NEW BUSINESS

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MEMORANDUM

TO: Tom Werner

FROM: Kaci Nowicki

DATE: April 8, 2019

RE: DLH Master Plan Scope and Fee Proposal

We are pleased to provide you with the attached Work Orders for a Master Plan and Exhibit A Property Map for the Duluth International Airport (DLH). The attached Work Orders reflect the detailed scopes of services we developed in our multiple scoping meetings with DAA staff, SEH, Swim Creative, and Landrum & Brown during the months of January through March 2019. The attached proposals also reflect the feedback received from FAA as a result of their review of the detailed scopes, as well as during our DAA-FAA-SEH scoping meetings and follow-up emails.

Exhibit A Property Map

This project will include the airport's first Exhibit A Property Map completed in compliance with FAA Standard Operating Procedure (SOP) 3.0, FAA Review of Exhibit A Property Inventory Maps. This scope has been reviewed and approved by the FAA Dakota-Minnesota Airport District Office (ADO).

Scope Summary

The following is a summary of major scope items:

1. **Project initiation, coordination and administration**
2. **Professional Title Services (performed by ProSource Technologies)**
3. **Property mapping**
4. **Parcel funding research**
5. **Preparation of Exhibit A Property Map and associated tables**
6. **Narrative Report**
7. **Grant Closeout Report**

Budget Summary

The following summarizes the budget for the Exhibit A Property Map Work Order. The project is 100% eligible for FAA funding. The anticipated cost shares for the project are also summarized below.

Total Project Cost:	**$257,500**
FAA Share (90%):	$231,750
MnDOT Share (5%):	$12,875
DAA Share (5%):	$12,875

In compliance with FAA Advisory Circular (AC) 150/5100-14E - Architectural, Engineering, and Planning Consultant Services for Airport Grant Projects, an independent fee evaluation (IFE) is required for work orders that exceed $100,000. According to the AC, a general review standard used within the FAA and industry is whether the total fee proposal is within 10% of the IFE. We understand that this process was completed by the DAA, and the proposed costs are within the acceptable range from the IFE.

Airport Master Plan & ALP:

This project includes preparation of an Airport Master Plan and Airport Layout Plan. This scope has been reviewed and approved by the FAA Dakota-Minnesota Airport District Office (ADO). The following is a summary of major scope items:

1. **Project initiation, coordination and administration**
2. **Stakeholder involvement and project meetings**
    a. Public Involvement Plan
    b. Written outreach
        i. Project branding and logo
        ii. Blog posts
        iii. Project flyers
        iv. Executive summary
        v. Photos
        vi. Online surveys
        vii. Outreach and Request for Information (RFI) logs
        viii. Project newsletters
        ix. Project webpage
        x. Project storymap
    c. In-Person outreach
    d. DAA Board meetings – Project updates
    e. Stakeholder Advisory Committee
    f. Technical Topic Specific Working Groups
    g. Community/Stakeholder Hosted Meetings/Project Updates
    h. Project Open Houses
    i. FAA and MnDOT meetings and coordination
3. **Airport Inventory**
    a. Airside inventory
    b. Landside inventory
        i. Landside pavement analysis
        ii. Building inventory and condition analysis
            1. Building inventory
            2. Building assessments
            3. Phase I Environmental Site Assessment (ESA) – 3 Structures
            4. Reconnaissance Architectural History Survey (performed by 106 Group)
    c. Airport equipment
    d. Airport services
    e. Airport businesses and tenants
    f. Built and natural environment
        i. Archeological assessment (performed by 106 Group)
    g. Community features, economy and trends
    h. Ground access, transit and multi-modal access
    i. Activity levels
    j. Recycling and waste practices
    k. Level 1 wetland delineations
    l. Level 2 field wetland delineations

m. Airport property summary
n. Documentation of stakeholder development plans

4. **Activity Forecasts (performed by Landrum & Brown)**
5. **Facility Recommendations and Alternatives**
   a. Runway 9/27
   b. Runway 3/21
   c. Airspace obstructions
   d. Taxiway network
   e. Navigational Aids (NAVAIDs)
   f. Ramps and aircraft parking
   g. Air Traffic Control Tower (ATCT)
   h. Building area development and redevelopment
   i. Identification of areas needed for aeronautical use
6. **Capital Improvement Plan (CIP)/Implementation Plan**
   a. Funding and revenues
   b. Project cost estimates (capital, maintenance, etc. projects) and project summaries
   c. Implementation Plan
7. **Peer review (prepared by Landrum and Brown)**
8. **Airport Layout Plan (ALP)**

In addition to the above tasks, the following optional tasks are included in the proposed work order and will be included in the grant request. These tasks will not be initiated until authorized by DAA. If not authorized or used in full, work will not be performed or billed on these tasks. The grant will be amended at the end of the project to remove any or all of the unused portion related to these tasks.

O.1 – Safety Risk Management Meeting - This task will be completed if a preferred development alternative is selected which includes the need for a modification to FAA design standards or if requested by DAA and FAA.

O.2 – Phase I Archeological Survey (Performed by 106 Group)

The following summarizes the budget for the Master Plan Work Order. The FAA reviewed the scope and determined that certain portions of the landside pavement assessments (Task 3.3b) and building assessments (Task 3.4b) are ineligible for FAA funding. Those tasks will be funded 100% by DAA.

The anticipated cost shares for the project are also summarized below.

Total Project Cost:	**$1,001,300**
FAA eligible:	**$989,500** (includes $24,501 of Optional Tasks)
FAA Share (90%):	$890,550
MnDOT Share (5%):	$49,475
DAA Share (5%):	$49,475
FAA ineligible:	**$11,800**
FAA Share (0%):	$0
MnDOT Share (0%):	$0
DAA Share (100%):	$11,800

In compliance with FAA Advisory Circular (AC) 150/5100-14E, an IFE is also required for this project as the cost exceeds $100,000. We understand that this process was completed by the DAA, and the proposed project costs are within the acceptable range from the IFE.

kn
Attachments
document2

DLH Master Plan, ALP Exhibit A Update IFE F

IFE Review Summary

As of 1APR19

	SEH	TKDA		
Master Plan & ALP (AIP Eligible)	$1,001,300	$997,400		
Exhibit A Property Map	$257,500	$246,700		
	$1,258,800	$1,244,100	% -/+	-1.17%

*The independent fee review indicates that the fee for services is within the 10% allowable range as directed by the FAA.

Prepared By: _____ Date: April 9, 2019

TKDA

444 Cedar Street, Suite 1500
Saint Paul, MN 55101
651.292.4400
tkda.com

March 25, 2019

Via Email Only: twerner@duluthairport.com

Mr. Tom Werner, C.M.
Executive Director
Duluth Airport Authority
4701 Grinden Drive
Duluth, Minnesota 55811

Re: Independent Fee Estimate
Duluth International Airport
Airport Master Plan Study

Dear Mr. Werner:

Thank you for the opportunity to serve the Duluth Airport Authority by providing this Independent Fee Estimate (IFE) for the Airport Master Plan Study and related work at the Duluth International Airport. This IFE is a requirement of FAA Advisory Circular 150/5100-14E. Supporting documentation is attached hereto for your consideration.

TKDA evaluated the scope of services dated February 21, 2019 for each study element. We used our experience on similar projects and understanding of the work to identify labor work hours to complete each element presuming TKDA were to perform the work. The analysis utilizes TKDA labor rates for similar positions, TKDA's overhead, a 15% profit percentage, and the estimate of project expenses provided to us.

Based on our analysis, our independent fee estimate for the DLH airport master plan study is as follows:

Master Plan and Airport Layout Plan (AIP Eligible).....$991,300
Master Plan and Airport Layout Plan (AIP Ineligible)..... $6,100
Exhibit 'A' Property Map..... $246,700

Please contact me at 651-292-4599 with any questions.

Sincerely,

Marcus S. Watson
Group Manager Aviation Planning

Attachments:
Attachment A1 – Airport Master Plan Scope of Services
Attachment A2 – Exhibit A Property Map Scope of Services
Attachment B1 – Airport Master Plan Fee Estimate Summary (AIP Eligible)
Attachment B2 – Airport Master Plan Fee Estimate Summary (AIP Ineligible)
Attachment B3 – Exhibit A Property Map Fee Estimate Spreadsheet

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EXH G

WORK ORDER
No. 2019-2
Between

The Duluth Airport Authority (DAA) (Owner) and
Short Elliott Hendrickson Inc. (SEH) (Consultant) **Dated: April 16, 2019**

EXHIBIT A PROPERTY MAP
DULUTH INTERNATIONAL AIRPORT (DLH)

This work order includes preparation of an Exhibit A Property Map for the Duluth International Airport (DLH). The contract provisions included in the Master Agreement (dated 11-20-18) between the DAA and SEH remain in effect for this work order.

Estimated start date is April 17, 2019; estimated end date is April 17, 2020.

Compensation by the Owner to the Consultant shall be a lump sum amount of $257,500.

A description of the services to be provided is included in Attachments A.

A detailed estimate of labor cost and expenses is included in Attachment B.

Point of Contact: Kaci Nowicki

APPROVED:

Duluth Airport Authority (DAA)

_____

Title:_____

Date:_____

_____

Title:_____

Date:_____

Short Elliott Hendrickson Inc.

_____

Title:_____

Date:_____

Attachment A
Duluth International Airport (DLH)
Exhibit A Property Map
Scope of Work
April 8, 2019

The Duluth Airport Authority (DAA) desires to complete the first Exhibit A Property Map for the Duluth International Airport (DLH). This Exhibit A Property Map will be completed in compliance with FAA Airports Standard Operating Procedure (SOP) 3.0, Standard Operating Procedures for FAA Review of Exhibit "A' Airport Property Inventory Maps.

Project Deliverables – The project deliverables of this scope include the following:

1. Exhibit A Property Map
2. Closeout Report

Study Element 1: Project Initiation, Coordination and Administration

Task 1.1 – Project Scoping and Contract Development – Short Elliott Hendrickson (SEH and/or Consultant) will coordinate with the DAA to develop the appropriate work scope, define tasks, lines of communication and establish project goals, objectives or areas of interest. Project fees will be prepared using the final Scope of Work. This task includes project scoping meetings with DAA and FAA and MnDOT Aeronautics. An agreement will be developed from the final Scope of Work and approved fees. The agreement will be provided to the FAA and MnDOT for review and approval prior to a contract being executed. This task also includes time to coordinate scopes of services with subconsultants and development of subconsultant contracts.

Task 1.2 – Project Administration and Management – SEH will provide project administration and management services as required to complete the project within the conditions of this agreement. Administration and management duties include project setup, monthly invoicing and preparation of a budget and schedule. Monthly project progress reports will be submitted to the DAA. Subconsultant coordination is included in this task.

This task includes time to prepare and submit FAA Quarterly Reports.

Task 1.3 – Quality Assurance and Control – SEH will implement and carry-out internal quality control for the project. Peer review will be conducted at each phase of the project to check content and product quality. Throughout the project, SEH will be responsible for draft and final proof-reading, final word processing, editing, graphics, reports and other products included in this Scope of Work.

Task 1.4 – Client Meetings – Up to four (4) meetings with DAA staff are included throughout the preparation of the Exhibit A.

Task 1.5 – FAA and MnDOT Meetings and Coordination (approximately 3 meetings) - SEH will maintain contact with the FAA and MnDOT through e-mail, regular mail, phone, review documents and deliverables. The FAA and MnDOT will have the opportunity to review and comment on the project deliverables.

This task includes time to coordinate, meet, and build consensus with these groups and also time to make revisions per their recommendations. It is anticipated that up to three (3) meetings will take place with the FAA Airports District Office (ADO) and/or MnDOT at either of their offices or at DLH (assume 2 at ADO and 1 at DLH).

For all meetings, meeting minutes and summaries will be prepared with action items documented. The topics and schedule of the coordination meetings will be determined and scheduled as needed throughout the project with input from the DAA, FAA and MnDOT.

Deliverable: Project scope, agreement, budget, schedule, monthly progress reports and meetings.

Study Element 2: Exhibit A Property Map

This task includes preparation of an Exhibit 'A' Property Map in compliance with FAA Airports Standard Operating Procedure (SOP) 3.0, Standard Operating Procedures for FAA Review of Exhibit "A' Airport Property Inventory Maps.

The airport property map will conform to the standards described with FAA Airports SOP 3.00, and will include existing and proposed land acquisition in both fee and easement. The tables will be updated to include information related to parcels purchased since the last Airport Layout Plan (ALP) update. Historical property records will be researched to verify existing parcel information and how each parcel was purchased. Existing and future property will be identified by parcel number, acres, current owner, type of purchase, and date of purchase. SEH will identify which parcels should be purchased for future development or to protect the existing airport environment. The Authority will provide the State or FAA project number related to state or federally funded existing airport property. Any state or federal obligations relative to each parcel will also be documented. An airport boundary survey is not included in this effort. Obtaining owners and encumbrances reports for airport parcels is included in this work scope, and encumbrances and all other pertinent information obtained from the reports will be noted. Additionally, the Exhibit A map will note any possible encroachments including areas of unrecorded uses and/or where rights appear present. Releases of property interests will also be noted. Field work is not included.

Professional Title Services will be provided by Pro Source Technologies (see attached detailed scope).

Task 2.1 – Base Section Mapping – This task includes initial set up of the base section mapping for the Exhibit A.

Task 2.2 – Organization of title work files – This task includes organization of the title work information and files provided by ProSource Technologies (see attached detailed ProSource Scope)

Task 2.3 – Property/Parcel Funding Research – SEH will research past FAA, MnDOT and other funding sources for each parcel. Each parcel will be evaluated to determine if it is federally obligated. Other obligations that may exist on parcels will also be documented. These may include obligations related to parcels transferred from the U.S. Government to the City of Duluth/Duluth Airport Authority. SEH will collaborate on this task with the City of Duluth to gather information on non-FAA and MnDOT obligations that may exist on parcels.

Task 2.4 – Compute Airport Parcels (approx. 150 parcels) – This task includes computing and drawing each parcel based on the legal description.

Task 2.5 – Sheet Layout – This task includes setting up the overall sheet layout for the Exhibit A Property map. Approximately 20 sheets are expected.

Task 2.6 – Table Preparation – Detailed tables will be prepared for inclusion in the Exhibit A Property Map. Tables will include the information required in SOP 3.0.

Task 2.7 – Draft Exhibit A Property Map (Est. 20 sheets) – The Exhibit A property map sheets will be developed in accordance with SOP 3.0. Approximately 20 sheets are expected.

Task 2.8 – Narrative Description of Encroachments/Overlaps/Gaps – SEH will prepare a narrative description of any gaps, overlaps or encroachments that are identified through the preparation of Task 2.4 and 2.7. This narrative will be provided to ProSource for inclusion in their documentation for each parcel, as needed.

Task 2.9 – Client and Agency Review – This task includes time to address client and agency comments on review drafts of the Exhibit A.

Study Element 3: Exhibit A Report

Task 3.1 – Exhibit A Report - A summary report of the Exhibit A map will be prepared and will serve as a narrative description of the information on the Exhibit A map as well as any required next steps for the Airport Sponsor based on the results of the Exhibit A map research. This report will be provided to the DAA, FAA and MnDOT and included as an Appendix to the Master Plan. This task will also evaluate any additional property needed to accommodate planned airport development. The status of compliance with grant assurances and FAA approval of each parcel will also be included. Copies of all property research will also be provided to the DAA, MnDOT and FAA (electronic).

Study Element 4: Closeout Report

Task 4.1 – Closeout Report – A grant closeout report will be completed as part of this scope of work. The grant closeout report will also include other projects included in the FAA grant.

Deliverables: Closeout Report and FAA, MnDOT and locally approved Exhibit A Property Map.

Exhibit A Property Map:

The draft and final plan set will be delivered to the FAA, MnDOT and the DAA. Electronic plans will be prepared using AutoCAD and/or GIS. Draft and review copies will be submitted in paper and PDF format. The following reproductions are included:

Draft Exhibit A: Two (2) draft copies will be submitted to the DAA. Four (4) draft copies of the draft Exhibit A will be submitted to MnDOT and one (1) copy of the draft Exhibit A will be submitted to FAA for review.

Final Exhibit A: Two (2) printed copies of the final Exhibit A will be submitted to the DAA. One (1) final printed copy of the final Exhibit A will be provided to the FAA for their records. Four (4) printed copy of the final Exhibit A will be submitted to the MnDOT. Electronic copies (via CDs) of the final Exhibit A will be submitted to the DAA, MnDOT and FAA.

A total of 14 printed copies of the Exhibit A is included.

ATTACHMENT B
EXHIBIT A PROPERTY MAP
DULUTH INTERNATIONAL AIRPORT (DLH)
Duluth Airport Authority (DAA)
Duluth, Minnesota

Task No.	Task Description	Principal	Project Manager/Sr. Planner	Planner	Graduate Planner	Senior CAD Technician	Surveyor
Project Initiation, Coordination and Administration							
1.1	Scope Development	1	8		2		8
1.2	Project Administration and Management Services	2	18				12
1.3	Quality Assurance and Control	4	20				20
1.4	Client meetings (4 meetings)	4	24		8		
1.5	FAA and MnDOT Meetings and Coordination (3 meetings)		16		16		4
Exhibit A Property Map							
2.1	Base section mapping						10
2.2	Organization of title work files			4			50
2.3	Property funding research		8	60			
2.4	Compute airport parcels (150 est. parcels)						120
2.5	Sheet layout		2	6	10		50
2.6	Table preparation		2	6	10		40
2.7	Draft Exhibit A Map (est. 20 sheets)		6	40	40	8	250
2.8	Narrative for encroachments/possible gaps/overlaps for ProSource						20
2.9	Revisions based on FAA/MnDOT reviews						80
Report							
3.1	Exhibit A Report		24	80	20	24	64
FAA Closeout Report							
4.1	FAA Closeout report						
	Total hours per labor category	11	128	196	106	32	728

ESTIMATE OF LABOR COSTS:

Labor Category	Hours	Rate	Extension
Principal	11	$71.03	$781.33
Project Manager/Sr. Planner	128	$63.38	$8,112.64
Planner	196	$41.10	$8,055.60
Graduate Planner	106	$31.38	$3,326.28
Senior CAD Technician	32	$35.26	$1,128.32
Surveyor	728	$32.68	$23,791.04
FAA Doc. Specialist	25	$50.62	$1,265.50
Admin Technician	3	$26.24	$78.72
Total Direct Labor Costs:	1229		$46,539.43
Direct Salary Costs plus Overhead (66.03%)			$77,269.42
Total Labor Costs			**$123,808.85**
Fee (15%) on Total Labor Costs:			**$18,571.33**

ESTIMATE OF EXPENSES:

Direct Expenses	Quantity	Rate	Extension
Property Research (ProSource Technologies)	1	$108,109.00	$108,109.00
Equipment usage	1,229	$3.00	$3,687.00
Mileage (5 trips to DLH)	1470	$0.58	$852.60
Printing Exhibit A (20 est. sheets)			
Airport copies	4	$175.00	$700.00
MnDOT copies	8	$175.00	$1,400.00
FAA copies	2	$175.00	$350.00
Total Expenses			**$115,098.60**

SUMMARY:

Total Labor Costs + Expenses + Fee	$257,478.78
Estimated Total	**$257,500.00**

ProSource TECHNOLOGIES

January 7, 2019

Via e-mail: knowicki@sehinc.com

ProSource Technologies, LLC
9219 East River Road NW
Minneapolis, MN 55433
Phone 763-786-1445
Fax 763-786-1030

Ms. Kaci Nowicki
Associate, Project Manager
Short Elliott Hendrickson, Inc.
3535 Vadnais Center Drive
St. Paul, MN 55110-5196

Re: Professional Title Services
Duluth International Airport (DLH)

Dear Ms. Nowicki:

ProSource Technologies, LLC (ProSource) is pleased to present this proposal and cost estimate for professional services to Short Elliott Hendrickson, Inc. (SEH) for the above-referenced project. The scope of work and cost estimate to conduct this work is provided in the following sections.

SCOPE OF WORK

For the parcel owned by the airport, title research will be composed of two separate efforts to update the title evidence for the airport. For the properties that have complete title evidence from the patent forward, ProSource will review the existing title evidence (likely the property abstract) and update the title to the current effective date at the County Recorder's office. For the properties that do not have a complete chain of title evidence, we will comply with the modified requirements of the Minnesota Marketable Title Act (MMTA) with the addition of research to include a time period of 20 years previous to the acquisition of the land by the City of Duluth to identify potential use restrictions and title covenants impacting the airport properties. Deliverables in connection with these assignments include title reports and an executive summary narrative. The narrative report will identify the properties and described the title defect, if any, and a cost-effective solution to correct the title defect for compliance with the FAA Exhibit A requirements. For the purposes of the budget, we have assumed that half of the properties will have a complete chain of title evidence current to the last date of updated title work. The other half of the properties are assumed to have no existing title evidence readily available, and the modified 40-year search will then be applicable.

Parcels Owned by the Airport			
Task	No. of Parcels	Rate/ Parcel	Total
Updated Title Reports	67	$500	$33,500
Document Copy Fees	67	$25	$1,675
Modified MMTA Search Reports	67	$800	$53,600
Document Copy Fees	67	$40	$2,680
Expenses			$8,844
Subtotal			**$100,299**

For the parcels outside of the airport property, title research will identify the owner, any easements held in the airport, and other encumbrances on the properties that may impact the airport's utilization of its rights on these properties. Deliverables in connection with this assignment include title reports and an executive summary narrative.

Proposed Airport Acquisition			
Task	No. of Parcels	Rate/ Parcel	Total
Modified MMTA Search Reports	9	$800	$7,200
Document Copy Fees	9	$40	$360
Expenses	-	-	$594
Subtotal			**$7,810**

Labor Classifications	2019 Rate/Hour
Principal/Project Attorney	$254
Title Agent	$84
Database/Document Specialist	$78
Staff Administrative	$58
GSA Per Diem, Mileage	Prevailing CONUS Rate
Shipping, Communications, Courier, Equipment Rental and Misc. Expenses	Cost

We appreciate the opportunity to submit this proposal and cost estimate. If you have any questions or comments, please feel free to call me at (763) 232-3093. We look forward to working with you on this project.

Sincerely,
ProSource Technologies, LLC

Jason D. Alt
Vice President

Accepted by:

_____
Signature / Title

DLH

WORK ORDER
No. 2019-3
Between

The Duluth Airport Authority (DAA) (Owner) and
Short Elliott Hendrickson Inc. (SEH) (Consultant) **Dated: April 16, 2019**

AIRPORT MASTER PLAN AND AIRPORT LAYOUT PLAN
DULUTH INTERNATIONAL AIRPORT (DLH)

This work order includes preparation of an Exhibit A Property Map for the Duluth International Airport (DLH). The contract provisions included in the Master Agreement (dated 11-20-18) between the DAA and SEH remain in effect for this work order.

Estimated start date is April 17, 2019; estimated end date is April 17, 2022.

Compensation by the Owner to the Consultant shall be a lump sum amount of $1,001,300

A description of the services to be provided is included in Attachments A.

A detailed estimate of labor cost and expenses is included in Attachments B-1 and B-2.

Point of Contact: Kaci Nowicki

APPROVED:

Duluth Airport Authority (DAA)

_____

Title:_____

Date:_____

Short Elliott Hendrickson Inc.

_____

Title:_____

Date:_____

_____

Title:_____

Date:_____

Attachment A
Duluth International Airport (DLH)
Master Plan and Airport Layout Plan
Scope of Work
April 8, 2019

The most recent Duluth International Airport Master Plan was prepared over the period of 2010 through 2013 with the document and corresponding ALP being approved in 2015. DLH more recently completed a Triggering Event Master Plan (TEMP) and ALP sheet update prior to the Runway 9/27 reconstruction project. The purpose of the TEMP was to evaluate and study the ultimate configuration (length and width) of Runway 9/27 with a focus on resolving two Hot Spots on the Runway 27 end.

The airport wishes to initiate a new comprehensive Master Plan update to develop a framework for meeting existing user needs and for growth. The Master Plan will identify future challenges and potential solutions. One goal of the Master Plan is to provide flexibility in long-term planning. While growth scenarios and alternatives will be selected, triggering events and scenarios for other needs will be documented and considered throughout. The Master Plan will position the airport to accommodate future growth and economic development.

Three main focus areas for the Master Plan include the existing taxiway network which is due for reconstruction, Runway 3/21 which is also due for reconstruction and stakeholders are expressing a need to lengthen, and building area development and redevelopment. The evaluation and recommendations for Runway 9/27 will be largely taken directly from the recently completed TEMP. A goal of the Master Plan is to consider financial feasibility in each decision made. The plan will include a comprehensive CIP document which will incorporate DLH capital and maintenance projects.

The Duluth Airport Authority wishes to conduct comprehensive public and stakeholder engagement throughout the project.

Project Deliverables – The project deliverables of this scope include the following:

1. Public Involvement Plan and associated public involvement content
2. Pavement Analysis Report
3. Building Assessment Report
4. Phase I ESA Report
5. Reconnaissance Architectural History and Archeological History Review
6. Wetland Delineation Report
7. Airport Master Plan
8. Airport Layout Plan

The Master Plan (MP) will be prepared in accordance with federal and state guidelines. Advisory Circulars (AC) 150/5300-13A, Airport Design and 150/5070-6B, Airport Master Plans, will be utilized in the development of this Master Plan. The FAA Standard Operating Procedure (SOP) for FAA Review and

Approval of narrative reports (ARP SOP 2.00, effective October 1, 2013) will be utilized in the preparation of the Master Plan.

Study Element 1: Project Initiation, Coordination and Administration

Task 1.1 – Project Scoping and Contract Development – Short Elliott Hendrickson (SEH and/or Consultant) will coordinate with the Duluth Airport Authority (DAA) to develop the appropriate work scope, define tasks, lines of communication and establish project goals, objectives or areas of interest. Project fees will be prepared using the final Scope of Work. This task includes project scoping meetings with DAA and FAA/MnDOT. An agreement will be developed from the Final Scope of Work and approved fees. The agreement will be provided to the FAA and MnDOT for review and approval prior to a contract being executed. This task also includes time to coordinate scopes of services with subconsultants and development of subconsultant contracts.

Task 1.2 – Project Administration and Management – SEH will provide project administration and management services as required to complete the project within the conditions of this agreement. Administration and management duties include project setup, monthly invoicing and preparation of a budget and schedule. The schedule will be updated monthly as the project progresses. SEH will hold monthly internal project team meetings. Client coordination under this task includes monthly coordination meetings with DAA staff throughout the project and preparation and submittal of written monthly project updates (one for DAA staff and one for the DAA board). Subconsultant coordination is included in this task.

This task includes time to prepare and submit FAA Quarterly Reports.

Task 1.3 – Quality Assurance and Control – SEH will implement and carry-out internal quality control for the project. Independent peer review will be conducted at each phase of the project to check content and product quality. Throughout the project, SEH will be responsible for draft and final proof-reading, final word processing, editing, graphics, reports and other products included in this Scope of Work.

Deliverables: Project scope, agreement, budget, schedule, monthly progress reports and meetings.

Study Element 2: Stakeholder Involvement and Project Meetings

SEH will lead stakeholder involvement efforts for the Master Plan in order to meet the requirements set forth in Advisory Circular (AC) 150/5070-6B, Airport Master Plans. A key focus of the stakeholder involvement efforts will be to provide multiple touch points with stakeholders using various techniques throughout the project. An additional focus will be building a transparent planning and decision making process throughout the Master Plan. Swim Creative (Swim) will provide services related to this Study Element.

Task 2.1 – Public Involvement Plan – SEH will develop a Public Involvement Plan (PIP) in collaboration with DAA staff. Initial kick off efforts to PIP development were accomplished during the scoping efforts. This task includes a review/strategy meeting with DAA staff. The PIP will identify project stakeholders, outreach methods and tools and an anticipated schedule for outreach efforts. Swim Creative will review and provide comment on the draft PIP. SEH will revise the PIP to address DAA and Swim comments. The PIP will be updated periodically throughout the Master Plan and is meant to be a living document.

Written Public Outreach

Task 2.2 – Project Branding and Logo – Swim will develop a unique project brand and logo consistent with other DAA brands look and feel. The project brand and logo will be utilized throughout all public

involvement efforts. As part of this task, SEH will attend a branding strategy meeting held by Swim at DLH. SEH will provide feedback to Swim and DAA throughout this process.

Task 2.3 – Blog Posts - SEH will prepare up to 20 blog posts for posting on the project webpage throughout the Master Plan project. These blog posts will be topic-specific and geared towards the general public. They are meant to be easy to understand, quickly digestible, content aimed at increasing understanding and interest in elements of the Master Plan. SEH will prepare all text as well as figures or graphics needed for each blog post. Once approved by DAA, posts will be submitted to Swim for editing and uploading to the project webpage.

Task 2.4 – Project Flyers – SEH will create approximately eight (8) flyers covering topic specific text. SEH will develop the text and graphics needed for each flyer and will utilize a flyer template created by Swim. Project flyers will cover various topics which may include Master Plan FAQ, activity forecasts, Runway 3/21, taxiway network, airport financial plan, building area development/redevelopment opportunities, airport zoning needs, Master Plan overview, and other topics.

SEH will print approximately 50 copies of each of the 8 flyers.

Task 2.5 – Executive Summary – SEH will prepare the text and figures/charts for an executive summary (approximately 10 pages, full color) that will summarize the Master Plan for the general public. Swim will prepare the Executive Summary document and SEH will provide guidance and feedback throughout the process.

SEH will print approximately 50 copies of the Executive Summary.

Task 2.6 – Photos – SEH will conduct a photo shoot of airport facilities and infrastructure to utilize in stakeholder outreach materials. Video will also be collected during this effort.

Task 2.7 – Online-surveys – SEH will prepare up to two online surveys that can be distributed to stakeholders at various points in the Master Plan process. These surveys will be created using Survey Monkey and distributed via an email/online link. SEH will summarize survey results for DAA staff and for inclusion in the Master Plan. Survey efforts may be utilized to get feedback from stakeholders on the outreach process or to collect general data or airport feedback that will influence the Master Plan.

Task 2.8 – Outreach Log – SEH will prepare an outreach log to track stakeholder outreach efforts. The outreach log will track type of outreach, date, attendance, topic and method of outreach. This log will be updated throughout the project. Monthly outreach summaries will also be prepared and submitted to DAA staff.

Task 2.9 – Request for Information (RFI) Log – SEH will prepare and maintain an RFI log to track questions and comments received through outreach efforts. The question/comment, stakeholder, date, follow-up actions and resolution/answer (if any) will be documented.

Task 2.10 – Project Newsletter – SEH will prepare and distribute bi-monthly project newsletters. DAA will develop project email lists to be utilized for newsletter distribution. The newsletter will be prepared utilizing the DAA Mail Chimp account and/or distributed via traditional email and PDF. For those distributed via Mail Chimp, metrics will be tracked related to opened/unopened emails and other available data. Project newsletters are anticipated to be developed bi-monthly throughout the project. SEH will prepare all text and graphics for each newsletter and submit to DAA staff for review prior to distribution.

Task 2.11 – Project Webpage and Updates – Swim will develop a project webpage to provide project information to the public. The website may include a calendar, blog posts, project overview, newsletters

and other project documents. SEH will participate in a webpage kick off meeting with Swim and DAA staff.

SEH will update the project webpage monthly to include new content or schedule updates as necessary. DAA will allow SEH to maintain administrator access to the Master Plan project webpage.

Task 2.12 –Project Storymap – SEH will create an online storymap of the airport to provide an easy to understand overview of the Master Plan. The storymap will provide an introduction to the airport, its environs, users and uses. The storymap will be updated as the Master Plan progresses to document the final Master Plan recommendations. This tool will be linked on the project webpage and will provide an easy to digest and understandable overview of the Airport and the Master Plan.

In-Person Stakeholder Outreach

Task 2.13 – Duluth Airport Authority (DAA) Board Meetings (monthly) – SEH will provide monthly project updates to the DAA Board throughout the project.

Task 2.14 – Stakeholder Advisory Committee (6 meetings) – SEH will work collaboratively with DAA staff to develop a diverse stakeholder advisory committee that represents the varied stakeholder groups and types. SEH will assist in identifying goals and purpose of the group and a profile of desired stakeholder representation. SEH will assist DAA in developing committee invites for potential committee members.

For each meeting, SEH will prepare meeting invites and coordinate meeting logistics. This task includes time to prepare meeting content and materials in addition to attending and assisting DAA staff in leading the meetings. Following each meeting, SEH will prepare detailed meeting minutes as well as a brief meeting summary. Meeting minutes will include any action items identified during the meeting. The meeting minutes will be distributed to the committee and DAA staff for comments prior to finalization.

Task 2.15 – Technical Topic Specific Working Groups (approximately 10 meetings) – Technical working groups will be convened to discuss select technical topics. SEH will work with DAA staff and relevant stakeholders to identify the appropriate stakeholders for each topic specific working group. Some working groups may meet more than one time to discuss a topic throughout the Master Plan project. These meetings are meant to be technical in nature.

For each meeting, SEH will prepare meeting invites and coordinate meeting logistics. This task includes time to prepare meeting content and materials in addition to attending and assisting DAA staff in leading the meetings. Following each meeting, SEH will prepare detailed meeting minutes as well as a brief meeting summary. Meeting minutes will include any action items identified during the meeting. The meeting minutes will be distributed to the committee and DAA staff for comments prior to finalization.

Task 2.16 – Community/Stakeholder Hosted Meetings/Project Updates (approximately 36 meetings) - SEH will attend various stakeholder hosted meetings to provide project updates as part of other existing community meetings or events. It is anticipated the many of these meetings will occur when SEH staff is already present in Duluth for other meetings or events in order to limit travel time.

A potential list of meetings, or stakeholders whose meetings SEH may attend, includes:

- Runway Safety Action Team (RSAT) meetings (2)
- Northern Aero Alliance (2)
- Military Affairs Committee (2)
- Metropolitan Interstate Council (2)
- JAZB (4)

- 148th AOB (2)
- Visit Duluth (2)
- Duluth Days (2)
- Other local neighborhood events/meetings (4)
- Tenant meetings (8)
- Hermantown Chamber (2)
- Duluth Chamber (2)
- Superior Chamber (2)

This task also includes approximately 20 one-on-one stakeholder meetings to be held, in collaboration with DAA staff, with various stakeholders throughout the Master Plan process.

Task 2.17 – Project Open Houses (3 meetings) - SEH will prepare and lead three project open houses at various points in the Master Plan process. These events may occur at the airport or another off-site location. The topics and format will be determined as part of the PIP development. A formal public hearing is not included in this scope.

Task 2.18 – FAA and MnDOT Meetings and Coordination (approximately 10 meetings (roughly quarterly), 4 conference calls) – SEH will maintain contact with the FAA and MnDOT through e-mail, regular mail, phone, review documents and deliverables. The FAA and MnDOT will have the opportunity to review and comment on the project deliverables.

This task includes time to coordinate, meet, and build consensus with these groups and also time to make revisions per their recommendations. It is anticipated that up to ten (10) meetings will take place with the FAA and/or MnDOT at either of their offices (assume 5 of the 10) or at DLH (assume 5 of the 10). The meetings may cover the following topics or decision points: 1. Inventory, forecasts and critical aircraft, 2. Runway 3/21, 3. Taxiway network planning, 4. Building area development/redevelopment, 5. Facility recommendations and alternatives, 6. Implementation Plan. Additional meetings and conference calls will be scheduled throughout the project as needed.

For all meetings, meeting minutes and summaries will be prepared with action items documented. The topics and schedule of the coordination meetings will be determined and scheduled as needed throughout the project with input from the DAA, FAA and MnDOT. In addition, FAA and MnDOT may be invited to other meetings listed in Study Element 2. .

Study Element 3: Airport Inventory

Task 3.1 – Airside Inventory – SEH will inventory the existing facilities on the airport including the runways and instrument approaches to each runway end and NAVAIDs (including ownership) located on the airport. The taxiway network including Taxiway Design Groups (TDGs), TOFAs and pavement strength of each segment will be documented. Wind coverage will be calculated utilizing the most current available 10-years of wind data. Seasonal wind coverage will be calculated for each runway.

An obstruction survey will be completed to identify and evaluate any obstructions to Runway 3/21. Since an obstruction removal project was completed for Runway 9/27 in 2018, as-built data from this project will be utilized and no obstruction survey will be completed.

Aircraft parking ramps will be documented. Available parking areas, including the design group for each parking location and pavement strength for each ramp will be documented. Ownership/responsibility for

the various aircraft parking ramps will be documented in this task using input from DAA staff. Lease documents will be reviewed as necessary to complete this effort.

All airside pavement condition will be documented utilizing the most recent MnDOT Pavement Condition Index (PCI) inspection. This data will be updated to reflect any recent reconstruction projects completed since the last inspection.

Task 3.2 – Landside Inventory - The inventory will include documentation of the commercial service terminal facilities and services. The landside inventory will also include documentation of all building areas, fuel facilities, access roadways, parking and other landside facilities. Building area taxilanes and associated hangars will be evaluated to document existing TOFAs. Engineering Brief 78 will be referenced in evaluating wing tip clearances. For access roadways and automobile parking, ownership/responsibility for each pavement area will be documented.

Utilities on the airport will be described and documented using readily available sources. FAA Tech Ops and the 148h Fighter Wing will be consulted to gather additional available information on owned or maintained utilities.

Task 3.3 – Landside Pavement Analysis (see separation of task into 3.3a and 3.3b at the end of this task) - This task includes completion of a landside pavement condition analysis. This will be used to evaluate and rank pavements and provide recommendations for potential repairs, rehabilitation or reconstruction. Roadway lighting, where applicable, will be evaluated as well and recommendations will be provided for maintenance, upgrades or replacement. Cost estimates will be developed in the near-term (0-5 years), medium-term (5-10 years) and long-term (over 10 years). Pavement Condition Index (PCI) ratings will be to FAA standards for rating pavements, and accomplished according to AC 150/5380-7 (current edition).

The landside and select airside pavements to be evaluated as part of this assessment are identified in **Exhibit 2**. The figures include pavements owned and maintained by the DAA. The pavements include, but are not limited to, the airfield perimeter road (full length), Cirrus parking, Cirrus overflow parking, Lake Superior College (LSC) parking, Midfield landside pavements, NAVAIDs Roads, North Business Development Area, ARFF pavements (DAA owned), Terminal parking, and sidewalk review. In addition to pavements, associated roadway lighting, where applicable, will be evaluated.

The following phases are included in this task:

Planning Phase

Conduct Pavement Condition Assessment Kick-off Meeting. The meeting will review the scope, goals, and objectives, confirm deliverables, and discuss proposed schedule of investigation.

Create and describe facility index scoring criteria to be used to evaluate and rank pavements.

Create Pavement Condition Assessment Plan, highlighting roles and responsibilities, schedule, communication techniques, and overview of assessment.

Investigation Phase

This phase includes completion of site visits qualified staff at all required facilities according to the Pavement Condition Assessment Plan. Qualified staff include project civil engineer and resident pavement engineers.

Tasks to be accomplished include:

1. Perform site inspections of existing airfield pavements as noted in **Exhibit 2** and described in this scope.

2. Document and inventory the existing pavement condition information in accordance with FAA guidelines as put forth in Advisory Circular 150/5380-6B "Guidelines and Procedures for

Maintenance of Airport Pavements". The inspection data and inventories shall include, at minimum, the following:

a. Location and type of the inspected pavement (specific pavement road, parking lot, or area identified by name).
b. Dimensions of the inspected pavement (width and length of specific, distinct section of pavement).
c. Type and year of construction of the inspected pavement, if known, including the date of most recent major rehabilitation, if known. As-built data and typical section information will be reported, if available.
d. Identification of types of funding assistance used to construct, reconstruct, or repair the inspected pavement, if known.
e. Assignment of a Pavement Condition Index (PCI) range rating of the inspected pavement.
f. Other pertinent inspection information, such as the date of inspection and information related to observed pavement distress types or other observed conditions, including photographs.
g. Provide inventory and assessment of associated roadway lighting, including age, type of equipment and condition.

3. Provide present day cost estimates and recommended prioritization for ongoing maintenance of the inspected pavements and lighting.

Reporting Phase

This phase includes preparation of a summary report for each pavement described in the scope and **Exhibit 2** including an Executive Summary for the Pavement Condition Assessment. Three printed and bound copies of the report will be provided.

This assessment does not include any airfield pavements assessed and reported by MnDOT Aeronautics. No geotechnical analysis is included. No GIS based applications will be used for delivered s part of this effort.

3.3a – The pavements identified in blue on **Figures 1-3** are AIP eligible under this task. Task 3.3a will include AIP eligible pavements.

3.3b – The pavements identified in yellow on **Figures 1-3** are not AIP eligible. Task 3.3b is separated out as an AIP ineligible task.

Task 3.4 – Building Analysis – This task includes an inventory and evaluation of the existing airport buildings.

Building Inventory and Condition Analysis

Building inventory and condition assessments will be completed as part of this task. All buildings on the airport will be inventoried to identify building owner/tenant, use, size, lease term (if applicable) and approximate condition (0-5 scale). Select buildings will be evaluated with a more detailed building condition assessment. The results of this assessment will influence planning decisions for the building area development and redevelopment areas and their timeframes for development.

The facilities and specific assessment activities are tabulated in **Table 1.** Building numbers are identified in **Figure 4**. The table highlights all facilities studied in the Master Plan including those owned by the DAA and describes in which activity assessment is applicable for each facility. **See Table 1.**

The following phases are included in this task:

Planning Phase

This phase includes a Building Condition Assessment Kick-off Meeting. The meeting will review the scope, goals, and objectives, confirm deliverables, and discuss proposed schedule of investigation. A

facility index scoring criteria will be created to be used to evaluate and rank facilities. A Building Condition Assessment Plan will also be created, highlighting roles and responsibilities, schedule, communication techniques, and overview of assessment.

Investigation Phase

Complete site visits by qualified staff at all required facilities according to the Building Condition Assessment Plan. Qualified staff may include project architects, electrical engineer, mechanical engineer and/or building construction engineers or managers.

Specific categories of investigation (as scheduled in **Table 1)** include:

- Building Inventory. The inventory portion of the report will include photographs, the structure's age, construction type, size, general condition (based on ranking), tenant/owner type, and use. Approximately 45 facilities are included in this scope.
- Building Assessment. The assessment will include specific ranking and notes on key components of the facility, including structural, mechanical/HVAC, plumbing, electrical, door, roof, and civil/site as outlined in **Table 1**. The estimated length of service life and end year will be determined for each structure under given circumstances. Approximately 12 building assessments are included in this scope.
- Salvage Value. A salvage value would be estimated for specific structures, with the understanding the building would be removed and its components potentially available to the contractor for a cost. The scope plans for 1 salvage value calculation. This valuation will be utilized in planning decisions for the southwest quadrant building area.

Cost estimation. High level cost estimates will be created for major repairs for selected structures.

Reporting Phase

A summary report for each facility in the Building Inventory and Building Assessments table will be prepared. The summary report for facilities included in the building inventory will be brief half page descriptions of each structure and the available data. The summary report for the structures evaluated in the building assessment will be a more detailed report. An executive summary will also be prepared for the building condition assessment effort.

Three bound, printed copies will be provided.

The following items are not covered as part of this task:

- Building code evaluations. It is assumed the building code compliance will be accomplished as part of any specific repair or modification to the structure as part of a separate scope of work.
- ADA compliance. It is assumed the ADA compliance will be accomplished as part of any specific repair or modification to the structure as part of a separate scope of work.
- GIS based applications will not be utilized or delivered as part of this study.

Assumptions

- Building review will be based on visually accessible building components only. No destructive testing will be performed for the purposes of the structural, architectural, mechanical or electrical review. No hazardous material testing is included.
- If concerns are noted about building systems covered by finish materials based on deflections, cracking, or other visible distress, further investigation is outside of this scope of work. The assessment will include descriptions of the assumptions that were made and recommendations for additional investigation, if appropriate.
- These assessments will be of the buildings in their current state. Modifications to the building will require further investigation and evaluation.

3.4a – The building condition assessment for the following buildings listed in Table 1 will be AIP eligible and are shown under Task 3.4 a: Hangar 104, Hangar 105, Hangar 106, Hangar 107, Electrical vault, DAA SRE building, DAA West T-hangars, DAA Ranch Hangars, DAA T-Hangars, and 50% of the old terminal/tower building (portion available for aeronautical use (not part of ATCT use). Task 3.4a includes AIP eligible building condition assessments.

3.4b – The building condition assessment for the following buildings listed in Table 1 are not AIP eligible: Hydro Solutions, 50% of the old terminal/tower building (the portion attributed to ATCT/FAA use). Task 3.4b is separated out as an AIP ineligible task.

Phase I Environmental Site Assessment (ESA) - A Phase I ESA will be completed for approximately three (3) structures in the southwest quadrant building area. The purpose of an ESA is to identify, to the extent feasible, recognized environmental conditions in connection with a subject property. Four steps are required by ASTM E1527-13 Standard Practice; site reconnaissance, records review, interviews and report preparation. The following series of steps and tasks identifies the activities that will be conducted by SEH.

1. Site Reconnaissance - The objective of site reconnaissance is to obtain potential visual and/or olfactory evidence of environmental degradation related to the property and adjoining properties. SEH will do a walk-through of the subject property, noting potential environmental concerns on the subject property and observable environmental concerns on adjoining properties that relate to improper waste storage and disposal, and hazardous materials.

2a. Records Review - Publicly available federal, tribal, state, county and city records will be reviewed as appropriate to determine if the property has had a history of spills, leaks, hazardous waste storage, regulatory compliance and improper waste disposal practices.

2b. Map Review - As available and appropriate, USGS 7.5 Minute Topographic Map(s), as-built construction plans, historical and recent aerial photographs, fire insurance maps, and assessor's maps will be reviewed. A review of the physiography of the area will be completed as necessary.

2c. Historical Property Use Research - Reasonably ascertainable standard historical sources will be reviewed as necessary to identify prior uses of the property from the time the property was first developed or 1940, whichever is earlier. Significant data gaps of greater than 5 years in property historical information will be identified.

3. Interviews - As appropriate, past and present owners, operators, employees and occupants of the property, and government officials will be interviewed regarding the property.

4. Evaluation and Report Preparation - A report will be completed that summarizes the compiled information, and offers findings, opinions and conclusions based on the available data.

An SEH environmental professional will identify, to the extent feasible, recognized environmental conditions (RECs) in connection with the subject property. By ASTM definition, REC means, "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a threat to human health or the environment, and that generally would not be the subject of an enforcement action if brought to the attention of appropriate government agencies."

Performance of this ESA is intended to reduce but not eliminate uncertainty regarding the existence of RECs in connection with the subject property. Not every property will warrant the same level of assessment. The findings, opinions, and conclusions of the ESA are not scientific certainties, but probabilities based on professional judgment regarding the significance and accuracy of the collected

data. When reasonably ascertainable, data will be obtained and reviewed. However, the accuracy of the collected data is not the responsibility of SEH. Unless specifically requested and additional budget is authorized, any additional environmental sampling and analyses including assessment of wetlands, seismic hazards, lead paint, lead in drinking water, and structural/mechanical building conditions are not included in the scope. Asbestos, radon and hazardous material surveys are also not included in the Phase I ESA scope of work.

Non-Scope Considerations

The Phase I ESA does not include testing or sampling of materials (for example, soil, water, air or building materials) or any of the other following non-scope considerations identified below or specified in Section 13 of ASTM E1527-13:

- Asbestos-containing building materials
- Best Management Practices for Silviculture
- Radon
- Lead-based paint
- Lead in drinking water
- Wetlands
- Regulatory compliance
- Cultural and historic resources
- Industrial hygiene
- Health and safety
- Ecological resources
- Endangered species
- Indoor air quality
- Biological agents
- Mold

If additional services such as Phase II ESA activities or non-scope considerations are requested or if they may be warranted based on the results of the Phase I ESA, SEH will prepare a proposal for conducting the services upon request. The proposal would include a detailed scope of work, schedule, and a cost estimate.

In order to qualify for one of the Landowner Liability Protections offered by ASTM E1527-13, DAA, as the primary User of the report, must complete a User Questionnaire and provide the responses to SEH at least five working days prior to the due date of the report. Failure to provide this information could result in a determination that the "all appropriate inquiry" provision of ASTM E1527-13 is not complete. SEH will provide DAA the User Questionnaire. In addition, DAA agrees to provide, upon request, any or all of the following information pertinent to the project:

- Reason for the Phase I ESA
- Type of property and type of property transaction, for example, sale, purchase, exchange, etc.
- The complete and correct address for the subject property including maps or other documentation showing property locations
- Identification of past and present owners, operators and major occupants who are to be interviewed, and contact information for each
- Any special terms and conditions

- Any other knowledge or experience with the subject property that may be pertinent to the Phase I ESA, including copies of any available prior environmental site assessment reports, documents, correspondence, etc. concerning the subject property and their environmental condition

SEH will perform the Phase I ESA tasks in accordance with ASTM E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

Reconnaissance Architectural History Survey - Buildings over fifty years old which may be impacted by development or redevelopment alternatives in the southwest building area quadrant will be evaluated as part of a reconnaissance architectural history survey to identify any known cultural resources that may be potentially impacted. Approximately 13 properties will be evaluated. **This task will be completed by 106 Group (see attached detailed scope).**

Task 3.5 – Airport Equipment - All airport snow removal equipment and other maintenance vehicles and equipment will be documented. DAA staff will provide inventory information for the vehicle fleet including make/model, funding sources (if any), age and condition for each piece of equipment.

Task 3.6 – Airport Services - Services available to airport users will be documented as part of this task.

Task 3.7 – Airport Businesses and Tenants - Businesses and tenants located on the airport will be documented including name, type of business, approximate number of employees (if available) and other basic information.

Task 3.8 – Built and Natural Environment - In addition, built and natural environment will also be documented. All National Environmental Policy Act (NEPA) categories will be inventoried, utilizing available information from the recently completed Triggering Event Maser Plan (TEMP) and Runway 9/27 CatExs, where applicable. The inventory will include climate and weather trends. These may include temperature, precipitation event frequency/intensity, etc.

Archeological Assessment An archeological assessment will be prepared to identify any known archeological resources within the APE hat may be potentially impacted, as well as determine if additional archeological work is needed. **This task will be completed by 106 Group (see attached detailed scope).**

Task 3.9 – Community Features, Economy and Trends - Community features, economy and trends will be documented. The recently completed airport economic impact study will be summarized as part of this task.

Task 3.10 – Ground Access, Transit, Multi-Modal Access - Existing ground access and transportation will be documented. This includes transit, rideshare, taxi, transportation network carriers (TNC) and other modes. Roadways, access roads and automobile parking will be summarized and will include ownership/responsibility of each area.

Task 3.11 – Activity Levels - Baseline activity levels (developed by Landrum and Brown (L&B) as part of the Forecasting task) will be summarized in the inventory chapter. Baseline activity levels will include based aircraft, aircraft operations, international operations, international passengers (total number of passengers cleared through US Customs), parking activity and enplanements. This task will also document any use of the airport for medical or evacuation flights or aviation activity. The role the airport plays in medical emergencies and evacuations; and the role the airport plays in emergency of disaster preparedness in the community will be documented.

Task 3.12 – Recycling and Waste Practices –Existing recycling and solid waste programs the airport has in place or participates in will be inventoried and summarized. This includes an evaluation and documentation of the volume of solid waste generated, current recycling practices and current recycling practices as an estimated percentage of the total volume of solid waste generated. In addition, any existing programs for food recycling will be documented.

Task 3.13– Level 1 Wetland Delineations - For planning purposes in areas without immediate project plans, or where wetland impacts may be avoidable, SEH will conduct a Level 1 (onsite inspection

unnecessary/desktop review) in accordance with the Wetlands Delineation Manual (1987), using available resources including aerial photography, elevation data, and ancillary data sets such as the US Fish & Wildlife Service National Wetlands Inventory and Minnesota Department of Natural Resources Public Waters Inventory. A large portion of the airport is already completed and will not be re-delineated as part of this task. This delineation effort will aid in planning decisions as well as help the airport better understand its environment as other maintenance activities, such as tree clearing, occur.

Task 3.14 – Level 2 Field Wetland Delineations - In areas where potential wetland impacts are anticipated in the near future, SEH will conduct a Level 2 (routine onsite evaluation) wetland delineation in accordance with the US Army Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the Northcentral and Northeast Regional Supplement (USACE 2012). SEH will provide a wetland delineation report documenting the findings of the Level 1 and Level 2 wetland delineations.

Task 3.15 – Airport Property Summary - A brief summary of airport property will be completed. This will summarize the property information and data gathered as part of the Exhibit A property map being completed separately. The Exhibit A report will be included as an Appendix of the Master Plan.

Task 3.16 – Documentation of Stakeholder Development Plans - This task includes time to research and document on and off airport stakeholder development plans. Stakeholder development plans may vary in complexity and formality.

Study Element 4: Activity Forecasts

Task 4.1 – Forecast Development – As part of this task, forecasts will be developed for airport activity. Forecasted elements will include operations, enplanements, cargo operations/volume, and based aircraft. These forecasts will be presented for general aviation, military and commercial. **This task will be completed by Landrum & Brown (see attached detailed scope).** SEH will participate in a forecast kick off meeting and will provide input throughout the forecasting effort. This task includes time to provide input on the selected critical aircraft.

Task 4.2 – Forecast Review – SEH will review draft forecasts developed by L&B and provide two rounds of comments. This task also includes time to incorporate the L&B forecasts document into the Master Plan.

Study Element 5: Facility Recommendations and Alternatives

Task 5.1 – Runway 9/27 – Facility recommendations and alternatives (as needed) will be developed for Runway 9/27. It is expected that recommendations for improvement will largely relate to only instrument approach improvements. The recently completed TEMP, which documented facility needs for Runway 9/27, will be referenced and summarized in this section where possible. This section includes documentation of the Runway Design Code (RDC), runway length, width, signage and marking, lighting, instrument approaches and pavement needs.

Task 5.2 – Runway 3/21 – Facility recommendations and alternatives will be developed for Runway 3/21. This section includes documentation of the RDC, runway length, width, signage and marking, lighting, approach lighting, instrument approaches and pavement needs. An alternatives analysis evaluating various alternatives to meet user needs and desires for Runway 3/21 will be completed. It is anticipated that up to six (6) alternatives will be evaluated.

Task 5.3 – Airspace obstructions – Airspace obstructions will be evaluated for each runway. No obstruction survey for Runway 9/27 is included. The as-built information for the obstruction removal completed in winter 2018 will be utilized to document existing obstructions. An obstruction survey for Runway 3/21 will be completed. This will document any existing or future obstructions.

To maintain clear existing approach and departures surfaces, an Obstacle Action Plan (OAP) will be developed for all unmitigated obstacles to Runway 3/21. The OAP will identify obstacles as defined in: Table 3-2 of Engineering Brief and 14 CFR Part 77 Imaginary Surfaces.

The OAP will summarize and detail unmitigated obstacles, and will identify how and when the surfaces will be cleared and maintained cleared. The OAP will identify the obstacle reference number, type, latitude, longitude, elevation (AMSL), height, surface penetrated, penetration amount, runway, if the obstacle is on or off the airport, if the obstacle is under sponsor control, proposed maintenance action, and when each of the obstacles will be cleared (i.e. date) and triggering event, if associated with a particular project. Additionally, the OAP will match data that is presented on the ALP Inner Approach Obstruction Tables (**Study Element 8**). The OAP will be incorporated into the CIP (**Study Element 6**) as necessary to plan for mitigation of the identified obstacles, and will identify mitigation that is eligible for federal or state funding and those areas/items that have been previously funded.

Task 5.4 – Taxiway Network – The required existing, future and ultimate TDG for each taxiway segment will be evaluated. This includes an identification and evaluation of large aircraft taxi routes throughout the airfield. The required pavement strength for each taxiway segment will be identified as well as recommended taxiway layout. Because reconstruction of much of the airport taxiway network will be completed near term, an evaluation of reconstruction phasing alternatives will be completed.

Task 5.5 – Navigational Aids (NAVAIDs) – Recommendations for NAVAIDs will be summarized. This includes relocation of any NAVAIDs. This evaluation is expected to include an analysis of the opportunity and alternatives to relocate the Runway 27 glideslope in order to provide a standard threshold crossing height. The 2018 mobile glide slope flight check and recent FAA glide slope modeling results will be utilized in this analysis. NAVAIDs will also be evaluated to determine when replacement projects should be considered. Potential future reimbursable agreements for future airport projects will be documented in this section.

Task 5.6 – Ramps – Each individual ramp area will be evaluated in its ability to meet aircraft parking and aircraft and ground equipment maneuvering needs. The aircraft design group of each ramp area will be identified along with the needed pavement strength. Pavement maintenance needs for each ramp area will be identified along with a preliminary determination of funding (FAA and MnDOT) eligibility of each ramp pavement area. The responsibility for each pavement will also be identified (DAA or other). Demand levels that may trigger new layouts of expansions will also be identified.

Task 5.7 – ARFF – Aircraft Rescue and Fire Fighting (ARFF) will be summarized at a high level. Because the 148th Fighter Wing provides ARFF services, a detailed analysis of ARFF capabilities and equipment is not included.

Task 5.8 – Air Traffic Control Tower – The existing Air traffic control tower needs will be evaluated. Building deficiencies as well as site line deficiencies will be documented. An alternatives analysis will be completed for a new air traffic control tower with a focus on identifying areas that could be preserved for a new air traffic control tower and identification of potential sites. A preferred site will be selected for inclusion in the Master Plan. As part of this analysis, sites that are not compatible or desired for an air traffic control tower will be identified. These areas will include those areas that do not meet siting criteria or that are preserved for other development or uses.

Task 5.9 – Southwest Quadrant Building Area – The southwest quadrant building area will be evaluated and existing and future hangar and building development needs identified. Some areas of this quadrant contain buildings that are at or near the end of their useful life. Additionally, some areas currently under lease by the ANG 148th (west side of southwest quadrant) are nearing the end of their lease and will soon be available for DAA redevelopment. Needs that will be evaluated include the different potential development needs/demands, pavement maintenance, access and roadway needs, and parking needs.

Development scenarios and alternatives will be identified and evaluated. Conceptual layouts for areas within the building area will be developed. Triggering events, scenarios and/or time frames for implementation will be identified for each development or redevelopment area.

Locations for an additional fuel farm will be identified. This fuel farm may be needed to accommodate additional capacity needs in the future or a new fuel provider at the airport. No study or evaluation of the existing privately owned and operated fuel system is included.

Task 5.10 – Terminal Building Area – The terminal building area will be evaluated and needs documented.

The terminal building will be evaluated at a high level including terminal space planning needs based on various forecast scenarios. Expansion opportunities will be documented. Jet bridge replacement and major maintenance needs and timing will be documented.

Ground access will be evaluated. Needs to be evaluated include automobile access, transit, commercial vehicle access, transportation network carrier (TNC) staging and pickup locations and terminal curbside space and use planning. Other ground transportation trends will be evaluated and flexible scenarios/alternatives to respond to changing ground transportation trends will be identified and evaluated.

Automobile parking needs will be documented and forecasted. These will include varied scenarios based on forecast scenarios developed in the forecasting effort. Alternatives to meet any unmet parking demands will be identified and evaluated.

Pavement maintenance needs for the terminal parking, roadway and sidewalk system will be identified. Lighting improvements to the groundside terminal area will also be identified.

Other landside vehicle or transportation maintenance needs will be evaluated. This includes evaluating the need for a quick turnaround (QTA) facility for car rental services. Triggering events and/or scenarios that would create the need for such facility will be discussed.

Task 5.11 – North Building Area – The north building area development needs will be identified and assessed. Alternatives for hangar area growth will be developed and evaluated. Triggering events, scenarios and/or time frames for implementation will be identified for each development or redevelopment area.

The existing roadway and parking needs of this area will be evaluated and included in the analysis. Ramp parking needs will also be evaluated.

Task 5.12 – Development Area Summaries – A summary will be created for each area determined to be available for development or redevelopment. These will be included as an appendix to the Master Plan.

Task 5.13 – Identification of Areas Needed for Aeronautical Use– Areas that are needed for aeronautical use will be identified in this task. Summary information on the reasoning behind each area being identified as needed for aeronautical use will be provided.

Task 5.14 – Airport Property – Future property needed for airport development or land use protection will be included in this task. Key considerations the DAA may take into consideration when considering land purchase opportunities will be identified. These will be utilized in the future as potential land purchase opportunities arise. Any recommendations included in the Exhibit A effort will be summarized.

Task 5.15 – Airport Zoning – Any updates needed to the airport zoning ordinance will be documented as part of this task. Updating the airport zoning ordinance is not included in this Maser Plan effort.

Task 5.16 – Wildlife Hazards Mitigation– The existing Wildlife Hazard Assessment (WHA) and Wildlife Hazard Management Plan (WHMP) completed for the airport (2015) will be consulted to identify

recommendations that should be incorporated into the Master Plan. No new or updated WHA or WHMP will be prepared as part of the Master Plan.

Task 5.17 – Perimeter Road – The perimeter road will be evaluated and any needed improvements identified. These will include pavement reconstruction and maintenance needs.

Task 5.18 – Fencing – Airport securing and wildlife fencing needs will be documented. It is assumed that the DAA has already identified areas needing improvement through Part 139 Certification Inspections and DAA will provide that information. A detailed analysis or inspection of fencing or gates is not included.

Task 5.19 – Sustainability – The airport already participates in sustainability initiatives with its current solid waste provider and the City of Duluth. This task includes summarizing any recommendations for sustainability the airport may have from these programs it already participates in. An evaluation will be completed on the feasibility for additional recycling and recommendations and goals to implement the additional recycling and reduce waste generation will be included. These may include recommendations for reducing solid waste, including food waste, generation through logistical changes, lease requirements, purchasing policies, minimum standards, recycling, reuse, etc. These recommendations will also include potential operational and maintenance improvements and/or requirements, including recommended roles and responsibilities.

The plan will evaluate and provide recommendations for cost savings or revenue generation related to waste generation, reuse, recycling, reduction and disposal and will also identify the technical and economic factors affecting the feasibility of recycling at the airport including the local market for recyclable commodities.

Neither a waste audit nor development of a sustainability is included in this scope.

Study Element 6: Capital Improvement Plan (CIP)/ Implementation Plan

Task 6.1 – Funding and Revenues Overview– SEH will participate in a kick off meeting prior to initiating this task. This task will be completed by L&B and SEH. SEH will provide assistance in developing the funding overview information. **The remainder of this task is being completed by Landrum and Brown (see attached detailed scope).**

Task 6.2 – Cost Estimates– SEH will develop cost estimates for capital and maintenance projects that will be included in the Capital Improvement Plan (CIP).

Task 6.3 – Project Summaries – SEH will prepare a project summary for each capital or maintenance project included in the CIP. This will include an overview of the project, estimated project costs, a prioritization discussion, year of implementation or planning levels and events that would support project development and funding, as well as projects that should be linked together. Summary figures depicting the location of each project will also be prepared. It is anticipated that summary figures will be prepared for each 3-5 year timeframe, as appropriate.

Task 6.4 – Preparation of Financial Chapter – This task is being completed by L&B (see attached detailed scope). This task includes time to review and provide input on the L&B deliverables as well as incorporate the information into the Master Plan chapter.

Task 6.5 – Capital Improvement Plan (CIP) – SEH will prepare a CIP table that will include a comprehensive list of airport capital projects, maintenance, needs, equipment procurement, and other projects.

Study Element 7: Peer Review

Task 7.1 – Peer Review – L&B will provide an independent peer review of 'hot issues' or critical decision points prior to incorporation of an alternatives analysis and its selected alternative being incorporated into the Master Plan. SEH will prepare a detailed memo documenting needs, evaluation criteria and alternatives summary and figures for four topic areas and participate in a briefing conference call with L&B. Up to four separate alternatives analysis will be reviewed with up to four alternatives considered in each analysis. Alternatives analysis may include future Runway 3/21, commercial terminal area development, southwest quadrant building area future development, ultimate Runway 9/27 taxiway network, or other topics as they may arise.

Landrum & Brown will complete the Peer Review task (see attached detailed scope). Technical memos will be submitted documenting each review. SEH will review the results of each review with DAA staff and he project team and incorporate any needed changes into the Master Plan.

Study Element 8: Airport Layout Plan (ALP)

Task 8.1 – Prepare Airport Layout Plan (ALP)– This task includes preparation of an updated ALP. The most recently approved (Conditionally Approved July 19, 2018) ALP will be utilized as a base as well as the recent AGIS project. However, data and linework not updated as part of the 2018 update will be evaluated in its entirety prior to incorporation into this ALP document. This task includes time to evaluate the entire ALP basemap and update styles and linetypes as necessary.

Elements of the final deliverables will be prepared in accordance with FAA Advisory Circulars (AC) 150/5300-13A - "Airport Design" and other applicable AC's, Orders, Regulations and Policy Memorandums. The FAA Standard Operating Procedure (SOP) for FAA Review and Approval of ALPs (ARP SOP 2.00, effective October 1, 2013) and SOP for FAA review of Exhibit 'A' Airport Property Inventory Maps (ARP SOP 3.00, effective October 1, 2013), and MnDOT ALP preparation submittal guidelines (dated 1/18/05) will be utilized in the preparation of the ALP Update.

The ALP set will be developed in color on 30" x 42" sheet size. Coordinates will be shown in NAD 83 datum and elevations in NAVD 88 datum. The ALP set is anticipated to include the sheets listed below.

1. Basemap preparation
2. Title sheet
3. Airport data summary sheet
4. Declared distances
5. Existing ALP
6. Future ALP
7. Existing Facilities/Aerial photo
8. Terminal Area Plan – Passenger Terminal
9. Terminal Area Plan - Southwest Building Area
10. Terminal Area Plan – North Building Area
11. Terminal Area Plan – 148th Fighter Wing
12. Runway 9 Inner Approach Sheet
13. Runway 27 Inner Approach Sheet
14. Runway 3 Inner Approach Sheet
15. Runway 3 Inner Approach Sheet (if needed)
16. Runway 21 Exist Inner Approach Sheet
17. Runway 21 Fut./Ult. Inner Approach Sheet
18. Part 77 Close-In
19. Part 77 Airspace Extended View
20. Land Use Map and Exist/Future Zoning

Deliverables: FAA, MnDOT, and locally accepted (DAA) Master Plan; FAA, MnDOT and locally approved ALP.

Master Plan:

Working Papers: Review handouts and working papers will be provided to DAA, MnDOT and FAA prior to each of the meetings listed in **Task 2.18**. Electronic copies of the working papers will be provided to attendees two weeks prior to each meeting. Paper copies will be available upon request.

Final Draft Master Plan: Two (2) printed copies and an electronic copy of the final draft of the Master Plan will be submitted to the DAA for review. One (1) printed copy and an electronic copy of the final draft report will be submitted to each the FAA and MnDOT for review.

Final Master Plan: Three (3) printed copies and three electronic copies (via CDs) of the final report will be submitted to MnDOT, of which one (1) printed copy and an electronic copy will be forwarded to FAA, and one (1) printed and one (1) electronic copy will be provided to the DAA.

Up to 10 additional final Master Plan copies will be printed for the DAA upon request.

The total deliverables for the Master Plan include 17 printed copies of the report, and three (3) CDs.

Airport Layout Plan (ALP):

The draft and final plan set will be delivered to the FAA, MnDOT and the DAA. Electronic plans will be prepared using AutoCAD and/or GIS. Draft and review copies will be submitted in paper and PDF format. The following reproductions are included:

Draft ALP: Two (2) draft copies will be submitted to the DAA. Four (4) draft copies of the draft ALP will be submitted to MnDOT and one (1) copy of the draft ALP will be submitted to FAA for review.

Final ALP: Two (2) printed copies of the final ALP will be submitted to the DAA. One (1) final printed copy of the final ALP will be provided to the FAA for their records. Four (4) printed copies of the final ALP will be submitted to MnDOT. Electronic copies (via CDs) of the final ALP will be submitted to the DAA, MnDOT and FAA.

A total of 14 printed copies of the ALP is included.

Optional Tasks

The following tasks are included in the scope of work and fee but will be authorized individually by the DAA. If not authorized by the DAA in writing, work will not proceed and the DAA will not be billed for these items.

Task O.1 – Safety Risk Management (SRM) Meeting – This task will be completed if a preferred development alternative is selected which includes the need for a modification to standards or if requested by DAA and FAA. This task includes a meeting facilitated by the FAA to gather input from stakeholders on the modification to standards request. SEH will assist the DAA and FAA in developing a list of invitees including, but not limited to, FAA lines of business, key users, commercial and regular general aviation users, etc. SEH will prepare meeting handouts, presentations, participate in the meeting and produce meeting minutes. If possible, this meeting may be scheduled concurrently with an FAA Part 139 Certification Inspection.

Task O.2 – Phase I Archeological Survey – If the archeological assessment in Task 3.8 identifies any areas of moderate to high archeological potential, a Phase I archeological survey may be necessary to determine if there are any unknown archeological sites within the APE for the project that are potentially eligible for listing on the NRHP. Up to $15,000 in archeological survey is included I this task. The 106 Group will prepare an updated scope and fee prior to completing any work under this task. (See attached 106 Group proposal)

ATTACHMENT B-1
ESTIMATED FEES AND EXPENSES (AIP Eligible)
AIRPORT MASTER PLAN AND ALP
DULUTH INTERNATIONAL AIRPORT (DLH)
Duluth Airport Authority (DAA)
Duluth, Minnesota

Task No.	Task Description	Principal	Project Manager Sr. Planner	Professional Engineer	Planner	Graduate Planner	Graduate Engineer	Senior CAD Technician	Surveyor	Architect	Electrical Engineer	Mechanical Engineer	Structural Engineer	Environmental Scientist	Wetland Scientist	Graphic Designer	FAA Doc Specialist	Admin Technician
Project Initiation, Coordination and Administration																		
1.1	Scope Development	6	83	13	0	4	0	0	12	0	0	0	0	4	0	0	3	0
1.2	Project Administration and Management Services	18	167	18	0	12	0	0	0	0	0	0	0	0	0	0	10	2
1.3	Quality Assurance and Control	24	10	0	56	0	0	0	0	0	0	0	0	0	0	0	0	20
	Task Total	$31,745.76																
Stakeholder Involvement and Project Meetings																		
2.1	Public Involvement Plan	3	22	3	0	0	0	0	0	0	0	0	0	0	0	8	0	0
2.2	Project branding and logo	2	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.3	Blog posts (assume 20 posts)	0	100	0	0	40	0	0	0	0	0	0	0	0	0	20	0	0
2.4	Project flyer content (assume 8)	0	20	8	0	24	0	0	0	0	0	0	0	0	0	16	0	0
2.5	Executive summary content	2	20	2	0	6	0	0	0	0	0	0	0	0	0	0	0	0
2.6	Photos	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.7	Online surveys (assume 2)	0	4	0	0	2	0	0	0	0	0	0	0	0	0	5	0	0
2.8	Outreach log	0	12	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0
2.9	Request for Information (RFI) log	0	18	0	0	48	0	0	0	0	0	0	0	0	0	0	0	0
2.10	Project newsletters (assume 12)	0	32	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0
2.11	Webpage and updates	0	12	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0
2.12	Project Storymap	0	20	0	0	16	0	0	0	0	0	0	0	0	0	40	0	0
2.13	Duluth Airport Authority (DAA) Meetings - Project	6	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.14	Stakeholder Advisory Committee Meetings (assume 6)	20	104	18	0	66	0	0	0	0	0	0	0	0	0	0	0	0
2.15	Technical Topic-Specific Working Groups (assume 10)	8	120	48	0	92	0	0	0	0	0	0	0	0	0	0	0	0
2.16	Community/Stakeholder hosted meetings/updates	0	108	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
2.17	Open Houses (assume 3)	6	66	0	0	48	0	0	0	0	0	0	0	0	0	0	0	0
2.18	FAA and MnDOT Meetings (10 in person, 4 conf. calls)	0	75	75	0	75	0	0	0	0	0	0	0	0	0	0	0	0
	Task Total	$248,256.59 [uncertain]																
Airport Inventory																		
3.1	Airside inventory	0	19	7	4	100	0	0	0	0	0	0	0	0	0	0	0	1
3.2	Landside inventory	0	5	0	0	28	2	0	0	0	0	0	0	0	0	0	0	1
3.3a	Landside pavement analysis (eligible)	0	4	56.5	0	0	89	0	0	0	0	0	0	0	0	0	0	4
3.3b	Landside pavement analysis (ineligible)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
3.4a	Building analysis (eligible)	0	6	22	0	44	0	0	0	111	62	62	62	0	0	0	0	16
3.4b	Building analysis (ineligible)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.5	Airport equipment	0	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
3.6	Airport services	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
3.7	Airport businesses and tenants	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
3.8	Built and natural environment	0	3	0	2	7	0	0	0	0	0	0	0	8	2	0	0	0
3.9	Community features, economy and trends	0	6	0	20	10	0	0	0	0	0	0	0	0	0	0	0	0
3.10	Ground access, transit, multi-modal access	0	2	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0
3.11	Activity levels	0	8	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0
3.12	Recycling and waste practices	0	0	2	0	4	0	0	0	0	0	0	0	8	0	0	0	0
3.13	Level 1 wetland delineation	0	1	0	0	0	1	0	0	0	0	0	0	0	20	0	0	0
3.14	Level 2 field wetland delineation	0	1	0	0	0	1	0	0	0	0	0	0	0	36	0	0	0
3.15	Airport property summary	0	1	0	4	2	0	0	0	0	0	0	0	0	0	0	0	0
3.16	Documentation of stakeholder development plans	0	6	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0
	Task Total	$121,533.52 [uncertain]																
Aviation Forecasts and Demand Capacity																		
4.1	Forecast development	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.2	Forecast review	2	32	0	0	4	0	0	0	0	0	0	0	0	0	0	0	4
	Task Total	$10,058.19																
Facility Recommendations and Alternatives																		
5.1	Runway 9/27	0	6	4	0	9	0	0	0	0	0	0	0	0	0	0	0	0
5.2	Runway 3/21	0	47	24	0	61	8	0	0	0	0	0	0	4	0	0	0	0
5.3	Airspace obstructions	0	2	2	0	8	0	0	0	0	0	0	0	1	0	0	0	0
5.4	Taxiway Network	0	36	28	0	34	24	0	0	0	0	0	0	2	0	0	0	0
5.5	Navaids	4	20	16	0	16	4	0	0	0	0	0	0	0	0	0	0	0
5.6	Ramps	0	30	10	0	40	10	0	0	0	0	0	0	0	0	0	0	0
5.7	ARFF	0	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
5.8	Air traffic control tower	0	14	16	0	12	21	0	0	0	0	0	0	0	0	0	0	0
5.9	Southwest quadrant building area	0	30	10	4	54	20	0	0	0	0	0	0	4	0	0	0	0
5.10	Terminal building area	0	11	4	0	24	9	0	0	20	0	0	0	0	0	0	0	0
5.11	North building area	0	8	6	0	24	0	0	0	0	0	0	0	2	0	0	0	0
5.12	Development area summaries	0	4	0	0	18	0	0	0	0	0	0	0	0	0	0	0	0
5.13	Identification of areas needed for aeronautical use	0	6	0	0	10	0	0	0	0	0	0	0	2	0	0	0	0
5.14	Airport property	0	2	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0
5.15	Airport Zoning	0	2	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
5.16	Wildlife hazard mitigation	0	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
5.17	Perimeter Road	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
5.18	Fencing	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
5.19	Sustainability - Solid Waste and Recycling	0	1	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0
	Task Total	$113,167.71																
Capital Improvement Plan / Implementation Plan																		
6.1	Funding and revenues overview	2	2	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0
6.2	Cost estimates	4	4	16	0	0	40	0	0	0	0	0	0	0	0	0	0	0
6.3	Project summaries	0	4	2	0	40	8	0	0	0	0	0	0	0	0	0	0	0
6.4	Prepare Financial Chapter	2	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0
6.5	Capital improvement plan	2	8	2	0	8	0	0	0	0	0	0	0	0	0	0	0	0
	Task Total	$22,436.56																
Peer Review																		
7.1	Funding and revenues overview	0	16	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Task Total	$3,578.83																
Airport Layout Plan																		
8.1	Basemap preparation	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0
8.2	Title Sheet	0	1	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0
8.3	Airport Data Summary Sheet	0	4	1	0	16	0	0	0	0	0	0	0	0	0	0	0	0
8.4	Declared Distances	0	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
8.5	Existing ALP	0	2	4	0	24	0	0	0	0	0	0	0	0	0	0	0	0
8.6	Future ALP	0	2	4	0	24	0	0	0	0	0	0	0	0	0	0	0	0
8.7	Existing Facilities Drawing / Aerial Photo	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
8.8	Terminal Area Plan - Passenger Terminal	0	0.5	0	2	16	0	0	0	0	0	0	0	0	0	0	0	0
8.9	Terminal Area Plan - Southwest Building Area	0	0.5	0	2	16	0	0	0	0	0	0	0	0	0	0	0	0
8.10	Terminal Area Plan - North Building Area	0	0.5	0	2	16	0	0	0	0	0	0	0	0	0	0	0	0
8.11	Terminal Area Plan - 148th	0	0.5	0	2	16	0	0	0	0	0	0	0	0	0	0	0	0
8.12	Runway 9 Inner Approach Sheet	0	0.5	0	2	8	0	0	0	0	0	0	0	0	0	0	0	0
8.13	Runway 27 Inner Approach Sheet	0	0.5	0	2	8	0	0	0	0	0	0	0	0	0	0	0	0
8.14	Runway 3 Inner Approach Sheet	0	0.5	1	2	16	0	0	0	0	0	0	0	0	0	0	0	0
8.15	Runway 21 Exist Inner Approach Sheet	0	0.5	1	2	16	0	0	0	0	0	0	0	0	0	0	0	0
8.16	Runway 21 Fut/Ult Inner Approach Sheet	0	0.5	1	2	16	0	0	0	0	0	0	0	0	0	0	0	0
8.17	Part 77 Close In	0	0.5	0	2	16	0	0	0	0	0	0	0	0	0	0	0	0
8.18	Part 77 Airspace Extended	0	0.5	0	2	8	0	0	0	0	0	0	0	0	0	0	0	0
8.19	Land Use Map and Exist/Fut. Zoning	0	0.5	0	2	16	0	0	0	0	0	0	0	0	0	0	0	0
	Task Total	$34,173.58																
Optional Tasks																		
O.1	Safety Risk Management Meeting	0	20	12	22	0	0	0	0	0	0	0	0	0	0	6	0	0
O.2	Phase I Archeological Survey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Task Total	$9,504.47																
	Total hours per labor category	155	1467	443.5	136	1416	244	0	12	131	62	62	62	47	58	97	13	52

ESTIMATE OF LABOR COSTS:

Labor Category	Hours	Rate	Extension
Principal	105	$71.03	$7,458.15
Project Manager Sr. Planner	1467	$63.38	$92,978.46
Professional Engineer	443.5	$63.38	$28,109.03
Planner	136	$41.10	$5,589.60
Graduate Planner	1416	$31.38	$44,434.08
Graduate Engineer	244	$30.18	$7,363.92
Senior CAD Technician	0	$35.26	$0.00
Surveyor	12	$32.68	$392.16
Architect	131	$49.03	$6,422.93
Electrical Engineer	62	$56.07	$3,476.34
Mechanical Engineer	62	$59.95	$3,716.90
Structural Engineer	62	$38.14	$2,364.68
Environmental Scientist	47	$29.73	$1,397.31
Wetland Scientist	58	$38.52	$2,234.16
Graphic Designer	97	$28.85	$2,798.45
FAA Doc Specialist	13	$50.62	$658.06
Admin Technician	52	$26.24	$1,364.48
Total Direct Labor Costs	4,408		$219,758.71
Direct Salary Costs plus Overhead (155.13%)			$340,922.69
Total Labor Costs			$560,681.40
Fee (15%) on Total Labor Costs			$84,102.21

ESTIMATE OF EXPENSES:

Direct Expenses	Quantity	Rate	Extension
Sims - Subconsultant	1	$60,000.00	$45,200.00
Landrum and Brown - Financial	1	$79,900.00	$79,900.00
Landrum and Brown - Forecasts	1	$79,240.00	$79,240.00
Landrum and Brown - Peer Review	1	$62,260.00	$62,260.00
106 Group - Reconnaissance Architectural History Survey	1	$11,150.00	$11,150.00
106 Group - Archeological Assessment	1	$14,500.00	$14,500.00
106 Group - Phase I Archeological Survey	LS	$15,000.00	$15,000.00
Photography	LS	$2,000.00	$2,000.00
ESRI AEC Project Delivery and Annual Subscription (portion of annual fee, remainder shared with DYT Phase 3 CA)	LS	$1,200.00	$1,200.00
Drone usage	8	$75.00	$600.00
Equipment usage	4,408	$3.00	$13,222.50
Mileage (100 trips)	29,400	$0.58	$17,052.00
Per Diem - Master Plan Meetings	40	$200.00	$8,000.00
Per Diem - Pavement Assessments	6	$200.00	$1,200.00
Per Diem - Building Assessments	12	$200.00	$2,400.00
Per Diem - Phase I	1	$250.00	$250.00
Phase I Research	LS	$500.00	$500.00
Printing - Banners	2	$300.00	$600.00
Printing - Meeting materials	LS	$2,000.00	$2,000.00
Printing ALP			
Airport copies	4	$175.00	$700.00
MnDOT copies	8	$175.00	$1,400.00
FAA copies	2	$175.00	$350.00
Printing - Pavement Condition Assessment	3	$50.00	$150.00
Printing Master Plan	17	$125.00	$2,125.00
Printing Executive Summary	50	$30.00	$1,500.00
Printing - Flyers (50 copies, 8 flyers)	400	$0.60	$240.00
Total Expenses			$344,689.50

SUMMARY:

Total Labor Costs + Expenses + Fee	$989,473.11
Estimated Total	$989,500.00

ATTACHMENT B-3
ESTIMATED FEES AND EXPENSES (AIP Ineligible)
AIRPORT MASTER PLAN AND ALP
DULUTH INTERNATIONAL AIRPORT (DLH)
Duluth Airport Authority (DAA)
Duluth, Minnesota

Task No	Task Description	Principal	Project Manager Sr. Planner	Professional Engineer	Planner	Graduate Planner	Graduate Engineer	Senior CAD Technician	Surveyor	Architect	Electrical Engineer	Mechanical Engineer	Structural Engineer	Environmental Scientist	Wetland Scientist	Graphic Designer	FAA Doc Specialist	Admin Technician
Project Initiation, Coordination and Administration																		
1.1	Scope Development																	
1.2	Project Administration and Management Services																	
1.3	Quality Assurance and Control																	
	Task Total	$0.00																
Stakeholder Involvement and Project Meetings																		
2.1	Public Involvement Plan																	
2.2	Project branding and logo																	
2.3	Blog posts (assume 20 posts)																	
2.4	Project flyer content (assume 8)																	
2.5	Executive summary content																	
2.6	Photos																	
2.7	Online surveys (assume 2)																	
2.8	Outreach log																	
2.9	Request for Information (RFI) log																	
2.10	Project newsletter (assume 12)																	
2.11	Webpage and updates																	
2.12	Project Storymap																	
2.13	Duluth Airport Authority (DAA) Meetings - Project																	
2.14	Stakeholder Advisory Committee Meetings (assume 6)																	
2.15	Technical Topic-Specific Working Groups (assume 10)																	
2.16	Community Stakeholder hosted meetings/updates																	
2.17	Open Houses (assume 3)																	
2.18	FAA and MnDOT Meetings (10 in person, 4 conf. calls)																	
	Task Total	$0.00																
Airport Inventory																		
3.1	Airside inventory																	
3.2	Landside inventory																	
3.3a	Landside pavement analysis (eligible)																	
3.3b	Landside pavement analysis (ineligible)	0	0	5.5	0	0	37	0	0	0	0	0	0	0	0	0	0	4
3.4a	Building analysis (eligible)																	
3.4b	Building analysis (ineligible)	0	0	0	0	0	0	0	0	15	10	10	10	0	0	0	0	0
3.5	Airport equipment																	
3.6	Airport services																	
3.7	Airport businesses and tenants																	
3.8	Built and natural environment																	
3.9	Community features, economy and trends																	
3.10	Ground access, transit, multi-modal access																	
3.11	Activity levels																	
3.12	Recycling and waste practices																	
3.13	Level 1 wetland delineation																	
3.14	Level 2 field wetland delineation																	
3.15	Airport property summary																	
3.16	Documentation of stakeholder development plans																	
	Task Total	$11,770.10																
Aviation Forecasts and Demand Capacity																		
4.1	Forecast development																	
4.2	Forecast review																	
	Task Total	$0.00																
Facility Recommendations and Alternatives																		
5.1	Runway 9/27																	
5.2	Runway 3/21																	
5.3	Airspace obstructions																	
5.4	Taxiway Network																	
5.5	Navaids																	
5.6	Ramps																	
5.7	ARFF																	
5.8	Air traffic control tower																	
5.9	Southwest quadrant building area																	
5.10	Terminal building area																	
5.11	North building area																	
5.11	Development area summaries																	
5.13	Identification of areas needed for noncommercial use																	
5.14	Airport property																	
5.15	Airport Zoning																	
5.16	Wildlife hazard mitigation																	
5.17	Perimeter Road																	
5.18	Fencing																	
5.19	Sustainability - Solid Waste and Recycling																	
	Task Total	$0.00																
Capital Improvement Plan / Implementation Plan																		
6.1	Funding and revenues overview																	
6.2	Cost estimates																	
6.3	Project summaries																	
6.4	Prepare Financial Chapter																	
6.5	Capital improvement plan																	
	Task Total	$0.00																
Peer Review																		
7.1	Funding and revenues overview																	
	Task Total	$0.00																
Airport Layout Plan																		
8.1	Basemap preparation																	
8.2	Title Sheet																	
8.3	Airport Data Summary Sheet																	
8.4	Declared Distances																	
8.5	Existing ALP																	
8.6	Future ALP																	
8.7	Existing Facilities Drawing / Aerial Photo																	
8.8	Terminal Area Plan - Passenger Terminal																	
8.9	Terminal Area Plan - Southwest Building Area																	
8.10	Terminal Area Plan - North Building Area																	
8.11	Terminal Area Plan - 14th																	
8.12	Runway 9 Inner Approach Sheet																	
8.13	Runway 27 Inner Approach Sheet																	
8.14	Runway 3 Inner Approach Sheet																	
8.15	Runway 21 Exist Inner Approach Sheet																	
8.16	Runway 21 Fut/Alt Inner Approach Sheet																	
8.17	Part 77 Close In																	
8.18	Part 77 Airspace Extended																	
8.19	Land Use Map and Exist Fut. Zoning																	
	Task Total	$0.00																
	Total hours per labor category	0	0	5.5	0	0	37	0	0	15	10	10	10	0	0	0	0	4

ESTIMATE OF LABOR COSTS:

Labor Category	Hours	Rate	Extension
Principal	0	$71.03	$0.00
Project Manager Sr. Planner	0	$63.38	$0.00
Professional Engineer	5.5	$63.38	$348.59
Planner	0	$41.10	$0.00
Graduate Planner	0	$31.38	$0.00
Graduate Engineer	37	$30.18	$1,116.66
Senior CAD Technician	0	$35.26	$0.00
Surveyor	0	$33.68	$0.00
Architect	15	$49.03	$735.45
Electrical Engineer	10	$56.07	$560.70
Mechanical Engineer	10	$59.95	$599.50
Structural Engineer	10	$38.14	$381.40
Environmental Scientist	0	$29.73	$0.00
Wetland Scientist	0	$38.52	$0.00
Graphic Designer	0	$28.85	$0.00
FAA Doc Specialist	0	$53.61	$0.00
Admin Technician	4	$26.24	$104.96
Total Direct Labor Costs:	92		$3,847.26
Direct Salary Costs plus Overhead (66.03%)			$6,387.01
Total Labor Costs			**$10,234.27**
Fee (15%) on Total Labor Costs:			**$1,535.23**

ESTIMATE OF EXPENSES:

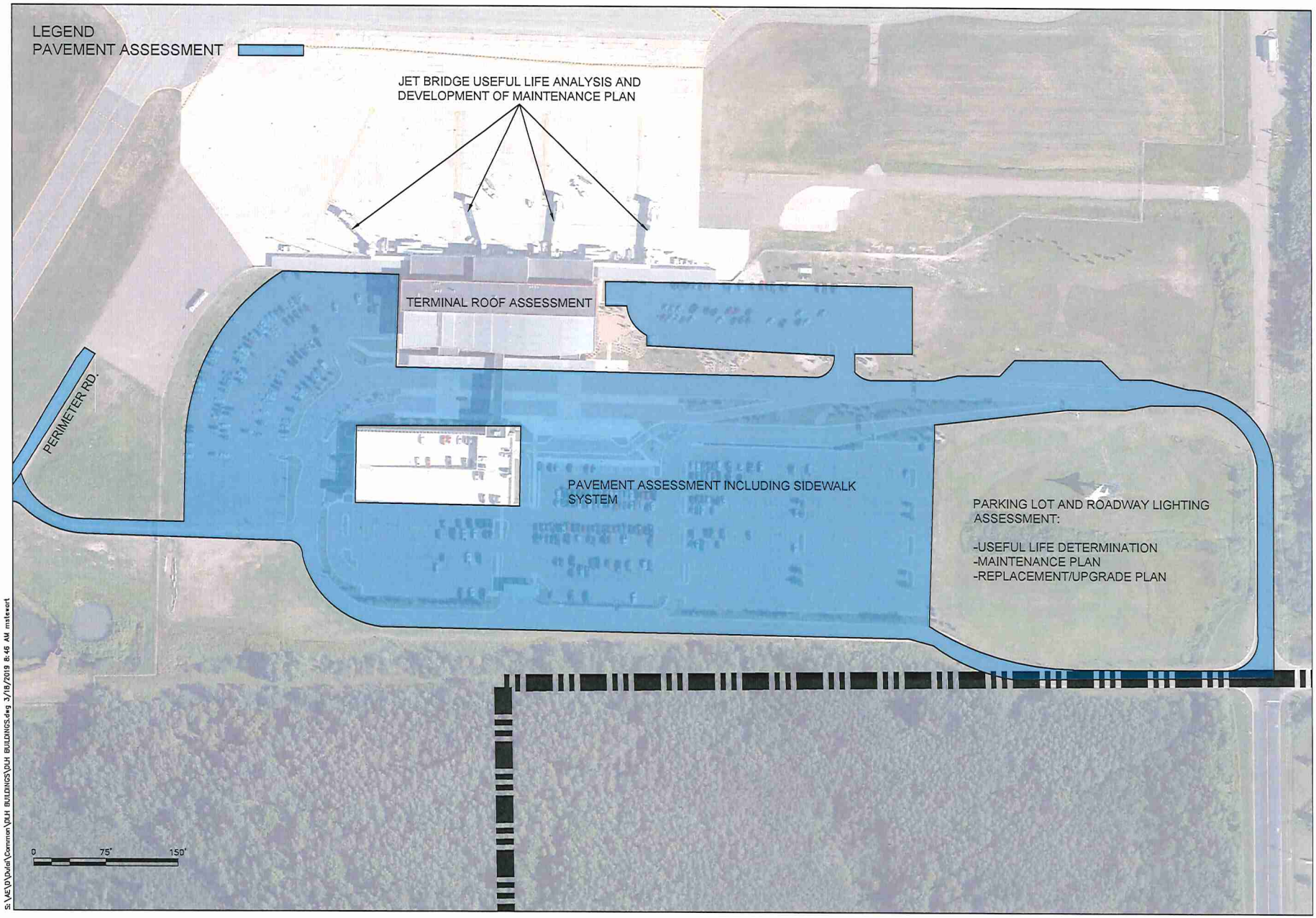
Direct Expenses	Quantity	Rate	Extension
Total Expenses			**$0.00**

SUMMARY:

Total Labor Costs + Expenses + Fee	$11,770.10
Estimated Total	**$11,800.00**

Studies/Assessments Included in Master Plan

Building Number	Building Name	Ownership	Building Inventory						Building Assessments						Environmental Site Assessment		
			Age	Construction Type	Size	General Condition	Tenant/Owner Type	Use	Structural	Mechanical	Door	Roof	Salvage Value	Elgilble/ Ineligible	Phase 1	Phase 2	Architectural Review
4	Monaco Hangar	Monaco	x	x	x	x	x	x									
6	Monaco Hangar	Monaco	x	x	x	x	x	x									
7	Monaco Hangar	Monaco	x	x	x	x	x	x									
100	Hermantown Hydraulics	DAA	x	x	x	x	x	x							x		
101	Commemorative Airforce Hangar	DAA	x	x	x	x	x	x					x	Eligible	x	x	x
102	Cirrus Maintenance Hangar	Cirrus	x	x	x	x	x	x									
103	LSC	DAA	x	x	x	x	x	x									Previously Studied
104	Hangar 104 Bays 7/8, 9/10, 11/12, 13/14 (DAA bays for assessment)	DAA/Monaco	x	x	x	x	x	x	x		x	x		Eligible			x
105	Hangar 105 (Cirrus lease)	DAA	x	x	x	x	x	x	x		x	x		Eligible			x
106	Hangar 106 (Monaco lease)	DAA	x	x	x	x	x	x	x		x	x		Eligible			x
107	Hangar 107 (John Hall leases)	DAA	x	x	x	x	x	x	x		x	x		Eligible			x
108	Hangar 108 (PKGG Partnership Land Lease)	PKGG	x	x	x	x	x	x									
117	Jet Duluth	Jet Duluth	x	x	x	x	x	x									
121,122,127	POL	148th	x	x	x	x	x	x									
123, 125	DRMO	148th	x	x	x	x	x	x									Previously Studied
301	Electrical Vault	DAA	x	x	x	x	x	x	x	x				Eligible			
303	DAA SRE	DAA	x	x	x	x	x	x		x	x			Eligible			
305	Hydro Solutions (1980)	DAA	x	x	x	x	x	x	x	x		x		Ineligible	x		
306	DHL	DAA	x	x	x	x	x	x									x
308	911 (CAP, QMS)	DAA	x	x	x	x	x	x									x
311	Cirrus Training Facility	DAA	x	x	x	x	x	x									Previously Studied, reconfirm results
603	Old SRE Repair (Fisher Lease/Monaco Sublease)	DAA	x	x	x	x	x	x									
608	DAA West T-hangars	DAA	x	x	x	x	x	x	x	x	x	x		Eligible			x
609	Monaco	Monaco	x	x	x	x	x	x									
611	Old SRE	DAA	x	x	x	x	x	x									
612	FedEx	Fisher	x	x	x	x	x	x									
614	DAA Ranch Hangars (7)	DAA	x	x	x	x	x	x	x		x	x		Eligible			
615	DAA Thangars (14)	DAA	x	x	x	x	x	x	x		x	x		Eligible			
616	Old Terminal / Tower	DAA	x	x	x	x	x	x	x	x	x	x		Ineligible (50%) Eligible (50%)			x
622	Hangar 2	DAA	x	x	x	x	x	x									x
701	Allette	Allette	x	x	x	x	x	x									
703	Cirrus	Cirrus	x	x	x	x	x	x									
704	Cirrus	Cirrus	x	x	x	x	x	x									
705	Monaco	Monaco	x	x	x	x	x	x									
709	FAA Garage	FAA?	x	x	x	x	x	x									
-	AAR	DEDA	x	x	x	x	x	x									
-	ARFF	DAA/148th	x	x	x	x	x	x									
-	Terminal	DAA	x	x	x	x	x	x		x		x		Eligible			
-	West Garage (Chad's Pad)	DAA	x	x	x	x	x	x									
-	POL	148th	x	x	x	x	x	x									
-	Cirrus Completion Center	Cirrus	x	x	x	x	x	x									
	Israel Malachi Hangar (Land lease)	Malachi	x	x	x	x	x	x									x
233	Old Photo Lab	DAA															Previously Studied
707	Old Tin Shed	Unknown															



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SEH
3535 VADNAIS CENTER DR
ST PAUL, MN 55110
PHONE: 651.490.2000
FAX: 651.490.2150
WATTS: 800.325.2055
www.sehinc.com

DULUTH INTERNATIONAL AIRPORT
DULUTH INTERNATIONAL AIRPORT
DULUTH, MINNESOTA

MARK	DATE	DESCRIPTION
		REVISIONS

SEH FILE NO. ####
STATE PROJECT NO. ####
ISSUE DATE ####
DESIGNED BY ####
DRAWN BY ####

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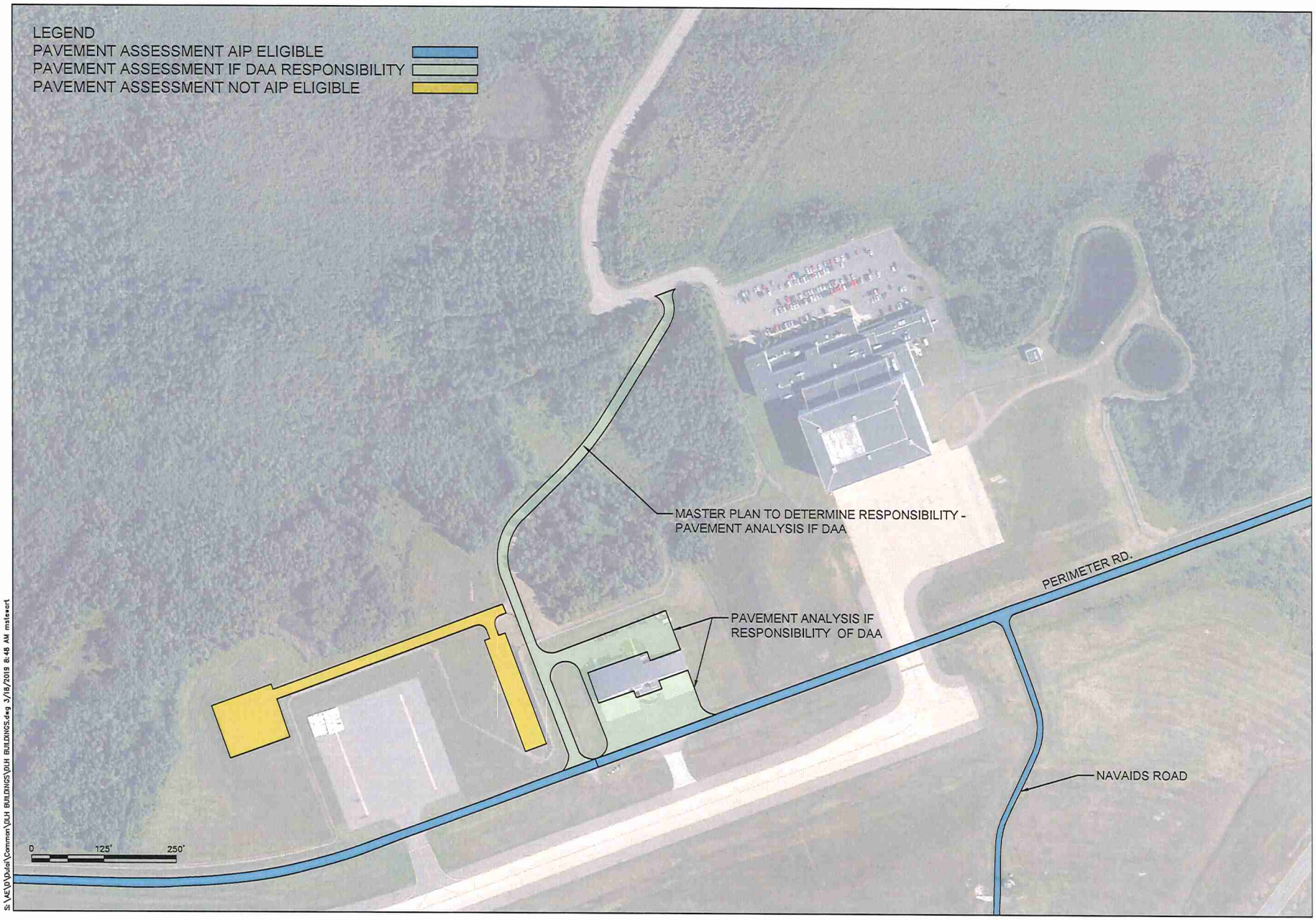
SHEET TITLE
TERMINAL AREA ASSESSMENTS

SHEET
1



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SHEET TITLE
NORTH BUILDING AREA ASSESSMENTS

SHEET
2

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SHEET TITLE
PAVEMENT ASSESSMENTS

SHEET
3

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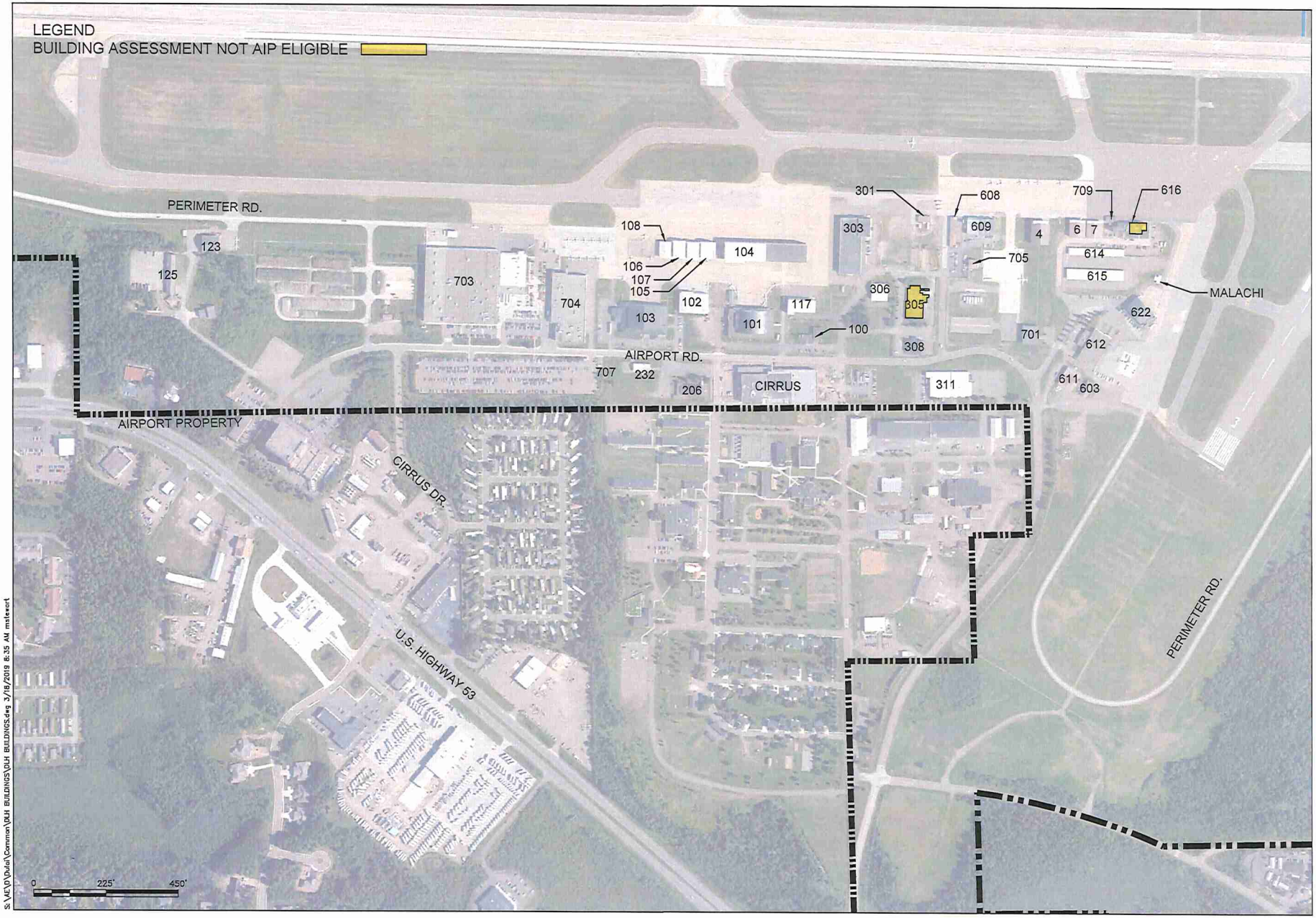

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DULUTH, MINNESOTA

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SHEET TITLE
BUILDING ASSESSMENTS

SHEET
4

106GROUP

Main Office
1295 Bandana Blvd
Suite 335
St Paul MN 55108

Locations
Boston MA
Richmond VA
Washington DC

106group.com

February 18, 2019

Kaci Nowicki, Associate, Project Manager
SEH
3535 Vadnais Center Drive
St. Paul, MN 55110-5196

Re: *Cultural Resources Proposal*
Duluth Airport Master Plan
St. Louis County, Minnesota

Dear Kaci:

The 106 Group is pleased to submit a proposal for cultural resources work for the above-referenced project to assist in development of a master plan to inform future planning and redevelopment in the hangar area at the Duluth International Airport. Future development at the airport will require approval from the Federal Aviation Administration (FAA) and, therefore, would need to comply with Section 106 of the National Historic Preservation Act of 1966, as amended, as well as applicable state mandates governing cultural resources, including the Minnesota Field Archaeology Act and the Minnesota Historic Sites Act. This scope of work includes a reconnaissance architectural history survey and an archaeological assessment to identify any known cultural resources that may be potentially impacted, as well as determine if additional cultural resources work, such as Phase I archaeology survey, may be needed in the future for compliance with the applicable cultural resources regulations.

An appropriate area of potential effect (APE) for architectural history properties will be determined that accounts for any physical, auditory, or visual impacts to historic properties that may occur from future development. For the purposes of this scope, it is assumed that the APE for architectural history is limited to the 13 properties identified on the map provided by you on February 13, 2019. Pending the nature of specific development, an updated APE for future projects should be reviewed by the FAA.

An appropriate APE for archaeology will include all areas within which future construction activities or other potential ground disturbing activities associated with future development may occur. For the purposes of this assessment, it is assumed that any development will occur within the two areas delineated on the map provided by you on February 13, 2019, and the APE for archaeology is the same as these boundaries, encompassing approximately 40 acres.

The study will include the following tasks:

Reconnaissance Architectural History Survey

The aim of the reconnaissance architectural history survey is to determine if any properties within the architectural history APE are potentially eligible for listing in the National Register of Historic Places (NRHP). This survey will include the following components:

Research & Prep

Research will be conducted at the following repositories:

- The Minnesota State Historic Preservation Office (SHPO) to identify all known historic properties at the airport. In addition, reports of previous cultural resources studies conducted at the airport will be reviewed.
- The Minnesota Historical Society, St. Louis County Historical Society, Duluth Public Library, and other local repositories to locate historical maps, aerial photographs, and local histories.

Survey

- The reconnaissance architectural history survey will be conducted within the APE. According to the *Historic and Architectural Survey Manual* (SHPO 2017), each property over 45 years of age that has not been evaluated for listing in the National Register of Historic Places (NRHP) within the last 10 years will be documented with field notes and digital photographs. Properties over 45 years of age and surveyed more than 10 years ago will be resurveyed to confirm their potential NRHP eligibility. Based on information provided by you on February 13, 2019, no more than 13 individual properties will need to be surveyed.

Report

- A report will be prepared describing project methodology, previous investigations, historical contexts, results, a table of properties that don't meet the minimum inventory criteria, and recommendations. One copy of the draft report will be prepared for review in electronic format. No more than one round of review will be necessary to finalize the report. One final report will be prepared in electronic format for distribution by you.
- A Minnesota Individual Property Inventory Form will be completed for each property over 45 years of age that is surveyed. No more than 13 individual forms will need to be completed. Because the airport boundary extends significantly beyond the hangar area, it is assumed that the entire airport will not require survey as part of this scope of work and no Minnesota Multiple Property Inventory Forms will need to be completed.

Archaeological Assessment

The archaeological assessment will identify any known archaeological resources within the APE that may be potentially impacted, as well as determine if additional archaeological work is needed. The assessment will include the following components:

Research & Prep

Research will be conducted at the following repositories:

- The SHPO and the Minnesota Office of the State Archaeologist (OSA) to identify precontact and post-contact archaeological sites previously recorded or reported within a one-mile radius of the archaeology APE. The one-mile radius aids in the determination of archaeological site potential. In addition, reports of previous cultural resources studies conducted within the archaeology APE will be reviewed.
- Desktop research will also be conducted to locate USGS topographic quadrangles, historical maps, aerial photographs, and local histories to aid in assessing archaeological potential within the APE.

Report

- A report will be prepared that describes project methodology; previous investigations; desktop archaeology assessment of the project area; and recommendations for additional cultural resources studies, if needed.
- The draft report will be prepared for review in electronic format. No more than one round of review will be necessary to finalize the report. One final report will be prepared in electronic format for distribution by you.

The 106 Group can complete this reconnaissance architectural history survey and archaeological assessment for an amount not to exceed **$14,500**[1]. The studies can be completed within 4 to 6 weeks of receiving the service agreement or notice to proceed. Arrangements can be made for faster project turn-around if requested.

Optional Phase I Archaeological Survey

If the archaeological assessment identifies any areas of moderate to high archaeological potential, a Phase I archaeological survey may be necessary to determine if there are any unknown archaeological sites within the APE for the project that are potentially eligible for listing in the NRHP. Depending on how much of the APE is identified as moderate to high potential, and on the surface visibility of this area, Phase I archaeological survey could cost between $15,000 (assuming shovel testing of about 3 acres) and $50,000

[1] The price quoted in this proposal is guaranteed for six (6) months from the date of submission. If more than six months elapse between submission and acceptance of this proposal, 106 Group reserves the right to make appropriate adjustments to the price.

(assuming shovel testing of about 23 acres), and would take between 4 and 8 weeks to complete (including reporting). This ballpark estimate is based on a preliminary review of historic maps, aerial photographs, and wetlands data; however, the exact level of effort for a Phase I survey will be determined as a result of the archaeological assessment. If a Phase I survey is determined to be necessary, a separate scope and budget can be prepared based on the specific recommendations of the archaeological assessment.

Assumptions

This scope of works assumes the following:

- No meetings are anticipated at this stage. If attendance at meetings is requested, it will be invoiced on a time and materials basis or the additional tasks and budget will be negotiated, whichever is acceptable.
- No intensive architectural history survey or Phase II archaeological survey is included in this scope of work. If additional cultural resources investigations are needed, the tasks and budget can be re-negotiated. One final architectural history report and one final archaeology report can be prepared that incorporates the results of each investigation, if you so wish.

We request that you provide the following:

- Access to the exterior of all buildings to be documented during the reconnaissance architectural history survey;
- An electronic map of the project location, preferably in GIS shapefile format;
- Any other pertinent project data in electronic format, including airport development history information; and
- Copies of previous communication with SHPO or other pertinent agencies.

We appreciate this opportunity to work with you on this project. If you have any questions or require further information, please do not hesitate to contact me via email at jennybring@106group.com or phone at (651) 403-8711.

Sincerely,

THE 106 GROUP LTD.

Jennifer Bring
Cultural Resources Manager

106GROUP

ESTIMATED COSTS

Duluth Airport Master Plan - Cultural Resources

Submitted to

Short Elliott Hendrickson Inc. **February 18, 2019**

Recon AH Survey	*Rate*		*Hrs.*	*Total*
Professional 7	$165.00	x	2.0	$330
Professional 6	$150.00	x	12.0	$1,800
Professional 4	$107.00	x	80.0	$8,560
	Total Labor:		94.0	$10,690
			Expenses:	$460
			Subcontractors:	$0
	Total for Recon AH Survey:			**$11,150**

Arch Assessment	*Rate*		*Hrs.*	*Total*
Professional 7	$165.00	x	1.0	$165
Professional 6	$150.00	x	1.0	$150
Professional 4	$107.00	x	9.0	$963
Professional 3	$86.00	x	24.0	$2,064
	Total Labor:		35.0	$3,342
			Expenses:	$8
			Subcontractors:	$0
	Total for Arch Assessment:			**$3,350**
	Total:		**129.0**	**$14,500**

Financial Feasibility Analysis
Scope of Services

Duluth International Airport – Master Plan Update
Duluth, MN

Pursuant to FAA AC 150/5070-6B, Chapter 12 (references below in parenthesis), the purpose of this scope of services is to identify Sub consultant services needed to demonstrate the airport sponsor's ability to fund the projects in the Master Plan (1201.a) This financial feasibility analysis will emphasize the projects that are expected to be implemented over the near-term as presented in the capital improvement program (CIP) and a more general discussion of the funding of the medium and long-term projects (1201.a). This financial feasibility analysis will analyze the airport's ability to fund the recommended projects (1201.b) and take place concurrently with the development of the CIP and facilities implementation plan by the Engineer (1201.b). Further, this level of effort will meet with the commercial small-hub/non-hub airport size requirement (1201.c) and will include 1) the funding sources for the CIP, 2) a projection of revenues and expenses (pro forma cash flow analysis) for each year of the CIP, and 3) methods to enhance airport revenues (1201.c). The financial feasibility analysis will work in concert with the CIP and facilities implementation plan so that it provides adequate information as to how the projects will be funded (1201.d).

1.1 Sources of Funding

A. There are various sources of funding available to a small hub/non-hub commercial airport including federal (e.g., AIP), state, third party, passenger facility charges, customer facility charges, bonds (e.g., revenue bonds, municipal bonds, and certificates of obligation), and local funds (e.g., airport cash (1202.1-6). Sub consultant will lead the effort with Engineer and airport staff to identify potential funding sources for the alternative capital project scenarios and evaluate the levels of funding required and potential risks of each potential source.

1.2 Financial Feasibility

A. Sub consultant will prepare a CIP funding plan (1203.a). Based on the summarized CIP and facilities implementation plan, Sub consultant will identify funding sources for each year of the financial plan using realistic assumptions about available and projected funding (1203.a). Based on this identification and assumptions, Sub consultant will develop a plan of finance to be carried forward in the financial feasibility analysis (1203.a). Sub consultant will identify the financing assumptions for the amount of funding needed to cover the local share and annual debt service requirements (1203.a).

B. Sub consultant will review the airport's financial structure (1203.b). Sub consultant will analyze to determine the composition of the airport's management, relevant airport leases, and other operating issues that could impact future cash flow at the airport (1203.b). Included as part of this evaluation will be the ability of the airport to finance the projects based on its financial structure (1203.b.1) and the ability of the airport to support development based on likelihood of obtaining federal and state aid, ability and willingness to issue a financial instrument to fund a portion of the costs and

the amount of revenue from airport operations (1203.b.1). Further the Sub consultant will analyze revenue producing areas including, but not limited to, airfield, terminal and landside cost centers as well as airfield and landside rented facilities (1203.b.2). The airport rate making methodology will be evaluated for current and future risk profile assumptions that can impact the ability to fund the CIP (1203.b.2). Sub consultant will examine the airport's budgeting process used to establish the financial management plan for operating revenue, operating and maintenance expenses (O&M) and capital expenditures (1203.b.3). Lastly, Sub consultant will analyze certain documents and/or policies to assess and recognize that there may be legal constraints impacting the CIP and facilities implementation plan (1203.b.4). Some of those items for review include, but are not limited to, bond ordinances, State capital funding guidelines, airline use and lease agreements, agreements with the City of Duluth, and operating agreements and leases, including the cash flow impacts of these documents on airport finance (1203.b.4).

C. Sub consultant will prepare a Pro Forma Cash Flow Analysis (1203.e). This pro forma cash flow analysis will project airport revenues, O&M expenses, existing and new debt service requirements, and other non-operating revenues and expense for each year of the CIP (1203.e). An emphasis of this preparation will be to test the ability of the airport to cover the local cost of the CIP through airport cash flow (1203.e). Sub consultant will evaluate airport self-sufficiency and its potential reliance on federal and state funding for the CIP (1203.e.1). Sub consultant will evaluate airport's ability to generate sufficient revenue to support bond financing (1203.e.2). As part of the pro forma cash flow analysis, Sub consultant will focus on the three to five year time frame and emphasize the first ten years of development (1203.e.3). An understanding of the longer and broader ten to twenty year horizon will be analyzed as well (1203.e.3). Impacts of the current and future value of the capital expenses will be considered in the analysis (1203.e.4 and 5).

D. Sub consultant will conduct a sensitivity analysis to assess airport financial risk (1203.f). This will allow Sub consultant to evaluate financial impacts to various passenger growth assumptions (1203.f).

1.3 Revenue Enhancement

A. Sub consultant will compare airport's financial performance to that of comparable airports as part of the pro forma cash flow analysis (1204.a). Sub consultant will use this comparison to identify ways to increase concession, airline, and/or non-airline revenues to the airport (1204.a). Further, since some of the agreements between the airport and its tenants may not have expired, Sub consultant will evaluate opportunities for airport to address the best opportunities to address the revenues during the implementation of the CIP (1204.b and c and d).

The documents gathered will be used to complete the financial analysis described in this scope of services. The approach for conducting this task includes the following key steps:

- *Meet with the Airport Director to inventory the legal documents and agreements which affect financial management of the Airport.*
- *The following documents will be gathered, along with any additional documents identified during the interview, and will be reviewed on a preliminary basis:*
    - *Historical, detailed (account-by-account) financial statements and audit reports for the past five (5) years*

- *Detailed year-to-date financial statements for the current year with remaining budget amounts*
- *Most recent operating and capital budgets*
- *Current capital improvement and major maintenance programs*
- *Official statements for any outstanding debt issues*
- *Rates and charges schedules*
- *Lease agreements*
- *Rental car and other ground transportation agreements*
- *Other Airport lease, concession, and privilege agreements*
- *FAA, state, and local grant records*
- *Passenger Facility Charges (PFC) quarterly reports for the past five (5) years*

The approach for preparing the Financial Feasibility will be based on existing conditions and activity forecasts and will include the following key steps:

- Review the aviation demand projections and alternative development concepts from the draft Master Plan.
- Review preliminary development costs and schedules for the CIP to consider possible revisions in the development scope and timing.
- Develop projections of operating and maintenance (O&M) expenses through review of historical O&M expenses and identification of trends and anticipated increases/decreases. Review the potential effect of the selected CIP on projected O&M expenses. Interview Airport management to develop appropriate O&M projection assumptions and to identify other anticipated changes.
- Develop projections of non-airline operating revenues through review of historical non-airline revenue trends from tax levies, car rentals, general aviation, FBO activities, fuel flowage, hangar leases, commercial/industrial and other leases. Interview Airport management to develop appropriate non-airline revenue assumptions.
- Develop projections of capital improvement expenditures through review of the selected CIP project list with construction cost estimates, escalation rates, and scheduling of expenditures to determine the annual need for capital funding. Interview Airport management to develop appropriate projection assumptions.
- Determine funding sources and develop projections for financing the CIP through review of potential funding sources identified in the Preliminary Financial Analysis task (including federal and state grants, PFCs, CFCs economic development funds, debt funding, net revenues, bank financing, and other alternative funding sources). Interview Airport management to develop appropriate projection assumptions.
- Develop projections of a rates, fees, and charges requirements through review of the Airport's methodology for determining rates and charges and tax levy history. Interview Airport management to develop appropriate projection assumptions.

- Develop summary level financial pro forma projections of funding sources, funding requirements, and other information to provide a basis for assessing the CIP. Revenue and capital funding projections will be compared with operating and maintenance expense and capital expenditure projections to identify a balanced approach for developing and funding operations and the program.
- Conduct a workshop with Airport officials to review and discuss the preliminary financing schedules
- Identify resources that the Airport may want to utilize.

Deliverables will include a written summary of the above tasks as well as a detailed Financial Feasibility for the Airport Capital Improvement Plan (ACIP). The written summary will include text and tables suitable for inclusion as a separate chapter in the final Master Plan document.

Financial Feasibility DLH Master Plan

Task	Hours	Rate	Total
1.1 Sources of Funding A. There are various sources of funding available to a small hub/non-hub commercial airport including federal (e.g., AIP), state, third party, passenger facility charges, customer facility charges, bonds (e.g., revenue bonds, municipal bonds, and certificates of obligation), and local funds (e.g., airport cash (1202.1-6). Sub consultant will lead the effort with Engineer and airport staff to identify potential funding sources for the alternative capital project scenarios and evaluate the levels of funding required and potential risks of each potential source.	60	$225	$13,500
1.2Financial Feasibility A. Sub consultant will prepare a CIP funding plan (1203.a). Based on the summarized CIP and facilities implementation plan, Sub consultant will identify funding sources for each year of the financial plan using realistic assumptions about available and projected funding (1203.a). Based on this identification and assumptions, Sub consultant will develop a plan of finance to be carried forward in the financial feasibility analysis (1203.a). Sub consultant will identify the financing assumptions for the amount of funding needed to cover the local share and annual debt service requirements (1203.a). B. Sub consultant will review the airport's financial structure (1203.b). Sub consultant will analyze to determine the composition of the airport's management, relevant airport leases, and other operating issues that could impact future cash flow at the airport (1203.b). Included as part of this evaluation will be the ability of the airport to finance the projects based on its financial structure (1203.b.1) and the ability of the+A11 airport to support development based on likelihood of obtaining federal and state aid, ability and willingness to issue a financial instrument to fund a portion of the costs and the amount of revenue from airport operations (1203.b.1). Further the Sub consultant will analyze revenue producing areas including, but not limited to, airfield, terminal and landside cost centers as well as airfield and landside rented facilities (1203.b.2). The airport rate making methodology will be evaluated for current and future risk profile assumptions that can impact the ability to fund the CIsidered in the analysis (1203.e.4 and 5). the airport's budgeting process used to establish the financial management plan for operating revenue, operating and maintenance expenses (O&M) and capital expenditures (1203.b.3). Lastly, Sub consultant will analyze certain documents and/or policies to assess and recognize that there may be legal constraints impacting the CIP and facilities implementation plan (1203.b.4).	40	$225	$9,000

	60	$225	$13,500
C. Sub consultant will prepare a Pro Forma Cash Flow Analysis (1203.e). This pro forma cash flow analysis will project airport revenues, O&M expenses, existing and new debt service requirements, and other non-operating revenues and expense for each year of the CIP (1203.e). An emphasis of this preparation will be to test the ability of the airport to cover the local cost of the CIP through airport cash flow (1203.e). Sub consultant will evaluate airport self-sufficiency and its potential reliance on federal and state funding for the CIP (1203.e.1). Sub consultant will evaluate airport's ability to generate sufficient revenue to support bond financing (1203.e.2). As part of the pro forma cash flow analysis, Sub consultant will focus on the three to five year time frame and emphasize the first ten years of development (1203.e.3). An understanding of the longer and broader ten to twenty year horizon will be analyzed as well (1203.e.3). Impacts of the current and future value of the capital expenses will be considered in the analysis (1203.e.4 and 5).	64	$225	$14,400
D. Sub consultant will conduct a sensitivity analysis to assess airport financial risk (1203.f). This will allow Sub consultant to evaluate financial impacts to various passenger growth assumptions (1203.f).	16	$225	$3,600
1.3 Revenue Enhancement			
A. Sub consultant will compare airport's financial performance to that of comparable airports as part of the pro forma cash flow analysis (1204.a). Sub consultant will use this comparison to identify ways to increase concession, airline, and/or non-airline revenues to the airport (1204.a). Further, since some of the agreements between the airport and its tenants may not have expired, Sub consultant will evaluate opportunities for airport to address the best opportunities to address the revenues during the implementation of the CIP (1204.b and c and d).	24	$225	$5,400
			$59,400
Meetings	40	$225	$9,000
Subtotal Consultant time			$68,400
Travel (mileage, lodging, meals, etc., 1 trip for G. Eaton.) Est.			$2,500
Total			$70,900

Master Plan Air Service Forecast
Scope of Services

Duluth International Airport – Master Plan Update
Duluth, MN

1.1 Scope – Prepare Aviation Demand Forecasts

A. The forecasts will be developed by analyzing the historical trends for Regional Air Service, General Aviation, Military, and international Technical Stops. Trend data will include operations, enplanements, U.S. customs cleared aircraft and passengers and based aircraft.

B. Published data and previously developed forecasts will be reviewed.

C. Relevant national, state and area aviation trends impacting passenger service, air cargo service, general aviation, and tech stops will be identified. This will include an analysis of industry commercial service consolidation and an analysis of the cargo market, trends and service providers.

D. Completion of the forecasting effort will include the preparation of a chapter that will present the data collected, i.e. historical aviation activity, forecast methodologies and forecast projections for the next five, ten and twenty years for Commercial Aviation, General Aviation Operations, Military Operations, Tech Stop traffic, Based Aircraft, and Air Cargo activity/volume. The chapter will be presented in a "draft form" to Airport Management for review and comments. Upon receipt of the Airport's comments and their incorporation into the chapter, the document will be submitted to FAA for their review and approval.

1.2 Demand/Capacity Analysis

A. Forecasts of air traffic for all of the segments identified.

B. Origin and Destination passenger (included above).

C. Transit passengers (included above).

D. Airline flight schedules and performance (included above).

E. Industry forecasts of future aircraft fleet mixes for carriers serving DLH and potential new entrants.

F. Industry forecasts for future general aviation aircraft demand.

G. Industry forecasts for cargo fleet projections for non-hub airports.

H. Airline hubbing considerations.

I. Peak month, average day of the peak month and peak hour for passenger movements and operations will be presented. Peak hour passenger volumes will provide the data to size passenger hold rooms, inbound/outbound baggage systems, ticket counter capacities, concourse widths/layouts, along

with necessary support facilities. These data will provide the appropriate size of the various components listed by square feet for each component. Following the development of this data, an analysis of leakage for the DLH market will be completed to determine the impact of leakage changes on the demand/needs analysis on DLH. This will include impacts of change in leakage as well as reverse leakage that may materialize as a result of changes to the EAS program from other regional airports. In addition, hourly distributions based on an average annual day for the base year, five-, and ten-year horizons will be prepared. Average annual day flight schedules will be prepared and will include airline/aircraft assignments, origin/destination, and time of day.

J. Upon completion of this task, an analysis of alternatives will be completed to determine the optimum air service development opportunities to achieve the projected demand.

K. The findings and results of the demand/capacity analysis with a written description and exhibits depicting the alternatives will be presented to Airport Management for review, comments and approval in the chapter. Airport Management comments and recommendations will be incorporated into the chapter and presented to FAA for their review and approval.

L. Participation in meetings as required to present and respond to questions.

Air Service Forecast DLH Master Plan Task	M. Bown Hours	M. Bown Rate	M. Bown Total	R. Bown Hours	R.Bown Rate	R.Bown Total	Total
1.1 Prepare Aviation Demand Forecasts							
A. The forecasts will be developed by analyzing the historical trends for Regional Air Service, General Aviation, Military, and international Technical Stops. Trend data will include operations, enplanements, U.S. customs cleared aircraft and passengers and based aircraft.	4	$225	$900	16	$195	$3,120	$4,020
B. Published data and previously developed forecasts will be reviewed.	16	$225	$3,600	0	$195	$0	$3,600
C. Relevant national, state and area aviation trends impacting passenger service, air cargo service, general aviation, and tech stops will be identified. This will include an analysis of industry commercial service consolidation and an analysis of the cargo market, trends and service providers.	20	$225	$4,500	8	$195	$1,560	$6,060
D. Completion of the forecasting effort will include the preparation of a chapter that will present the data collected, i.e. historical aviation activity, forecast methodologies and forecast projections for the next five, ten and twenty years for Commercial Aviation, General Aviation Operations, Military Operations, Tech Stop traffic, Based Aircraft, and Air Cargo activity/volume. The chapter will be presented in a "draft form" to Airport Management for review and comments. Upon receipt of the Airport's comments and their incorporation into the chapter, the document will be submitted to FAA for their review and approval.	24	$225	$5,400	8	$195	$1,560	$6,960
Subtotal Task 1.1 Preparation of Demand Forecast	***64***		***$14,400***	***32***		***$6,240***	***$20,640***
1.2 Demand/Capacity Analysis							
A. Forecasts of air traffic & operations for all of segments identified	64	$225	$14,400	8	$195	$1,560	$15,960
B. Origin and Destination passengers (incl. above)	-	$225	$0	0	$195	$0	$0
C. Transit passengers (incl. above)	-	$225	$0	0	$195	$0	$0
D. Airline flight schedules and performance (incl. above)	-	$225	$0	0	$195	$0	$0
E. Industry forecasts of future aircraft fleet mixes for carriers serving DLH and potential new entrants	12	$225	$2,700	0	$195	$0	$2,700
F. Industry forecasts for future general aviation aircraft demand	24	$225	$5,400	8	$195	$1,560	$6,960
G. Industry forecasts for cargo fleet projections for non-hub airports	12	$225	$2,700	0	$195	$0	$2,700
H. Airline hubbing considerations.	8	$225	$1,800	0	$195	$0	$1,800
I. Peak month, average day of the peak month and peak hour for passenger movements and operations will be presented. Peak hour passenger volumes will provide the data to size passenger hold rooms, inbound/outbound baggage systems, ticket counter capacities, concourse widths/layouts, along with necessary support facilities. These data will provide the appropriate size of the various components listed by square feet for each component. Following the development of this data, an analysis of leakage for the DLH market will be completed to determine the impact of leakage changes on the demand/needs analysis on DLH. This will include impacts of change in leakage as well as reverse leakage that may materialize as a result of changes to the EAS program from other regional airports. In addition, hourly distributions based on an average annual day for the base year, five-, and ten-year horizons will be prepared. Average annual day flight schedules will be prepared and will include airline/aircraft assignments, origin/destination, and time of day.	60	$225	$13,500	4	$195	$780	$14,280
J. Upon completion of this task an analysis of alternatives will be accomplished to determine optimum air service development opportunities to achieve the projected demand.	12	$225	$2,700	0	$195	$0	$2,700
K. The findings and results of the demand/capacity analysis with a written description and exhibits depicting the alternatives will be presented to Airport Management for review, comments and approval in a Working Paper. Airport Management comments and recommendations will be incorporated into the Working Paper and presented to FAA for their review and approval.	16	$225	$3,600	0	$195	$0	$3,600
Subtotal 1.2 Demand and Capacity Analysis	***208***		***$46,800***	***20***		***$3,900***	***$50,700***
Total	***272***		***$61,200***	***52***		***$10,140***	***$71,340***
Meetings	32	$225	$7,200	0	$195	$0	$7,200
Subtotal Consultant time	**304**		**$68,400**	**52**		**$10,140**	**$78,540**
Travel (lodging, meals, etc., airfare.) Est.							$2,500
Total							**$81,040**

Master Plan Airside and Landside Alternatives Peer Review
Scope of Services

Duluth International Airport – Master Plan Update
Duluth, MN

1.1 Scope – Airside and Landside Alternatives Peer Review

Landrum & Brown is pleased to submit this proposal to conduct a peer review of the Duluth International Airport Master Plan Airside and Landside Alternatives prepared by Short Elliott Hendrickson Inc. The purpose of this peer review is to provide an independent critique of the identification and evaluation of select airside and landside alternatives, based on L&B's worldwide experience in the planning and development of aeronautical facilities and associated best practices relative to FAA standards for Airport development. Up to four separate alternatives analysis will be reviewed with up to four alternatives considered in each analysis. Alternatives analysis may include future Runway 3/21, commercial terminal area development, southwest quadrant building area future development, ultimate Runway 9/27 taxiway network, or other topics.

Using the strategic planning goals, facility requirements, and evaluation criteria established in the master plan and approved by the Airport/Client and FAA, Landrum & Brown will provide a strategic examination of the airside and landside alternatives, focusing on the following key areas:

A. Review and confirmation of the evaluation criteria applied in the analysis;

B. The degree to which the identified alternatives reflect an appropriate range of realistic options;

C. Review and confirm that the proposed alternative airside layouts were developed to meet both airline and air traffic control operational characteristics, as well as general airport master planning and land use considerations based on FAA design standards;

D. Review and confirm that the proposed alternative landside layouts meet industry standards, consider future development trends, and reflect highest and best use practices.

The results of the peer review will be presented in a technical memorandum. Comments will be provided on the airside and landside development alternatives and additional enhancements/development suggestions will be provided, if warranted. The peer review will reinforce the importance of the strategic planning goals as the basis for making planning decisions when identifying a preferred development solution.

Airside and Landside Alterantives Peer Review Task	M. Geygan Hours	M. Geygan Rate	M. Geygan Total	C. Meyer Hours	C. Meyer Rate	C. Meyer Total
1.1 Airside and Landside Alterantives Peer Review						
A. Future Runway 3/21 (for Four Alternatives): 1. Review and confirmation of the evaluation criteria applied in the analysis; 2. The degree to which the identified alternatives reflect an appropriate range of realistic options; 3. Review and confirm that the proposed alternative airside layouts were developed to meet both airline and air traffic control operational characteristics, as well as general airport master planning and land use considerations based on FAA design standards.	24	$275	$6,600	12	$210	$2,520
B. Commercial Terminal Area Development (for Four Alternatives): 1. Review and confirmation of the evaluation criteria applied in the analysis; 2. The degree to which the identified alternatives reflect an appropriate range of realistic options; 3. Review and confirm that the proposed alternative layouts meet industry standards, consider future development trends, and reflect highest and best use practices.	24	$275	$6,600	12	$210	$2,520
C. Southwest Quadrant Building Area Future Development (for Four Alternatives): 1. Review and confirmation of the evaluation criteria applied in the analysis; 2. The degree to which the identified alternatives reflect an appropriate range of realistic options; 3. Review and confirm that the proposed alternative landside layouts meet industry standards, consider future development trends, and reflect highest and best use practices.	24	$275	$6,600	12	$210	$2,520
D. Ultimate Runway 9/27 Taxiway Network (for Four Alternatives): 1. Review and confirmation of the evaluation criteria applied in the analysis; 2. The degree to which the identified alternatives reflect an appropriate range of realistic options; 3. Review and confirm that the proposed alternative airside layouts were developed to meet both airline and air traffic control operational characteristics, as well as general airport master planning and land use considerations based on FAA design standards.	24	$275	$6,600	12	$210	$2,520
E. Prepare Technical Memorandum	16	$275	$4,400	32	$210	$6,720
Total	***112***		***30,800***	***80***		***16,800***
Meetings	32	$275	$8,800	16	$210	$3,360
Subtotal Consultant time	**144**		**$39,600**	**96**		**$20,160**
Travel						
Total			-			

Total

$9,120

$9,120

$9,120

$9,120
$11,120
47,600

$12,160
$59,760
$2,500
$62,260

SWIM

SEH
Project Scope
February 20, 2019

Project Name:
Duluth International Airport Master Plan

Project Scope Statement:
The Master Plan will be

- A framework for growth
- A plan to meet future challenges
- A balance between long-term land use planning and flexibility

This project scope specifically outlines deliverables, constraints and key people associated with the planning and execution of public involvement approach tactics and services that are the responsibility of Swim Creative.

Introduction:
SEH is seeking support from subcontractor, Swim Creative, to develop and deploy approved digital, electronic, broadcast, collateral, public relations and other marketing tactics on behalf of its client, the Duluth International Airport. Located in Duluth, Swim is a branding, advertising and interactive firm that offers strategic solutions and executes creative ideas against a strategic plan. The agency is entering its 14th year and is currently the marketing agency for the Duluth International Airport.

Business Case:
This is a good opportunity to leverage the master plan for public involvement. SEH is embarking on an exciting project — to create a master plan for the Duluth International Airport. Swim will be participating in this process to help generate excitement and enthusiasm and get the community to be involved. The main objective is to explore community opportunities to deliver information to key stakeholders and engage with them. We want to build awareness and understanding. We want buy in from the stakeholders. We want to take a technical and complex subject and make it easy to understand. We want to give stakeholders an opportunity to be heard and let them know that they are being heard. The airport needs a documented process that says we did our best. We also want to express that this is a collaborative approach where we look at varying interests (e.g. purpose, use, ideas, etc.) through various lenses (e.g. community side, user side) and come up with solution options.

In Market Date (3-year campaign):
TBD

a 310 East Superior Street, #220
Duluth, Minnesota 55802
p 218-722-1404
w SwimCreative.com

SWIM

Deliverable and Scope	Constraints	Key People	Swim Services Budget
Scope and Contract Development: Includes agency services associated with the development of the scope and contract.		Swim collaborating with SEH and DIA.	$5,000
Public Involvement Plan: SEH will provide draft PIP to Swim for review. Swim to provide one round of comments. Agency services include strategy and project management.	-Deadline TBD	SEH leads with feedback from Swim.	$1,800
Branding Session and Brand Strategy Document: Swim Creative team will review key points, goals and guiding principles of the Master Plan. Swim Creative team will conduct a branding session with DAA and SEH staff. From this meeting, Swim Creative team will craft a branding document including its brand promise. This session will be held in Duluth, MN.	-Deadline end of May -Session will be held with small group	Swim will lead with assistance from DIA and approvals from SEH before presenting final document..	$2,500
Concepting: Once the branding and strategic plan are done, Swim will develop concepts and present them to client for approval. Once a concept is approved, we move into the creative development of deliverables.	-Deadline TBD	Swim will lead, request support when needed and seek approvals when necessary.	$2,500
Logo: Key insights from the branding session and concepting process will lead to the development of a logo. Services include creative meetings, creative direction, design and project management. Finished versions will be delivered in a variety of file formats.	-Deadline TBD -Swim Creative is not responsible for trademark or copyright research, and is not liable for infringement on any existing copyrights or trademarks -Swim Creative recommends copyright and/or trademark research by an outside legal firm of client's choosing	Swim will lead, request support when needed and seek approvals when necessary.	$3,500

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Web Page: Design and development of web page that leverages the brand. Services include creative meetings, creative direction, design, development, proofing/editing, writing, QA and project management. Web page will be built into current website. Key functionality includes project information, calendar, newsletters, blog posts and other project information.	-Deadline TBD -Some images and copy will be provided by client -See terms for details -Includes email addresses -Does not include managing domain -Not to exceed one page	Swim will lead, request support when needed and seek approvals when necessary.	$5,000
Reporting and Analytics: Swim will provide additional reporting to address additional page.	-Approximately eight reports over the course of the Master Plan		$1,200
Website Maintenance and Support Monthly: Swim will provide support/maintenance as needed to address the needs of the page that will be developed specific to this campaign such as posting audio and video content provided from media after an interview.	-Deadline TBD -Not to exceed 17 hours of support time		$2,500
Blog Content: SEH will write blog content and Swim will edit. Includes writing, proofing, optimizing for SEO and posting on web and social sites.	-Deadline TBD -Qty: 20 -Focused topics provided by client	Once direction is received, Swim will lead, request support when needed and seek approvals when necessary.	$5,000
Informational Flyer Template (outreach materials): Swim will create a template for a two-sided informational flyer to be posted on the web and/or for stakeholders to distribute. Includes creative direction, design and project management.	-Deadline TBD -Does not include printing costs -no special die-cut -no special coating -DIA and SEH to provide topics	Once direction is received, Swim will lead, request support when needed and seek approvals when necessary.	$2,500
Public Meeting Announcement Template: Swim will develop one (1) public meeting announcement/invite template. Includes creative direction, design and project management.	-Deadline TBD -Quantity 1	Once direction is received, Swim will lead, request support when needed and seek approvals when necessary.	$1,500
Executive Summary Design: Swim will design an executive summary. Includes creative direction, design and project management.	-Deadline TBD -Does not include printing -SEH to provide	Once direction is received, Swim will lead, request support when needed and seek	$5,200

SWIM

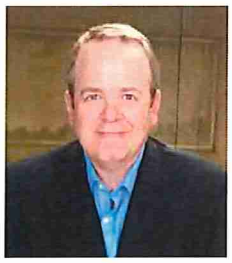
	content, ~5 - 10 pages	approvals when necessary.	
Pull Up Banners: Includes creative direction, design, writing, project management and print coordination.	-Deadline TBD -Does not include printing -Quantity 2 -Client to provide content	Swim will lead, request support when needed and seek approvals when necessary.	$2,000
Marketing Services Support: Swim will provide agency services to support initiatives and opportunities that are presented following the launch of campaign. Includes creative direction, writing, design, and project management. Includes meetings, consultation, scope variances, correspondence, emails, phone calls, and evaluations.	-Deadline TBD -Does not include media buys -Not to exceed 67 hours	Once direction is received, Swim will lead, request support when needed and seek approvals when necessary.	$5,000
TOTAL			**$45,200**

Out of Scope:
Any services not addressed in this table will be identified as out of scope and an additional estimate will be provided. A signed estimate will be necessary before out of scope work will begin.

SWIM

Project administration, monitoring and reporting:

David Sadowski | *Partner + Brand Director*
david@swimcreative.com
Following his graduation from Brainco with an MFA in design, David's advertising career began at SK+G in Las Vegas, working for brands such as MGM Mirage Corporation, Wolfgang Puck Restaurants and Atlantis. However, Duluth beckoned, and after a multi-year stint at WestmorelandFlint, David joined Swim Creative. In addition to mindful design, David is passionate about brand strategy and development. He is the anchor and steward of Swim's "Archetype" brand theory.



Bill Nelson | *Director of Strategy and Account Services*
bill@swimcreative.com
With 30 years in the ad world at Essentia Health, maurices, and his own agency, Bill's the one you want on your team. In his career, Bill has been a writer, producer, manager, planner and creative director. Bill has developed a keen insight into how effective partnerships work, having worked on both the agency and client sides. As the liaison between your team and ours, he'll pave the way for strategic planning that results in brilliant work.

Christyn Buchholz | *Project Manager*
christyn@swimcreative.com
Christyn is an energetic go-getter. She brings this attitude to every project she works on, keeping every to-do on track and every client in the know. She has kept the likes of Tryon Media and the University of Minnesota Duluth organized and on-strategy. Her motto: Ready, set, project.

Tanner Blaschka | *Digital Marketing Strategist and Planner*
Tanner@swimcreartive.com
As Swim's marketing analyst, there's only one way to describe Tanner: results-driven. Tanner tracks our work in real-time, unearthing insights that lead us to more informed marketing decisions at every phase of a project. He'd never dream of letting a campaign go unmeasured or a marketing channel unexplored. If there's a new idea or product out there, Tanner is testing it.

Client Contact:
Kaci Nowicki
Associate, Project Manager
SEH - Building a Better World for All of Us®
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SWIM

TERMS:
Cost of services will be billed at the beginning of the month and is subject to a 1.5% interest charge after 60 days. Additional out-of-pocket expenses not included on this estimate will be estimated separately and itemized on invoices if needed. Any outside costs that are processed by Swim Creative, including media, are subject to a 15% markup. If production is necessary, production total can vary by 10% depending on final production details. This proposal and its recommendations are the property of SWIM, are valid for 60 days and do not include any sales tax where applicable.

For all steps that require client approval, estimate includes two (2) rounds of revisions. Each step in the web development process requires final approval prior to starting the next step. Any additional revisions to approved steps will be defined as out of scope and may incur additional charges. Final approval of website will be sought within 30 days of launch. After final approval is obtained, or after 30 days after day of launch, any additional changes — other than functional — will be defined as out of scope and may incur additional charges.

Swim Creative is not responsible for trademark or copyright research, and is not liable for infringement on any existing copyrights or trademarks. Final, approved and paid for names/taglines/logos/artwork are the sole property of the client. Swim Creative retains rights to use names/taglines/logos/artwork for promotional uses. Swim Creative recommends copyright and/or trademark research by an outside legal firm. Client can expect naming/trademark/logo/artwork research to cost about $1,000, plus $500 to register final, approved name/tagline/logo/artwork. Client can expect the process to take about a week. These estimated costs and timelines are subject to vary and change.

CONFIDENTIAL The contents of this scope are the property of Swim Creative, LLC and are not to be shared with any outside entity including, but not limited to, other marketing or advertising agencies or any third party vendors, consultants or competitors of Swim Creative in any way, shape or form including, but not limited to, spoken, digital or hard copy form, without the written permission of Patrice Bradley, CEO. Thank you.

Scope Approval:
It is Swim Creative's understanding that:

I. The signatory below agrees to all content contained on all pages of this project scope and is authorized to do so.
II. The Swim Creative scope will be submitted for approval by the client, unedited
III. The client promises to notify Swim Creative of any revisions to the Swim Creative scope prior to commencing work outlined in the Swim Creative scope
IV. The client understands that Swim Creative reserves the right to negotiate suggested revisions to the Swim Creative scope prior to commencing work outlined in the Swim Creative scope

Please return a signed copy of this agreement to Christyn Buchholz
at christyn@swimcreative.com or deliver or mail to:
Swim Creative
Attention: Christyn Buchholz
310 East Superior Street, Suite 220
Duluth, Minnesota 55802

_____ _____
Kaci Nowick Date
Associate, Project Manager
SEH - Building a Better World for All of Us®
651.490.2085 direct
651.894.2508 mobile
knowicki@sehinc.com

EDA

RESOLUTION AUTHORIZING APPLICATION FOR A STATE CONDITIONAL USE DEED FOR TAX-FORFEITED LAND

RESOLVED, that the Duluth Airport Authority (the "Authority") does hereby authorize application for a state conditional use deed for tax-forfeited property located at the Duluth International Airport, St. Louis County, Minnesota, and legally described as follows:

Parcel ID: 395-0010-00465

Legal Description: S 1/2 of N 1/2 of S 1/2 of SW 1/4 of NW 1/4 AND S 1/2 of S 1/2 of SW 1/4 of NW 1/4 Except highway right of way AND EXCEPT the Southerly 200.00 feet of the S 1/2 of the S 1/2 of the SW 1/4 of the NW 1/4 except that part of the above described parcel falling within the present right-of-way of Ugstad Road, Section 3, Township 50 North, Range 15 (the "Property")

FURTHER RESOLVED, that upon conveyance of the same by the State of Minnesota (the "State") to the Authority, the Authority does hereby accept said conveyance of the Property from the State, subject to the approval by resolution of the Duluth City Council of said acquisition pursuant to the Laws of Minnesota, 1969, Chapter 577.

Approved by the Duluth Economic Development Authority this 16th day of April, 2019.

Duluth Airport Authority

Balance Sheet

End of Adjust 2018

Financial Row	Amount
ASSETS	
Current Assets	
Bank	$1,083,506.71
Accounts Receivable	
Accounts Receivable - Restricted PFC	$73,104.39
Accounts Receivable Billed	$517,486.60
Grants Receivable	$216,720.00
Total Accounts Receivable	$807,310.99
Other Current Asset	
Inventory Assets	$16,774.17
Prepaid Items	$45,877.06
Total Other Current Asset	$62,651.23
Total Current Assets	$1,953,468.93
Fixed Assets	
Accumulated Depreciation	($100,852,356.88)
Capital Assets	$220,376,476.41
Work in Progress	$9,983,422.80
Total Fixed Assets	$129,507,542.33
Other Assets	
Accumulated Amortization	($1,299,894.66)
Airport Planning Projects - Contributed	$2,223,950.52
Airport Planning Projects - Invested	$400,003.05
Deferred Outflows	$571,852.00
Lease Buyout Costs	$21,228.95
Total Other Assets	$1,917,139.86
Total ASSETS	$133,378,151.12
LIABILITIES & EQUITY	
Current Liabilities	
Accounts Payable	
Accounts Payable	$75,925.88
Contracts Payable	$68,978.00
Total Accounts Payable	$144,903.88
Credit Card	$263.69
Other Current Liability	
Accrued Interest	0.10
Accrued Payroll Deductions	$5,847.34
Accrued Salaries & Wages	$42,537.74
Accrued Sales Taxes Payable - All	$203.16
Accrued Vacation	$120,904.79
Deferred Inflows	$433,590.00
Loans Payable - DEDA MIF	$26,666.64
Loans Payable to City of Duluth	$9,305,000.00
Revenue Note Payable - FBO Acquisition	$35,910.92
Unearned Revenue - Current	$63,245.03
Unearned Revenue - Non Current	$399,433.55
Total Other Current Liability	10,433,339.27
Total Current Liabilities	10,578,506.84
Long Term Liabilities	
LT Loans Payable - DEDA MIF	$28,889.26
Net Other Postemployment Benefits Liability	$1,439,444.19
Net Pension Liability	$1,295,939.00
Total Long Term Liabilities	$2,764,272.45
Equity	120,035,371.83
Total LIABILITIES & EQUITY	133,378,151.12

Duluth Airport Authority

Income Statement

From Jan 2018 to Adjust 2018

Financial Row	Amount
Ordinary Income/Expense	
Income	
Non-Aeronautical Revenue	
Advertising Income	$12,150.00
Concession Revenue	
ATM	$745.50
Car Rental Concession	$533,512.93
Food & Beverage Concession	$74,882.04
Parking	$1,151,916.79
Services/Other	$600.00
TNC Per Trip Fee	$10,808.00
Vending	$6,192.22
Total - Concession Revenue	$1,778,657.48
Customer Facility Charges	$294,992.00
Miscellaneous Revenues	119,348.89
Parking	$127,904.04
Permits	$8,304.43
Plowing Services	$8,850.00
Reimbursed Expenses	55,362.83
Rent	$158,711.40
Sponsorship Income	$50,000.00
State Aid	$297,579.78
Total - Non-Aeronautical Revenue	2,911,860.85
Non-Passenger Aeronautical Revenue	
Aviation Gas	$88,171.38
Concession Revenue	$147,819.96
Event Income	$34,016.44
Landing Fees	$41,039.65
Ramp Fees	$18,596.16
Rent	1,158,231.25
Security Reimbursement	$88,866.45
Tie Downs	$6,560.00
Total - Non-Passenger Aeronautical Revenue	1,583,301.29
Passenger Airline Aeronautical Revenue	
Landing Fees	$330,736.41
Terminal Office/Space Rental	$910,177.12
Total - Passenger Airline Aeronautical Revenue	$1,240,913.53
Total - Income	5,736,075.67
Gross Profit	5,736,075.67
Expense	
Amortization Expense	
Holmgren Lease	$36,393.60
Total - Amortization Expense	$36,393.60
Miscellaneous Expenses	
Miscellaneous Expenses	$1,999.08
Licenses & Taxes	$4,012.92
Memberships, Dues & Subscriptions	$6,525.16
Transaction Fees	$17,004.51
Total - Miscellaneous Expenses	29,541.67
Personnel Compensation & Benefits	
Benefit Administration Fees	609.90
Employer Contributions for Retirement	$180,860.41
Employer Paid Insurance	$307,936.69
Retiree Benefits	$63,207.36
Unemployment Compensation	$278.52
Wages & Salaries	$1,355,136.95

Financial Row	Amount
Worker's Compensation	$46,063.50
Total - Personnel Compensation & Benefits	1,954,093.33
Services and Charges	
Advertising	$605.49
Badging	$8,700.00
Central Services Fee	$45,199.84
Communications & Technology	$118,057.40
Employee Development Services	$30,954.24
Employee Physicals	$1,765.00
Finance Charge	$9.46
Insurance	
Automotive	$8,850.70
Boiler	$1,100.76
Equipment	$1,990.34
General Liability	$7,182.00
Property	$44,463.69
Total - Insurance	$63,587.49
Marketing	162,822.83
Professional Services	318,377.48
Rentals	$11,365.76
Repairs and Maintenance - Contractual/Services	512,209.79
Sponsorship Expenses	$955.95
Transportation	$4,556.12
Utility Services	
Electric	$320,461.30
Fuel Oil	$2,519.26
Natural Gas	$62,317.55
Propane	$1,346.63
Refuse Disposal	$34,109.00
Storm Water	$42,492.22
Water	$13,276.51
Total - Utility Services	$476,522.47
Total - Services and Charges	1,755,689.32
Supplies	
Merchandise for Resale	$66,526.16
Office Supplies	$22,733.11
Operating Supplies	$143,328.78
Repairs & Maintenance Supplies	236,303.52
Total - Supplies	468,891.57
Total - Expense	4,244,609.49
Net Ordinary Income	1,491,466.18
Other Income and Expenses	
Other Income	
Capital Contributions	
Contributed Capital	$629,868.84
Grants	$5,121,973.24
Total - Capital Contributions	$5,751,842.08
Non-Operating Revenue	
Interest Income	$41,796.00
Passenger Facility Charges	$548,279.22
Total - Non-Operating Revenue	$590,075.22
Total - Other Income	$6,341,917.30
Other Expense	
Non-Operating Expense	
Interest Expense	$330,593.92
Total - Non-Operating Expense	$330,593.92
Total - Other Expense	$330,593.92
Net Other Income	$6,011,323.38
Net Income	7,502,789.56

Duluth Airport Authority
DAA Board Packet Budget vs. Actual
From Jan 2018 to Adjust 2018
Unaudited - Preliminary Financials - Subject to Adjustment

Financial Row	Prior Year Actual (Jan 2017 - Adjust 2017)	Current Year Actual (Jan 2018 - Adjust 2018)	Budget Amount (Jan 2018 - Adjust 2018)	Variance from Prior Year	Variance From Budget	Total Budget (Jan 2018 - Adjust 2018)
Ordinary Income/Expense						
Income						
Non-Aeronautical Revenue	$2,876,133.98	$2,911,860.85	$2,570,299.10	$35,726.87	$341,561.75	$2,570,299.10
Non-Passenger Aeronautical Revenue	$1,656,078.24	$1,583,301.29	$1,517,676.97	($72,776.95)	$65,624.32	$1,517,676.97
Passenger Airline Aeronautical Revenue	$1,022,790.56	$1,240,913.53	$1,243,501.00	$218,122.97	($2,587.47)	$1,243,501.00
Total - Income	$5,555,002.78	$5,736,075.67	$5,331,477.07	$181,072.89	$404,598.60	$5,331,477.07
Gross Profit	$5,555,002.78	$5,736,075.67	$5,331,477.07	$181,072.89	$404,598.60	$5,331,477.07
Expense						
Miscellaneous Expenses	$22,464.02	$29,541.67	$27,549.96	$7,077.65	$1,991.71	$27,549.96
Personnel Compensation & Benefits	$2,137,189.79	$1,954,093.33	$2,058,343.06	($183,096.46)	($104,249.73)	$2,058,343.06
Services and Charges	$1,632,916.14	$1,755,689.32	$1,590,565.29	$122,773.18	$165,124.03	$1,590,565.29
Supplies	$473,523.88	$468,891.57	$440,600.08	($4,632.31)	$28,291.49	$440,600.08
Total - Expense	$4,266,093.83	$4,208,215.89	$4,117,058.39	($57,877.94)	$91,157.50	$4,117,058.39
Net Ordinary Income	$1,288,908.95	$1,527,859.78	$1,214,418.68	$238,950.83	$313,441.10	$1,214,418.68
Other Income and Expenses						
Other Income						
Non-Operating Revenue	$512,241.71	$590,075.22	$488,100.00	$77,833.51	$101,975.22	$488,100.00
Total - Other Income	$512,241.71	$590,075.22	$488,100.00	$77,833.51	$101,975.22	$488,100.00
Other Expense						
Non-Operating Expense	$353,053.44	$330,593.92	$407,343.84	($22,459.52)	($76,749.92)	$407,343.84
Total - Other Expense	$353,053.44	$330,593.92	$407,343.84	($22,459.52)	($76,749.92)	$407,343.84
Net Other Income	$159,188.27	$259,481.30	$80,756.16	$100,293.03	$178,725.14	$80,756.16
Net Income Exclusive of Project Expenses, Depreciation & Amortization	$1,448,097.22	$1,787,341.08	$1,295,174.84	$339,243.86	$492,166.24	$1,295,174.84
Projects/Grants	$21,931,918.36	$5,751,842.08	$14,219,500.08	($16,180,076.28)	($8,467,658.00)	$14,219,500.08
Depreciation & Amortization	($9,603,973.86)	($36,393.60)	($9,641,908.92)	$9,567,580.26	$9,605,515.32	($9,641,908.92)
Net Income	$13,776,041.72	$7,502,789.56	$5,872,766.00	($6,273,252.16)	$1,630,023.56	$5,872,766.00

* This report is based on an allocated budget, which is seasonally adjusted. At this time the DAA is at a positive variance of over 492k.
* The results of this report are expected to change slightly with adjustments as delays in receipt of invoices occurs from time to time.

* Revenue's largest variances from budget come from concession revenues, such as parking (+105k), car rental (+93k)and other FBO and operator concessions & CFCs (+36k). Revenue is over 404k over budget.

* Expense's largest variance from budget comes from reduced personnel compensation and benefits (-104k) and increased repairs and maintenance expenses (+144k)and supplies (+28k). Expenses are over 313k over budget. Some of this again includes insurance roof repairs which will be adjusted with final audit review.
* Non operating revenue is up by 101k+ which is due to increased PFCs related to passenger traffic increased interest revenue by maintaining larger reserve funds.

* Non operating expenses is 76k+ below budget due to reduced interest expenses. We have used the line of credit very minimally and have used our cash balances to cash flow during high construction periods.

EXH K

Duluth Airport Authority

Duluth A/R Aging Report

As of April 9, 2019

Filters: Transaction Type (equal to Invoice, Payment, Credit Memo)

CUSTOMER	TRANSACTION TYPE	TRANSACTION DATE	TRANSACTION NUMBER	DUE DATE	AGE	CURRENT	3/10/2019 - 4/8/2019 (30)	2/8/2019 - 3/9/2019 (60)	1/9/2019 - 2/7/2019 (90)	BEFORE 1/9/2019 (>90)	TOTAL
						Open Balance	Open Balance	Open Balance	Open Balance	Open Balance	*Open Balance*
AAR Aircraft Service						$0.00	$600.00	$3,000.00	$0.00	$0.00	$3,600.00
Avis Rent A Car	Invoice	4/1/2019	4878	5/1/2019	8	$0.00	$2,175.81	$0.00	$0.00	$0.00	$2,175.81
Barbes, Mary	Payment	2/12/2019	4174	2/12/2019	56	$0.00	$0.00	($153.00)	$0.00	$0.00	($153.00)
Beebe, Ronald	Invoice	1/24/2019	4589	2/23/2019	75	$0.00	$0.00	$0.00	$612.00	$0.00	$612.00
BKR Investments DBA Duluth Pack	Invoice	4/1/2019	4881	5/1/2019	8	$0.00	$250.00	$0.00	$0.00	$0.00	$250.00
Brainard, Starr	Invoice	2/6/2019	4800	3/8/2019	62	$0.00	$0.00	$0.00	$96.00	$0.00	$96.00
Brown, James	Invoice	4/1/2019	4907	5/1/2019	8	$0.00	$239.75	$0.00	$0.00	$0.00	$239.75
Budget Rent A Car	Invoice	4/1/2019	4879	5/1/2019	8	$0.00	$1,460.27	$0.00	$0.00	$0.00	$1,460.27
Chandler, Eric	Invoice	1/24/2019	4591	2/23/2019	75	$0.00	$0.00	$0.00	$612.00	$0.00	$612.00
Churchill, Sean	Invoice	4/1/2019	4924	5/1/2019	8	$0.00	$185.21	$0.00	$0.00	$0.00	$185.21
Cirrus Design Corporation						$0.00	$22,345.79	$0.00	$0.00	$0.00	$22,345.79
City of Duluth						$0.00	$1,581.14	$1,581.14	$0.00	$0.00	$3,162.28
Compudyne						$0.00	$28.87	$0.00	$28.30	$0.00	$57.17
Dallmann, Nathan	Invoice	1/24/2019	4593	2/23/2019	75	$0.00	$0.00	$0.00	$51.00	$0.00	$51.00
Delta Airlines						$0.00	$51,520.03	$0.00	$0.00	$0.00	$51,520.03
Delta Global Services	Invoice	3/11/2019	4833	4/10/2019	29	$0.00	$4,320.00	$0.00	$0.00	$0.00	$4,320.00
Divine Carriers						$0.00	$229.31	$229.31	$229.31	$0.00	$687.93
Engstad, David	Invoice	4/1/2019	4920	5/1/2019	8	$0.00	$181.75	$0.00	$0.00	$0.00	$181.75
Enterprise Leasing Company						$0.00	($14,147.06)	$1,102.30	$0.00	$682.27	($12,362.49)
Federal Express Corporation						$0.00	$0.00	$0.00	$1,900.00	$1,710.00	$3,610.00
Goritchan Boris						$0.00	$0.00	$0.00	$60.00	$309.00	$369.00
Griffith Evans	Invoice	1/16/2019	4535	2/15/2019	83	$0.00	$0.00	$0.00	$180.00	$0.00	$180.00
Grimsbo, Gerald						$0.00	$0.00	$0.00	$0.00	$306.00	$306.00
GSSC	Invoice	3/11/2019	4831	4/10/2019	29	$0.00	$384.00	$0.00	$0.00	$0.00	$384.00
Hagberg, Rick	Invoice	4/1/2019	4918	5/1/2019	8	$0.00	$181.75	$0.00	$0.00	$0.00	$181.75
Hall John	Invoice	3/1/2019	4748	3/31/2019	39	$0.00	$0.00	$5.81	$0.00	$0.00	$5.81
Hatfield, Dan						$0.00	$181.75	$181.75	$0.00	$0.00	$363.50
Heimbach Ann						$0.00	$0.00	$0.00	$0.00	$15.00	$15.00
Hermantown Hydraulics						$0.00	$610.56	$610.56	$610.56	$2,921.32	$4,753.00
Hertz-Overland West	Invoice	4/1/2019	4883	5/1/2019	8	$0.00	$1,442.07	$0.00	$0.00	$0.00	$1,442.07
Hillman Colin						$0.00	$240.00	$240.00	$0.00	$0.00	$480.00
Hydro Solutions, Inc.						$0.00	$3,466.75	$3,466.75	$0.00	$35,659.59	$42,593.09

CUSTOMER	TRANSACTION TYPE	TRANSACTION DATE	TRANSACTION NUMBER	DUE DATE	AGE	CURRENT Open Balance	3/10/2019 - 4/8/2019 (30) Open Balance	2/8/2019 - 3/9/2019 (60) Open Balance	1/9/2019 - 2/7/2019 (90) Open Balance	BEFORE 1/9/2019 (>90) Open Balance	TOTAL Open Balance
Jeff Foster Trucking	Invoice	4/1/2019	4912	5/1/2019	8	$0.00	$239.75	$0.00	$0.00	$0.00	$239.75
Johnston, Paul	Invoice	4/1/2019	4923	5/1/2019	8	$0.00	$181.75	$0.00	$0.00	$0.00	$181.75
Lake Superior Aviation, LLP						$0.00	$705.98	$705.98	$0.00	$0.00	$1,411.96
Lake Superior College	Invoice	4/1/2019	4897	5/1/2019	8	$0.00	$33,775.67	$0.00	$0.00	$0.00	$33,775.67
Lake Superior Helicopters						$0.00	$1,219.93	$1,138.26	$0.00	$0.00	$2,358.19
Love Creamery	Payment	2/22/2019	4205	2/22/2019	46	$0.00	$0.00	($30.00)	$0.00	$0.00	($30.00)
Lyft, Inc.						$0.00	$2,062.50	$0.00	$0.00	$0.00	$2,062.50
M & M Light Transport	Invoice	4/1/2019	4916	5/1/2019	8	$0.00	$181.75	$0.00	$0.00	$0.00	$181.75
Malachi Israel						$0.00	$0.00	($98.96)	$0.00	$0.00	($98.96)
Mark Marino						$0.00	$265.00	$220.00	$0.00	$0.00	$485.00
Maurices, Inc.	Invoice	3/5/2019	4807	4/4/2019	35	$0.00	$0.00	$900.00	$0.00	$0.00	$900.00
Minnesota Air National Guard						$0.00	$0.00	$0.00	$6,133.57	$7,500.00	$13,633.57
Minnesota Council of Airports	Invoice	3/13/2019	4842	4/12/2019	27	$0.00	$549.62	$0.00	$0.00	$0.00	$549.62
Minnesota Power	Invoice	4/1/2019	4887	5/1/2019	8	$0.00	$425.90	$0.00	$0.00	$0.00	$425.90
Monaco Air Duluth						$0.00	$5,624.53	$5,624.53	$0.00	$0.00	$11,249.06
Mountain Air Cargo						$0.00	$3,522.57	($195.06)	$0.00	$1,966.74	$5,294.25
Northland Constructors, Inc.	Invoice	4/1/2019	4891	5/1/2019	8	$0.00	$181.50	$0.00	$0.00	$0.00	$181.50
Oakwells CR, LLC	Invoice	1/29/2019	4619	2/28/2019	70	$0.00	$0.00	$0.00	$1,183.15	$0.00	$1,183.15
Oberfoell Auctioneers/Do-Bid.com	Payment	4/1/2019	4383	4/1/2019	8	$0.00	($44.21)	$0.00	$0.00	$0.00	($44.21)
Opack Matthew Jr.						$0.00	$185.21	$185.21	$0.00	$0.00	$370.42
Palmer, John						$0.00	$185.21	$185.21	$0.00	$0.00	$370.42
Parthe, Lance						$0.00	$239.75	$239.75	$239.75	$0.00	$719.25
Payne, Robert	Invoice	4/1/2019	4906	5/1/2019	8	$0.00	$239.75	$0.00	$0.00	$0.00	$239.75
QMS, INC.						$0.00	$250.00	$727.83	$50.68	$85.50	$1,114.01
Rathbun, David						$0.00	$181.75	$116.75	$0.00	$0.00	$298.50
Reabe, Troy						$0.00	$181.75	$181.75	$0.00	$0.00	$363.50
RS&H	Invoice	4/1/2019	4904	5/1/2019	8	$0.00	$2,029.72	$0.00	$0.00	$0.00	$2,029.72
Safstrom Jon	Invoice	1/24/2019	4606	2/23/2019	75	$0.00	$0.00	$0.00	$153.00	$0.00	$153.00
Sather Diane	Invoice	1/24/2019	4608	2/23/2019	75	$0.00	$0.00	$0.00	$6.01	$0.00	$6.01
Security Jewelers	Invoice	4/1/2019	4905	5/1/2019	8	$0.00	$250.00	$0.00	$0.00	$0.00	$250.00
Sheraton Duluth Hotel	Invoice	1/17/2019	4563	2/16/2019	82	$0.00	$0.00	$0.00	$200.00	$0.00	$200.00
Shino, Krcma	Invoice	1/24/2019	4597	2/23/2019	75	$0.00	$0.00	$0.00	$612.00	$0.00	$612.00
Siegel, Jerry						$0.00	$239.75	$239.75	$0.00	$0.00	$479.50
Skywest Airlines	Invoice	3/25/2019	4877	4/24/2019	15	$0.00	$10,835.08	$0.00	$0.00	$0.00	$10,835.08
Stevens, Mike						$0.00	$181.75	$181.75	$0.00	$0.00	$363.50
Sydow Dan	Invoice	4/1/2019	4909	5/1/2019	8	$0.00	$239.75	$0.00	$0.00	$0.00	$239.75
Tahtinen, Frank	Invoice	4/1/2019	4921	5/1/2019	8	$0.00	$181.75	$0.00	$0.00	$0.00	$181.75

CUSTOMER	TRANSACTION TYPE	TRANSACTION DATE	TRANSACTION NUMBER	DUE DATE	AGE	CURRENT Open Balance	3/10/2019 - 4/8/2019 (30) Open Balance	2/8/2019 - 3/9/2019 (60) Open Balance	1/9/2019 - 2/7/2019 (90) Open Balance	BEFORE 1/9/2019 (>90) Open Balance	*TOTAL* ***Open Balance***
Transportation Security Administration						$0.00	$22,568.93	$0.00	$120.00	$0.00	$22,688.93
United Airlines	Invoice	10/24/2018	4176	11/23/2018	167	$0.00	$0.00	$0.00	$0.00	$115.00	$115.00
Williams, Ron						$0.00	$181.75	$181.75	$0.00	$0.00	$363.50
Total						**$0.00**	**$164,541.89**	**$20,769.12**	**$13,077.33**	**$51,270.42**	**$249,658.76**

III L

DULUTH AIRLINE STATISTICS
ALL SCHEDULED AIRLINES

MONTH	ENPLANEMENTS 2017	2018	2019	DEPLANEMENTS 2017	2018	2019	TOTAL PASSENGERS 2017	2018	2019	2018/2019 PASS. INCREASE/DECREASE ORIG	% DIFF	TOTAL	% DIFF
JAN	9,026	8,797	9,589	8,029	7,939	8,729	17,055	16,736	18,318	792	9.00	1,582	9.45
FEB	8,974	8,453	8,663	8,556	7,875	8,229	17,530	16,328	16,892	210	2.48	564	3.45
MAR	11,053	11,915	12,498	10,613	11,824	12,124	21,666	23,739	24,622	583	4.89	883	3.72
APR	9,449	11,172	-	9,859	11,665	-	19,308	22,837	-				
MAY	9,770	10,907	-	10,334	11,409	-	20,104	22,316	-				
JUN	11,328	11,970	-	11,908	12,723	-	23,236	24,693	-				
JUL	12,316	13,493	-	12,332	14,446	-	24,648	27,939	-				
AUG	12,600	13,913	-	12,281	13,704	-	24,881	27,617	-				
SEP	10,973	12,874	-	10,426	12,329	-	21,399	25,203	-				
OCT	11,657	13,579	-	11,006	13,011	-	22,663	26,590	-				
NOV	9,038	10,974	-	8,627	10,846	-	17,665	21,820	-				
DEC	7,263	9,946	-	7,421	10,205	-	14,684	20,151	-				
TOTAL	123,447	137,993	30,750	121,392	137,976	29,082	244,839	275,969	59,832	1,585	5.46	3,029	5.54

TOTALS WITH CHARTER INCLUDED

Month	Enplanements 2017	2018	2019	Deplanements 2017	2018	2019	Total
JAN	9,163	9,100	9,876	8,166	8,465	9,016	18,892
FEB	9,235	8,556	8,663	8,817	7,978	8,229	16,892
MAR	11,053	12,222	12,818	10,690	11,968	12,444	25,262
APR	9,907	11,666	-	10,317	11,997	-	-
MAY	9,922	11,052	-	10,486	11,568	-	-
JUN	11,467	12,121	-	12,047	12,874	-	-
JUL	12,585	13,744	-	12,601	14,697	-	-
AUG	12,600	13,913	-	12,281	13,704	-	-
SEP	11,249	13,156	-	10,426	12,611	-	-
OCT	11,657	13,739	-	11,149	13,171	-	-
NOV	9,038	11,108	-	8,627	10,980	-	-
DEC	7,405	10,108	-	7,563	10,367	-	-
Total	125,281	140,485	31,357	123,170	140,380	29,689	61,046

DULUTH AIRLINE STATISTICS
DELTA AIRLINES

	ENPLANEMENTS			DEPLANEMENTS			TOTAL PASSENGERS			2019/2018 PASS. INCREASE/DECREASE			
MONTH	2017	2018	2019	2017	2018	2019	2017	2018	2019	ORIG	%DIFF	TOTAL	%DIFF
JAN	5,326	4,972	5,402	4,826	4,597	5,053	10,152	9,569	10,455	430	8.65	886	9.26
FEB	5,325	4,941	4,281	5,155	4,623	4,082	10,480	9,564	8,363	(660)	(13.36)	(1,201)	(12.56)
MAR	7,149	7,360	7,153	6,928	7,334	7,108	14,077	14,694	14,261	(207)	(2.81)	(433)	(2.95)
APR	6,072	6,606		6,308	6,688		12,380	13,294	-				
MAY	6,168	6,717		6,668	6,857		12,836	13,574	-				
JUN	6,825	6,780		7,115	7,000		13,940	13,780	-				
JUL	7,300	7,225		7,381	7,989		14,681	15,214	-				
AUG	7,399	7,751		7,225	7,679		14,624	15,430	-				
SEP	6,419	6,634		6,092	6,560		12,511	13,194	-				
OCT	7,209	7,162		6,785	6,965		13,994	14,127	-				
NOV	5,822	6,322		5,553	6,338		11,375	12,660	-				
DEC	4,709	5,227		4,857	5,196		9,566	10,423	-				
TOTAL	75,723	77,697		74,893	77,826		150,616	155,523	33,079	(437)	(2.51)	(748)	(2.08)

2019 Month	Non Rev	Revenue	2019 Non Rev	Revenue	Total
JAN	240	5,162	239	4,814	10,455
FEB	183	4,098	181	3,901	8,363
MAR	231	6,922	180	6,928	14,261
APR					-
MAY					-
JUN					-
JUL					-
AUG					-
SEP					-
OCT					-
NOV					-
DEC					-
Total	654	16,182	600	15,643	33,079

DULUTH AIRLINE STATISTICS
UNITED AIRLINES

	ENPLANEMENTS			DEPLANEMENTS			TOTAL PASSENGERS			2018/2019 PASS. INCREASE/DECREASE			
MONTH	2017	2018	2019	2017	2018	2019	2017	2018	2019	ORIG	%DIFF	TOTAL	%DIFF
JAN	3,700	3,825	4,187	3,203	3,342	3,676	6,903	7,167	7,863	362	9.46	696	9.71
FEB	3,649	3,512	4,382	3,401	3,252	4,147	7,050	6,764	8,529	870	24.77	1,765	26.09
MAR	3,904	4,555	5,345	3,685	4,490	5,016	7,589	9,045	10,361	790	17.34	1,316	14.55
APR	3,377	4,566		3,551	4,977		6,928	9,543	-				
MAY	3,602	4,190		3,666	4,552		7,268	8,742	-				
JUN	4,503	5,190		4,793	5,723		9,296	10,913	-				
JUL	5,016	6,268		4,951	6,457		9,967	12,725	-				
AUG	5,201	6,162		5,056	6,025		10,257	12,187	-				
SEP	4,554	6,240		4,334	5,769		8,888	12,009	-				
OCT	4,448	6,417		4,221	6,046		8,669	12,463	-				
NOV	3,216	4,652		3,074	4,508		6,290	9,160	-				
DEC	2,554	4,719		2,564	5,009		5,118	9,728	-				
TOTAL	47,724	60,296	13,914	46,499	60,150	12,839	94,223	120,446	26,753	2,022	17.19	3,777	16.78

	2019		2019		
Month	Non Rev	Revenue	Non Rev	Revenue	Total
JAN	113	4,074	95	3,581	7,863
FEB	92	4,290	90	4,057	8,529
MAR	109	5,236	115	4,901	10,361
APR					-
MAY					-
JUN					-
JUL					-
AUG					-
SEP					-
OCT					-
NOV					-
DEC					-
Total	314	13,600	300	12,539	26,753

DULUTH AIRLINE STATISTICS
CHARTERS

MONTH	ENPLANEMENTS 2017	2018	2019	DEPLANEMENTS 2017	2018	2019	TOTAL PASSENGERS 2017	2018	2019	2018/2019 PASS. INCREASE/DECREASE ORIG	% DIFF	TOTAL	% DIFF
JAN	137	303	287	137	526	287	274	829	574	(16)	(5.28)	(255)	(30.76)
FEB	261	103	-	261	103	-	522	206	-	(103)	(100.00)	(206)	(100.00)
MAR	-	307	320	77	144	320	77	451	640	13	4.23	189	41.91
APR	458	494		458	332		916	826					
MAY	152	145		152	159		304	304					
JUN	139	151		139	151		278	302					
JUL	269	251		269	251		538	502					
AUG	-	-		-	-		-	-					
SEP	276	282		-	282		276	564					
OCT	-	160		143	160		143	320					
NOV	-	134		-	134		-	268					
DEC	142	162		142	162		284	324					
TOTAL	1,834	2,492	607	1,778	2,404	607	3,612	4,896	1,214	(106)	(33.68)	(272)	(29.62)

Month	ATLAS	SUN CO.	JET BLUE	VISION	Swift Air	Allegiant	Total
JAN		322			252		574
FEB							-
MAR		354			286		640
APR							-
MAY							-
JUN							-
JUL							-
AUG							-
SEP							-
OCT							-
NOV							-
DEC							-
Total	-	676		-	538	-	1,214