



**BOARD OF SUPERVISORS AGENDA ITEM REPORT  
CONTRACTS / AWARDS / GRANTS**

Award  Contract  Grant

Requested Board Meeting Date: 12/04/18

\* = Mandatory, information must be provided

or Procurement Director Award

**\*Contractor/Vendor Name/Grantor (DBA):**

Greenlight Traffic Engineering, LLC

**\*Project Title/Description:**

LIDAR Asset Data Extraction

**\*Purpose:**

Amendment: Contract No. CT-TR-19-011, Amendment No. One (1). This Amendment extends the term of the contract to 9/30/19, modifies the scope of work, and increases the contract amount by \$49,990.00 for a cumulative not-to-exceed amount of \$417,621.00. Administering Department: Transportation

This Amendment adds additional LIDAR asset extraction services as requested by the County.

**\*Procurement Method:**

Pursuant to the Direct Selection authority of A.R.S. § 34-103, the Board of Supervisors awarded a contract for Requisition No. 304565 on 08/07/18 in the amount of \$367,631.00 for a contract term of 08/07/18 to 06/30/19.

Attachment: Amendment No. One (1).

**\*Program Goals/Predicted Outcomes:**

Provide geospatial location of Transportation Department assets including: edge of pavement and type of curb, sidewalks, curb cuts and curb ramps, striping and pavement markings, street lights and signal poles.

**\*Public Benefit:**

The asset data is a key component of the Transportation Network Management System (TNMS). TNMS will increase the effectiveness and efficiency of managing Transportation assets and network.

**\*Metrics Available to Measure Performance:**

Asset data is provided by vendor in a digital format that can be uploaded into the County GIS system.

**\*Retroactive:**

No.

*To: CoB- 11-20-18  
Pgs - 11  
(1)*

**Contract / Award Information**

Document Type: \_\_\_\_\_ Department Code: \_\_\_\_\_ Contract Number (i.e., 15-123): \_\_\_\_\_

Effective Date: \_\_\_\_\_ Termination Date: \_\_\_\_\_ Prior Contract Number (Synergen/CMS): \_\_\_\_\_

Expense Amount: \$\* \_\_\_\_\_  Revenue Amount: \$ \_\_\_\_\_

**\*Funding Source(s) required:**

Funding from General Fund?  Yes  No If Yes \$ \_\_\_\_\_ % \_\_\_\_\_

Contract is fully or partially funded with Federal Funds?  Yes  No

**If Yes, is the Contract to a vendor or subrecipient?**

Were insurance or indemnity clauses modified?  Yes  No

If Yes, attach Risk's approval.

Vendor is using a Social Security Number?  Yes  No

If Yes, attach the required form per Administrative Procedure 22-73.

**Amendment / Revised Award Information**

Document Type: CT Department Code: TR Contract Number (i.e., 15-123): 19-011

Amendment No.: One (1) AMS Version No.: Two (2)

Effective Date: 12/04/18 New Termination Date: 09/30/19

Prior Contract No. (Synergen/CMS): \_\_\_\_\_

Expense or  Revenue  Increase  Decrease Amount This Amendment: \$ 49,990.00

Is there revenue included?  Yes  No If Yes \$ \_\_\_\_\_

**\*Funding Source(s) required:** Transportation Operation  
(Highway User Revenue Fund (HURF))

Funding from General Fund?  Yes  No If Yes \$ \_\_\_\_\_ % \_\_\_\_\_

**Grant/Amendment Information** (for grants acceptance and awards)  Award  Amendment

Document Type: \_\_\_\_\_ Department Code: \_\_\_\_\_ Grant Number (i.e., 15-123): \_\_\_\_\_

Effective Date: \_\_\_\_\_ Termination Date: \_\_\_\_\_ Amendment Number: \_\_\_\_\_

Match Amount: \$ \_\_\_\_\_  Revenue Amount: \$ \_\_\_\_\_

**\*All Funding Source(s) required:**

\*Match funding from General Fund?  Yes  No If Yes \$ \_\_\_\_\_ % \_\_\_\_\_

\*Match funding from other sources?  Yes  No If Yes \$ \_\_\_\_\_ % \_\_\_\_\_

**\*Funding Source:** \_\_\_\_\_

**\*If Federal funds are received, is funding coming directly from the Federal government or passed through other organization(s)?**

Contact: William Brooks, Procurement Officer 11/9/18 Request 11/9/18

Department: Procurement May 9 11/9/18 Telephone: 724-3245

Department Director Signature/Date: [Signature] 11/15/18

Deputy County Administrator Signature/Date: [Signature] 11/13/18

County Administrator Signature/Date: [Signature] 11/16/18  
*(Required for Board Agenda/Addendum Items)*

<b>PIMA COUNTY DEPARTMENT OF TRANSPORTATION</b>	
<b>PROJECT:</b>	LIDAR Asset Data Extraction
<b>CONTRACTOR:</b>	Greenlight Traffic Engineering, LLC 7600 N. 15 <sup>th</sup> Street, Suite 150 Phoenix, AZ 85020
<b>CONTRACT NO.:</b>	CT-TR-19-011
<b>AMENDMENT NO.:</b>	One (1)
<b>FUNDING:</b>	Transportation Operation (Highway User Revenue Fund (HURF))

<b>CONTRACT</b>
<b>NO.</b> <u>CT-TR-19-011</u>
<b>AMENDMENT NO.</b> <u>01</u>
<small>This number must appear on all invoices, correspondence and documents pertaining to this contract.</small>

<b>CONTRACT TERM:</b> 08/07/18 - 06/30/19	<b>ORIGINAL CONTRACT AMOUNT:</b>	\$	367,631.00
<b>TERMINATION PRIOR AMENDMENT:</b> N/A	<b>PRIOR AMENDMENT(S):</b>	\$	-
<b>TERMINATION THIS AMENDMENT:</b> 09/30/19	<b>AMOUNT THIS AMENDMENT:</b>	\$	49,990.00
	<b>REVISED CONTRACT AMOUNT:</b>	\$	417,621.00

**CONTRACT AMENDMENT**

**WHEREAS**, COUNTY and CONSULTANT have entered into the Contract referenced above; and

**WHEREAS**, COUNTY has requested additional LIDAR asset extraction services from CONSULTANT; and

**WHEREAS**, CONSULTANT has agreed to provide these services at a cost acceptable to COUNTY; and

**WHEREAS**, COUNTY and CONSULTANT have agreed to extend the term of the Contract and increase the Contract amount to provide for these services; and

**WHEREAS**, COUNTY and CONSULTANT have agreed to amend the Contract to reflect these modifications.

**NOW, THEREFORE**, it is agreed as follows:

**CHANGE:**     **ARTICLE 1 – TERM AND EXTENSION/RENEWAL/CHANGES**, first paragraph as follows:

**FROM:**        "This Contract as approved by the Board of Supervisors commences on August 7, 2018, and terminates on June 30, 2019, unless sooner terminated or further extended pursuant to the provisions of this Contract."

**TO:**            "This Contract as approved by the Board of Supervisors commences on August 7, 2018, and **terminates on September 30, 2019**, unless sooner terminated or further extended pursuant to the provisions of this Contract."

**CHANGE:** ARTICLE 2 – SCOPE OF SERVICES as follows:

**FROM:** "CONSULTANT agrees to provide LIDAR Asset Data Extraction services for the COUNTY as described in EXHIBIT A: SCOPE OF WORK (14 pages), attached to this Contract."

**TO:** "CONSULTANT agrees to provide LIDAR Asset Data Extraction services for the COUNTY as described in EXHIBIT A: SCOPE OF WORK (14 pages) and **EXHIBIT A: SCOPE OF WORK, ATTACHMENT 1 (7 pages)**, attached to this Contract."

**CHANGE:** ARTICLE 3 – COMPENSATION AND PAYMENT first paragraph, first sentence as follows:

**FROM:** "In consideration of the services specified in this Contract, COUNTY agrees to pay CONSULTANT Not to Exceed Three Hundred Sixty-Seven Thousand Six Hundred Thirty-One Dollars and Zero Cents (\$367,631.00). CONSULTANT'S fees are as stated in EXHIBIT B: CONSULTANT FEE PROPOSAL (4 pages), attached to this Contract."

**TO:** "In consideration of the services specified in this Contract, COUNTY agrees to pay CONSULTANT Not to Exceed Four Hundred Seventeen Thousand Six Hundred Twenty-One Dollars and Zero Cents (\$417,621.00). CONSULTANT'S fees are as stated in EXHIBIT B: CONSULTANT FEE PROPOSAL (4 pages) and **EXHIBIT B: CONSULTANT FEE PROPOSAL, ATTACHMENT 1 (2 pages)**, attached to this Contract."

**ATTACH:** **EXHIBIT A: SCOPE OF WORK, ATTACHMENT 1 (7 pages) and EXHIBIT B: CONSULTANT FEE PROPOSAL, ATTACHMENT 1 (2 pages) to Contract.**

This Amendment shall be effective on December 4, 2018.

All other provisions of the Contract, not specifically changed by this Amendment, shall remain in effect and be binding upon the Parties.

IN WITNESS WHEREOF, the Parties have affixed their signatures to this Contract on the dates written below.

APPROVED:

\_\_\_\_\_  
Chairman, Board of Supervisors

\_\_\_\_\_  
Date

CONSULTANT:

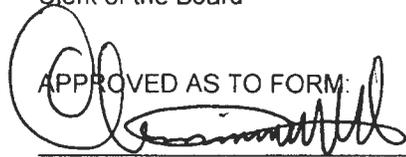
  
\_\_\_\_\_  
Signature

Scott Kulley, Principal  
Name and Title (Please Print)

November 16, 2018  
Date

ATTEST:

\_\_\_\_\_  
Clerk of the Board



\_\_\_\_\_  
Deputy County Attorney

**CHRISTOPHER STRAUB**

\_\_\_\_\_  
Name (Please Print)

11-13-2018  
Date



November 5, 2018

Mr. Bob Roggenthen, PE  
Pima County Department of Transportation  
201 N. Stone Ave., 4th Fl.  
Tucson, AZ 85701

Re: Pima County Sign Inventory and Panel Replacement  
LiDAR Asset Extraction

Dear Mr. Roggenthen:

Greenlight Traffic Engineering, LLC (Greenlight) has prepared our scope of work and fee proposal for the **LiDAR Asset Extraction** project, **Change Order 1: Additional LiDAR Asset Extraction**.

The total fee requested for executing this work is **\$49,990**. The enclosed text, derivation of cost proposal summary, man-hour derivation and subconsultant scopes of work and fee proposals outline the anticipated tasks and effort to complete the project.

On behalf of the Greenlight team, we look forward to working with the Pima County Department of Transportation to complete this important project.

Sincerely,

Greenlight Traffic Engineering, LLC



Scott Kelley, PE, PFOE  
Project Manager  
[scottk@greenlightte.com](mailto:scottk@greenlightte.com)  
(602) 499-1339

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**PRIME CONSULTANT SCOPE OF WORK**

Pima County Department of Transportation (PCDOT) has requested additional LiDAR asset extraction from the Greenlight team. In addition to the cost to extract the data, the project schedule is anticipated to extend for an additional 3 months. Greenlight's scope of work includes project management services for the extension of the schedule. DBi's costs for the additional LiDAR data extraction will be provided at cost (i.e., no markup).

**1.0 PROJECT MANAGEMENT****1.1 Invoicing and PM reports**

Greenlight will prepare and electronically transmit monthly invoices to the Pima County Project Manager. Greenlight will include a Project Manager's report summarizing:

- Past work effort
- Planned work effort
- Scope changes/value added to date
- Schedule status
- Budget status
- Input needed from County
- Other issues and/or concerns

This task includes preparation of up to three (3) additional invoices and project manager reports.

**1.2 Pima County Coordination**

Greenlight will coordinate with the County's Project Manager and functional groups to address day-to-day project items that need input from County staff. Time for these efforts includes five (5) emails or phone calls per month (estimated at 0.5 hours each) for the additional three (3) month project duration.

**1.3 Subconsultant Coordination**

Greenlight will coordinate with DBi Services (DBi) to address day-to-day project items that need input. Time for these efforts includes four (4) emails or phone calls per month (estimated at 0.5 hours each) for the additional three (3) month project duration.

**1.4 Develop Issue Tracking Matrix**

Greenlight will develop an issue tracking matrix. This document will be updated and monitored to confirm that all issues are resolved in a timely and acceptable manner. This task includes updating the issue tracking matrix during the additional three (3) month project duration.

**TASK 1.0 DELIVERABLES:**

- 3 Invoices and Project Manager reports

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## 2.0 MEETINGS

### 2.1 Coordination Meetings, Agendas, Draft Meeting Summaries, Final Meeting Summaries

Greenlight will coordinate with appropriate parties to organize coordination meetings to discuss project issues and provide status updates. Meetings include agenda development. Each meeting will be documented with summary notes distributed to the project team in draft and final forms. This task includes up to three (3) additional coordination meetings. Meeting prep, attendance and summary notes are estimated at four (4) hours each meeting.

### TASK 2.0 DELIVERABLES

- 3 Meeting Agendas
- 3 Draft Meeting Summaries
- 3 Final Meeting Summaries

### SUBCONSULTANT SCOPES OF WORK AND FEE PROPOSALS

**LiDAR Asset Extraction** – DBi Services’ scope of work and fee proposal is attached for reference. Their fee has been included as “Outside Services” in the Derivation of Cost Proposal Summary.

### PRELIMINARY SCHEDULE MILESTONES

Milestone	Estimated Completion
Change Order Notice to Proceed	Friday, November 16, 2018
Asset Extraction Delivered to County	Friday, April 26, 2019

### EXCLUSIONS

The below exclusions are planning and design capabilities for which Greenlight can perform services; however, they are specifically excluded from this scope of work:

- Traffic and traffic safety studies
  - Intersection capacity
  - Signal and/or stop warrants
  - Signal progression
  - Traffic calming
  - Crash summaries
  - Crash diagrams
  - Safety performance functions (SPFs)
  - Before / After safety analysis
  - Safe routes to school (SRTS)
  - Strategic transportation safety plans
  - Road safety assessments (RSAs)
- Transportation planning
  - Transportation master plans
  - Pedestrian plans
  - Bike plans
- Traffic Engineering Design
  - Utility coordination
  - Construction sequencing
  - Traffic control
  - Pavement marking
  - Traffic signals
  - Lighting
  - Intelligent transportation systems (ITS)
  - Horizontal geometric design
  - Parking lot layout
- Tort liability support
- 3<sup>rd</sup> party study and design plan review

# Pima County LiDAR Asset Extraction Scope Change Summary

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## *No Cost Change Order Items:*

- Edge of pavement polygons. Not in original scope but will be provided with final deliverable.  
Crosswalks: The line feature will be drawn parallel to the road line markings and between crosswalk lines and contain the attributes of length and width with a measurement from EOP to opposite EOP as an attribute.
- Medians: Not in original scope but will be provided with final deliverable.

## *Change Order Items:*

- **Post Count**
- **Roadway Centerlines**

## *Cost:*

**Lump Sum: \$44,260.00**

## Post Count

- Add the attribution of the number of posts per post structure (ID). The Sign Inventory project scope only includes a "Post ID" and "Post Type" and does not include extracting number of posts for the sign assembly. Multiple post sign assemblies are only captured as a single "Post ID" and multiple posts are assumed to have the same "Post Type".

Name	Data Type	Description	Example
Sign Post ID	Point	Location of sign post	X,Y
Sign Post Type	String	Type of sign post	Square Tube
Number of Posts per Assembly	Numeric	Number of actual posts per sign assembly	2



## Roadway Centerlines

- Roadway Centerlines. One centerline will be provided per roadbed, in the scenario when a median or divider is present, the centerline will split and run continuously (Figure1) until the convergences back to one roadbed where the median or divider ends (Figure 2).

Name	Data Type	Description	Example
Roadway Centerline	Line	Line depicting center of roadbed. Split at medians and dividers	

Figure 1



Figure 2





Client: Pima County Department of Transportation  
 Contract No.: CT-TR-19-011  
 Project No.: NA  
 Project: LiDAR Asset Extraction - CO1 Addl LiDAR extraction  
 Route: Countywide  
 Submittal: Submittal 1  
 Date: November 5, 2018

**DERIVATION OF COST PROPOSAL SUMMARY**

**DIRECT LABOR**

Classification	Man		Labor Costs
	Hours	Hourly Rate	
Sr QC Reviewer (Mike Blankenship)	0	\$ 74.10	\$ -
Project Manager (Scott Kelley)	36	\$ 57.88	\$ 2,083.68
Traffic Designer (Alyssa Whitten)	3	\$ 28.90	\$ 86.70
Total Labor			<u>\$ 2,170.38</u>
Overhead <sup>1</sup> @		140.00%	<u>\$ 3,038.53</u>

Notes:

1. Provisional overhead. New firm without full year of overhead expenses.

Direct Labor Sub-Total \$ 5,208.91

**DIRECT EXPENSES**

Item	Units	Unit Cost	Cost
		\$ -	\$ -
Direct Expenses Sub-Total			<u>\$ -</u>

**OUTSIDE SERVICES**

Firm	Units	Unit Cost	Cost	DBE %
DBi Services	1	\$ 44,260.00	\$ 44,260.00	
			\$ -	
			\$ -	
Outside Services Sub-Total			<u>\$ 44,260.00</u>	

Total Cost to Consultant \$ 49,468.91

Net Fee = (Labor + Overhead) x 10% \$ 520.89

Total Fee \$ 49,990.00

  
 Scott Kelley, PE, PTOE  
 Principal / Project Manager  
 Greenlight Traffic Engineering, LLC

November 5, 2018  
 Date



**Client:** Pima County Department of Transportation  
**Contract No.:** CT-TR-19-011  
**Project No.:** NA  
**Project:** LiDAR Asset Extraction - CO1 Addl LiDAR extraction  
**Route:** Countywide  
**Submittal:** Submittal 1  
**Date:** November 5, 2018

**DERIVATION OF MAN-HOURS**

TASK DESCRIPTION	Classification			Total Hours
	Sr QC Reviewer (Mike Blankenship)	Project Manager (Scott Kelley)	Traffic Designer (Alyssa Whitten)	
<b>1.0 PROJECT MANAGEMENT</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>24</b>
1.1 Invoicing and PM reports (1 per month for 3 months)		6		6
1.2 Pima County Coord - PM and Functional Groups (5 emails or phone calls per month for 3 months)		6		6
1.3 Subconsultant Coord (4 emails or phone calls per month for 6 months)		6		6
1.4 Develop and update Issue Tracking Matrix for Project life		6		6
<b>2.0 MEETINGS</b>	<b>0</b>	<b>12</b>	<b>3</b>	<b>15</b>
2.1 Coordination Meetings, Draft and Final Meeting Summaries (1 per month for 3 total)		12	3	15
<b>Greenlight Total Man-Hours</b>	<b>0</b>	<b>36</b>	<b>3</b>	<b>39</b>