

## **AMENDMENT TO AGREEMENT**

Amendment dated May 15, 2020

The Agreement for Professional Services (Agreement) made as of March 12, 2020, between Sauk County, Wisconsin (OWNER) and Ayres Associates Inc, 5201 East Terrace Drive, Suite 200, Madison, Wisconsin, (CONSULTANT) is hereby amended as set forth below. All other terms and conditions of the Agreement remain in full force and effect.

### **ARTICLE 1 - SCOPE OF SERVICES**

#### Change in Scope of Services

- 1.1.18 Deliver the following products to OWNER:
  - a) Classified Point Cloud, LAS v1.4 format
  - b) Hydro flattening breaklines, ESRI shapefile, polylineZ format
  - c) Bare Earth DEM, GeoTiff Format
  - d) Pilot Area, LAS and DEM format tiles
  - e) Tile Schematic, ESRI shapefile format
  - f) LiDAR acquisition and processing reports, including:
    - 1) Data Collection report with flight logs
    - 2) Polygons representing individual swath boundaries
    - 3) Survey report with calibration control points
    - 4) Processing report for generation of products
    - 5) Vertical Accuracy Report (NVA and VVA)
    - 6) FGDC metadata, XML format
  - h) 1-foot contours, ESRI shapefile format
  - i) Digital Surface Model, GeoTIFF Format
  - j) Intensity imagery, GeoTIFF format
  - k) Bare earth point dataset, .XYZ or .las format
  
- 1.1.19 Prepare project-wide 1-foot contours from the bare earth surface model and breaklines.
  - a) Create contours from largest blocks of bare earth points that is achievable within the limitations of the lidar processing software.
  - b) Apply OWNER-selected contour smoothing routine from three options provided by CONSULTANT.
  - c) Add index depression and intermediate depression contour types to the contour attributes.
  - d) Run topology tests for contour type and contour location across the entire contour dataset.
  - e) Manually fix contours that do not meet topology rules.
  
- 1.1.20 Add building and high vegetation classifications to the classified point cloud.
  - a) Use automated routines to classify vegetation points that exist 10 feet or greater above the ground. The high vegetation points will be placed in Class 5 of the classified point cloud.
  - b) Use automated routines to classify building points that exist 10 feet or greater above the ground. The building points will be placed in Class 6 of the classified point cloud.

- 1.1.21 Prepare LiDAR intensity images using first return values within the LiDAR point cloud. The intensity images will be delivered as 8-bit, 256 color gray scale, GeoTIFF format images.
- 1.1.22 Collect additional hydro breaklines to be used in creation of bare earth Digital Elevation Model (DEM) and contours.
  - a) Compile hydro-flattened breaklines for ponded water that is two acre or greater and double line streams that are twenty feet in width or greater.
- 1.1.23 Generate a countywide Digital Surface Model (DSM) using first return lidar points. The cell size will be 2.0 feet. The delivery format will be GeoTIFF tiles.
- 1.1.24 Generate bare-earth point datasets from calibrated point cloud.
  - a) Export bare earth points to .XYZ or .las file format.
- 1.1.25 CONSULTANT may render to the OWNER advice, consultation, and expertise with respect to the development, use, and technical application of the deliverables provided under this project.

## **ARTICLE 5 – PAYMENTS**

### Changes in Compensation for Services

#### **5.1 COMPENSATION FOR SERVICES**

- 5.1.1 OWNER shall compensate CONSULTANT for services included in Article 1 in an amount not to exceed \$219,858.00, according to the following services:

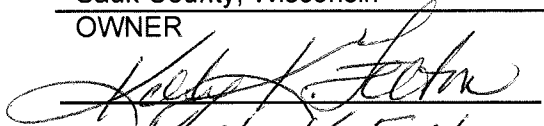
##### 5.1.1.1

|                                                |              |
|------------------------------------------------|--------------|
| Basic Services (Articles 1.1.1 – 1.1.18).....  | \$176,513.00 |
| Basic Services (Articles 1.1.18 – 1.1.25)..... | \$43,345.00  |

In Witness Whereof, the parties hereto have made and executed this Amendment to Agreement as of the day and year first written above.

Sauk County, Wisconsin

OWNER

  
\_\_\_\_\_  
Kelly K. Felton  
\_\_\_\_\_  
GIS Specialist/LTO  
\_\_\_\_\_  
5/18/2020  
\_\_\_\_\_

(Signature)


(Typed Name)

(Title)

(Date)

Ayres Associates Inc

CONSULTANT

  
\_\_\_\_\_  
Jason Krueger  
\_\_\_\_\_  
Manager  
\_\_\_\_\_  
5/19/2020  
\_\_\_\_\_