RUNWAY 9-27 EXTENSION AGIS SURVEY
BROOKSVILLE-TAMPA BAY REGIONAL AIRPORT

Exhibit A - Scope of Work

American Infrastructure Development, Inc. (AID) has been asked by Hernando County (Owner) of the Brooksville-Tampa Bay Regional Airport (BKV) to provide additional Professional Services for the Runway 9-27 Extension project. These services will include tasks as detailed in this document.

Construction Administrative Services

The AID Team will perform the following tasks under this phase:

Coordination of the AGIS survey and Obstruction analysis for Runway 09-27 Extension.

Client Coordination.

Obstruction Survey and AGIS Coordination

An airport geographical information systems (AGIS) survey and obstruction analysis, as described in Attachment B, will be performed by Woolpert, Inc. (AID subconsultant). Woolpert's responsibilities will include setting up the project in AGIS, completing the Runway 9-27 Extension vertical guidance, and uploading all survey data to AGIS.

The project for BKV will be focused around performing three main tasks:

1) Safety Critical data collection and Obstruction analysis for AC 150/5300-18B, Vertically Guided Approach Obstruction Identification Surfaces and PAPI OCS/LSCS surfaces for the proposed 09/27 runway extension.

2) As-built survey to determine the post construction runway end coordinates and any new or modified NAVAIDS for the Runway 9-27 extension.

Task 01 – Design Survey for AC 150/5300-18B, Vertically Guided Approach Obstruction Identification Surfaces for Proposed 09/27 Extended Approaches.

a. Assist the airport in initiating the AGIS project necessary for the completion of this project on the AGIS web portal.
    i. Develop SOWs and plans as required
    ii. A Safety Critical, Including Design Data projects will be established for the airspace analysis component of these surveys.

2) Obstruction analysis for objects penetrating the proposed 09/27 extended Vertically Guided surfaces and the PAPI OCS/LSCS surfaces for new PAPI installations
    a. Objects will be collected following the Object Density Selection Criteria in Section 2.7.1.6 of AC 150/5300-18B, change 1. Which calls for the lower obstacle within 100 feet of each other to be omitted within the first 10,000' of an approach and 500 feet outside of the first

10,000' of an approach.

b. PAPI OCS/LSCS surfaces will be truncated to the extent of the 18B' Vertically Guided surfaces (20,200' from the end of the runways).

3) Collect major landmark features within imagery coverage
4) Develop an AGIS compliant data files containing the safety critical data required to start instrument approach procedure development.
    a. Runway 09/27 Extension and Localizer relocation
5) Develop the final report to be submitted to AGIS
    a. Imagery Acquisition Report

Task 02 – As-built survey to determine the post construction runway end coordinates and any new or modified NAVAIDS for the 09/27 Runway Extension.

1) Establish photogrammetric control and collect stereo imagery covering the immediate airport vicinity, to capture as-built conditions (Attachment B).
    a. Estimated 15 control points and 5 check points
    b. Collect imagery at an equivalent imagery scale of 1"=800', producing a pixel resolution of 0.5'.
    c. Imagery Limits will be the immediate airport vicinity as depicted in Attachment B.
2) Geo-referencing of aerial photography
3) Runway critical point survey on the newly constructed runway 09/27
4) Runway profile survey on 09/27
5) Navigational aid inventory for new or modified NAVAIDs associated with the construction 09/27 runway extension project.
6) Development of new ortho-photography
    a. Pixel resolution of 0.5-feet over the immediate airport vicinity (Attachment B)
7) Update the AGIS compliant data file containing the as-built safety critical data required to finalize instrument approach procedure development
8) Develop the final reports to AGIS
    a. Imagery Acquisition Report
    b. Final Project Report

Deliverables

1. Establishment of an ADIP/AGIS Projects
2. Statement of Work & Survey Work/Quality Control Plan to AGIS
3. Imagery Reports
4. AGIS Data Files for submission of safety critical projects, based on design data.
5. AGIS as-built data files for the completion of the Design/as-built projects.
6. Final Surveyor's Reports for AGIS

Schedule

This schedule is based on an approximate NTP in April 2023 for the professional services of this project. This project includes internal quality control review by Woolpert, Inc.

1. Design: 6 months from imagery acquisition date
2. As-built Data: 3 months from the date of construction completion
3. Reference Woolpert, Inc. scope of work attached dated March 22, 2023.

Total Contract Time **300 days**

RUNWAY 9-27 EXTENSION
BROOKSVILLE-TAMPA BAY REGIONAL AIRPORT

Exhibit B: Fees

TASK	Totals
Basic Services (Lump Sum)	
Construction Administration Services	$15,112.00
AGIS Survey - (Woolpert, Inc.)	$46,450.00
Total Basic Services:	**$61,562.00**
Total Design Fees:	**$61,562.00**

AGIS SURVEY
BROOKSVILLE-TAMPA BAY REGIONAL AIRPORT

Exhibit B: Fees

TASK	Project Principal	Project Manager	Senior Engineer	Engineer/ Planner	Designer	Clerical	Totals
	$214.00	$184.00	$162.00	$133.00	$92.00	$78.00	
Construction Administration Services							
1 AGIS Coordination	2	20	12	8		8	50
2 Flight Procedures / Publications Amendment		8	20	20			48
Total Labor Hours:	2	28	32	28	0	8	98
Total Labor Costs:	$428.00	$5,152.00	$5,184.00	$3,724.00	$0.00	$624.00	**$15,112.00**
AGIS Survey - (Woolpert, Inc.) - RW 9-27 Extension							$46,450.00
							$46,450.00
Total Fees (Lump Sum):							**$61,562.00**

WOOLPERT
ARCHITECTURE | ENGINEERING | GEOSPATIAL

March 22, 2023

Michael Cummings
Director of Construction Management
American Infrastructure Development, Inc.
3810 Northdale Blvd, Suite 170
Tampa, FL 33624

RE: Proposal: Runway 09/27 Extension Survey at Brooksville-Tampa Bay Regional Airport (BKV), located in Brooksville, Florida.

Dear Mr. Cummings:

We appreciate the opportunity to provide a proposal for supporting American Infrastructure Development, Inc. (AID) with geospatial services at the Brooksville-Tampa Bay Regional Airport (BKV). The fee and bulleted list of scope functions is understood to be completed in accordance with the FAA Advisory Circulars 150/5300-16B, -17C change 1, -18B change 1, and the September 22, 2022 AGIS Policy Guidance, with further guidance from the FAA Southern Region (ASO) and the Office of Airports Safety and Standards (AAS) in Washington, D.C.

Project Understanding

Woolpert understands that the Brooksville-Tampa Bay Regional Airport (BKV) is designing and will be extending Runway 09/27. The FAA requires surveys that meets the specifications of "Safety Critical Data Collection, Including Design Data" project type per FAA Advisory Circulars 150/5300-16B, -17C change 1, and -18B change 1, and the September 22, 2022 AGIS Policy Guidance. Woolpert proposes the submittal of an ADIP Design/As-built project for the submittal of Design and As-built data for the 09/27 Runway extension. This projects will include an Airport Airspace Analysis Survey (AAAS) of the proposed 09/27 approaches (along with PAPI OCS/LSCS surfaces) and an as-built survey after construction is completed. The AAAS for this project will follow the standards for Vertically Guided Runway surveys.

The project for BKV will be focused around performing two main tasks:

1) Safety Critical data collection and Obstruction analysis for AC 150/5300-18B, Vertically Guided Approach Obstruction Identification Surfaces and PAPI OCS/LSCS surfaces for the proposed 09/27 runway extension.
2) As-built survey to determine the post construction runway end coordinates and any new or modified NAVAIDS for the Runway 9-27 extension.

Task 01 - Design Survey for AC 150/5300-18B, Vertically Guided Approach Obstruction Identification Surfaces for Proposed 09/27 Extended Approaches.

- Assist the airport in initiating the AGIS project necessary for the completion of this project on the AGIS web portal.
  - Develop SOWs and plans as required
  - A Safety Critical, Including Design Data project will be established for the airspace analysis component of this surveys.
- ~~BKV does possess geodetic control marks published as PACS and SACS. Woolpert will use these stations for establishment of the Temporary Survey Marks (TSMs) if they are recovered and meet the required specifications.~~
- ~~Establish photogrammetric control and collect stereo imagery covering the surface area defined by the Vertically Guided Runway standards (Attachment A).~~
  - ~~Estimated 25 control points and 5 check points~~
  - ~~Collect imagery at an equivalent imagery scale of 1"=800', producing a pixel resolution of 0.5'.~~
  - ~~Imagery Limits are defined by the obstruction surfaces specified in this scope.~~
  - ~~All imagery will be collected with leaf-on conditions~~
- ~~Geo-referencing of aerial photography~~
- ~~Runway critical point survey on all usable runways~~
- ~~Runway profile survey on all usable runways~~
- ~~Navigational aid inventory for NAVAIDs associated to the airport including the associated perpendicular points~~
- Obstruction analysis for objects penetrating the proposed 09/27 extended Vertically Guided surfaces and the PAPI OCS/LSCS surfaces for new PAPI installations
  - Objects will be collected following the Object Density Selection Criteria in Section 2.7.1.6 of AC 150/5300-18B, change 1. Which calls for the lower obstacle within 100 feet of each other to be omitted within the first 10,000' of an approach and 500 feet outside of the first 10,000' of an approach.
  - PAPI OCS/LSCS surfaces will be truncated to the extent of the 18B' Vertically Guided surfaces (20,200' from the end of the runways).
- ~~Development of new ortho-photography~~
  - ~~Pixel resolution of 0.5-feet over limits shown in Attachment "B"~~
- Collect major landmark features within imagery coverage
- Develop an AGIS compliant data file containing the safety critical data required to start instrument approach procedure development.

  - Runway 09/27 Extension and Localizer relocation
- Develop the final report to be submitted to AGIS
  - Imagery Acquisition Report

Note: If Notice to Proceed for the Design survey for the Runway 09/27 Extension project is received withing 12 months of the imagery acquisition for the Design project for the 03/21 decoupling project. Woolpert will be able to use the airside survey and imagery acquired for the 03/21 Design project. Therefore, the tasks stricken through above have been removed from this scope and fee proposal.

Task 2 - As-built survey to determine the post construction runway end coordinates and any new or modified NAVAIDS for the 09/27 Runway Extension.

- Establish photogrammetric control and collect stereo imagery covering the immediate airport vicinity, to capture as-built conditions (Attachment B).
  - Estimated 15 control points and 5 check points
  - Collect imagery at an equivalent imagery scale of 1"=800', producing a pixel resolution of 0.5'.
  - Imagery Limits will be the immediate airport vicinity as depicted in Attachment B.
- Geo-referencing of aerial photography
- Runway critical point survey on the newly constructed runway 09/27
- Runway profile survey on 09/27
- Navigational aid inventory for new or modified NAVAIDs associated with the construction 09/27 runway extension project.
- Development of new ortho-photography
  - Pixel resolution of 0.5-feet over the immediate airport vicinity (Attachment B)
- Update the AGIS compliant data file containing the as-built safety critical data required to finalize instrument approach procedure development
- Develop the final reports to AGIS
  - Imagery Acquisition Report
  - Final Project Report

Deliverables

Woolpert will compile and submit the necessary plans, reports and data files to the FAA, NGS and/or NFDC in a format acceptable to those agencies and coordinate revisions if necessary. Woolpert will develop a digital file deliverable in the appropriate format to be uploaded to the Airports ADIP/AGIS (https://adip.faa.gov/agis). The data file will be delivered in AutoCAD Map 3D (.dwg) format. The digital deliverable will be provided to the airport, AID, and the FAA through the ADIP/AGIS website.

Deliverable Listing

1. Establishment of an ADIP/AGIS Project
2. Statement of Work & Survey Work/Quality Control and Imagery Plan to AGIS
3. Imagery Reports
4. AGIS data files for submission of safety critical projects, based on design data
5. AGIS as-built data files for the completion of the Design/as-built project
6. Final Surveyor's Report to AGIS

Fee Estimate Breakdown

BKV Lump Sum Fee	
Task Description	**Fee Estimate**
Task 1 Design Survey 09/27 Runway Extension	
Preparations and Communications	$2,300.00
~~Geodetic control, Photo Control and Airside surveys~~	~~$20,000.00~~
~~Aerial Photography Acquisition and Analytic Triangulation~~	~~$16,500.00~~
Photogrammetric Obstruction Analysis	$4,000.00
~~Ortho Imagery~~	~~$6,950.00~~
Progress Reporting and Deliverables	$7,500.00
~~Reimbursable Expenses (Design)~~	~~$3,800.00~~
Sub Total Task 1	**$13,800.00**
Task 2 As-Built Survey 09/27 Runway Extension	
As-Built Preparations and Communications	$2,350.00
As-Built Geodetic control, Photo Control and Airside surveys	$7,000.00
As-Built Aerial Photography Acquisition, Scanning, Analytic Triangulation	$11,900.00
As-Built Ortho Imagery	$3,500.00
As-built Progress Reporting, Deliverables and Final Project Report	$4,800.00
Reimbursable Expenses (As-Built)	$3,100.00
Sub Total Task 2	**$32,650.00**
Lump Sum Fee –Design/As-Built Surveys for BKV =	**$46,450.00**

Woolpert estimates the design portion of the project to take 3 months from the date of Notice to Proceed to delivery of the design data file to the Airports GIS website and 3 months from the date of construction completion to the delivery of the as-built data to the Airports GIS website. The proposed fee estimates are valid for ninety (90) days from proposal date.

Please don't hesitate to contact me to discuss any comments or questions you may have (704.526.3016).

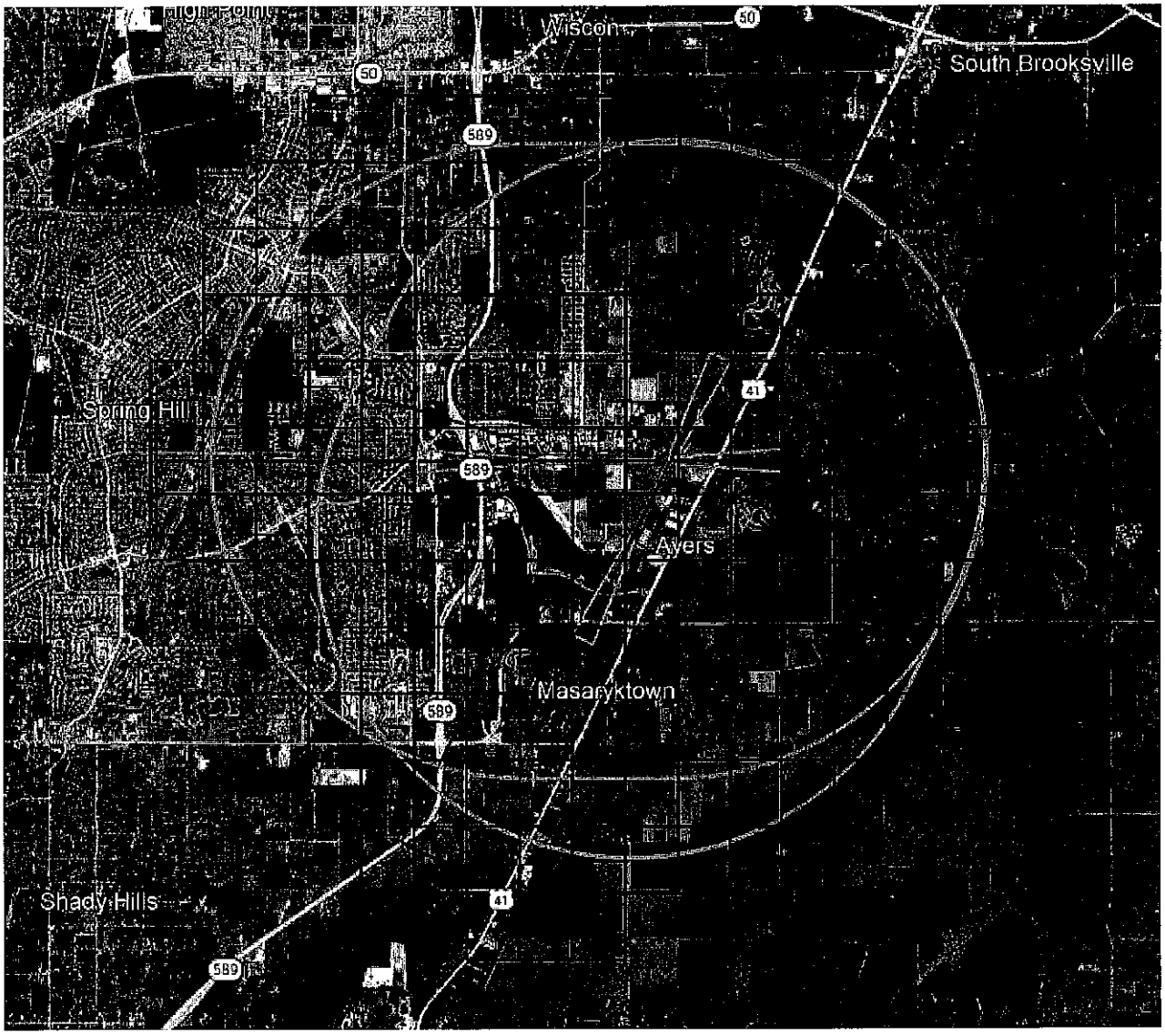
Sincerely,

Woolpert, Inc.
Paul F. Akers, PSM, PMP
Aviation Project Manager
Senior Associate

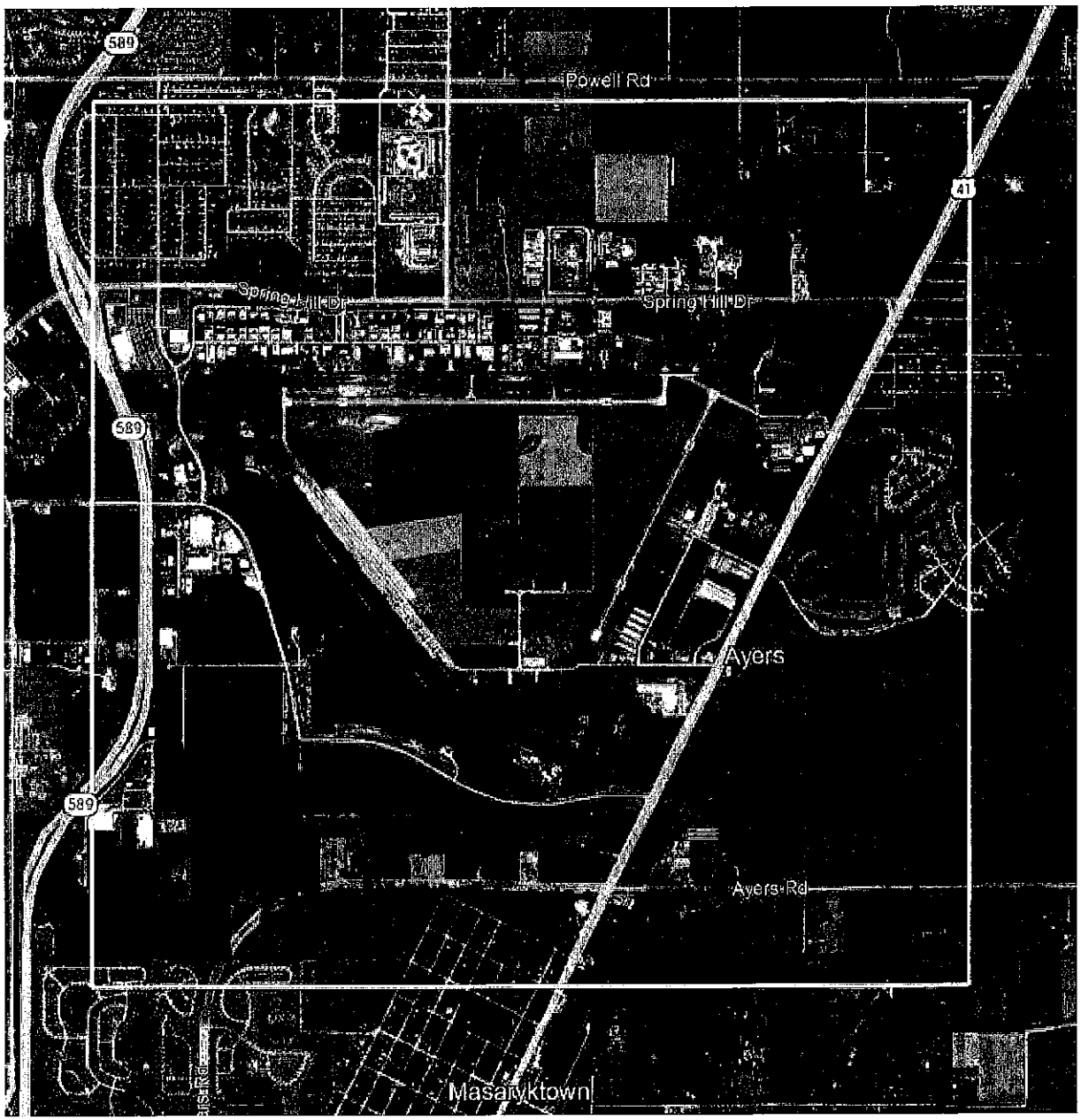
Woolpert, Inc.
Eric Risner, PS, PMP
Aviation Practice Leader
Vice President

~~Attachment A: Design Survey Imagery Limits~~

Note: Not Required if NTP is received within 12 months of imagery acquisition for the Runway 03/21 Decoupling project



Attachment B: 09/27 Runway Extension As-built Imagery Limits



Woolpert, Inc.
4454 Idea Center Boulevard
Dayton, OH 45430-1500
937.461.5660