

**AMENDMENT NO. 1 TO THE  
AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES**

This Amendment made this 24<sup>th</sup> day of March, in the year of 2022, to the Agreement made on the 24<sup>th</sup> day of November, in the year of 2020.

BETWEEN THE Owner (hereinafter referred to as Sponsor),

County of Alpena  
720 W. Chisholm Street  
Alpena, Michigan 49707

and the Engineer (hereinafter referred to as the Consultant),

RS&H Michigan, Inc.  
G-3101 West Bristol Road, Suite 300  
Flint, Michigan 48507

for the following project:

Location: Alpena County Regional Airport, Alpena, Michigan

Description: Runway 1-19 Pavement Rehabilitation and Lighting Replacement

Changes: Article 3 – Payment, Phase 1 Design

ADD for Additional Design and Bid Phase Services, per Attachment C, a firm fixed fee of \$121,650.00.

In summary:

Original Contract Amount (Firm Fixed Fee) =	\$ 154,400.00
Amendment No. 1 (Firm Fixed Fee) =	<u>+ \$ 121,650.00</u>
Revised Contract Amount (Firm Fixed Fee) =	\$ 276,050.00

IN WITNESS WHEREOF the parties hereto have fixed their hand this date first written above.

**ACCEPTED BY THE SPONSOR**

SIGNED IN THE PRESENCE OF

COUNTY OF ALPENA

\_\_\_\_\_

By:

\_\_\_\_\_  
Authorized Representative of Sponsor

**ACCEPTED BY THE CONSULTANT**

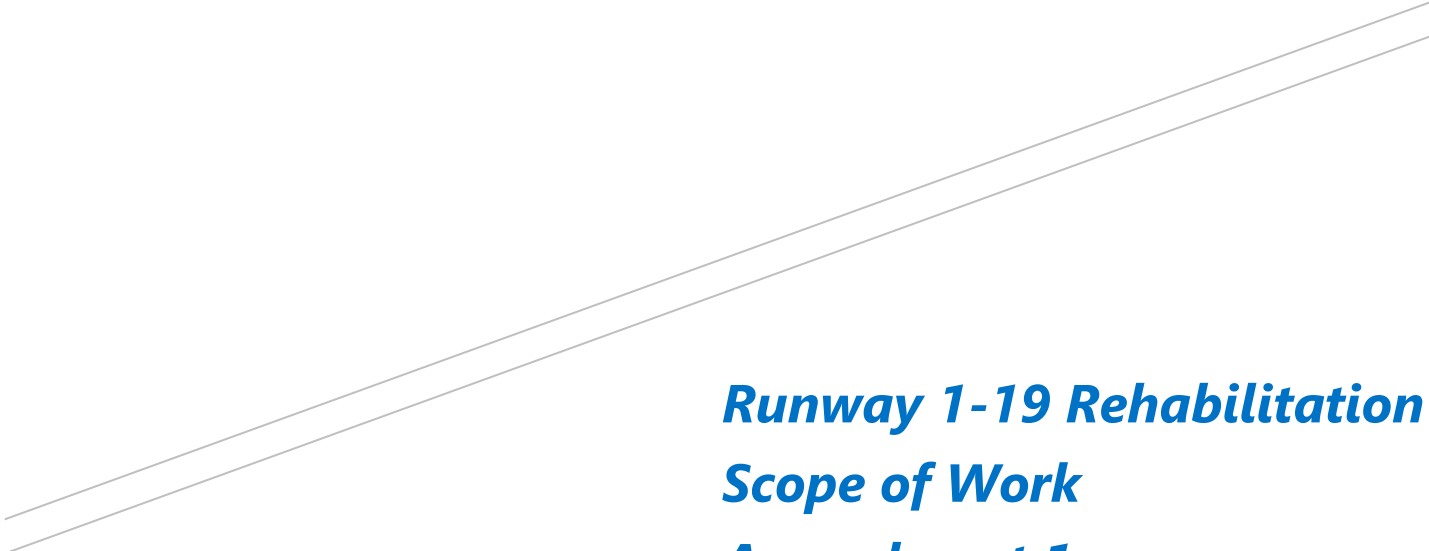
SIGNED IN THE PRESENCE OF:

RS&H MICHIGAN, INC.

\_\_\_\_\_

By:

DocuSigned by:  
  
\_\_\_\_\_  
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Authorized Representative of Consultant



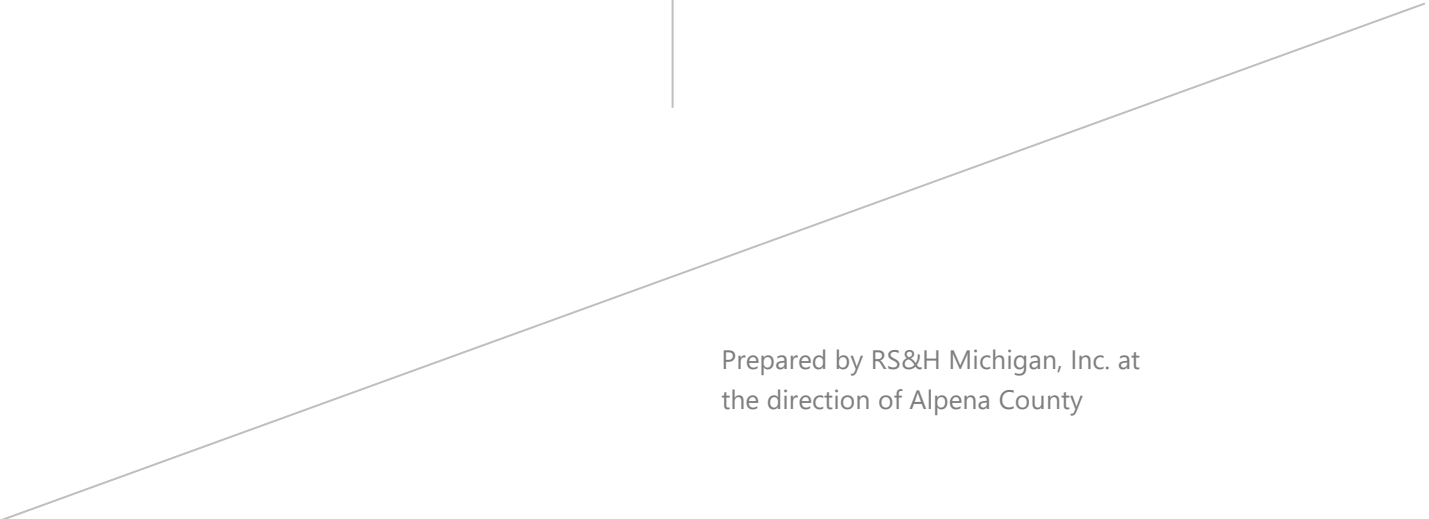
# ***Runway 1-19 Rehabilitation Scope of Work Amendment 1***

March 21, 2022

Alpena County Regional Airport

County of Alpena, MI

RS&H Project No.: 210-0078-000



Prepared by RS&H Michigan, Inc. at  
the direction of Alpena County

## I PROJECT DESCRIPTION

The County of Alpena, Michigan owns and operates Alpena County Regional Airport (APN). Alpena County selected RS&H, Inc. to provide design engineering and bid/award phase services for the Runway 1-19 Rehabilitation Project on 11/24/2020, as part of the current General Engineering Consultant On-Call Contract.

The original Scope of Work for this project included design elements for a concrete pavement rehabilitation. It was anticipated that rehabilitation methods would include spall repair, patching, joint sealing, and crack repair. That rehabilitation method does not require survey for the design of vertical control (surfaces and profiles for paving operations).

RS&H conducted a multi-day visual inspection of Runway 1-19 utilizing GIS software to map out the existing Runway pavement deficiencies (Tasks 1.1 thru 1.4). During this inspection concrete distresses were observed that far exceeded the original assumptions made in both number and severity of distresses. Multiple meetings have been held with APN staff, Michigan Air National Guard Combat Readiness Training Center (CRTC), and FAA, to discuss the investigation findings and work toward a solution. RS&H has presented a rehabilitation alternative for a concrete removal and asphalt overlay. As asphalt overlay was determined to be the preferred alternative due, but not limited to, the following reasons:

- » Construction duration – An asphalt overlay would allow less closure time during construction than the concrete repair option.
- » Construction cost – an asphalt overlay can be accomplished for a lower construction cost than concrete repair until which time a full runway reconstruction can be planned and executed.

The change in rehabilitation method reduces the cost of the project but introduces the need for horizontal and vertical control for design to ensure compliance with FAA standards.

This **Amendment 1** will include the following specific work elements:

- » Development of rehabilitation alternatives
- » Additional pavement condition survey
- » Topographic survey
- » Geotechnical investigation
- » Runway pavement design
- » Runway shoulder design
- » Underdrain design
- » Design of grading and paving surfaces and profiles

- » Runway Safety Area (RSA) evaluation
- » Runway saw-cut grooving plan
- » Development of additional construction specifications

The additional services will be designed in accordance with current FAA Advisory Circulars and MDOT Office of Aeronautics (AERO) standards.

This **Amendment 1** eliminates the scope and associated fee from the Contract for Professional Engineering Service executed on November 14, 2022, for Airfield Electrical Reconstruction Design.

## II PROJECT TASKS

### TASK 6 ADDITIONAL DESIGN PHASE SERVICES

#### **Task 6.1 Development of Rehabilitation Alternatives**

RS&H will coordinate with APN, Combat Readiness and Training Center (CRTC), and FAA staff to develop an alternative rehabilitation method. This method will address, to the extent practical, all parties concerns and goals for rehabilitation of Runway 1-19.

#### **Task 6.2 Additional Pavement Condition Survey**

RS&H will perform additional pavement condition survey for the project. RS&H will provide a crew of (3) three associates to complete the condition mapping of the runway pavement. All pavement condition survey activities will be coordinated with APN staff.

#### **Task 6.3 Topographic Survey**

RS&H will coordinate necessary topographic survey for the project in accordance with FAA requirements. All field work will be coordinated with APN prior to surveying. RS&H will coordinate and review specific geometric criteria required for topography, profile, and cross-sectional survey of existing pavement and drainage areas, above and below ground utilities, existing site improvements, and definition of any obvious topographic depressions.

#### **Task 6.4 Geotechnical Investigation**

RS&H will review available geotechnical data. RS&H has developed a written geotechnical scope of services in accordance with FAA requirements detailed in Advisory Circular 150/5320-6G, "Airport Pavement Design and Evaluation". All geotechnical investigation activities will be coordinated with the Airport staff prior to mobilization. RS&H will coordinate and review with the geotechnical subconsultant specific requirements with respect to existing utilities, backfill, and mobilization/demobilization. All geotechnical data will be provided to the Airport in PDF format.

**Task 6.5 Runway Pavement Design**

RS&H will conduct a pavement design based on historical fleet data obtained from APN and the CRTC. This pavement design will evaluate an asphalt overlay method of rehabilitation to ensure that a design-life of 10-years can be achieved to meet the requirements of the FAA for a pavement rehabilitation.

**Task 6.6 Runway Shoulder Design**

RS&H will design runway shoulders based on historical fleet data obtained from APN and the CRTC, and FAA geometric and pavement design standards.

**Task 6.7 Design of Runway Surface Gradients**

RS&H will design paving profiles and surfaces for vertical grading and paving control and incorporate them into the 100% plans. These profiles and surfaces will ensure that the proposed mill & overlay rehabilitation meets FAA requirements along the length of the runway and provide the successful bidder with 3D-control data for paving equipment

**Task 6.8 Runway Safety Area (RSA) Evaluation**

RS&H will evaluate the Runway 1-19 RSA to determine if it meets all FAA standard requirements. This will include evaluation of surface gradients, drainage structures, swales, access roads, and other such RSA deficiencies as defined by FAA AC 150/5300-13A Change 1.

**Task 6.9 Runway Saw-Cut Grooving Plan**

RS&H will design a runway grooving plan that will be required after the asphalt overlay.

**Task 6.10 Development of Construction Specifications**

RS&H will develop all additional specifications required for an asphalt overlay.

**Task 6.11 Project Management**

RS&H will manage the additional design phase services in a professional manner, assign and manage qualified individuals or subconsultants to the Project, and complete the efforts within the proposed time frame. This task will include scheduling, resource allocation, monitoring, oversight, direction, and control for all aspects of the team's efforts including assembly and coordination of all documentation. RS&H will complete meeting preparation activities, prepare, and distribute meeting minutes, and assign appropriate follow-up activities. RS&H will make monthly progress reports to the Airport during the entire duration of the project. Project management also includes monthly project and budget reporting to senior leadership to provide regular updates and to confirm RS&H Standard Operating Procedures (SOPs) are incorporated.

### III DELIVERABLES

This amendment does not change the deliverables from the original scope.

#### IV PROJECT SCHEDULE

This amendment does not alter the project schedule.

#### V PROFESSIONAL SERVICES FEE AND FEE TYPE

RS&H will provide the above referenced additional services for a Fixed Lump Sum Fee of \$121,650.00. See Attachment for a breakdown of costs.



**Alpena County Regional Airport**  
***RUNWAY 1-19 REHABILITATION - AMENDMENT 1***

**SUMMARY**

Task 6: Additional Design Services	\$152,050
Task 1-5: Taxiways C, D, E, F, G Lighting Replacement (Design)	(\$30,400)
<b>GRAND TOTAL PROPOSED FEE (LUMP SUM)</b>	<b>\$121,650.00</b>





Alpena County Regional Airport

Attachment C

**RUNWAY 1-19 REHABILITATION - AMENDMENT 1**

SCOPE / TASK TITLE	PROJECT OFFICER	PROJECT MANAGER	PROJECT ENGINEER	STAFF ENGINEER	CADD TECHNICIAN	SUPPORT STAFF	TOTAL	
<b>BASIC SERVICES (LUMP SUM)</b>								
<b>Task 6: Additional Design Services</b>								
Task 6.1 Development of Rehabilitation Alternatives		8	48	48	16		120	
Task 6.2 Additional Pavement Condition Survey			4	24	48		76	
Task 6.3 Topographic Survey			4	12			16	
Task 6.4 Geotechnical Investigation			4	12			16	
Task 6.5 Runway Pavement Design			4	12	8		24	
Task 6.6 Runway Shoulder Design			8	24	16		48	
Task 6.7 Design of Runway Surface Gradients			16	40	48		104	
Task 6.8 Runway Safety Area (RSA) Evaluation			8	16	24		48	
Task 6.9 Runway Saw-Cut Grooving Design			2	8	8		18	
Task 6.10 Development of Construction Specifications			8	24	16		48	
Task 6.11 Project Management		8	16				24	
TOTAL HOURS		16	122	220	184	0	542	
RATE		\$75.00	\$56.00	\$42.00	\$30.00	\$30.00	\$42.05	
TOTAL DIRECT LABOR \$		\$1,200	\$6,832	\$9,240	\$5,520	\$0	\$22,792	
OVERHEAD @	173.57%						\$39,560	
PROFIT @	11%						\$6,859	
TOTAL BURDENED LABOR @	3.04						\$69,211	
<b>OTHER DIRECT NON-SALARY COSTS</b>								
<b>SPECIALTY SUBCONSULTANTS</b>								
Task 6.3 Topographic Survey - Huron Engineering and Surveying, Inc.							\$34,900	
Task 6.4 Geotechnical Investigation - Huron Engineering and Surveying, Inc.							\$45,000	
TOTAL SPECIALTY SUBCONSULTANTS							\$79,900	
<b>TRAVEL</b>								
			Airfare	Car	Lodging	Per Diem		
	# People	# Days	\$500	\$65	\$96	\$55		
Rehabilitation Alternatives Meeting	4	1	\$1,000	\$65	\$384	\$220	\$1,669	
Additional Pavement Evaluation Survey	3	3		\$195	\$576	\$495	\$1,266	
TOTAL TRAVEL							\$2,935	
<b>TOTAL ODC's</b>								
							\$82,835	
<b>Total Proposed Fee for:</b>								
			<b>Task 6: Additional Design Services</b>					<b>\$152,050</b>
			Task 1-5: Taxiways C, D, E, F, G Lighting Replacement (Design)					(\$30,400)
<b>GRAND TOTAL PROPOSED FEE (LUMP SUM) FOR:</b>								
			<b>RUNWAY 1-19 REHABILITATION - AMENDMENT 1</b>					<b>\$121,650</b>