the following:

(1) SCOPE OF WORK

The Contractor shall fully perform the obligations in accordance with the Scope of Work (Attachment "A" Revised 09/24/2007) of this Agreement, as initiated by a Task Order issued by the County. The Scope of Work shall include:

(A) all PDS products and services associated with the Project will be compliant with "Florida GIS Baseline Specifications for Orthophotography and LiDAR", (Exhibit "A" Revised 09/24/2007 to the Scope of Work), and "PDS Task Order B response", (Exhibit "B" Revised 09/24/2007 to the Scope of Work).

(B) the satisfactory delivery of a highly accurate Ortho/LiDAR aerial survey of the western region of the County consisting of three hundred sixty nine (369) 5,000 foot by 5,000 foot tiles as depicted in "Exhibit C" Revised 09/24/2007 to the Scope of Work attached hereto;

The Contractor shall obtain all permitting, licenses and any other documentation necessary to perform the tasks set forth herein.

(2) FUNDING/CONSIDERATION

The Scope of Work (Attachment "A" Revised 09/24/2007) contains a schedule of agreed to rates and prices for listed services. Under this Agreement, individual, fully-funded Firm Fixed Price Task Orders shall be issued for the specific services to be provided. Each individual Task Order shall identify the amount of funding for the performance of the services to be delivered under that Task Order. The prices set forth in the ordered services shall be based on the established rates and prices for such services in the Scope of Work. Task Orders shall be issued during the contract period specified in the Agreement and any mutually agreed to extension thereof. As consideration for performance rendered under this Agreement, the County agrees to pay Contractor the fees which are included within the establish and agreed upon schedule of prices.

If the necessary funds are not available to fund this Agreement as a result of lack of appropriation, all obligations on the part of the County to make any further payment of funds hereunder shall terminate, and the Contractor shall submit this closeout report within thirty (30) days of receipt of notice from the County.

3) AUDIT REQUIREMENTS

The auditing requirements as set forth in the Contractors underlying contract with the Division are adopted in this contract between the Contractor and the County. To that end, all auditing reports due the County shall be submitted to Financial Services, Clerk of Court, John A. Crawford 76347 Veterans Way, Yulee, Florida 32097.

4) REPORTS

The reporting requirements as set forth in the Contractors underlying contract with the Division shall be modified to require the Contractor to submit weekly reports to the County in lieu of the monthly report requirement. The Contractor shall make all other reports to County as set forth in the underlying contract as the Contractors reporting obligations to the Division.

5) NOTICE AND CONTACT

The name and address of the County contract manager for this Agreement is

Whitey Moran
Nassau County Certified Building Official
96161 Nassau Place
Yulee, FL 32097
904/321-5765 phone
904/321-5763 fax
wmoran@nassaucountyfl.com

The name and address of the contact person for the Contractor is:

Notice and agreements:
Phil Thiel, Program Manager
8401 Arlington Blvd.
Fairfax, VA 22031

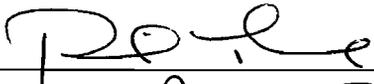
Invoices and Billing Questions:
Manaswini Kotecha, Joint Ventures Accountant
9400 Amberglen Blvd. Bldg. C
Joint Venture Dept.
Austin, TX 78729

(6) The requirements for MYFLORIDAMARKETPLACE TRANSACTION FEE as set forth in the underlying contract between the Contractor and the Division do not apply to the contract between the Contractor and the County.

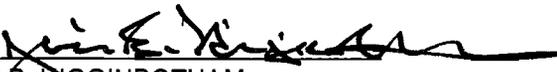
IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their undersigned officers as duly authorized.

CONTRACTOR:

PROGRAM DATA SOLUTIONS

By: 
Name and Title: PHILIP THIER, Vice President
Date: 11.7.07
FID# _____

**BOARD OF COUNTY COMMISSIONERS
NASSAU COUNTY, FLORIDA**

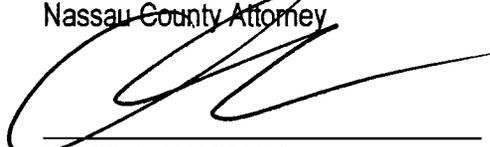

JIM B. HIGGINBOTHAM
Its: Chairman

ATTEST TO CHAIRMAN'S
SIGNATURE:


JOHN A. CRAWFORD
Its: Ex-Officio Clerk

REVIEWED BY GENE KNAGA
DEPUTY COMPTROLLER
 DATE 9/24/07

Approved as to form by the
Nassau County Attorney


DAVID A. HALLMAN

ATTACHMENT A

SCOPE OF WORK

Revised 09/24/2007

Specifications:

The mapping project consists of Phase I and Phase II, as described below. In addition the Florida GIS Baseline Specifications 1.0 for 1 ft. Orthophotography and LiDAR, attached hereto as Exhibit "A", the project will meet enhanced specifications, set forth in Exhibit "B" hereto "PDS Task Order B response". These enhanced specifications are designed to deliver greater accuracy and usability of the final project.

Project Area:

The project area shall consist of Three Hundred Sixty Nine (369) tiles which are Five Thousand square feet (5,000 sq. ft) in dimension. This area is the westernmost portion of Nassau County, Florida and is the portion of Nassau County which is not being mapped pursuant to the Florida Department of Emergency Management contract with Contractor, as indicated in the email and map attached hereto as Exhibit "C".

Specific Tasks:

The total list of items that will be performed during the course of Phase I and Phase II are noted below. Items in **Bold** are Phase I items and Items underlined are part of Phase II. Phase II items are also marked with a number at the end indicated the processing order that must take place (a- orthophotos; b-LiDAR and terrain).

- **Item 1 – Project Management & QA/QC of Data**
- **Item 2 – Control Surveys**
- **Item 3 – Aerial Image Acquisition**
- **Item 4 – LiDAR Data Acquisition**
- **Item 5 – Aerial Triangulation – a1**
- **Item 6 – Orthophoto Production –b1**
- **Item 7 – LiDAR Processing – b1**
- **Item 8 – Breakline Feature Extraction – b3**
- **Item 9 – Contour Modeling – b4**
- **Item 10 – Final LAS Deliverables – b2**
- **Item 11 – Final Reports and FGDC Metadata – b5**

Phase I Work Items:

Item	Description	# Files	Unit Price	Total Price
1	Project Planning/Management/QA	369	\$ 13.52	\$ 4,988.88
2	Control Survey	369	\$ 64.52	\$ 23,807.88
3	Aerial Imagery - 1 ft. Orthos	369	\$ 110.00	\$ 40,590.00
6	LiDAR Data Acquisition	369	\$ 285.35	\$ 105,294.15
		369	\$ 473.39	\$ 174,680.91

Phase II Work Items:

Item	Description	# Files	Unit Price	Total Price
1	Project Planning/Management/QA	369	\$ 234.21	\$ 86,423.49
2	Control Survey (QA/QC) checkpoints)	369	\$ 64.52	\$ 23,807.88
4	Aerial Triangulation	369	\$ 13.20	\$ 4,870.80
5	Orthophoto Rectification	369	\$ 34.10	\$ 12,582.90
7	LiDAR/DTM Processing	369	\$ 137.20	\$ 50,626.80
8	Breakline Data Compilation	369	\$ 292.60	\$ 107,969.40
9	Final DTM/LAS Deliverables	369	\$ 14.09	\$ 5,199.21
10	Contour Deliverables	369	\$ 97.09	\$ 35,826.21
11	Reports - MTS and Metadata	369	\$ 1.41	\$ 520.29
		369	\$ 888.42	\$ 327,826.98

Accuracy and Acquisition Parameters:

Contractor shall perform the work with the following vertical accuracy:

Data Vertical Accuracy

FVA (open terrain)	0.60 ft (1 ft contour accuracy) (mandatory)
CVA (consolidated)	1.19 ft (2ft contour accuracy) (mandatory)
SVA (bare-earth, low grass)	1.19 ft (2ft contour accuracy) (mandatory)
SVA (brush lands/low trees)	1.19 ft (2ft contour accuracy) (mandatory)
SVA (forested area)	1.19 ft (2ft contour accuracy) (mandatory)
SVA (urban areas)	1.19 ft (2ft contour accuracy) (mandatory)

Data Acquisition Parameters

Acquisition Altitude AMT	800 meters
Scan frequency	32 hertz
Raw LiDAR point density	4 points per square meter
Maximum full scan angle	32 degree (+/- 16 degrees from nadir)
GPS baselines	less than or equal to 30 Km
Maximum flightline lengths	less than or equal to 80 Km
Sidelap	50%

FVA noted above refers to the Fundamental Vertical Accuracy. FVA is computed in open terrain only and is reported as RMSEz.

CVA noted above refers to the Consolidated Vertical Accuracy. CVA is computed at the 95th percentile in open terrain, weeds, crops, scrub, forests, urban areas, etc., and is reported as Accuracyz.

SVA noted above refers to the Supplemental Vertical Accuracy. The SVA isolates, tests and reports accuracy at the 95th percentile in four different land cover categories (bare-earth & low grass; brush lands & low trees; forested areas; and urban areas)

To report these errors and to ensure compliance with these data accuracy standards, the PDS Team will survey 120 quality control checkpoints for every 500 square miles of topographic LiDar data to be collected. These points will not be used during data production and are designed exclusively for accuracy testing and error reporting. Tests points will be well distributed throughout the project area to the greatest degree possible.

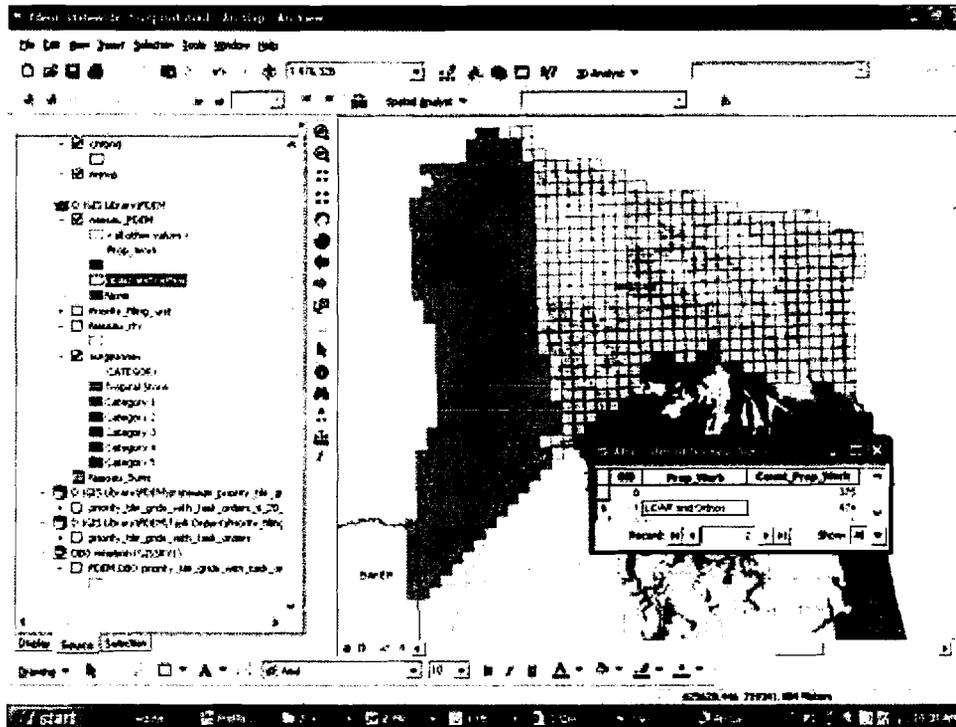
PDS will issue a set of Florida MTS Reports and product accuracy reports that will outline the procedures used to map and verify the accuracies have been met. The net result is that engineers throughout Nassau County will be able to use the data with confidence to the uses supported by the product accuracies.

EXHIBIT C

Revisions – See Exhibits “D” and “E”

John,

I've attached a shapefile and summary of FDEM's proposed mapping plans in Nassau County. Our current plan is to map 474 tiles (5k*5k) of the County, including the area in the central part of the County we previously discussed, leaving 369 tiles for the County to map. You can assess this yourself by looking at the prop_work (proposed work) or priority fields in the shapefile. The unit costs for LiDAR and orthos are running around \$1400-1500/tile which would mean the County costs to map the remainder of the County would be ~525-563k. FDEM will bear 663-711k of costs to map the central and eastern portions of the County. These costs assume new ortho collection, which of course is somewhat dependent on the timing of things w/ the FDOR/FDOT ortho collection planned for this winter.



As we discussed, the County can piggyback on the FDEM contract, in which case the County will be flown at the same time by the same vendor. If you use the NOAA contract, the County runs the risk of the flight timing likely being different. The NOAA pricing may be different and potentially lower but this will likely be accompanied by different and lower specifications.

We are in the process of preparing the Requests for Quotes for your region (Jacksonville Basin) and may issue those in the next 2 week. I can provide you a copy of their contract for your purchasing department to review if you'd like. Give me a call to discuss.

Thanks,

Mark W. Nelson, P.E.
Contractor - Florida Division of Emergency Management
730 NE Waldo Road Gainesville, FL 32641
Phone 352-377-5821 Fax 352-377-3166
Mobile 352-870-9038
www.jonesedmunds.com

EXHIBIT D

John Crowder

From: Mayfield, Brian [bmayfield@Dewberry.com]
Sent: Thursday, September 20, 2007 1:55 PM
To: John Crowder
Subject: Nassau Tiles
Attachments: Nassau_Tiles.dbf; Nassau_Tiles.prj; Nassau_Tiles.sbn; Nassau_Tiles.sbx; Nassau_Tiles.shp;
Nassau_Tiles.shp.xml; Nassau_Tiles.shx

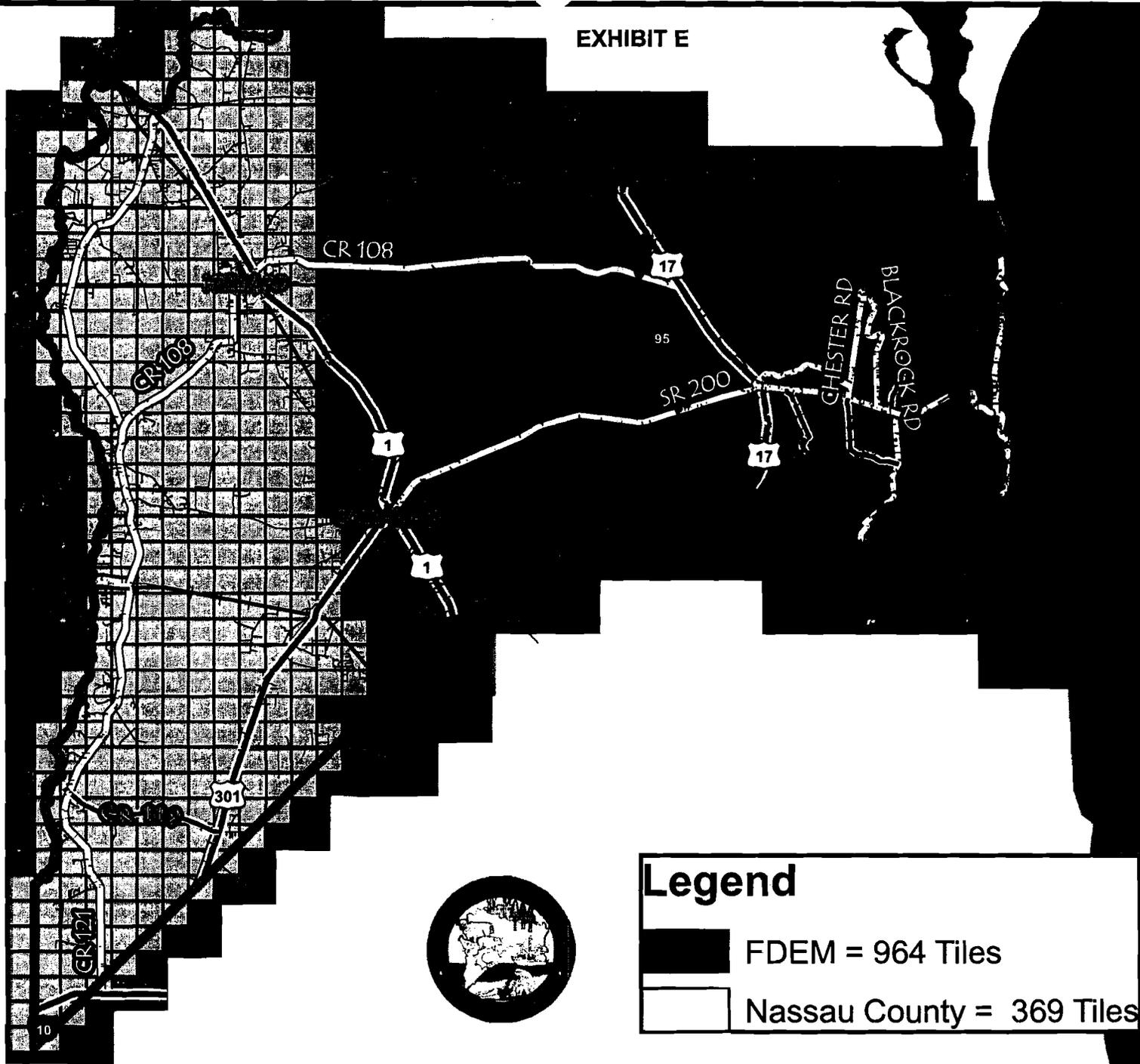
John,

Please take a look at the attached Shapefile. I come up with 369 tiles that are needed to complete the County. I'm not sure where the extra 6 tiles that are in your count are coming from. Please confirm the extents of this Shapefile as correct. If it is not correct, please provide me with the appropriate Shapefile. Thanks.

Brian Mayfield, C.P., GISP, G.L.S.
Associate / Sr. Project Manager
Dewberry
8401 Arlington Blvd.
Fairfax, VA 22031
703.849.0254 direct
703.849.0100 main
703.849.0182 fax
www.dewberry.com

9/24/2007

EXHIBIT E



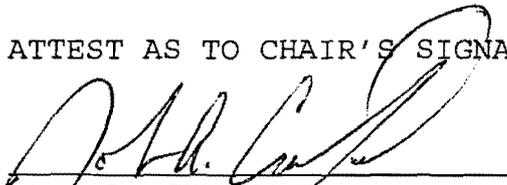
Programs & Data Solutions
Task Order Phase II
LiDar Survey

NASSAU COUNTY BOARD OF COUNTY COMMISSIONERS



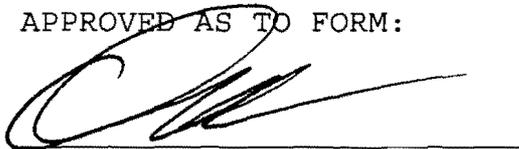
MARIANNE MARSHALL
CHAIR

ATTEST AS TO CHAIR'S SIGNATURE:



JOHN A. CRAWFORD
EX-OFFICIO CLERK *EOK 11/12/08*

APPROVED AS TO FORM:



DAVID A. HALLMAN
COUNTY ATTORNEY



8381 Dix Ellis Trail, Suite 400
Jacksonville, Florida 32256
tel: 904 731-7109
fax: 904 519-7090

October 22, 2008

Douglas Seaman, P.E.
Public Works Director
Nassau County
96161 Nassau Place
Yulee, FL 32097

Subject: Nassau County - LiDAR Conference Call

Dear Mr. Seaman:

Below is a summary of the conference call that was held on October 17, 2008. Attending were:

- Christine Worley - URS - IDIQ Contractor
- Douglas Seaman - Nassau County - Public Works Director
- Patrick Victor - CDM
- José Maria Guzman - CDM

Discussion Topics

- URS currently intends to use LiDAR throughout the entire county, but there is a portion not being processed. URS is waiting for budget approval to process the remaining area, and URS thinks that FEMA might be able to share costs.
- FEMA/URS must have the data by March 1st to be able to use the data without delaying the program. Since it will at least three months to process the data, Nassau County should authorize the processing of the data as soon as possible.
- Nassau County already funded flying the LiDAR and is interested in making sure that the data is used for mapping purposes. The existing 5 ft contours are obsolete and not accurate.
- The LiDAR contractor is ready to start processing the LiDAR to minimize schedule impacts to the overall process.





- Nassau County will authorize processing of data since time is of the essence for FEMA and we don't want to lose the opportunity.

Action Items

- Christine will discuss with FEMA the options regarding sharing cost for LiDAR processing the remaining part of the County.
- Christine will ask FEMA about the schedule implications of incorporating the remaining LiDAR.
- County's will move forward with processing the LiDAR as soon as possible

Please don't hesitate to contact us with questions.

Sincerely,

A handwritten signature in black ink that reads "Patrick R. Victor". The signature is written in a cursive style and is enclosed within a hand-drawn circle.

Patrick R. Victor, P.E.
Camp Dresser & McKee Inc.